



AGENDA

Wednesday August 7, 2013

5:30 P.M., Board Chambers, County Administration Center,
700 H Street, Sacramento, California 95814

COMMISSIONERS:

Chair: Jimmie Yee
Vice-Chair: Mike Singleton
Ron Greenwood
Gay Jones
Kevin McCarty
Susan Peters
Christopher Tooker

ALTERNATE COMMISSIONERS:

Phil Serna
Jeannie Bruins
Jerry Fox
Jerry Fox
Steve Cohn
Phil Serna
John Messner

PUBLIC COMMENT FROM THE FLOOR

The public is encouraged to address the Commission concerning any matter not on the Agenda. Public comments are limited to three minutes. The Commission is prohibited from discussing or taking any action on any item not appearing on the posted Agenda

CONSENT CALENDAR

1. Approve the Meeting Minutes of June 5, 2013
2. Claims dated thru August 2, 2013
3. Monthly Budget Report
4. Legislation Status Report
5. Update Rio Linda/Elverta Community Water District MSR (LAFC 07-10) [CEQA Exempt]

BUSINESS ITEMS


6. Appointment of Voting Delegate for the CALAFCO 50th Anniversary Conference at Squaw Creek and CALAFCO Board of Directors Nominations

PUBLIC HEARINGS

7. Draft Rio Linda Elverta Recreation and Park District Municipal Service Review & Sphere of Influence Update (LAFC 05-12) [CEQA Exempt]
8. Cordova Hills Reorganization (LAFC 02-13)
[CEQA: LAFCo - Responsible Agency; EIR SCH #2010062069 prepared by County of Sacramento Lead Agency]
 - a. Sphere of Influence and Formation of County Service Area 13 (CSA 13)
 - b. Annexation to Sacramento Area Sewer District (SASD)
 - c. Annexation to Sacramento Regional County Sanitation District (SRCSD)
 - d. Detachment of County Service Area 4B (CSA 4B)

QUESTIONS/ANNOUNCEMENTS

9. Executive Officer/Staff/Commission Counsel
10. Commission Chair/Commissioners



<u>MEETING SCHEDULE</u>	
5:30 P.M., Board Chambers 700 H Street, Sacramento CA	
Dates	
September 4 Recess	
October 2	
November 6	

SACRAMENTO LOCAL AGENCY FORMATION COMMISSION

SUMMARY OF RULES AND PROCEDURES

AGENDA ITEMS: The Commission may reschedule items on the agenda. The Commission will generally hear uncontested matters first, followed by discussions of contested matters, and staff announcements in that order. Anyone who wishes to address the Commission should obtain a form from either the Commission Clerk or from the table located near the entrance of the hearing chamber.

CONDUCT OF HEARINGS: A contested matter is usually heard as follows: (1) discussion of the staff report and the environmental document; (2) testimony of proponent; (3) testimony of opponent; (4) Public Testimony (5) rebuttal by proponent; (6) provision of additional clarification by staff as required; (7) close of the public hearing; (8) Commission discussion and Commission vote.

ADDRESSING THE COMMISSION: Any person who wishes to address the Commission should submit a speaker's request form at the beginning of the meeting; move to the front of the chambers when an item is called; and, when recognized by the chair, state their name, address and affiliation. Please attempt to make your statements concise and to the point. It is most helpful if you can cite facts to support your contentions. Groups of people with similar viewpoints should appoint a spokesperson to represent their views to the Commission. The Commission appreciates your cooperation in this matter.

PUBLIC COMMENT TIME LIMITS: The Sacramento Local Agency Formation Commission welcomes and encourages participation in its meetings. Rules of the Commission provide for the following limitations of discussion: The Commission will hear public comment prior to the consideration of any item. (1) a principal proponent will be allowed a 5-minute statement; (2) other proponents will be allowed a 3-minute statement; (3) opponents are allowed 3-minute statements with the exception of spokespersons for any group who shall be permitted 5-minutes; (4) the principal proponent shall have a 3-minute rebuttal; (5) staff will provide clarification, as required.

VOTING: A quorum consists of four members of the Commission, including any alternate. No action or recommendation of the Commission is valid unless a majority (4 votes) of the entire membership of the Commission concurs therein.

OFF AGENDA ITEMS: Matters under the jurisdiction of the Commission, and not on the posted agenda, may be addressed by the general public under "Public Comment From the Floor" on the Agenda. The Commission limits testimony on matters not on the agenda to three minutes per person and not more than fifteen minutes for a particular subject. The Commission cannot take action on any unscheduled items.

SPECIAL NEEDS: Meeting facilities are accessible to persons with disabilities. Requests for assistive listening devices or other considerations should be made 48 hours in advance through the Commission Clerk at (916)874-6458.

AB 745 DISCLOSURES: The Political Reform Act requires all interested parties to disclose contributions and expenditures for "political purposes" related to proposals for changes of organization or reorganization (annexations, incorporations, etc.,) as well as contributions and expenditures in connection with Conducting Authority protest proceedings. Such contributions and expenditures must be reported to LAFCo's Executive Officer to the same extent, and subject to the same requirements, as local initiative measures under the Political Reform Act. Additional information regarding these requirements can be found on LAFCo's website at: <http://www.saclafco.org/Forms/index.htm>.

STAFF REPORTS: Staff Reports are available on line at www.SacLAFCo.org or upon request to Diane Thorpe, Commission Clerk at (916)874-6458.

VIDEO BROADCASTS: The meeting is video taped in its entirety and will be cablecast live on Metro Cable channel 14, the government affairs channel on the Comcast, and SureWest Cable Systems and is closed captioned for our hearing impaired viewers. The meeting is webcast live at <http://www.saccounty.net> . The current meeting is broadcast live and will be rebroadcast; check the Metro Cable schedule for dates and times.



***MINUTES FOR THE MEETING OF
Wednesday June 5, 2013***

The Sacramento Local Agency Formation Commission met the fifth day of June 2013, at 5:30 P.M. in the Board Chambers of the Sacramento County Administration Center, 700 H Street, Sacramento, California 95814.

PRESENT:

Commissioners:

Jimmie Yee, Chair
Mike Singleton, Vice Chair
Ron Greenwood
Gay Jones
Kevin McCarty (arrived 6:33)
Susan Peters

Staff:

Peter Brundage, Executive Officer
Donald Lockhart, Assistant Executive Officer
Diane Thorpe, Commission Clerk
Nancy Miller, Commission Counsel

ABSENT:

Christopher Tooker

PUBLIC COMMENT ON ITEMS NOT ON THE AGENDA

None

CONSENT CALENDAR

1. Approve the Meeting Minutes of May 1, 2013
2. Claims dated thru May 30, 2013
3. Monthly Budget Report
4. Legislation Status Report
5. Fiscal Year 2013-14 Final Budget
6. Fiscal Year 2013/2014 Contracts:
 - a. Miller & Owen - Legal Services
 - b. Environmental Planning Partners Inc. - Environmental Services
 - c. James Marta & Company - Auditor
7. Update Rio Linda/Elverta Community Water District MSR (LAFC 07-10) [CEQA Exempt]
8. Final Cordova Recreation & Park District Municipal Service Review & Sphere of Influence Update (LAFC 03-12) [CEQA Exempt]
Moved: Commissioner Tooker
Second: Commissioner Greenwood
Absent: McCarty, and Tooker
Passed: Unanimous

BUSINESS ITEMS

9. Special Districts Risk Management Association (SDRMA) 2013 Board of Directors Election
Motion: To Not Select Any Candidates
Moved: Commissioner Peters
Second: Commissioner Singleton
Absent: Tooker

Passed: Unanimous

PUBLIC HEARINGS

None

The meeting adjourned at 5: 35 P.M.

Respectfully submitted,

SACRAMENTO LOCAL AGENCY FORMATION COMMISSION

Diane Thorpe
Commission Clerk

**SACRAMENTO LOCAL AGENCY FORMATION COMMISSION
C L A I M S***

<u>Date</u> <u>Submitted</u> <u>to Auditor</u>	<u>Vendor</u>	<u>Amount</u>
6/10/2013	Colliers (June Office Lease)	\$ 4,125.51
6/25/2013	Alhambra Sierra Springs (Water Supplies)	\$ 31.17
6/25/2013	City of Sacramento Commissioner Stipend FY 12/13	\$ 300.00
6/25/2013	Comcast Cable	\$ 82.03
6/25/2013	First Choice Services	\$ 12.04
6/25/2013	Millern & Owen	\$ 8,098.80
6/25/2013	Staples	\$ 305.97
6/25/2013	Toshiba Business Solutions (Copier Lease)	\$ 667.34
7/9/2013	Daily Journal Corp. (Legal Advertising)	\$ 40.25
7/9/2013	Millern & Owen	\$ 6,179.50
7/9/2013	Toshiba Business Solutions (Copier Lease)	\$ 787.47
7/11/2013	Colliers (July Office Lease)	\$ 4,125.51
7/16/2013	CALAFCO Conference	\$ 2,670.00
8/1/2013	Alhambra Sierra Springs (Water Supplies)	\$ 32.97
8/1/2013	Alhambra Sierra Springs (Water Supplies)	\$ 10.17
8/1/2013	CALAFCO Annual Dues	\$ 7,319.00
8/1/2013	Colliers (August Office Lease)	\$ 4,124.51
8/1/2013	Daily Journal Corp. (Legal Advertising)	\$ 49.00
8/1/2013	Pitney Bowes (Postage Meter Lease)	\$ 274.47
8/1/2013	Sacramento Bee	\$ 43.51

TOTAL

\$ 39,279.22

APPROVED: 8/7/2013

Jimmie Yee, Chair
SACRAMENTO LOCAL AGENCY FORMATION COMMISSION

*Not including Journal Voucher and Personnel items.

SACRAMENTO LOCAL AGENCY FORMATION COMMISSION

**1112 I Street, Suite #100
Sacramento, California 95814
(916) 874-6458**

August 7, 2013

TO: Sacramento Local Agency Formation Commission
FROM: Peter Brundage, Executive Officer *PB*
RE: Monthly Budget and Accounting Reports

RECOMMENDATION:

Receive and File Accounting Period Reports 11 and 12 for FY 2012-13 as of July 8, 2013.

DISCUSSION:

The attached budget and accounting reports are for Accounting Period 11 and 12 for FY 2012-13. These reports summarize monthly expenditures and revenues as well as the Trial Balance for this reporting period.

There are no significant variances to report at this time.

Year End Fund Balance and Period 13 Accounting Report will be provided at the next Commission meeting. In addition, the FY 2012-13 Financial Audit is scheduled to commence on August 23, 2013.

Library : ZSP County of Sacramento Reports
Report group: ZSCB Trial Balance Summary by BA
Report name : ZFP4816B Sum Trial Bal. by BA

Data selected by: 1009726
Data selected on: 07/08/2013 09:04:48

Fiscal year : 2013
Period : 12 June
Business Area: 067A LOCAL AGENCY FORMATI

Client: 020
Report: ZFP4816B

Business Area: 067A
Period: 12 (June

LOCAL AGENCY FORMAT I
) Fiscal Year: 2013

Page: 2/ 2
Report: 4/116

Balance Sheet Item	Beginning Balance	Period Debits	Period Credits	Ending Balance
* Cash in Treasury	618,251.72	10,700.62	227,265.22-	401,687.12
* Imprest Cash				
* Inventory	1,982.31-	3,964.62	1,982.31-	
* Due from Other Funds Year				
* Accounts Receivable Year E				
** Total Assets	616,269.41	14,665.24	229,247.53-	401,687.12
* Sales Tax Due	2.18-			2.18-
* Warrants Payable	42,797.08-	57,659.54	16,832.91-	1,970.45-
* Deposit Stale Warrants	643.48-			643.48-
* Claims Payable		17,148.81	17,148.81-	
* Due to Others				
* Suspense Clearing				
* Payroll Clearing	131.20-	861.20	861.20-	131.20-
** Total Liabilities	43,573.94-	75,669.55	34,842.92-	2,747.31-
* Reserve Fund Balance	220,933.00-			220,933.00-
* Fund Balance	0.08			0.08
* Revenues and Other Financi	712,037.22-		10,700.62-	722,737.84-
* Expenditures/Expenses	542,389.67	184,456.29	0.01-	726,845.95
* Estimated Revenue	877,805.00			877,805.00
* Appropriations	1,059,920.00-			1,059,920.00-
* Start of System Clearing				
** Total Equity and Other Acc	572,695.47-	184,456.29	10,700.63-	398,939.81-
*** Total Liabilities & Equity	616,269.41-	260,125.84	45,543.55-	401,687.12-

Page: 12

Vendor One Time Vendor	Vendor Name	BA	Pcr	Doc.no.	Pstg date	Reference	Check	Fund Center	Trans. currency	Status
1630	DAILY JOURNAL CORP	067A	012	1904734886	06/10/2013	A2485414		4544540	47.25- USD	closed
1630	DAILY JOURNAL CORP	067A	012	2021942135	06/11/2013		1101659266		47.25 USD	closed
2295	MILLER & OWEN	067A	012	2021942140	06/11/2013		1101659271		5,552.00 USD	closed
2295	MILLER & OWEN	067A	012	1904734884	06/10/2013	29757		4544540	5,552.00- USD	closed
12036	WELLS FARGO BANK	067A	012	1500047789	06/28/2013				184.70 USD	closed
12036	WELLS FARGO BANK	067A	012	1904746634	06/28/2013	MLED-ACH 6/28/13		4544540	184.70- USD	closed
12036	WELLS FARGO BANK	067A	012	1500047504	06/03/2013				131.20 USD	closed
12036	WELLS FARGO BANK	067A	012	1904726688	06/03/2013	MLED-TAX 5/31/13		4544540	131.20- USD	closed
13429	SPECIAL DIST RISK MGMT AUTHORITY	067A	012	2021942204	06/11/2013		1101659329		4,736.68 USD	closed
13429	SPECIAL DIST RISK MGMT AUTHORITY	067A	012	1904734892	06/10/2013	43510		4544540	4,736.68- USD	closed
19687	SPECIAL DISTRICT RISK MGMT AUTHORITY	067A	012	1904742705	06/19/2013	6011SACSACR6011		4544540	4,125.51- USD	closed
19687	SPECIAL DISTRICT RISK MGMT AUTHORITY	067A	012	2021972638	06/19/2013		1101665552		4,125.51 USD	closed
24241	FTINNEY BOWES	067A	012	2021942219	06/11/2013		1101659343		274.47 USD	closed
24241	FTINNEY BOWES	067A	012	1904734890	06/10/2013	3014263AP13		4544540	274.47- USD	closed
404125	HEWLETT-PACKARD	067A	012	2021925224	06/05/2013		1101655012		1,982.30 USD	closed
404125	HEWLETT-PACKARD	067A	012	5106906814	06/04/2013	52788769		4544540	1,982.30- USD	closed
SDEAYROLL GAY JONES	SDEAYROLL	067A	012	2021985704	06/28/2013		8000044792		22.35 USD	closed
SDEAYROLL RONNY L. GREENWOOD	SDEAYROLL	067A	012	2021985730	06/28/2013		8000044818		92.35 USD	closed
SDEAYROLL GAY JONES	SDEAYROLL	067A	012	1904746682	06/25/2013	95-LAFCD DISTR		4544540	22.35- USD	closed
SDEAYROLL RONNY L. GREENWOOD	SDEAYROLL	067A	012	1904746712	06/25/2013	95-LAFCD DISTR		4544540	92.35- USD	closed
Sum of Business Area 067A									0.00 USD *	

Budget/Actuals/Encumb/Pending	Date: 07/08/2013	Page: 1 / 1
Fiscal Year	2013	
From period	1	
To period	12	
Fund/Group	067A	LOCAL AGENCY FORMATION COMMISSION
Funds Center/Group	4544540	LAFCD DISTRICT
Budget Version	0	

Commitment Item	Budget	Actual-GL	Actual-CO	Actual Total	Encumbrance	Pending	Available	%Consumed
10111000 REGULAR EMPLOYEE								
10112400 COMMITTEE MEMBER	9,000.00	4,400.00		4,400.00			4,600.00	48.89
10122000 CASHI	500.00	336.60		336.60			163.40	67.32
* 10 - SALARIES AND EMPLOYEE	9,500.00	4,736.60		4,736.60			4,763.40	49.86
20200500 ADVERTISING	7,500.00	3,000.05		3,000.05			4,499.95	40.00
20202200 BOOKS/PER SUP	2,000.00	740.10		740.10			1,259.90	37.01
20202900 BUS/CONFERENCE E	12,000.00	10,033.30		10,033.30			1,966.70	83.61
20203500 ED/TRAINING SVC	2,200.00						2,200.00	
20205200 INS PREMIUM	7,200.00	9,632.24		9,632.24			2,432.24	133.78
20206100 MEMBERSHIP DUES	7,250.00	9,659.00		9,659.00			2,409.00	133.23
20207600 OFFICE SUPPLIES	8,000.00	2,419.38		2,419.38			5,580.62	30.24
20208100 POSTAL SVC	5,000.00	500.00		500.00			4,500.00	10.00
20227500 RENT/LEASE EQ	18,000.00	8,149.55		8,149.55			9,850.45	45.28
20227504 MISCELLANEOUS		40.00		40.00			40.00	
20250500 ACCOUNTING SVC	8,000.00						8,000.00	
20253100 LEGAL SVC	60,000.00	73,206.64		73,206.64			13,206.64	122.01
20259100 OTHER PROF SVC	809,500.00	517,360.03		517,360.03	725.00		291,414.97	64.00
20281200 DATA PROCESSING		2,565.38		2,565.38	361.32		2,926.70	
20289800 OTHER OP EXP SUP		6,051.54		6,051.54			6,051.54	
20291000 COUNTYWIDE IT SV	1,900.00	1,806.00		1,806.00			94.00	95.05
20291100 SYSTEM DEV SVC	17,000.00	15,428.45		15,428.45	1,661.29		89.74	100.53
20291200 SYSTEM DEV SUP	1,900.00	1,767.80		1,767.80	0.20		132.00	93.05
20291600 WAN ALLOCATION	4,600.00	4,600.00		4,600.00				100.00
20292100 GS PRINTING SVC	2,250.00						2,250.00	
20292300 GS MESSENGER SVC		3,085.02		3,085.02			3,085.02	
20292600 GS STORE CHARGES	1,000.00	728.66		728.66			271.34	72.87
20293400 PUBLIC WORKS SVS	7,400.00						7,400.00	
20294300 LEASED PROP USE	48,500.00	48,229.03		48,229.03			270.97	99.44
20296200 GS PARKING CHGS		875.00		875.00			875.00	
20298700 TELEPHONE SVC	4,000.00	2,232.18		2,232.18			1,767.82	55.80
* 20 - SERVICES AND SUPPLIES	1,035,200.00	722,109.35		722,109.35	2,747.81		310,342.84	70.02
79790100 CONTINGENCY APPR	15,220.00						15,220.00	
* 79 - Appropriation for Cn	15,220.00						15,220.00	
** Expenditure accounts	1,059,920.00	726,845.95		726,845.95	2,747.81		330,326.24	68.83
94941000 INTEREST INCOME	2,500.00	2,723.00		2,723.00			223.00	108.92
* 94 - REVENUE FROM USE OF M	2,500.00	2,723.00		2,723.00			223.00	108.92
96969900 SVC FEES OTHER	188,805.00	46,567.66		46,567.66			235,372.66	24.66
* 96 - CHARGES FOR SERVICES	188,805.00	46,567.66		46,567.66			235,372.66	24.66
97979000 MISC OTHER	686,500.00	766,582.50		766,582.50			80,082.50	111.67
* 97 - MISCELLANEOUS REVENUE	686,500.00	766,582.50		766,582.50			80,082.50	111.67
** REVENUE ACCOUNTS	877,805.00	722,737.84		722,737.84			155,067.16	82.33
*** Total	182,115.00	4,108.11		4,108.11	2,747.81		175,259.08	3.76

Report: ZF SL SPEC_DIST
UserID: 1009726
System: PRD/020

Split Ledger Line Item Report
067A LOCAL AGENCY FORMATI
Period: 012 Fiscal Year: 2013

Date: 07/08/2013
Time: 08:58:35
Page: 1

Date	Year	Per	Document #	G/L Acct	BA	Cost Ctr	Amount	Text
06/20/2013	2013	012	1300498001	101000	067A		60.62	FRIENDS OF THE SWAINSON'S HAWK REIMBURSE FOR COPY
06/20/2013	2013	012	1300498004	101000	067A		3,066.00	
06/20/2013	2013	012	1300498006	101000	067A		7,574.00	
Total Account Number 101000 CASH IN TREASURY-DP							10,700.62	
06/03/2013	2013	012	1500047504	101200	067A		131.20-	
06/28/2013	2013	012	1500047789	101200	067A		184.70-	
Total Account Number 101200 CASH IN TREASURY-WIRE TRANSFERS							315.90-	
06/03/2013	2013	012	2021920563	101500	067A		82.03-	
06/05/2013	2013	012	2021931683	101500	067A		4,125.51-	
06/07/2013	2013	012	2021940228	101500	067A		22.35-	
06/07/2013	2013	012	2021940538	101500	067A		13.17-	
06/07/2013	2013	012	2021940540	101500	067A		641.06-	
06/10/2013	2013	012	2021943520	101500	067A		35,734.80-	
06/11/2013	2013	012	2021947139	101500	067A		92.35-	
06/11/2013	2013	012	2021947641	101500	067A		1,982.30-	
06/12/2013	2013	012	2021951856	101500	067A		230.06-	
06/14/2013	2013	012	2021960588	101500	067A		47.25-	
06/14/2013	2013	012	2021960600	101500	067A		4,736.68-	
06/17/2013	2013	012	2021964612	101500	067A		274.47-	
06/25/2013	2013	012	2021987347	101500	067A		4,125.51-	
06/26/2013	2013	012	2021991569	101500	067A		5,552.00-	
Total Account Number 101500 PAID WARRANTS RECONCILIATION (IN							57,659.54-	
06/04/2013	2013	012	108065677	109000	067A		151.00-	
06/04/2013	2013	012	108065680	109000	067A		383.00-	
06/24/2013	2013	012	108077975	109000	067A		156,288.83-	
06/24/2013	2013	012	108077996	109000	067A		6,051.54-	
06/24/2013	2013	012	108078124	109000	067A		274.78-	
06/24/2013	2013	012	108081762	109000	067A		185.68-	
06/30/2013	2013	012	108087182	109000	067A		676.20-	
06/30/2013	2013	012	108087201	109000	067A		4.40-	
06/30/2013	2013	012	108087214	109000	067A		1,339.00-	
06/30/2013	2013	012	108087647	109000	067A		3,275.00-	
06/04/2013	2013	012	4900641853	109000	067A		557.26-	
06/04/2013	2013	012	4900641854	109000	067A		103.09-	
Total Account Number 109000 CASH IN TREAS-SPL							169,289.78-	
06/04/2013	2013	012	108066090	1700011	067A		1,982.31-	
06/04/2013	2013	012	108066090	1700011	067A		1,982.31	
06/04/2013	2013	012	5106906814	1700011	067A	4544540000	1,982.31	
Total Account Number 1700011 GR/IR CLEARING IN-HOUSE PRODUCTI							1,982.31	
06/03/2013	2013	012	2021920563	5100000	067A		82.03	
06/05/2013	2013	012	2021925224	5100000	067A		1,982.30-	
06/05/2013	2013	012	2021931683	5100000	067A		4,125.51	
06/07/2013	2013	012	2021940538	5100000	067A		13.17	
06/07/2013	2013	012	2021940540	5100000	067A		641.06	
06/11/2013	2013	012	2021942135	5100000	067A		47.25-	
06/11/2013	2013	012	2021942140	5100000	067A		5,552.00-	
06/11/2013	2013	012	2021942204	5100000	067A		4,736.68-	
06/11/2013	2013	012	2021942219	5100000	067A		274.47-	
06/10/2013	2013	012	2021943520	5100000	067A		35,734.80	

Report: ZF_SL_SPEC_DIST
UserID: 1009726
System: PRD/020

Split Ledger Line Item Report
067A LOCAL AGENCY FORMATI
Period: 012 Fiscal Year: 2013

Date: 07/08/2013
Time: 08:58:35
Page: 2

Date	Year	Per	Document #	G/L Acct	BA	Cost Ctr	Amount	Text
06/11/2013	2013	012	2021947641	5100000	067A		1,982.30	
06/12/2013	2013	012	2021951856	5100000	067A		230.06	
06/14/2013	2013	012	2021960588	5100000	067A		47.25	
06/14/2013	2013	012	2021960600	5100000	067A		4,736.68	
06/17/2013	2013	012	2021964612	5100000	067A		274.47	
06/19/2013	2013	012	2021972638	5100000	067A		4,125.51-	
06/25/2013	2013	012	2021987347	5100000	067A		4,125.51	
06/26/2013	2013	012	2021991569	5100000	067A		5,552.00	
Total Account Number 5100000				WARRANTS PAYABLE			40,826.63	
06/07/2013	2013	012	2021940228	5100020	067A		22.35	
06/11/2013	2013	012	2021947139	5100020	067A		92.35	
06/28/2013	2013	012	2021985704	5100020	067A		22.35-	
06/28/2013	2013	012	2021985730	5100020	067A		92.35-	
Total Account Number 5100020				WARRANTS PAYABLE - SPECIAL DISTR			0.00	
06/03/2013	2013	012	1500047504	5150000	067A		131.20	
06/28/2013	2013	012	1500047789	5150000	067A		184.70	
06/03/2013	2013	012	1904726688	5150000	067A		131.20-	MLBD - TAX 05/31/2013
06/10/2013	2013	012	1904734884	5150000	067A		5,552.00-	*SACRAMENTO LOCAL AGENCY
06/10/2013	2013	012	1904734886	5150000	067A		47.25-	*SAC LAFCO, CUSTOMER# 1124105243
06/10/2013	2013	012	1904734890	5150000	067A		274.47-	*SACRAMENTO LOCAL AGENCY FORMATION, ACCT#3014263
06/10/2013	2013	012	1904734892	5150000	067A		4,736.68-	*SACRAMENTO LOCAL AGENCY FORMATION COMMISSION
06/19/2013	2013	012	1904742705	5150000	067A		4,125.51-	*SAC LOCAL AGENCY FORMATION COMMISSION, 1112 I STR
06/28/2013	2013	012	1904746634	5150000	067A		184.70-	MLBD - ACH 06/28/2013
06/25/2013	2013	012	1904746682	5150000	067A		22.35-	*PUFD 11865 06/28/13 MLBD Payroll Check
06/25/2013	2013	012	1904746712	5150000	067A		92.35-	*PUFD 21659 06/28/13 MLBD Payroll Check
06/05/2013	2013	012	2021925224	5150000	067A		1,982.30	
06/11/2013	2013	012	2021942135	5150000	067A		47.25	
06/11/2013	2013	012	2021942140	5150000	067A		5,552.00	
06/11/2013	2013	012	2021942204	5150000	067A		4,736.68	
06/11/2013	2013	012	2021942219	5150000	067A		274.47	
06/19/2013	2013	012	2021972638	5150000	067A		4,125.51	
06/28/2013	2013	012	2021985704	5150000	067A		22.35	
06/28/2013	2013	012	2021985730	5150000	067A		92.35	
06/04/2013	2013	012	5106906814	5150000	067A		1,982.30-	*P16722
Total Account Number 5150000				CLAIMS PAYABLE			0.00	
06/03/2013	2013	012	108065493	8025400	067A		207.05-	
06/03/2013	2013	012	108065493	8025400	067A		131.20-	
06/03/2013	2013	012	108065493	8025400	067A		92.35-	
06/03/2013	2013	012	108065493	8025400	067A		5.80	
06/03/2013	2013	012	108065493	8025400	067A		5.80	
06/03/2013	2013	012	108065493	8025400	067A		24.80	
06/03/2013	2013	012	108065493	8025400	067A		24.80	
06/03/2013	2013	012	108065493	8025400	067A		70.00	
06/03/2013	2013	012	108065493	8025400	067A		92.35	
06/03/2013	2013	012	108065493	8025400	067A		207.05	
06/28/2013	2013	012	108084410	8025400	067A		184.70-	16Total Deposit Amount
06/28/2013	2013	012	108084410	8025400	067A		114.70-	15Total Check Amount
06/28/2013	2013	012	108084410	8025400	067A		70.00-	6002Inc Tax-Fed Addl Tax
06/28/2013	2013	012	108084410	8025400	067A		24.80-	6201FICA EE Deduction
06/28/2013	2013	012	108084410	8025400	067A		24.80-	6210FICA ER Contrib
06/28/2013	2013	012	108084410	8025400	067A		5.80-	6501Medicare EE Ded
06/28/2013	2013	012	108084410	8025400	067A		5.80-	6503Medicare ER Contrib
06/03/2013	2013	012	1904726688	8025400	067A	4544540000	131.20	95 TAX

Report: ZF_SL_SPEC_DIST
UserID: 1009726
System: PRD/020

Split Ledger Line Item Report
067A LOCAL AGENCY FORMATI
Period: 012 Fiscal Year: 2013

Date: 07/08/2013
Time: 08:58:35
Page: 3

Date	Year	Per	Document #	G/L Acct	BA	Cost Ctr	Amount	Text
06/28/2013	2013	012	1904746634	8025400	067A	4544540000	184.70	95 ACH
06/25/2013	2013	012	1904746682	8025400	067A		22.35	06/28/13 MLBD Payroll Check
06/25/2013	2013	012	1904746712	8025400	067A		92.35	06/28/13 MLBD Payroll Check
Total Account Number 8025400 SD (HUMANIC) PAYROLL CLEARING							0.00	
06/28/2013	2013	012	108084410	10112400	067A	4544540000	400.00	1180Bds & Comm Mem
Total Account Number 10112400 SALARIES & WAGES - COMMISSION &							400.00	
06/28/2013	2013	012	108084410	10122000	067A	4544540000	5.80	6503Medicare ER Contrib
06/28/2013	2013	012	108084410	10122000	067A	4544540000	24.80	6210FICA ER Contrib
Total Account Number 10122000 OASDHI - EMPLOYER COST							30.60	
06/10/2013	2013	012	1904734886	20200500	067A	4544540000	47.25	ADVERTISING
Total Account Number 20200500 ADVERTISING/LEGAL NOTICES							47.25	
06/10/2013	2013	012	1904734892	20205200	067A	4544540000	4,736.68	INS. PREMIUM
Total Account Number 20205200 INSURANCE - PREMIUM							4,736.68	
06/10/2013	2013	012	1904734890	20207600	067A	4544540000	274.47	OFFICE SUPPLIES
Total Account Number 20207600 OFFICE SUPPLIES							274.47	
06/10/2013	2013	012	1904734884	20253100	067A	4544540000	5,552.00	LEGAL SERVICES
Total Account Number 20253100 LEGAL SERVICES							5,552.00	
06/24/2013	2013	012	108077975	20259100	067A	4544540000	156,288.83	LAFCO Payroll- Jan-Jun2013
06/30/2013	2013	012	108087647	20259100	067A	4544540000	3,275.00	
Total Account Number 20259100 OTHER PROFESSIONAL SERVICES							159,563.83	
06/04/2013	2013	012	5106906814	20281200	067A	4544540000	0.01-	
Total Account Number 20281200 DATA PROCESSING SUPPLIES							0.01-	
06/24/2013	2013	012	108077996	20289800	067A	4544540000	6,051.54	LAFCO's Shared of Cntywide Cost Allocation FY12-1
Total Account Number 20289800 OTHER OPERATING EXPENSE - SUPPLI							6,051.54	
06/04/2013	2013	012	108065677	20291000	067A	4544540000	151.00	June 2013 Countywide IT Allocation
Total Account Number 20291000 COUNTYWIDE IT SERVICES							151.00	
06/30/2013	2013	012	108087182	20291100	067A	4544540000	676.20	
06/30/2013	2013	012	108087214	20291100	067A	4544540000	1,339.00	
Total Account Number 20291100 SYSTEMS DEVELOPMENT SERVICES							2,015.20	
06/30/2013	2013	012	108087201	20291200	067A	4544540000	4.40	
Total Account Number 20291200 SYSTEMS DEVELOPMENT SUPPLIES							4.40	
06/04/2013	2013	012	108065680	20291600	067A	4544540000	383.00	June 2013 WAN Allocation

Report: ZF_SL_SPEC_DIST
UserID: 1009726
System: PRD/020

Split Ledger Line Item Report
067A LOCAL AGENCY FORMATI
Period: 012 Fiscal Year: 2013

Date: 07/08/2013
Time: 08:58:35
Page: 4

Date	Year	Per	Document #	G/L Acct	BA	Cost Ctr	Amount	Text
Total Account Number 20291600 WAN Costs							383.00	
06/24/2013	2013	012	108078124	20292300	067A	4544540000	274.78	Per. 12 - Messenger Services
Total Account Number 20292300 GS MESSENGER SERVICES							274.78	
06/04/2013	2013	012	4900641853	20292600	067A	4544540000	557.26	
06/04/2013	2013	012	4900641854	20292600	067A	4544540000	103.09	
Total Account Number 20292600 GS STORE CHARGES							660.35	
06/19/2013	2013	012	1904742705	20294300	067A	4544540000	4,125.51	LEASED PROP
Total Account Number 20294300 LEASED PROPERTY USE CHARGESGS							4,125.51	
06/24/2013	2013	012	108081762	20298700	067A	4544540000	185.68	May 2013 DTech Telecommunications Charges
Total Account Number 20298700 Telephone Svcs							185.68	
06/20/2013	2013	012	1300498001	96969900	067A	4544540000	60.62-	OF THE 2013 E.G. RDEIR
06/20/2013	2013	012	1300498004	96969900	067A	4544540000	3,066.00-	FOR GREENBRIAR PROJECT 10-05 INV.#64
06/20/2013	2013	012	1300498006	96969900	067A	4544540000	7,574.00-	ELK GROVE SOIA(LAFC 09-10) INV#19
Total Account Number 96969900 SVC FEES OTHER							10,700.62-	

Library : ZSP County of Sacramento Reports
Report group: ZSCB Trial Balance Summary by BA
Report name : ZFP4816B Sum Trial Bal. by BA

Data selected by: 1006614
Data selected on: 06/06/2013 11:28:20

Fiscal year : 2013
Period : 11 May
Business Area: 067A LOCAL AGENCY FORMATI

Client: 020
Report: ZFP4816B

Business Area: 067A
Period: 11 (May

LOCAL AGENCY FORMAT
) Fiscal Year: 2013

Page: 2/ 2
Report: 4/116

Balance Sheet Item	Beginning Balance	Period Debits	Period Credits	Ending Balance
* Cash in Treasury	637,389.77		19,138.05-	618,251.72
* Imprest Cash				
* Inventory	1,166.66-	2,333.32	3,148.97-	1,982.31-
* Due from Other Funds Year				
* Accounts Receivable Year E				
** Total Assets	636,223.11	2,333.32	22,287.02-	616,269.41
* Sales Tax Due			2.18-	2.18-
* Warrants Payable	2,264.28-	17,453.42	57,986.22-	42,797.08-
* Deposit Stale Warrants	643.48-			643.48-
* Claims Payable	10,718.69-	58,225.07	47,506.38-	
* Due to Others				
* Suspense Clearing				
* Payroll Clearing	146.50-	1,398.25	1,382.95-	131.20-
** Total Liabilities	13,772.95-	77,076.74	106,877.73-	43,573.94-
* Reserve Fund Balance	220,933.00-			220,933.00-
* Fund Balance	0.08			0.08
* Revenues and Other Financi	712,037.22-			712,037.22-
* Expenditures/Expenses	492,634.98	49,754.69		542,389.67
* Estimated Revenue	877,805.00			877,805.00
* Appropriations	1,059,920.00-			1,059,920.00-
* Start of System Clearing				
** Total Equity and Other Acc	622,450.16-	49,754.69		572,695.47-
*** Total Liabilities & Equity	636,223.11-	126,831.43	106,877.73-	616,269.41-

Date: 06/06/2013
Time: 12:57:54
Period: 011
Year: 2013

Vendor One Time Vendor	Vendor Name	PA	Per	Doc.no.	Postg date	Reference	Check	Fund Center	Trans. currency	Status
1406	SACRAMENTO BEE	067A	011	2021843341	05/01/2013		1101639062		1,922.40 USD	closed
1630	DAILY JOURNAL CORP	067A	011	2021843346	05/01/2013		1101639067		511.00 USD	closed
1890	HERBINGER PUBLICATIONS INCORPORATED	067A	011	2021843350	05/01/2013		1101639071		296.00 USD	closed
2295	MILLER & OWEN	067A	011	2021843354	05/01/2013		1101639075		7,114.58 USD	closed
5634	FRESH & QUICK CATERING	067A	011	1904727394	05/30/2013	4047		4544540	230.06- USD	closed
5634	FRESH & QUICK CATERING	067A	011	2021914417	05/31/2013		1101652821		230.06 USD	closed
5634	FRESH & QUICK CATERING	067A	011	1904713314	05/08/2013	4049		4544540	239.58- USD	closed
5634	FRESH & QUICK CATERING	067A	011	2021865961	05/09/2013		1101642857		239.58 USD	closed
9443	CITY OF SACRAMENTO	067A	011	2021914438	05/31/2013		1101652837		35,734.80 USD	closed
9443	CITY OF SACRAMENTO	067A	011	1904727303	05/30/2013	FINACC00002		4544540	35,734.80- USD	closed
12036	WELLS FARGO BANK	067A	011	1500047450	05/31/2013				92.35 USD	closed
12036	WELLS FARGO BANK	067A	011	1904726028	05/31/2013	MLED-ACH 5/31/13		4544540	92.35- USD	closed
12036	WELLS FARGO BANK	067A	011	1500047121	05/01/2013				146.50 USD	closed
12036	WELLS FARGO BANK	067A	011	1904707239	05/01/2013	MLED-TAX 4/30		4544540	146.50- USD	closed
12322	COMCAST	067A	011	1904720629	05/21/2013	8155600380732795		4544540	82.03- USD	closed
12322	COMCAST	067A	011	2021897056	05/22/2013		1101648269		82.03 USD	closed
19687	SPECIAL DISTRICT RISK MGMT AUTHORITY	067A	011	2021914467	05/31/2013		1101652701		4,125.51 USD	closed
19687	SPECIAL DISTRICT RISK MGMT AUTHORITY	067A	011	1904727400	05/30/2013	6011SACR6011		4544540	4,125.51- USD	closed
19687	SPECIAL DISTRICT RISK MGMT AUTHORITY	067A	011	1904712596	05/07/2013	0112IHRD0413		4544540	4,827.61- USD	closed
19687	SPECIAL DISTRICT RISK MGMT AUTHORITY	067A	011	2021861691	05/08/2013		1101642038		4,827.61 USD	closed
24181	ULI URBAN LAND INSTITUTE	067A	011	2021843429	05/01/2013		1101639142		225.00 USD	closed
28211	MEA OF CALIFORNIA INC	067A	011	1904727391	05/30/2013	10016079		4544540	641.06- USD	closed
28211	MEA OF CALIFORNIA INC	067A	011	2021914502	05/31/2013		1101652886		641.06 USD	closed
28211	MEA OF CALIFORNIA INC	067A	011	2021843443	05/01/2013		1101639156		627.54 USD	closed
37780	DS WRITERS OF AMERICA INC	067A	011	2021914541	05/31/2013		1101652907		13.17 USD	closed
37780	DS WRITERS OF AMERICA INC	067A	011	1904727401	05/30/2013	4831121050113		4544540	13.17- USD	closed
37780	DS WRITERS OF AMERICA INC	067A	011	2021843467	05/01/2013		1101639179		22.17 USD	closed

Date: 06/06/2013
Time: 12:57:54
Period: 011
Year: 2013

Vendor One Time Vendor	Vendor Name	EA	Per	Doc.no.	Pstg date	Reference	Check	Fund Center	Trans. currency	Status
420263	ALLIED NETWORK SOLUTIONS INC	067A	011	5106899112	05/07/2013	210524IN		4544540	834.21- USD	closed
420263	ALLIED NETWORK SOLUTIONS INC	067A	011	2021866184	05/09/2013		1101643009		332.45 USD	closed
420263	ALLIED NETWORK SOLUTIONS INC	067A	011	5106899113	05/07/2013	210564IN		4544540	332.45- USD	closed
420263	ALLIED NETWORK SOLUTIONS INC	067A	011	2021861859	05/08/2013		1101642355		834.21 USD	closed
SPAYROLL	SPAYROLL	067A	011	2021909028	05/31/2013		8000043219		92.35 USD	closed
CHRISTOPHER TOCKER	CHRISTOPHER TOCKER	067A	011	1904725550	05/29/2013	95-IAFCO DISIR		4544540	92.35- USD	closed
SPAYROLL	SPAYROLL	067A	011	2021909045	05/31/2013		8000043236		22.35 USD	closed
GAY JONES	GAY JONES	067A	011	1904725592	05/29/2013	95-IAFCO DISIR		4544540	92.35- USD	closed
SPAYROLL	SPAYROLL	067A	011	1904725538	05/29/2013	95-IAFCO DISIR		4544540	22.35- USD	closed
GAY JONES	GAY JONES	067A	011	2021909095	05/31/2013		8000043286		92.35 USD	closed
SPAYROLL	SPAYROLL	067A	011							
RONNY L. GREENWOOD	RONNY L. GREENWOOD	067A	011							
Sum of Business Area 067A									10,718.69 USD	*

Budget/Actuals/Encumb/Pending	Date: 06/06/2013	Page: 1 / 1
Fiscal Year	2013	
From period	0	
To period	11	
Fund/Group	067A	LOCAL AGENCY FORMATION COMMISSION
Funds Center/Group	4544540	LAFCD DISTRICT
Budget Version	0	

Commitment Item	Budget	Actual-GL	Actual-CD	Actual Total	Encumbrance	Pending	Available	%Consumed
10111000 REGULAR EMPLOYEE				4,000.00			5,000.00	44.44
10112400 COMMITTEE MEMBER	9,000.00	4,000.00		4,000.00			194.00	61.20
10122000 CASHI	500.00	306.00		306.00			5,194.00	45.33
* 10 - SALARIES AND EMPLOYEE	9,500.00	4,306.00		4,306.00			4,547.20	39.37
20200500 ADVERTISING	7,500.00	2,952.80		2,952.80			1,259.90	37.01
20202200 BOOKS/PER SUP	2,000.00	740.10		740.10			1,966.70	83.61
20202900 BUS/CONFERENCE E	12,000.00	10,033.30		10,033.30			2,200.00	
20203500 ED/TRAINING SVC	2,200.00						2,304.44	67.99
20205200 INS PREMIUM	7,200.00	4,895.56		4,895.56			2,409.00	133.23
20206100 MEMBERSHIP DUES	7,250.00	9,659.00		9,659.00			5,855.09	26.81
20207600 OFFICE SUPPLIES	8,000.00	2,144.91		2,144.91			4,500.00	10.00
20208100 POSTAL SVC	5,000.00	500.00		500.00			9,850.45	45.28
20227500 RENT/LEASE EQ	18,000.00	8,149.55		8,149.55			40.00	
20227504 MISCELLANEOUS		40.00		40.00			8,000.00	
20250500 ACCOUNTING SVC	8,000.00			67,654.64			7,654.64	112.76
20253100 LEGAL SVC	60,000.00	67,654.64		357,796.20			451,703.80	44.20
20259100 OTHER PROF SVC	809,500.00	357,796.20		2,565.39	361.32		2,926.71	
20281200 DATA PROCESSING		2,565.39		1,655.00			245.00	87.11
20291000 COUNTYWIDE IT SV	1,900.00	1,655.00		1,655.00			89.74	100.53
20291100 SYSTEM DEV SVC	17,000.00	13,413.25		13,413.25	3,676.49		132.00	93.05
20291200 SYSTEM DEV SUP	1,900.00	1,763.40		1,763.40	4.60		383.00	91.67
20291600 WAN ALLOCATION	4,600.00	4,217.00		4,217.00			2,250.00	
20292100 GS FRONTING SVC	2,250.00			2,810.24			2,810.24	
20292300 GS MESSENGER SVC		2,810.24		68.31			931.69	6.83
20292600 GS STORE CHARGES	1,000.00	68.31					7,400.00	
20293400 PUBLIC WORKS SVS	7,400.00			44,103.52			4,396.48	90.94
20294300 LEASED PROP USE	48,500.00	44,103.52		875.00			1,953.50	51.16
20296200 GS PARKING CHGS		875.00		2,046.50			493,073.92	52.37
20298700 TELEPHONE SVC	4,000.00	2,046.50		538,083.67	4,042.41		15,220.00	
* 20 - SERVICES AND SUPPLIES	1,035,200.00	538,083.67		538,083.67	4,042.41		513,487.92	51.55
79790100 CONTINGENCY AMR	15,220.00						223.00	108.92
* 79 - Appropriation for Com	15,220.00			2,723.00			223.00	108.92
** Expenditure accounts	1,059,920.00	542,389.67		2,723.00			246,073.28	30.33
94941000 INTEREST INCOME	2,500.00	2,723.00		57,268.28			246,073.28	30.33
* 94 - REVENUE FROM USE OF M	2,500.00	2,723.00		57,268.28			80,082.50	111.67
96969900 SVC FEES OTHER	188,805.00	57,268.28		766,582.50			80,082.50	111.67
* 96 - CHARGES FOR SERVICES	188,805.00	57,268.28		766,582.50			165,767.78	81.12
97979000 MISC OTHER	686,500.00	766,582.50		712,037.22			347,720.14	90.93
* 97 - MISCELLANEOUS REVENUE	686,500.00	766,582.50		712,037.22				
** REVENUE ACCOUNTS	877,805.00	712,037.22		169,647.55	4,042.41			
*** Total	182,115.00	169,647.55						

Report: ZF SL SPEC_DIST
UserID: 1006614
System: PRD/020

Split Ledger Line Item Report
067A LOCAL AGENCY FORMATI
Period: 011 Fiscal Year: 2013

Date: 06/06/2013
Time: 12:51:24
Page: 1

Date	Year	Per	Document #	G/L Acct	BA	Cost Ctr	Amount	Text
05/01/2013	2013	011	1500047121	101200	067A		146.50-	
05/31/2013	2013	011	1500047450	101200	067A		92.35-	
Total Account Number 101200 CASH IN TREASURY-WIRE TRANSFERS							238.85-	
05/03/2013	2013	011	2021852941	101500	067A		86.78-	
05/06/2013	2013	011	2021856827	101500	067A		511.00-	
05/06/2013	2013	011	2021856828	101500	067A		296.00-	
05/07/2013	2013	011	2021862413	101500	067A		1,922.40-	
05/10/2013	2013	011	2021871818	101500	067A		22.17-	
05/10/2013	2013	011	2021871821	101500	067A		225.00-	
05/13/2013	2013	011	2021873450	101500	067A		4,827.61-	
05/13/2013	2013	011	2021873762	101500	067A		834.21-	
05/13/2013	2013	011	2021874207	101500	067A		627.54-	
05/14/2013	2013	011	2021879142	101500	067A		332.45-	
05/16/2013	2013	011	2021887830	101500	067A		92.35-	
05/16/2013	2013	011	2021887837	101500	067A		92.35-	
05/16/2013	2013	011	2021887880	101500	067A		7,114.58-	
05/20/2013	2013	011	2021893805	101500	067A		22.35-	
05/20/2013	2013	011	2021893816	101500	067A		22.35-	
05/21/2013	2013	011	2021897826	101500	067A		92.35-	
05/21/2013	2013	011	2021897836	101500	067A		92.35-	
05/22/2013	2013	011	2021901236	101500	067A		239.58-	
Total Account Number 101500 PAID WARRANTS RECONCILIATION (IN							17,453.42-	
05/03/2013	2013	011	108044078	109000	067A		185.16-	
05/04/2013	2013	011	108046018	109000	067A		151.00-	
05/04/2013	2013	011	108046024	109000	067A		383.00-	
05/23/2013	2013	011	108054889	109000	067A		185.53-	
05/28/2013	2013	011	108055553	109000	067A		262.29-	
05/31/2013	2013	011	108062597	109000	067A		274.40-	
05/31/2013	2013	011	108062614	109000	067A		4.40-	
Total Account Number 109000 CASH IN TREAS-SPL							1,445.78-	
05/08/2013	2013	011	1904713314	530200	067A	4544540000	1.12-	0.50% SAC CITY
05/30/2013	2013	011	1904727394	530200	067A	4544540000	1.06-	0.50% SAC CITY
Total Account Number 530200 SALES TAX DUE							2.18-	
05/07/2013	2013	011	108045595	1700011	067A		834.21-	
05/07/2013	2013	011	108045595	1700011	067A		834.21	
05/07/2013	2013	011	108045802	1700011	067A		332.45-	
05/07/2013	2013	011	108045802	1700011	067A		332.45	
05/21/2013	2013	011	5001473471	1700011	067A		1,982.31-	
05/07/2013	2013	011	5106899112	1700011	067A	4544540000	834.21	
05/07/2013	2013	011	5106899113	1700011	067A	4544540000	332.45	
Total Account Number 1700011 GR/IR CLEARING IN-HOUSE PRODUCTI							815.65-	
05/01/2013	2013	011	2021843341	5100000	067A		1,922.40-	
05/01/2013	2013	011	2021843346	5100000	067A		511.00-	
05/01/2013	2013	011	2021843350	5100000	067A		296.00-	
05/01/2013	2013	011	2021843354	5100000	067A		7,114.58-	
05/01/2013	2013	011	2021843429	5100000	067A		225.00-	
05/01/2013	2013	011	2021843443	5100000	067A		627.54-	
05/01/2013	2013	011	2021843467	5100000	067A		22.17-	
05/03/2013	2013	011	2021852941	5100000	067A		86.78	

Report: ZF_SL_SPEC_DIST
UserID: 1006614
System: PRD/020

Split Ledger Line Item Report
067A LOCAL AGENCY FORMATT
Period: 011 Fiscal Year: 2013

Date: 06/06/2013
Time: 12:51:24
Page: 2

Date	Year	Per	Document #	G/L Acct	BA	Cost Ctr	Amount	Text
05/06/2013	2013	011	2021856827	51000000	067A		511.00	
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05/09/2013	2013	011	2021866184	51000000	067A		332.45-	
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05/10/2013	2013	011	2021871821	51000000	067A		225.00	
05/13/2013	2013	011	2021873450	51000000	067A		4,827.61	
05/13/2013	2013	011	2021873762	51000000	067A		834.21	
05/13/2013	2013	011	2021874207	51000000	067A		627.54	
05/14/2013	2013	011	2021879142	51000000	067A		332.45	
05/16/2013	2013	011	2021887880	51000000	067A		7,114.58	
05/22/2013	2013	011	2021897056	51000000	067A		82.03-	
05/22/2013	2013	011	2021901236	51000000	067A		239.58	
05/31/2013	2013	011	2021914417	51000000	067A		230.06-	
05/31/2013	2013	011	2021914438	51000000	067A		35,734.80-	
05/31/2013	2013	011	2021914467	51000000	067A		4,125.51-	
05/31/2013	2013	011	2021914502	51000000	067A		641.06-	
05/31/2013	2013	011	2021914541	51000000	067A		13.17-	
Total Account Number 51000000 WARRANTS PAYABLE							40,739.85-	
05/16/2013	2013	011	2021887830	51000020	067A		92.35	
05/16/2013	2013	011	2021887837	51000020	067A		92.35	
05/20/2013	2013	011	2021893805	51000020	067A		22.35	
05/20/2013	2013	011	2021893816	51000020	067A		22.35	
05/21/2013	2013	011	2021897826	51000020	067A		92.35	
05/21/2013	2013	011	2021897836	51000020	067A		92.35	
05/31/2013	2013	011	2021909028	51000020	067A		92.35-	
05/31/2013	2013	011	2021909045	51000020	067A		22.35-	
05/31/2013	2013	011	2021909095	51000020	067A		92.35-	
Total Account Number 51000020 WARRANTS PAYABLE - SPECIAL DISTR							207.05	
05/01/2013	2013	011	1500047121	51500000	067A		146.50	
05/31/2013	2013	011	1500047450	51500000	067A		92.35	
05/01/2013	2013	011	1904707239	51500000	067A		146.50-	MLBD - TAX PAYDATE 04/30/2013
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05/21/2013	2013	011	1904720629	51500000	067A		82.03-	*SAC LAFCO 8155 60 038 0732795
05/29/2013	2013	011	1904725538	51500000	067A		22.35-	*PUFD 11865 05/31/13 MLBD Payroll Check
05/29/2013	2013	011	1904725550	51500000	067A		92.35-	*PUFD 14048 05/31/13 MLBD Payroll Check
05/29/2013	2013	011	1904725592	51500000	067A		92.35-	*PUFD 21659 05/31/13 MLBD Payroll Check
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05/30/2013	2013	011	1904727303	51500000	067A		35,734.80-	*SAC LOCAL AGENCY FORMATION
05/30/2013	2013	011	1904727391	51500000	067A		641.06-	*SAC LOCAL AGENCY FORMATION, CUSTOMER# 360243
05/30/2013	2013	011	1904727394	51500000	067A		230.06-	*SAC LOCAL AGENCY FORMATION
05/30/2013	2013	011	1904727400	51500000	067A		4,125.51-	*SAC LOCAL AGENCY FORMATION COMM
05/30/2013	2013	011	1904727401	51500000	067A		13.17-	*SAC LOCAL AGENCY FORMATION COMM, 27296554831121
05/01/2013	2013	011	2021843341	51500000	067A		1,922.40	
05/01/2013	2013	011	2021843346	51500000	067A		511.00	
05/01/2013	2013	011	2021843350	51500000	067A		296.00	
05/01/2013	2013	011	2021843354	51500000	067A		7,114.58	
05/01/2013	2013	011	2021843429	51500000	067A		225.00	
05/01/2013	2013	011	2021843443	51500000	067A		627.54	
05/01/2013	2013	011	2021843467	51500000	067A		22.17	
05/08/2013	2013	011	2021861691	51500000	067A		4,827.61	

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Split Ledger Line Item Report
067A LOCAL AGENCY FORMATI
Period: 011 Fiscal Year: 2013

Date: 06/06/2013
Time: 12:51:24
Page: 3

Date	Year	Per	Document #	G/L Acct	BA	Cost Ctr	Amount	Text
05/08/2013	2013	011	2021861859	5150000	067A		834.21	
05/09/2013	2013	011	2021865961	5150000	067A		239.58	
05/09/2013	2013	011	2021866184	5150000	067A		332.45	
05/22/2013	2013	011	2021897056	5150000	067A		82.03	
05/31/2013	2013	011	2021909028	5150000	067A		92.35	
05/31/2013	2013	011	2021909045	5150000	067A		22.35	
05/31/2013	2013	011	2021909095	5150000	067A		92.35	
05/31/2013	2013	011	2021914417	5150000	067A		230.06	
05/31/2013	2013	011	2021914438	5150000	067A		35,734.80	
05/31/2013	2013	011	2021914467	5150000	067A		4,125.51	
05/31/2013	2013	011	2021914502	5150000	067A		641.06	
05/31/2013	2013	011	2021914541	5150000	067A		13.17	
05/07/2013	2013	011	5106899112	5150000	067A		834.21-	*COSAC64
05/07/2013	2013	011	5106899113	5150000	067A		332.45-	*COSAC64
Total Account Number 5150000 CLAIMS PAYABLE							10,718.69	
05/01/2013	2013	011	108042655	8025400	067A		184.70-	
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05/01/2013	2013	011	108042655	8025400	067A		92.35-	
05/01/2013	2013	011	108042655	8025400	067A		92.35-	
05/01/2013	2013	011	108042655	8025400	067A		22.35-	
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05/01/2013	2013	011	108042655	8025400	067A		31.00	
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05/01/2013	2013	011	108042655	8025400	067A		184.70	
05/01/2013	2013	011	108042655	8025400	067A		207.05	
05/01/2013	2013	011	108042655	8025400	067A		207.05-	15Total Check Amount
05/31/2013	2013	011	108060727	8025400	067A		92.35-	16Total Deposit Amount
05/31/2013	2013	011	108060727	8025400	067A		70.00-	6002Inc Tax-Fed Addl Tax
05/31/2013	2013	011	108060727	8025400	067A		24.80-	6201FICA EE Deduction
05/31/2013	2013	011	108060727	8025400	067A		24.80-	6210FICA ER Contrib
05/31/2013	2013	011	108060727	8025400	067A		5.80-	6501Medicare EE Ded
05/31/2013	2013	011	108060727	8025400	067A		5.80-	6503Medicare ER Contrib
05/31/2013	2013	011	108060727	8025400	067A	4544540000	207.05	MLBD 5/31 CHECKS
05/31/2013	2013	011	108061009	8025400	067A	4544540000	146.50	95 TAX
05/01/2013	2013	011	1904707239	8025400	067A	4544540000	92.35	95 ACH
05/31/2013	2013	011	1904726028	8025400	067A	4544540000		
Total Account Number 8025400 SD (HUMANIC) PAYROLL CLEARING							15.30	
05/31/2013	2013	011	108061009	8025500	067A	4544540000	207.05-	MLBD 5/31 CHECKS / POSTED IN ERROR
05/31/2013	2013	011	108061803	8025500	067A	4544540000	92.35-	
05/31/2013	2013	011	108061803	8025500	067A	4544540000	92.35-	
05/31/2013	2013	011	108061803	8025500	067A	4544540000	22.35-	
05/31/2013	2013	011	108061803	8025500	067A	4544540000	207.05	
05/31/2013	2013	011	108061803	8025500	067A	4544540000	22.35	05/31/13 MLBD Payroll Check
05/29/2013	2013	011	1904725538	8025500	067A		92.35	05/31/13 MLBD Payroll Check
05/29/2013	2013	011	1904725550	8025500	067A		92.35	05/31/13 MLBD Payroll Check
05/29/2013	2013	011	1904725592	8025500	067A			
Total Account Number 8025500 SD SETA (HUMANIC) PAYROLL CLEARING							0.00	
05/31/2013	2013	011	108060727	10112400	067A	4544540000	400.00	1180Bds & Comm Mem
Total Account Number 10112400 SALARIES & WAGES - COMMISSION &							400.00	
05/31/2013	2013	011	108060727	10122000	067A	4544540000	5.80	6503Medicare ER Contrib
05/31/2013	2013	011	108060727	10122000	067A	4544540000	24.80	6210FICA ER Contrib

Date: 06/06/2013
Time: 12:51:24
Page: 4

Date	Year	Per	Document #	G/L Acct	BA	Cost Ctr	Amount	Text
Total Account Number 10122000 OASDHI - EMPLOYER COST							30.60	
05/08/2013	2013	011	1904713314	20202900	067A	4544540000	1.12	ACCR TAX BUS/CONF.EXP.
05/08/2013	2013	011	1904713314	20202900	067A	4544540000	239.58	BUS/CONF.EXP.
05/30/2013	2013	011	1904727394	20202900	067A	4544540000	1.06	ACCR TAX
05/30/2013	2013	011	1904727394	20202900	067A	4544540000	230.06	BUS/CONF. EXP.
Total Account Number 20202900 BUSINESS/CONFERENCE EXPENSE							471.82	
05/30/2013	2013	011	1904727401	20207600	067A	4544540000	13.17	OFFICE SUPPLIES
Total Account Number 20207600 OFFICE SUPPLIES							13.17	
05/21/2013	2013	011	1904720629	20227500	067A	4544540000	82.03	RENT/LEASE EQUIPMENT
05/30/2013	2013	011	1904727391	20227500	067A	4544540000	641.06	RENT/LEASE EQUIPMENT
Total Account Number 20227500 RENT/LEASES EQUIPMENT							723.09	
05/30/2013	2013	011	1904727303	20259100	067A	4544540000	35,734.80	DON LOCKHART 12/15/12 - 3/8/13
Total Account Number 20259100 OTHER PROFESSIONAL SERVICES							35,734.80	
05/21/2013	2013	011	5001473471	20281200	067A	4544540000	1,982.31	
Total Account Number 20281200 DATA PROCESSING SUPPLIES							1,982.31	
05/04/2013	2013	011	108046018	20291000	067A	4544540000	151.00	May 2013 Countywide IT Allocation
Total Account Number 20291000 COUNTYWIDE IT SERVICES							151.00	
05/31/2013	2013	011	108062597	20291100	067A	4544540000	274.40	
Total Account Number 20291100 SYSTEMS DEVELOPMENT SERVICES							274.40	
05/31/2013	2013	011	108062614	20291200	067A	4544540000	4.40	
Total Account Number 20291200 SYSTEMS DEVELOPMENT SUPPLIES							4.40	
05/04/2013	2013	011	108046024	20291600	067A	4544540000	383.00	May 2013 WAN Allocation
Total Account Number 20291600 WAN Costs							383.00	
05/28/2013	2013	011	108055553	20292300	067A	4544540000	262.29	Per. 11 - Messenger Services
Total Account Number 20292300 GS MESSENGER SERVICES							262.29	
05/07/2013	2013	011	1904712596	20294300	067A	4544540000	4,827.61	LEASED PROP
05/30/2013	2013	011	1904727400	20294300	067A	4544540000	4,125.51	LEASED PROP
Total Account Number 20294300 LEASED PROPERTY USE CHARGESGS							8,953.12	
05/03/2013	2013	011	108044078	20298700	067A	4544540000	185.16	Mar 2013 DTech Telecommunications Charges
05/23/2013	2013	011	108054889	20298700	067A	4544540000	185.53	Apr 2013 DTech Telecommunications Charges
Total Account Number 20298700 Telephone Svcs							370.69	

SACRAMENTO LOCAL AGENCY FORMATION COMMISSION
1112 I Street #100
Sacramento, California 95814
(916) 874-7458

August 7, 2013

TO: Sacramento Local Agency Formation Commission

FROM: Peter Brundage, Executive Officer

RE: Legislative Update

CONTACT: Don Lockhart, AICP, Assistant Executive Officer (916) 874-2937

RECOMMENDATION

Information only, no action is recommended.

BACKGROUND

This memo is part of the ongoing effort to keep your Commission informed regarding various legislative matters.

More than 2,200 Senate and Assembly bills were introduced for consideration in the 2013-14 session. May 24 was the final day for a Bill to advance. This winnowed down the Bill tracking effort considerably.

An ad-hoc committee appointed by the CALAFCO Board of Directors will consider and adopt positions on several bills, which staff will report back on.

SUMMARY

There continue to be several pieces of proposed legislation that may be of interest to your Commission.

AB 453 (Mullin D) Sustainable communities

Introduced: 2/19/2013

Status: 5/30/2013-Action From THIRD READING: Read third time. Passed Assembly to SENATE.

Location: 5/30/2013-S. SENATE

Calendar: 5/30/2013 #50 ASSEMBLY ASSEMBLY THIRD READING FILE
8/12/2013 10 a.m. - John L. Burton Hearing Room (4203) SENATE
APPROPRIATIONS, DE León, Chair

Summary:

The Strategic Growth Council is required to manage and award grants and loans to a council of governments, metropolitan planning organization, regional transportation planning agency, city, county, or joint powers authority for the purpose of developing, adopting, and implementing a regional plan or other planning instrument to support the planning and development of sustainable communities. This bill would make a local agency formation commission eligible for the award of financial assistance for those planning purposes.

Position: Sponsor

CALAFCO Comments: This would allow LAFCOs to apply directly for grants that support the preparation of sustainable community strategies and other planning efforts.

AB 743 (Logue R) The Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000.

Introduced: 2/21/2013

Last Amend: 4/3/2013

Status: 5/9/2013-Referred to Com. on GOV. & F.

Location: 5/9/2013-S. G. & F.

Calendar: 6/5/2013 9:30 a.m. - Room 112 SENATE GOVERNANCE AND FINANCE, WOLK, Chair

Status: 7/8/2013-Read third time. Passed. Ordered to the Assembly. (Ayes 33. Noes 0.)

Summary:

The Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 authorizes a local agency formation commission to approve, after notice and hearing, a petition for a change of organization or reorganization of a city, if the petition was initiated on or after January 1, 2010, and before January 1, 2014, and waive protest proceedings entirely if certain requirements are met. This provision applies only to territory that does not exceed 150 acres. This Bill would delete the January 1, 2014, date and make conforming changes. This bill contains other related provisions and other existing laws.

Position: Support

Subject: Annexation Proceedings, CKH General Procedures

CALAFCO Comments: As amended, this bill removes the sunset date provision to waive protest proceedings for certain island annexations. The size of the island areas for the purposes of annexation under this provision has been amended back to 150 acres.

Unincorporated islands are more costly and inefficient for counties to administer as opposed to the local municipality. A sunset date was initially established on this ability to encourage the use of the provision and was extended to allow cities and LAFCOs additional time to implement island annexation programs. The unforeseen economic downturn over the past five years has significantly hampered the initial progress, and with the sunset ready to expire at the beginning of next year, cities and LAFCOs have yet to complete the work that the law intended them to do. Over the twelve year period since the law was established, hundreds of islands have been annexed, yet hundreds more remain.

Additionally, the bill was amended to reset the effective island creation date from January 1, 2000 to January 1, 2014 thus allowing smaller islands of less than 150 acres created after 2000 to be annexed under these provisions. Many of these current islands remained as remnants of larger substantially surrounded island areas that had irregular boundaries or were affected by the annexation of territory for newer development.

AB 1427 (Committee on Local Government) Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000.

Introduced: 4/1/2013

Status: 6/24/2013-In Assembly. Ordered to Engrossing and Enrolling..

Summary:

Current law, the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (act), provides the sole and exclusive authority and procedure for the initiation, conduct, and completion of changes of organization and reorganization for cities and districts. This bill would specify that the definition excludes any independent special district having a legislative body consisting, in whole or in part, of ex officio members who are officers of a county or another local agency or who are appointees of those officers other than those who are appointed to fixed terms. This bill contains other related provisions and other existing laws.

Position: Sponsor

Subject: CKH General Procedures

CALAFCO Comments: Cortese-Knox-Hertzberg Omnibus bill.

SB 56 (Roth D) Local government finance: vehicle license fee adjustments.

Introduced: 1/7/2013

Last Amended: 4/23/2013

Status: 4/23/2013-From committee with author's amendments. Read second time and amended. Re-referred to Com. on GOV. & F.

Calendar:

5/8/2013 9:30 a.m. - Room 112 SENATE GOVERNANCE AND FINANCE, WOLK, Chair Status: 6/19/2013-From committee: Do pass and re-refer to Com. on APPR. (Ayes 7. Noes 0.) (June 19). Re-referred to Com. on APPR

Summary:

Would, for the 2013-14 fiscal year, provide for a new vehicle license fee adjustment

amount, as specified. This bill would also, for the 2013-14 fiscal year and for each fiscal year thereafter, provide for a vehicle license fee adjustment amount for certain cities incorporating after a specified date, as provided. This bill contains other related provisions and other existing laws.

Attachments:

CALAFCO Letter of support April 10, 2013

Position: Support

Subject: Financial Viability of Agencies, Tax Allocation

CALAFCO Comments: This bill reinstates revenues through ERAF (backfilled by the state general Fund) for cities incorporating after 2005 and annexations of inhabited territories.

SB 772 (Emmerson R) Drinking water.

Introduced: 2/22/2013

Status: **Dead -Bill failed to advance.**

Would require the State Department of Public Health or the local health agency, where applicable, annually to provide the address and telephone number for each public water system and state small water system to the Public Utilities Commission and, as prescribed, to a local agency formation commission. This bill contains other related provisions and other existing laws.

Attachments:

CALAFCO Letter of Opposition April 10, 2013

Position: Oppose

Subject: LAFCo Administration, Service Reviews/Spheres

CALAFCO Comments: Requires LAFCos as part of a MSR, to request information from identified public or private entities that provide wholesale or retail supply of drinking water, including the identification of any retail water suppliers within or contiguous to the responding entity. Further requires LAFCos to provide a copy of the SOI review for retail private and public water suppliers to the Public Utilities Commission and the state department of Public Health.

SB 731 (Steinberg D) Environment: California Environmental Quality Act and sustainable communities strategy.

Introduced: 2/22/2013

Last Amended: 4/23/2013

Status:

Status: 5/29/2013-Read third time. Passed. (Ayes 39. Noes 0.) Ordered to the Assembly. 7/1/2013-Do pass as amended and be re-referred to the Committee on Local Government.

Summary:

Would provide that aesthetic impacts of a residential, mixed-use residential, or employment center project, as defined, within a transit priority area, as defined, shall not be considered significant impacts on the environment. The bill would require the Office of Planning and Research to prepare and propose, and the Secretary of the Natural Resources Agency to certify and adopt, revisions to the guidelines for the implementation

of CEQA establishing thresholds of significance for noise, and for the transportation and parking impacts of residential, mixed-use residential, or employment center projects within transit priority areas. The bill would require the lead agency, in making specified findings, to make those findings available to the public at least 15 days prior to the approval of the proposed project and to provide specified notice of the availability of the findings for public review. Because the bill would require the lead agency to make the draft finding available for public review and to provide specified notices to the public, this bill would impose a state-mandated local program. This bill contains other related provisions and other existing laws.

Position: Watch

Subject: CEQA

SACRAMENTO LOCAL AGENCY FORMATION COMMISSION

***1112 I Street, Suite #100
Sacramento, California 95814
(916) 874-6458***

August 7, 2013

TO: Sacramento Local Agency Formation Commission

FROM: Peter Brundage, Executive Officer

RE: **Rio Linda/Elverta Community Water District – Draft
Municipal Service Review – Report Back (LAFC 07-10)**

RECOMMENDATION

1. Receive and file status report.
2. Direct the Executive Officer to continue to monitor the status of Rio Linda Elverta Community Water District on a monthly basis and to report back to the Commission as necessary if there are any significant changes related to the District's operational and financial condition.

Overall the District continues to provide adequate water service to the community and progress is being made to address the water supply and water quality issues. The overall financial condition is improving. Currently, the District has a balanced budget and is current with accounts payable. The District has obtained coverage for employment practices from the Association of California Water Agencies. The coverage will commence in October, 2013 during the annual renewal period.

DISCUSSION

This report summarizes the actions, developments, and events related to the Rio Linda Elverta Community Water District that have occurred since June 5, 2013.

I. Board of Directors

The Board is developing a Strategic Plan to prioritize deferred maintenance, capital improvement projects and district financing. The Board has established several sub-committees to review and recommend policies for the consideration by the Board.

The Board approved the collection of the Inactive Service fee that was recently suspended.

The new Board is taking positive actions to improve Board meetings and develop a long term operational, financing and capital improvement strategies for the District, and also control its legal costs.

II. Proposed Reservoir Tank and Booster Station

CDPH has agreed to amend the Scope of Work to add a Reservoir Tank and Booster Station in lieu of constructing another well. However, the District needs to develop plans and complete an environmental review of the project before CHDP will approve a change to the Funding Agreement. The District has authorized the General Manager to enter into contracts for environmental and construction design for the proposed reservoir tank.

The following steps summarize the major components of this project:

Complete:	RFP issued for design
Complete:	Select Consulting Engineer
95% Complete:	Develop Plans and Specifications
In Progress:	Amend Funding Agreement with CDPH
In Progress:	Issue RFP for Construction Contract
In Progress:	Approve Construction Bid
In Progress:	Commence Construction

It is anticipated that the design and engineering plans will be 95 percent complete by the end of July, 2013. Currently environmental review is under way. It is possible construction could commence in the Fall of 2013.

Completion of the Reservoir Tank and Booster Pump should allow the District to satisfy the outstanding Compliance Order issued by CHDP.

Overall Operations

Generally, the District appears to have stabilized and is moving in a very positive direction. There are no significant issues to report.

Status of CDPH Compliance Orders

The water quality and quantity continue to be satisfactory. Water pressure is subject to variation because of leaks and equipment failures. However, generally, water pressures remain adequate and comply with CDPH standards.

Completion of the Reservoir Tank and Booster Station should satisfy the outstanding Compliance Order related to adequate water supply.

The District has completed the required Federal/State audit related to the State revolving loan. No audit exceptions were noted in the report. The District is in compliance with the terms and conditions of the loan and has accurately reported required financial information.

III. Status of District Operations

District Financial Condition

The District has adopted a balanced budget for FY 2013-14. The budget includes approximately \$300,000 for capital improvements and it projects that it will have a fund balance of approximately \$100,000 at the end of this fiscal year.

Staffing and Employee Relations

The Board authorized the General Manager to hire three employees. Therefore, staffing levels should be adequate.

Liability Insurance

The Association of California Water Agencies (ACWA) has extended the District's liability coverage for a 6 month period until October, 2013: ACWA has agreed to provide coverage for employment practices when the insurance policy is renewed in October.

District Operations

The General Manager's report for June 11, 2013 to July 9, 2013 is attached highlighting the status of various district activities.

Elverta Specific Plan Development Project

Currently, the CDPH has imposed a building moratorium until the District has complied with the outstanding Compliance Order. The developer for the unfranchised areas of the Elverta Specific Plan Area has contacted the District about annexing the remaining portion of the Elverta Specific Plan Area into the District boundaries.

The District is in the process of preparing the Master Plan Update. This plan should be complete by December, 2013. Once the Master Plan is complete and approved, the District will prepare a financial plan and rate study to determine the appropriate rates for the new development and current rate payers.

The Board of Directors have approved the agreement with the developer group to fund the engineering work for District's Master Plan update and efforts to comply with PF8.

Pending Litigation as of January 14, 2013

Currently, there is no pending litigation.

IV. Summary of Issues

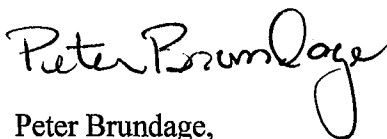
Overall the District is providing adequate water service to the community and progress is being made to address the water supply capacity issue. The District has obtained insurance coverage for employment practices effective October 2013. The District's overall financial is improving and accounts payable are current. It appears that the District continues to move in a very positive direction.

V. Next Steps

LAFCo staff will continue to work with CDPH and the District to monitor the situation. The Executive Officer will continue to monitor the District on a monthly basis and report back to the Commission if there are significant changes to the District's operational and financial condition.

Respectfully Submitted;

SACRAMENTO LOCAL AGENCY FORMATION COMMISSION



Peter Brundage,
Executive Officer

Attachments

Managers Report

June 11, 2013 to July 9, 2013

On June 12, 2013 I went to a water caucus meeting where all managers from area water districts discussed matters of importance to all of us. These included the Bay Delta Plan, Best Management Practice (BMP) 1.4 regarding the structure of water rates and the meetings that are coming up to review this BMP, current legislation and a flow standard the RWA is still modeling for the regional plan required by the State.

On June 13, 2013 I went to Sacramento Groundwater Authority (SGA) bimonthly meeting. We received an update on the model treatment of chromium 6 project being done in Davis. They also approved the annual budget transferring some items to the current year from the past year that had not been completed to date. There was also a legislative update and a groundwater management update. The audit for fiscal year 2012/13 was also approved.

On June 17, 2013 Jim Carson, Jim Crowley and I met with the City of Sacramento to discuss possible surface water purchases for the Elverta Specific Plan and other developments in the area. There was a positive response from the city. They are gathering information and will be in contact with our engineers.

On June 18, 2013 Jim Carson, Jim Crowley and I met with Carmichael Water District to discuss the potential of buying water credits from their agency as an interim measure to meet PF8 requirements. The discussion was positive and this information will be added to the information staff is gathering for potential sources of surface water. Afterward Mr. Carson and Crowley and I had a meeting discussing our progress so far in contacting all agencies in the area and next steps to take with the project.

On June 19, 2013 I went to an all day meeting with the California Urban Water Conservation Council (CUWCC) and discussed Best Management Practice (BMP) 1.4 rate setting in great detail with the group. The CUWCC is trying to determine if the current methods available for water conservation rate structure are appropriate and if they should be reviewed and revised. There was an overwhelming response from the water community that the current method of 70 % volumetric and 30% fixed expense rate structure was not workable for many Districts and there should be more methods available to comply with this BMP. This information was taken to the Plenary meeting the next day.

On June 20, 2013 I went to the Plenary meeting where they discussed BMP 1.4 options 1 and 2, future demand forecasting, avoiding costs of water energy projects and allowed networking between the three groups of the CUWCC.

On June 26, 2013 the ACWA/JPIA boiler and machinery inspection services consultant came out to inspect our hydropneumatic tanks. They were informed that the District has already done preliminary testing on our tanks and has budgeted for removal of 2 tanks per year until all are replaced or circumvented.

On June 27, 2013 we had a meeting with the SEMS people and informed them of our status in providing them with the information needed to implement their program. Later that day the Air Quality Management District inspected and was happy with our operations. No corrective actions are needed.

On June 28, 2013 The Board President and I met with Mr. Miller regarding his inactive service fee. Mr. Miller feels that the District should ask the County for additional tax money for our fixed costs instead of asking the customers who are not currently using their service to pay a fee. This was discussed during the Finance and Administrative meeting on the 8th of July. Later that day Jim Crowley and I met with the Manager of El Dorado County Water District and discussed their action to acquire water rights in the area. It was determined that the two agencies would keep each other up to date on our plans to acquire surface water.

On July 2, 2013 I met with SMUD's energy efficiency staff. They will be providing us with more energy efficient lighting and our peak factor rate will be adjusted because of this energy audit. This should drop the energy bill in the office for at least the next 12 months.

On July 3, 2013 the Planning committee met. The L St. design is 95% complete. The proposal to do environmental work on the pipeline to well 5 was presented. An update was provided on the Elverta Specific plan. A water supply matrix is forthcoming on this project. A Capital Budget item was presented for recommendation to the full Board. New bins for building materials need to be constructed at well 2A before the L St. project starts as the old bins will have to be destroyed. The Hyce property easement agreement was discussed. Based on the information presented the committee felt that Mr. Hyce should be allowed to transfer his service to someone else if he wishes to do so.

On July 8, 2013 the Finance/Administration committee met. The District expenditure and financial reports were discussed. The job descriptions of Water Utility Superintendent and Administrative Assistant were discussed along with compensation and benefits. The 2013-14 final budgets were reviewed and discussed. The inactive service fee was discussed at length in an effort to determine what the best course of action would be regarding this charge. Mr. Ridilla was asked to provide the staff with options/choices for amending the fee. His ideas were received and incorporate in the inactive service fee staff report.

RIO LINDA / ELVERTA COMMUNITY WATER DISTRICT REGULAR MEETING OF THE BOARD OF DIRECTORS

1

Monday, July 15, 2013 (6:30 p.m.)

Visitor's / Depot Center
6730 Front Street
Rio Linda, CA 95673
(916) 991-1000

AGENDA

The Board may discuss and take action on any item listed on this agenda including items listed as information items. The Board may also listen to the other items that do not appear on this agenda, but the Board will not discuss or take action on those items, except for items determined by the Board pursuant to state law to be of an emergency or urgent nature requiring immediate action. The Board may address any item(s) in any order as approved by the Board.

The public will be given the opportunity to directly address the Board on each listed item during the Board's consideration of that item. Public comment on items within the jurisdiction of the Board is welcomed, subject to reasonable time limitations for each speaker. Public documents relating to any open session item listed on this agenda that are distributed to all or any majority of the members of the Board of Directors less than 72 hours before the meeting are available for public inspection at the District office at 730 L Street, Rio Linda, CA 95673. In compliance with the Americans with Disabilities Act, if you have a disability and need a disability-related modification or accommodation to participate in this meeting, please contact the District office at (916) 991-1000. Request must be made as early as possible, and at least one full business day before the start of the meeting.

1. CALL TO ORDER, ROLL CALL and PLEDGE OF ALLEGIANCE

2. PUBLIC COMMENT

Members of the public are invited to speak to the Board regarding items within the subject matter jurisdiction of the District that are not on the agenda or items on the consent agenda. Each speaker may address the Board once under Public Comment for a limit of 2 minutes. (Policy Manual § 2.01.160).

3. CONSENT CALENDAR

Action items: Approve Consent Calendar Items

a. Minutes:

June 17, 2013 Regular Meeting

b. Expenditures

c. Financial Reports

4. REGULAR CALENDAR

ITEMS FOR DISCUSSION AND ACTION

4.1 Ron Hyce, Property Easement Agreement.

Board to consider whether to permit Mr. Hyce to transfer his 1" water service. *Recommendation by the Planning Committee is that Mr. Hyce be given ability to transfer his 1 " water service pursuant to*

his December 18, 1991 agreement with the District to another party. Meter not to be installed until after the State moratorium is lifted.

2

4.2 Inactive Service Fee

The Board to consider approval of the recommendations of the Finance and Administrative committee . *The Committee recommends that the inactive service fee be reduced to \$27.68 which is the amount required from each customer to pay debt service. They also recommend that all inactive customers be given the opportunity to have their service disconnected with the understanding that if their service is capped they will be required to pay capacity fees again in order to get the service turned on. Customers who have paid the higher rate will receive a credit to their account for the difference which will then be applied to future billings. Accounts that do not pay the fee will be subject to the District's collection proceedings including disconnection and lien of the property.*

4.3 2013-14 Final Budgets

The Board to consider approval of the 2013-14 final budgets. *Recommendation of the Finance / Administrative Committee is to approve the 2013-14 final budgets.*

4.4 Change Lead Operator title to Water Utility Supervisor

The Board to consider changing the title of the lead operator to water utility supervisor. The Board to also consider and approve the new job description for Water Utility Supervisor with one additional week of vacation. *Finance / Administrative Committee recommend approval of the above.*

4.5 Change Secretary / Receptionist title to Administrative Assistant

The Board to consider changing the title of Secretary/ Receptionist to Administrative Assistant with a \$1.00 hour increase in pay for the current Secretary/Receptionist. *Recommendation of the Finance / Administrative Committee is to change the title of Secretary / Receptionist to that of Administrative Assistant.*

5. PUBLIC COMMENT

Public comment for closed session items only: The public is invited to comment on any item listed on the closed session agenda. Each speaker is limited to 2 minutes.

6. CLOSED SESSION - The Board of Directors will convene to Closed Session to discuss the following items.

6.1 CONFERENCE WITH LABOR NEGOTIATOR

The Board will meet in closed session pursuant to Government Code § 54957.6 - Discussion and possible modification to the Memorandum of Understanding (MOU) with a Letter of Understanding (LOU).

7. The Board will reconvene to Open Session

8. Announcements from Closed Session

The Board President will report on any actions taken in closed session.

4.6 Letter of Understanding

The Board will discuss the Letter of Understanding (LOU) modifying the Employees Memorandum of Understanding (MOU) and take possible action.

Action Item: It is recommended by the Finance / Administrative Committee that the Board approves the LOU modifying the Employees MOU.

9. INFORMATION ITEMS

1. DISTRICT ACTIVITY REPORT

- a. General Manager's Report
- b. Water Production Report
- c. District Engineers Report

2. BOARD REPORTS

- a. Regional Water Authority – Dills, Henrici
- b. Sacramento Groundwater Authority – Green, Henrici
- c. LAFCo – Caron
- d. Planning Committee – Longo, Green
- e. Finance / Administrative Committee – Dills, Anderson
- f. Other Reports

10. DIRECTORS' AND GENERAL MANAGER COMMENTS**11. ADJOURNMENT**

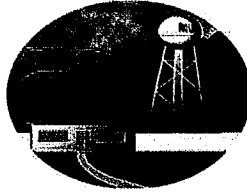
Upcoming meetings schedule:

Planning Committee – August 6, 2013, Tuesday, 4:30 pm at the District Office, 730 L Street, Rio Linda, CA

Finance / Administrative Committee – August 12, 2013, Monday, 5:30 pm at the District Office, 730 L Street, Rio Linda, CA

Next Board Meeting – Monday, August 19, 2013, 6:30 pm at the Visitor's / Depot Center, 6730 Front St, Rio Linda, CA 95673.

RIO LINDA



ELVERTA

**Item for Discussion and Action
Agenda Item: 3.a**

Date: July 15, 2013

Subject: Minutes

Staff Contact: Mary Henrici, General Manager

Recommended Committee Action:

The Staff recommends the approval of the Regular Board Minutes for June 17, 2013

Conclusion:

These minutes need to be reviewed and approved by the Board of Directors.

Board Action / Motion

Motioned by: Director _____ Seconded by Director _____

Dills: _____ Green: _____ Caron: _____ Anderson: _____ Longo: _____.

(A) Yea (N) Nay (Ab) Abstain (Abs) Absent

**-DRAFT-
MINUTES OF THE
June 17, 2013
REGULAR MEETING OF THE BOARD OF DIRECTORS
THE RIO LINDA/ELVERTA
COMMUNITY WATER DISTRICT**

1. CALL TO ORDER, ROLL CALL and PLEDGE OF ALLEGIANCE

The June 17, 2013 Regular Meeting of the Board of Directors of the Rio Linda/Elverta Community Water District was called to order at 6:31 p.m. at the Depot/Visitor Center located at 6730 Front Street, Rio Linda, Ca. General Manager, Mary Henrici took roll call of the Board of Directors. President Brent Dills, Director Frank Caron, Director Duane Anderson, Director Matt Longo and Director Paul R. Green, Jr. were present.

2. PUBLIC COMMENT

The Board received public comment from Chris Miller regarding a bill received for charges on an inactive water meter.

3. CONSENT CALENDAR

Action items: Approve Consent Calendar Items

a. Minutes:

May 20, 2013 Regular Board Meeting and Public Hearing

- a. Expenditures**
- b. Financial Reports**
- c. Single Audit, Richardson & Company**
- d. Conservation Coordinator job description**

President Dills stated that the Single Audit by Richardson & Company is a regulatory requirement that the District had to meet. He also commented that the Board had a strategic planning meeting in March or April and the position for a Conservation Coordinator was discussed and at the last meeting, the Board tentatively approved a budget for the next fiscal year which included funding for this position.

Director Green inquired about items on the expenditure list and Conservation Coordinator job description.

Director Longo inquired about an item on the expenditure list and a possible credit for training.

It was moved by Director Anderson and seconded by Director Caron to approve the Consent Calendar. The motion carried with a unanimous vote of 5-0-0.

4. REGULAR CALENDAR

4.1 New Well Drilling in designated area adjoining the McClellan Park

Mary Hall, Civil Engineering Group and Public Affairs Officer for McClellan Park introduced Steve Mayor who provided an overview of the status of the groundwater cleanup project at the former McClellan Air Force Base.

Susan Williams, Sacramento County Environmental Management Department provided a brief history of her background and responsibilities. Ms. Williams described the boundary lines of the prohibition area of the former McClellan AFB. She also provided the variances from the requirements of the well ordinance prohibiting the installation of new supply wells. McClellan Prohibition Area is the only area in Sacramento County where the construction of new supply wells is prohibited.

Public Member, Mary Harris asked if RLECWD or Sacramento Groundwater Authority was consulted before the data provided was made public. She also requested testing results.

Susan Williams stated that nothing has changed, every ordinance and revision they have done since 1991 has had the Groundwater Authorities involvement along with public participation.

President Dills recommended that Ms. Harris be given a contact name and phone number so that she might obtain the information requested.

4.2 Well 12 Rehabilitation

Jim Carson explained that Well 12 does not produce the volume of water that it should due to the original construction techniques. It was recommended by the Planning Committee that the Board approve task 1 of Wood Rogers proposal to rehabilitate Well 12.

It was moved by Director Green and seconded by Director Anderson to approve Task 1 of the Wood Rogers proposal. The motion carried with a unanimous vote of 5-0-0.

4.3 ESA Cultural Services Contract

Jim Carson explained that the L Street elevated tank is over 50 years old and therefore it needs to be evaluated which is part of the CEQA requirements.

The Planning Committee recommended the ESA contract be approved. Director Longo stated that this item has to be done and the District does not have any choice as it is a CEQA mandate.

It was moved by President Dills and seconded by Director Longo to approve the contract with ESA for Cultural Services in the amount of \$4,222. The motion carried with a unanimous vote of 5-0-0.

4.4 Form of Action section of the Policy Manual

The Board discussed and received clarification on required actions in order to approve policy manual changes.

It was moved by Director Anderson and seconded by Director Green to approve this change in the Form of Action. The motion carried with a unanimous vote of 5-0-0.

Director Longo left the meeting at 7:40 pm.

7

4.5 Resolution 2013-08 Inactive Service Resolution

Director Caron stated that the purpose of this Resolution was for vacant properties, which could be rentals that are vacant or properties that are owned by the bank.

President Dills asked the intent of the word vacant. Did it mean uninhabited homes or did it mean properties. General Counsel, Ravi Mehta stated that it means land, vacant, unimproved properties / parcels meaning bare dirt, with no improvements such as a residence or orchards.

Director Caron recommended that the word "and" and the "/" be removed from the resolution so that it reads "vacant unimproved properties/parcels".

It was moved by Director Green and seconded by Director Anderson to approve Resolution 2013-08 as amended. The motion carried with a unanimous vote of 4-0-0. Director Longo was absent.

4.6 Policy Manual Amendment on new PERS requirements

President Dills stated that this is a requirement for any new hires after January 1, 2013.

Director Green asked how this item will be offset in the budget. G.M. Henrici stated that the District will be paying less for new employees. The employees will still pay 3-1/2 % of their PERS per the Memorandum of Understanding.

It was moved by Director Anderson and seconded by Director Green to approve. The motion carried with a unanimous vote of 4-0-0. Director Longo was absent.

General Counsel, Ravi Mehta stated that the closed session item 6.3 for discussing an Letter of Understanding could not be addressed this evening because it is listed incorrectly. It should read "Conference with Labor Negotiator" not General Manager. Therefore it will be placed on the agenda for July 15, 2013 Closed Session. Along with that agenda item #4.7 will also being placed on the next agenda.

5. PUBLIC COMMENT

Public comment for closed session items only: The public is invited to comment on any item listed on the closed session agenda. Each speaker is limited to 2 minutes.

6. CLOSED SESSION - The Board of Directors convened to Closed Session to discuss the following items.

6.1 CONFERENCE WITH LEGAL COUNSEL

The Board of Directors will meet in closed session pursuant to Government Code § 54957(b)(1) – to consider the appointment, employment, evaluation of performance, discipline, or dismissal of public employee, Legal Counsel, Ravi Mehta

6.2 CONFERENCE WITH BOARD OF DIRECTORS

The Board of Directors will meet in closed session pursuant to Government Code § 54957(b)(1) – to consider the appointment, employment, evaluation of performance, discipline, or dismissal of public employee, General Manager, Mary Henrici.

6.3 This item was tabled to the next meeting of the Board

7. Announcements from Closed Session

President Dills stated that the District will continue their relationships with the General Manager and Counsel.

4.7 This item was tabled to the next meeting of the Board

8. INFORMATION ITEMS

1. DISTRICT ACTIVITY REPORT

- a. General Manager's Report
- b. Water Production Report
- c. District Engineers Report

2. BOARD REPORTS

- a. Regional Water Authority – Dills, Henrici
- b. Sacramento Groundwater Authority – Green, Henrici
- c. LAFCo – Caron
- d. Planning Committee – Longo, Green
- e. Finance / Administrative Committee – Dills, Anderson
- f. Other Reports

9. DIRECTORS' AND GENERAL MANAGER COMMENTS

President Dills

10. ADJOURNMENT

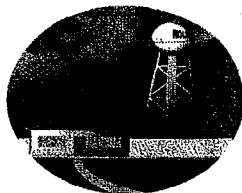
President Dills adjourned the meeting at 8:40 pm.

Respectfully submitted,

Mary Henrici, Secretary

Brent Dills, President

RIO LINDA



ELVERTA

**Item for Discussion and Action
Agenda Item: 3.b**

Date: July 15, 2013

Subject: Expenditures

Staff Contact: Mary Henrici, General Manager

Recommended Committee Action:

The Finance / Administrative Committee recommend approval of the Expenditures for the month of June 2013.

Current Background and Justification:

These expenditures have been done since the last regular meeting of the Board.

Conclusion:

These expenditures need to be reviewed and approved by the Board of Directors.

Board Action / Motion

Motioned by: Director _____ Seconded by Director _____

Dills: _____ Green: _____ Caron: _____ Anderson: _____ Longo: _____.

(A) Yea (N) Nay (Ab) Abstain (Abs) Absent

2:20 PM
07/03/13
Accrual Basis

**Rio Linda/Elverta Community Water District
All Other Expenditures
June 2013**

	Type	Date	Num	Name	Memo	Amount
1002 - Surcharge						
	NO ACTIVITY					
1005 - Sherrill Reserve						
	NO ACTIVITY					
1007 - Construction-SRF						
	Bill Pmt -Check	06/14/2013	6007	Affinity Engineering SRF	Services rendered in May 2013	-69,726.00
	Bill Pmt -Check	06/14/2013	6008	EN2 Resources, Inc.	1579 Environmental Docs for L St Reservoir & Booste	-9,674.92
	Bill Pmt -Check	06/14/2013	6009	Law Offices of Ravi Mehta	May 2013	-3,697.00
Total 1007 - Construction-SRF						-83,097.92
1008 - Elverta Specific Plan						
	Bill Pmt -Check	06/14/2013	7000	Affinity Engineering Inc	1284 ESP	-20,226.00
Total 1008 - Elverta Specific Plan						-20,226.00
1032 - CA Bank & Trust Security Acct						
	Bill Pmt -Check	06/28/2013		Rio Linda / Elverta Community Water Distr	7-8-9/2012 Security Deposits Applied	-2,690.00
	Bill Pmt -Check	06/30/2013		Rio Linda / Elverta Community Water Distr	6/13 SEC DEP APPLIED	-130.00
Total 1032 - CA Bank & Trust Security Acct						-2,820.00
1033 - CA Bank & Trust Capital Improve						
	NO ACTIVITY					

Rio Linda/Elverta Community Water District
Expenditure Listing
Operating Account
June 2013

Type	Date	Num	Name	Memo	Amount
1009 - CA Bank & Trust Operating					
Paycheck	06/14/2013	2382	Employee	Pay Date 6-15-13	-1,319.75
Paycheck	06/14/2013	2383	Employee	Pay Date 6-15-13	-164.43
Bill Pmt -Check	06/13/2013	2384	Rio Linda / Elverta Community Water Distr	6/2013 Surchrg Trsfr	-44,425.00
Bill Pmt -Check	06/14/2013	2385	Rio Linda / Elverta Community Water Distr	Cap Improv 6/2013	-7,500.00
Bill Pmt -Check	06/14/2013	2386	Affinity Engineering Inc.	1283	-1,280.00
Bill Pmt -Check	06/14/2013	2387	AFLAC	899220 5/2013	-533.73
Bill Pmt -Check	06/14/2013	2388	Allied Waste Services, Inc.	0922-002136824	-85.68
Bill Pmt -Check	06/14/2013	2389	Anthem Blue Cross	7-8-9/2013WICKHAM	-945.21
Bill Pmt -Check	06/14/2013	2390	Bank of New York	6/2013 Bond Pymt	-20,000.00
Bill Pmt -Check	06/14/2013	2391	Bankcard Center 3452	6/2013 Fuel	-775.68
Bill Pmt -Check	06/14/2013	2392	Bankcard Center 3551	6/2013 Fuel	-535.90
Bill Pmt -Check	06/14/2013	2393	Bankcard Center 3957	6/2013 Fuel & Batteries for SCADA Syst	-388.84
Bill Pmt -Check	06/14/2013	2394	Bankcard Center4054	6/2013 Mtgs/Conf Office Supp,Postage, Gas	-1,964.95
Bill Pmt -Check	06/14/2013	2395	BSK Labs Fresno, Inc.	Water testing	-120.00
Bill Pmt -Check	06/14/2013	2396	California State Disbursement Unit	017005332801 6-15-13	-397.50
Bill Pmt -Check	06/14/2013	2397	Comcast	5/30 - 6/29/13	-394.77
Bill Pmt -Check	06/14/2013	2398	Corelogic Information Solutions Inc	80872927	-134.75
Bill Pmt -Check	06/14/2013	2399	Duane Anderson	5 Migs Jan - May	-500.00
Bill Pmt -Check	06/14/2013	2400	Gerald Wickham	7-8-9/2013 Retiree Medical Ins	-339.00
Bill Pmt -Check	06/14/2013	2401	Irs	Penalty941 9-30-12	-527.90
Bill Pmt -Check	06/14/2013	2402	Janet Pickel	Sentinel Technology - Name Change	-900.00
Bill Pmt -Check	06/14/2013	2403	Labor Ready Southwest, Inc.	W/E 5/31 & 5/24	-1,365.65
Bill Pmt -Check	06/14/2013	2404	Law Offices of Ravi Mehta	May 2013	-7,377.10
Bill Pmt -Check	06/14/2013	2405	Mason A Adams	7-8-9/2013 Health Ins	-900.00
Bill Pmt -Check	06/14/2013	2406	NAPA Auto Parts	VOID: 824316 Battery & Alternator	0.00
Bill Pmt -Check	06/14/2013	2407	PG & E762-9	05/08-06/06/13	-8.11
Bill Pmt -Check	06/14/2013	2408	PG&E724-1	05/08-06/06/13	-9.20
Bill Pmt -Check	06/14/2013	2409	Prudential Overall Supply, Inc	Uniforms	-150.99
Bill Pmt -Check	06/14/2013	2410	Quill Corporation	Toner & Envelopes	-313.37
Bill Pmt -Check	06/14/2013	2411	Richardson & Company	SingleAudit 2012	-3,200.00
Bill Pmt -Check	06/14/2013	2412	Rio Linda Hardware and Building Supply	Small Tools	-83.99
Bill Pmt -Check	06/14/2013	2413	SAWWA	6/20 Training	-25.00
Bill Pmt -Check	06/14/2013	2414	Sierra Chemical Company	Chemicals May & June Deliveries	-1,786.80

11

Rio Linda/Elverta Community Water District
Expenditure Listing
Operating Account
June 2013

Type	Date	Num	Name	Memo	Amount
Bill Pmt -Check	06/14/2013	2415	Special District Risk Management Auth.	43775 7/1-9/30/13 1ST QTR Workers Comp Ins	-5,331.00
Bill Pmt -Check	06/14/2013	2416	Sprint	545668646-076	-253.77
Bill Pmt -Check	06/14/2013	2417	Standard Insurance Company	May PR Fig.	-251.15
Bill Pmt -Check	06/14/2013	2418	Teamsters Local #150	6/2013	-403.00
Bill Pmt -Check	06/14/2013	2419	Thomas Ray	7-8-9/2013InsRetirees	-900.00
Bill Pmt -Check	06/14/2013	2420	Thrasher Bros Automotive	Replace Alternators	-434.07
Bill Pmt -Check	06/14/2013	2421	USA Mobility Wireless, Inc.	W3556693F	-15.10
Bill Pmt -Check	06/14/2013	2422	Vanguard Cleaning Systems	17869 Office Cleaning	-195.00
Bill Pmt -Check	06/14/2013	2423	Employee	Reim Out-of-Pocket Certification	-106.41
Bill Pmt -Check	06/13/2013	2424	NAPA Auto Parts	824316 Battery & Alternator	-242.65
Bill Pmt -Check	06/13/2013	2425	Customer	Final Bill- Refund owing	-190.52
Bill Pmt -Check	06/13/2013	2426	Customer		-0.85
Paycheck	06/28/2013	2427	Employee	Pay Date 6-30-13	-1,383.93
Paycheck	06/28/2013	2428	Employee	Pay Date 6-30-13	-164.43
Bill Pmt -Check	06/28/2013	2429	SMUD	All SMUD bills except one	-16,803.73
Bill Pmt -Check	06/28/2013	2430	AIG Valic	June 2013 #1033278	-100.00
Bill Pmt -Check	06/28/2013	2431	Aquatek Services	130	-65.52
Bill Pmt -Check	06/28/2013	2432	Brent Dills	6/10, 6/17 2 mtgs	-200.00
Bill Pmt -Check	06/28/2013	2433	BSK Labs Fresno, inc.	Testing	-1,391.00
Bill Pmt -Check	06/28/2013	2434	California State Disbursement Unit	017005332801 6-30-13	-397.50
Bill Pmt -Check	06/28/2013	2435	Delta Health Systems	July 2013	-10,072.00
Bill Pmt -Check	06/28/2013	2436	DirectHit Pest Control	43837	-75.00
Bill Pmt -Check	06/28/2013	2437	Frank Caron	2 Mtgs 6/5-17	-200.00
Bill Pmt -Check	06/28/2013	2438	Customer	Over-Payment on Acct	-191.11
Bill Pmt -Check	06/28/2013	2439	Labor Ready Southwest, Inc.	W/E 6/7 & 6/14	-1,470.70
Bill Pmt -Check	06/28/2013	2440	Matthew Longo	5/20, 6/4, 6/17	-300.00
Bill Pmt -Check	06/28/2013	2441	Quill Corporation	3344416 Copier Drum & Toner	-319.68
Bill Pmt -Check	06/28/2013	2442	VOID		0.00
Bill Pmt -Check	06/28/2013	2443	Rio Linda Hardware and Building Supply	Small Tool Field Supplies	-205.08
Bill Pmt -Check	06/28/2013	2444	RW Trucking	06-01 Road Base Rock	-1,081.66
Bill Pmt -Check	06/28/2013	2445	Sacramento County Utilities	May Chrgs/ June Bill	-91.44
Bill Pmt -Check	06/28/2013	2446	Sierra Chemical Company	76337	-1,086.90
Bill Pmt -Check	06/28/2013	2447	SimplexGrinnel	69054953 Annual Fire Extinguisher Inspect & Maint.	-451.33
Bill Pmt -Check	06/28/2013	2448	UPS	0000V69E57253 Bank of NY	-8.61

Rio Linda/Elverta Community Water District
Expenditure Listing
Operating Account
June 2013

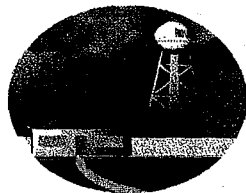
Type	Date	Num	Name	Memo	Amount
Bill Pmt -Check	06/28/2013	2449	USPS	POBox#400 Annual Rent	-224.00
Bill Pmt -Check	06/28/2013	2450	Prudential Overall Supply, Inc	Uniforms	-85.66
Bill Pmt -Check	06/28/2013	2451	Ramos Oil Company	727231 55 Gal Oil	-977.91
Bill Pmt -Check	06/28/2013	2452	Rio Linda / Elverta Community Water Distr	Trsr Funds to ESP	-15,000.00
Bill Pmt -Check	06/28/2013	2453	Rio Linda / Elverta Community Water Distr	Reim Cap Improv for ESP expense	-85.00
Bill Pmt -Check	06/28/2013	2454	Rio Linda / Elverta Community Water Distr	Annual SURCHRG Trsr	-29,212.00
Bill Pmt -Check	06/28/2013	2455	SMUD	730 L St 104832	-1,937.69
Bill Pmt -Check	06/30/2013	2456	Rio Linda / Elverta Community Water Distr	6/13 Accrued SurChrg-July 2013 Billing	-42,500.00
Bill Pmt -Check	06/15/2013	eft	CalPERS	PayDate 6-15-13	-3,692.66
Bill Pmt -Check	06/28/2013	eft	CalPERS	PayDate 6-30-13	-3,367.23
Liability Check	06/12/2013	E-pay	Employment Development	002-4351-9 QB Tracking # 96873102	-754.38
Liability Check	06/12/2013	E-pay	Irs	68-0107697 QB Tracking # 96873312	-4,570.84
Liability Check	06/28/2013	E-pay	Employment Development	002-4351-9 QB Tracking # 105486827	-680.30
Liability Check	06/28/2013	E-pay	Irs	68-0107697 QB Tracking # 105486947	-4,221.18
Liability Check	06/13/2013		Employee Payroll	Created by Payroll Service on 06/11/2013	-9,793.10
Liability Check	06/13/2013		Employee Payroll	Created by Payroll Service on 06/11/2013	-298.35
Liability Check	06/27/2013		Employee Payroll	Created by Payroll Service on 06/25/2013	-9,182.03
Liability Check	06/27/2013		Employee Payroll	Created by Payroll Service on 06/25/2013	-225.14
Total 1009 - CA Bank & Trust Operating					-269,623.87
				TOTAL	-269,623.87

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RIO LINDA



ELVERTA

Item for Discussion and Action
Agenda Item: 3.c

Date: July 15, 2013

Subject: Financial Reports

Staff Contact: Mary Henrici, General Manager

Recommended Committee Action:

The Finance / Administrative Committee recommends approval of the Financial Reports for the District for the month of May 2013.

Current Background and Justification:

The financial reports are for the District's income and expenditures year to date.

Conclusion:

These financials need to be presented to the Board in order to inform them of the District's current financial condition.

Board Action / Motion

Motioned by: Director _____ Seconded by Director _____

Dills: _____ Green: _____ Caron: _____ Anderson: _____ Longo: _____

(A) Yea (N) Nay (Ab) Abstain (Abs) Absent

Rio Linda/Elverta Community Water District
BANKING
As Of June 30, 2013
UN-RECONCILED

18

CHECKING & SAVINGS BANK ACCOUNT BALANCES

<u>GL Acct No#</u>	<u>Bank Account Name</u>	<u>Bank Balance</u>
1002	CB&T Surcharge	519,782.84
1015	CB&T Surcharge Restricted Reserve	481,999.13
1009	CB&T Operating	139,023.65
1032	CB&T Security Dep Acct	50,040.93
1033	CB&T Capital Improve	72,034.07
1041	Bank of New York-Debt Service	89,049.99
1044	Bank of NY-Reserve Restricted Fund	243,491.76
1051	Restricted LAIF: for GASB 45	15,571.01
1005	Sherrill Reserve	25,000.00
1007	Construction Checking Account SRF	31,735.32
1008	Elverta Specific Plan	19,774.00

TOTAL \$ 1,687,502.70

OPERATING BANK ACCOUNT - CHECKS HOLDING:

<u>Date Written</u>	<u>Payee</u>	<u>Ck#</u>	<u>Description</u>	<u>Amount</u>
			NONE	

TOTAL 0.00

Rio Linda /Elverta Community Water District
Profit and Loss Budget Performance

June 2013

19

						Annual Budget	Jun 13	Jul '12 - Jun 13	% of Budget	Balance
Ordinary Income/Expense										
Income										
4 • OPERATING REVENUES										
Total 40 • Water Service Rates						1,932,208.00	151,856.19	1,996,619.71	103.33%	-64,413.71
Total 41 • Account Service Charges						92,000.00	5,277.34	113,630.28	123.51%	-21,630.28
Total 42 • Field Water Service Fees						16,250.00	150.00	15,352.36	94.48%	897.64
Total 4012 • Miscellaneous Revenue						5,000.00	0.00	1,591.17	31.82%	3,408.83
Total 4 • OPERATING REVENUES						2,045,458.00	157,283.53	2,127,193.52	104.0%	-81,737.52
6000 • NON-OPERATING REVENUES										
6001 • Tower Leases						75,000.00	6,584.22	77,608.25	103.48%	-2,608.25
6002 • Earnings on Monies						1,000.00	20.19	797.06	79.71%	202.94
6003 • Property Taxes & Related						60,000.00	6,760.00	71,197.55	118.66%	-11,197.55
6004 • Miscellaneous Non-Operating						2,500.00	0.00	2,624.48	104.98%	-124.48
6007 • Lawsuit Settlements-One Time							0.00	0.00	0.0%	0.00
Total 6000 • NON-OPERATING REVENUES						138,500.00	13,364.41	152,227.34	109.91%	-13,727.34
Total Income						2,183,958.00	170,647.94	2,279,420.86	104.37%	-95,464.86
Expense										
5800 • Other Expense - Prior Year							-23,660.90	-1,000.56	0.0%	1,000.56
5999 • Other Expenses						5,000.00	3,000.00	3,000.00	60.0%	2,000.00
Total 70 • Debt Service						240,283.00	39,421.26	273,751.49	113.94%	-33,468.49
7002 • Non-Operating Expense							0.00	215.00	0.0%	0.00
Total 7 • NON-OPERATING EXPENDITURES						240,283.00	39,421.26	337,966.49	140.67%	-97,703.49
5 • OPERATING EXPENDITURES										
Total 51 • Officers Fees						307,000.00	18,743.22	524,866.54	170.97%	-217,866.54
52 • Wages & Benefits										
Total 520 • Benefits & Expenses						248,418.50	24,455.08	253,617.41	102.09%	-5,198.91
Total 522 • Salary						437,311.00	38,140.08	441,278.24	100.91%	-3,967.24
52 • Wages & Benefits - Other							21,845.00	0.00	0.0%	0.00
Total 52 • Wages & Benefits						685,729.50	84,440.16	694,895.65	101.34%	-9,166.15
Total 524 • Office Operations						88,212.00	4,344.34	89,194.43	101.11%	-982.43
Total 5300 • Field Operations						367,450.00	42,681.65	319,381.83	86.92%	48,068.17
Total 537 • Conservation						8,176.00	0.00	7,551.12	92.36%	624.88
Total 538 • Contractual Services/Agreements						50,000.00	3,280.00	17,720.00	35.44%	32,280.00
Total 539 • Insurance						47,500.00	356.58	34,933.77	73.54%	12,566.23
Total 540 • Memberships						38,008.00	0.00	34,220.83	90.04%	3,787.17
5207 • Governmental Fees/Lien Fees						10,000.00	378.83	8,691.82	86.92%	1,308.18
5217 • Elections						8,245.00	0.00	8,245.00	100.0%	0.00
Total 5 • OPERATING EXPENDITURES						1,610,320.50	154,224.78	1,739,700.99	108.03%	-129,380.49
8 • CAPITAL EXPENDITURES										
Total Expense						1,855,583.50	172,985.14	2,079,666.92	112.08%	-224,083.42
Net Ordinary Income						328,372.50	-2,337.20	199,753.94	60.83%	128,618.56
Net Income						328,372.50	-2,337.20	199,753.94	60.83%	128,618.56

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07/03/13
Accrual Basis

Rio Linda/Elverta Community Water District
Balance Sheet
As of June 30, 2013

20

Jun 30, 13

ASSETS

Current Assets

Checking/Savings

1008 - Elverta Specific Plan	19,774.00
1009 - CA Bank & Trust Operating	139,023.65
1005 - Sherrill Reserve	25,000.00
1007 - Construction-SRF	31,735.32
1002 - CA Bank & Trust Surcharge	519,782.84
1015 - CA Bank & Trust Surcharge Reser	481,999.13
1032 - CA Bank & Trust Security Acct	50,040.93
1033 - CA Bank & Trust Capital Improve	72,034.07
1041 - Bank of New York-Debt Service	89,049.99
1044 - Bank of NY-Reserve Fund	243,491.76
1051 - Restricted for GASB 45	15,571.01

Total Checking/Savings 1,687,502.70

Accounts Receivable

1202 - State Revolving Fund Receivable	350,788.43
1203 - Elverta Specific Plan Receivabl	20,226.00

Total Accounts Receivable 371,014.43

Other Current Assets

1206 - Deposits in Transit	3,353.11
1100 - Accrued Tax Revenue	6,760.00
1201 - Water Utility Receivables	78,844.89
1210 - Restricted Accrued Revenue Surc	41,696.83
1220 - Accrued Revenues	150,000.00
1500 - Inventory	62,365.98
1600 - Prepaid Expense	3,042.17
1602 - Prepaid Insurance	18,765.48

Total Other Current Assets 364,828.46

Total Current Assets 2,423,345.59

Fixed Assets

1722 - Urban Water Management Plan	10,680.00
1700 - Construction in Process Well 15	2,638,190.24
1701 - Compliance Order Improvements	102,423.90
1702 - SCADA System Under Development	8,001.30
1703 - General Plant	792,012.65
1704 - Pumping Plant	105,000.00
1705 - Transmission & Distribution	11,168,400.29
1706 - Land	496,673.45
1707 - CIP Well #14	147,847.60
1716 - CIP Well 16	111,355.93
1717 - CIP Well 17	98,566.63
1720 - Diesel Generator/Air Compressor	11,784.00
1723 - Misc Bowl Replacements	17,862.55
1750 - Accumulated Depreciation	
1757 - Urban Water Management Plan Dep	-534.00
1753 - General Plant	-743,634.33
1754 - Pumping Plant	-105,000.00
1755 - Transmission & Distribution	-4,819,765.74
1756 - Diesel Generator/Air Com Deprec	-1,964.00

Total 1750 - Accumulated Depreciation -5,670,898.07

Total Fixed Assets 10,037,900.47

Other Assets

1800 - 1994 Debt Deferred Refunding	
1801 - Debt Deferred Refunding - Other	854,897.58
1815 - 1994 Debt Deferred-Accum Amort	-376,763.88

Total 1800 - 1994 Debt Deferred Refunding 478,133.70

1820 - 2003 Bond Debt Issuance Cost	
1821 - 2003 Bond Debt Issuance-Other	242,518.01

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Accrual Basis

Rio Linda/Elverta Community Water District
Balance Sheet
As of June 30, 2013

21

	Jun 30, 13
1825 · 2003 Bond Cost-Accum Amort	-77,045.29
Total 1820 · 2003 Bond Debt Issuance Cost	165,472.72
1900 · Annexation-Boundary Maps	
1901 · Annexation Boundary Maps-Other	42,790.25
1915 · Accum. Amortization Annexation	-42,790.25
Total 1900 · Annexation-Boundary Maps	0.00
1920 · Master Plan	
1921 · Master Plan - Other	261,526.17
1925 · Accumulated Amortization-Master	-104,553.81
Total 1920 · Master Plan	156,972.36
1930 · Regional Master Plan	
1931 · Regional Master-Plan-Other	30,101.60
1935 · Accum. Amortization Regional MP	-12,039.80
Total 1930 · Regional Master Plan	18,061.80
1940 · Standard Improvement	
1941 · Standard Improvement - Other	28,767.00
1945 · Accum. Amortization-Standards	-28,767.00
Total 1940 · Standard Improvement	0.00
Total Other Assets	818,640.58
TOTAL ASSETS	13,279,886.64
LIABILITIES & EQUITY	
Liabilities	
Current Liabilities	
Accounts Payable	
2000 · Accounts Payable	5,086.26
2002 · Accounts Payable SRF	46,221.26
2205 · Capital Improvements Payables	2,800.00
Total Accounts Payable	54,107.52
Other Current Liabilities	
2014 · Elverta Specific Plan Fund	40,000.00
2001 · Prepaid Service Installations	600.00
2015 · Sherrill Settlement Payable	89,000.00
2100 · Payroll Liabilities	
2107 · Insurance Payable	
2117 · Group Health PR Lia.	-1,134.00
2127 · AFLAC PR Lia	533.85
Total 2107 · Insurance Payable	-600.15
Total 2100 · Payroll Liabilities	-600.15
2200 · Security Deposits Payable	33,006.37
2201 · Year End Accounts Payable	32,250.00
2012 · Year End Accounts Payable SRF	55,264.08
2500 · Bond-2003 Issue-ST	100,000.00
2510 · Accumulated Sick/Vacation	
2511 · Compensated Absences Short Term	24,097.71
Total 2510 · Accumulated Sick/Vacation	24,097.71
Total Other Current Liabilities	373,618.01
Total Current Liabilities	427,725.53
Long Term Liabilities	
2003 · State Revolving Fund Payable	2,112,267.00
2600 · Bond-2003 Issue	3,215,000.00
2601 · Bond-2003 Issue-LT	-100,000.00
Total Long Term Liabilities	5,227,267.00

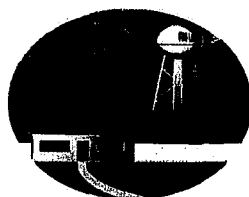
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07/03/13
Accrual Basis

Rio Linda/Elverta Community Water District
Balance Sheet
As of June 30, 2013

22

	Jun 30, 13
Total Liabilities	5,654,992.53
Equity	
3100 - Capital Assets, Net	5,348,202.00
3200 - Restricted Fund Balances	
3201 - 2003 Bond Reserve with Trustee	329,876.58
Total 3200 - Restricted Fund Balances	329,876.58
3210 - Restricted for Surcharge	670,002.00
3300 - Retained Earnings	475,965.12
Net Income	800,848.41
Total Equity	7,624,894.11
TOTAL LIABILITIES & EQUITY	13,279,886.64

RIO LINDA



ELVERTA

Item for Discussion and Action Agenda Item: 4.1

Date: July 15, 2013

Subject: Ron Hyce Property Easement Agreement

Staff Contact: Mary Henrici, General Manager

Recommended Committee Action:

The Planning Committee recommends allowing Mr. Hyce to transfer his 1" connection to whomever he chooses with the requirement that it cannot be used until the Building Moratorium has been lifted.

Current Background and Justification:

On August 13, 2012 Mr. Hyce had requested monetary compensation for the 1" water service that he was given to be constructed anywhere in the District in exchange for an easement across his property. The proposed value of the water service in 1991 was \$1,460.00. The Board at that time denied his request. Mr. Hyce again approached the Board in April of this year and requested that our agency find out if the California Department of Public Health would allow connection of his service at this time as it was already approved before the moratorium was imposed. Mr. Hyce would like to sell this connection to another land owner as he no longer owns land in the District. I have contacted the State several times since then and have received no response. Due to this lack of response I will have to believe they will not make an exception for this connection.

Conclusion:

Mr. Hyce was given a 1" water service as payment for an easement that he provided the District. His agreement does not mention that it is not transferable. The agreement does not include connection fees. So a service would be installed by staff but the connection fees would still need to be paid.

Board Action / Motion

Motioned by: Director _____ Seconded by Director _____

Dills: _____ Green: _____ Caron: _____ Anderson: _____ Longo: _____.

(A) Yea (N) Nay (Ab) Abstain (Abs) Absent

RLECWD Agenda Item Checklist

Initial Potential Meeting Date

Date
7/15/13

Item Prioritization

7/3

Circle High/Medium/Low priority of item and identify if in line with Mission/Goal/Strategic Planning Issues or state emergency

RonHyce Property Easement

Staff Work Completed

7/3

(Includes reviewing, researching item with other resources (ACWA, JPIA, RWA, SGA, other water or special districts, District Engineer, Legal Counsel then laying out business cases, pros and cons, options and recommendations based on best information available, etc.

Committee Review of Item and Staff Work

7/3

(Review by appropriate Finance/Administration, Projects/Planning or Ad Hoc committees, to prepare board recommendations

Formal Legal Counsel Review

8/12/2012

(Legal Counsel should have enough time to review all potential legal matters for correctness and legality)

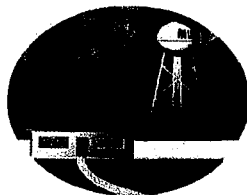
Board President and GM Review

Signatures of President and GM President _____ General Manager _____

Actual Meeting Date Set for Agenda Item

7/15/13
24

RIO LINDA



ELVERTA

Item for Discussion and Action

Agenda Item: 4.2

Date: July 15, 2013

Subject: Inactive Service Fee

Staff Contact: Mary Henrici, General Manager

Recommended Committee Action:

The committee recommends that the service fee be reduced to \$27.68 / bi-monthly which is the amount of debt service required from each customer to pay our loans. They also recommend that all inactive customers be given the opportunity to have their service disconnected with the understanding that if their service is capped they will be required to pay capacity fees again in order to get the service turned on. Customers who have paid the higher rate will receive a credit to their account for the difference which will then be applied to future billings. Accounts that do not pay the fee will be subject to the District's collection proceedings including disconnection and lien of the property.

Current Background and Justification:

The original standby fee was enacted in September 2012 during a meeting where the staff also requested the Board approve implementing the rest of the rate increase approved in 2011. The Board denied increasing the rates to active customers but approved charging a fee for all inactive customers based on meter size to pay debt service and fixed costs. The inactive service fee has been discussed at just about every Board meeting since the new Board has been seated. It has been politically unpopular with the public since the fee has been established. Since the fee's inception the Board has reduced the fee to a flat fee from the previous fee based on meter size. The Board has made exclusion for properties with two meters in the Mc Clellan cleanup area. They have also allowed properties that are vacant and unimproved to be excluded from the fee provided they pay capacity fees again once the service is activated.

The District billed out \$6,269 in the month of May and has received \$3,871 as of June 30, 2013 for these charges.

Estimated annual revenue based on May bills is \$37,614.00.

Annual total income is \$2,440,000/\$37,614 inactive service fee charges = 1.5% of total income.

\$37,614 is equivalent to 123 hrs of legal work.

District has already spent at least 41.25 hrs or \$12,581.25 for legal work on this issue as of May 30, 2013.

If the fee was abolished the estimated amount of debt service that would need to be paid through current customers for inactive accounts would be \$20,760 based on 125 inactive accounts @ \$27.68 each.

Conclusion:

The Finance/Administration Committee has reviewed the options of repealing the fee, reducing the fee and giving the public an option to opt out of the fee.

With all things considered the Finance committee felt it would be best to reduce the fee to the amount required to pay debt service which is \$27.68 bimonthly. The committee also recommended that all inactive customers be allowed to have the option to opt out of paying the fee with the understanding that they would be required to pay capacity fees again when their service is reconnected.

Board Action / Motion

Motioned by: Director _____ Seconded by Director _____

Dills: _____ Green: _____ Caron: _____ Anderson: _____ Longo: _____.

(A) Yea (N) Nay (Ab) Abstain (Abs) Absent

RLECWD Agenda Item Checklist

Initial Potential Meeting Date

Date
7/15/13

Item Prioritization

Circle High/Medium/Low priority of item and identify if in line with Mission/Goal/Strategic Planning Issues or state emergency

Inactive Service fee

Staff Work Completed

7/3/13

(Includes reviewing, researching item with other resources (ACWA, JPIA, RWA, SGA, other water or special districts, District Engineer, Legal Counsel then laying out business cases, pros and cons, options and recommendations based on best information available, etc.

Committee Review of Item and Staff Work

7/8/13

(Review by appropriate Finance/Administration, Projects/Planning or Ad Hoc committees, to prepare board recommendations

Formal Legal Counsel Review

waiting for board action

(Legal Counsel should have enough time to review all potential legal matters for correctness and legality)

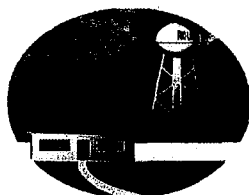
Board President and GM Review

Signatures of President and GM President _____ General Manager _____

Actual Meeting Date Set for Agenda Item

7/15/13
27

RIO LINDA



ELVERTA

**Item for Discussion and Action
Agenda Item: 4.3**

Date: July 15, 2013

Subject: Final Budget

Staff Contact: Mary Henrici, General Manager

Recommended Committee Action:

The Finance / Administrative Committee recommend approval of the Final Budget for Fiscal Year 2013/14. The budgets are attached for the Board's review.

Current Background and Justification:

The preliminary budget was approved after the public hearing held at the May meeting of the Board of Directors. Staff has reviewed and revised the numbers in the final budgets with the year end amounts currently available.

Conclusion:

The Finance/Administrative committee has reviewed the final Operating and Capital budgets and made their recommendations to staff. With these revisions the committee recommends the Board approve the final budget as presented.

Board Action / Motion

Motioned by: Director _____ Seconded by Director _____

Dills:____ Green:____ Caron:____ Anderson:____ Longo:____.

(A) Yea (N) Nay (Ab) Abstain (Abs) Absent

RLECWD Agenda Item Checklist

Initial Potential Meeting Date

Date

7/15/13

Item Prioritization

Circle High/Medium/Low priority of item and identify if in line with Mission/Goal/Strategic Planning Issues or state emergency

2013-14 Final Budget

7/8

Staff Work Completed

(Includes reviewing, researching item with other resources (ACWA, JPIA, RWA, SGA, other water or special districts, District Engineer, Legal Counsel then laying out business cases, pros and cons, options and recommendations based on best information available, etc.

7/3

Committee Review of Item and Staff Work

(Review by appropriate Finance/Administration, Projects/Planning or Ad Hoc committees, to prepare board recommendations

7/8

Formal Legal Counsel Review

(Legal Counsel should have enough time to review all potential legal matters for correctness and legality)

N/A

Board President and GM Review

Signatures of President and GM President _____ General Manager _____

Actual Meeting Date Set for Agenda Item

7/15/13
26

Rio Linda/Elverta CWD
2013/14 Final Budget

INCOME						2012-2013 Actual Income TO 6/30/13	2012-2013 Final Budget	2013-2014 Preliminary Budget	2013-2014 Final Budget	2013-14 Budget Changes
OPERATING REVENUES										
		Water Service Rates								
	40101	Basic Service Charge				\$1,305,637.00	\$1,402,550.00	\$1,589,562.00	\$1,589,562.00	\$0.00
	40102	Usage Charge				\$505,454.00	\$496,656.00	\$550,000.00	\$550,000.00	\$0.00
	40105	Backflow Charge				\$25,411.00	\$25,000.00	\$25,000.00	\$25,000.00	\$0.00
	40106	Fire Protection/Hydrant Meter				\$9,746.00	\$8,000.00	\$10,600.00	\$10,600.00	\$0.00
		Bimonthly water sales accrual				\$150,000.00				
		Total Water Service Rates				\$1,996,248.00	\$1,932,206.00	\$2,175,162.00	\$2,175,162.00	\$0.00
		Account Service Charges								
	40201	Service App/New Location Fee				\$14,950.00	\$10,000.00	\$0.00	\$10,000.00	\$10,000.00
	40202	Late Payment Fee				\$20,235.00	\$20,000.00	\$22,000.00	\$20,000.00	-\$2,000.00
	40203	Disconnect Tag Fee/NSF Fees				\$53,332.00	\$35,000.00	\$45,000.00	\$45,000.00	\$0.00
	40204	Termination/Reconnection				\$17,752.00	\$20,000.00	\$17,000.00	\$17,000.00	\$0.00
	40205	Lien Fees				\$1,725.00	\$0.00	\$2,000.00	\$2,000.00	\$0.00
	40209	Other Account Service Charges				\$246.00	\$7,000.00	\$2,000.00	\$2,000.00	\$0.00
		Total Account Service Charges				\$108,240.00	\$92,000.00	\$88,000.00	\$96,000.00	\$8,000.00
		Field Water Service Fees								
	40301	Plan Check/Inspections/FireFlow				\$201.00	\$750.00	\$250.00	\$250.00	\$0.00
	40302	Field Serv/Sys Damage/T & M/RMR				\$731.00	\$500.00	\$500.00	\$500.00	\$0.00
	40303	Service Install/Modification				\$14,370.00	\$15,000.00	\$2,000.00	\$2,000.00	\$0.00
		Total Field Water Service Fees				\$15,302.00	\$16,250.00	\$2,750.00	\$2,750.00	\$0.00

Rio Linda/Elverta CWD

2013/14Final Budget

INCOME				2012-2013	2012-2013	2013-2014	2013-2014	2013-14
				Actual	Final	Preliminary	Final	Budget
				Income	Budget	Budget	Budget	Changes
				TO 6/30/13				
	40401	Miscellaneous Operating Revenue		\$1,591.00	\$5,000.00	\$3,000.00	\$3,000.00	\$0.00
	TOTAL OPERATING REVENUES			\$2,121,381.00	\$2,045,456.00	\$2,268,912.00	\$2,276,912.00	\$8,000.00
	NON-OPERATING REVENUES							
	41100	Tower Leases		\$77,608.00	\$70,000.00	\$80,000.00	\$78,000.00	-\$2,000.00
	41110	Earnings on Monies		\$776.00	\$1,000.00	\$750.00	\$750.00	\$0.00
	41120	Property Taxes & Related		\$64,438.00	\$60,000.00	\$60,000.00	\$60,000.00	\$0.00
	41140	Miscellaneous Non-Operating Revenue		\$2,624.00	\$2,500.00	\$2,500.00	\$2,500.00	\$0.00
	41150	lawsuit settlements		\$0.00	\$0.00	\$25,000.00	\$25,000.00	\$0.00
	TOTAL NON-OPERATING REVENUES			\$145,446.00	\$133,500.00	\$168,250.00	\$166,250.00	-\$2,000.00
	TOTAL INCOME			\$2,266,827.00	\$2,178,956.00	\$2,437,162.00	\$2,443,162.00	\$6,000.00
OPERATING EXPENDITURES				2012-2013	2012-2013	2013-2014	2013-2014	2013-14
				Actual	Final	Preliminary	Final	Budget
				Expenditures	Budget	Budget	Budget	Changes
				TO 6/30/13				
	Officers Fees							
	60011	General Counsel fees-Legal		\$461,334.00	\$265,000.00	\$150,000.00	\$150,000.00	\$0.00
	60012	Auditors Fees		\$24,017.00	\$18,000.00	\$21,300.00	\$21,300.00	\$0.00
		Auditor Forensic Fees		\$13,608.00	\$11,000.00	\$0.00	\$0.00	\$0.00
	60014	Board Trainings-Travel		\$115.00	\$3,000.00	\$1,000.00	\$1,000.00	\$0.00
	60015	Board Meeting Fees		\$11,492.00	\$10,000.00	\$13,000.00	\$13,000.00	\$0.00
		Total Officers Fees		\$510,566.00	\$307,000.00	\$185,300.00	\$185,300.00	\$0.00

**Rio Linda/Elverta CWD
2013/14Final Budget**

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Rio Linda/Elverta CWD
2013/14Final Budget

EXPENSE						2012-2013 Actual Expenditures TO 6/30/13	2012-2013 Final Budget	2013-2014 Preliminary Budget	2013-2014 Final Budget	2013-14 Budget Changes
	Office Operations									
		Building								
	60211	Utilities				\$7,542.00	\$6,500.00	\$9,000.00	\$9,000.00	\$0.00
	60212	Janitorial				\$2,340.00	\$2,400.00	\$2,600.00	\$2,600.00	\$0.00
	60213	Maintenance				\$3,633.00	\$3,000.00	\$5,000.00	\$5,000.00	\$0.00
	60214	Security				\$312.00	\$500.00	\$312.00	\$312.00	\$0.00
		Total Building				\$13,827.00	\$12,400.00	\$16,912.00	\$16,912.00	\$0.00
		Office Equipment Maintenance								
	60221	Inserter Maintenance Agreement				\$0.00	\$0.00	\$1,800.00	\$1,885.00	\$85.00
		Inserter /Postage Machine Lease				\$9,942.00	\$12,400.00	\$0.00	\$0.00	\$0.00
	60222	Billing Software Maintenance				\$4,537.00	\$3,537.00	\$5,037.00	\$5,037.00	\$0.00
	60223	Computer System Maintenance				\$3,900.00	\$5,800.00	\$4,500.00	\$4,500.00	\$0.00
	60224	Photocopy Maintenance				\$2,441.00	\$2,500.00	\$2,400.00	\$2,420.00	\$20.00
		Total Office Equipment Maintenance				\$20,820.00	\$24,237.00	\$13,737.00	\$13,842.00	\$105.00
		Publishing								
	60231	Legal Advertising				\$471.00	\$1,000.00	\$750.00	\$750.00	\$0.00
	60232	Newsletters				\$262.00	\$500.00	\$200.00	\$300.00	\$100.00
		Total Publishing				\$733.00	\$1,500.00	\$950.00	\$1,050.00	\$100.00
		Subscriptions / Licensing								
		Computer Supplies				\$580.00	\$1,000.00	\$0.00	\$0.00	\$0.00
	60242	Corelogic Online Service (metroscan)				\$1,482.00	\$1,625.00	\$1,620.00	\$1,620.00	\$0.00
	60243	Subscriptions/Licensing-Other				\$488.00	\$0.00	\$200.00	\$500.00	\$300.00
		Total Subscriptions / Licensing				\$2,550.00	\$2,625.00	\$1,820.00	\$2,120.00	\$300.00

Rio Linda/Elverta CWD

2013/14Final Budget

EXPENSE						2012-2013	2012-2013	2013-2014	2013-2014	2013-14
						Actual	Final	Preliminary	Final	Budget
						Expenditures	Budget	Budget	Budget	Changes
						TO 6/30/13				
	60249	internet				\$1,379.00	\$1,750.00	\$1,440.00	\$1,440.00	\$0.00
	60250	Regular Phone Service				\$3,335.00	\$3,600.00	\$3,600.00	\$3,600.00	\$0.00
	60251	Bank Charges				\$4,323.00	\$5,000.00	\$5,000.00	\$5,000.00	\$0.00
	60252	Payroll Services				\$438.00	\$0.00	\$500.00	\$500.00	\$0.00
	60253	ATM/Credit Card Service/Direct				\$8,307.00	\$9,000.00	\$8,000.00	\$8,500.00	\$500.00
		Printing								
	60271	Bill Stock Incl Env and Late Bills				\$4,331.00	\$3,500.00	\$5,500.00	\$4,500.00	-\$1,000.00
	60272	Printing-Other				\$497.00	\$600.00	\$600.00	\$600.00	\$0.00
		Total Printing				\$4,828.00	\$4,100.00	\$6,100.00	\$5,100.00	-\$1,000.00
	60280	Postage				\$18,559.00	\$15,000.00	\$18,000.00	\$19,000.00	\$1,000.00
	60281	Office Supplies				\$8,636.00	\$9,000.00	\$10,000.00	\$10,000.00	\$0.00
		Total Office Operations Expense				\$87,735.00	\$88,212.00	\$86,059.00	\$87,064.00	\$1,005.00
		FIELD OPERATIONS								
		Field Communication								
	60310	Celluar Phones				\$2,845.00	\$3,500.00	\$3,600.00	\$4,500.00	\$900.00
	60310	Pagers				\$181.00	\$200.00	\$200.00	\$200.00	\$0.00
		Total Field Communication				\$3,026.00	\$3,700.00	\$3,800.00	\$4,700.00	\$900.00
		Laboratory Services								
	60321	Coliform Test and non-customer				\$3,275.00	\$3,000.00	\$3,500.00	\$3,500.00	\$0.00
	60322	Physical and Chemical Tests				\$14,770.00	\$15,000.00	\$4,500.00	\$4,500.00	\$0.00
		Total Laboratory Services				\$18,045.00	\$18,000.00	\$8,000.00	\$8,000.00	\$0.00

34

Rio Linda/Elverta CWD
2013/14 Final Budget

EXPENSE						2012-2013	2012-2013	2013-2014	2013-2014	2013-14
						Actual	Final	Preliminary	Final	Budget
						Expenditures	Budget	Budget	Budget	Changes
						TO 6/30/13				
		Other								
	60331	Construction Equipment Maintenance				\$1,806.00	\$2,300.00	\$3,000.00	\$3,000.00	\$0.00
	60332	Small Tools & Shop Supplies				\$5,300.00	\$4,200.00	\$3,500.00	\$4,500.00	\$1,000.00
	60333	Field Computer Maintenance				\$0.00	\$0.00	\$1,000.00	\$1,000.00	\$0.00
	60334	Safety Equipment				\$955.00	\$2,000.00	\$2,000.00	\$2,000.00	\$0.00
	60335	Backflow Testing				\$0.00	\$750.00	\$0.00	\$20,000.00	\$20,000.00
	60339	Field Operations-Other				\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		Total Other				\$8,061.00	\$9,250.00	\$9,500.00	\$30,500.00	\$21,000.00
		Pumping								
	60341	Maintenance				\$20,832.00	\$15,000.00	\$15,000.00	\$20,000.00	\$5,000.00
	60342	Electricity				\$166,631.00	\$170,000.00	\$175,000.00	\$175,000.00	\$0.00
	60343	Gas Diesel for wells				\$397.00	\$500.00	\$500.00	\$500.00	\$0.00
		Total Pumping				\$187,860.00	\$185,500.00	\$190,500.00	\$195,500.00	\$5,000.00
		Transmission & Distribution								
	60351	Water Purchases 3 mo. Shortage				\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
	60352	Service Connection Repairs				\$9,072.00	\$20,000.00	\$10,000.00	\$10,000.00	\$0.00
	60353	Mains/Fire Hydrants/USA				\$5,702.00	\$5,000.00	\$5,000.00	\$5,000.00	\$0.00
	60354	Meter Maintenance				\$15,433.00	\$16,000.00	\$10,000.00	\$10,000.00	\$0.00
	60355	Tank Cleaning				\$0.00	\$1,000.00	\$3,500.00	\$3,500.00	\$0.00
	60357	Contract Repairs				\$3,200.00	\$20,000.00	\$15,000.00	\$15,000.00	\$0.00
		Total Transmission & Distribution				\$33,407.00	\$63,000.00	\$43,500.00	\$43,500.00	\$0.00
	60360	Chemicals and Supplies				\$17,512.00	\$20,000.00	\$20,000.00	\$20,000.00	\$0.00
		Transportation								
	60371	Fuel				\$19,804.00	\$20,000.00	\$20,000.00	\$20,000.00	\$0.00
	60372	Maintenance				\$4,678.00	\$8,000.00	\$6,000.00	\$6,000.00	\$0.00
		Total Transportation				\$24,482.00	\$28,000.00	\$26,000.00	\$26,000.00	\$0.00

Rio Linda/Elverta CWD
2013/14Final Budget

EXPENSE						2012-2013	2012-2013	2013-2014	2013-2014	2013-14
						Actual	Final	Preliminary	Final	Budget
						Expenditures	Budget	Budget	Budget	Changes
						TO 6/30/13				
	60380	Permit/ Cert/ Inspection				\$26,352.00	\$40,000.00	\$40,000.00	\$40,000.00	\$0.00
	Total Field Operations					\$318,745.00	\$367,450.00	\$341,300.00	\$368,200.00	\$26,900.00
		Conservation								
	60401	Toilet Replacement Program				\$675.00	\$1,000.00	\$1,000.00	\$1,000.00	\$0.00
	60402	Regional Conservation Program				\$6,876.00	\$6,876.00	\$4,807.95	\$4,579.00	-\$228.95
	60403	Washing Machine Rebates				\$0.00	\$300.00	\$300.00	\$300.00	\$0.00
	60404	Education Supplies				\$0.00	\$0.00	\$500.00	\$500.00	\$0.00
	60405	Contract Services	CUWCC			\$0.00	\$0.00	\$2,515.00	\$2,515.00	\$0.00
	60406	Community Outreach				\$0.00	\$0.00	\$2,000.00	\$2,000.00	\$0.00
		Total Conservation				\$7,551.00	\$8,176.00	\$11,122.95	\$10,894.00	-\$228.95
	60420	Engineering Services				\$15,720.00	\$50,000.00	\$50,000.00	\$50,000.00	\$0.00
		Insurance								
	60431	Liability/Vehicle				\$30,676.00	\$41,000.00	\$32,000.00	\$32,000.00	\$0.00
	60432	Property				\$4,258.00	\$6,500.00	\$4,000.00	\$4,000.00	\$0.00
		Total Insurance				\$34,934.00	\$47,500.00	\$36,000.00	\$36,000.00	\$0.00
		Memberships								
	60501	SAWWA				\$530.00	\$325.00	\$325.00	\$325.00	\$0.00
	60502	Regional Water Authority				\$4,725.00	\$4,725.00	\$4,725.00	\$4,725.00	\$0.00
	60503	SGA				\$17,416.00	\$20,200.00	\$17,500.00	\$17,500.00	\$0.00
	60504	ACWA				\$7,910.00	\$7,910.00	\$7,910.00	\$7,910.00	\$0.00
	60505	CSDA				\$3,456.00	\$3,800.00	\$3,500.00	\$3,500.00	\$0.00
	60506	AWWA				\$98.00	\$98.00	\$98.00	\$98.00	\$0.00
	60507	Membership-Other	(CRWA)			\$937.00	\$950.00	\$1,030.00	\$1,030.00	\$0.00
		Total Memberships				\$35,072.00	\$38,008.00	\$35,088.00	\$35,088.00	\$0.00

Rio Linda/Elverta CWD
2013/14 Final Budget

EXPENSE						2012-2013 Actual Expenditures TO 6/30/13	2012-2013 Final Budget	2013-2014 Preliminary Budget	2013-2014 Final Budget	2013-14 Budget Changes
	60550	Government Fees/Permit Fees				\$8,692.00	\$10,000.00	\$7,000.00	\$9,000.00	\$2,000.00
	60560	Elections				\$8,245.00	\$8,245.00	\$0.00	\$0.00	\$0.00
		Operating Expenditures-Other				\$0.00	\$5,000.00	\$2,000.00	\$2,000.00	\$0.00
		TOTAL OPERATING EXPENDITURES				\$1,729,425.00	\$1,615,320.00	\$1,594,871.95	\$1,597,311.00	\$2,439.05
		NON OPERATING EXPENDITURES								
	61130	Sherrill settlement				\$0.00	\$0.00	\$35,600.00	\$35,600.00	\$0.00
		Debt Service								
	61100	Revenue Bond 2003-Interest				\$119,358.00	\$143,563.00	\$140,088.00	\$140,088.00	\$0.00
	21510	Revenue Bond 2003-Principle				\$95,000.00	\$95,000.00	\$100,000.00	\$100,000.00	\$0.00
	61110	2003 Bond Administration				\$1,700.00	\$1,700.00	\$1,700.00	\$1,700.00	\$0.00
		Total Debt Service				\$216,058.00	\$240,263.00	\$240,088.00	\$240,088.00	\$0.00
		Other Non Operating Expense				\$215.00	\$0.00	\$500.00	\$500.00	\$0.00
		To repay surcharge account				\$0.00	\$29,212.00	\$34,125.75	\$34,125.75	\$0.00
		Contingencies				\$0.00	\$0.00	\$5,000.00	\$5,000.00	\$0.00
		TOTAL NON OPERATING EXPENDITURES				\$216,273.00	\$269,475.00	\$317,013.75	\$317,013.75	\$0.00
		TOTAL EXPENDITURES				\$1,945,698.00	\$1,884,795.00	\$1,911,885.70	\$1,914,324.75	\$2,439.05
		Net Income (income - Expense)				\$321,129.00	\$294,161.00	\$525,276.30	\$528,837.25	\$3,560.95

37

Rio Linda/Elverta CWD
2013/14 Final Budget

EXPENSE						2012-2013 Actual Expenditures TO 6/30/13	2012-2013 Final Budget	2013-2014 Preliminary Budget	2013-2014 Final Budget	2013-14 Budget Changes
Net Income (income - Expense)						\$104,565.00	\$295,911.00	\$526,716.30	\$528,837.25	
6/30/13 OPERATING FUND BALANCE (bank balance)								-\$64,624.00	\$140,492.00	
To SEMS Program								-\$7,500.00	-\$7,500.00	
To Phone Tree program								-\$5,555.00	-\$5,555.00	
To Capital Reserve Fund							\$90,000.00	-\$295,000.00	-\$319,000.00	\$24,000.00
Projected Ending fund balance								\$154,037.30	\$337,274.25	
SURCHARGE ACCOUNT										
6/30/2013 Surcharge Account Balance								\$993,209.00	\$1,033,497.00	
		Income				\$458,912.00	\$503,424.00	\$503,424.00	\$503,424.00	
		Bimonthly accrual				\$42,500.00				
	61300	SRF Interest				-\$18,272.00	\$0.00	-\$120,000.00	-\$120,000.00	
	21300	SRF Principle				\$0.00	\$0.00	\$0.00	\$0.00	
	61310	SRF Administration				\$0.00	\$0.00	-\$180.00	-\$180.00	
Projected Ending fund balance								\$1,376,453.00	\$1,416,741.00	
Surcharge 2009-03 Capital program										
GOES INTO SEPARATE RESERVE ACCOUNT TO REPAY CDPH LOAN										
CANNOT BE USED FOR ANYTHING ELSE										
4416 services X \$19.00 X 6 billings										

38

The Following budget assumptions are proposed:

External Factors:

Property tax assessed values contain an inflation factor for each County combined with growth or decline factors; overall expect a moderate increase.

Interest rates on investments will be at current market rates, approximately 0.5%.

Surcharge Fund Activities:

The Surcharge Fund is a Restricted Fund only to be used for the construction of our well project. The Surcharge Fund is a reserve that is only in place until the Department of Health Services loan is paid off. During the course of our audits of the prior years it has been determined that there is a substantial sum of money that was being used to operate the District instead of being put into the Surcharge Fund. There were also a few expenses that should have not been paid out of this Fund. The figures are noted below:

Fiscal Year 2009/10	\$ 16,130.00	Income not put into the Fund
Fiscal Year 2010/11	\$ 17,729.00	Income not put into the Fund
Fiscal Year 2011/12	\$105,856.00	Bills that should not have been paid by the Fund.
Fiscal Year 2011/12	\$26,000.00	revenue not recorded.
		\$165,714.00 Total Due to the Surcharge from Operating Fund.

The previous Board determined a methodology to repay the Surcharge Fund these amounts over a period of time. In 2012-13 the District paid the fund \$29,212. \$34,125 will be paid by the end of Fiscal Year (FY) 2013/14 with another \$34,125 proposed to be paid in FY 2014/15.

Operating Fund Revenues:

The Operating Fund revenue has increased due to the implementation of the full 2011 rate increase Ordinance. Estimated revenue increase is \$195,500 per year. An inactive service fee has also been implemented which will increase District revenues by \$47,500 based on 125 inactive properties. The District has 4616 connections but only 4458 were on during the last billing cycle. Our State Revolving Fund loan is based on all properties putting money into the Surcharge Fund. If monies are not received from all accounts the Operating Fund must somehow backfill the Surcharge fund in order to pay off the

loan. This is also happening with our current bonds we are paying off in the amount of \$240,263.00 each year.

40

Due to the need for a constant revenue stream to pay off the District's debt service accounts and fixed operating costs the Board implemented an inactive service fee in the amount of \$63.33 per inactive account for each billing cycle. This insures that our loan payments and fixed costs would be paid without putting further hardship on our customers that are currently connected to the system.

Tower leases have increase \$8,000.00.

Service App/New Location Fees were increased to \$10,000.00 based on current year revenue there was no initial budget for this year on this item.

Late Payment Fees were decreased by \$2,000 in the final budget based on yearend figures.

Salaries and Benefits District-wide:

1. Staffing

The District has been below appropriate staffing level for the past year. One of the staff had abandoned his job before the current management took over and the Board has not approved hiring a replacement to date. There is also a need for a Conservation Coordinator/Receptionist. The District currently only has one Grade 3 Operator. Another operator has recently taken his Grade 3 test but the results are not in to date. A minimum of two Grade 3 Operators is required for coverage should one of the Operators become ill or be away from the District. In the State mandated staffing survey that was complete last year it was determined that the District needed an additional 2 and a half field staff. This budget includes hiring 2 laborers at \$11.64 per hour and 1 Conservation Coordinator/Receptionist at \$15.00 per hour. The District's current Secretary/Receptionist job title and duties would change to Secretary/Administrative Assistant to assist the General Manager with the additional duties required by the new Board Directors. \$108,895 was added to salaries for the 3 additional staff, step increases and COLA.

2. Salaries

- Estimated Cost of Living allowance of 3% will be implemented on December 1, 2014 per the District's Memorandum of Understanding with the Teamsters Union. This 3% COLA will also apply to the nonunion staff.
- Salary reclassification. There is one Staff member who will be eligible for a Salary reclassification if he passes his Grade 3 Water Distribution test. This has been considered in the preliminary Budget.
- Step increase. There are 3 staff step increases included in the budget. There were none given last year.
- Overtime and standby pay are estimated from prior year expenses.

3. Payroll taxes and Benefits

- Employer Social Security is calculated at 6.2% of the salary up to \$110,100.
- Employer Medicare (FICA) is calculated at 1.45% of salary.

- State Unemployment Insurance is calculated at 5.7% of salary up to \$7,000.
- Workers Compensation insurance is calculated at the following rates per \$100.00 of wages:
 - 7520 - Waterworks Employees \$5.14
 - 8742 - Outside Employees \$1.16
 - 8810 - Clerical \$0.52
 - The rates noted above are then multiplied by 200% EMOD to take into account the District's injury rate over the past several years. This is down 60% from last year's EMOD rate.
- Health, Dental and Vision insurance is calculated at \$1,070.00 per employee per month. New employees are budgeted for 6 months of coverage per the MOU.
- Cal PERS Employer Contribution rate has increased from 16.273% to 17.11 for current staff. This new rate and the addition of the 3 new staff members at the rate of 9.75% will increase the budget for this item by \$15,111.

4. Operations and Maintenance Costs

Operation and Maintenance cost categories are reviewed individually to determine the most reasonably precise budget estimate. Where it is impractical to use this method, an inflation factor of 3% will be applied.

The significant changes in the budget from last year are noted below:

-\$115,000 as deleted from **General Counsel Fees** due to the lack of litigation.

\$3,300 was added the **Auditor Fees** as a Single Audit is required by the Federal Government in addition to the regular audit that is performed annually.

-\$11,000 was deleted from **Auditor Forensic Fees** as this item has been completed.

\$3,000 was added to **Director Fees** due to the additional meetings for Finance/Administration and Planning Committee meetings.

-\$41,500 was deleted from **Extra Contract Help** due to the funding of full time positions.

\$900 was added to **Cell Phones** for air card needed to communicate between scada system and field computer.

-\$12,400 deleted from **Insister Lease** as this equipment was purchased during FY 2012-13.

-\$10,500 deleted from **Physical and Chemical Tests** as there is less monitoring required by the State this year. This item varies from year to year.

\$20,000 was added for **Cross Connection Testing** outsourcing.

\$5,000 has been added to **Pumping Electricity** due to power rate increase estimates.

-\$10,000 has been deleted from **Service Connection Repairs** due to prior year figures.

-\$6,000 has been deleted from **Meter Maintenance** due to meter replacement being done which is a Capital Expenditure instead of repair for older units.

-\$5,000 has been deleted from **Contract Repairs** based on prior year figures.

\$5,139 has been added to **Conservation** to provide supplies and funding for the California Urban Water Conservation Counsel.

-\$11,500 has been deleted from **Insurance** based on current insurance premium information.

-\$2,700 has been deleted from **SGA** based on last year's membership cost.

-\$8,245 has been deleted from **Elections** as there is no election this year.

SUMMARY OF FINAL BUDGET RECOMMENDATIONS

\$34,125.00 should be paid to the Surcharge Fund to refund operating expenses paid out of the Surcharge Fund for the next 4 years.

2 additional staff to be hired per the staffing survey provided to California Department of Public Health and 1 additional staff to fill Conservation Coordinator/Receptionist position.

Total Budgeted Income \$2,443,162 is up \$264,206

Total Budgeted Expenditures \$1,914,325 is up \$29,530

\$319,000 to be put into Capital Improvement Fund to fund Capital Projects. This figure is not included in the expenditures noted above.

TECHNICAL MEMORANDUM

To: Mary Henrici, General Manager
From: Jim Carson, District Engineer
Subject: 2013/14 Capital Budget Descriptions
Date: June 27, 2013

This Technical Memorandum (TM) provides the budget descriptions for the proposed 2013/14 Rio Linda / Elverta Water District's (District) Capital Budget. The following are a list of the budget items along with their descriptions:

Water Supply

A-1 Plant Paving/Slurry – Various Plant Sites – \$10,000

This budget item is to replace sections of deteriorated paving and slurry seal the existing paving at various plant sites. The existing plant paving has deteriorated and needs this work in order to extend the life of the existing paving.

A-2 Well 9 – Electrical Panel Replacement and Tank Removal – \$40,000

This budget item is to replace the existing electrical panel that is at the end of its economic life with a new electrical panel. The new panel will be Arc Flash compliant and have a soft start that will minimize pressure surges from starts and stops of the well pump. The new soft start will enable the District to remove the hydropneumatic tank that cannot be certified.

A-3 Well 10 – Electrical Panel Replacement and Tank Removal – \$40,000

This budget item is to replace the existing electrical panel that is at the end of its economic life with a new electrical panel. The new panel will be Arc Flash compliant and have a soft start that will minimize pressure surges from starts and stops of the well pump. The new soft start will enable the District to remove the hydropneumatic tank that cannot be certified.

A-4 Well 3 – Upgrade Perimeter Fencing – \$6,000

This budget item is to upgrade the existing Well 3 perimeter fencing by adding barbed wire for better security and replacing/repairing the gate for better access.

A-5 Well 2A – Construction Spoils Bins - \$20,000

This budget item is to relocate the construction spoils bins from the District Office to Well 2A. The bins at the District Office are in conflict with the new L Street Reservoir and Pump Station.

A-6 Miscellaneous Pump Replacement – \$20,000

This budget item is for the replacement or upgrade of any well pump and/or motor that has failed throughout the budgeted year.

State Revolving Fund Project

SRF – 1 “L” Street Reservoir and Pump Station

This budget item is for the construction of a new reservoir and pump station located adjacent to the District Office. The project is to be funded by a State Revolving Fund loan.

Water Distribution

B-1 Paving Replacements – \$5,000

This budget item is to pave sections of streets where the existing street paving has been cut into due to water service repairs or replacements.

B-2 System Valve Replacements – \$5,000

This budget item is to replace broken water system valves. These broken valves are being identified from the District’s valve exercising program.

New Business

**NB-1 Elverta Specific Plan – Water Supply and Planning– \$250,000
(Funding by Others)**

This budget item is for the water supply and master planning for the existing system and the future expansion of the Elverta Specific Plan Development. This budget item will be funded by the Elverta Specific Plan Development per a funding agreement between the District and the landowners.

Miscellaneous

M-1 Service Replacements – \$15,000

This budget item is for the replacement of leaking water services that cannot be repaired.

M-2 Small Meter Replacements – \$60,000

This budget item is to replace customer meters that are no longer working or cannot maintain accuracy.

M-3 New Automated Meters for Route 20 - \$54,000

This budget item is to replace the Route 20’s manual read meters with automated meters.

M-4 ½ Ton Truck Replacement – \$25,000

This budget item is to replace field truck number 4 with a new ½ ton truck. The existing mileage on the truck is 121,383 and has exceeded its economic life.

Contingency

C-1 Contingency (Non SRF) – \$27,000

This budget item accounts for cost of unbudgeted projects that are not planned for in the capital budget. The budgeted cost is based on 10% of the total Capital Budget less projects funded by others (New Business) and the contingency associated with the SRF funded project.

C-2 Contingency (SRF Project) - \$156,000

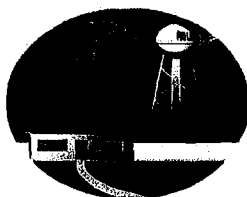
This budget item is for the contingency associated with the remaining SRF project funding that is currently associated with the "L" Street Reservoir and Booster Station.

**Rio Linda Elverta Community Water District
2013-14 Capital Budget**

46

Budget Item	Budget Description	Budgeted Cost (\$)
Water Supply		
A-1	Plant Paving/Slurry - Various Plant Sites	10,000
A-2	Well 9 - Electrical Panel Replacement and Tank Removal	40,000
A-3	Well 10 - Electrical Panel Replacement and Tank Removal	40,000
A-4	Well 3 - Upgrade Fencing	6,000
A-5	Well 2A - Construction Spoil Bins (Relocation from District Office)	20,000
A-6	Miscellaneous Pump Replacements	20,000
Total Water Supply		136,000
State Revolving Fund Project		
SRF-1	"L" Street Reservoir and Pump Station	3,862,673
Total Water Supply		3,862,673
Water Distribution		
B-1	Street Paving Replacements	5,000
B-2	System Valve Replacements	5,000
Total Distribution		10,000
New Business		
NB-1	Elverta Specific Plan - Water Supply and Planning - Funded by Others	250,000
Total New Business		250,000
Miscellaneous		
M-1	Service Replacements	15,000
M-2	Small Meter Replacements	50,000
M-3	New Automated Meters for Route 20	54,000
M-4	1/2 Ton Truck Replacement (Vehicle Number 4)	25,000
Total Miscellaneous		144,000
Contingency		
C-1	Contingency (10 Percent of District Funded Projects less New Business)	29,000
C-2	SRF Contingency	156,000
Total Contingency		185,000
Total Capital Budget		4,587,673
Total Funded by District w/o SRF		319,000
Total Funded by District w/ SRF		4,337,673

RIO LINDA



ELVERTA

Item for Discussion and Action

Agenda Item: 4.4

Date: July 15, 2013

Subject: Change of Lead Operator title to Water Utility Supervisor

Staff Contact: Mary Henrici, General Manager

Recommended Committee Action:

The Finance / Administrative Committee recommend approval of the attached job description which would change the Lead Operators position to Water Utility Supervisor. This position would continue to be nonexempt. The position would also be provided 1 additional week of vacation. If the Board approves this position title this would then go to the union and with staff and union approval and LOU would be created to include this position in the MOU document. The proposed job description is attached for the Boards review

Current Background and Justification:

President Dills requested that this item be taken up in the Finance and Administrative Committee. He felt that the Lead Operator is performing the duties of a Supervisor. Because he is performing the duties of a Supervisor he should be called a Supervisor. The current Lead Operator is performing the job duties and description of a Water Utility Supervisor. The District water system operates under the current State Certificates of the Lead Operator. He also has increased job responsibilities, including direction of field personnel, monthly, quarterly and annual State reporting. He is also the District's cross connection control specialist and safety officer. The Lead Operator has 15 years experience at the District and is the responsible party in the absence of the General Manager. Traditionally the Supervisor position has received 1 additional week of vacation per year. It was asked that staff investigate what other utilities do in the area for this position. This information was provided to the Finance and Administrative committee. Exempt employees are not paid overtime and do not have pager duties. Currently with our limited staff the Lead Operator must take pager duties.

Conclusion:

Based on the recommendation of the Board President and the many duties that the Lead Operator performs it is recommended by the committee that the position title be changed from Lead Operator to Water Utility Supervisor. This change in position would not increase the pay rate but would include 1 additional week of vacation.

Board Action / Motion

Motioned by: Director _____ Seconded by Director _____

Dills: _____ Green: _____ Caron: _____ Anderson: _____ Longo: _____.

(A) Yea (N) Nay (Ab) Abstain (Abs) Absent

RLECWD Agenda Item Checklist

Initial Potential Meeting Date

Date
7/15/13

Item Prioritization

7/8

Circle High/Medium/Low priority of Item and identify if in line with Mission/Goal/Strategic Planning Issues or state emergency

Lead Operator title change to water utility supervisor

Staff Work Completed

7/3/13

(Includes reviewing, researching item with other resources (ACWA, JPIA, RWA, SGA, other water or special districts, District Engineer, Legal Counsel then laying out business cases, pros and cons, options and recommendations based on best information available, etc.

Committee Review of Item and Staff Work

7/8

(Review by appropriate Finance/Administration, Projects/Planning or Ad Hoc committees, to prepare board recommendations

Formal Legal Counsel Review

N/A

(Legal Counsel should have enough time to review all potential legal matters for correctness and legality)

Board President and GM Review

Signatures of President and GM President _____ General Manager _____

Actual Meeting Date Set for Agenda Item

7/15/13
46

Water Utility Supervisor

GENERAL STATEMENT OF DUTIES:

Performs a variety of supervisory, construction, technical, operations, and maintenance work in the operation, repair, maintenance, replacement and construction of the District water system.

SUPERVISION RECEIVED:

Works under the general direction of the General Manager who reviews work for effectiveness in conformance to established policy.

SUPERVISION EXERCISED:

Exercises direct supervision over Water Utility Operators, Water Utility Workers and Laborers. Makes operational decisions when the General Manager is away.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

Plans, schedules, implements and oversees construction, maintenance, and operation activities in order to assure quality water service for District customers; standardizes department policies and procedures to improve efficiency and effectiveness of operations.

Reviews project and development plans of others for compliance with District regulations and standards and inspects work for compliance with approved plans.

Assures the operation of the water quality sampling program and the proper reporting related thereto in order to conform county, state, and federal regulations; maintains operations records and prepares reports based on those records to be submitted to state and federal regulatory agencies.

Interacts with representatives of the State Department of Health Services regarding compliance issues involving the water system and permits related thereto.

Supervises, instructs and assists assigned crews in installing and relocating water lines, valves, fire hydrants and meters, and maintaining the existing water supply system.

Responds to or assures the proper response to complaints regarding water quality, leaks, pressure loss or no water; explains findings to property owners if necessary.

Trains, supervises and disciplines subordinate employees performing the duties of maintenance, construction and operation of the District water system.

Supervises the use of and assumes responsibility for all materials, supplies and equipment used in the maintenance, construction and operation of the District water system; requisitions such materials, supplies and equipment as needed and budgeted; insures that all necessary materials, supplies and equipment are available by maintaining an inventory of parts and materials and obtaining necessary parts, tools and supplies from the store room.

Analyzes annual operating costs and makes recommendations for department budget.

Oversees the safety of Utility Operators and Workers by instructing individuals in proper safety procedures and monitoring work in progress and performs the duties of District Safety Officer.

Assists in development and maintains a procedure manual for all departmental operations.

Performs duties of Laborer, Water Utility Worker and Water Utility Operator as needed

PERIPHERAL DUTIES:

Operates a variety of power construction and maintenance equipment used in the water industry.

Assists the General Manager with the development of a capital improvement and replacement program for the District and the development of short term and long range plans.

Serves on various employee, regional association, or other committees as assigned.

DESIRED MINIMUM QUALIFICATIONS

Education and Experience:

Seven years experience in the operation and maintenance of a water utility at a responsible level; possession of a current California Department of Health Water Treatment Operator Grade II certificate and a California Department of Health Water Distribution Operator certificate Grade III; possession of a valid Class C California driver's license or the ability to obtain one within one (1) month of employment; graduation from high school; or any equivalent combination of experience, training and certification.

Necessary Knowledge, Skills and Abilities:

Thorough knowledge of equipment, facilities, materials, regulations, methods and procedures used in the construction and maintenance of public water systems; ability to guide, direct and motivate employees; ability to operate and maintain various equipment used in water maintenance and repair such as backhoe, dump trucks, etc.; ability to organize and supervise the activities of various crews performing construction and maintenance work; ability to communicate effectively, verbally and in writing; ability to make decisions independently in accordance with generally accepted construction practices and established policy and to use initiative and judgment in carrying out tasks and responsibilities with only general instruction and guidance; ability to use tact and judgment when dealing with the public; ability to lift heavy objects and perform sustained manual work.

SPECIAL REQUIREMENTS :

Must be bondable.

Must possess a valid driver's license.

Must pass a drug screening test.

TOOLS AND EQUIPMENT USED:

Motorized vehicles and equipment, including dump truck, pickup truck, utility truck, backhoe, tamper, saws, pumps, compressors, sanders, generators, common hand and power tools, shovels, wrenches, detection devices, mobile radio, phone, hand-held computer, personal computer (including word processing, spreadsheet, database and other software), copy and fax machine.

PHYSICAL DEMANDS:

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee is regularly required to use hands to finger, handle, feel or operate objects, tools, or controls and reach with hands and arms. The employee frequently is required to stand, talk and hear. The employee is occasionally required to walk; sit; climb or balance; stoop, kneel, crouch, or crawl; and smell.

The employee must frequently lift and/or move up to 25 pounds and occasionally lift and/or move up to 100 pounds. Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception, and the ability to adjust focus.

WORK ENVIRONMENT:

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee regularly works in outside weather conditions. The employee frequently works near moving mechanical parts and is frequently exposed to wet and/or humid conditions and vibration. The employee occasionally works in high, precarious places and is occasionally exposed to fumes or airborne particles, toxic or caustic chemicals, and risk of electrical shock. The noise level in the work environment is usually loud.

SELECTION GUIDELINES:

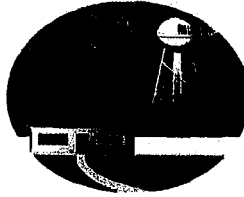
Formal application, rating of education and experience; oral interview and reference check; job related tests may be required; driving records will be evaluated; drug screening is mandatory, as is a physical to determine capability to meet the physical demands of the job.

GENERAL

The duties listed above are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or a logical assignment to the position.

The job description does not constitute an employment agreement between the employer and employee and is subject to change by the employer as the needs of the employer and requirements of the job change.

RIO LINDA



ELVERTA

Item for Discussion and Action

Agenda Item: 4.5

Date: July 15, 2013

Subject: Change of Secretary/Receptionist title to Administrative Assistant

Staff Contact: Mary Henrici, General Manager

Recommended Committee Action:

The Finance / Administrative Committee recommend approval of the position change from Secretary/Receptionist to Administrative Assistant with a \$1.00 per hour raise for the position above the current rates for Secretary/Receptionist. If the Board approves this position title this would then go to the union and with staff and union approval and LOU would be created to include this position in the MOU document. The proposed job description is attached for the Boards review.

Current Background and Justification:

The Board of Directors has requested that the Manager acquire additional staff to assist her with completed staff work. The position would also prepare agendas, minutes and board packets for various meetings. Other duties would include typing correspondence and scheduling the Managers appointments in addition to assisting the Manager with the day to day duties as needed. The new Conservation Coordinator will be taking over the duties of Receptionist when that position is filled. The District would have to put together another LOU to change the position title and duties of this position.

Conclusion:

The General Manager needs additional staff to provide the Board of Directors with all of the information needed for meetings. With the addition of the Conservation Coordinator /Receptionist the Administrative Assistants duties can be tailored to better assist the General Manager with Administrative work.

Board Action / Motion

Motioned by: Director _____ Seconded by Director _____

Dills: _____ Green: _____ Caron: _____ Anderson: _____ Longo: _____.

(A) Yea (N) Nay (Ab) Abstain (Abs) Absent

RLECWD Agenda Item Checklist

Initial Potential Meeting Date

Date
7/15/13

Item Prioritization

7/8

Circle High/Medium/Low priority of item and identify if in line with Mission/Goal/Strategic Planning Issues or state emergency

Change Secretary/Receptionist title to Administrative Assistant

Staff Work Completed

7/3

(Includes reviewing, researching item with other resources (ACWA, JPIA, RWA, SGA, other water or special districts, District Engineer, Legal Counsel then laying out business cases, pros and cons, options and recommendations based on best information available, etc.

Committee Review of Item and Staff Work

7/8

(Review by appropriate Finance/Administration, Projects/Planning or Ad Hoc committees, to prepare board recommendations

Formal Legal Counsel Review

N/A

(Legal Counsel should have enough time to review all potential legal matters for correctness and legality)

Board President and GM Review

Signatures of President and GM President _____ General Manager _____

Actual Meeting Date Set for Agenda Item

7/15/13
54

Administrative Assistant

GENERAL STATEMENT OF DUTIES:

Performs a variety of routine and complex clerical, secretarial, data processing, and administrative work associated with the operation of the District Office.

SUPERVISION RECEIVED:

Works under the supervision of the General Manager.

SUPERVISION EXERCISED:

Supervision ordinarily is not a responsibility of this class; may supervise part-time or temporary staff as assigned.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

Receives telephone calls and citizen visits; handles questions and matters of a more technical nature; responds to citizen complaints.

Prepares periodic utility, financial, statistical or operational reports as assigned.

Provides assistance to the General Manager in meeting management; copies, assembles and distributes Board agenda packets and background materials; prepares draft minutes of meetings from video recordings.

Maintains District filing system and filing indices and District library; maintains agenda packet binders, minute books, ordinance books and resolution books; updates policy and procedure books as directed.

Develops and maintains office forms and procedures.

Answers central telephone system and mobile phone system.

Maintains District website ensuring that it is current and up to date.

Composes, inputs, and edits a variety of correspondence, reports, memoranda, and other material requiring judgment as to content, accuracy, and completeness.

Provides completed staff work to the General Manager and Board of Directors.

Assists in the development of notices, flyers, brochures, newsletters, media releases, news articles, and other informational materials about programs and services.

PERIPHERAL DUTIES:

Provides clerical support to other staff as required.

Receives the public and answers questions; responds to inquiries from employees, customers and others and refers, when necessary, to appropriate persons.

Receives and stamps incoming mail, and distributes as directed; processes outgoing mail

Processes outgoing mail.

Prepares and maintains office supply inventory.

Serves on or provides support for various employees, regional association, or other committees as assigned.

DESIRED MINIMUM QUALIFICATIONS

Education and Experience:

Graduation from an high school with specialized course work in general office practices such as typing, accounting, data processing (completion of community college or business school bookkeeping or data processing training may be substituted for one year of experience); or any equivalent combination of education and experience. Three years of experience in a responsible secretarial position with exposure to legal or governmental documents.

Necessary Knowledge, Skills and Abilities:

Working knowledge of computers and electronic data processing; working knowledge of modern office practices and procedures and computers and data processing; skill in to operating listed tools and equipment, ability to establish successful working relationships; ability to work under pressure and/or frequent interruptions. Knowledge of standard office practices and of business English, spelling, composition, and math; excellent typing skills; computer experience with word processing and spreadsheets; ability to make decision independently in accordance with established policy; ability to use tact and judgment in dealing with the public.

SPECIAL REQUIREMENTS :

Must be bondable.

Must have drivers license

Must pass a drug screening test.

TOOLS AND EQUIPMENT USED:

Personal computer, including accounting, billing, word processing and spreadsheet software; typewriter, 10-key calculator, phone, copy machine, fax machine and mail processing equipment. Must be able to operate a District vehicle.

PHYSICAL DEMANDS:

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. A physical examination by a licensed physician selected by the District will be required prior to employment to determine if the applicant can meet the physical demands of the position. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee is frequently required to sit and talk or hear. The employee is occasionally required to walk; use hands to operate, finger, handle, or feel objects, tools, or controls; and reach with hands, wrists, and arms.

The employee must occasionally lift and/or move up to 25 pounds. Specific vision abilities required by this job include close vision and the ability to adjust focus.

WORK ENVIRONMENT:

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

The noise level in the work environment is usually moderately noisy.

SELECTION GUIDELINES:

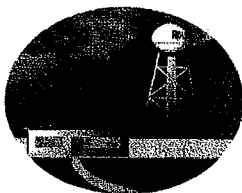
Formal application, rating of education and experience; oral interview and reference check; job related tests may be required; driving records will be evaluated; drug screening is mandatory, as is a physical to determine capability to meet the physical demands of the job.

GENERAL

The duties listed above are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or a logical assignment to the position.

The job description does not constitute an employment agreement between the employer and employee and is subject to change by the employer as the needs of the employer and requirements of the job change.

RIO LINDA



ELVERTA

**Public Comment
Agenda Item: 5****Date:** July 15, 2013**Subject:** Public Comment**Staff Contact:** Mary Henrici, General Manager**The Board will hear public comment:**

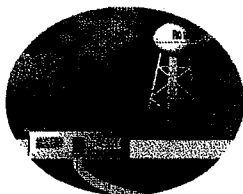
Public comment for closed session items only: The public is invited to comment on any item listed on the closed session agenda. Each speaker is limited to 2 minutes.

Board Action / Motion

Motioned by: Director _____ Seconded by Director _____

Dills: _____ Green: _____ Caron: _____ Anderson: _____ Longo: _____.

(A) Yea (N) Nay (Ab) Abstain (Abs) Absent

RIO LINDA**ELVERTA****Closed Session
Agenda Item: 6.1****Date:** July 15, 2013**Subject:** Closed Session**Staff Contact:** Mary Henrici, General Manager**6.1 CONFERENCE WITH LABOR NEGOTIATOR**

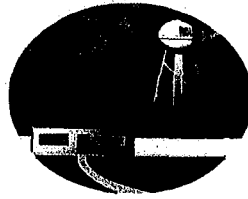
The Board will meet in closed session pursuant to Government Code § 54957.6 – Discussion and possible modification to the Memorandum of Understanding (MOU) with a letter of Understanding (LOU).

Motioned by: Director _____ Seconded by Director _____

Dills: _____ Green: _____ Caron: _____ Anderson: _____ Longo: _____.

(A) Yea (N) Nay (Ab) Abstain (Abs) Absent

RIO LINDA



ELVERTA

**Information Items
Agenda Item: 7**

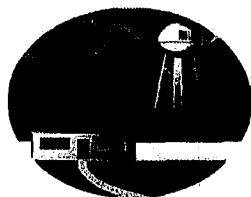
Date: July 15, 2013

Subject: Reconvene to Open Session

Staff Contact: Mary Henrici, General Manager

Directors' and General Manager Comments

RIO LINDA



ELVERTA

**Information Items
Agenda Item: 8**

Date: July 15, 2013

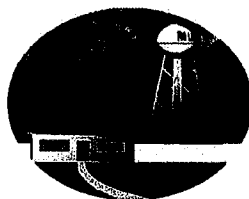
Subject: Announcements from Closed Session

Staff Contact: Mary Henrici, General Manager

The Board President will report on any actions taken in Closed Session.

Directors' and General Manager Comments

RIO LINDA



ELVERTA

61_B

**Item for Discussion and Action
Agenda Item: 4.6**

Date: July 15, 2013

Subject: Letter of Understanding (LOU) modifying the Memorandum of Understanding (MOU)

Staff Contact: Mary Henrici, General Manager

Recommended Committee Action:

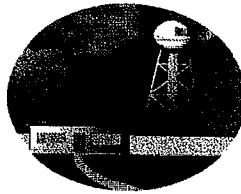
The Board will take action on the LOU discussed in Closed Session.

Board Action / Motion

Motioned by: Director _____ Seconded by Director _____

Dills: _____ Green: _____ Caron: _____ Anderson: _____ Longo: _____.

(A) Yea (N) Nay (Ab) Abstain (Abs) Absent

RIO LINDA**ELVERTA****Information Items
Agenda Item: 9.1**

Date: July 15, 2013
Subject: District Activity Report
Staff Contact: Mary Henrici, General Manager

1. DISTRICT ACTIVITY REPORT

- a. General Manager's Report
- b. Water Production Report
- c. District Engineers Report

Managers Report

June 11, 2013 to July 9, 2013

On June 12, 2013 I went to a water caucus meeting where all managers from area water districts discussed matters of importance to all of us. These included the Bay Delta Plan, Best Management Practice (BMP) 1.4 regarding the structure of water rates and the meetings that are coming up to review this BMP, current legislation and a flow standard the RWA is still modeling for the regional plan required by the State.

On June 13, 2013 I went to Sacramento Groundwater Authority (SGA) bimonthly meeting. We received an update on the model treatment of chromium 6 project being done in Davis. They also approved the annual budget transferring some items to the current year from the past year that had not been completed to date. There was also a legislative update and a groundwater management update. The audit for fiscal year 2012/13 was also approved.

On June 17, 2013 Jim Carson, Jim Crowley and I met with the City of Sacramento to discuss possible surface water purchases for the Elverta Specific Plan and other developments in the area. There was a positive response from the city. They are gathering information and will be in contact with our engineers.

On June 18, 2013 Jim Carson, Jim Crowley and I met with Carmichael Water District to discuss the potential of buying water credits from their agency as an interim measure to meet PF8 requirements. The discussion was positive and this information will be added to the information staff is gathering for potential sources of surface water. Afterward Mr. Carson and Crowley and I had a meeting discussing our progress so far in contacting all agencies in the area and next steps to take with the project.

On June 19, 2013 I went to an all day meeting with the California Urban Water Conservation Council (CUWCC) and discussed Best Management Practice (BMP) 1.4 rate setting in great detail with the group. The CUWCC is trying to determine if the current methods available for water conservation rate structure are appropriate and if they should be reviewed and revised. There was an overwhelming response from the water community that the current method of 70 % volumetric and 30% fixed expense rate structure was not workable for many Districts and there should be more methods available to comply with this BMP. This information was taken to the Plenary meeting the next day.

On June 20, 2013 I went to the Plenary meeting where they discussed BMP 1.4 options 1 and 2, future demand forecasting, avoiding costs of water energy projects and allowed networking between the three groups of the CUWCC.

On June 26, 2013 the ACWA/JPIA boiler and machinery inspection services consultant came out to inspect our hydropneumatic tanks. They were informed that the District has already done preliminary testing on our tanks and has budgeted for removal of 2 tanks per year until all are replaced or circumvented.

On June 27, 2013 we had a meeting with the SEMS people and informed them of our status in providing them with the information needed to implement their program. Later that day the Air Quality Management District inspected and was happy with our operations. No corrective actions are needed.

On June 28, 2013 The Board President and I met with Mr. Miller regarding his inactive service fee. Mr. Miller feels that the District should ask the County for additional tax money for our fixed costs instead of asking the customers who are not currently using their service to pay a fee. This was discussed during the Finance and Administrative meeting on the 8th of July. Later that day Jim Crowley and I met with the Manager of El Dorado County Water District and discussed their action to acquire water rights in the area. It was determined that the two agencies would keep each other up to date on our plans to acquire surface water.

On July 2, 2013 I met with SMUD's energy efficiency staff. They will be providing us with more energy efficient lighting and our peak factor rate will be adjusted because of this energy audit. This should drop the energy bill in the office for at least the next 12 months.

On July 3, 2013 the Planning committee met. The L St. design is 95% complete. The proposal to do environmental work on the pipeline to well 5 was presented. An update was provided on the Elverta Specific plan. A water supply matrix is forthcoming on this project. A Capital Budget item was presented for recommendation to the full Board. New bins for building materials need to be constructed at well 2A before the L St. project starts as the old bins will have to be destroyed. The Hyce property easement agreement was discussed. Based on the information presented the committee felt that Mr. Hyce should be allowed to transfer his service to someone else if he wishes to do so.

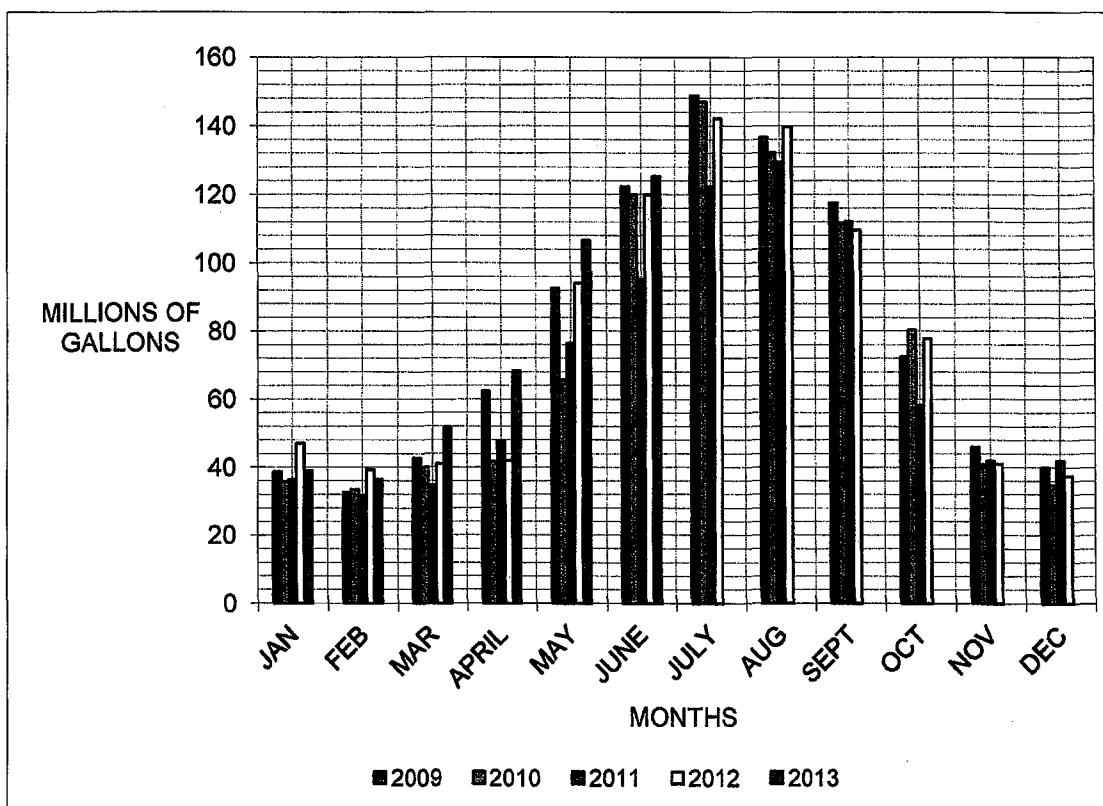
On July 8, 2013 the Finance/Administration committee met. The District expenditure and financial reports were discussed. The job descriptions of Water Utility Superintendent and Administrative Assistant were discussed along with compensation and benefits. The 2013-14 final budgets were reviewed and discussed. The inactive service fee was discussed at length in an effort to determine what the best course of action would be regarding this charge. Mr. Ridilla was asked to provide the staff with options/choices for amending the fee. His ideas were received and incorporate in the inactive service fee staff report.

RIO LINDA/ELVERTA C.W.D.

WATER PRODUCTION

2009 \ 2013

Water Production in Million Gallons						SSWD Water Purchases				
Month	2009	2010	2011	2012	2013	Avg.	2010	2011	2012	2013
JAN	38.7	35.6	36.4	47	39	39.34	0	0	0.009	0
FEB	32.7	33.4	31.8	39.3	36.5	34.74	0	0	0	0
MAR	42.6	40	34.7	41.1	51.7	42.02	0	0	0.002	0
APRIL	62.4	41.7	47.8	42	68.2	52.42	0	0	0	0
MAY	92.6	65.7	76.4	94	106.5	87.04	0.002	0.019	0.01	0
JUNE	122.3	120	95.3	120	125.3	116.58	0.4	0.71	0.12	0.002
JULY	148.8	147	122.4	142.2		140.10	0.028	0.025	0.26	
AUG	136.6	132.2	129.4	139.7		134.48	0.038	0.012	0.3	
SEPT	117.6	111.4	112.2	109.7		112.73	0.094	0.003	7.6	
OCT	72.5	80.3	58.4	77.8		72.25	0	0.001	0	
NOV	45.9	40.8	41.9	41		42.40	0.004	0	0	
DEC	39.9	34.8	42	37.5		38.55	0	0	0	
TOTAL	952.6	882.9	828.7	931.3	427.2	898.875	0.566	0.77	8.301	0.002



66

Change Out Meter - 1	Change Out Meter - 2
Get Current Read - 41	Get Current Read - 35
Line Leak - 2	Line Leak - 2
Other Work - 4	Other Work - 4
Possible Leak - 12	Possible Leak - 14
Pressure Complaint - 1	Pressure Complaint - 1
Tag Property - 1	Tag Property - 1
Turn On Service - 3	Turn On Service - 3
Water waster - 1	Water waster - 1

TECHNICAL MEMORANDUM

To: Mary Henrici – General Manager
From: Jim Carson, District Engineer (Affinity Engineering)
Subject: District Engineering Staff Report – July 2013
Date: July 7, 2013

This Technical Memorandum (TM) updates the Board of Directors on the engineering projects since last month's engineering report.

1. Planning Committee

The planning committee met on June 3, 2013 and discussed several planning projects as described in the committee's minutes. The planning committee is scheduled to meet the first Tuesday of each month. The next scheduled meeting is August 6, 2013.

2. State Revolving Fund Project – "L" Street Reservoir and Booster Station

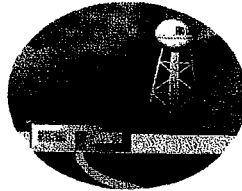
- a. Engineering Design: The project is currently under design. The 95% submittal is currently planned for the middle of July.
- b. Well 12 Rehabilitation: The contract was sent to the consultant for them to sign. Recommended changes were made by the consultant to the contract and forwarded to the Attorney for his review and consideration.
- c. Construction Bin Relocations: A layout was reviewed and approved by the District for the replacement location of the construction bins. The existing construction bins are being demolished to make room for the new reservoir and pump station. An addition to the 2013/14 Capital Budget is being requested to pay for the relocation of these construction bins.
- d. Environmental Consultant: The CEQA document is nearing completion. It is planned to be completed next week. The consultant will be providing a compliance checklist to make sure that the document complies with the public review requirements.

3. Preliminary Environmental Review- Elverta Pipeline:

A proposal to complete a preliminary environmental review was obtain from EN2 Consulting. The review is recommended by staff to determine if installing a new pipeline up to the Elverta Booster Station from Elverta Road would be feasible in the old railroad ROW that is owned by the County. A determination of no significant environmental impact would result in a significant savings to the District. If a significant environmental issue is associated with this pipeline route, the pipeline will be routed in the street paralleling existing water mains at a higher cost to the District.

4. Master Plan/Elverta Specific Plan (ESP)

Meetings have been held with City of Sacramento and Carmichael Water District to identify potential water supply options for ESP as well as to meet the District's infill requirements. A water supply matrix is being developed to document the District's water supply options. Follow up meetings are being held with some of the water district to further discuss the District's best short and long term water supply options.

RIO LINDA**ELVERTA****Information Items
Agenda Item: 9.2****Date:** July 15, 2013**Subject:** Board Reports**Staff Contact:** Mary Henrici, General Manager**2. BOARD REPORTS**

- a. Regional Water Authority – Dills, Henrici
- b. Sacramento Groundwater Authority – Green, Henrici
- c. LAFCo – Caron
- d. Planning Committee – Longo, Green
- e. Finance / Administrative Committee – Dills, Anderson
- f. Other Reports

70

July 1, 2013



Attn: Mary Henrici
Rio Linda/Elverta Community Water District
730 L Street
Rio Linda, CA. 95673-3496

Dear Ms. Henrici:

Mary

Rob Roscoe, Chair
Ron Greenwood, Vice
Chair

I want to thank you for your continued participation in the Regional Water Authority (RWA). The past year has seen significant successes on a number of important regional initiatives.

Members

California American Water
Carmichael Water District
Citrus Heights Water District
Del Paso Manor Water District
El Dorado Irrigation District
Elk Grove Water District
Fair Oaks Water District
Folsom, City of
Fruitridge Vista Water
Company
Golden State Water Company
Lincoln, City of
Orange Vale Water Company
Placer County Water Agency
Rancho Murieta Community
Services District
Roseville, City of
Rio Linda / Elverta Community
Water District
Sacramento, City of
Sacramento County Water
Agency
Sacramento Suburban Water
District
San Juan Water District
West Sacramento, City of
Woodland-Davis Clean Water
Agency

Associates

El Dorado County Water
Agency
Sacramento Municipal Utility
District
Sacramento Regional County
Sanitation District

Our regional voice continues to strengthen. We have engaged on a number of fronts to protect our water supplies and minimize the negative impacts of actions in the Delta on our region. We launched a regional Public Relations Program to convey the important successes in being good stewards of our regional water resources that are often overlooked. We held high profile workshops and leveraged the media to inform stakeholders in our region about the potential impacts of a Delta solution.

In regional planning, we are concluding a comprehensive update of the American River Basin Integrated Regional Water Management Plan (ARB IRWMP), supported in part by a \$400,000 planning grant the California Department of Water Resources (DWR). We expect the ARB IRWMP to position the region to pursue implementation grant funding in 2014. During the year, we began management of the \$16 million grant award from DWR to help fund 17 priority projects in the ARB IRWMP.

We also commenced a project, partially funded by a grant from the California Water Foundation, to evaluate regional data, information, and analytical tools needs. At the request of a member agency, we explored a subscription program to solicit bids for water and wastewater treatment chemicals. We ran a pilot solicitation for two chemicals, and participating members will save more than \$700,000 in fiscal year 2014.

In water efficiency, we continued implementation of the award winning Blue Thumb campaign. This year's campaign focused on efficient sprinkler systems and featured our signature "Sprinkler Dance" on all distributed PSAs and media outreach. Additionally, we provided significant assistance to members in implementing and reporting the Prop 50 Drought Assistance Grant measures, which has resulted in \$1,300,000 paid to participants in this fiscal year.

The RWA Board of Directors, at its May 16, 2013 meeting, approved the fiscal year 2013-2014 budget and dues schedule. Attached is your agency's invoice for the year.

Please call me at (916) 967-7692 if you have any questions.

Sincerely,

John Woodling
Executive Director

Attachment

71



July 1, 2013

Rob Roscoe, 2013 Chair
Ron Greenwood, 2013
Vice Chair

Members

California American Water
Carmichael Water District
Citrus Heights Water District
Del Paso Manor Water
District
El Dorado Irrigation District
Fair Oaks Water District
Folsom, City of
Fruitridge Vista Water
Company
Golden State Water
Company
Lincoln, City of
Orange Vale Water Company
Placer County Water Agency
Rancho Murieta Community
Services District
Roseville, City of
Rio Linda / Elverta
Community Water District
Sacramento, City of
Sacramento County Water
Agency
Sacramento Suburban Water
District
San Juan Water District
West Sacramento, City of
Woodland Davis Clean
Water Agency

Associates

El Dorado County Water
Agency
Sacramento Municipal Utility
District
Sacramento Regional County
Sanitation District

Mary Henrici
Rio Linda/Elverta CWD
730 L Street
Rio Linda, CA 95673

Dear Ms. Henrici:

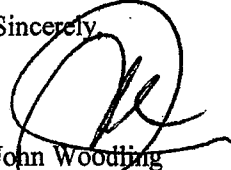
The Regional Water Authority (RWA) is pleased to invite Rio Linda/Elverta Community Water District to continue its participation in the Water Efficiency Program (WEP) for fiscal year (FY) 2014. Enclosed is the FY 2014 invoice and Business Plan adopted by the WEP Advisory Committee on May 14, 2013. This year's invoice reflects a 5 percent dues increase to cover the rising costs of maintaining this valuable Program. Please note that participant dues have not been increased since FY 2005.

The WEP provides a cost-effective approach to help achieve water savings targets and BMP requirements through economies of scale. With the passage of Senate Bill x7-7, the need for a coordinated regional effort is greater than ever as water savings requirements have increased. In addition to assisting with water saving programs, the FY 2014 WEP services and products satisfy several BMP requirements of the Water Forum, the Bureau of Reclamation Central Valley Project Improvement Act, and the California Urban Water Conservation Council (CUWCC) MOU.

Throughout FY2013, the WEP was successful in assisting participants with meeting Best Management Practice (BMP) commitments, securing and managing grants, and developing important regional messaging through the award winning Blue Thumb campaign. The WEP Program serves as a regional forum for discussing and responding to issues, such as the CUWCC's BMP 1.4, legislation, and dry-year messaging to customers.

As we enter into FY2014, the Program will focus on strategic planning to identify the region's water efficiency and conservation priorities. To support this effort, RWA will be developing a comprehensive regional data collection framework to consolidate understanding of our region's water supply systems and track progress toward meeting SB x7-7 targets. We will explore whether regional compliance with the SBx7-7 requirements is beneficial to RWA members. RWA will also continue to manage the current Proposition 50 and Proposition 84 grants projects and will seek out new grant opportunities to continue to support your agency's water efficiency efforts.

Sincerely,


John Woodling
Executive Director

Enclosures



Sacramento Groundwater Authority
Managing Groundwater Resources
in Northern Sacramento County

5620 Birdseye Street, Suite 180
Citrus Heights, CA 95610
Tel: (916) 967-7692
Fax: (916) 967-7322
www.sgah20.org

July 1, 2013

Ms. Mary Henrici
Rio Linda/Elverta Community Water District
730 L Street
Rio Linda, CA 95673-3496

Dear Ms. Henrici:

Thank you for your continued support of the Sacramento Groundwater Authority (SGA).

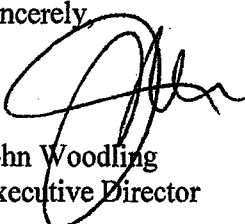
Through your support and participation in SGA, we are able to fully satisfy the Groundwater Management Element of the Water Forum Agreement in northern Sacramento County, allowing us to expand our water supply reliability while protecting the lower American River. Our strong groundwater management program has also enabled the region to receive tens of millions of dollars in grant funding to construct regional water supply facilities. SGA has implemented a monitoring program and data management system that will help to ensure effective management and local control of groundwater resources.

Among the highlights of the previous year, we completed monitoring to satisfy California Statewide Groundwater Elevation Monitoring (CASGEM) program requirements; began work on the fourth update to the SGA Basin Management Report (BMR); began a comprehensive update of the SGA Groundwater Management Plan (GMP); began tracking of the SGA Water Accounting Framework; and received a grant from the Local Groundwater Assistance (LGA) Program to evaluate an emerging regional groundwater contamination problem in northern Sacramento County. In the upcoming year, SGA will complete the BMR and GMP updates; commence the LGA-funded contaminant study; evaluate regional data, information, and analytical tools needs; and continue CASGEM monitoring.

The SGA Board, at its June 13, 2013 meeting, approved the fiscal year 2013-2014 budget and fee structure. Attached is your agency's invoice for the year.

Please feel free to call me at (916) 967-7692 if you have any questions.

Sincerely,


John Woodling
Executive Director

Attachment

California American
Water

Carmichael
Water District

Citrus Heights
Water District

City of Folsom

City of Sacramento

County of Sacramento

Del Paso Manor
Water District

Fair Oaks Water District

Golden State
Water Company

Natomas Central Mutual
Water Company

Orange Vale
Water Company

Rio Linda / Elverta
Community Water
District

Sacramento Suburban
Water District

San Juan
Water District

Agricultural and
Self-Supplied
Representative

**SACRAMENTO GROUNDWATER AUTHORITY
REGULAR MEETING OF THE BOARD OF DIRECTORS**

Thursday, June 13, 2013; 9:00 a.m.

5620 Birdcage Street, Suite 110

Citrus Heights, CA 95610

(916) 967-7692

The Board will discuss all items on this agenda, and may take action on any of those items, including information items and continued items. The Board may also discuss other items that do not appear on this agenda, but will not act on those items unless action is urgent, and a resolution is passed by a two-thirds (2/3) vote declaring that the need for action arose after posting of this agenda.

The public shall have the opportunity to directly address the Board on any item of interest before or during the Board's consideration of that item. Public comment on items within the jurisdiction of the Board is welcomed, subject to reasonable time limitations for each speaker. Public documents relating to any open session item listed on this agenda that are distributed to all or a majority of the members of the Board of Directors less than 72 hours before the meeting are available for public inspection in the customer service area of the Authority's Administrative Office at the address listed above. In compliance with the Americans with Disabilities Act, if you have a disability and need a disability-related modification or accommodation to participate in this meeting, please contact the Executive Director of the Authority at (916) 967-7692. Requests must be made as early as possible, and at least one full business day before the start of the meeting.

1. **CALL TO ORDER AND ROLL CALL**
2. **PUBLIC COMMENT:** Members of the public who wish to address the Board may do so at this time. Please keep your comments to less than three minutes.
3. **CONSENT CALENDAR**
 - a) Minutes of April 11, 2013 regular board meeting.
 - b) Minutes of April 11, 2013 special board meeting

Action: Approve Consent Calendar items.
4. **FISCAL YEAR 2013-2014 BUDGET**

Information: Staff discussion of proposed FY 2013-2014 budget and fees.

Action: Adopt Resolution No. 2013-04 to fund the administrative and program budgets for FY 2013-2014, and providing for the collection of said funds.

Action: Approve payment of SGA's portion of the side fund in fiscal year 2013, estimated at \$26,900
5. **CONTRACT FOR PROFESSIONAL AUDITING SERVICES**

Action: Authorize the Executive Director to contract with Richardson and Company to provide for professional auditing services for SGA's fiscal year 2013 audit. The contract shall not exceed \$17,400 for the FY 2013 audit.
6. **SGA GROUNDWATER MANAGEMENT PROGRAM UPDATE**

Information Update: Rob Swartz, Principal Project Manager.

Action: Designate up to \$18,400 budgeted in FY13 for the Groundwater Management Plan Report for potential use in FY14.

Action: Designate up to \$26,000 budgeted in FY13 for Groundwater Modeling for potential use in FY14

7. **CHROMIUM 6 STUDY UPDATE**
Information Presentation: Tim Williams and Sarah Laybourne,
Kennedy/Jenks Consultants.
8. **EXECUTIVE DIRECTOR'S REPORT**
 - a) Government Affairs Update
9. **DIRECTORS' COMMENTS**

ADJOURNMENT

Next SGA Board of Director's Meeting – August 8, 2013, 9:00 a.m., RWA/SGA office, 5620 Birdcage Street, Ste. 110, Citrus Heights.

JUNE 13, 2013

TO: SACRAMENTO GROUNDWATER AUTHORITY BOARD

FROM: JOHN WOODLING

RE: EXECUTIVE DIRECTOR'S REPORT

- a) **Government Affairs Update** – SGA staff are tracking a number of water-related bills in the State Legislature. The updated tracking information is available at www.sgah2o.org. Of note is AB 426 (Salas), which would promote conjunctive use by streamlining the process for a water rights holder to transfer surface water during above average water years to offset groundwater pumping. Staff are working with the author's office on clarifying amendments that would be beneficial to our region.

Minutes, July 3rd, 2013 Planning Committee Meeting

Attendees: Jim Carson District Engineer, Mary Henrici District General Manager, Paul Green Director and Matthew Longo Director.

Meeting called to order at 3:20 pm

An update and informative meeting by the District Engineer to the Directors with regard to those present and future projects.

Public Comment: There was no public comment as there was no public in attendance.

Agenda items:

1. State revolving funds Project Status Update:
 - a. Status of design. The design stage is at about 95% complete and will be submitted to CDPH and the District O/A July 20th. The engineer is working with Tesco relative to the equipment in the L St. building as Tesco is our sole source for our SCADA system and PLC due to approval by CDPH. Tesco is also the current supplier for all other SCADA systems in the Dist. All other gear and equipment for the project will go out to bid. Wood Rodgers is finalizing structural plans. Engineer is working with SMUD to get meter main installed prior to the building, to get ahead of the SMUD elec. hook up. Engineering is planning drainage for the L St site to accommodate 2000GPM in the event of a very remote possibility of reservoir over flow. The county drainage immediately adjacent to site has a capacity of 1000GPM with the street being able to absorb the difference.

There is no action recommended by the planning committee at this time as this is a point of information.

- b. Current Layout of Facilities. All is working and fitting well. A few adjustments have been made for greater efficiency. Engineering is recommending, moving our construction and spoils bins to well site 2a for more room at the L St. site.

There is no action recommended by the planning committee at this time as this is a point of information.

- c. Elverta Pipeline Environmental Evaluation. There are 2 possibilities for the Elverta pipeline to former well site 5.
 1. To parallel the existing pipe in the street.
 2. To go in direct along the bike path.

The route direct along the bike path is believed to be the best for our district however it is going to be up to an environmental evaluation. It is recommended that the Dist. have EN2 take a look at the environmental issues relative to the direct route along the bike trail. If the environmental issues can be mitigated the route along the bike path is the most cost effective.

The Planning Committee recommends that we spend the necessary \$4200.00 for EN2 environmental review on the path of the pipeline as it has potential savings if the route can be made along the bike trail.

- d. EN2 project CEQA Document. Affinity has been supplying EN2 with all needed information so that EN2 can complete CEQA doc. It is hoped that EN2 will have document finish by 7/9/13 to present to board as a point of info and to set public hearing period.

2. Elverta Specific Plan

- a. A precursor to all future plans and the ESP is the county ruling that does not allow further ground water pumping. AS a result both the manager and the Engineer have been in meetings with all of the water purveyors around us including but not limited to Natomas, San Juan, Carmichael and Sac Suburban. At this time getting additional river water from Natomas Mutual is most compatible.
- b. The Water Supply Matrix is forth coming.

There is no action recommended by the planning committee at this time as this is a point of information.

- 3. A revision to the Capital Budget to relocate construction and spoils bins to well 2a was discussed at length as to procedure for adding items to the budget. It was recommended that the Engineer and General Manager inform the board and public with regard to the change in a manner that is consistent with previous policy and transparency.

The planning Committee discussed the importance and relevance of moving the bins to the well 2a site and therefore recommends adding it to our fiscal budget.

- 4. Service Fee Waiver for Vacant Lands. 4 properties. This item is still under Legal review.
- 5. Hyce Property Easement. Mr. Hyce has asked if he may sell his water service right that he was given in exchange for a previous easement to the district.

Based on the information presented to the planning committee we can see no reason that Mr. Hyce could not sell his water service provided he and the buyer were aware that no connections are allowed until the moratorium is lifted.

Meeting Adjourned at 5:00 pm

Rio Linda Elverta Community Water District
Finance and Administration Committee Meeting

July 8, 2013

78

Committee Chairman Anderson began meeting at 5:30 p.m.

Attendees:

District- Directors Duane Anderson and Brent Dills and G.M. Mary Henrici

Public-John Ridilla, Mary Harris

Public Comment: No comments

Agenda item #1 District Expenses:

A question about Quick Books was asked by Director Dills. Service vs. employee payroll confusion was addressed. The Quick Books issue can be resolved by calling the payroll item "employee payroll" instead of service. It is not a service. It is payroll. Director Anderson also asked about a check made out to Sentinel Inc. Both questions were clarified by Director Henrici.

Agenda item #2 Review District Financial Reports:

G. M. Henrici said the District has paid all held checks this month. Director Anderson had some questions about debt service and G.M. Henrici explained it was related to interest payments.

Agenda item #3 Change Title of Lead Operator to Water Utility Supervisor:

After a lengthy discussion with public input, Committee recommends approval to full board with some reservations by Director Anderson and public member Harris. Those reservation will be shared with full board.

Agenda item #4 Approval of Final FY 13/14 District Budget:

Committee had a few questions that were answered by G. M. No changes were made and the committee recommends approval by full board.

Agenda item #5 Revise Job Description of Secretary/Administrative Assistant and increase salary \$1 per hour:

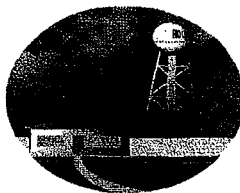
Committee Agreed to recommend approval of revision of duty statement and salary increase for position previously discussed and approved by full Board.

Agenda item #6 Inactive Service Fee:

Public member Ridilla agreed to provide some verbiage for some more options/chooses to be included in the Inactive Service Fee Ordinance clarification language and Committee will incorporate that what Legal Counsel is doing and for a discussion by the full Board.

Meeting was adjourned by Finance and Administrative Committee Chairman Anderson at 7:10 p.m.

RIO LINDA



ELVERTA

**Information Items
Agenda Item: 10**

Date: July 15, 2013

Subject: Directors' and General Manager Comments

Staff Contact: Mary Henrici, General Manager

Directors' and General Manager Comments

COMPLETED AND PENDING ITEMS FROM PAST MEETINGS

80

1. Preliminary Budget Fiscal Year 2013-14 completed final budget approval in July.
2. Well 12 Rehabilitation. Contract has been created and reviewed by legal awaiting approval from Wood Rodgers.
3. ESA cultural service contract. Contract has been signed **COMPLETED**.
4. Form of Action revision was approved at last meeting. Policy manual has been updated. **COMPLETED**.
5. Inactive service charges Resolution 2013-08 was approved at the last meeting of the Board. Legal is preparing an application for variance and a recordable document for properties if a variance is approved by the Board. Legal has been asked to stop work on this item until the Board further discusses this item at the meeting of July 15, 2013.
6. Policy manual amendment on new PERS requirements. Amendment was approved at the last meeting of the Board. Policy manual has been updated, **COMPLETED**.
7. Legal Performance Review has been **COMPLETED**.
8. Backflow Prevention Device Testing Program request for bids has gone out. Bids will be opened on July 19, 2013.
9. Owner / Tenant Billing Agreement Letter has gone out to all property owners with known renters. New fee will be on July billing. **COMPLETED**
10. Resolution 2013-07 Duplicate Billing Fee was approved. Ordinance 2008-02 needs to be revised to include this fee. This has gone to the Admin/Finance committee went to legal 6-11-13.
11. Hyce water service agreement. I have not heard from the State to date regarding this issue. Planning committee has recommended Mr. Hyce be allowed to transfer his 1" water service to another person. This will be revisited at the July 15, 2013 meeting.
12. Hydropneumatic tank pressure relief valves. The remainder of the valves should be installed by 7/12/13.
13. Review of cost for staff to take vehicles home when on call will take place at August meeting.

SACRAMENTO LOCAL AGENCY FORMATION COMMISSION

***1112 I Street, Suite #100
Sacramento, California 95814
(916) 874-6458***

August 7, 2013

TO: Sacramento Local Agency Formation Commission

FROM: Peter Brundage, Executive Officer

RE: **Appointment of Voting Delegate for the CALAFCO 50th Anniversary Conference at Squaw Creek and CALAFCO Board of Directors Nomination**

RECOMMENDATION:

1. Delegate the Executive Officer to vote for the CALAFCO Board of Directors for the Central Region at the Regional Caucuses immediately preceding the business meeting to be held at the annual conference in Squaw Creek on Thursday, August 29, 2013.
2. Your Commission may nominate any Regular or Alternate Commissioner to run for their respective seat (City, County, Special District and Public Member). Commissioner Singleton has expressed interest in the City Office.

DISCUSSION:

Voting Delegate

The CALAFCO Bylaws require each member LAFCo to designate a Voting Delegate to vote on behalf of their Commission. The voting delegate may be a commissioner, alternate commissioner, or executive officer attending the conference. I recommend that the Commission designate the Executive Officer to vote on behalf of Sacramento LAFCo, unless a Commissioner attending the annual conference wishes to do so.

Nomination

As your Commission may recall, on July 9, 2010, the CALAFCO membership approved the creation of Board of Director representation by regions for the CALAFCO Board of Directors (51 LAFCo's supported, 2 opposed, and 4 abstained). As a result of the election, four regions were created (North, South, Central and Coastal.) There are a total of four representatives from each region. Each region is be represented by a city, county, special district and public member. The CALAFCO Board has a total of 16 directors.

Sacramento LAFCo is within the Central Region. The Central Region City Member office is now open for the Fall Board election. The close of the formal nomination period was July 29, 2013, which fell during your Commission Summer Recess. Nominations may still be made from the floor during the Central Region Caucus election process.

Commissioner Singleton has expressed interest in the City Office. His Candidate Resume Form, as well as a letter of endorsement from Supervisor Yee, Commission Chair are attached. Adoption of a Resolution of support by your Commission may bolster his candidacy, should he be nominated from the floor.

The nominations announcement and regions map for the CALAFCO Board of Directors are also attached.

Respectfully,

SACRAMENTO LOCAL AGENCY FORMATION COMMISSION

Peter Brundage
Executive Officer

Attachments

SACRAMENTO LOCAL AGENCY FORMATION COMMISSION

***1112 I Street, Suite #100
Sacramento, California 95814
(916) 874-6458***

August 7, 2013

TO: Sacramento Local Agency Formation Commission

FROM: Peter Brundage, Executive Officer

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DISCUSSION:

Voting Delegate

The CALAFCO Bylaws require each member LAFCo to designate a Voting Delegate to vote on behalf of their Commission. The voting delegate may be a commissioner, alternate commissioner, or executive officer attending the conference. I recommend that the Commission designate the Executive Officer to vote on behalf of Sacramento LAFCo, unless a Commissioner attending the annual conference wishes to do so.

Nomination

As your Commission may recall, on July 9, 2010, the CALAFCO membership approved the creation of Board of Director representation by regions for the CALAFCO Board of Directors (51 LAFCo's supported, 2 opposed, and 4 abstained). As a result of the election, four regions were created (North, South, Central and Coastal.) There are a total of four representatives from each region. Each region is be represented by a city, county, special district and public member. The CALAFCO Board has a total of 16 directors.

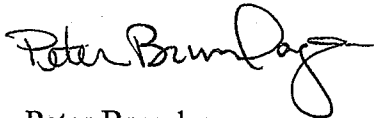
Sacramento LAFCo is within the Central Region. The Central Region City Member office is now open for the Fall Board election. The close of the formal nomination period was July 29, 2013, which fell during your Commission Summer Recess. Nominations may still be made from the floor during the Central Region Caucus election process.

Commissioner Singleton has expressed interest in the City Office. His Candidate Resume Form, as well as a letter of endorsement from Supervisor Yee, Commission Chair are attached. Adoption of a Resolution of support by your Commission may bolster his candidacy, should he be nominated from the floor.

The nominations announcement and regions map for the CALAFCO Board of Directors are also attached.

Respectfully,

SACRAMENTO LOCAL AGENCY FORMATION COMMISSION



Peter Brundage
Executive Officer

Attachments

**Board of Directors
Candidate Resume Form**

Nominated By: Sacramento LAFCo Date: 07/23/2013

Region (please check one): ☐ Northern ☐ Coastal ☒ Central ☐ Southern

Category (please check one): ☒ City ☐ County ☐ Special District ☐ Public

Candidate Name Mike Singleton

Address 380 Civic Drive, Galt, CA 95632

Phone Office 209.366.7117 Mobile 916.833.7562

e-mail msingleton@ci.galt.ca.us

Personal and Professional Background:

Vice Mayor, City of Galt

Chairman, Galt Public Safety Committee

President, Galt Police Activities League (PAL)

Level 3, Community Emergency Response Team (CERT) Volunteer

Emergency Medical Technician

Volunteer, Juvenile Awareness Interactive Learning (JAIL) Program

LAFCo Experience:

Alternate, 2010-2012

Vice Chairman, 2013 - present

CALAFCO or State-level Experience:

**BOARD OF SUPERVISORS
COUNTY OF SACRAMENTO**

700 H Street, Suite 2450
Sacramento, CA 95814
Telephone: (916) 874-5481
Facsimile: (916) 874-7593



JIMMIE R. YEE
SUPERVISOR
Second District

MAMIE YEE
Chief of Staff

July 22, 2013

Jerry Gladbach, Chair
Board Recruitment Committee
CALAFCO Board of Directors
c/o Executive Director Pamela Miller
California Association of Local Agency Formation Commissions
1215 K Street, Suite 1650
Sacramento, California 95814

Dear Mr. Gladbach,

Kindly accept this letter of endorsement for board nomination of Mike Singleton for the City member vacancy of the Central Region for CALAFCO. Mike is currently the Vice Chair of the Sacramento Local Agency Formation Commission (LAFCo).

As Chair of the Commission, during the time we have served together, I have found Mike to consistently perform the duties of his office with diligence and fair consideration of all matters before the Commission. I am confident he would make like contributions to the CALAFCO Board.

In light of Sacramento LAFCo's summer recess schedule and the CALAFCO nomination submittal deadline of July 29, I am providing this short letter of endorsement. Sacramento LAFCo will discuss the nomination at our regular meeting of August 7, 2013. We will apprise you of the outcome of that meeting.

Sincerely,

A handwritten signature in black ink that reads "Jimmie R. Yee".

JIMMIE R. YEE
Supervisor, District 2

Cc: Don Lockhart, Sacramento LAFCo.

30 April 2013

CALAFCO



**2013
Board of Directors**

Chair

THEODORE NOVELLI
Amador LAFCo

Vice Chair

MARY JANE GRIEGO
Yuba LAFCo

Secretary

JOHN LEOPOLD
Santa Cruz LAFCo

Treasurer

STEPHEN TOMANELLI
Riverside LAFCo

JULIE ALLEN
Tulare LAFCo

MATTHEW BECKMAN
Stanislaus LAFCo

ROBERT BERGMAN
Nevada LAFCo

LOUIS CUNNINGHAM
Ventura LAFCo

LARRY R. DUNCAN
Butte LAFCo

JERRY GLADBACH
Los Angeles LAFCo

JULIANA INMAN
Napa LAFCo

GAY JONES
Sacramento LAFCo

MICHAEL KELLEY
Imperial LAFCo

MICHAEL R. MCGILL
Contra Costa LAFCo

EUGENE MONTANEZ
Riverside LAFCo

JOSH SUSMAN
Nevada LAFCo

Staff

PAMELA MILLER
Executive Director

LOU ANN TEXEIRA
Executive Officer

CLARK ALSOP
Legal Counsel

MARJORIE BLOM
Deputy Executive Officer

STEPHEN LUCAS
Deputy Executive Officer

SAMUEL MARTINEZ
Deputy Executive Officer

JENI TICKLER
Executive Assistant

To: Local Agency Formation Commission
Members and Alternate Members

From: Jerry Gladbach, Chair
Board Recruitment Committee
CALAFCO Board of Directors

RE: Nominations for 2014 CALAFCO Board of Directors

Nominations are now open for the fall elections of the Board of Directors. Serving on the CALAFCO Board is a unique opportunity to work with other commissioners throughout the state on legislative, fiscal and operational issues that affect us all. The Board meets four times each year at alternate sites around the state. Any LAFCo commissioner or alternate commissioner is eligible to run for a Board seat.

The following offices on the CALAFCO Board of Directors are open for nominations.

<u>Northern Region</u>	<u>Central Region</u>	<u>Coastal Region</u>	<u>Southern Region</u>
County Member	City Member	City Member	County Member
District Member	Public Member	Public Member	District Member

The election will be conducted during regional caucuses at the CALAFCO annual conference prior to the Annual Membership Meeting on Thursday, August 29th, 2013 at the Resort at Squaw Creek in North Lake Tahoe, CA.

Please inform your Commission that the CALAFCO Recruitment Committee is accepting nominations for the above-cited offices until Monday, July 29th, 2013. Incumbents are eligible to run for another term. Nominations received by July 29th will be included in the Recruitment Committee's Report, copies of which will be available at the Annual Conference. Nominations received after this date will be returned; however, nominations will be permitted from the floor during the Regional Caucuses or during at-large elections, if required, at the Annual Membership Meeting.

For those member LAFCos who cannot send a representative to the Annual Meeting an electronic ballot will be made available if requested in advance.

Should your Commission nominate a candidate, the Chair of your Commission must complete the attached Nomination Form and the Candidate's Resume Form, or provide the specified information in another format other than a resume. Commissions may also include a letter of recommendation or resolution in support of their nominee. **The nomination forms and materials must be received by the CALAFCO Executive Director no later than Monday, July 29th, 2013.**

15 K Street, Suite 1650
Sacramento, CA 95814

Voice 916-442-6536
Fax 916-442-6535

Please forward nominations to:

CALAFCO Recruitment Committee c/o Executive Director
California Association of Local Agency Formation Commissions
1215 K Street, Suite 1650
Sacramento, California 95814
FAX: 916-442-6535

Electronic filing of nomination forms and materials is encouraged to facilitate the recruitment process. Please send e-mails with forms and materials to info@calafco.org. Alternatively, nomination forms and materials can be mailed or faxed to the above address.

Attached please find a copy of the CALAFCO Board of Directors Nomination and Election Procedures. Members of the 2014 CALAFCO Recruitment Committee are:

Chair - Jerry Gladbach, Los Angeles LAFCo (Southern Region)
jgladbach@calafco.org 626-204-6500

Robert Bergman, Nevada LAFCo (Northern Region)
rbergman@calafco.org 530-265-7180

Gay Jones, Sacramento LAFCo (Central Region)
gjones@calafco.org 916-874-6458

Mike McGill, Contra Costa LAFCo (Coastal Region)
mmcgill@calafco.org 925-335-1094

Elliot Mulberg, Associate Member and former CALAFCO Board Member
Mulberg@gmail.com 916-217-8393

Former CALAFCO Board Member and Associate Member Elliot Mulberg has agreed to once again assist CALAFCO with the election process. We appreciate and value his expertise. Questions about the election process can be directed to him at elliott@mulberg.com or 916-217-8393.

Please consider joining us!

Enclosures

Director within 15 days of the certification of the election.

8. FILLING BOARD VACANCIES

Vacancies on the Board of Directors may be filled by appointment by the Board for the balance of the unexpired term. Appointees must be from the same category as the vacancy, and should be from the same region.

These policies and procedures were adopted by the CALAFCO Board of Directors on 12 January 2007 and amended on 9 November 2007, 8 February 2008, 13 February 2009, 12 February 2010, 18 February 2011, and 29 April 2011. They supersede all previous versions of the policies.

CALAFCO Regions



The counties in each of the four regions consist of the following:

Northern Region

Butte
Colusa
Del Norte
Glenn
Humboldt
Lake
Lassen
Mendocino
Modoc
Nevada
Plumas
Shasta
Sierra
Siskiyou
Sutter
Tehama
Trinity
Yuba

CONTACT: Steve Lucas, Butte LAFCo
slucas@buttecounty.net

Southern Region

Orange
Los Angeles
Imperial
Riverside
San Bernardino
San Diego

CONTACT: Sam Martinez,
San Bernardino LAFCo
smartinez@lafco.sbcounty.gov

Coastal Region

Alameda
Contra Costa
Marin
Monterey
Napa
San Benito
San Francisco
San Luis Obispo
San Mateo
Santa Barbara
Santa Clara
Santa Cruz
Solano
Sonoma
Ventura

CONTACT: Lou Ann Texeira, Contra Costa
LAFCo
ltexe@lafco.cccounty.us

Central Region

Alpine
Amador
Calaveras
El Dorado
Fresno
Inyo
Kern
Kings
Madera
Mariposa
Merced
Mono
Placer
Sacramento
San Joaquin
Stanislaus
Tulare
Tuolumne
Yolo

CONTACT: Marjorie Blom, Stanislaus LAFCo
blomm@stancounty.com

SACRAMENTO LOCAL AGENCY FORMATION COMMISSION

1112 I Street #100
Sacramento, California 95814
(916) 874-6458

August 7, 2013

TO: Sacramento Local Agency Formation Commission

FROM: Peter Brundage, Executive Officer
Sacramento Local Agency Formation Commission

Contact: Don Lockhart, AICP, Assistant Executive Officer (916) 874-2937

RE: **DRAFT RIO LINDA ELVERTA RECREATION & PARK DISTRICT**
MUNICIPAL SERVICE REVIEW AND SPHERE OF INFLUENCE
UPDATE (LAFC #05-12) [CEQA Exempt]

RECOMMENDATION

Attached is the Draft Municipal Service Review (MSR) for the Rio Linda Elverta Recreation and Park District. It is being circulated for public review and comment for 30 days. The Final Municipal Service Review will be brought before your Commission for consideration after this period. No change to the existing, coterminous Sphere of Influence is proposed.

The Draft is the result of collaboration with Rio Linda Elverta Recreation and Park District management and staff. Your staff would like to recognize the Rio Linda Elverta Recreation and Park District for their ongoing assistance, and timely responsiveness.

BACKGROUND

The Administrative Draft makes the following preliminary determinations:

The Rio Linda Elverta Recreation and Park District effectively meets the recreational needs of the Rio Linda Elverta community. The potential for future growth in the Elverta and possibly other areas will have a significant, positive financial impact on its ability to expand services. The District will continue to strive to satisfy the recreational needs of residents by providing a wide range of recreation programs, park facilities, and other opportunities to enrich the quality of life. The cost of addressing future capital project needs as well as to maintain current facility infrastructure without identifying new revenue source is the current largest challenge.

Management

The District has an adequate management structure, staff, and facility sharing arrangements to ensure efficient management and provide parks and recreation services to the community at a reasonable cost. The District is efficiently structured and organized. The District provides the

public with adequate information and opportunity for input and involvement in District Activities.

District Services

The District is able to appropriately gauge the demand and provide parkland, recreational facilities and programming to meet the needs of the community. The District provides adequate levels of service for parks and recreational facilities. The District effectively meets the needs of existing and future populations of the service area.

Infrastructure

The District provides adequate levels of service and park maintenance. Through financial planning and capital improvement projects, the District is able to replace, improve and renovate amenities in the park and provide safe and enjoyable facilities for residents. The acquisition and development program has not required long term indebtedness.

Finance

The District's financial position is adequate and planned opportunities in the future will enhance the District's fiscal position. Though there are revenue constraints, the District is able to continue to serve residents. The District also takes advantage of various grants and private donations to improve infrastructure and services provided. All of the Rio Linda Elverta Recreation and Park District's annual independent audits have resulted in an unqualified report.

Respectfully submitted,

SACRAMENTO LOCAL AGENCY FORMATION COMMISSION

Peter Brundage
Executive Officer

Exhibit 1: Rio Linda Elverta Recreation and Park District Draft MSR
Attachments:

- A: Location Map
District Map (To be provided with Final MSR)
- B: FY 2014 Budget Summary
- C: Master Plan
- D: Facility and Maintenance Report
- E: FY 2012 Audit

RIO LINDA ELVERTA RECREATION AND PARK DISTRICT



**MUNICIPAL SERVICES REVIEW
July 2013**

**SACRAMENTO LOCAL AGENCY FORMATION COMMISSION
1112 I Street, Suite 100, Sacramento, California 95814
916/874-6458**

LOCAL AGENCY FORMATION COMMISSION

Commissioners

Jimmie Yee, Chair, County Member
Mike Singleton, Vice Chair, City Member
Ron Greenwood, Special District Member
Gay Jones, Special District Member
Kevin McCarty, City Member
Susan Peters, County Member
Christopher Tooker, Public Member

Alternate Commissioners

Phil Serna, Alt. County Member
Jeannie Bruins, Alt. City Member
Jerry Fox, Alt. Special District Member
Jerry Fox, Alt. Special District Member
Steve Cohn, Alt. City Member
Phil Serna, Alt. County Member
John Messner, Alt. Public Member

Staff

Peter Brundage, Executive Officer
Donald J. Lockhart, AICP, Assistant Executive Officer
Diane Thorpe, Commission Clerk

RIO LINDA ELVERTA RECREATION AND PARK DISTRICT

Board of Directors

Wayne Del Nero, Chairperson (2012-16)
Becky L. McDaniel, Vice Chairperson (2010-14)
Lisa L. Morris, Secretary (2010-14)
Stacey Bastian, Director (2012-16)
Bob McKenzie, Director (2010-14)

RLERPD Staff

Wayne A. Lowery, District Administrator
Deann Cater, Administrative Analyst
Drew Golbin, Recreation Supervisor
Tim Marble, Parks Supervisor

TABLE OF CONTENTS

DISTRICT SUMMARY PROFILE.....	4
INTRODUCTION	
Mission.....	5
Boundary.....	5
Area.....	5
Population.....	5
History.....	5
MANAGEMENT	
Management Structure.....	6
Outreach.....	6
SERVICES	
Services provided.....	6
Recreation Services.....	7
Park and Facilities.....	7
INFRASTRUCTURE	
Capital Improvement Projects.....	9
Deferred Maintenance.....	9
FINANCES	
Revenue Sources.....	10
Revenue Constraints & Opportunities.....	10
Reserve Funds.....	10
CONCLUSION.....	11
EXHIBITS	
A	Sacramento County Park Districts -- Map
B	District Boundary --Map
C.	Park and Recreation Master Plan --Map
D.	Park Inventory
E.	Organizational Chart
F.	FY 2014 Budget Summary
G.	Audited Balance Sheet (June 30, 2012)
H.	Thirty Year Capital Reserve Funding Plan

DISTRICT SUMMARY PROFILE

Report Date: July 2013

District: Rio Linda Elverta Recreation and Park District
Location: 810 Oak Lane
Rio Linda CA 95673

Telephone: 916/991-5929
FAX: 916/991-2892
E-mail: RLEparkdistrict@rcip.com
Website: RLEparks.org

Administrator: Wayne A. Lowery, District Administrator

Staffing: Six full time regular employees
Three part time regular employees
Thirty-five to fifty temporary/seasonal employees

Enabling Act: California Public Resources Code §5780

Services provided: Parks and Recreation

Area: 30 square miles, 19,200 acres

Sphere of influence: Coterminous with existing District boundary

Population: 25,000

Registered voters: 10,300

Formation Date: 1961 County Service Area #3
1990 Dependent Special District
1992 Independent Special District

Governing Body: Five member, elected board of directors

Latent powers: None

Total Budget: Fiscal Year 2013-14: \$1,316,701

Primary Revenue Source: Ad Valorem Property Tax

INTRODUCTION

The Rio Linda Elverta Recreation and Park District is an independent special district in Northwestern Sacramento County

Mission

The mission reflects the overarching principles of District operations and is consistent in its efforts to create a great community for residents of all ages and abilities. Nine key functions make up our Mission:

- Provide Recreational Experiences
- Foster Human Development
- Promote Health and Wellness
- Increase Cultural Experiences
- Facilitate Community Problem-solving
- Protect Natural Resources
- Strengthen Safety and Security
- Strengthen Community Image and Sense of Place
- Support Economic Development

Boundary

The District is bounded on the north by the Sacramento, Placer, and Sutter County lines and on the east by Watt Avenue, a jog westerly on Elverta Road and south on 28th Street to Elkhorn Boulevard to the topmost portion of McClellan Business Park, and continues in a southwestern direction along McClellan Business Park's boundary. The southern boundary is generally Ascot Avenue, Hwy 80, and Elkhorn Road. The western boundary runs south along Hwy 99/El Centro Road, Elkhorn Boulevard, Sacramento City limit by, and Gateway Park Boulevard. (Exhibit B)

Area

The District occupies approximately 30 square miles or 19,200 acres of land.

Population

Rio Linda Elverta Recreation and Park District population is approximately 25,000.

History

The Rio Linda Recreation and Park District was formed as County Service Area #3 by the Sacramento County Board of Supervisors and established under the Sacramento County Department of Parks and Recreation in fiscal year 1961-1962 to provide park and recreation services to the residents of the Rio Linda area. The community of Elverta was included in a

1985 annexation. In 1990, the Rio Linda Elverta Recreation and Park District was created as a dependent park district and became an independent district in 1993.

MANAGEMENT

Management Structure

Rio Linda Elverta Recreation and Park District is an independent special district governed by a five-member elected board of directors. The Board of Directors holds regular meetings on the third Wednesday of each month at 6:30 pm, at the Sacramento Northern Welcome/Visitors Center (Depot), 6730 Front Street, Rio Linda, California. Meeting notices are posted at the Rio Linda Elverta Community Center, the Depot, the Rio Linda Elverta Community Water District Office, and the District website (www.RLEparks.org). Board members receive a stipend of \$100 per meeting.

The Board of Directors appoints the District Administrator, who serves at-will and is responsible for policy implementation and the day-to-day operation of the district including the recruitment and supervision of district staff. Senior management employees include the Administrative Analyst, Park Supervisor and Recreation Supervisor.

Outreach

The Board of Directors encourages the public's involvement at all meetings. Besides posting the board meeting agendas, copies are sent to all residents who have requested notification, other local government officials, and area newspapers of general circulation.

Other services are marketed through a seasonal activity guide, a street side marquee, banners, flyers distributed at schools, a website (www.RLEParks.org), social media (Facebook), mass email notices, and local newspapers.

SERVICES

Services Provided

Rio Linda Elverta Recreation and Park District provides recreation programs, improved parks, and open space services to meet the recreational needs of community residents.

The District follows the National Recreation and Park Association recommended standard of five to ten acres of park for every 1,000 population. Five park categories recognized in the District's 2006 Recreation Facilities Master Plan:

- Mini Parks. Generally less than two acres in size serving a concentrated or limited population.
- Neighborhood Parks. Small park areas of approximately five to fifteen acres serving a population of 2,000-5,000 within ¼ to ½ mile radius.
- Community Parks. Designed to accommodate a wider variety and higher intensity of recreational uses than a neighborhood park often including specialized facilities such as a community center or aquatic center. Intended to serve multiple neighborhoods reaching a population of 20,000 people in a one to two mile radius.
- School-Park Sites. Could provide neighborhood or community park services combining the design and use of recreational amenities jointly with a school site thereby increasing service potential for both the park and school system.
- Special Use Facilities or Areas. Usually do not fit into other park categories, often varying in character and use from traditional park sites. Special Use Facilities or Areas can provide unique recreational opportunities or preserve valuable environmental, cultural and/or historical resources.

Recreation programs

A variety of recreational, educational, and social-service activities are offered to serve all ages, interests, needs, and abilities. Programs include sports, camps, special interest classes, aquatics, senior citizen activities, and special events. Programs are offered throughout the year and often in cooperation or partnership with other organizations including the Chamber of Commerce, churches, service clubs, nonprofit organizations, local businesses, school districts, and other government agencies.

Parks and Facilities

The district provides seven improved parks totaling 47.32 acres. An additional 33.5 acres of unimproved park land is available for development. (Table No. 1). Amenities include sports fields, a dog park, play equipment, group picnic shelters, horse arena, community center, skate park, basketball, and tennis courts. A bicycle motocross track and quarter midget race track are offered through concession management. Gymnasiums, multipurpose rooms, class rooms, as well as a swimming pool are used for District recreation activities through joint use and rental agreements.

Besides sharing school facilities, the district operates two community centers to provide a variety of classes and special events as well as an opportunity to hold meetings and rental activities.

Future growth is approved for the Elverta Specific Plan Area in the northeast quadrant of the District. The land use plan of 1,744 acres is intended to provide a village-scaled community with an eventual build-out of up to 4,950 new homes. This will include a 15 acre community center, 38 acre sports-park, and more than 20 acres of planned neighborhood and community parks. Additionally, street landscape and 118 acres of open

space are contemplated. The District's 2006 Park Master Plan addresses the standards required for future park and facility development.

Park Descriptions
Table No. 1

	PARK	AC	AMENITIES	NOTES
1	Babe Best Park	8.16	Baseball fields (4), playground, parking lot (2), restroom/snack bar.	Possible mini dog park in future; expand N/ parking lot.
2	Central Park Horse Arena Park	12.29	Horse arena, improved and unimproved parking; BMX track.	Access to bike trail; bridge access to Hayer Park.
3	Community Center Park	6.09	Community Center; district office; playground, horseshoe pits; basketball ct.; tennis court.; two playgrounds; parking lot; butterfly gardens; shuffleboard court; picnic shelter; trail access.	2006 Master Plan, Page VII-25 says Community Center Park is 12.5 acres (not 8.5 ac).
	Depot Park	4.1	Depot Center; gazebo; horse and pedestrian/bike trail.	
4	Harvey House Corporation Yard	1.25	Maintenance offices; garage; outdoor storage.	
5	Hayer Park	6.9	Parking lot; quarter midget race track; restroom/snack bar; picnic tables.	Adjacent to Rio Linda Preparatory Academy (TRUSD) sports fields and track.
6	Linda Creek Park	3.5	Open Space	In flood plain.
7	Northbrook Park	2.5	Play equipment; basketball court; fitness trail. [APN: 215-0140-014 & 016]	
8	Ponderosa Farm Park	30.0	Unimproved park [APN: 202-0030-034 (portion)]	Part of 80 acre tract of land; zoned AG-80 F. (Flood Zone: AE; A99; X.FEMA Map No. 0602620055D, dated 11/15/89)
9	Westside Park	7.28	Lighted softball field; volleyball ct.; dog park; restroom; parking lot. [APN: 214-0200-040 & 041]	Includes apx. 3.5 acres turf area with backstop and play equipment at Westside School (TRUSD).
10	Un-named Parcel	.09	Posts for hanging District banners are the only site improvement.	
TOTAL IMPROVED PROPERTY		46.56		
TOTAL UNIMPROVED PROPERTY		35.6		

INFRASTRUCTURE

Infrastructure needs are determined by the District's Board of Directors with input from staff, members of the public, youth athletic groups, community organizations, park neighbors, and surveys. In 2005 the District approved a master plan for future park facilities. The Park and Recreation Master Plan is reviewed annually and was formally updated in 2006. Through a memorandum of understanding, the District partners with the Twin Rivers Unified School District for use of gymnasiums, a swimming pool, and other facilities. Program services are also provided on school facilities through a partnership with the Elverta Joint Elementary School District.

Capital Improvement Projects

The need to provide new capital improvements is based on policies developed in the District's 2006 Park and Recreation Master Plan and public demand. Priorities for new projects consider:

- Ability to meet broad public need
- Availability of outside revenue resources
- Financial ability to provide ongoing maintenance and operation
- Socio-economic and quality of life impact
- Ability to coordinate with other projects to minimize environmental impacts and maximize use of resources.

The District utilizes facilities or other organizations to expand its ability to provide services and avoid project duplication. These can include schools, churches, and commercial properties. The Rio Linda Elverta Community Center (7,272 sf) is recognized as an Emergency Preparedness Center by Sacramento County.

Deferred Maintenance

In 2011, the District contracted with an independent engineering firm to conduct a review of all facilities and park amenities resulting in a thirty year analysis of infrastructure conditions, life expectancy, and repair or replacement projection costs. The report provides a year-to year recommendation of maintaining a replacement reserve fund for all capital facilities and equipment. The District annually adds and/or withdraws from the deferred maintenance reserves based on current and projected needs.

The study evaluated all fixed assets including building and park structures, landscaping, parking lots, etc. Interior and exterior improvements such as paint, plumbing, roofing were considered along with prior and anticipated wear.

FINANCES

Revenue Sources

The District's primary revenue source is the ad valorem property tax. In FY 2013, the Appropriations (Gann) Limit was \$982,995 while the Secured Property Tax Income was \$660,772, well within the established limit. Budgeted tax revenues in all categories were \$718,752. Other principle sources of revenue include Facility Rentals (\$22,960), Recreation Fees (\$124,659), and maintenance services to the Sacramento Area Flood Control Agency (\$23,500). Total budgeted revenues in FY 2013 of \$1,221,549 included one-time sources such as grants and transfers from reserve accounts. Total budgeted expenses in FY 2013 were \$959,376.

Revenue Constraints and Opportunities

With the passage of Proposition 1A in 2004, property tax revenues stabilized after several years of transfers by the State Legislature to the Educational Revenue Augmentation Fund (ERAF). This was followed by the decline in property tax assessed valuations starting in 2006. Recently assessed values appear to have stabilized and moderate growth in property tax income is expected in the next several years. The District receives only about 4% of the 1% assessed value of the annual property tax collected which severely limits its ability to maintain existing facilities and provide adequate administrative support and recreation services. Faced with declining tax revenues, the District recently initiated salary and wage freezes, work furloughs, a reduction in force by not filling vacant positions, downgraded management positions, and postponed deferred maintenance projects.

The pending development of the Elverta Village Specific Plan area will provide not only new facilities to meet the needs of future residents but increased property tax revenues which, through a broad economy of scale, will help sustain District operations. The District now receives a park impact fee (\$6,567 for Single Family Residential) for new development. The Elverta Village Specific Plan is conditioned to provide an ongoing park maintenance revenue source which will likely be either a Community Facilities District (Mello-Roos) or Benefit Assessment District.

Reserve Funds

The District maintains several reserve funds to assure adequate funds for future costs. The ongoing funds include (a) contingency reserves for unanticipated expenses, (b) compensated absences to fund employee leave banks, (c) Park Impact and In Lieu (Quimby) fees, and (d) deferred maintenance. The reserves help insure that expenditure impacts on annual operational monies is minimal.

DETERMINATIONS d

The Rio Linda Elverta Recreation and Park District effectively meets the recreational needs of the Rio Linda Elverta community. The potential for future growth in the Elverta and possibly other areas will have a significant, positive financial impact on its ability to expand services. The District will continue to strive to satisfy the recreational needs of residents by providing a wide range of recreation programs, park facilities, and other opportunities to enrich the quality of life. The cost of addressing future capital project needs as well as to maintain current facility infrastructure without identifying new revenue source is the current largest challenge.

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#



Rio Linda – Elverta Recreation & Park District Master Plan

May 2005

Revised January 2006



Acknowledgments

Recreation and Park District Board

Paula Parker, DVM
Bob McKenzie
Charlea Moore
Loren Monroe Jr.
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Appreciation

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Table of Contents

I. Introduction.....	I-1
A. The Master Plan	I-1
B. Mission of Rio Linda & Elverta Recreation and Park District.....	I-2
C. Recommendations.....	I-2
D. Strategy to Upgrade Existing Parks and Facilities	I-4
II. The District.....	II-1
A. Background.....	II-1
B. Location	II-1
C. Boundaries.....	II-2
D. Geography	II-2
E. Cultural Resources	II-4
III. Recreation and Park Resources	III-1
A. Existing Parks and Facilities	III-1
B. Recreation Programs.....	III-8
C. Additional Recreation Resources	III-9
D. Regional Recreation Facilities	III-15
E. School Resources.....	III-17
IV. Park District Demographic Characteristics	IV-1
A. Planning Areas	IV-1
B. Population and Housing Characteristics.....	IV-3
C. Land Use Characteristics	IV-9
D. Barriers and Trails	IV-14
V. Park Planning Criteria and Standards	V-1
A. Park Acreage Standard	V-1
B. Park Category Description and Recommended Size	V-2
C. Recommended Park Location Criteria.....	V-4
D. Open Space and Greenbelts	V-7
E. Open Space Transition Options	V-8
F. Parks and Open Spaces Managed by Others.....	V-9
G. Concession Operation	V-9
H. Private Recreation	V-9
I. Recreation Facilities Development Standards	V-9
J. Park Development Standards.....	V-13
VI. Park & Recreation Need.....	VI-1
A. Recreation Needs Survey.....	VI-1
B. Park and Recreation Needs	VI-2
C. Comparison with Similar Park Agencies.....	VI-5
VII. The Park and Recreation Master Plan	VII-1
A. Park and Facility Recommendations	VII-1
B. Future Park and Recreation Facilities	VII-1
C. Existing Park and Facility Recommendations	VII-11
D. Park Development Priorities	VII-24
E. Capital Improvement Program.....	VII-24
F. Park and Recreation Operation	VII-27
G. Additional Considerations to Implementing the Master Plan.....	VII-29

List of Tables

Table 1 — RLERPD Park Inventory	III-7
Table 2 — Recreation Program Participation.....	III-8
Table 3 — RLERPD Total Population by Planning Area.....	IV-3
Table 4 — RLERPD's Population as a Percentage of the Total County Population	IV-3
Table 5 — RLERPD's Projected Population Growth 2000-2014	IV-4
Table 6 — RLERPD's Projected Population Growth by Planning Area 2000-2014	IV-5
Table 7— RLERPD Housing Units by Planning Area	IV-5
Table 8 — RLERPD Housing Occupancy Status by Planning Area	IV-6
Table 9 — RLERPD Housing Occupancy and Vacancy Rates by Planning Area	IV-6
Table 10 — Park Type, Size, and Service Area.....	V-4
Table 11 — Rio Linda Recreation and Park District.....	V-10
Table 12 — General Park Standards	V-14
Table 13 — Mini Park Standards	V-16
Table 14 — Neighborhood Park Standards	V-17
Table 15 — Community Park Standards.....	V-19
Table 16 — School-Park Site Standards	V-22
Table 17 — Special Use Facility Standards.....	V-24
Table 18 — Linear Parkways, Greenbelt and Open Space Standards.....	V-25
Table 19 — Recreation Acreage Needs by Year 2014.....	VI-2
Table 20 — Neighborhood and Community Park Needs	VI-4
Table 21 — Comparative Data for Park Agencies	VI-6
Table 22 — RLERPD Park Facility-Capital Improvement Program	VII-25

List of Figures

Figure 1 — Regional Context Map.....	II-1
Figure 2 — District Boundary Map (not to scale)	II-3
Figure 3 — Major Barriers and Traffic Routes Map	III-10
Figure 4 — Bicycle Route and Trail Plan Map	III-11
Figure 5 — Existing Features Map.....	III-13
Figure 6 — Dry Creek Parkway	III-14
Figure 7 — Planning Area Boundary Map	IV-1
Figure 8 — Land Use by Zoning Map	IV-10
Figure 9 — 2000 Census Tracts Map	IV-11
Figure 10 — Population Growth Map.....	IV-12
Figure 11 — Graphic Master Plan.....	VII-3
Figure 12 — Rio Linda-Elverta Community Center Park	VII-12
Figure 13 — Rio Linda Central Park Horse Arena and Roy E. Hayer Park	VII-14
Figure 14 — Westside Park	VII-16
Figure 15 — Babe Best Park	VII-18
Figure 16 — Depot Park	VII-20
Figure 17 — Northbrook Park	VII-21
Figure 18 — Ponderosa Farms Community Park	VII-23

List of Appendices

Appendix A — Funding

Appendix B — Trends Affecting the Future of Park and Recreation

Appendix C — Rio Linda-Elverta Community Area Major Drainage System

Appendix D — Resolution No. 82-385

Appendix E — Rio Linda & Elverta Recreation and Park District Recreation Needs

Survey – Summary Results

Appendix F — Average Daily Traffic Volumes – Existing Conditions

Appendix G — 2010 Sacramento City/County Bikeways Master Plan

Appendix H — Elverta Specific Plan

| [Appendix I — Panhandle Planned Unit Development](#)

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I. Introduction

A. *The Master Plan*

Open space, parks, and recreation facilities have in recent years come to be recognized as essential to a healthy environment. The necessity to preserve open space and to provide parks and recreation facilities comes as a response to the increasing degree of urbanization throughout the nation, including Sacramento County. Increasing population density, scarcity of open space and natural areas, concern with the quality of our environment, and the increasing amount of leisure time available to many in our society has made the quality of park, recreation and open space a critical issue to most in urban areas.

The Rio Linda/Elverta community is an example of an area which has preserved its rural characteristics for many decades, but is currently facing proposals for intensive residential development which will result in tremendous increase in population and greater demands for more parks and recreational services. Although the Rio Linda & Elverta Recreation and Park District (District / RLRPD) has no direct role in determining population density or the land uses in the community, it is partially responsible for providing a healthy, enjoyable environment for the present and future residents of the District.

During the next ten years, the District faces the challenge of providing adequate park and recreation opportunities for an increasing population in a time of growing fiscal limitations. Increased recreational demand will continue to be stimulated by public interest in the environment, parks and open space, preservation of natural areas, health and fitness, and an increasing amount of time for pursuit of recreational activity. This anticipation of a continued population increase and accelerating recreational demand must be balanced with fiscal ability of the District and its property owners. The District must focus on the needs of the community and the interests of the District in continuing with an aggressive approach to providing a sound park and recreation program.

Over the last twenty years the District has experienced sporadic development of residential and commercial projects within its boundaries. In recent years some major road improvements have been completed by the County and there is currently in process the Elverta Specific Plan, proposing to build over 4,500 dwelling units, schools, parks and associated commercial projects in the north-eastern portion of the District. This is the first major development project to occur in the District, but it will not be the last. With the incorporation of the cities of Elk Grove and Rancho Cordova, the Rio Linda area is one of the last potential growth areas available in the County of Sacramento. Negotiations have already begun between the City of Sacramento and the County of Sacramento concerning the development of a large tract of land north of "the Natomas Development" along interstate-5. This area, east of HWY 99, is within the jurisdiction of the Rio Linda & Elverta Recreation and Park District. If these proposed projects are approved for development, new parks and recreational facilities will need to be funded as well as other public services and facilities as part of the project Capital Improvement Program.

Though the District has no authority related to land use decisions, the District Board is using this master planning process to re-examine the future course of action it should be taking in regards to future District funding, parkland acquisition, development, recreation programming, and the management of the District. The purpose of this master plan, therefore, is to provide the District with a comprehensive view of its park and recreation resources, develop suggested ways to improve the existing parks and facilities, to develop additional new parks and recreation facilities, and a practical program to finance, acquire, develop, and operate a sound park and recreation system for the next decade and beyond.

B. Mission of Rio Linda & Elverta Recreation and Park District

The following are the Mission Goals of the District Board:

- To acquire, develop and maintain an adequate number of neighborhood and community park facilities for the leisure time enjoyment of Rio Linda and Elverta residents.
- To provide a balanced variety of quality recreational programming for a rapidly expanding and diverse population.
- To develop an efficient park maintenance operation equipped to provide an acceptable level of maintenance and safe usage by park users.
- To provide park security patrol for the protection and safety of park users and public properties.
- To maintain effective citizen and organizational resources that encourages volunteerism and participation by individual and community organizations.

C. Recommendations

The following are the recommendations to help implement this master plan:

1) Adopt Standards and Guidelines

The District should request that the Sacramento County adopt the Rio Linda Elverta Recreation and Park District's Park and Recreation Standards and Guidelines as described herein.

2) Acquisition / Development Priority

Acquire and develop sufficient park lands, recreation facilities, and open space areas for the benefit of the community. Place high priority on acquiring additional parklands, and developing parks and facilities in areas of the District that are underserved. If acquisition of additional parklands in a Planning Area is infeasible due to lack of suitable land or affordable land, make alternative arrangements to address the park and recreational facility need.

3) Parity in Park and Facilities

Provide parity in park and recreation improvements throughout the District. Improvements to parks and recreation facilities in established, older neighborhoods shall be given equal importance as the development of parks and facilities in the newer neighborhoods.

4) Funding Mechanisms

Develop additional funding mechanisms to support the District's effort to acquire and develop needed parks and recreational facilities; continue to apply for grants for acquisition, development, and renovation of parks and facilities; upgrade existing parks and facilities as needed; and enhance the recreation programs and services.

5) Work closely with the County and Land Developers

Work closely with County of Sacramento regarding negotiations with developers on projects, conditions of approval, park and recreation standards, plan processing fees, and other ways to enhance the quality of park and recreation, open space, and environmental quality for the present and future residents of the community. Insure that the required parks and recreation facilities are developed on a timely schedule and in keeping with the District's development standards.

6) Work Cooperatively with Other Entities

Work cooperatively with other entities such as the City and County of Sacramento, the Community Planning Council, adjacent park districts, and other public and private entities to develop and operate park and recreation facilities to the benefit of District residents.

7) Actively Support Related Parks and Recreation Facilities

Actively support the planning, development, and management of park and recreation facilities managed by others such as the development of the Dry Creek Parkway, Dry Creek Greenway, Ueda Parkway, improvements to Gibson Ranch and Cherry Island Soccer Complex, the Cherry Island Golf Course, and the establishment of a countywide trail system.

8) Joint Use Agreement with School Districts

Pursue the adoption of a joint use agreement with the local school districts that would enhance District use of school grounds and facilities, and the opportunity for RLERPD to assist the school districts with school site maintenance work.

9) Recreation Programs

Provide a broad range of recreation programs to meet the needs of all age groups as well as the special needs of the elderly and the disabled, and be inclusive of different interest groups.

10) Open Space Preserves and Public Access

While the District recognizes and supports the need to preserve important open space areas for habitat preservation, protection of endangered species, and value these areas as valuable community resource, the District also encourages the preservation of open space areas that also accommodates controlled public access.

D. Strategy to Upgrade Existing Parks and Facilities

Upgrade and enhance existing parks and facilities to boost public use and enjoyment, expand programs, and improve the surrounding community in the following order:

First priority should be to remove health and safety hazards, comply with ADA requirements, and create an enjoyable/attractive park.

Second priority should be to provide adequate park and recreational facilities and programs to meet the needs of the District residents.

Third priority should be to implement the other park and facility improvements described in this master plan to enhance the service to the District residents.

II. The District

A. *Background*

Rio Linda & Elverta Recreation and Park District (District or RLRPD) was formed as Community Services Area #3 by the Sacramento County Department of Parks and Recreation during the 1961-1962 fiscal years to provide parks and recreation services to the residents of the Rio Linda area. The town of Elverta was included in a later annexation to this growing area. The former County Service Areas were originally created by a mandate to provide areas that previously were not autonomous, with a governing power to implement their parks and recreation services. The goal was to convert these areas to a dependent District, and ultimately to an independent District. Consequently, in 1990 the RLRPD was created as a dependent park District, and became an independent District in 1993.

The functions of the District are to develop and monitor the budget, carry out the policies of the Board, and oversee the daily operations of the District. Except for some support services provided by Sacramento County, such as accounting and tax collection, the RLRPD is an independent District.

B. *Location*

RLRPD is located in the northern portion of Sacramento County directly north of the City of Sacramento.

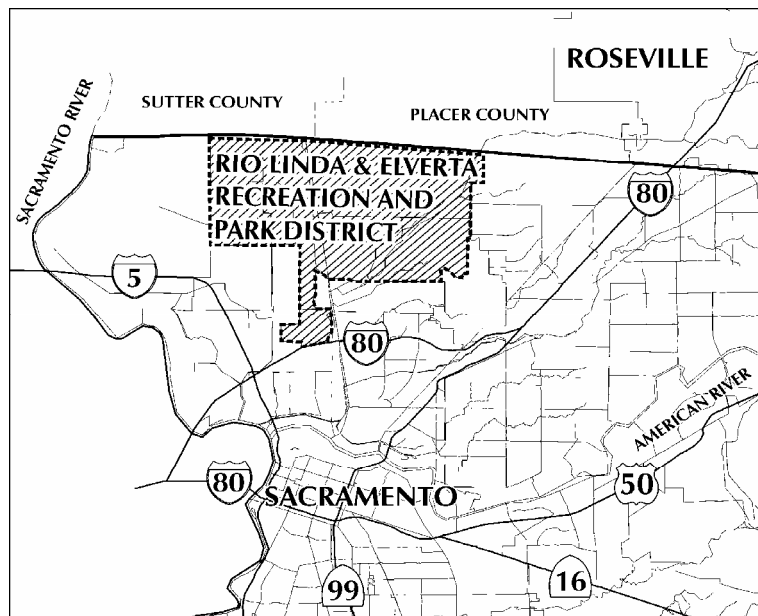


Figure 1 — Regional Context Map

C. Boundaries

The District is bounded on the north by the Sacramento, Placer, and Sutter County lines and on the east by Watt Avenue, a jog westerly on Elverta Road, and south on 28th Street to Elkhorn Boulevard to the topmost portion of McClellan Business Park, and continues in a southwestern direction along McClellan Business Park's boundary. The southern boundary is generally Ascot Avenue, HWY 80, and Elkhorn Rd. The western boundary runs south along HWY 99/El Centro Rd., Elkhorn Blvd., Sacramento City limit, and Gateway Park Blvd. The District occupies approximately 30 square miles of land. (See the following Figure 2 – District Boundary Map).

In addition to Planning Area 1-A, referred to as the Natomas Area, which is further described in Chapter IV and involves potential annexation proceeding by the City of Sacramento, Planning Area 1-B, the Panhandle, has over the years also been the subject of annexation proposal at the Sacramento City Hall. This area located south of Elkhorn Blvd. to Interstate 80, bounded by East Levee Road on the east, and Sacramento City limits to the west includes some 1,425 acres. Composed of rural residential, industrial, and vacant land use, this area is currently being targeted for residential development. Many residents in the area are opposed to these developments since they want to retain the rural character of the area.

The original boundaries of the District included exclusively the township of Rio Linda. In October 1985, annexation procedures that included Elverta and other adjoining, un-serviced areas more than doubled the size of the original District. Thereafter, a portion of the District south of 1-80 was annexed to the City of Sacramento in the Raney Reorganization.

D. Geography

The District is comprised of relatively flat terrain. The natural vegetation is predominantly oak grasslands with oak and cottonwood groves occurring in an east-west direction in association with the Dry Creek and Rio Linda Creek streambeds.

The communities of Rio Linda and Elverta have had a long history of periodic flooding along the various stream channels and drainage courses in the area. Portions of the District lie within designated floodways, which include the stream channel and portions of the adjoining floodplain that provide for the passage of the "100 year flood" flow. The major areas of flooding are generally along the three major drainage systems; Dry Creek, Rio Linda Creek and Steelhead Creek (formerly known as Natomas East



Main Drainage Canal). For further information regarding the floodplain, see Appendix C, Rio Linda-Elverta Community Area Major Drainage System map.

Climatically, the area is noted for hot, dry summers and mild, moist winters. Annual temperatures average 62 degrees Fahrenheit, but range from below freezing in the winter to over 100 degrees Fahrenheit during some summer days. Average annual rainfall is 19 inches.

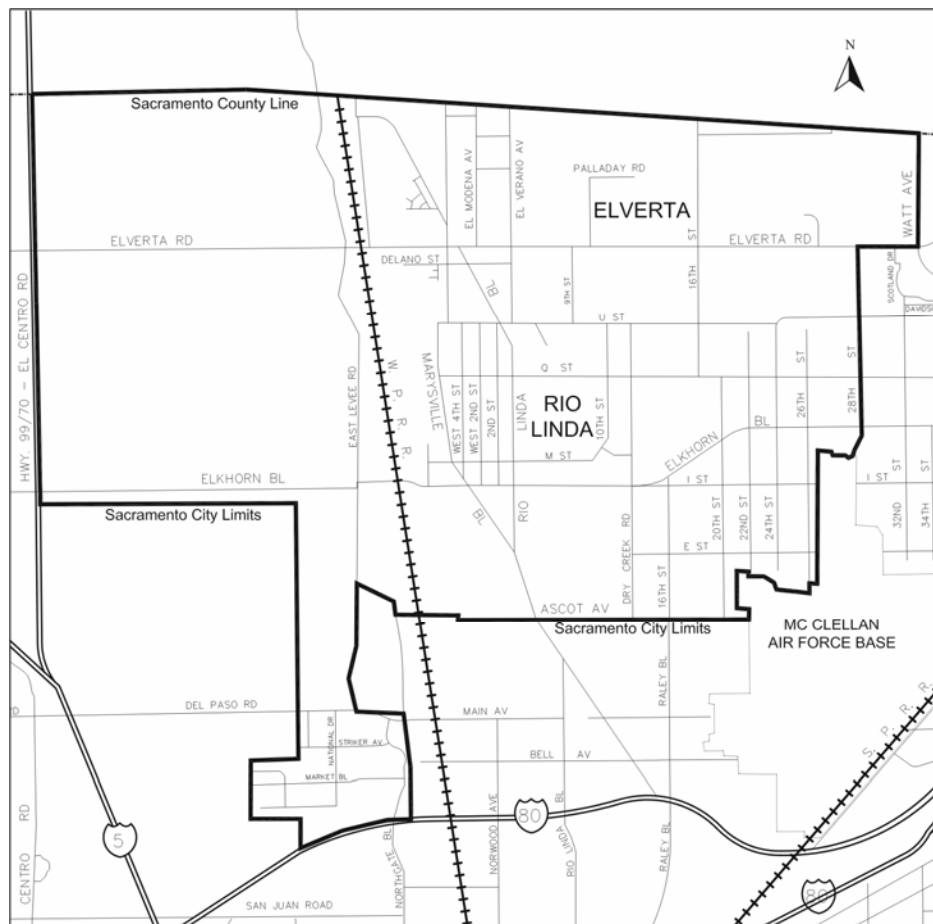


Figure 2 — District Boundary Map (not to scale)

E. Cultural Resources

1) Prehistoric Resources

Many archaeological sites have been identified along major drainage ways in the County of Sacramento, especially sites located on high ground near permanent water sources, and along the smaller creeks such as Dry Creek. Sites that have been identified and are still preserved along these drainages are often highly significant. Also, numerous unidentified sites are probably extant; however, alluvium has been deposited over a long period of time, burying many such archaeological sites.

2) Cultural Setting

The Sacramento area has a long prehistoric association. Indigenous people populated the Sacramento Valley region for thousands of years prior to the influx of Euro-American settlers in the mid-1800s. Archaeological evidence confirms that the initial occupation of California occurred prior to 8,000 years ago (Moratto 1984). The earliest inhabitants were apparently transient hunters and gatherers who exploited the various ecological zones on a seasonal basis. As time progressed, more permanent settlements were established and food collecting became intensive.

Ethnographic records (from missions and other documents) show that the groups that inhabited the Rio Linda / Elverta area were the Nisenan, or Southern Maidu. Nisenan sites included villages, seasonal camps, quarries, ceremonial grounds, trading sites, fishing stations, cemeteries, and river crossings (Wilson and Towne 1978:389). Principal villages included a large, semi-subterranean assembly house and substantial residences that were partly excavated into the ground. These types of houses were constructed of a frame covered with brush or tules. Acorns were the staple among many California native groups. Villages ranged in size from small extended families of 15 to 20 individuals to large groups of 500 or more.

In the middle to late 1800s, with the arrival of trappers, settlers, and miners, the Southern Maidu were displaced from their land, killed, or fell victim to various epidemics. This greatly reduced the population, and resulted in the near destruction of their languages and cultures (Wilson and Towne 1978).

3) Historic Resources

Historic period structures, buildings, and archaeological sites are found predominately where early settlements are located and along transportation routes connecting these settlements. For example, much of the Rio Linda and Elverta area surrounding Dry Creek was settled in the decade between 1910 and 1920. Prior to that, the area was subject to floods and development was restricted. By 1911, the first Reclamation District (No. 1000) was formed and levee building begun. Some agricultural settlement existed prior to reclamation on the higher grounds; however, most homes, farms, and rural development of the surrounding area post-date 1911.

4) History

Though not a gold-bearing area of California, the Gold Rush greatly shaped the history and development of the Rio Linda-Elverta area. Transportation and agriculture were two primary contributions. Portions of the Rio Linda-Elverta locality were incorporated into an early land grant, Rancho Del Paso, 44,000-acre estate.

Once the area was secured from flooding, rapid agricultural development and additional settlement followed. The town of Elverta was established in 1908 adjacent to the line of the Sacramento Northern Electric Railway, which was extended southward from Marysville through the Rio Linda/Elverta area to the City of Sacramento in 1907. The Sacramento Valley Colonization Company, a subsidiary of the United States Farm Land Company of Chicago, Illinois, purchased the lands of Rancho del Paso in 1910. The company announced plans to establish two towns along the railway line, one near the station at Walerga on the Southern Pacific line and the other near the station at Dry Creek on the Sacramento Northern line. This latter site was renamed Rio Linda, a community founded in 1913. Divided into 10-acre parcels, Rio Linda was widely marketed in the 1920s as an ideal location for orchard homes and poultry farms.

Archeological information pertaining to RLERPD is contained within the December 1985 Cherry Island Golf Course Draft Environmental Impact Report. A total of two hundred acres in the Dry Creek/Cherry Island area was surveyed, and no significant cultural resources were found. Essentially, the entire Dry Creek/Cherry Island area was surveyed to assist the proposed Sacramento County golf course and for processing the Cherry Island Soccer Complex project. It should be noted that these results are "surface" survey findings only. The report recommended that if any artifacts are found below the surface during the golf course and soccer complex development, work in the area should be stopped until further archeological surveys and environmental reviews are done. There were no other archeological records pertaining to other park sites in the area. Further archeological information is contained in the Natomas Basin Study conducted by the City of Sacramento in 1997 and 2001; Dry Creek Parkway Master Plan EIR in 2003; and the Rio Linda Elverta Community Plan EIR.

Historical resources at RLERPD's park sites previously included an antique fire truck on view in the museum building at the Rio Linda Depot Park. More recently, the museum building was demolished and the antique fire truck relocated for safe keeping by the Sacramento Metro Fire District. The small stone and wood depot building originally at the park site was moved and turned into a home, now located near 6th Avenue. A new replica of the Old Depot was re-built on its original site in 2003, and is now referred to as the Visitor Center / Meeting Hall.

Approaching the business District of Rio Linda from the west, one is greeted by the distinctive street arch at Rio Linda Boulevard and "M" Street. This landmark was offered to Rio Linda by the City of Marysville in 1925, and it was moved the following year to its present location. An entrance sign originally hung from the center, but was replaced later by the flashing red light. (Source: History of Rio Linda/Elverta, 1977, Donald Walker, Ed.)

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III. Recreation and Park Resources

The District currently administers seven parks, one horse arena, one community center, an undeveloped 30 acre Ponderosa Farms Community Park site, and the 3.5 acre undeveloped Linda Creek Park site. These parks total approximately 82.66 acres. Some of these parks were, in part, developed with the assistance of the Community Development Block Grant (CDBG) through the Sacramento Housing and Redevelopment Agency, including the Community Center building, the Depot bandstand/gazebo, the replica of the original Sacramento Northern Railroad Depot, landscaping in the Community Center and Depot Park, Community Center parking lot, Central Park restrooms, fencing, bridge, parking facilities, and the Westside Park frontage improvements and parking lot. The township of Elverta, which was annexed to the District in 1985, presently does not have a developed park site or a recreation facility.

The various parks and recreation facilities managed by the District are further described in the following pages with information regarding the type of facility, acreage, investment to date, and development status (see Table 1 — RLERPDP Park Inventory). Maps of each park with recommended improvements are found in Chapter VII.

A. Existing Parks and Facilities

Babe Best Park is a partially developed neighborhood park of 8.5 acres located on the south west quadrant of 10th and “U” Streets within Planning Area 2. The park was named for a Rio Linda Fire Chief, Babe Best. Except for the 10th Street frontage and Q Street easement used as unpaved parking area, the remaining sides of the park abut residences and a church. The property was acquired in 1964 to serve the neighborhood, and is primarily used for ball field activities.



Since the last master plan, new playground equipment has been installed, the parking lot has been repaved, ADA access provided to playground and concession area, and two additional ball fields were added.

Central Park Horse Arena is a partially developed special purpose park of 12.5 acres which was acquired in 1967 by the former Service Area. The park is located in Planning Area 3, just south of Elkhorn Blvd. and Cherry Lane. The sole vehicular access to the site is off of Elkhorn Blvd. with pedestrian and bicycle access provided from Elkhorn Boulevard and the adjacent Sacramento Northern Railroad Bikeway on the west side of the park. Previously, pedestrian access to Central Park Horse Arena was provided by means of a pedestrian bridge across Hayer Pond. For safety and security reasons, this bridge was removed almost a decade ago. While the north side of the park is bounded by residences, the west side is open to the Sacramento Northern Railroad Bikeway, and the south tributary of Dry Creek flows along the east side. As the name implies, the Horse Arena and its related equestrian activities has been a major focus at this site. However, the use of the Horse Arena has declined dramatically in the last few years. The BMX track continues as a concession operation with casual use of the BMX track on the week-days, and active competition on week-ends and some week-day nights.



The park is equipped with full-size lighted arena, bleachers, and an announcing booth. Historically, rodeos, horse shows, and other livestock activities were conducted periodically from April through October.

Some of the improvements and changes that have taken place in the last decade include parking lot repaving and ADA access, new entrance sign, planting of

additional shade trees with irrigation, BMX track with lights, and oak tree mitigation planting along Dry Creek. New panels were also installed around the arena, and improvements made to the announcer's booth.

Community Center Park is an 8.5 acre site consisting of two shuffleboard courts, eight competition horseshoe pits, shade structure, tot lot, a multi-purpose basketball and/or volleyball court, and a tennis court. The Sacramento Northern Railroad Bikeway passes along the western edge of the park, and the Dry Creek Parkway lies contiguous to the south. During the last decade the old playground equipment was replaced, the parking lot repaved, ADA accommodations provided, cement pad provided for refuse area, and bike racks were installed. Except for the adjoining, undeveloped corporation yard site and the southern natural area, this site is nearly fully developed.

The Community Center includes a patio, kitchen, meeting rooms to accommodate 142 people seated and 305 standing, and a sizable adjacent parking lot. Beyond recreation programs conducted at the facility, the center is available for parties, wedding

receptions, meetings, and other community and private events. The District's administrative offices are located here, as well as all recreation program registration.



An adjacent 2 acre parcel was donated to the District by the Harvey Family to enlarge the park. The District plans to convert the site for its future Corporation Yard. The former Harvey House, located on the site, has the potential when renovated to serve as an office or meeting facility for the District or other community groups.

Depot Park - The Rio Linda Station Depot, after which this park is named, started as part of the Northern Electric Railway constructed in 1905. The December 18, 1910

railroad timetable shows a station at Elverta and Dry Creek (the town site of Rio Linda). In 1917 the Rio Linda Station Depot was completed on land donated by the Sacramento Suburban Fruit Lands Company. The last day of the passenger trains serving this station was June 21, 1936, but the Depot continued to be used for freight service for some time thereafter.

The 3 acre site was acquired in 1988 and has served as a greenbelt park ever since. This is the location of the bandstand / gazebo, and the new Visitor Center. "Old Betsy," the antique community fire truck was previously located at this park. The Sacramento Northern Railroad Bikeway passes longitudinally through this park.

Some of the recent improvements made to the park include the relocation of the bandstand / gazebo further south onto a new foundation, and the construction of a replica of the original Sacramento Northern Railroad Depot which is now used as a Visitor Center / Meeting Hall.





Elkhorn Equestrian Staging Area is located on the east side of East Main Drain Canal and south side of Elkhorn Boulevard, part of what is now referred to as the Ueda Parkway. Though not owned by the District, the District nonetheless maintains the staging area for public use. This staging area accommodates horse trailers and is one of the equestrian access points to a riding trail that parallels Ueda Parkway. This parkway and trail will eventually allow trail

connection to the American River Parkway to the south and the Dry Creek Parkway to the north east.

Linda Creek is an undeveloped 3.5 acre parcel located, south of E. Street between Dry Creek Road and 16th Street, adjacent to Linda Creek. This is one of the newer District park site's becoming part of RLERPD in 1996.

Northbrook Park is a 2.5 acre neighborhood park, located on the east side of Dry Creek, across Dry Creek from Gibson Ranch. This site was acquired from Sacramento County in 1994 and was improved the following year. The existing park improvements include concrete path, turf, shade trees, play ground, basketball court, par course, picnic areas, and a perimeter of drought tolerant plantings. Excepting for maintenance and emergency vehicles, access is presently limited to



pedestrian and bicyclists via Tourmaline Way. In the future, this park will also serve as a rest stop along this segment of the Dry Creek Parkway's multi-use trail.

Ponderosa Farms Community Park Site is a 30 acre undeveloped site located west of Rio Linda Blvd. and north of Elverta Road. This site was purchased by the District in 1991 for a future community park. Prior to proceeding with any park master plan or development, carefully examine the site to identify seasonal wetlands, flood prone areas, and other sensitive environmental issues that may impact the future use of the site.



Roy E. Hayer Park is a 2.6 acre site, located across Dry Creek from the Central Horse Arena, and is contiguous with the Dry Creek Parkway. Central Park, the former name, was changed to Roy E. Hayer Park to honor the family that donated the park site to the District. Presently, the park improvements include turf, shade trees, horseshoe pits, concession stand, picnic areas, paved parking, and access to Dry Creek

and Hayer Pond. In order to accommodate fish migration, Hayer Dam was removed and cross vanes installed to maintain the water level at the Hayer Pond while also allowing fish to pass. Future plans for this site includes the construction of a new bridge to reconnect Hayer Park to Central Park Horse Arena, and the construction of an infiltration gallery to enable water diversion from the Hayer Dam to serve Bell Aqua Lakes.

Westside Park is a partially developed 7.5 acre park located on the west side of W. 2nd Street, south of M. Street, and adjacent to Westside Elementary School. The park improvements include one lighted softball field, bleachers, and a 70 car parking lot. During the last ten years, the improvements made to this park have included upgrading the perimeter fence from 4' to 6' high, relocating the outfield fence from 275' to 300', installing new lights and

new scoreboard. The name of the ball field was also changed to Wayne H. Paulson Field for the former Recreation Superintendent of the District. Some of the improvements made since the last master plan include two sand volleyball pits, installation of a permanent restroom; repaving of the parking lot; replacement of the old playground equipment; and addition of a fenced Dog Park.



Table 1 — RLERPD Park Inventory

	Babe Best Park	Central Park Horse Arena / BMX Track	Community Center Park	Depot Park	Linda Creek	Northbrook Park	Ponderosa Farms Community Park	Roy E. Hayer Park	Welcome to Rio Linda Entry Park	Westside Park	Elkhorn Equestrian Staging Area
Acres	8.5	12.5	10.5	3.0	3.5	2.5	30	2.6	0.6	7.5	
Development Status	PD	PD	PD	D	U	PD	U	D	U	PD	PD
Planning Area	2	3	4	4	5	2	2	5	5	3	1B
Athletic Field Lighting		X								X	
Basketball Court			FC			HC					
BBQ			X	X				2			
Bike Racks		X	X	X							
Bleachers	X	X								X	
BMX Track		X									
Community Center			X								
Concession Stand	X							X			
Creek Access		X	X		X	X	X	X			
Dog Park										X	
Drinking Fountain	2		X	X				X		X	
Exercise Stations						X					
Garden		X									
Horse Arena		X									
Horseshoe Pits			8					3			
Little League Fields	4										
Multi Use Fields											
Parking Lot (paved)	X	X	X					X		X	
Parking Lot (unpaved)	X	X									X
Park Sign	X	X	X							X	X
Patio Area			X								
Picnic Area	X		X			X		X			
Picnic Shelter			X	X							
Picnic Tables	7	2	2	2		4		10		3	
Playground			X			X					
Portable Restroom	4	X									
Restroom			X					X		X	
Shuffleboard Court			2								
Softball Fields										X	
Storage Facility or Bin	X		X								
Tennis Court			X								
Tot Playground	X									X	
Trail Linkage		X	X	X			X				X
Volleyball Courts (sand)										2	

B. Recreation Programs

The District continues to offer a variety of recreation programs and activities. Currently, some of the programs offered by the District include youth classes, special interest classes and activities, senior programs, and family sports programs in basketball and soccer. Special programs such as an annual crafts fair, carnival, a Halloween extravaganza, and Easter Egg Hunt are also provided. The Staff continually evaluates the programs in order to upgrade and expand recreation and park services.

Illustrated below in Table 2 is the program participation summary for the years 1997 through 2001. As illustrated, the more popular programs have sustained themselves for a number of years while the less popular programs have been dropped or are barely able to continue. The table is only illustrative of the programs where participation data was available from the District. In many other youth and adult sports programs that the District provides, participation data was not available for inclusion in this chart.

Table 2 — Recreation Program Participation

Program Description	1997-98	1998-99	1999-00	2000-01
Aerobics	1,776*	1,368	1,584	1,248
Bass Fishing			8	
Cheer Clinic			32	
Computers	426		210	
Dance/Gym	2,800	2,144	2,496	2,420
Dog Obedience	30	132	150	138
Draw/Paint	308	424	364	336
Fun with Photos	2			
Horseback Introduction		7	7	
Hunter Safety	100	125	125	125
Karate	168	144	240	660
Kenpo Jujitsu	88			
Kuk Soo Won	64	216	160	216
Piano	132	28		224
Stamping	20	82	146	
Tai Chi	64	488		1,064
Tiny Tot Martial Arts		88		88
Writing Workshop	4			
Western Dance	66	78		78

* Annual program attendance days

Based on Table 2, 1997-2001 recreation program participation, it is difficult to evaluate the success of the District's overall program activities since attendance figures for significant numbers of programs are not available. It is safe to say that some programs, specifically aerobics, dance/gym, dog obedience, draw/paint, hunter safety, piano, and martial arts classes have shown steady growth or are maintaining a steady public support.

As in the past, a majority of the programs and activities offered by the District are held within the township of Rio Linda. Rio Linda contains the largest concentration of the District's population and all of the District facilities. Although Elverta area has the second largest population, presently the lack of recreation facilities in the Elverta area limits programming opportunities in the area. Two programs that are offered in the Elverta Area include after school programs at Elverta School, and at the Sacramento Metropolitan Fire Department facility.

C. Additional Recreation Resources

In addition to existing parks, natural streams, trails and bikeways in the District, a number of private businesses offer additional recreation opportunity to the residents of the District. Some of these include the Rio Linda Airport, Antelope Greens Golf Course, Water Ski Lake, and local horse owners who provide training and riding opportunities to the public. The availability of these additional public and private recreational facilities, however, does not lessen the need for local park facilities and recreation programs provided by the District.

1) 1/4 Midget Track

With the creation of the Dry Creek Parkway, the contract that the 1/4 Midget Track had with Sacramento County for the use of the land for a race track ended. As part of this termination arrangement, RLERPD agreed to assist the 1/4 Midget Track group to locate another site for their track. The minimal requirement for the 1/4 midget track is 2 acres plus parking area. Although the District has not located a suitable site to relocate this track, it continues to be one of the park features that the District will be considering for future park sites.

2) Bikeway and Trails

As part of the Sacramento County's Trails System, RLERPD has several bikeways within its borders (See Figure 4 and the graphic Master Plan). A paved bikeway runs north through the District along the old roadbed of the Sacramento Northern Railroad, a designated multi-use trail corridor. This bikeway connects Hayer Park, Central Park Horse Arena, Rio Linda Depot and the Rio Linda/Elverta Community Center and Park. In addition, the Elverta Villages Specific Plan includes trail systems within and connecting to adjacent trail system.

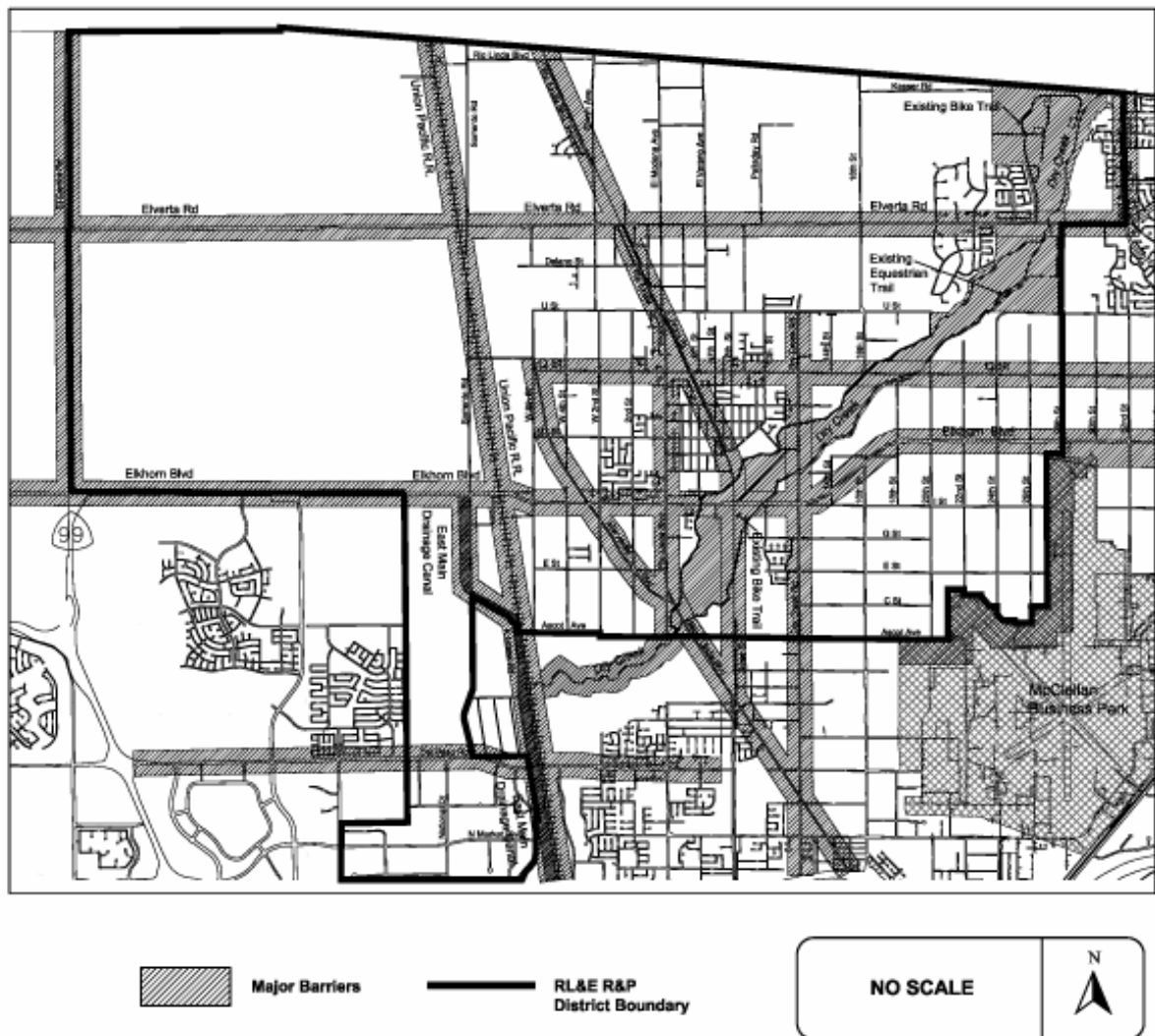


Figure 3 — Major Barriers and Traffic Routes Map

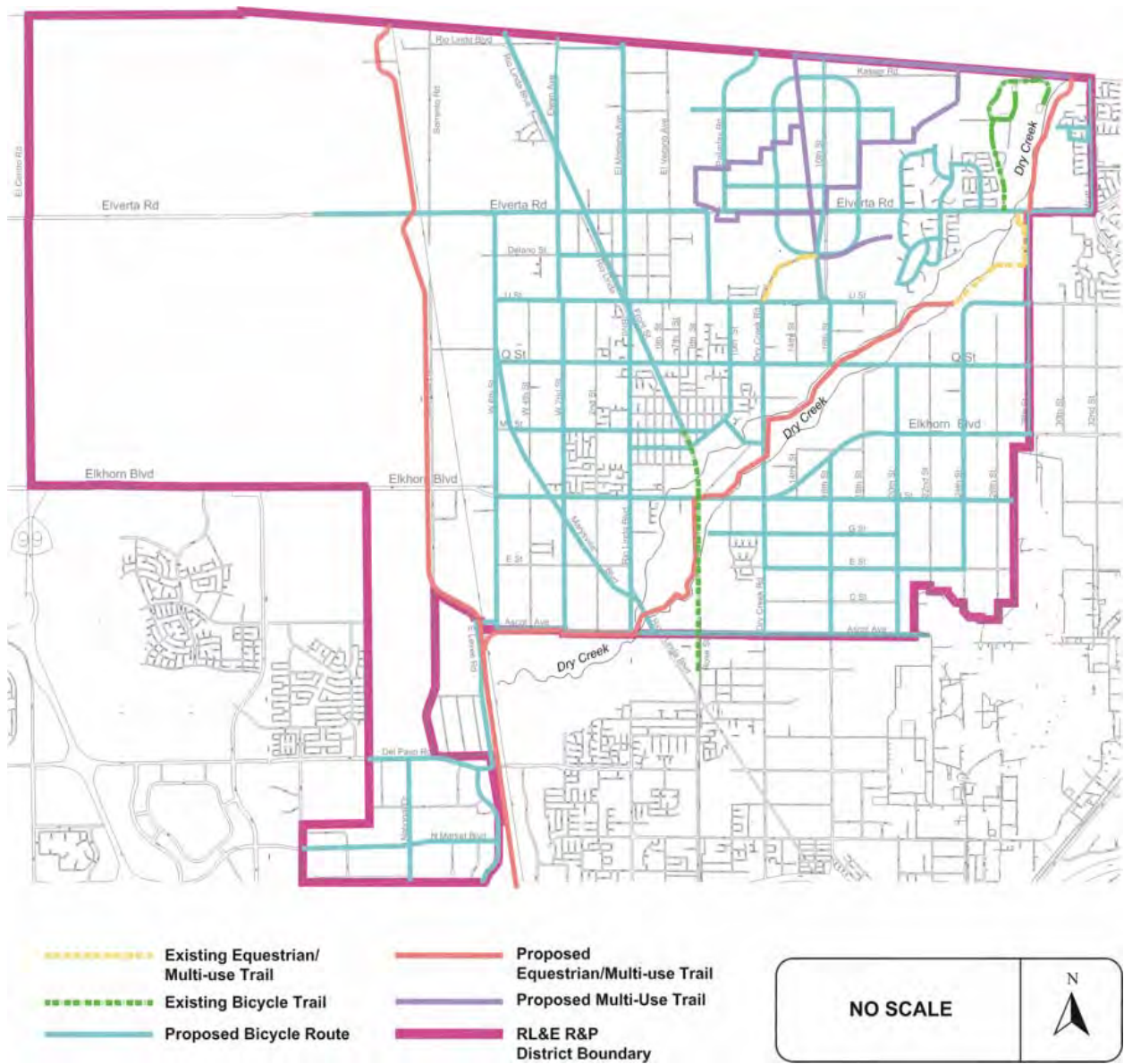


Figure 4 — Bicycle Route and Trail Plan Map

Bikeways are designated as Class I, II, and III and are defined as follows:

- **Class I Bikeway (Bike Path or Trail)** — A completely separated, paved, right of way for the exclusive use of bicycles and pedestrians with cross-flow minimized.
- **Class II Bikeway (Bike Lane)** — A striped lane for one-way bike travel on a street or highway.
- **Class III Bikeway (Bike Route)** — Provides for shared use of a road with pedestrian or motor vehicles. Signs are required to be placed along the road designating the road as a Bike Route.

3) Natural Streams

There are four natural streams, Dry Creek, Rio Linda Creek, Goat Creek, and Robla Creek within the District. As more of the open space / farm lands are developed for various urban uses within Rio Linda and Elverta Area, and even more so in Roseville and Placer County (which is part of the Dry Creek watershed) the creeks and drainage ways in Rio Linda and Elverta Area will receive greater surface runoff. Recognizing this increasing problem, Sacramento County and SAFCA has been systematically acquiring flood prone properties within this portion of the Dry Creek Floodplain from willing sellers. The objectives of this program are to remove residences from flood prone areas and to return the land back to open space and agricultural uses that would be compatible with periodic flooding.

Dry Creek Parkway

Sacramento County Department of Parks, Recreation and Open Space has also been utilizing various grant funds to gradually assemble the linear Dry Creek Parkway from Placer County line to Sacramento City limit. While the Department has been successful in



assembling the various Dry Creek Parkway properties up to Dry Creek Road, the acquisition of the remaining properties between Dry Creek Road and Ascot Way will require greater reliance on Sacramento County Water Resources and

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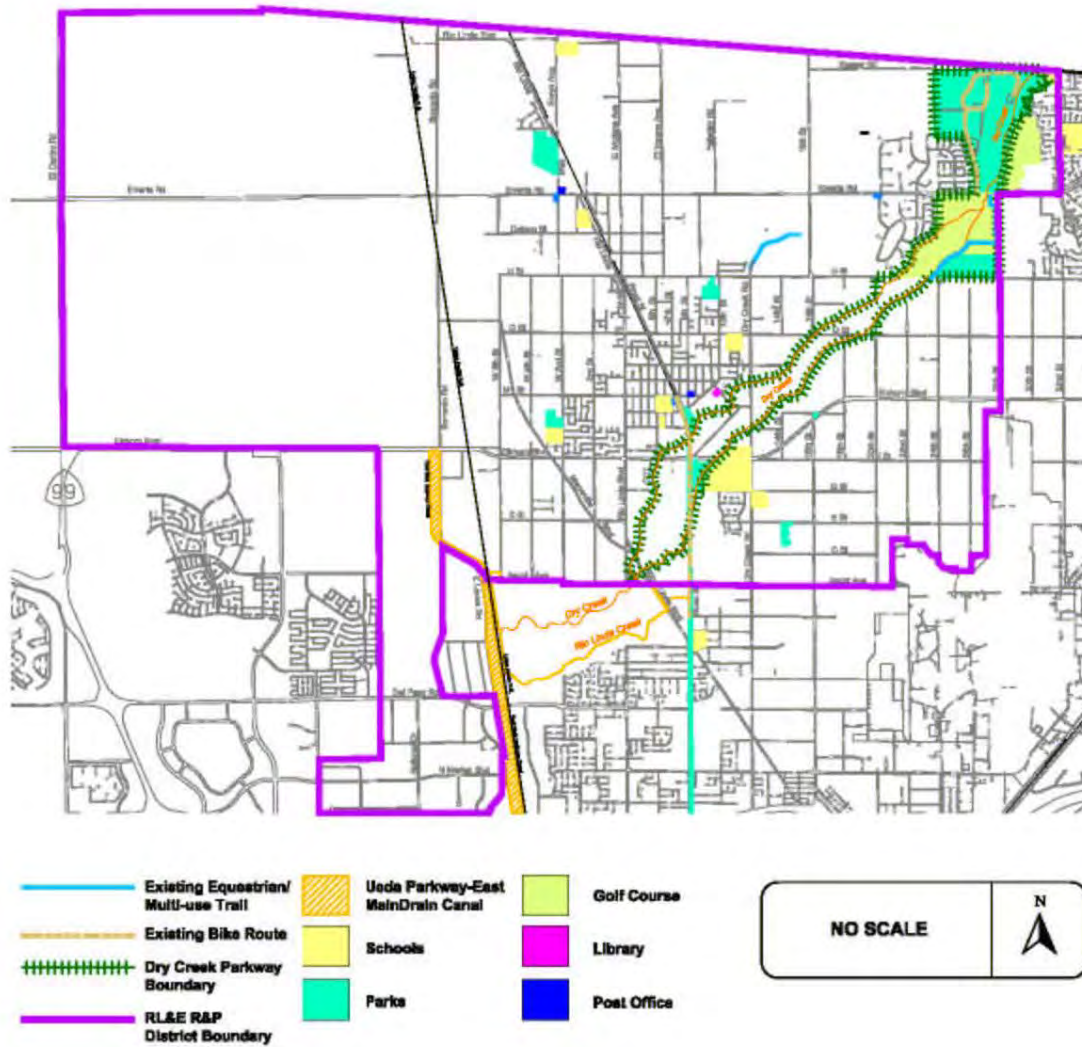


Figure 5 — Existing Features Map

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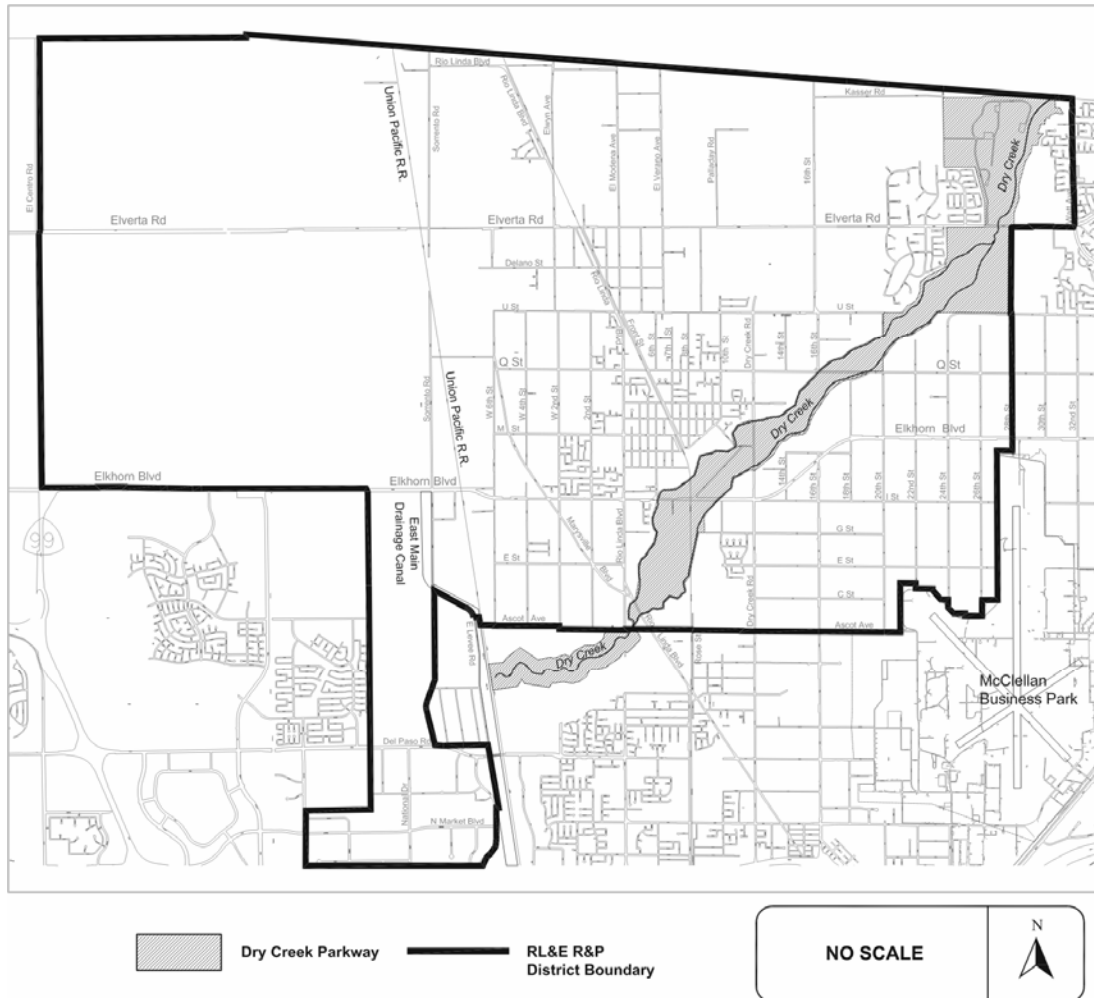


Figure 6 — Dry Creek Parkway

SAFCA to complete the acquisition of the remaining portions of the Dry Creek Parkway. Fortunately, the acquisition of the properties in the Dry Creek floodplain has been a high priority for both Sacramento County and SAFCA. Both agencies have been working closely with County Parks to acquire properties in the Dry Creek floodplain, clearing the properties of structures and unwanted vegetation, and turning the property over as open space to County Parks for inclusion in the Dry Creek Parkway. With the adoption of the Dry Creek Parkway Master Plan in April 2002, this linear parkway became a reality.

The Dry Creek Parkway is intended to be a natural, riparian parkway with a multi-use trail system to accommodate pedestrian, equestrian, and bicycle use with the bulk of the parkway retained in open space or compatible agricultural use. Other appropriate parts of the parkway are designated for public access, linkages to adjacent trails and neighborhoods, and limited areas are intended for active recreational use. The Parkway will link many of the developed regional recreational features in the area such as the Gibson Ranch, Cherry Island Soccer Complex, Cherry Island Golf Course, and the Dry Creek Historic Ranch.

D. Regional Recreation Facilities

Residents of RLERPD can additionally avail themselves of a number of other public regional recreation resources such as Gibson Ranch, Sacramento River, the American River Parkways, Folsom State Recreation Area, Sacramento Softball Complex, and many municipal and private golf courses in the area.

Located in the northeast corner of the District are Gibson Ranch County Park, the Cherry Island Golf Course, and the Cherry Island Soccer Complex.

- Gibson Ranch – Gibson Ranch covers 345 acres and includes residence camp, picnic areas, a lake, many picnic areas, huge turf areas to accommodate a variety of activities, and equestrian trails. A day camp area is available for groups. Group picnic areas have picnic shelters and an 8.8 acre lake, which is popular for fishing, is located in the middle of the park. Gibson Ranch also has facilities for boarding 100 horses, pastures for rent, and daily/hourly horse rentals are available to the public.
- Cherry Island Golf Course – Cherry Island Golf Course is an 18-hole, 200-acre, championship golf course, which includes a driving range, pro shop, restaurant, and a club house.
- Cherry Island Soccer Complex – Cherry Island Soccer Complex is a 37 acre site located south of Cherry Island Golf Course. The soccer complex was opened to the public in 1986 and has 10 soccer fields, a concession building, restrooms, a group picnic area, and a 250 vehicles paved parking lot. This complex is used year-round as the venue for youth soccer games and tournaments that attract teams and supporters from greater Northern California and beyond.
- Antelope Greens Golf Course – Antelope Greens Golf Course is a privately owned, public 18-hole, golf course located on Elverta Road, just east of Cherry Island Golf Course.

- Hansen Dairy – The City of Sacramento acquired the 200-acre Hansen Dairy property site for a proposed golf course. Unfortunately, due to the presence of abundant seasonal wetlands with endangered species, this site remains undeveloped and has been acquired by SAFCA as a future preserve and mitigation site.
- Dry Creek Parkway – The Dry Creek Parkway is comprised of approximately six miles of open space and riparian corridor starting at the Sacramento/Placer County line and extending southwesterly along the two forks of Dry Creek to the Sacramento City limits at Ascot Lane. The boundary of the parkway encompasses an area 75' beyond the normal top of the creek bank, as well as Cherry Island Soccer Complex, Cherry Island Golf Course, Gibson Ranch, Northbrook Park, and the Rio Linda – Elverta Community Center Park. The Dry Creek corridor provides migration route, habitat, and forage for a wide variety of aquatic and terrestrial wildlife, including rare, threatened, and endangered species. The Dry Creek Parkway will also provide a combination of passive and active recreational opportunities for the surrounding neighborhoods and will become a significant addition to the linear trail corridor extension that currently includes the American River Parkway, the Ueda Parkway and the Sacramento Northern Bikeway in this area. Ultimately, it is anticipated that the Dry Creek Greenway (the name for that portion of the parkway in Placer County) will continue easterly through Placer County and the City of Roseville to the City of Folsom and link up with the eastern end of the American River Parkway. When these critical parkway segments are completed, a 70 mile greenway loop will be created for the residents and visitors to enjoy in the Sacramento/Placer County area. This regional greenway is planned to have multi-use trails for pedestrians, bicyclists and equestrians.
- Folsom State Recreation Area – The 18,000-acre lake and recreation area offers opportunities for hiking, biking, running, camping, picnicking, horseback riding, water-skiing and boating. Fishing for trout, catfish, big and small mouth bass, and perch are part of the popular activities at the lake. Visitors can also see the Folsom Powerhouse (once called "the greatest operative electrical plant on the American continent"), which from 1885 to 1952 produced 11,000 volts of electricity for Sacramento residents. The park also includes Lake Natoma, downstream from Folsom Lake, which is popular for crew races, sailing, kayaking and other aquatic sports.
- American River Parkway (ARP) – More than 5 million visitors each year are drawn to ARP with its unique wildlife and recreation areas, known as the "Jewel of Sacramento". The 23-mile Parkway runs from Hazel Avenue and the Nimbus Fish Hatchery, west to the confluence of the American and Sacramento Rivers. From historic Gold Rush and Maidu Indian sites to lush riverine forests and oak woodlands, ARP offers a multitude of passive recreational opportunities including: walking and hiking, bicycling, fishing, rafting, picnicking, and nature appreciation.
- Ueda Parkway – In 1988, the Sacramento County Open Space Task Force recommended that a bikeway and hiking/equestrian trail be developed along the East Main Drain Canal. In 1998, the East Main Drain Canal was renamed the Ueda Parkway to recognize Walter Ueda, a landscape architect and park administrator who had worked for both the City and County Parks Departments. Currently, plans are being finalized to install pedestrian and bike trails along the Ueda Parkway, and

future considerations for equestrian trails along the length of the parkway from Discovery Park to Elkhorn Blvd. Through community efforts, the creek running through the Ueda Parkway was later renamed Steelhead Creek to recognize it as a historic habitat for Steelhead and other riparian wildlife that inhabit the creek corridor. Ueda Parkway also links the Dry Creek Parkway to the American River Parkway at Discovery Park East.

E. School Resources

RLERPD encompasses four different school Districts:

- Grant Union High School District
- Center Joint Unified School District
- Rio Linda Union Elementary School District
- Elverta Joint Union School District

There are a total of seven public schools in RLERPD: one high school, one middle school, and five elementary schools¹. (See Existing Features Map on page III-13)

School sites, in many cases, play an important role in accommodating the neighborhood's recreational need. Typically, 40% to 50% of a school site is developed for recreation/open space areas. Elementary schools have an average of about 4 acres for recreational use, junior high schools approximately 7 acres, and high schools 18 acres. The degree to which these recreation/open space facilities are available to the community and the RLERPD is dependent upon the policies of the School Districts and the relationships that are developed between the School and Park Districts.

It should be noted that School Districts are experiencing substantial funding reduction which has resulted in fees being charged for after-school sports programs. In addition, the Civic Center Act, (California State Assembly Bill No. 2634, effective January 1983), grants authority to school Districts to charge certain organizations for use of their facilities. Prior to this, schools did not have this authority, although some historically charged fees anyway. Public agencies (including park Districts) may be charged an amount equal to the school Districts' costs incurred by providing use of their facility. It is thought that this law will not affect existing joint use agreements. However, when these agreements are renewed, school boards may vote to cover their costs by charging groups for use of their facilities.

¹ Though the Robla School District does not have any schools within the RL&ERPD boundaries, it is within the RL&ERPD boundary, and consequently is included with the other Districts. (See Appendix H, Sacramento County School Districts Map.)

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IV. Park District Demographic Characteristics

A. *Planning Areas*

For park and recreation planning purposes, the District was divided into five planning areas (See Figure 7 — Planning Area Boundary Map below). The five planning areas are based on land use patterns, population densities within the District, and census and demographic boundaries. The five planning areas with some minor exceptions coincide with the planning area boundaries as established in the 1990 Master Plan. Planning Area 1 was further divided into 1A and 1B since these two areas are so distinctly different. A slight modifications to the other planning area boundaries were also made to reflect the year 2000 census tract boundaries (Figure 9 — 2000 Census Tracts Map).

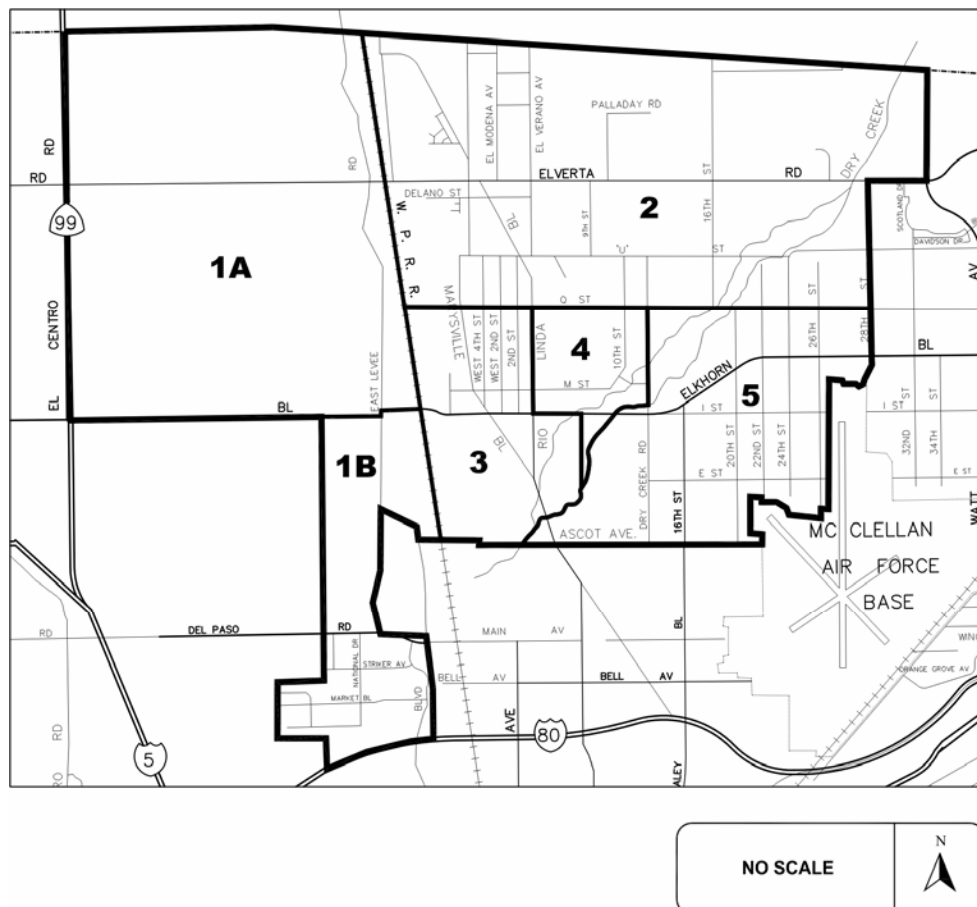


Figure 7 — Planning Area Boundary Map

Planning Area #1A

Planning area #1A is bounded on the north by the Sacramento/Sutter County line, on the east by the Western Pacific Railroad to Elkhorn Blvd., then westerly along Elkhorn Blvd. to Highway 99, and north along Highway 99 to the Sacramento/Sutter County line.

Planning Area #1B

Planning area #1B is bounded on the north by Elkhorn Blvd., south along the Western Pacific Rail Road to Ascot, then westerly to East Levee Road, and southerly along East Levee Road, south along the Sacramento City/County line (generally Sorrento Road, Del Paso Road, and East Levee Road) to Interstate 80. The boundary continues west along Interstate 80 (which is also the Sacramento City/County line) and then north along the Sacramento City/County line, with a large jog to the west towards the East Drainage Canal, up to Elkhorn Blvd.

Planning Area #2

The northern boundary of Planning Area #2 is the Sacramento/Placer County line. The east boundary of this planning area runs south down Watt Avenue, west along Elverta Road to 28th Avenue and south to U Street. The southern boundary is U Street between 28th Street and the Western Pacific Railroad. The Western Pacific Railroad right-of way between the Sacramento/Placer County line and Q Street forms the western boundary.

Planning Area #3

Planning Area # 3 is bounded on the north by Q Street between Rio Linda Boulevard and the Western Pacific Railroad. The Sacramento Northern Railroad right-of-way serves as the western boundary. The eastern boundary is formed by Rio Linda Boulevard to the north and Rio Linda Central Park and Dry Creek in the southern portion of this planning area. Ascot Avenue between Dry Creek and the Western Pacific Railroad forms the southern boundary of this planning area.

Planning Area #4

This Planning Area is roughly square in shape with the exception of the southern boundary. Q Street between Rio Linda Boulevard and Dry Creek Road forms the northern boundary. The western boundary is formed by Rio Linda Boulevard, west along Elkhorn Boulevard and south along the eastern edge of Rio Linda Central Park. The eastern boundary runs south from Q Street along Dry Creek Road and jogs southeast along Dry Creek to Rio Linda Central Park.

Planning Area #5

Q Street forms the north boundary of Planning Area #5. The east boundary is 28th Street down to the west boundary of McClellan Business Park, then generally southbound but with various jogs at the southern portion, until it

reaches Ascot Avenue. Ascot Avenue represents the south boundary. The west boundary follows the former Sacramento Northern Railroad right-of-way up to the southern side of Dry Creek, then northeasterly up Dry Creek to Q Street.

B. Population and Housing Characteristics

1) Population

According to the year 2000 census, the total population of the Rio Linda Elverta Park District was 21,169 (Table 3 — RLERPD Total Population by Planning Area). In comparison, the total population for Sacramento County in the year 2000 was 1,223,499. Therefore, the District's population constitutes approximately 1.7% of the total population of Sacramento County (Table 4 — RLERPD's Population as a Percentage of the Total County Population).

Table 3 — RLERPD Total Population by Planning Area

Year	Area #1A	Area #1B	Area #2	Area #3	Area #4	Area #5	All Areas
2000	0	264	9,575	4,008	3,579	3,743	21,169

**Table 4 — RLERPD's Population as a Percentage of the
Total County Population**

Year	Rio Linda Elverta Park District Population	Sacramento County Population	District's Population as a Percentage of the Total County Population
2000	21,169	1,223,449	1.73 %

The California Department of Finance Demographic unit projects that Sacramento County's population will increase to 1,327,435 in 2005 and 1,436,286 in 2010. For the purposes of projecting the total future population of the District it is assumed that the District's population will increase at the same projected rate as that of Sacramento County for the years from 2000 to 2010 and will continue to grow at the same rate to 2014. Based on these assumptions and discounting any major residential development such as Elverta Village, the projected population of the District will be 22,967 in 2005, 24,850 in 2010, and 26,597 in 2014 (Table 5 — RLERPD's Projected Population Growth 2000-2014).

Table 5 — RLERPD's Projected Population Growth 2000-2014

Year	Rio Linda Elverta Park District Population	Sacramento County Population
2000	21,169	1,223,449
2005	22,967	1,327,435
2010	24,850	1,436,286
2014	26,597	1,537,111

In order to calculate the projected population for the five planning areas, it was assumed, for this planning purpose, that the District's total projected population increase will be proportionally distributed as the population was found during the 2000 census for the planning areas. Based on a proportional distribution of the District's total projected population increase, the District's projected population to 2014 is shown in Table 6. In addition to the normal population increase in the District, Table 6 includes additional population increases specifically in Planning Area 1B due to proposed developments in the area, and Elverta Village and its impact upon Planning Area 2.

Planning Area #1A

Due to the Natomas Joint Vision plans being proposed by the City and County of Sacramento, there is potential for residential development in this area. However, lacking specific land use proposals for this area presently, this plan will continue to treat this area as agricultural land use. In the process of adopting specific land use proposals for this area, the District will need to take an active role in assuring that adequate and appropriate parks and recreational facilities are planned for the area, and that the Public Facility Financing Plan for the area includes adequate funding to acquire, develop and maintain the proposed parks, open space/greenways, and recreational facilities.

Planning Area #1B

There are a number of residential development proposals in this area making it likely that the area's population will grow more rapidly than anticipated for the District in general. As such, Table 6 shows in brackets the additional population growth projected for the Area during the period of 2010 and 2014.

Planning Area #2

Due to the anticipated development of Elverta Village, Table 6 shows in brackets the proposed additional population growth projected for this area in the period 2010 and 2014.

**Table 6 — RLERPD's Projected Population Growth by
Planning Area 2000-2014**

Year	Area #1A	Area #1B	Area #2	Area #3	Area #4	Area #5	Total Population All Areas
2000	0	264	9,575	4,008	3,579	3,743	21,169
2005	0	286	10,388	4,348	3,883	4,061	22,966
2010	0	310 (8,415)**	11,240 (5,000)*	4,705	4,201	4,394	38,265
2014	***	332 (9,013)**	12,030 (10,000)*	5,036	4,496	4,703	45,610

* Additional residents due to Elverta Village.

** Additional residents due to proposed developments in the area.

*** If urbanization of this area is approved, resident population in the area is probable.

2) Housing

According to the 2000 census, there were 7,028 housing units located within the boundary of the Rio Linda Elverta Park District (Table 7— RLERPD Housing Units by Planning Area). Planning Area #2 contains the largest number of housing units while Planning Area #1A is composed of agricultural fields and does not have any housing units while Planning Areas #3, #4 and #5 contain approximately the same number of housing units.

Table 7— RLERPD Housing Units by Planning Area

Year	Area #1A	Area #1B	Area #2	Area #3	Area #4	Area #5	Total All Housing Units
2000	0	104	2,983	1,390	1,243	1,308	7,028

Of the 7,028 housing units located within the District as of the 2000 census, 6,785 housing units were occupied and 243 were vacant (Table 8). The total occupancy rate for the entire District is 96.54% (Table 9). All of the Planning Areas within the District have occupancy rates greater than 90%. While Planning Area #1B has a relatively high vacancy rate (8.65%) when compared to the other planning areas, it has the smallest number of vacant housing units (9). Likewise, Planning Area #2 has the relatively low vacancy rate (2.72%) but has the largest number of vacant housing units (81).

Table 8 — RLERP Housing Occupancy Status by Planning Area

	Area #1A	Area #1B	Area #2	Area #3	Area #4	Area #5	Total All Housing Units
Occupied	0	95	2,902	1,333	1,205	1,250	6,785
Vacant	0	9	81	57	38	58	243

Table 9 — RLERP Housing Occupancy and Vacancy Rates by Planning Area

	Area #1A	Area #1B	Area #2	Area #3	Area #4	Area #5	Total All Housing Units
Occupancy Rate	0	91.35%	97.28%	95.90%	96.94%	95.57%	96.54%

3) Summary of Planning Areas

Planning Area #1A

Planning Area #1A, being composed entirely of agricultural fields and located within a flood plain, does not currently have any resident population. However, due to the Natomas Joint Vision plans being proposed by the City and County of Sacramento, Planning Area #1A may very well come under urbanization in the near future. According to the City/County report and pending Memorandum of Understanding (MOU) between the two entities, this “Joint Vision” will:

- Result in an agreement to collaboratively manage growth and preservation of open space and habitat in the unincorporated area of the Natomas basin within Sacramento County.
- Transfer 10,000 acres of County land to the City “Sphere of influence” with probable future annexation.
- Require, one-acre of permanent open space be preserved for each acre developed.
- Establish an agreement between the City and County to share revenues that result from development of the area.
- Require any future development be in accordance with adopted “Smart Growth Principals” and “Infill Strategy”.

Although the exact impact of this “Joint Vision” proposal to Planning Area #1A is uncertain at this point, this Joint Vision and the MOU does indicate that a significant portion of the Planning Area #1A is ultimately slated for urban development. The District should assume that Planning Area #1A will eventually

urbanize and that appropriate public services such as parks, recreation facilities, open space, and trails will need to be provided for the future residents of this area. Along with the City/County and developers, the District will need to be actively involved in the planning and negotiation process to assure that adequate and appropriate parks and recreational facilities are provided for, and that the Public Facility Financing Plan for the area includes adequate funding to acquire, develop, operate and maintain the proposed parks, open space/greenways, and recreational facilities.

Planning Area #1B

According to the year 2000 census tract figures, Planning Area #1B had a population of 264 people of which 136 were male and 128 were female. Next to Planning Area #1A, Planning Area #1B has the lowest population of the six planning areas. There is a residential/commercial development being proposed that will significantly increase the population of the area. Area 1B is in the City of Sacramento's Sphere of Influence and it is anticipated that an application for annexation for this area is pending. Should an agreement amicable to the District not be reached with the City of Sacramento for the District to continue to provide services in this area following annexation, the District intends to protect its revenue stream from the area.

A total of 104 housing units are located within this planning area of which 95 or 91.35% were occupied as of the 2000 census. Of the 95 occupied homes, 65 are owner occupied and 30 are renter occupied.

The anticipated additional growth of this area is based on the premise that approximately 3,300 units of new housing will be constructed and sold between 2006 through 2014. Based on 2.55 residents per the new dwellings as projected in the North Natomas Community Plan, and assuming normal increase of the area's population, Table 6 illustrates that by the end of year 2010, 8,725 residents will be in the areas, and by end of 2014 this number will increase to 9,345.

Planning Area #2

Of the five planning areas, Planning Area #2 has the largest population. The 2000 census indicates that the population of Planning Area #2 is 9,575 of which 4,762 are male and 4,813 are female. The population of Planning Area #2, if Elverta Village were discounted, is projected to increase to 10,388 in 2005, 11,240 in 2010, and 12,030 by 2014.

However, in anticipation of Elverta Village (4,950 proposed dwelling units) being developed in ten years, and assuming that approximately 500 units of housing will be built and sold each year starting in 2006 with 2.5 occupants per dwelling, as the Elverta Village Specific Plan projects, the consequent additional population increase in this area will amount to 5,000 in 2010 and 10,000 in the year 2014. (See Table 6)

Planning Area #3

For Planning Area #3, the 2000 census specifies a total population of 4,008. Of the 4,008 people within Planning Area, 2,030 are male and 1,978 are female. Planning Area #3 has the second highest population of the five planning areas. The projected population for this planning area is 4,348 for 2005, 4,705 by 2010, and 5,036 by 2014. The total projected increase in the population during the planning horizon for this Master Plan is 1,028 representing an increase of 25.6%.

According to the 2000 census, there are a total of 1,390 housing units within Planning Area #3. Of these, 1,333 are occupied housing, or an occupancy rate of 95.9%.

Planning Area #4

Analysis of the 2000 census tract figures for the District indicates that Planning Area #4 has a total population of 3,579 with approximately the same number of males (1,759) as females (1,820). Generally, Planning Area #4 had the second lowest population of the five, which is most likely, a result of the relatively small size of this planning area. The population is expected to increase to 3,883 by 2005, to 4,201 by 2010, and 4,496 by 2014.

According to the 2000 census, the number of housing units in Planning Area #4 is 1,243. Of these, 1,205 homes are occupied which translates to an occupancy rate of 96.9%.

Planning Area #5

The 2000 census indicates that the total population of Planning Area #5 is 3,743 of which 1,818 are male and 1,925 are female. The population of this planning area is projected to increase to 4,061 by 2005, 4,394 by 2010, and 4,703 by 2014.

The total number of housing units within Planning Area #5 is 1,308 of which 1,250 are occupied, or an occupancy rate of 95.57%.

C. Land Use Characteristics

A large portion of the District is affected by its inclusion in or proximity to flood prone areas. (See Appendix C, Rio Linda-Elverta Community Area Major Drainage System Map).

Most of the District is in the McClellan Business Park area of Influence. Prime concerns related to this condition are safety and noise. Generally, recreational uses are compatible with the over flight zone. However, neighborhood parks, community-wide and regional parks, and indoor recreation and amusements are not compatible in the approach zone. It should be noted that a portion of Gibson Ranch County Park, Cherry Island Soccer Complex, and Cherry Island Golf Course are within this approach zone.



The land use characteristics of the District are related to the relative population sizes of each area (See Table 3, page IV-3). In general, while Planning Areas #3, #4, and #5 are of approximately the same size, #2 has the largest population consistent with its primarily residential zoning (RD-5, RD-10, and RD-20) as well as some commercial zoning. Planning Areas #4 and #5 follow with incrementally decreasing amounts of residences. Planning Area #4 is mostly low density zoning (RD-5) with accompanying commercial zones.

Planning Area #1A

Planning Area #1A is almost entirely agricultural with some industrial zoning, thus, lacking residences. Even though large in size, majority of this planning area is agriculturally zoned (AG) and most of it is in AG-80 (minimum 80 acres).

As discussed earlier in this Chapter, the future needs for schools, parks, trails and open space areas in Planning Area 1A needs to be considered in the Public Facility Financing Plan related to future developments proposed in this area.

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RIO LINDA / ELVERTA COMMUNITY PLAN

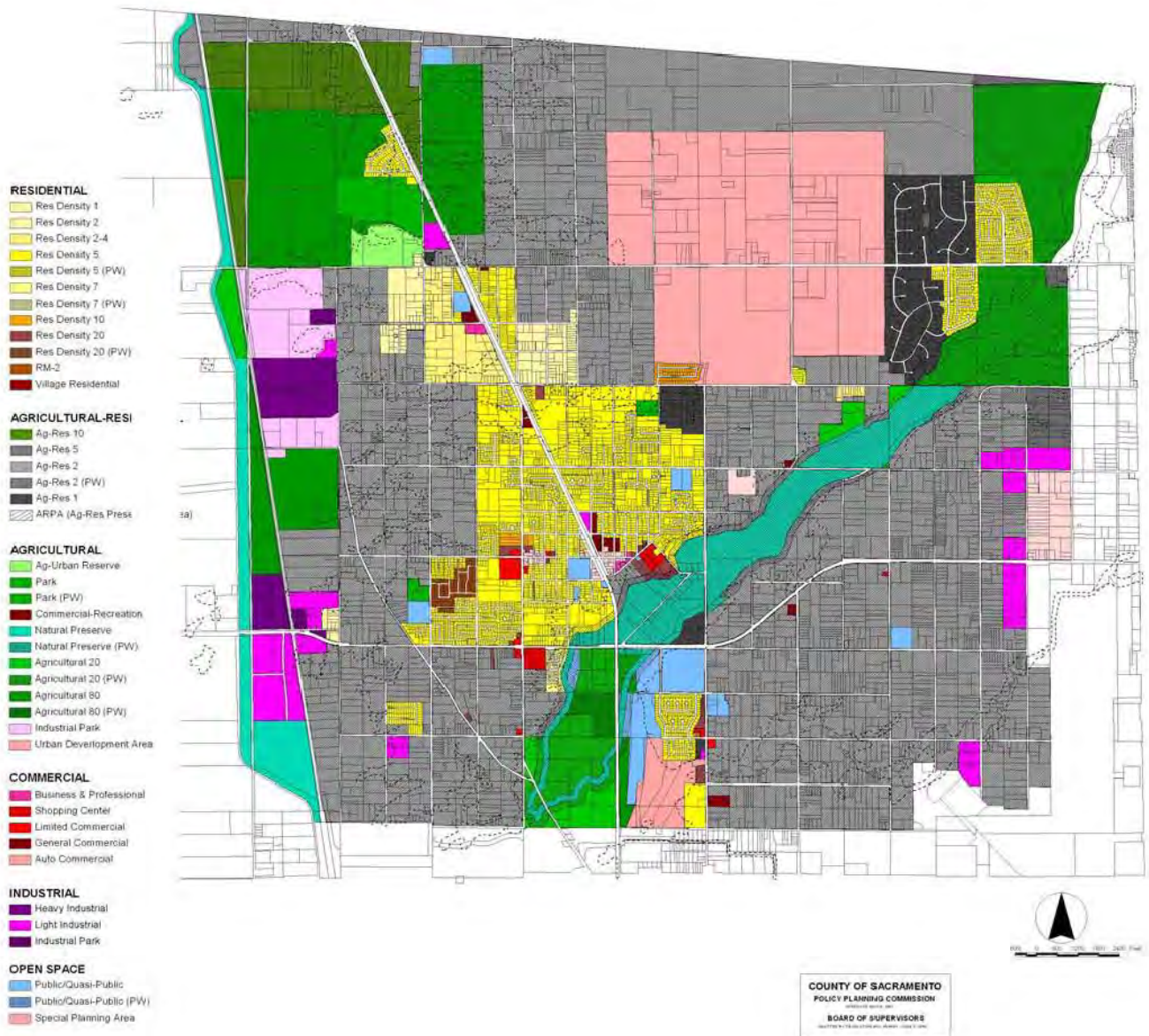


Figure 8 — Land Use by Zoning Map

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DISTRICT MASTER PLAN*

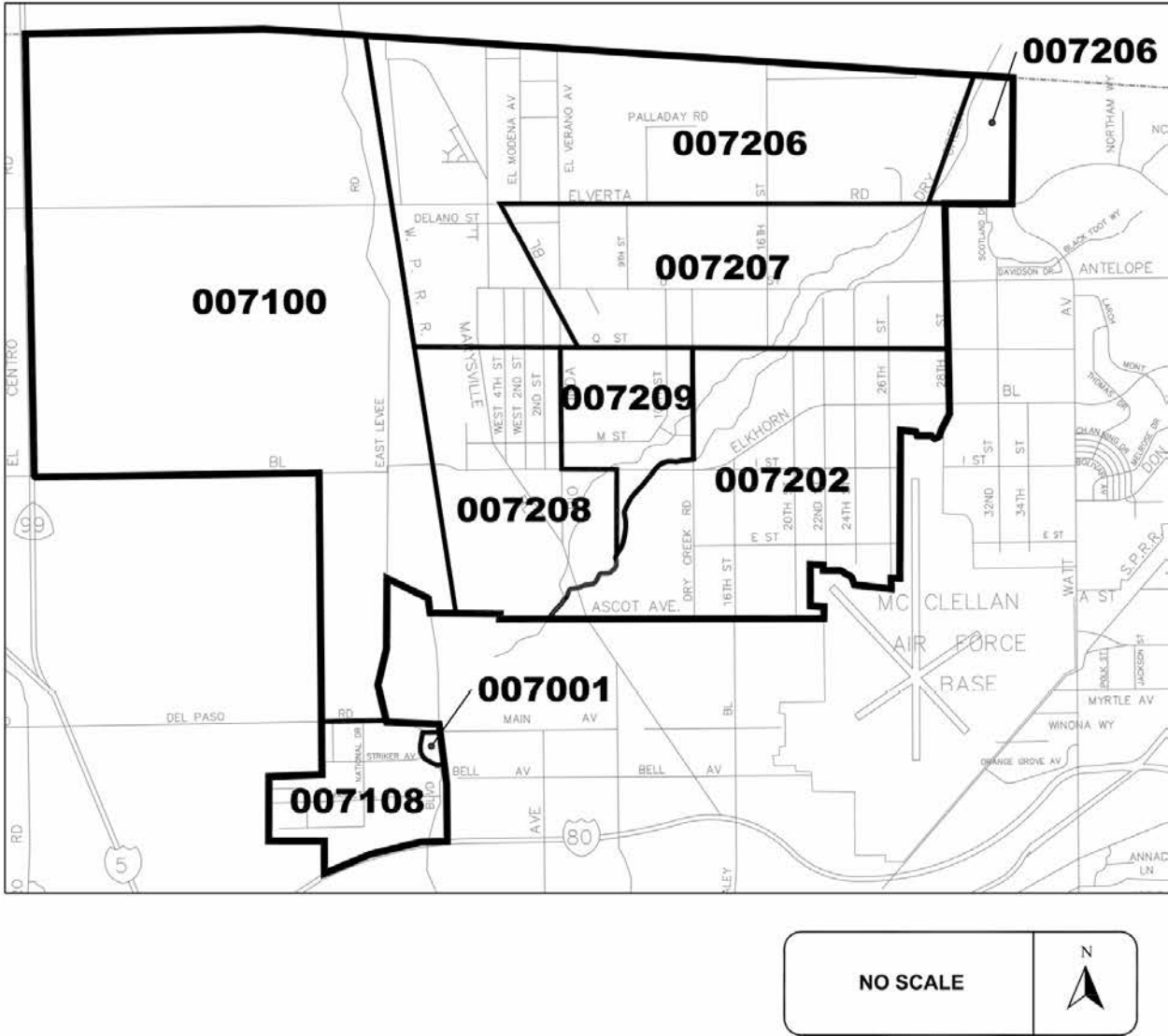


Figure 9 — 2000 Census Tracts Map

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DISTRICT MASTER PLAN*

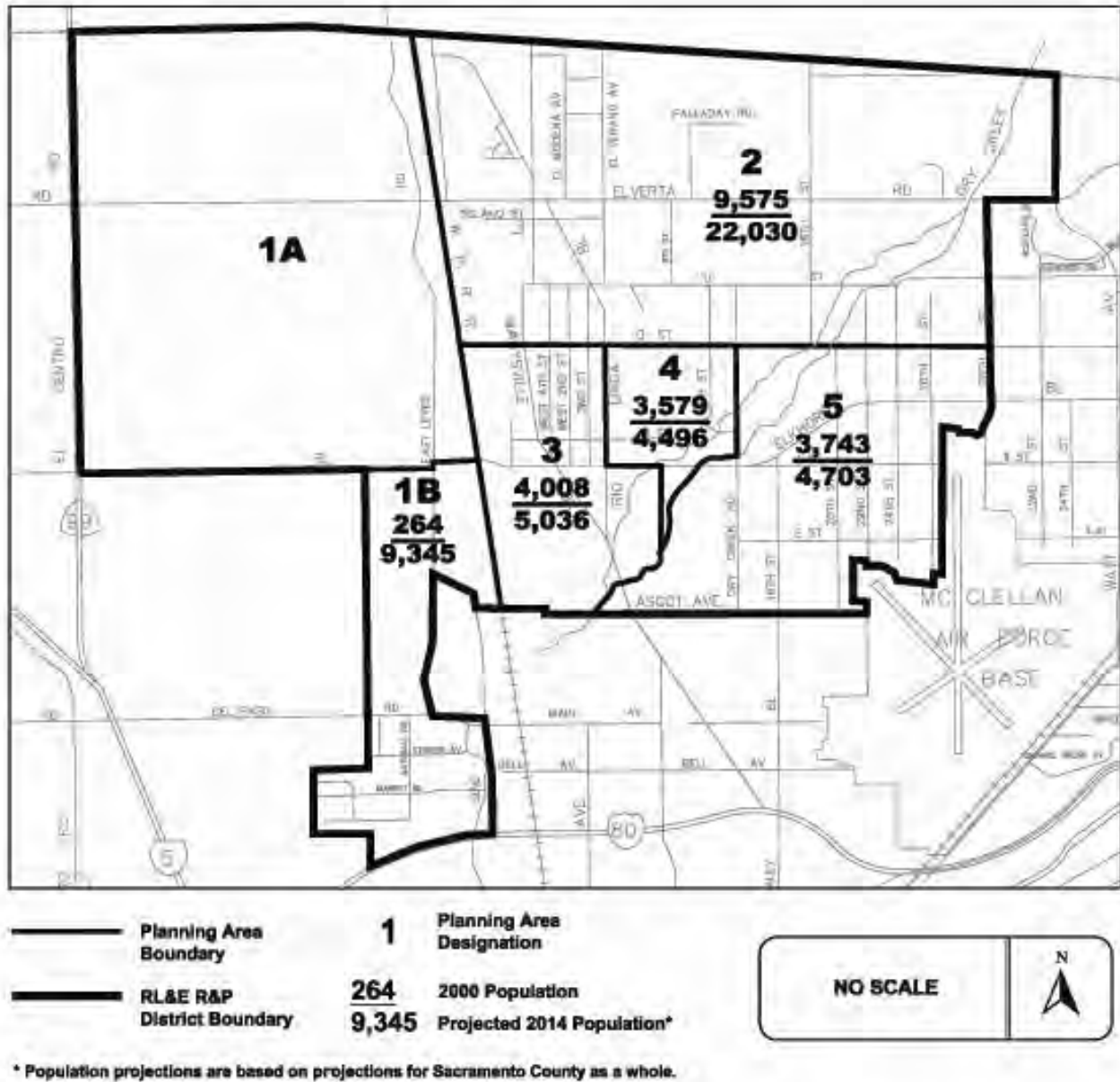


Figure 10 — Population Growth Map

Planning Area #1B

The lower portion of Planning Area #1B is mostly manufacturing-type uses, noted by office and industrial parks, including a Special Sign Corridor and Landscaped Freeway designations. The portion north of Del Paso Road is predominantly AG-Residential with significant areas dedicated to pasture. A portion of the District south of Planning Area 1B once crossed Interstate 80, but was annexed to the City of Sacramento during the Raney Reorganization in June 1982.

The future needs for schools, parks, trails and open space areas in Planning Area 1B needs to be incorporated in the Public Facility Financing Plan for the future developments proposed in this area.

Planning Area #2

Agricultural zoning (both AG and AR) characterizes a large portion of this area. There are some large pockets of industrial and industrial reserve at the southwest portion near the railroad. Also there is a concentration of RD-2 and RD-5 on either side of Rio Linda Blvd, between Elverta Road and U Streets. The highest residential zoning for this area is RD-10, located north of U Street and west of Dry Creek Road. Another area of RD-5, which includes AR-1, is located north and south of Elverta Road and generally west of Dry Creek. West of Watt Avenue to Dry Creek is another concentration of AG and AR zoning. The extreme eastern portion is dominated by the presence of Dry Creek.

A number of elementary schools are located here: Alpha Middle School; Elverta Elementary; and one future Jr. High School site. The Elverta Switchyard, serving the Bureau of Reclamation and SMUD lines is located at the western boundary on the south side of Elverta Road. A Fire Station is located at Rio Linda Boulevard and Elverta Road, and the Post Office is located on Delano Street at Rio Linda Boulevard.

The District's Babe Best Park is located at 10th and U Streets, while the County's Gibson Ranch Regional Park is located in the northeast portion, west of Dry Creek. Cherry Island Golf Course is located south of Gibson Ranch, with Cherry Island Soccer Complex, at the northwest corner of 28th and U Streets.

The proposed Elverta Specific Plan covers 1,734 acres in the eastern half of this Planning Area with a build-out capacity up to 4,950 residential units of housing and potentially 12,375 residents. The improvements proposed in this community includes various features such as Elverta Neighborhoods, Town Center District, Village Center Neighborhoods, Residential Neighborhoods, Parks, Schools, and Open Space Areas to provide character and identity to this proposed community. Located in the Appendix H are further details regarding the proposed parks, trails and open space areas that are included in the Elverta Specific Plan.

Planning Area #3

The north, west, and southern portions of this area are relatively low in population due to their zoning. The northeastern and central portions show a

concentration of RD-5 zoning with areas of RM (mobile home) and other residential densities as high as RD-10 and RD-20. The area towards the west boundary (Western Pacific Railroad) is characterized by industrial reserve and manufacturing zoning (IR and M) with some agriculture residential (AR). The southeast corner is mostly in the floodplain of Dry Creek and is zoned Recreation Reserve (RR-F) and AG-W (F). There are several small areas of commercial: GC (General Commercial) on Rio Linda and Elkhorn Boulevards; LC (Limited Commercial) on Front Streets east of Rio Linda School, and at Rio Linda and E Streets.

The two elementary schools in this area are Westside and Rio Linda. There is also a school site at West 4th and Q Streets. Westside Park is located adjacent to Westside School.

Planning Area #4

This is the smallest of the five planning areas, characterized by RD-5 residential zoning. It has a concentration of commercial and business zoning (LC, GC, BP, and SC), and several small pockets of high density zoning (RD-20). It has the largest area in the floodplain of Dry Creek. The only school is Orchard Elementary. This "downtown" portion of Rio Linda is the location for the Fire Station, Chamber of Commerce, Post Office, and the Library.

Rio Linda Central Park is located at the southern tip; south off of Elkhorn Boulevard and between Dry Creek and the former Sacramento Northern Railroad. The Rio Linda Community Center, which houses the Recreation and Park District's offices, is located south of Oak Lane and north of Dry Creek. Rio Linda Central Park Horse Arena is between Elkhorn Boulevard and north of Dry Creek.

Planning Area #5

The zoning for this planning area is almost entirely AR (Agriculture Residential), with a small amount of industrial (M-1) at the northeast portion and some adjacent to McClellan Business Park. There is a node of commercial at the intersection of E Street and Dry Creek Road. The southwest corner is zoned CO (commercial recreation) and includes the private Rio Linda Airport.

The two elementary schools in this area are Vineland and Dry Creek. Rio Linda High School and Rio Linda Junior High School are located at the southwest corner of Dry Creek Road and Elkhorn Boulevard.

D. Barriers and Trails

1) Traffic Count

Auto traffic is heaviest on Elkhorn, Marysville/Rio Linda, and Northgate Boulevards; Del Paso, Elkhorn, and Elverta Roads; and Main Avenue. Elkhorn has the greatest

traffic, with traffic counts of more than 30,400 cars in a 24-hour period west of Watt Avenue. Rio Linda Boulevard, a portion of Dry Creek Road near Elkhorn, and a short area of 'M Street (west of Rio Linda Boulevard) all have traffic counts of over 7,500 vehicles in 24-hours. The Rio Linda traffic count increases to over 9,400 north of its juncture with Marysville Boulevard. For further indication of traffic in the Rio Linda – Elverta Area, please see Appendix F.

2) Barriers

Any street with high traffic counts acts as a barrier to bicycle and/or pedestrian circulation. Additional barriers are the Western Pacific Railroad and water features such as the East Main Drainage and East Drainage Canals (although the latter is currently in the area of agriculture usage). Dry Creek, Rio Linda Creek and several small unnamed creeks also serve as barriers, especially during the rainy season. Any park development in new locations such as Elverta Villages should consider these barriers.

3) Bikeways

The Sacramento Northern Railroad Bikeway, once the roadbed of the Sacramento Northern Railroad, is heavily used by both bikers and equestrians. It runs north from the Sacramento City/County boundary to Elkhorn Boulevard, and then splits east to the District boundary, and north to the Rio Linda Depot Park. One of the proposed bikeways that will have the greatest impact on the future recreational opportunities in the Rio Linda/Elverta area is the trail system planned for the Dry Creek Parkway. The other is the extensive multi-use trail system planned for the Elverta Villages which includes many trails along drainage canals. The Great Northern Bikeway, the Ueda Parkway, Elkhorn Boulevard, Dry Creek Parkway, and other County-designated trails will be very critical in enabling local residents to travel conveniently to regional destinations. See Bicycle Route and Trails Plan Map on page III-11, showing the Sacramento County's Trails System with some additional trails proposed in the District.

4) Equestrian Trails

Currently, the only officially designated equestrian trail in the Rio Linda/Elverta area is located in Gibson Ranch Recreation Area. It is a 1.2 mile trail along Dry Creek north from Elverta Road, with 2 equestrian staging areas. Given the significant interest in equestrian activities in the community, it is critical that the District support the County in the development of the trails within the Dry Creek Parkway, designate other trails, and provide linkage to other County and regionally-designated equestrian trails. The proposed multi-use trail system planned for the Elverta Villages should also be linked with adjoining trail system. In 1988, the Open Space Task Force proposed an additional 33.3 miles of equestrian trails in the Rio Linda/Elverta area, to join with the 398.6 existing and proposed trails elsewhere in the County. These additional trails should be prioritized and added to the Countywide Trails Plan.

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V. Park Planning Criteria and Standards

A. *Park Acreage Standard*

The National Recreation and Park Association (NRPA) recommends that communities have a park system composed of park and open space lands totaling between 5 to 10 acres of developed lands for every 1,000 population. Although the national standard varies from community to community, it is a standard that many communities have used to develop a minimum of 5 acres per 1,000 population for traditional active / passive park acreage, with additional acreage for special use facilities and open space (non-traditional parklands) allocated in another 5 acres, for a total standard of 10 acres per 1,000 population.

A standard of 5 acres per 1,000 population is considered minimally adequate for providing the traditional active/passive recreation acreage and is consistent with the Quimby Parkland Dedication Ordinance.

1) **RLERPD Standard for Parkland Dedication**

In order that RLERPD adequately provide parks and recreation facilities for its present and future residents, and be able to offer the quality of parks and open space amenities that the community deserves, the District needs to increase the present 1.5 acres per 1,000 of developed parklands to the 5 acres per 1,000 standard for the District in conformance to NRPA and Quimby Parkland Dedication requirement.

2) **Traditional Parklands**

Traditional parklands typically provide a variety of active/passive facilities, such as sports fields, multi-use turf, hard court areas, children play areas, and picnic areas. This type of parkland is categorized into a hierarchy of parks types: mini, neighborhood and community parks and is granted full parkland dedication credit towards meeting the 5 acres per 1,000 population standard as required in the Quimby Ordinance.

3) **Non-Traditional Parklands**

Non-traditional parklands refer to open space areas such as natural feature preserves, oak woodlands, riparian areas, detention basins and linear parkways/greenbelts. These non-traditional parklands most often are not granted parkland dedication credit in meeting the 5 acres per 1,000 population Quimby Ordinance requirement because they do not fulfill the needs of active park and recreation activity needs. Although such areas are a desirable community amenity, enhance and provide character to the area, these also do not fulfill the traditional parkland use and program requirements, even if a measure of public accessibility and recreational improvement is provided.

In some cases, if the non-traditional parklands are developed to District standards and with District oversight, public access and park and recreation improvements are provided, and an annual maintenance fund for maintaining the facility is provided, the District Board may consider providing partial credit on a case by case basis.

4) Parkland Approval Process

The location of the parkland should adhere to the parkland location criteria contained herein, be consistent with the District Master Plan, and be approved by the District Board of Directors prior to the approval of a tentative map or parcel map per the County Parkland Dedication Ordinance. Parklands dedicated shall be net useable acres and not encumbered by power line easements, utility facilities (i.e. - well sites, sewer lift stations, electrical sub-stations, etc.), flood plains, drainage channels, riparian buffers, wetlands and other environmental conditions. It is of critical importance that dedicated parkland is of a character, size and shape that will allow for maximum recreational activity and provide for the development of facilities that meets the standards for the park type with the facilities required.

A Conceptual Site Plan at scale acceptable to the District shall be submitted to the District that indicates the size, shape, terrain, natural site features, etc., and that demonstrates the development potential of the site in meeting the facilities needed for the proposed park type and recreation activities. This plan shall be reviewed and approved by the District Board of Directors prior to the acceptance of a tentative map or parcel map by the County.

B. Park Category Description and Recommended Size

The following description of park categories reflects a hierarchy of parks that will compose the RLPRD park system. Classification into park categories is based on use, function, acreage, service area and population served. This system of park organization includes mini parks, neighborhood parks; community parks, special use areas, park/school sites, and a regional park.

1) Mini Parks

Mini parks are generally less than 2 acres in size and are designed to serve a concentrated or limited population. They are developed for a unique or single purpose, such as a recreation facility for a small or isolated neighborhood, to provide access into a linear greenbelt or to preserve an isolated natural feature. They are generally placed in residential neighborhoods in close proximity to small lot residential development and higher density residential development, including apartment and condominium complexes. Mini parks are also beneficial where arterials or other site features such as drainage corridors or railroad tracks bisect neighborhoods. Mini parks are of less value in single-home residential areas where yards are common.

In comparison to neighborhood and community parks, mini parks provide necessary, but limited, recreation benefit to the entire community when examined in light of the cost of construction and long-term maintenance costs. For these reasons, the District discourages the development of additional mini parks.

2) Neighborhood Parks

This type of park functions as the core facility within the park system and should seek a balance between active and passive recreation uses as well as creating a sense of place for the neighborhood. Recreational facilities include sports fields, multi-use turf areas, hard court games, children's play areas, picnic structure and tables, and social gathering

areas. This is the essential core park for residential areas, as they provide the most close-at-hand recreational facilities and should be evenly distributed throughout the District. Neighborhood parks should be easily accessible to the neighborhood population, geographically centered within neighborhood to be served, and within safe walking and/or biking distance. Neighborhood parks are often developed adjacent to an elementary/intermediate school sites.

A neighborhood park typically has a service area that encompasses a 1/4 to 1/2 mile radius and serves a population of 2,000 to 5,000. The desirable site size is 5 to 15 acres. Generally, 5 acres is considered as the minimum size necessary to provide space for the typical facilities desired within a neighborhood park.

3) Community Parks

Community parks are designed to accommodate a wider variety and higher intensity of recreational uses than neighborhood parks, and may have unique amenities such as special use facilities (i.e. community center, aquatic center, etc.) or unique natural feature preserves. Community parks are larger than neighborhood parks and are intended to serve several neighborhoods. Typical amenities/facilities may include large turf areas as open space, large children's play areas, interactive water play feature, group picnic facilities, lighted sports fields for organized sports, tennis courts, community/senior center buildings, library buildings, outdoor concert area or amphitheater, aquatic complex, concession/restroom facilities, and off-street parking. Community parks often include land with outstanding natural features/qualities for activities such as walking, viewing, sitting, and picnicking and/or may be a site with some historic significance in the community. Community parks may be located adjacent to intermediate or high schools. A community park may also function as a neighborhood park for the immediate area.

A community park serves several neighborhoods with a 1 to 2 mile service area radius and an approximate population of 20,000. The desirable size for a community park is 20 to 150 acres or more; its actual size should be based on the land area needed to accommodate the desired facilities and uses, also the need to preserve or protect environmental or historic features of significance.

4) School-Park Sites

In many communities, planning school and park sites adjacent to one another have historically proven to be very beneficial. By combining the resources of two public agencies, the school-park facility allows for expanding the recreation, social, and educational opportunities available to the community in an efficient and cost effective manner. Properly planned, school-park sites can become a valuable community resource and vital part of the park system. The important outcome in the joint-use relationship is that both the school district and the park system benefit from shared use of facilities and land area.

RLERPD will look for opportunities to work with School Districts on joint school-park projects so long as it can be demonstrated that the arrangement will be beneficial to the park agency and does not include extensive use restrictions and limitations.

5) Special Use Facilities/Areas

These areas do not fit into the other park categories because they vary in character and use from more traditional park sites. Special Use Facilities/Areas are defined as facilities such as a community center, senior centers, or sports complex that services a specific recreational need. Lands which are set aside for the preservation of significant environmental, cultural, and/or historical resources are also included in this park category. The existing natural site features or designated use for the land may make providing active recreation facilities infeasible, but the land may have value for interpretation and preservation. Where this occurs, it would be appropriate for adjacent landscape or buffer areas to include interpretive signage indicating the nature of the significant resource, its history, value and condition, preservation requirements, plant and wildlife species, restoration methods and other related information. Where possible within natural special use areas, viewing and sitting areas, walking trails and picnic tables should be incorporated into the site design.

The following table summarizes the hierarchy of parks within the District including the type of park, its dedication requirements, desirable size and service area radius.

Table 10 — Park Type, Size, and Service Area

Type	Desirable Size	Service Area	Dedication Requirement
Mini Park	½ - 2 acres	1/8 – ¼ mile radius	5 acres per 1,000
Neighborhood Park	5-15 acres	¼ - ½ mile radius	
Community Park	20 -150 plus	1-2 mile radius	

C. Recommended Park Location Criteria

A key component in planning and developing a park system is determining the location, distribution and type of park acreage required for providing geographical accessibility and the desired level of service in order to meet recreational needs of the community. It is not enough to provide acreage wholesale, if it is not evenly distributed throughout residential areas and capable of providing parks that meets the community needs. The location of some recreation facilities is important; while many special community facilities may be located anywhere within the planning area, every neighborhood needs immediate access to certain facilities, including children play areas, open turf areas for impromptu play, active and organized play areas, picnic areas and gathering areas for socializing. For this reason, standards have been established for park locations and development.

The locations of each type of park category, neighborhood and community, requires careful planning regarding travel distance and other barriers, including highways, railroads, etc., so residents will have reasonable access to the parks and facilities. Park service areas have been established using national standards based on the population served and reasonable travel distance for each category of park. Mini parks are small in size and are designed to serve a concentrated or limited population and generally are within less than one-quarter mile of the population to be served. Neighborhood parks are designed to serve an approximate population of 2,000 to 5,000. They have limited need for parking, and users generally walk or bike to the park. A reasonable distance to walk or bike to a neighborhood

park is about 1/2 mile. Community parks provide facilities and recreation programs that serve 20,000 or more people, and typically serve residents within a 2-mile service area radius.

The following establishes the recommended guideline and criteria for the location of each park type.

1) General Location Criteria for All Park Types

- Ease of access from throughout the service area, even geographical distribution, connection to interconnecting trail system and relationship to other parklands is key criteria in site location.
- Provide convenient and safe access for pedestrians, bicyclists and autos from throughout the service area.
- Locate with frontage on at least one public street.
- Choose sites that have interesting or special features.
- Locate parks in areas that can be viewed easily for security reasons.
- Locate parks so as to link to existing and planned bikeways, trails, open space network, and other connections.
- Choose sites that avoid possible hazards such as heavy traffic, railroads, industrial sites, or electrical transmission line easements.
- Provide buffers between active use areas and adjacent residential development.
- Choose sites that exhibit the physical characteristics appropriate for its intended use (i.e. size, shape, topography or natural features).
- “Left-over” parcels of land that are undesirable for development are generally undesirable for traditional park development and should be avoided.
- Lands within a flood plain should only be considered if developed facilities and supporting lands can be accommodated above the 100-year flood elevation.

2) Mini Parks

- Locate in the interior of neighborhoods or near high-density development.
- Locate where immediate access to a neighborhood park is limited.
- Locate to address limited, isolated or unique recreational needs.
- Locate near high-density development.
- Locate for accessibility by way of interconnecting trails, sidewalks, or low-volume residential streets.
- Avoid undesirable “left-over” or odd-shaped parcels.
- Consider opportunities for preserving natural features.
- Locate, where required, as access points into linear parkways or greenbelts.

3) Neighborhood Parks

- Neighborhood parks are planned to function as the core of the park system; locate as the recreational and social focus of the neighborhood.
- Locate with frontage on residential low-volume or collector streets.
- Avoid separation of park and residential areas by major arterial or other barriers.
- Limit activities that generate traffic from outside the neighborhood.
- Plan for both active and passive recreation facilities, accommodating a wide variety of age and user groups.
- Provide off-street parking where recreational facilities/uses require.
- Select sites that exhibit the physical characteristics appropriate for both active and passive recreational uses.
- Configuration of the site shall be contiguous usable (nonlinear) land, with sufficient level terrain to accommodate active organized recreation.

4) Community Parks

- Locate to serve the recreation needs of several neighborhoods or larger sections of the community.
- Locate with frontage on residential collector or arterial streets.
- Locate for access by interconnecting trails and public transit.
- Locate adjacent to intermediate or high schools, when possible.
- Configuration of the site shall be contiguous usable (nonlinear) land, with level terrain to accommodate active organized recreation.
- Select sites that exhibit the physical characteristics appropriate for both active and passive recreational uses. Active organized group or sports related activities typically are located in community parks.
- Locate larger, more active facilities away from residential neighborhoods.
- Provide off-street parking.
- Incorporate special or unique features.

5) School-Park Sites

- Develop joint/cooperative use agreements with schools when it is determined to be beneficial to the park agency.
- Seek opportunity to work together on joint planning, land acquisition, development, and operation with schools when it is advantageous to the park agency.

6) Special Use Facilities/Areas

- Special use facilities should be located based on the type of facility, recreation need serviced by the facility, and land availability.
- Special use facilities should be viewed as strategically located community-wide facilities rather than serving well-defined neighborhoods or areas.
- Locate special use facilities within reasonable and equal driving distance from population served.
- Lighted sports complexes should be located adjacent to non-residential land uses.
- Locate for access from collector or arterial streets, public transit, and interconnecting trails.
- Individual sites exhibiting significant environmental, cultural or historical resources set aside for preservation.
- Land that is unsuitable for development but offer natural resources potential such as natural vegetation, drainage ways or detention basins, and other areas that may be acceptable as “non-traditional parklands.”

D. Open Space and Greenbelts

1) Linear Parkways, Greenbelts and Open Space

- Locate consistent with the County General Plan, Land Use, Circulations, Conservation and Open Space Element.
- Locate to provide an interconnecting multi-use trail system between parks, recreation facilities, schools, and open space.
- Provide controlled access to open space areas except those areas sensitive to human presence.
- Locate open space and greenbelts to provide a buffer between conflicting land uses.
- Provide a "buffer" or separation between neighborhoods.
- Provide an interconnecting system of open space corridors that, where feasible, incorporate bikeways, pedestrian paths, and equestrian trails.
- Incorporate special or unique features such as drainage ways and sloughs.

2) Bikeways

- Ensure that needed bicycle lanes/routes and multi-use trails are included in the General Plan, that every effort is made to include these improvements in related public works projects, and are included as requirements in development projects as a condition of approval.
- Secure any available outside funding to support the acquisition, development, and operation of bicycle lane/routes, and multi-use trail facilities.

- Work cooperatively with County of Sacramento to develop more effective mechanisms for enforcing the existing bicycle regulations, and provide bicycle safety education.
- Encourage Regional Transit to increase efforts to promote alternative modes of travel by providing more carry-on options for bicycles on buses.
- Encourage and support a network of pedestrian/bicycle trails in the design of residential neighborhoods.

3) Detention Basins, Utility and Drainage Corridors

Especially in some of the developing portions of the District, wetlands and sensitive habitat areas are being preserved for open space, wildlife habitat, and creek ways preserved to convey flood water. These same areas can be an invaluable community resource for open space and natural scenery, areas to view wildlife, and areas for multi-use trails and other recreational use.

- The District should actively work with the County, and the developers to insure that these sensitive open space areas are preserved, that natural creek ways are protected with adequate buffer, that the open space preserve areas are linked together to create natural corridors for wildlife migration, and that every effort be made to include public access and controlled public use as part of managing these open space areas.
- When it is advantageous for the District, incorporate natural and open space areas that are set aside for drainage ways, detention basins, creeks, wetlands and open space preserves as part of the District park system.
- Plan, engineer and maintain detention basins to serve multiple functions of flood control, improving water quality, providing wildlife habitat, enhancing environmental quality, and also providing recreational opportunity.
- Develop joint use agreements for utility corridors that do not conflict with the primary functions of these corridors; agreements that accommodate desirable, alternative public use; and agreements to convey such corridors or portions thereof to the District if it is found no longer of value to the entity.
- Preserve, protect, and enhance creekways to accommodate necessary surface water runoff. Protect and enhance the values of creekways as a resource for wildlife habitat, wildlife migratory corridors, as a valuable landscape and visual amenity in a neighborhood, and as a potential route for hiking, bicycle, and equestrian trails.
- Support programs that protect and enhance water quality, and encourage the restoration of creekways to support wildlife, habitat, and environmental quality.

E. Open Space Transition Options

Transition areas bordering open space, detention/retention basins, and other restricted use natural areas, will be designated and maintained with a developed and manicured approach as opposed to being left in a natural state. A minimum of fifteen (15) foot developed transition area with turf and trees, or shrub/groundcover and trees, with mow strip and sidewalks or multi-use trails separating the street from the natural area will be provided.

F. Parks and Open Spaces Managed by Others

Major park facilities within and adjoining the District such as the Dry Creek Parkway, Gibson Ranch, Ueda Parkway, Steelhead Creek, Cherry Island Golf Course, Cherry Island Soccer Complex, and others provide invaluable recreation opportunities for the residents of District. To the extent possible, participate in the planning and management of adjoining recreation facilities, and develop ways to cooperatively conduct programs of mutual benefit.

G. Concession Operation

Develop policies to encourage concession operations on District lands that serve public needs and interests, are compatible with the intended uses of the parkland, are compatible with the surrounding neighborhood, and will be beneficial to the District from a park operation and revenue standpoint. Also investigate the opportunities for the private concessionaire to maintain portions of the park/facility that its services impacts.

H. Private Recreation

The District should work with private recreation providers to enhance the recreation programs available to the public. Through cooperative efforts with the private sector, the District could gain additional revenue, the community could be provided expanded and higher level of service, and some of the burden of providing similar services by the District would be diminished.

I. Recreation Facilities Development Standards

The National Standards by NRPA suggest a wide range of recreational facilities many of which may or may not be suited for the District. Therefore, the NRPA development standards were evaluated, and the District Standards were developed based on general practice in the region. Also facilities standards have been established for many new types of recreation activities that are gaining in popularity such as skate parks, roller hockey courts, interactive water play areas, disc golf and dog parks, etc. Table 11 includes recommended space requirements, size, dimensions, orientation, number of facilities per population, and service area radius.

**Table 11 — Rio Linda Recreation and Park District
Park Facility Standards**

Activity/ Facility	Units per / Pop.	Space Req.	Recommended Size & Dimensions	Recommended Orientation	Service Area Radius
Amphitheater	1/50,000	1.0 acre plus	Seating for 500 to 1,000	Seating facing away from sun	
Archery Range	1/50,000	5 – 10 acres	Safety fan of 300 yds with safety embankments or buffer	Target direction 45 degree of north. Locate in turfed field	30" travel time
Ball Field: Baseball Lighted	1/15,000 1/30,000	3.0 – 3.85 acres min.	Center field 400'	Line from home plate through pitcher's mound runs east-north-east	
Ball Field: Little League Lighted	1/5,000 1/30,000	1.2 acres min.	Center field 200 – 250'	Same as baseball	¼ to ½ mile
Ball Field: Softball Lighted	1/25,000	1.5 – 2.0 acres	Center field 250 – 300'	Same as baseball	
Basketball, Indoor	1/8,000				
Basketball, Outdoor	1/5,000	2,400 – 7,280 sf	46' to 50' x 84' 50' x 84'	Long axis north and south	¼ to ½ mile
Campground	1/100,000	10 - 40 acres plus	Varies with site and program objectives 40,000 sf	N/A	30" travel time
Community Center (teens)	1/50,000	3.0 – 5.0 acres site	Varies with community and program objectives	N/A	1 to 2 miles
Community Center (seniors)	1/30,000				
Cultural Gardens	1/50,000				
Dog Park	1/25,000	¼ to 2.0 acres	Varies with site and proposed program	N/A	30" travel time
Field Hockey	1/20,000	1.5 acres min.	180' x 300' with 10' clearance on all sides	Long axis north and south	15" to 30" travel time
Football	1/40,000	1.5 acres min.	160' x 360' with a 10' clearance on all sides	Long axis north and south	15" to 20" travel time
Frisbee Course	1/100,000	5 acres plus	Site with tree obstacles and terrain desirable	N/A	30" travel time

*RIO LINDA—ELVERTA RECREATION & PARK DISTRICT
DISTRICT MASTER PLAN*

Activity/ Facility	Units per / Pop.	Space Req.	Recommended Size & Dimensions	Recommended Orientation	Service Area Radius
Golf: Par 3 9 Hole	1/25,000	50 to 60 acres.	Average length: 600 to 2,700 yards	Majority of holes on a north south axis.	½ to 1 hour travel time
Golf Par 3 18 hole	1/50,000	110acres min.	2,250-6,500 yards	Majority of holes on a north south axis.	to 1 hour travel time
Golf driving range. Min 25 tees	1/50,000	13.5 acres min. 25 tees	900' x 690'. Add 12' width for each additional tee.	Long axis south- west-northeast with golfer driving toward northeast	30"travel time
Gymnasium	1/10,000	Combined with community center or school	Provide space for multi-purpose courts, storage, lockers, restroom / shower facility, office, and parking	N/A	
Handball	1/20,000	800 sf for 4 wall, 1,000 sf for 3 walls	20' to 40' with a min. of 10' to rear of 3 wall court.	Long axis north- south. Front wall at north end.	15" to 30" travel time
Hard Surface Court, multi use	1/10,000	9,840 sf	120' x 80	Long axis of courts with primary use is north-south.	1-2 miles
Horseshoe	NS	1,500 sf	10' x 50' with 10' clearance between pits.	Long axis north – south.	
Model Boating Lake	NS	½ to 2 acres	Varies with site and program objective	N/A	30" travel time
Multi-Use Recreation Center	1/10,000				
Paint Ball Course	NS	Varies	N/A	N/A	One hour travel time
Picnic: Family	1/2,500	N/A	Individual tables or shelters with 4 tables and BBQ	N/A, though shade trees or shelter is desirable.	¼ to ½ mile
Picnic: Group	1/10,000	1.0 – 2.0 acres	Shelter with multiple tables and group BBQ for small and large groups	Near parking lot, recreational amenities, and surrounded by multi-purpose turf.	1 mile
Play Apparatus	1/5,000	¼ to 1 acre	Age appropriate creative play apparatus and facilities often divided into youth and pre- teen areas.	Within convenient distance of parking, picnic facility, and restroom.	¼ to ½ miles travel time.

*RIO LINDA—ELVERTA RECREATION & PARK DISTRICT
DISTRICT MASTER PLAN*

Activity/ Facility	Units per / Pop.	Space Req.	Recommended Size & Dimensions	Recommended Orientation	Service Area Radius
Roller Hockey	NS	0.5 acres	Youth 80'x 60' Adult – 85' x 80'	N/A	½ - 1 miles travel time
Senior Center	1/30,000	Combined with community center	Same as community center	N/A	
Shooting Range	NS	Varies	Varies whether indoor or outdoor.	North – south orientation with the target to the north in outdoor range.	N/A
Shooting: skeet and trap field	1/100,000				
Skeet and Trap Range	1/50,000	50 acres min.	300 yds x 400 yds min.	North to northeast shooting direction	N/A
Skate Park	1/50,000	0.5 to 1 acre	Varies depending on type of facility	N/A	30" travel time
Soccer, youth	1/7,000	0.5 to 1.25 acres	120' x 180' or 180' x 300'	Same as football	¼ to ½ mile
Soccer, Regulation	1/3,000	1.7 to 2.1 acres	195' to 225' x 330' with 10' min clearance all sides	Same as football	1-to 2 miles
Sports Field: Girls Softball	1/5,000				
Sports Field: Girls Soft Lighted	1/20,000				
Sports Field: Soccer Lighted Synthetic	1/25,000				
Sports Field: Multi-use	1/3,000				
Swimming Pool	1/20,000	Varies on size of pool and amenities. Usually 0.5 to 5 acres	Pool size and configuration varies with program objectives	Care should be taken to site lifeguard station in relation to afternoon sun.	15 to 30 minutes travel time
Teen Center	NS	Varies with program objectives.	N/A	N/A	
Tennis	1/4,000	7,200 sf for single court. 2 acres for complex	36' x 78' with 12' clearance on both sides and 21' clearance on ends	Long axis north and south	¼ to ½ miles

Activity/ Facility	Units per / Pop.	Space Req.	Recommended Size & Dimensions	Recommended Orientation	Service Area Radius
Track ¼ mile	1/20,000	4.3 acres	Overall width – 276' Length – 600.02'	Long axis in sector from north to south to north- west-south-east with finish line at northerly end.	15 to 30 minutes travel time
Trail System	1 system/ region	N/A	Well-defined trailhead. Width - 10' to 12'. Grade – 5% not to exceed 15%. Trail capacity: Rural – 40 hikers / day / mile. Urban – 90 hikers / day / mile	N/A	N/A
Turf Area: Multi-Use	1/3,000	2.0 acres plus	200' x 400' or greater depending on program and objectives	Same as football	¼ to ½ miles
Volleyball (sand or indoor)	1/5000	4,000 sf min.	30' x 60' with 6' min. clearance on all sides.	Long axis north and south	¼ to ½ miles
Water Park	1/50,000	¼ to 1 acre or more	Varies with program objectives and amenities.	N/A	15 - 30 minute travel time

J. Park Development Standards

The following summarizes the park development standards, including park facilities, location criteria, and general park amenities.

Table 12 — General Park Standards

Table 13 — Mini Park Standards

Table 14 — Neighborhood Park Standards

Table 15 — Community Park Standards

Table 16 — School-Park Site Standards

Table 17 — Special Use Facility Standards

Table 18 — Linear Parkways, Greenbelt and Open Space Standards

Table 12 — General Park Standards

SIZE AND SERVICE AREAS

- Depends on the park type: mini, neighborhood, community, city-wide park.

SITE CHARACTERISTICS

Location and Access

- Ease of access from throughout the service area, even geographical distribution, connection to interconnecting trail system and relationship to other parklands is key criteria in site location.
- Provide convenient and safe access for pedestrians, bicyclists and autos from throughout the service area.
- Locate with frontage on at least one public street.
- Choose sites that have interesting or special features.
- Locate parks in areas that can be viewed easily for security reasons.
- Locate parks so as to link to existing and planned bikeways, trails, open space network, and other connections.
- Choose sites that avoid possible hazards such as heavy traffic, railroads, industrial sites, or electrical transmission line easements.
- Provide buffers between active use areas and adjacent residential development.
- Choose sites that exhibit the physical characteristics appropriate for its intended use (i.e. size, shape, topography or natural features).
- “Left-over” parcels of land that are undesirable for development are generally undesirable for park development and should be avoided.
- Lands within a flood plain should only be considered if the facilities are constructed above the 100-year flood elevation.
- Provide universal access to all facilities per American with Disabilities Act (ADA) requirements.

Play Areas

- Creative play area for ages 2-5.
- Creative play area for ages 6-12.
- Include play equipment for active, social and imaginative play.
- Provide District approved play surface(s) that meet ADA requirements, and with necessary drainage system.
- Provide adjacent seating areas for adult supervision and other family activity such as picnicking.
- Provide shade trees throughout the park.
- Locate proximate to other desirable activities such as turf fields, spectator areas, group picnic areas, pathways, etc.

- Locate appropriate to other conveniences such as parking, restrooms, etc.
- 0.5-acre minimum.

Park Features and Plans

- Provide irrigated turf, sport fields, and park features as required for the type of park.
- Irrigation system shall be automated controlled system as required by District.
- Landscape planting including trees, shrubs, groundcover, turf, and vines shall meet District standards and requirements.
- Park improvement plans and specifications shall be developed to District standards and requirements, and construction documents will require District approval prior to construction.

Passive Recreation

- Provide benches, pathways, some shade trees and informal turf for impromptu play or natural areas for passive recreation.

Lighting

- Provide lighting at parking lots and pathways for security and safety.
- Sports field lighting as appropriate for park type and neighborhood.
- Design to minimize glare and spillover into adjacent residential areas.

Bicycle Parking

- Lockable bicycle parking at suitable locations.

Fences and Walls

- Provide 6' wrought iron, non climb fence, painted black along the edge of parks abutting open space or natural areas with appropriate pedestrian or maintenance gates as required by the District.
- Provide 6' masonry wall along park edge abutting commercial, and industrial land use.

Pathway System

- Provide a central multi-use paved pathway system, minimum ten-foot wide, for service and emergency access to major facilities within the park.
- Provide secondary multi-use paved pathway system, appropriate width determined by type of use and demand, throughout the park.

Site Furnishings

- Trash receptacles
- Drinking fountain, handicap accessible with a separate dog watering feature
- Benches
- Picnic tables
- Barbecues
- Park signage

Table 13 — Mini Park Standards

DEFINITION

- Small parks within residential neighborhoods that may include unique or single purposes, such as: a recreation facility for an isolated area of a neighborhood, or to preserve an isolated natural resource.

SERVICE AREA

- 1/4-mile service radius.

SIZE

- 0.50 to 2 acres.

SITE CHARACTERISTICS

Location and Access

- Locate in the interior of neighborhoods or near high-density development.
- Locate where immediate access to a neighborhood park is limited.
- Locate to address limited, isolated or unique recreational needs.
- Locate near high-density development.
- Locate for accessibility by way of interconnecting trails, sidewalks, or low-volume residential streets.
- Avoid undesirable “left-over” or odd-shaped parcels.
- Consider opportunities for preserving natural features.
- Locate, where required, as access points into linear parkways or greenbelts.

BASIC REQUIREMENTS

- Benches in shaded areas.
- Play area for children, age appropriate.
- Provide site furnishings per general park standards.
- Provide social gathering space for impromptu use by the community.
- ADA accessible drinking fountain

OPTIONAL ELEMENTS

- Small hard court area
- Small turf area.
- Picnic table (2), shaded, to accommodate 4-8 people.
- Shade structure or arbor.
- Fixed in place trash receptacles.

Table 14 — Neighborhood Park Standards

DEFINITION

- Medium-size park that provides scenic and aesthetic value, passive recreation for all ages and designated active areas for a specific neighborhood.
- May be located adjacent to a school's facilities, generally elementary or intermediate.

SERVICE AREA

- ¼ to ½-mile radius to serve a single neighborhood or population up to 5,000, and not separated from the population by a barrier such as a creek, drainage way, arterial road, freeway, or railroad.

SIZE

- Five to twelve acres.

SITE CHARACTERISTICS

Configuration

- Contiguous, usable (nonlinear) shape, with level terrain to accommodate impromptu play and organized sports activities.

Access/Location

- Neighborhood parks are planned to function as the core of the park system; locate as the recreational and social focus of the neighborhood.
- Locate with frontage on residential low-volume or collector streets.
- Avoid separation of park and residential areas by major arterial or other barriers.
- Limit activities that generate traffic from outside the neighborhood.
- Plan for both active and passive recreation facilities, accommodating a wide variety of age and user groups.
- Provide off-street parking where recreational facilities/uses require.
- Select sites that exhibit the physical characteristics appropriate for both active and passive recreational uses.
- Configuration of the site shall be contiguous usable (nonlinear) land, with level terrain to accommodate active organized recreation.
- Locate adjacent to elementary or intermediate schools, when possible.

Character

- May contain natural features for passive recreation
- Should contain large trees for shade and open turf area for free play, sports fields for organized play, areas for picnicking, some natural areas, and a play area for supervised children's play.

BASIC REQUIREMENTS

Passive Recreation

- Open turf area for non-organized sports, minimum one acre to two acres or more desirable.
- Pathway system for walking/jogging according to general park standard.
- Social gathering space.

Active Recreation

- Multi-use turf areas
- Sports fields for organized youth sports league/practice.
- Skate/BMX street feature(s)

Play Areas

- Provide according to general park standards.
- Children creative play area, age appropriate.
- Skate/BMX street features

Family Picnic Areas

- Provide shade structure: 20-25 person capacity for group reservations.
- Tables for 4-8 people each.
- Provide barbecue facilities.
- Locate proximate to other desirable activities such as turf areas, play areas, pathways, etc.

Informal Picnic

- Provide picnic tables for non-reservation use under shade trees.

Site Furnishings

- Provide per general park standards.

Lighting

- Provide lighting at parking areas and along pathways for security and safety.
- Provide according to general park standards.

Shade

- Provide shade structure where natural shade from trees is insufficient.

Restroom

- Restroom, depending on type of park facilities available

OPTIONAL ELEMENTS

- | | |
|--|--|
| <ul style="list-style-type: none">• Exercise course.• Interactive water play feature. | <ul style="list-style-type: none">• Botanical garden.• Off-street parking |
|--|--|

Table 15 — Community Park Standards

DEFINITION

- Large park that includes passive and active recreation facilities that serve to accommodate a wider variety and higher intensity of recreational uses than neighborhood parks.
- May have unique amenities such as natural features for preservation or special use facilities.
- Includes facilities typically found at neighborhood parks and may function as a neighborhood park for the area in which it is located.
- May be located adjacent to school facilities, generally intermediate or high school.

SERVICE AREA

- One- to two-mile radius, approximately 20,000 residents.

SIZE

- 20 to 150 acres plus.

SITE CHARACTERISTICS

Configuration

- Contiguous usable (nonlinear) shape, with level terrain to accommodate active recreation, including youth and adult organized sports leagues.

Access/Location

- Locate to serve the recreation needs of several neighborhoods or larger sections of the community.
- Locate with frontage on residential collector or arterial streets.
- Locate for access by interconnecting trails and public transit.
- Locate adjacent to intermediate or high schools, when possible.
- Configuration of the site shall be contiguous usable (nonlinear) land, with level terrain to accommodate active organized recreation.
- Select sites that exhibit the physical characteristics appropriate for both active and passive recreational uses. Active organized group or sports related activities typically are located in community parks.
- Locate larger, more active facilities away from residential neighborhoods.
- Provide off-street parking.
- Incorporate special or unique features.

Character

- Have open flat areas for active recreation, and desirable visual and natural attributes for passive recreation areas.

BASIC REQUIREMENTS

Sports Facilities

- Lighted regulation facilities for organized league practice, play, and tournaments for softball, baseball, and/or soccer.
- Bleachers, restrooms, storage, concession stand at league sports facilities and batting cage for softball and hardball.
- Lighted tennis courts, basketball courts, sand volleyball courts, and practice walls.
- Provide 40-60 parking spaces for each sports field.
- Provide four parking spaces for each game court.
- Provide lighting for sports facilities.

Passive Recreation

- Combination walking and jogging pathways and benches.
- Open turf area for casual games and unsupervised free play of minimum two acres.
- Natural areas.

Special Use Facilities

- Include at least one special use facility such as a pool, community center, gymnasium, amphitheater, or sports complex.
- Provide street skate/BMX features.

Family Picnic Areas

- Provide several shade structures: 20-25 person capacity or more.
- Tables for four to eight people each.
- Provide barbecue facilities.
- Locate proximate to other desirable activities such as turf areas, play areas, pathways, etc.
- Locate proximate to other conveniences such as parking, restrooms, etc.
- Provide one parking space for each 2.5 seats.

Group Picnic Area

- Provide large shade structure for group reservations: 80-100 person capacity.
- Provide picnic tables, serving tables, sinks, barbecue facilities, and electrical service.
- Locate proximate to other desirable activities such as turf areas, play areas, pathways, etc.
- Locate proximate to other conveniences such as parking, restrooms, etc.
- Locate away from nearby residential areas.
- Provide one parking space for each 2.5 seats.
- Provide ability to facilitate one to three groups at a time.

- Provide stage or other place for group assembly and focus.

Informal Picnic

- Provide picnic tables for non-reservation use under shade trees throughout the park.

Restrooms

- Locate convenient to use and utilities.
- Provide permanent restrooms buildings.
- Provide restroom facilities with multiple fixtures based on estimated usage.
- Provide lighting.

Lighting

- Provide lighting according to general park standards.
- Sports facilities lighting as required for league and tournament play.

Telephone

- Provide according to general park standards.

Bicycle Parking

- Provide according to general park standards.

Drinking Fountain

- Provide according to general park standards. Quantity as required meeting facilities demand.

Pathway System

- Provide according to general park standards.

Site Furnishings

- Provide according to general park standards.

Dog Run

- Provide dog run or dog park area.

OPTIONAL ELEMENTS

- | | |
|---|---|
| <ul style="list-style-type: none">• Nature interpretive area.• Exercise course.• Specialized facilities for bocce ball, art and culture, etc.• Food concessions building.• Nature features.• Community garden area.• Horticultural garden area. | <ul style="list-style-type: none">• Amphitheater.• Skate Park.• Small building for meeting rooms.• Lake or pond feature for aesthetics, detention requirements, fishing and non-motorized boating.• Synthetic turf fields• Other special use features. |
|---|---|

Table 16 — School-Park Site Standards

DEFINITION

- Facilities that are developed in cooperation with the School District and are located in part or entirely on School District lands.
- Locate children's play areas on park property so that play areas are accessible during the hours of 9:00 a.m. to 3:00 pm., Monday through Friday, in addition to non-school hours.
- The basic intent is to provide neighborhood/community park-type facilities with joint-use capabilities.
- Develop community parks adjacent to intermediate or high school facilities.
- Develop neighborhood parks adjacent to elementary or intermediate school facilities.

SERVICE AREA

- One-half to two-mile radius depending on park type.

SIZE

- Varies, depending on park type.

SITE CHARACTERISTICS

Configuration

- Contiguous, usable (nonlinear) shape, with level terrain. No fencing between school and park lands.

Access/Location

- Location will generally be determined by the school district based on local policy for the distribution of schools.
- Select sites to provide neighborhood/community park-type facilities.
- Locate with frontage on residential collector or arterial streets.
- Provide off-street parking, quantity based on the facilities. Joint use with school parking whenever possible.

Character

- Contain turf fields and ancillary facilities for active recreation.
- Should contain large trees for shade, open turf area for free play, and a play area for supervised children's play.
- Sports facilities and complexes depending on park type and District needs.

BASIC REQUIREMENTS

- Open turf areas, baseball/multipurpose fields, soccer fields, and children's play areas.
- Other features to conform to community/neighborhood park standards.
- Provide according to neighborhood and community park standards.

OPTIONAL ELEMENTS

- Exercise course or cluster.
- Tennis courts, basketball courts, and volleyball courts, or practice wall.
- Restroom/concession building.
- Adventure Club facility.
- Swimming pools.
- Gymnasium.
- Track facility.
- Football/soccer stadium.

Table 17 — Special Use Facility Standards

DEFINITION

- A facility such as a community center, athletic complex, aquatic center, horse arena, or other cultural or athletic facility that services a specific need for a portion of the specific plan area's population.

SERVICE AREA

- The entire Specific Plan Area.

SIZE

- Varies

LOCATION

- May be included within a community park or may be at a separate location.

FACILITY TYPES

- | | |
|---|--|
| <ul style="list-style-type: none">• Community center with auditorium, meeting rooms, classroom space, offices, indoor recreation space, crafts room, exercise space, gymnasium, etc.• Indoor gymnasium.• Indoor pool.• Aquatics complex for recreational and organized team swimming.• Childcare facility.• Community Theater, indoor.• Outdoor theater, amphitheater.• Lighted sports complex for organized youth or adult tournament, practice and league play.• Senior center.• Community Art/Cultural center.• Teen Center.• Public Library. | <ul style="list-style-type: none">• Public golf course and driving range.• Tennis court complex.• Track facility.• Football / Soccer stadium.• Indoor soccer facility.• Skate Park.• BMX track.• Dog Park.• Lake or pond for aesthetics, detention requirements, fishing and non-motorized boating.• Preservation of significant environmental, cultural or historical resource.• Aeronautic Hobby Park. |
|---|--|

Table 18 — Linear Parkways, Greenbelt and Open Space Standards

DEFINITION

- Linear corridors designed for recreational travel and commuting, including hiking, biking, equestrian, and walking.

SERVICE AREA

- Located to serve the entire District as part of the interconnecting pedestrian/bikeway system.

SIZE

- Located to serve the entire District as part of the interconnecting pedestrian / bikeway / equestrian trail system.

SITE CHARACTERISTICS

- Open space corridors developed along creeks, riparian areas, drainage channels, abandon railroad beds, utility easements, or rights-of-way.
- Minimum 35 feet wide.
- Where linear corridors are located adjacent to local residential streets, such as at the ends of cul-de-sacs or along parallel streets, fencing shall be prohibited and public access points provided to the interconnecting trail system.
- A paved dual-purpose trail (bike path and maintenance vehicles) should be provided on either side of drainage channels. Drainage channel slopes should be contoured to avoid an excessively geometric appearance. Channel design criteria calls for wide channel facilities having banks of an average of 4:1 slope and shall vary typically between 3:1 and 5:1.
- Sufficient land should be provided outside of the top of slopes along the channels to allow for the multi-use trail, 4' equestrian path, and landscaping. There should be a minimum of 25 feet on either side of the channel for this purpose.

BASIC AMENITIES

- Paved bicycle/pedestrian path min. 10 feet wide with 2 feet wide shoulders on both sides (Cal Trans Class I standards), heavier trail to be designed to Sacramento County Standards, 12 feet wide with 3 feet wide shoulders.. Incorporate emergency and maintenance vehicle access for dual-purpose use.
- Install identity, use and safety signs as required along the trail system.
- Trailhead areas with benches or picnic tables, water, public telephone, and informational signs.
- Unpaved hiking paths, 6 feet wide, stabilized soil or decomposed granite surface, and 4' wide earthen equestrian path.
- Viewing areas for natural feature preservation areas along the trail system.
- Interpretive signage for significant environmental, cultural or historical features along the trail system.

- Bridges over creeks and drainage channels for equestrians, pedestrians, bikes, emergency and maintenance vehicles.

OPTIONAL AMENITIES

- Rest areas.
- Drinking fountain.
- Jogging trails, separate from bicycle/pedestrian path and equestrian path. .
- Road under crossings for trail system to accommodate pedestrians, bikes, emergency and maintenance vehicles
- Hitching rails.

VI. Park & Recreation Need

A. *Recreation Needs Survey*

During 2002 and 2003 survey questionnaires were distributed to the residents of the District. Survey questions were structured to elicit responses from Rio Linda and Elverta residents relative to their desires for recreation programs and park facilities, and their opinions regarding existing facilities, programs, and services. (See Appendix E summary results of the Recreation Needs Survey.) Conclusions and recommendations of the survey are listed in the following section.

1) **Resident's Desire**

The following are the desires of the community residents who participated in the survey:

- Increase park security, particularly at night.
- Improve restroom maintenance.
- Encourage and work with the school Districts to make school sites available for recreation use during non-use hours.
- Give equal importance to rehabilitating and improving existing recreation facilities as to acquiring and developing new facilities.
- Offer more recreation programs for all age groups, especially those for children and teenagers.
- Increase programming in the areas of sports leagues, special interest classes, and outdoor recreation programs.
- Ban alcohol in parks, and require that renters of the community recreation facility provide liability insurance when alcohol is involved.
- Close parks at dusk except for parks and facilities that offer organized evening activities.
- Require reservations for community facilities with a security deposit from the renter, and user fees for special programs.
- Investigate the development of handicapped recreation program. Even though only 5% of the respondents indicated a need, this could be an important need in the District.
- Provide a multi-use trail/path/lane (system (pedestrian, bicycle, and equestrian) that connects parks, schools, open space areas, community activity centers, and are linked to County wide trails system.

B. Park and Recreation Needs

By examining the parks, school sites, and other recreational facilities located in the District, the relative level of recreation services provided in differing parts of the District is determined. This process also identifies areas within the District that are deficient in park and recreation facilities. Table 19, Recreation Acreage Needs by Year 2014 illustrates how the District and its Planning Areas are currently served and will need to be served in the future based on population projection.

Table 19 shows that, although Planning Area 3 is adequately served in terms of park acreage, all of the other populated areas of the District are presently deficient of park lands. Due to projected population increase, this deficiency will become worse over time in Planning Areas 3, 4, and 5 unless additional park lands are acquired. The Panhandle PUD, planning area 1B, and Elverta Village, planning area 2, will both have land dedicated for parks and open space during the development process. The following section covers each of the Planning Areas: their present and future populations; level of park services presently available and will be needed during the next decade.

1) Park Acreage Needs

The Table 19 illustrates quantitatively how the District is meeting the park and recreation needs of its residents presently and during the next decade. For purposes of park and recreation planning analysis, the District has been divided into five Planning Areas, and depending on the present and projected populations for each Planning Area, park acreage needs have been determined for each area and for the District as a whole.

Table 19 — Recreation Acreage Needs by Year 2014

Planning Areas	PA 1A	PA-1B	PA-2	PA-3	PA-4	PA5	District
2000 Population		264	9,575	4,008	3,579	3,743	21,169
2000 Acreage Need		1.3	47.8	20.0	17.9	18.7	105.7
Projected 2005 Population		286	10,388	4,348	3,883	4,061	22,966
Projected 2005 Acreage Need		1.4	51.9	21.7	19.4	20.3	114.7
Projected 2010 Population		8,725	16,240	4,705	4,201	4,394	38,265
Projected 2010 Acreage Need		43.6	81.2	23.5	21.0	22.0	191.3
Projected 2014 Population		9,345	22,030	5,036	4,496	4,703	45,610
Projected 2014 Acreage Need		46.7	110.15	25.18	22.5	23.5	228.0
Present Developed Park Acres		0	11	20	12.1	2.6	45.7
Present Total Acquired Park Acres		0	41	20	12.1	6.7	79.8
Park Acres to be provided by Development		<u>121.5</u>	75.5				<u>197</u>
2014 Park Acreage Deficiency		<u>74.8</u>	6.35	-5.18	-10.4	-16.8	<u>48.8</u>
Recreation acreage needs are based on NRPA / RLERP Standard of 5 acres per 1,000 population.							

In addition to the park acreages in each Planning Areas, there are school sites in many of the Planning Areas that often provide substitute park opportunities. Although it may be enticing to calculate the school site acreages into the park acreage mix, it must be understood that school sites have significant restrictions and limitations regarding public use. Therefore, though it is a community recreation resource, the total park acreage needs of the District and of the Planning Areas will discount school sites in calculating acres of parklands needed.

Planning Area #1A

This Planning Area presently does not have a resident population since the area is predominantly agricultural. However, if the City County Joint Vision proposal for urbanizing this area becomes a reality, appropriate parks, open space, landscape corridors, trails, and recreation facilities in accordance with the District Park Standards will need to be provided through the Public Facilities Financing Plan for the area.

Planning Area #1B

Data indicates that this Planning Area has a relatively small population with a current recreation acreage need of 1.3 acres. However, the projected population growth for the next decade is significant, increasing from approximately 286 in 2005 to a projected population of 9,345 in 2014. This translates to a need for over 46.7 acres of parkland. Currently, the only park feature located in the area is the 3 acre Elkhorn Equestrian Staging Area, which is not owned by the District. [The Panhandle Planned Unit Development is currently in the approval process. As part of the PUD a total of 121.5 acres will be dedicated as parks and open space \(see Appendix I\). Assuming that this full acreage is developed as parklands, then Planning Area 1B will have almost 75 acres of parkland above the target of 1 acre per 5,000 residents.](#)

Planning Area #2

The 8.5 acre Babe Best Park, the 2.45 acre Northbrook Park and the 30 acre undeveloped Ponderosa Farms Community Park site are located in this area. In addition, seven new parks totaling approximately 75.5 acres, greenways and community center are proposed in the Elverta Villages Specific Plan which is located in this area. Based on current and projected population for this Planning Area, the 2000 population park acreage need is 47.8 acres, and increases to 110.15 acres in 2014. However, with the addition of the proposed 75.5 acres of parkland in the Elverta Specific Plan, the total of the existing and proposed parklands exceeds the standard for this area by 6.35 acres. If all of the proposed parklands are developed, Planning Area 2 will be the rare case in the District in which the Parkland Standard of 5 acres per 1,000 may be exceeded.

Planning Area #3

The 12.5 acre Central Park Horse Arena and the 7.5 acre Westside Park are located in this area. The 2000 census data indicates a need for 20.0 acres and 25.18 acres are needed by the year 2014. As there exists 20 acres of parks in the area, 5.18 acres of additional park land will need to be acquired by 2014.

Planning Area #4

Located here are the 8.5 acre Community Center Park, 3 acre Depot Park, and the 0.6 acre Welcome to Rio Linda Entry Park. There are a total of 12.1 acres of parks in the area, 2.6 acres of which are undeveloped. Population figures indicate 17.9 acres of park land are needed in 2000 growing to 22.5 acres by the year 2014, or a deficit of 10.4 acres.

Planning Area #5

The two parks in this Area are the 2.6 acre Roy E. Hayer Park and the 3.5 acre Linda Creek Park site. The 2000 census data indicates a need for 18.7 acres and 23.5 acres by the year 2014. There is, therefore, a current deficit of 13.6 acres and increasing to 16.8 acres of parkland deficit by year 2014.

Summary of Park Acreage Needs

Based on these computations, disregarding the proposed park acreages that may be provided in Area 1A, as they will basically meet the park acreage needs of those anticipated to populate those areas, in 2005 RER&PD is deficient of 34.9 acres of parkland. If all of the proposed parkland in Planning Areas 1B and 2 is developed, then by 2014 the district will have an excess of 48.8 acres.

Analysis of park and recreational needs based upon acres per 1,000 is only part of determining the ultimate park and recreation needs of the District. Additional factors must also be considered such as population characteristics, population and densities, accessibility to other parks and open space areas in the vicinity, and the perceived needs of the community. The following section continues this analysis.

2) Neighborhood Park Needs

The District in 2000 was in need of 63.39 acres dedicated to neighborhood parks, which will increase to 136.81 acres by the year 2014. With the District presently having 51.2 acres of neighborhood parks, the District is presently 12.19 acres deficient of neighborhood parks and this will grow to 85.61 acres by the year 2014 if no additional neighborhood parklands are acquired. This deficiency, in part, will be off-set by the 36.7 acres of Neighborhood Parks proposed in Elverta Village, assuming that they are developed as proposed, resulting in a net deficiency of 48.91 acres of neighborhood parklands by 2014. The Panhandle PUD will, presumably, have a sufficient acreage of neighborhood parks, removing 18.68 acres from the deficit. However Planning Areas 3, 4, and 5 will still have a need for additional neighborhood park acreage.

Table 20 — Neighborhood and Community Park Needs

Planning Area	PA-1A	PA-1B	PA-2	PA-3	PA-4	PA-5	District
2000 Population		264	9,575	4,008	3,579	3,743	21,169
2000 Neighborhood Park Need		.79	28.7	12.0	10.7	11.2	63.39
2000 Community Park Need		.53	19.15	8.0	7.16	7.5	42.34
Projected 2014 Population		9,345	22,030	5,036	4,496	4,703	45,610
2014 Neighborhood Park Need		28.02	66.09	15.1	13.5	14.1	136.81
2014 Community Park Need		18.68	44.06	10.1	9.0	9.4	91.24

Neighborhood Park need is based on standard of 3 acres per 1,000 population, while the Community Park need is based on a standard of 2 acres per 1,000 population.

3) Community Park Needs

In 2000 there was a need for 42.34 acres of community parks; this will increase to 91.24 acres by 2014 based on the population projection for the District. With the future development of Ponderosa Farms Community Park (30 acres) and the Community Parks in Elverta Village (52.7 acres), this will total 82.7 acres of community park, still leaving a deficit of 8.54 acres.

Beyond the development of Ponderosa Farms Community Park and the community parks proposed in the Elverta Villages development, the District has a unique opportunity to cooperatively create a community park in Areas 4 and 5. This can result by combining the District's Central Park Horse Arena and Hayer Park with the 10.4 acres athletic field (located north-west of the intersection of 10th Street and G Street) owned by the Rio Linda Junior High School to create a 25.5 acre Community Park. For a number of years, the School District has been unable to properly maintain their athletic facility. Since funds are very scarce for both the Park and School Districts, and land of this size is very difficult to secure, RERPD should approach the School District with a proposal to assist the School District to improve and help maintain the site in conjunction with the District's two adjacent park sites. Through this cooperative effort, the Park District could secure the right to use the fields for recreational programs when the fields are not needed by the Junior High School.

This arrangement, if acceptable to both Districts, should be formalized through a Memorandum of Understanding (MOU) that would be executed by both entities spelling out the roles, responsibilities, and rights of the parties. Similar arrangements between park and school agencies have benefited many other communities. This one would help to solve the needs of the Park District for a sizable park with multiple sports fields in the southern portion of the District, help the School District to improve and maintain their athletic fields that they need, but are unable to maintain. Most of all, this arrangement would benefit the residents of the community who desperately need more fields for various sports activities. Beyond the purely recreational value of this complex, this Community Park could also become the center of community activities for Rio Linda / Elverta for multitude of out door events and activities. The improvement of this combined park/school site would also be very attractive project for joint grant applications to the State Dept. of Education and State Parks.

C. Comparison with Similar Park Agencies

Six local park agencies of comparable size, including Rio Linda & Elverta Recreation and Park District, were examined. The table below indicates the comparisons for population served, acres of developed parklands maintained, acres of parks provided per 1,000 residents, staff per 1,000 residents, and the cost to their respective residents to maintain and operate the park system. The data for this comparison came from a survey conducted by CPRS District II, in February 2002:

Table 21 — Comparative Data for Park Agencies

Agency	Population In 1,000	Acres Developed Parks	Acres of Developed Parks Per/1,000	Staff Per/ 1,000	Budget \$ Per Person
Arcade Creek Recreation and Park District	21	49	2.3	.23	\$23.8
El Dorado Hills Community Services District	22	86	3.9	1.04	\$140.5
Fulton El-Camino Recreation and Park District	30	80	2.6	.43	\$46.6
North Highlands Recreation and Park District	35	60	1.7	.22	\$40.0
Orangevale Recreation and Park District	32	128	4.0	.43	\$33.1
Rio Linda & Elverta Recreation and Park District	22	35	1.5	.22	\$26.9

1) Population

The communities compared were between 21,000 to 35,000 population. RLRPD was, consequently, on the smaller end of the range, however, since the comparison was based on per 1,000 residents, the relative size differential was considered unimportant.

2) Acres of Developed Parks Per 1,000

Most telling data in this chart is the Acres of Parklands Per /1000 population. As indicated in Table 21, Rio Linda and North Highlands respectively provide 1.5-1.7 acres of parklands per 1,000 residents, while Arcade Creek and Fulton El-Camino respectively provided 2.3 - 2.6 acres. While it appears that El Dorado Hills and Orangevale have been more successful in providing parklands, not all of their parklands are developed, and these two communities are still below the NRPA standard of 5 acres for Neighborhood and Community Parks. Based on these comparisons, it is evident that RLRPD need to make a concerted effort to acquire

and develop additional parklands in the next decade, particularly as the District's population is anticipated to grow significantly during this time. Part of the need for additional parklands will be provided in the Elverta Villages Development, but these parks will also be developed primarily to offset the population growth that will result in the area.

3) Staffing Per 1,000 Residents

The staffing level for Arcade, North Highlands, and RLERPD appears to be almost identical with .22-.23 of a staff per 1,000 residents. Fulton El-Camino and Orangevale have almost double the staff level of .43 per 1,000 residents. Understandably, the more affluent community of El Dorado Hills has a quadruple level of staffing when compared to the other three at the bottom. Part of the reason for this disparity comes from the differences in the property values, property taxes paid in these areas, the willingness / ability of the property owners to further tax themselves to support a higher level of park and recreation services, and finally the differing levels of recreation program expectations of the residents of different communities.

4) Budget Dollars per Person

The recreation budget per person is quite varied with Arcade Creek and RLERPD at the bottom and El Dorado Hills at the top. The major difference between the communities compared herein is the willingness of the property owners within different communities to tax themselves to achieve a higher level of park and recreation service. If the District Board is not satisfied with a minimal level of park and recreation services, there will have to be a concerted effort to educate the property owners that it is in their long-term best interest to provide a quality park and recreation service to make RLERPD competitive with other similar communities. Part of this education and awakening may occur as the result of the level of park facilities and open space areas that are planned in the Elverta Villages development as compared to the remainder of the District.

5) Facility Needs

Facility needs for RER&PD were determined using the NRPA's (National Recreation and Park Association) standards as a guide. This was supplemented taking into account the District's characteristic, needs expressed by the Recreation Needs Survey, traditions, and the availability of other recreational facilities found within and adjacent to the area. In addition, it is important to note that these NRPA standards represent the minimum standard, certainly not the optimum standards.

The District's most pressing recreation facility needs are a community swimming pool and an additional multi-use recreation center. Currently, swimming facilities are not available. In assessing the need for a future swimming pool, serious consideration should be given to building an indoor or enclosable pool to enable year-around swimming and aquatic activities, especially in joint partnership with the School District or adjoining park agencies. Assuming appropriate location and adequate buffering from adjacent residential areas, future basketball, soccer, softball and tennis complexes should be lighted to accommodate greater use and flexibility of

scheduling. If funding permits, some of the key soccer and softball fields should also be constructed of synthetic fields to reduce maintenance costs, and enable greater use.

High Priority Recreation Facility Needs:

- swimming pool/aquatic complex
- multi-purpose recreation center
- basketball courts, full and half courts
- soccer fields (adult and youth) and complex
- softball complex
- tennis complex
- multi-use trail system (This will be satisfied with the development of the County's Dry Creek Parkway.)

6) Natural Streams and Open Space Areas

There are two prominent streams within the District, Dry Creek and Rio Linda Creek. These drainage corridors, while a natural barrier, also provide an excellent resource for linking park and recreation facilities within the District. These can be for passive recreation use such as hiking, bicycling and equestrian use, and also for wildlife habitat preservation. The District should encourage the County Planning Department to establish and secure a 50' buffer land outward from the top of creek bank to preserve the corridor as habitat, to aid in protecting water quality, create a buffer to adjacent land use, and provide a route for maintaining the fire breaks.

7) Adjacent Recreation Facilities

The District is located within a region that offers a wide range of related outdoor recreational opportunities such as the American River Parkway, Gibson Ranch Regional Park, Ueda Parkway, Cherry Island Golf Course, Cherry Island Soccer Complex, Antelope Green Golf Course, Dry Creek Parkway and the Dry Creek Greenway in Placer County. Park and recreation facilities adjacent to the District provide an extension of the recreational opportunities available to the residents of RLERPD. Although the District's primary focus is on its own facilities and programs, the District should encourage and support the development and operation of other public and private recreation facilities that complement or supplement those offered by the District.

VII. The Park and Recreation Master Plan

This chapter includes recommendations regarding existing and proposed facilities, priorities for making park improvements during the next ten years, and a Ten Year Capital Improvement Program.

A. Park and Facility Recommendations

The graphic master plan on the following page illustrates the existing and proposed recreation facilities recommended for the District. Also included are locations of schools, recreation facilities provided by other agencies, open space areas, biking / hiking / equestrian trails, and the surrounding community. The master plan suggests four community parks. One is referred to as the Rio Linda Center School Park located in Area 5, the second is the proposed Ponderosa Farms Community Park in Elverta, Area 2, the third is the proposed Community Park in Elverta Villages, and the fourth is the Rio Linda Central School Park described below. Except for the existing facilities, the locations of proposed future parks are general and the locations should be considered flexible within the general vicinity indicated. The final locations of future parks will be dictated by developments, land uses at the time, locations of future school sites, available funds, and other related factors.

B. Future Park and Recreation Facilities

1) Rio Linda – Elverta Recreation & Park District’s Capacity to Serve the park and recreational needs of proposed new community in Planning Area 1-A:

RLERPD and its predecessors have forty plus years of history serving the residents of Rio Linda and Elverta Area with park and recreational services. Through the District, there exists an elected Board of Directors, experienced staff and organizational structure with capacity to grow and meet the future needs of Planning Area 1-A. Further, the Board and staff of the RLERPD has historic knowledge and experienced serving the park and recreational needs of the local residents, and are keenly interested in serving the growing needs of the District including the Elverta Village on the east side of the District, and the possible future development of Planning Area 1-A on the west side of the District.

While the City of Sacramento has expressed interest in annexing and administering the public service needs of the future development in Planning Area 1-A, including park and recreational services, the staff and Board of the RLERPD strongly believes that it is in a better position to provide these services. Due partly to proximity to the area, historic knowledge of the area, organizational capacity, ability to provide focused attention to the needs of a new community, and being better able to adjust

to changing needs, assuming that necessary operational and capital funds would be provided whether administered by the City or the District, the District believes that it is much more capable of serving the new community than the City of Sacramento.

In preparation for providing the park and recreational needs of a growing District, the RLERPD will be expanding its staff and services to meet the future needs of 11,250 new residents on the east side of the District called Elverta Village. It is anticipated that Elverta Village will be fully built out in ten years, and consequently will enable the District to grow and transition into a vigorous organization able to serve the current and future needs of a much larger community, including Planning Area 1A.

2) Some of the possible ways to Fund Planning Area I-A:

In addition to the Public Facilities Financing Plan for the capital costs of acquiring, developing, and operating the various public facilities, including parks and recreational facilities that would be put in place for the new developments proposed in Planning Area 1-A, some additional tools available to RLERPD to fund additional parks and recreational services potentially needed in Planning Area 1-A include:

Impact Fees from New Development

The land development process provides local governments with opportunities to guide development and to negotiate with developers to obtain improvements in local quality of life as an outcome of regulatory approval of development proposals. Impact fees, collected as part of this process, can be of value to park and recreation agencies affected by current or potential land development proposals. The District needs to work closely with Sacramento County to determine the connection, or “nexus,” between the demand initiated by the proposed development and the dedications that local officials impose as conditions for approval of the proposal. Sacramento County would collect the impact fee and make it available to the District to fund capital improvements for the needed park and recreation services for the impacted area.

Local Police Powers

Local governments have broad authority to exercise “police power” to regulate public health, safety and welfare. Within this authority, development of private land is regulated by cities and counties. RLERPD needs to develop cooperative agreements with Sacramento County to impose terms and conditions on development proposals that meet the long-term park and recreational needs of the District and the residents who will be residing in the proposed development. As part of the Subdivision Map Act, cities and counties have the authority to control the design and improvement of subdivisions of land within their boundaries. Through the Act, cities and counties may impose requirements, or exactions, on developers as conditions of land use approval. These can be used to mitigate or offset the costs of public services that will be required as a result of the development proposal. They can be in forms such as fee payment, dedication of land, or construction of a public facility. In essence, exactions shift

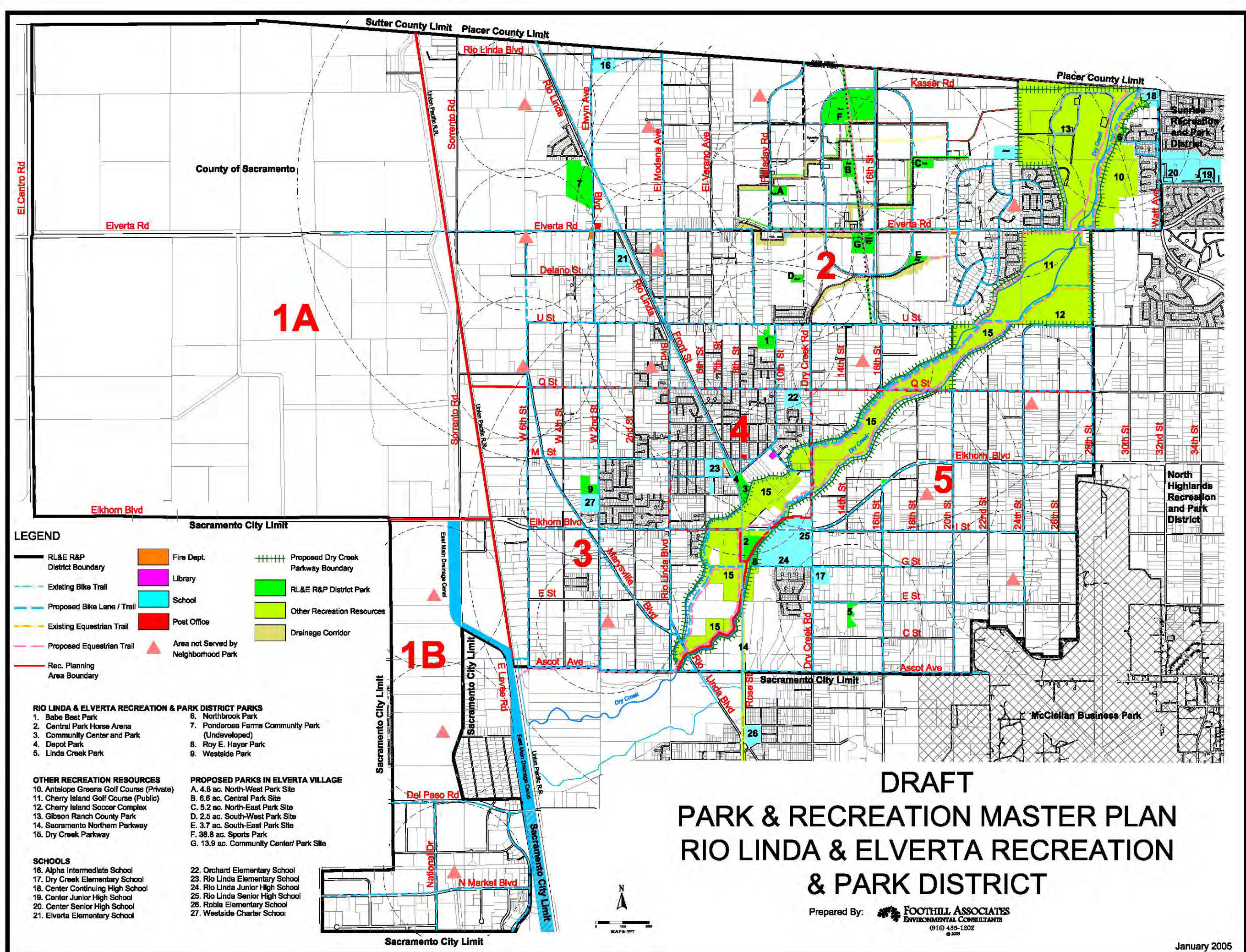


Figure 11

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the recovery of service costs forward to new residents of an area, since builders pass along their exaction costs to the buyers of the new developments.

Development Agreements

Cities and Counties have authority to negotiate development agreements with those who wish to obtain approval for their land development projects. The development agreement is an enforceable instrument that enables orderly community development, and it guarantees the developer will be able to build the houses necessary to pay off the public and private construction costs. It provides the approving agency with a means to improve local infrastructure, including parks and recreation components. The District needs to actively participate with Sacramento County in negotiations with developers to insure that the desired parks and recreation amenities are funded, developed, and or included in the Public Facility Financing Plan for the project.

Regulatory Conditions

Cities and Counties can also impose regulatory conditions on development proposals. Authority to do so can be through specific conditions imposed by local ordinance per the Subdivision Map Act, implementation of the California Environmental Quality Act (CEQA), and other conditions that follow from general plan implementation. A community's duly adopted general plan is the blueprint for its growth and development that sets forth the community's intentions in this regard. As such, the general plan (Park and Recreation Master Plan, a component of the general plan) is crucial to the sustainability of requirements placed on development projects.

Financing Mechanisms

State law also provides a variety of specific financing mechanisms that empower cities and counties to work with developers and enable community growth. Among the tools available in this regard are:

Mello-Roos Community Facilities Act of 1982 – The Act allows creation of a Mello-Roos Community Facilities District. Such a district establishes special property taxes beyond the ad valorem Proposition 13 property assessment level. These obligations are placed on homes and other structures built by developers. The concept is to enrich the new neighborhood with public facilities and services that strengthen the desirability of the neighborhood and, ultimately, improve the value of the property. The Mello-Roos Act allows infrastructure to be built with tax-exempt financing. The authorizing local government sells the tax-exempt infrastructure bonds. The bonds are used to underwrite the costs of the improvements. After sale of the properties by the developer, the new owners take on the obligation for the special taxes within the district.

Mitigation Fee Act of 1987 – The Act permits use of the approval process for new developments to generate impact fees for park and recreation purposes. The fees are to be based on a clear nexus between the fees and

the use of the fees. The District can obtain impact fee revenue by working with the county planning departments to get the Board of Supervisors to enact the appropriate ordinances.

Because special districts lack direct land use authority, RLERPDP must work with Sacramento County and request a share of the revenue stream generated by the approval of new developments. It would be helpful for the District to have an arrangement in place with Sacramento County to be the designated provider of recreation and park services in the area to be served by the new development.

Assessments on Existing Property

However valid it may be to obtain infrastructure revenue from new developments, local governments are challenged to find ways to operate and maintain the improvements generated by new developments and to deal with infrastructure costs (capital improvements, rehabilitation, operations and maintenance) in built-out areas. Consequently, local governments have been looking for new revenue sources for these purposes, including the imposition of benefit-based assessments on property. These are levies or charges against real property that are used to pay for specific improvements linked to the affected property. Revenues generated in this manner are then used to underwrite capital improvements and, in some cases, operation and maintenance costs associated with those improvements.

The Landscape and Lighting (L&L) Act of 1972 – This act empowers local governments to levy an assessment for improvements with direct benefit to property if certain procedures were followed. Park and recreation improvements and services were among the uses authorized by the Act.

Following the passage of Proposition 218 in 1996, a local government could impose the tax only after determining there was not a formal, written protest from a majority of owners of property to be assessed. This threshold was lower than the two-thirds voter approval limit of Proposition 13. Also, in the event that not all property owners returned ballots, it was difficult to reach the required protest level.

The assessment district can be formed if a majority of the ballots received by the conclusion of the hearing do not protest creation of the district. If the District is approved, the assessment is established and will be billed on the property tax bills each year. For the local government, chances for success are enhanced if the need for the expenditure is clearly communicated so as to generate understanding and acceptance on the part of those who will pay the new charges.

Grants

Grant funding is another potential area for new revenues. Grant money is available from both public and private sources. On the public side, park and recreation agencies are eligible for millions of dollars of bond act funds approved

by the voters of California in 2000 and 2002 and other state grants. Federal grant programs also provide dollars through a variety of grant funds to local park and recreation agencies. Eligibility, application deadlines and other program requirements differ among the many grant opportunities available. Some grants are competitive. Others are allocated on a per capita basis or are directly specified in legislation. Information on the bond acts, state grants and federal funds for local parks is available in the following chapter.

Collaboration and Public-Private Partnerships

Local park and recreation agencies that partner with like-minded organizations can conceivably acquire new resources they need to attain their goals. Or they can avoid direct program expenses by enabling the demand to be met by the partner. In this way park and recreation agencies can adjust the mix of services and facilities for the people of the community. The collective contributions of several entities can produce a result that is greater than the sum of the parts.

Working with Community Groups

One approach to collaboration depends upon a strong set of community partnerships that encourage and enable agencies and non-profit organizations to work together in meeting the needs of the community. These partnerships provide a framework for engaging key stakeholders—including police chiefs, business and religious leaders, elected officials, universities and representatives of major arts and cultural institutions—in collaborative efforts with community groups to keep parks and recreation programs going.

Working with Schools

Communities have historically viewed school grounds as important open space and recreation assets. In the mind of the public, school grounds are good places to go during after-school hours for soccer games, basketball practice, playing catch, flying a kite, or just taking an evening walk. State law encourages public access to school grounds for recreation purposes. Joint-use is enabled as well by provisions of state law concerning grants for new school construction.

Working with After-School Programs

After-school programs have attracted considerable interest in recent years. There are two important programmatic pathways for after-school activities: criminal justice and education. Neither program is oriented around parks and recreation, but there is ample opportunity within each program for park and recreation agencies to receive funds.

Working with the Private Sector

Collaboration with business and non-profit organizations is another way of achieving mutual benefit. Most park and recreation agencies already have relationships with businesses for things like concession contracts, program

sponsorships, utility installation leases, and even naming rights on ball fields, pools and other facilities.

Ultimately, it really does not matter to the local residents which community organization owns or operates a program. Instead, what counts is that the community gets the services it wants, with the convenience, quality and price features it demands.

3) Rio Linda Central School Park (suggested name):

A community park of 20-40 acres with a variety of recreation facilities to accommodate community-type activities is needed in Planning Area #5. Unfortunately, a property of this size is difficult to find, and would be prohibitively expensive. As previously described in Chapter V, with the cooperation of the Grant Joint Union High School District, the combination of the Central Park Horse Arena and Roy E. Hayer Park with the adjoining Rio Linda Junior High School Athletic Fields could be improved jointly, and used by both the Jr. High and the District. With proper planning, development, and management of these park and school resources, this Community Park could serve as the venue for a variety of recreational and community events.

The residential properties on the north side of Central Horse Arena Park that were acquired by Sacramento County as part of removing flood prone properties from the Dry Creek flood plane should be added to this Community Park. The District should actively request that the Board of Supervisors convey these properties to the District to expand the Central Horse Arena Park.

A conceptual plan for the proposed Rio Linda Central School Park is shown on page VII-14. The present Roy E Hayer Park (with proposed improvements as described later) would continue to serve the typical neighborhood recreational needs. The Rio Linda Central Park Horse Arena, improved as described later could also provide facilities for equestrian, BMX and multi-use open play fields, picnic facilities, and could be a staging area for access to the Dry Creek Parkway. The Rio Linda Junior High School's athletic fields could be improved and continue to serve the athletic needs of the Jr. High while also enabling the Park District to conduct recreation and community activities when the fields are not needed by the School.

This combined facility would require irrigation improvements, re-establishment of the turf fields, development of additional parking areas, construction of group picnic areas, restrooms, the installation of bleachers for the play fields, planting of shade trees, pathway, athletic field improvements, new park furniture and fixtures, and upgrade of existing facilities. With much less cost than it would take to purchase and develop a new community park, this approach would immediately provide the District with a Community Park in this developed area, while also benefiting the School District with improved athletic fields and assistance with maintaining the athletic fields. Public use of the athletic fields could be restricted to non-school hours and consequently would not limit the traditional school use of these facilities. In addition, the combined area would enable the Park District to program numerous community-related activities.

4) Surplus School Sites:

In preparation for any school sites being declared surplus in the District, RLERPD should request of the School Districts, that RLERPD be permitted a first right of refusal to purchase such sites or negotiate means to maintain and operate the facility until the school sites are again needed by the School District.

5) Elverta Village (Parks and Recreation Facilities in the Proposed New Community):

The most recent plans for the proposed Elverta Specific Plan include seven parks totaling approximately 75.5 acres. In addition, recreational trails and drainage ways are provide to serve as open space and wildlife habitat for the new community.

Presently, the improvements proposed at the parks include:

5.2 Acres North-East Park

- | | |
|--------------------------------------|------------------------|
| • 1 Tot Lot | • 1 Basketball Court |
| • 1 Concession and Restroom Facility | • 1 Small Soccer Field |
| • 1 Baseball Field | |

6.6 Acres Central Park

- | | |
|--------------------------------------|-----------------------------|
| • Tot Lot | • 1 Formal Green Open Space |
| • 1 Concession and Restroom Facility | • 2 Baseball Fields |
| • 4 Tennis Courts | |

4.8 Acres North-West Park

- | | |
|----------------------------------|------------------------|
| • 1 Tot Lot | • 1 Basketball Court |
| • 1 Restroom and Shade Structure | • 1 Small Soccer Field |
| • 1 Baseball Field | |

2.5 Acres West Park

- | | |
|----------------------------------|----------------------|
| • 1 Tot Lot | • 1 Basketball Court |
| • 1 Restroom and Shade Structure | |
| • Open Formal Green | |

3.7 Acres South-East Park

- | | |
|--------------|------------------------|
| • 1 Tot Lot | • Shade Structure |
| • 1 Dog park | • 1/2 Basketball Court |

38.8 Acres Sports Park

- | | |
|--|--------------------------------|
| • 2 Tot Lots | • 2 Youth Soccer Fields |
| • 1 Adventure Play Area | • 2 Little League Fields |
| • 1 Full Court Basketball | • 3 Softball Fields |
| • Off Street Parking | • 1 Basketball Court |
| • 2 Concession and Restroom Facilities | • 1 Maintenance Bldg. and Yard |
| • Shade Structure | |
| • 3 Large Soccer Fields | |

13.9 Acres Community Center Park

- | | |
|--|-------------------------|
| • Community / Recreation Center Building | • Amphitheater |
| • 1 Shade Structure | • Open Play Area |
| • Parking lot | • Farmer's Market Space |

The plan also includes multi-use trail system for pedestrian, bicycle, horses, and service / emergency vehicle use. The trails will follow the loop road, the drainage ways, and pass through the neighborhoods to connect to adjacent parks and open space areas.

6) Proposed Community Park in Planning Area #2:

The need for a community park in Planning Area #2 will be addressed by the proposed development of parks in the Elverta Village. The Elverta Village plan calls for a 13.9 acre Community Park in the southern portion of the Village, and 38.8 acres Sports Park in the northern portion. Properly planned and developed with the required recreation facilities, these park sites will meet the Community Park and recreational needs of the north eastern part of the District. These sites are proposed to include a community center/multi-purpose building, community swimming pool, and major outdoor recreation facilities such as a softball complex, soccer fields, a tennis complex, and more.

7) Additional Neighborhood Parks:

Acquisition of neighborhood parks in Planning Areas #1B, #4 and #5 totaling some 21.4 acres should be completed within the next ten years. Where possible, parks should be acquired and developed jointly with the school sites, thereby reducing duplication of facilities, helping to maximize use of public funds, and aiding in mutual support of each other's programs. In addition, when specific sites for parks are considered, a number of site selection factors as described in Chapter V should be taken into consideration.

8) Swimming Pool:

Although public swimming at one time occurred at Rio Linda High School pool, this joint use of the high school pool was discontinued several years ago. Recently, it was learned that the Rio Linda High School was in the process of building a new swimming pool which is slated to be finished by September of 2005. The School has also expressed an interest in having the RERPD operate this pool during the summers for public swimming.

Since the District is unable to fund the development of a swimming pool on its own, this new joint use of the High School Pool is an excellent short-term solution to meet the District's need. However, in the long-term, the District must develop a plan to singularly or jointly develop an aquatic complex possibly with the Rio Linda High School or with the North Highland Recreation and Park District. Further in assessing its future need for a swimming facility, the District should seriously consider building an indoor or enclosable pool to enable year-around swimming and aquatic activities that would take advantage of new technologies to conserve energy and reduce operating costs.

9) Trails:

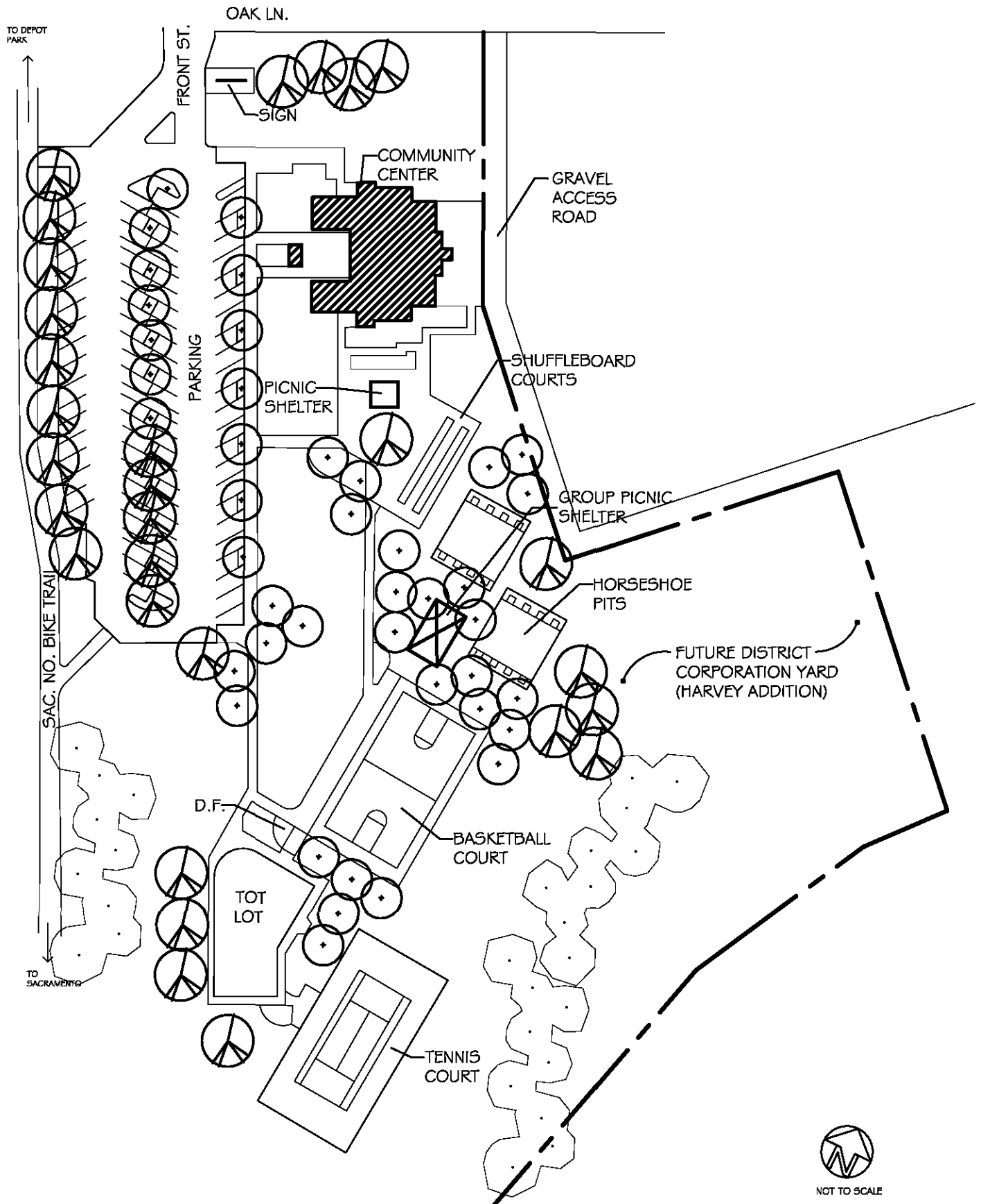
Presently, a short segment of an equestrian trail in Gibson Ranch and a bicycle trail along the abandoned Sacramento Northern Railroad right-of-way exists. Elverta Road and Elkhorn Boulevard are good natural bikeways and should be incorporated into the bikeway plan. This plan also recommends that the District support the efforts of Sacramento County, City of Sacramento and State agencies to develop the multi-use trails along the Dry Creek and Ueda Parkway, and the future extension of the trail system into and through Placer County and Roseville to form the Dry Creek Greenway that will link to the American River Parkway in Folsom.

C. Existing Park and Facility Recommendations

1) Rio Linda/Elverta Community Center Park:

This park consists of the 8.5 acre park with the new 2 acre addition, with a variety of neighborhood park amenities and a natural area on the south end of the park, as well as the Rio Linda/Elverta Community Center (see map, following page). Even though the park is nearly developed, excepting for the Corporation Yard addition, a number of improvements are still needed:

- Enlarge the Community Center Building to accommodate larger groups and more varied activities. Until the other proposed community recreation center in Planning Area #2 is built, this facility will continue to be the primary location for senior, arts and crafts programs.
- Develop the adjoining, 2 acres Harvey addition into the District's Corporation Yard with parking lot, shop buildings, indoor and outdoor storage, and renovate the 1,800 sq. ft. Harvey Residence to serve the office and meeting needs of the District and the community, and further improve the adjoining yard for a community garden and outdoor patio use.
- Improve the southern undeveloped area into a nature study area by recreating natural habitat, planting communities of native vegetation and wild flowers, installing interpretive signs and a nature trail, creating small group study areas, and installing seating/rest areas for nature appreciation.
- Plant additional shade trees around the tot lot, horseshoe area, and the parking lot.
- Provide picnic tables near the tot lot and tennis court area.
- Plant groundcover on the western bank between the bicycle trail and parking lot for erosion-control.
- Majority of the younger shade trees in the park are stunted and are in need of periodic deep watering during the summer months.



RIO LINDA - ELVERTA COMMUNITY CENTER PARK



NOT TO SCALE

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Figure 12

- Install an AC trail on the south end of the parking lot to connect the parking lot to the existing trail.
- Resurface the parking lot and improve drainage.

2) Roy E. Hayer Park:

The name of this is 2.6 acre park, located across Dry Creek from the Central Horse Arena, was changed from Central Park to Roy E. Hayer Park to honor the Hayer family that originally donated the park site to the District.

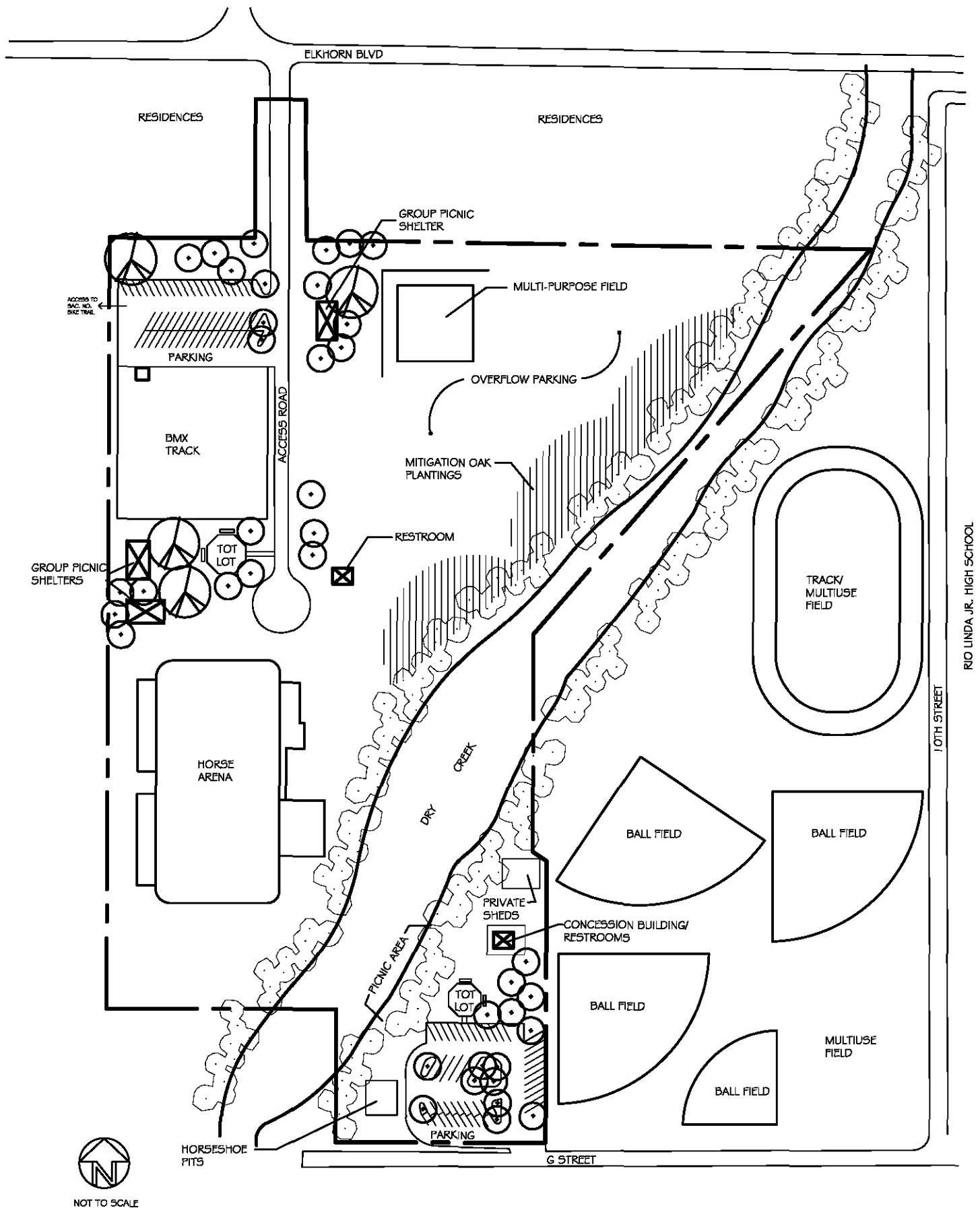
This park is in need of extensive renovation and landscape improvements including:

- Additional shade trees and improvements to the irrigation system.
- Rebuild the group barbecue and picnic shelter.
- Screen the chain link structure in the parking island with vines.
- Provide park signs at the corner of 10th and G Streets and at the immediate entrance to the parking lot.
- Control weed growth along the edge of Dry Creek to improve safety and security.
- Have the trees in the park and those along the creek examined for safety hazards, and institute necessary pruning, maintenance and clean-up work as recommended.
- Involve the students at the adjoining junior high and high schools to improve Rio Linda Central Park, the Horse Arena, and their athletic fields, thereby helping to develop greater pride and sense of ownership of their athletic fields and park.
- Install a playground in the turf area north of the parking lot.

3) Rio Linda Central Park Horse Arena:

The nine acre horse arena area encompasses a large site that is relatively undeveloped and under-used. The horse arena, BMX and the parking lot occupy approximately 1/3 of the site with the remainder being open field, used periodically for overflow parking during equestrian events. As illustrated in Figure 12 (map of the site), the remainder of the site could be developed to serve multi-purpose recreational use as an integral part of the Rio Linda Central School Park. Some of the suggested improvements for this site include:

- Extend the access road to the horse arena area with a turnaround and unloading area for trailers.
- Designate large, unpaved areas for over-flow parking during equestrian and other large events.



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RIO LINDA CENTRAL PARK HORSE ARENA AND ROY E. HAYER PARK

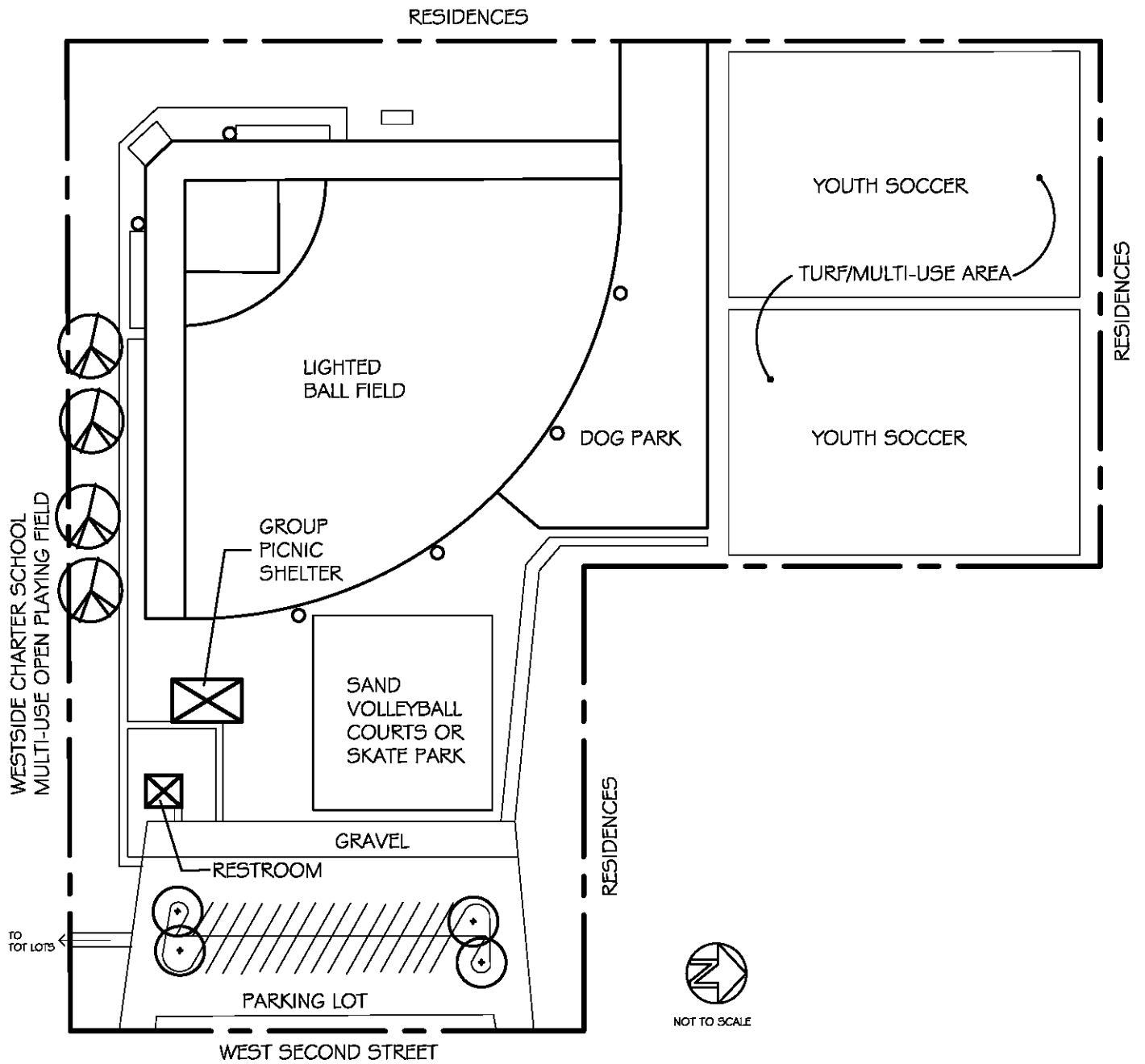
Figure 13

- Remove the existing fencing along the bike trail from the horse arena to the northern boundary.
- Develop the park area east of the access road into Bermuda turf, multi-purpose field for recreational use and for overflow parking during large events. The Bermuda turf, and the irrigation system for this area should be designed to withstand not only annual flooding, but and occasional overflow parking of vehicles and trailers.
- Secure the horse arena from the remainder of the park by installing chain link fencing around the arena. Provide gates at appropriate locations to facilitate equestrian use and activities. Lock and secure the horse arena area during non-use hours, and include the installation of security lights.
- The Gymkhana Club that has taken over the horse arena plans to continue with many of the present activities including the BMX course and miscellaneous park uses. The District should also encourage and support the Gymkhana Club to expand the equestrian activities at this site to include rodeo school, rodeo events, renaissance horse events, and others.
- Improve the site by installing automated sprinkler irrigation system, turf, shade trees, and restroom facilities.
- Reduce weed and brush growth along Dry Creek edge to improve safety and security.
- Install additional park improvements including park fixtures, furniture, trails, security lights, drinking fountains, picnic tables, bike racks, cover over the arena, more bleachers, and restroom.
- Improve signage all over the park.
- Work with Sacramento County to acquire the properties on the north side of the park for park expansion. The addition of the five residential parcels will enable the District to provide greater recreational opportunities, eliminate future land use conflicts, and improve visibility and park security. Once these additional properties are secured, prepare a new master plan of the entire site including the school athletic fields to the east if an agreement for joint use can be reached.
- Provide access to future Dry Creek Parkway trails.

4) Westside Park:

Westside Park is approximately two-thirds developed. Possible additional improvements include:

- Pave the gravel parking area, plant shade trees and other landscape, and improve irrigation system.
- Plant additional shade trees along the perimeter of the park and within the park.
- Install park sign at the entrance.



WESTSIDE PARK

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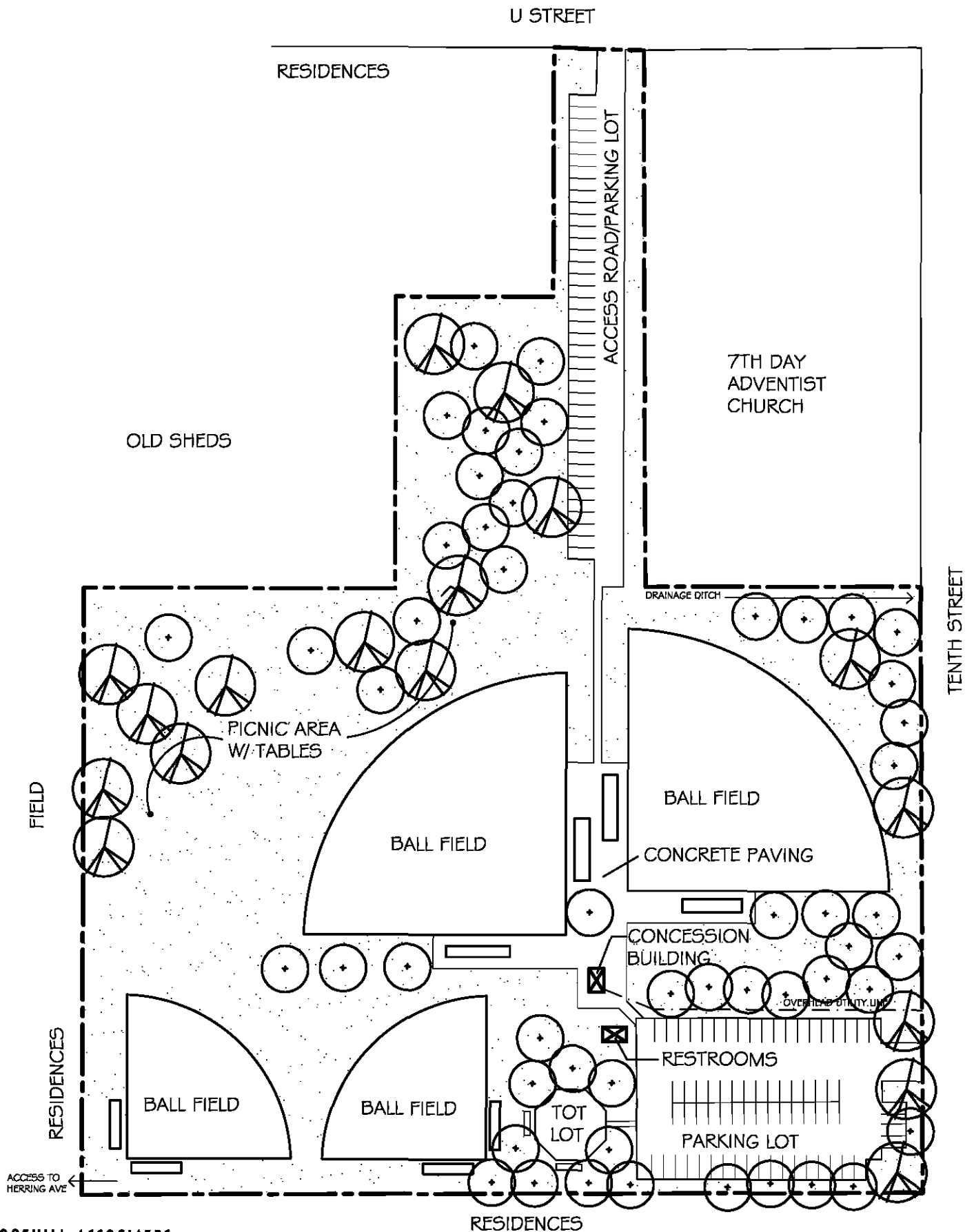
Figure 14

- Provide paved walkway from the parking lot to the ball field spectator area, and spectator seating behind the backstop.
- Create an attractive, shaded area with picnic tables adjacent to the neighboring school tot lot.
- Create areas for picnicking and seating along the proposed walkway to the ball field or in a turf area between the ball field and the parking lot.
- Consider improving the park area north of the dog park as possible area for soccer / multi purpose field. This would require that the easterly side of the Dog Park be moved westward by some 12' to 15' to create a trail corridor to link the area to the remainder of the park.
- As the sand volleyball court does not appear to be actively used, consider converting the area to a Group Picnic Area with a shelter and number of picnic tables, or as a location for a future Skate Park.

5) Babe Best Park:

The improvements recommended for this 8.5 acre park include:

- Provide a driveway and pedestrian path from U Street into the park and create a parking lot.
- Create an attractive, shaded seating area, with turf adjacent to the tot lot for parents and others to supervise children.
- Place a concrete apron/walkway around the concession building. Pave a walkway from the parking area to the ball fields, and a concrete pad between the two ball fields and below the spectator seating area.
- Plant shade trees and shrubs at the park entrance, around the edge of the parking lot, and along 10th Street.
- Plant trees and shrubs along the perimeter of the park to screen and buffer the park from the neighborhood.
- Install a permanent restroom.
- Improve site drainage by installing an underground drainage system and filling the drainage swell.
- Improve the irrigation around the tot lot and remainder of the park.



- Install a park sign at the 10th Street entrance.
- Install more picnic tables around the park.

6) Rio Linda Depot Park:

Recommendations for improving this 3 acre site include:

- Plant more shade trees and attractive landscape around the gazebo to create a focus to the park and improve the appearance of the park.
- Install additional trash receptacles during events and activities.
- Install a new irrigation system, re-grade the site and eliminate the low spots.
- Provide additional benches and picnic tables in shaded areas.
- Relocate the existing post and cable barrier to the back of sidewalk to create more usable park space.
- Provide prominent park signs at the corner of M and Front Streets.
- Provide places for bicyclists to stop, rest, and lock their bikes, and possibly hitching posts for equestrian use.
- Designate an equestrian path.

7) Northbrook Park:

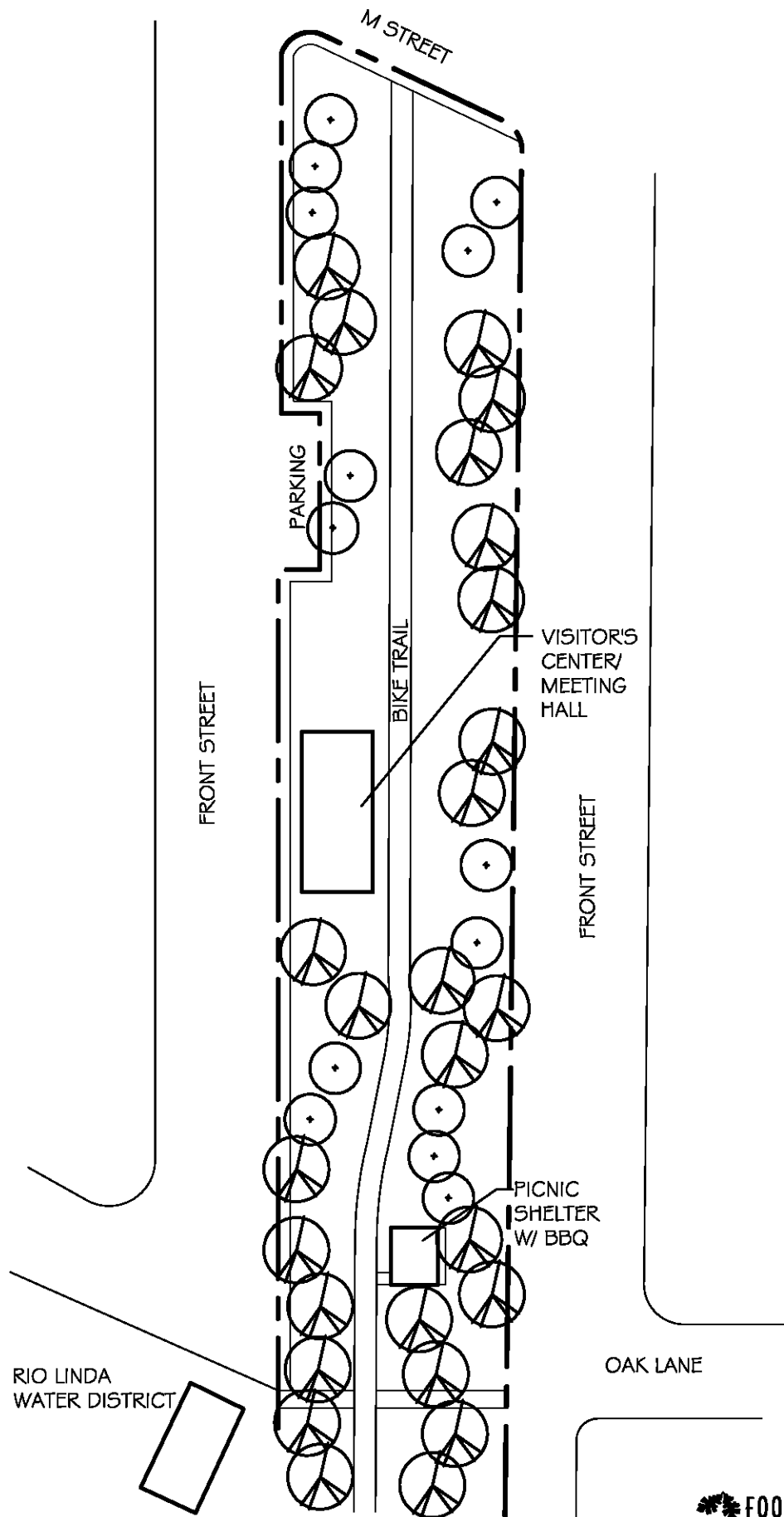
Recommendations for improving this 2.5 acre park:

- Secure the undeveloped lot at the entrance to the park and develop some parking spaces.
- Provide trail access to Dry Creek Parkway.
- Install a shade shelter for the park users with few picnic tables.

8) Linda Creek:

Recommendations for improving this 3.5 acre park:

- Conduct site assessment and develop a master plan to protect, preserve, and improve public access. Based on the master plan, develop a long-term improvement program to develop the area. Some of the improvements that may be appropriate for this site include:
 - Trail staging area and parking lot
 - Equestrian and multi-use trailhead
 - Habitat mitigation/restoration/preservation areas
 - Picnic area
- Interpretive signs



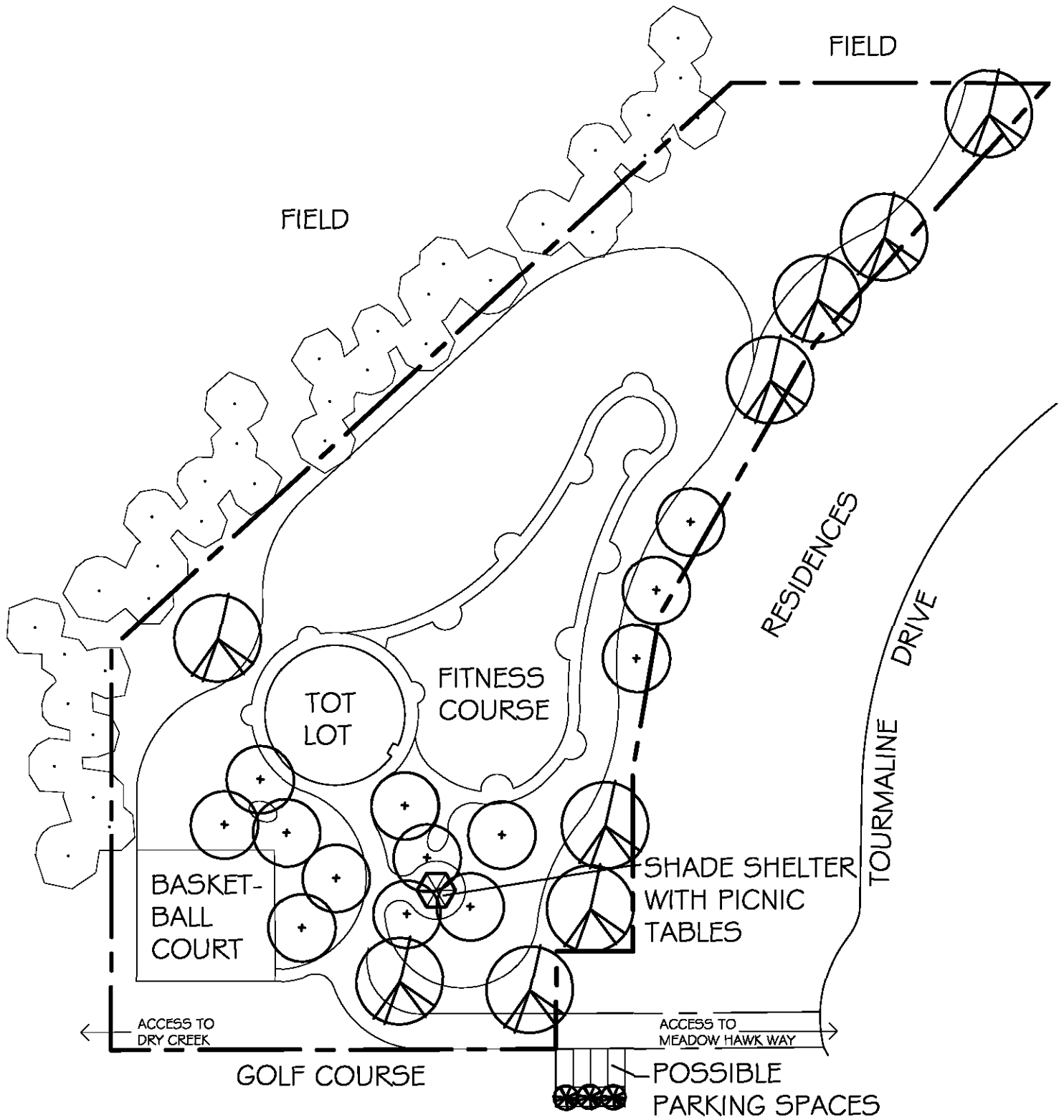
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DEPOT PARK

Figure 16



NORTHBROOK PARK



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Figure 17

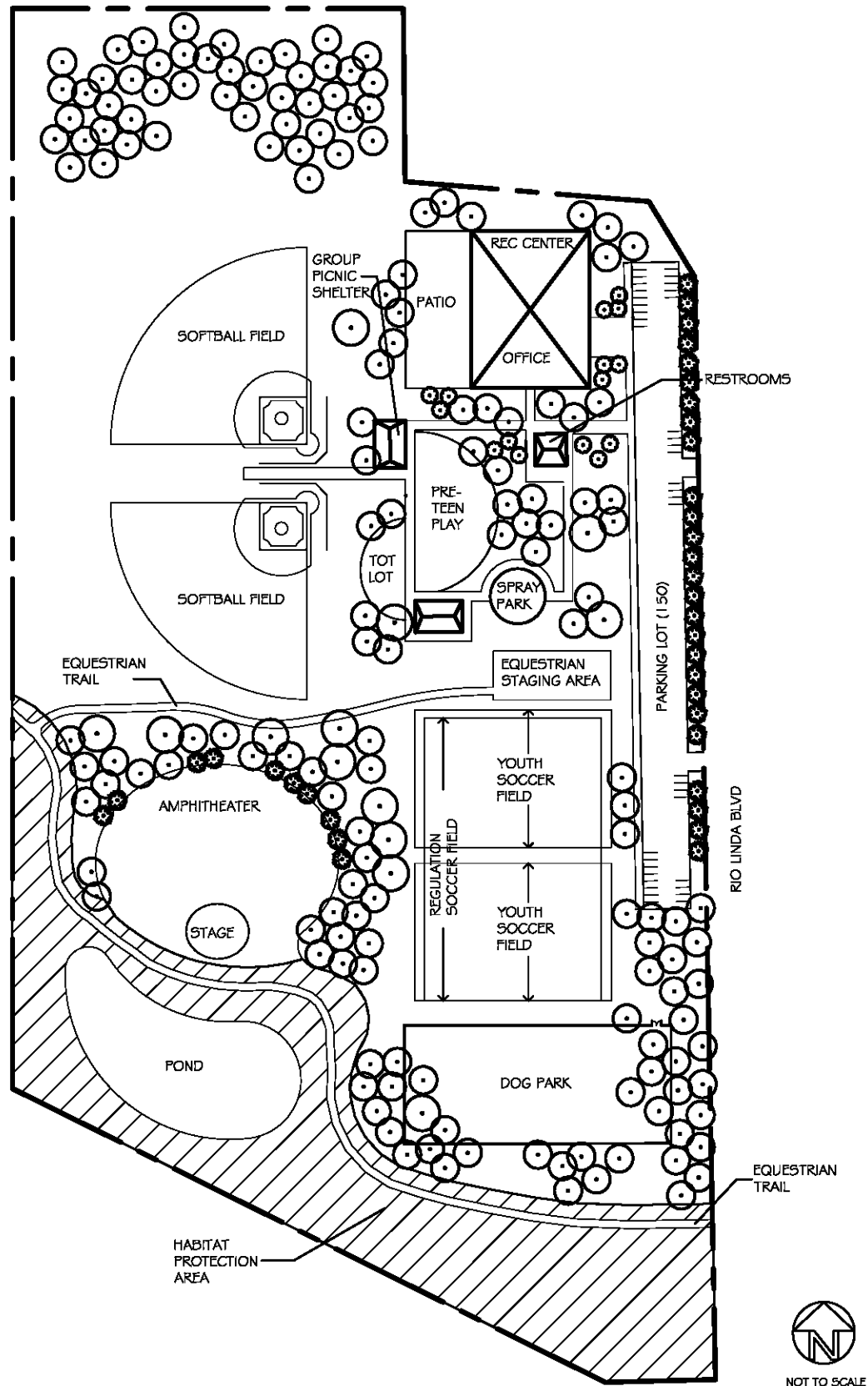
9) Ponderosa Farms Community Park:

Recommendations for improving this 30 acre park site include:

Conduct a site assessment and develop a master plan for the park by determining the ability of the site to accommodate active and passive recreational use, identify the park and recreational needs of the District, and hold a public hearing to obtain comments from District residents regarding the proposed improvements to the site. The site examination needs to carefully consider issues such as flooding, wetlands and sensitive habitat that may be present on the site. Based on the adopted master plan, develop a long-term program to fund and develop the Park. Though not included in the Ponderosa Farms Community Park concept plan, Figure 18, should it be possible to acquire additional adjacent lands, consider the inclusion of a Quarter Midget Track as part of this Community Park.

Illustrated on the following page is a concept plan showing how this site could possibly be developed with the following improvements:

- Softball/Multi-purpose fields
- A fishing pond
- Equestrian staging area and multi-use trails
- Habitat protection area
- Outdoor amphitheater
- Group picnic facilities
- Recreation center/ office
- Restrooms, access road, parking lots, security lighting, etc.
- Tot and Pre-teen Play Ground
- Dog park
- Water spray park



PONDEROSA FARMS COMMUNITY PARK

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Figure 18

D. Park Development Priorities

Within each park the highest priority for improvements should be placed on removing safety hazards and accommodating the recreational needs of the residents. Safety hazards include any unsafe features, any facilities in disrepair, or any potentially dangerous situations to park users. The second priority is to provide adequate park and recreational facilities and programs to meet the needs of District residents. The third priority is to carry out the improvements recommended for the parks and facilities as outlined in this master plan.

Based on discussions with Staff and review of the park resources, the priorities for park improvements should generally be in the following order:

1. Rio Linda Central Park and Corporation Yard
2. Babe Best Park
3. Rio Linda Depot Park
4. Westside Park
5. Rio Linda/Elverta Community Center Park
6. Ponderosa Farms Community Park
7. Acquire additionally needed park lands as funds permit.

By prioritizing the parks and the work to be done within each park, the District is guided in the most efficient, effective, and flexible manner to implement this 10-year master plan. The District can undertake the improvements at a pace suitable for its financial and staff capabilities.

Finally, should additional outside funds be made available during this ten year planning period, the various improvements and acquisition programs can be accelerated in keeping with this Master Plan.

E. Capital Improvement Program

The ten-year Capital Improvement Program (CIP) (Table 22 on the following page) was developed with District staff to undertake required improvements to District parks. This CIP assumes a level of improvements that are within the projected funding capacity of the District. For the sake of preparing a minimal CIP, this program discounts the use of outside funding opportunities, such as a bond issue or a mechanism such as the Landscape and Lighting Assessment District. Should the District decide to pursue these means or others to obtain additional funds, the anticipated improvements, and especially some of the acquisition program could be advanced. The level of Parkland Dedication or In-Lieu Fees and Development Impact Fees collected will also help to advance park improvements and the parkland acquisition program.

Table 22 — RLERPD Park Facility-Capital Improvement Program

Park and Improvements	High Priority 1-2 years	Moderate Priority 3-5 years	Low Priority 6-10 years	Budget
Babe Best Park (8.5 acres)				
• Irrigation system replacement	\$30,000			\$30,000
• Add restroom	\$100,000			\$100,000
• Demolition and parking lot construction		\$60,000		\$60,000
• Pipe drainage on north side of park		X		
• Slurry seal parking lot		\$3,000		\$3,000
Central Park Horse Arena (12.5 acres)				
• Add irrigation and landscaping	\$5,000			\$5,000
• Investigate permanent restroom	\$2,000			\$2,000
• Build equipment storage		\$5,000		\$5,000
• Cover arena			\$100,000	
Community Center				
• Install new H/AC			\$100,000	\$100,000
• Retrofit lighting for energy efficiency		X		
• Study ADA compliance and remodeling		\$5,000		\$5,000
Community Center Park (8.5 acres)				
• Build maintenance shop	\$38,000			\$38,000
• Re-landscape for water conservation		\$5,000		\$5,000
• Improve irrigation system		\$10,000		\$10,000
• Parking lot repair & slurry seal		\$5,000		\$5,000
• Basketball courts resurfacing		\$2,000		\$2,000
• Tennis courts resurfacing			\$8,000	\$8,000
• Investigate drainage improvements between basketball and tennis courts			\$10,000	\$10,000
Depot Park (3 acres)				
• Build replica of Depot & Freight Shed	\$40,000			\$40,000
• Upgrade landscaping	\$3,000			\$3,000
• Improve irrigation system	\$5,000			\$5,000
Linda Creek (3.5 acres)				
• Assess site for neighborhood park and interpretive area			Use Volunteers	

Northbrook Park (2.45 acres)				
Ponderosa Farms (30 acres)				
• Assessment property for park use	\$10,000			\$10,000
• Develop park master plan			\$20,000	\$20,000
Roy E. Hayer Park (2.59 acres)				
• Renovate irrigation and landscape	\$3,000			\$3,000
• Investigate building a bridge across creek			\$5,000	\$5,000
• Investigate JPA to improve and maintain adjoining school fields			\$2,500	\$2,500
Westside Park (7.5 acres)				
• Investigate JPA with school to install well for irrigation system		\$20,000		\$20,000
• Develop Dog Park addition				
• Improve irrigation for Dog Park and parking lot	\$10,000			\$10,000
• Install landscaping around Dog Park and parking lot	\$6,000			\$6,000
• Make ADA compliant access from parking lot to other park areas	\$3,000			\$3,000
Acquisition of Parklands:				
• Planning Area #1B – 46.7 acres*			\$5,837,500**	\$5,837,500
• Planning Area # 3 – 5.18 acres*			\$647,500**	\$647,500
• Planning Area # 4 – 10.4 acres*			\$1,300,000**	\$1,300,00
• Planning Area # 5 – 16.8 acres*			\$2,100,000**	\$2,100,000
TOTAL PARK IMPROVEMENT COSTS:	\$255,000	\$115,000	\$245,500	\$615,500
LAND ACQUISITION COSTS			\$9,885,000*	\$9,885,500

* Acquire Parklands as funds permit or opportunity arises in conjunction with land development projects.

** These acquisition estimates are based on \$125,000 per acre for Agricultural / Residential property.

As the ten-year CIP is implemented, the first two years would be devoted to High Priority Projects to bring some of the existing parks up to current standards and provide basic park improvements. The Moderate Priority Projects would be undertaken in years three through five to upgrade existing parks. The Low Priority Projects would be undertaken in the year's six to ten. And acquisition of needed additional park lands would occur as funds permit.

Implementation of the District Master Plan will require considerable funding for parkland acquisition, planning and design, and capital improvement. A wide variety of potential

funding sources and in-kind services will need to be pursued to support the implementation of this Master Plan. Grants, sponsorships, endowments, donations, and other forms of outside funding will also become more attainable with the adoption of this updated Master Plan. Located in Appendix A are some of the funding sources that the District should pursue to assist in the implementation of the Rio Linda Elverta Recreation and Park District Master Plan.

F. Park and Recreation Operation

1) Administration:

District needs to maintain a level of experienced staffing to adequately administer the District, maintain the park system, and supervise the recreation programs.

2) Park Operation:

The District should initially concentrate on maintaining and upgrading the existing park facilities. As funding, staff, and equipment allows, additional park improvements should be made. As an alternative to increasing park operation staff, District should consider contract services for basic park maintenance service to keep up with future park system growth.

3) Park Security:

The District, as with many other park agencies, experiences vandalism and security problems in its parks. Since 2001, the District has contracted with Grant School District's Security Guards to patrol its parks on a limited basis. With this patrol, increasing park use, a Park Watch Program, increasing collaboration between RLERPD and the School Districts, and greater public education program, it is anticipated that vandalism and security problems in parks can be lessened.



Park security is in part related to proper planning and development of its parks and facilities, neighborhood awareness, and public awareness of park use regulations. However, past experiences at the District have shown that these factors alone will not

deter vandalism in the parks. There is a continuing need to have a patrol to provide security for the parks so long as vandalism continues and the patrol service is economically viable.

The District has a number of ways to help reduce vandalism and other anti-social activities in its parks including:

- Inform and educate the public regarding the proper use of the parks and facilities, and post park regulations in visible locations in the parks.
- Apprehend and prosecute vandals.
- Provide the public with ways to report crime or vandalism.
- Work with the Sheriff's office to establish Park Watch Programs in park neighborhoods.
- Post notices that limit park use to dawn to dusk unless organized evening activities are conducted. Lock parking lots when the park is closed.
- Plan and design parks and facilities to discourage vandalism and lessen security concerns.
- Design the parks to enable drive-by visibility of majority of the park by police, security guards, and the general public.
- Provide sufficient park security lights to aid in surveillance and discourage vandalism.

4) Recreation Programs:

Provide a variety of recreation programs to meet the expressed needs of the community. The recreation programs should address the needs of all ages and special interest groups to the extent that is possible. To maximize effort and minimize cost, cooperative or joint sponsorship of programs with school Districts and adjacent park agencies should be considered. To offset preschool and youth programs that may not be self-supporting, adult programs should be revenue-generating. Refer to Chapter VI Recreation Needs Survey conclusions and recommendations, regarding future needs in programming. The District also needs to document more accurately the participation in various recreational programs to effectively evaluate programs annually.

G. Additional Considerations to Implementing the Master Plan

1) Other Recreation Providers:

District should encourage, support, and work with other public and private recreation organizations that provide recreation facilities and services that complement the programs offered by the District. District should also investigate opportunities for private concessionaires to lease and operate facilities and programs on District parks or facilities to benefit the District residents. Through cooperative efforts with other recreation providers, the community could be provided with an expanded and higher level of service, and some of the burden of providing similar services by the District could be lessened. Also, properly contracted, the private recreation concessionaires could also help to reduce maintenance burden and possibly help to reduce vandalism.



2) Schools:

As described in other sections of this master plan, school sites and facilities constitute a significant recreation resource for the community. It would behoove both the Park and the School Districts to work cooperatively for mutual benefit since the facilities and services provided by both are very complementary. From planning and land acquisition to development, operation, and management, the District should work closely with the School Districts, especially in regard to sites offering joint use opportunities.

3) Other Agencies:

The efforts by Sacramento County Department of Water Resources and SAFCA to acquire flood prone residential properties in the Dry Creek flood plain using FEMA and State funds should be strongly endorsed by the District. Beyond the fact that

this process is aiding in assembling the Dry Creek Parkway and eventually benefiting the residents of the District, there may also be opportunity for the District to be the direct beneficiary of such properties particularly associated with the residential properties abutting the Central Horse Arena. The District should petition the Board of Supervisor to provide the District the first right of refusal to take management responsibility for such flood prone properties that are acquired adjoining District park sites. In the case of the Central Horse Arena site, the adjoining residential properties that have been acquired to remove residences from flood prone areas, after the site is cleared of structures, should be transferred to the District to enlarge the Central Park Horse Arena and provide badly needed additional recreational facilities.

Appendix A — Funding

The following are some of the funding sources that should be pursued for implementation of the Rio Linda Elverta Recreation and Park District Master Plan.

Grants

Federal:

1. Department of Transportation Intermodal Surface Transportation Efficiency Act (ISTEA)

The Act allows a portion of the transportation funds to be used to build bicycle paths along federal-aid highways, roads, trails or parkways.

2. Watershed Assistance Grants Program (WAG)

The Clean Water Action Plan calls for the creation of a dedicated source of funding to build the capacity of existing or new watershed partnerships to protect and restore their watershed. These partnerships would serve as national models of how to bring together diverse interests to achieve watershed protection and restoration and of how to ensure diversity in watershed partnerships. The WAG program will make grants to local watershed partnerships to support their organizational development and long-term effectiveness.

3. Cooperative Endangered Species Conservation Fund

Granted by the U.S. Fish and Wildlife Service to a State agency with a cooperative agreement with the Secretary of the Interior to assist in the development of programs for the conservation of endangered and threatened species – including habitat protection, restoration, management and acquisition; and public education. Up to 75% of program costs may be received.

4. Wildlife Conservation Fund (Partnership For Wildlife)

Granted by the U.S. Fish and Wildlife Service, available for actions to conserve fish and wildlife species and their habitats; and to provide opportunities for the public to use and enjoy fish and wildlife through non-consumptive activities. Eligible for any fish and wildlife agency in partnership with State agencies and private organizations and individuals. Up to 33% of program costs may be received and private funding match required.

5. Water Banks Program

Granted by the Department of Agriculture's Natural Resources Conservation Service, landowners are eligible for funds to conserve surface waters; preserve and improve wetlands and preserve important nesting, breeding and feeding areas of migratory waterfowl. Annual payments for 10 years will be made for \$7 to \$75 per acre.

6. Wetlands Grants

Granted by the EPA's Office of Water, funds are available to States, local government and not-for-profit organizations to develop the capacity to protect, manage and restore wetlands and riparian resources. Minimum match of 25% of total project cost is required.

7. North American Wetlands Conservation Fund

Granted by the U.S. Fish and Wildlife Service, funds are available for wetlands conservation projects to be matched one on one by U.S. non-federal dollars. Special consideration is given for migratory bird habitat and other key wildlife habitat. Beneficiary eligibility is available to any organization or individual.

8. Urban Park and Recreation Recovery Program

Funded by the National Park Service, funds are available for the rehabilitation of recreation areas and facilities, demonstration of innovative approaches to improving recreation opportunities, and development of improved recreation planning. These grants are matching grants (50% Federal – 50% local).

9. Recreational Trails Program

Granted by the Department of Transportation's Federal Highway Administration, this grant is available to develop and maintain recreational trails and trail-related facilities for both non-motorized and motorized recreational trail uses. A State agency must be designated by the Governor to receive the funds.

10. Outdoor Recreation Acquisition, Development and Planning (Land and Water Conservation Fund Grants)

Grants provided by the National Park Service to acquire and develop outdoor recreation areas and facilities for the general public, to meet current and future needs. Not more than 50% of the project cost may be federally financed.

11. Environmental Education Grants (EEG)

For grants provided by the EPA's Office of Environmental Education, funds are available to support projects to design, demonstrate, or disseminate practices, methods, or techniques related to environmental education and training. Federal funds will not exceed 75% of the project cost.

State:

1. California's Department of Conservation Resource Conservation District (RCD) Assistance Program/Grants

This grant annually provides \$120,000 to support conservation education and on-the-ground projects promoting conservation with landowners and communities within watersheds. Land restoration, fish and wildlife habitat enhancement, water quality conservation, and public outreach and education are all eligible actions supported with this grant. A 25% local match is required.

2. State Lands Commission

Can acquire land through Land Bank funds and/or exchange.

3. Department of Transportation

Proposition 116 - Bicycle trails funding.

4. Resources Agency

State Environmental License Plate Funds – Grants are offered to state agencies, city or county agencies, or private non-profit organizations to support a variety of projects that help to preserve or protect environment. Eligible projects include acquisition, restoration or enhancement of resource lands and endangered species, and development of interpretive facilities. Projects are funded in one-year increments and each must be a separate, distinct project with a clearly defined benefit.

Environmental Enhancement and Mitigation Program (EEMP) – Grants offered to local, state or federal agencies or non-profit entities to provide enhancement or additional mitigation related to eligible transportation facilities. Eligible projects include highway landscaping and urban forestry, acquisition restoration or enhancement of resource lands, and acquisition and/or development of roadside recreation opportunities. The program, established in 1989 (Section 164.56 of the Streets and Highways Code) provides funding from fuel taxes and weight fees.

5. Department of Fish and Game

Inland Fisheries Division Grant Project provides funds for fishery restoration work.

The Cigarette and Tobacco Tax Benefit Fund (Proposition 99) provides funds to restore fish habitat. The Commercial Salmon Stamp account provides funds for projects directed at restoring salmon populations through habitat enhancement or fish rearing, and for projects designed to educate the public on the importance and the ecology of salmon. Anyone may apply. Action projects are preferred to studies, evaluations or monitoring. Funding levels are recommended by the

Commercial Salmon Trollers Advisory Committee or the California Advisory Committee on Salmon and Steelhead Trout.

6. Wildlife Conservation Board (Generally administers the Federal Land and Water Conservation Fund)

Proposition 19 (1984 Fish and Wildlife Enhancement Bond Act) provides funds to correct the more severe deficiencies in fish and wildlife habitat. Funds may be used only by public agencies to enhance, develop or restore flowing waterways for the management of fish outside the coastal zone. Proposition 70 funds are available for endangered species and for native trout habitat restoration.

7. Department of Water Resources

Urban Streams Restoration Program offers grants for local street restoration projects for prevention of property damage by floods and bank erosion and to restore the natural value of streams. Under the Proposition 13 - Safe Drinking Water, Clean Water, Watershed Protection and Flood Protection Act, the grants can fund simple projects such as organizing volunteer help to monitor and clean up streams or can fund complex stream restoration work. Cities, counties, Districts and nonprofit organizations may apply for grants. Small unincorporated community organizations or consulting firms may apply but must find a non-profit organization or a local government to sponsor this proposal. This grant program stresses community participation. Therefore, any proposal submitted by a government agency must be cosponsored by a logical local group with an interest in the problems or streams to be addressed by the proposal. Likewise, projects submitted by nonprofit organizations must be co-sponsored by an appropriate local agency.

8. Department of Forestry and Fire Protection

The Urban Forestry Grant Program (Proposition 12 Tree Planting Grant) was created by the Watershed, Wildlife, and Parks Improvement Bond Act. Cities, counties, Districts and nonprofit organizations may apply for grants. Eligible projects include planting trees along streets, in dedicated open space areas, and in public parking lots and school yards.

Forest Stewardship Program – Funded by Federal dollars and administered by the State for private land owners only. Grants are provided to protect, restore and improve wetlands and riparian areas to maintain water quality and enhance habitat. Eligibility for private landowners as well as public jurisdictions.

9. State Water Resources Control Board

The Non-point Source Pollution Control Program – Non-point sources (NPS) are the major cause of water pollution in California. As the state agency charged with protecting water quality in the State of California, the State Water Resources Control Board (State Board) is committed to promoting implementation projects that reduce NPS pollution in water bodies of the State. The February 1987 amendments to the federal Clean Water Act (CWA) include Section 319, which establishes the framework for non-point sources (NPS) activities on the State

level. The CWA provides funding for the states' NPS programs, including grants for NPS implementation projects. Implementation projects to reduce NPS loading from various sources are eligible for grant funding. NPS implementation activities include demonstration projects, technology transfer, training, public education technical assistance, ordinance development, and other similar activities associated with control of NPS pollution.

Water Quality Planning – The State Water Resources Control Board provides water quality management planning grants to state, local, and regional agencies to address a wide variety of surface and ground water quality problems. These funds are provided by the federal government under Sections 205 and 604(b) of the Clean Water Act. These grants require a 25% non-federal match. The funding emphasis is on projects that focus directly on corrective or preventive actions for water bodies identified as "impacted" in the State's Water Quality Assessment. However, projects that focus on other water quality problems will also be considered.

EPA's State Wetland Program Development – Under the Clean Water Act (CWA) Section 104 (b)(3), grants are given to various wetland projects include "multi-objective river corridor management" projects that address multiple use of rivers and adjacent areas, such as recreation habitat protection, water quality and open space. Funds are available to assist states and local government in implementing new programs relating to wetlands preservation and enhancement.

10. Department of Parks and Recreation

Land and Water Conservation Fund – This program has funds available for the acquisition or development of neighborhood, community or regional parks or facilities supporting outdoor recreation activities. Eligible applicants include counties, cities, recreation and park Districts, special Districts with public park and recreation areas. This is a 50/50 matching program. The applicant is expected to finance the entire project and will be reimbursed 50% of the costs, up to the amount of the grant. The amount of funds available varies from year to year.

Riparian and Riverine Habitat Grant Program – To provide funds on a competitive basis to increase public recreational access, awareness, understanding, enjoyment, protection, and restoration of California's irreplaceable rivers and streams. Includes the acquisition, development, or improvement of recreation areas, open space, parks, and trails in close proximity to rivers and streams. All projects must include a Riparian or Riverine habitat enhancement element and also provide for public access.

Habitat Conservation Fund – This program provides funds for a variety of habitat conservation projects. Eligible applicants include counties, cities, cities and counties, or Districts as defined in Subdivision (b) of the Public Resources Code. Eligible projects include: deer and lion habitat, including oak woodlands; habitat for rare and endangered, threatened and fully protected species; wildlife corridors and urban trails; wetlands; aquatic habitat for spawning and rearing of anadromous salmonids and trout species; and riparian habitat. This is a 50/50 matching program. The match must come from a non-State source.

Non-Motorized Trails Grant Program – Eligible applicants include cities, counties, eligible Districts, and eligible local agencies formed for park purposes, and federally recognized California Indian tribes. This competitive grant program funds the development, improvement, rehabilitation, restoration, and enhancement of non-motorized trails and associated interpretive facilities for the purpose of increasing public access to, and enjoyment of, public areas for increased recreational opportunities.

Private:

1. The Conservation Fund – American Greenways Grant Program

Provides grants in recognition of accomplishments in successful and creative approaches to developing California Greenways, particularly through overcoming obstacles and creative problem-solving.

2. National Fish and Wildlife Foundation's Grants

A private non-profit established by Congress in 1984, the foundation fosters cooperative partnerships to conserve fish, wildlife, plants, and the habitats on which they depend. The Foundation works with its grantees and conservation partners to stimulate private, state, and local funding for conservation through challenge grants. Through a challenge grant, each dollar awarded by the Foundation must be matched with one non-federal dollar. Projects that benefit multiple species, achieve a variety of resource management objectives, and/or lead to revised management practices that reduce the causes of habitat degradation. A special emphasis is placed on larger projects that demonstrate a landscape-level approach and produce lasting, broad-based results on the ground. Numerous grants would apply to the Dry Creek Parkway including "Bring Back the Natives", "Native Plant Conservation Initiative", and habitat conservation plans focusing on migratory bird populations.

Low Cost Services

Federal:

1. U. S. Department of Agriculture, Soil Conservation Service, Resource Conservation District

This program focuses on preserving site-specific plants through collection and propagation of native seeds if project approved by local Resource Conservation District.

State:

1. Conservation Corps

The Conservation Corps provides low cost services for brush clearance and trail building. Sponsor must provide materials, but Corps provides supervision and some tools, and crews often work alongside volunteers.

Other Services/Materials

Federal:

1. National Parks Service

Rivers and Trails Conservation Assistance Program – Under the National Center for Recreation and Conservation. This program provides technical assistance for corridor conservation plans, statewide assessments, conservation workshops, consultation, and information exchange. Rivers & Trails staff work on the grassroots level with local citizens groups and state and local governments to revitalize nearby rivers, preserve valuable open space, and develop trail and greenway networks. All Rivers & Trails projects are locally led and managed, and begin with an invitation from local agencies and/or organizations to help.

State:

1. Department of Forestry

The Department of Forestry sells low-cost native trees. The trees must be purchased in quantities of 10, habitat and erosion control, but not for landscaping. Can also provide discounts if jurisdiction provides own seed. Ordering requires advance planning for availability during proper season.

2. Conservation Corps

The Conservation Corps provides plant materials to any public agency at cost. They prefer 1 to 1-1/2 years lead time for preparation of plant materials. Planting projects do not have to have Corps workers.

Other:

1. Special Tax

The State constitution permits local governments to levy taxes for specific purposes if approved by a two-thirds vote of the electorate. The tax must also be authorized by state law. While cities have a broad choice of taxes which may be used in this manner, counties are much more restricted. A county may, however, use the transient occupancy tax (hotel/motel tax) for general or specific purposes. Some local governments in California earmark this tax or a portion of it for recreation and tourism activities.

2. Benefit Assessment

Traditionally, benefit assessments have been used to fund specific Public Works facilities which directly benefit the property assessed and increase its value. Streets, sidewalks, and street lighting are examples of such facilities. Since Proposition 3 was approved, assessments have been authorized by the Legislature for new facilities on a broader scale. In some cases, voter approvals are required which make the assessment differ little from a special tax. But in other cases, a vote is not required unless a certain percentage of affected property owners file protests. Evolution of the law will determine whether a County-wide benefit assessment to fund Parkway facilities maintenance and development could be implemented.

3. In-Kind and Other Funding Sources

Private contributions of materials or equipment, volunteers and similar types of assistance are "funding" sources which should play a role in future park maintenance, development, and interpretation. Community groups could assist with a variety of activities including Neighborhood Park Watch Program, safety education programs, maintenance, tree planting, vegetation management, and docent tours.

4. Property Tax

Investigate the opportunity to renegotiate the percentage of property tax dedicated to special districts.

Appendix B — Trends Affecting the Future of Park and Recreation

The following is a summary from the “Trend Analysis for Park and Recreation: 2000 and Beyond” which resulted from the VIP (Vision, Insight, Planning) Project conducted by the California Park and Recreation Society’s (CPRS) report “Creating Community in the 21st Century”. In this report, Tapan Munroe, Ph.D., looks at the emerging trends and issues that will be shaping the future and the implications for park and recreation in California. Although some of the trends and recommendations pertain primarily to CPRS and its statewide strategy, the trends and recommendations included herein are pertinent to local communities such as the Rio Linda & Elverta Recreation and Park District.

1. California Economy:

- Park and Recreation is a critical component of California’s growing economy, and communities such as RER&PD needs to take an active role in developing, maintaining and promoting local parks and recreation opportunities.
- Parks and Recreation is a part of the larger Tourism and Hospitality Industry that accounts for over \$30 billion of our annual State economy. RER&PD needs to develop joint marketing campaigns with the local and regional tourism and convention bureaus to receive its share of the economic benefit.

2. Community Economic Vitality and Other Economic Impacts

- Park and Recreation is a Critical Factor in community economic vitality and particularly in competing with other communities for desirable industries. Some of the quality of life factors that most businesses consider in business retention and relocation include physical environment, recreation amenities, cultural amenities, and climate. The quality of parks and recreation opportunities provided by RER&PD is a vital part in attracting and keeping business in the community.

3. Demographic, Social, and Cultural Trends

- Population growth and increased park usage will place greater burdens on the State, regional and local park agencies to maintain existing parks and develop additional parks and recreation facilities to meet the growing demand. This will require additional and new funding means for local agencies to acquire, develop, staff, and maintain the needed park and recreation facilities.
- Growing ethnic diversity of the State and local population will require greater understanding of cultural preferences, sensitivities, needs, and trained staff to cater to the changing cliental. Park facilities will also need to be user-friendly to a diverse population without detracting from the enjoyment of others.
- The increasing population of elderly and retirees will be more active, more financially secure, and will be very politically influential. They will require new and growing level of recreational / educational services, while also being a reservoir of potential volunteers that RER&PD should utilize.
- Income inequality and urban and rural poverty continues to grow even as majority of Californians continues to prosper. This new inequality is based on lack of training, education, and the inflexibility to changing workplace by those

with minimal means. Park and recreation programs need to be sensitive to this trend and create programs to increase access to those with limited means. Recreation programs that also help to build work related skills and job mobility training should be encouraged.

- Meeting the challenge of crime, violence, and concern for personal safety will continue to be a major issue. The traditional response of more police, longer jail terms, and more prisons does not appear to be solving the problem. There is also considerable evidence that crime rate drops when open space and recreation opportunities are expanded and improved. Community leaders need to understand that providing adequate park and recreation programs can be a cost effective way of lowering juvenile crime by engaging young people in creative and healthy activities. RER&PD can play an important role in collaborating with police, community development department, community organizations, and business to enhance community livability.
- Quest for economic sustainability and environmental stewardship becomes a greater and greater issue as Californians become more concerned with the sustainability of their communities and lifestyles. RER&PD needs to become more proactive in educating the public about the long-term socioeconomic and environmental benefits of parks and recreation programs.
- Increased focus on choice and personal autonomy via technology means that the park and recreation field must also learn to customize and personalize services to effectively compete with private business. RER&PD must embrace information and computer technology in the design and delivery of programs and services, customize programs with customer need in mind, and embrace technology that will help to run more cost-effective programs and operations.
- Emerging trends in business particularly in the area of privatization of services offer greater flexibility, help to reduce cost, and improve customer satisfaction. Most Park and Recreation agencies are already utilizing private contractors for program instructors and team officials. Some communities are using contract park maintenance effectively. Privatization of other aspects of park and recreation services will also become more common in the future.
- Communities should take advantage of ways to create park and open space by utilizing programs such as decommissioning of military bases, reuse of unused utility corridors, reuse of unused road right-of-ways, reuse of old landfills and reuse of vacant lots obtained via tax foreclosures, etc.

4. Changing Technology and the Communications Revolution

- Technology is changing how people view where they live and work. For many now, where they live and work is the same place. Also for more senior employees of companies, time spent away from the office working is increasing. RER&PD needs to utilize this flexible schedule by offering programs for teleworkers and by providing 24 hour facilities.
- Technology will also mean that many businesses will no longer need to be in urban centers, employees will be able to function in separated, dispersed locations linked via computers. The consequence of this will be that cities will

change from employment centers to centers of culture and possibly recreation. With the use of technology, park and recreation can be the link that prevents isolation and loneliness of the decentralized workers by providing flexible programs that caters to suburban areas where people will live and work.

- Technology and the changing homes of the future will also provide yet another opportunity for providing services to the residents. Homes of the future will be more than a place to relax, rest, and entertain friends; it will also be a place to obtain a broad range of services via the Internet. RER&PD needs to be positioned to take advantage of this up-coming change.

5. Time Use Patterns

- Speeding up of American Life and increasing concerns about “Leisure Productivity” means that Park and Recreation programs that are short, effective, and highly focused will meet with greater customer satisfaction.
- Time deepening and increasing stress being experienced by majority of Americans means that RER&PD can play an important role in helping to relieve stress by providing a broad range of programs and activities that deal with stress and lifestyle management.
- Recreation as a status symbol means that the separation between work and leisure-related activities is becoming blurred. Many recreational skills are taking on the status of career and job related factors. RER&PD needs to take advantage of this trend by offering programs that provide relaxation and fitness benefits while helping people in their careers.
- RER&PD can play a major role in educating the public about the dangers of the couch potato syndrome. Alternative choices should be available through RER&PD which can have significant benefits on health and the quality of life for the participants.

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Appendix C — Rio Linda-Elverta Community Area Major Drainage System

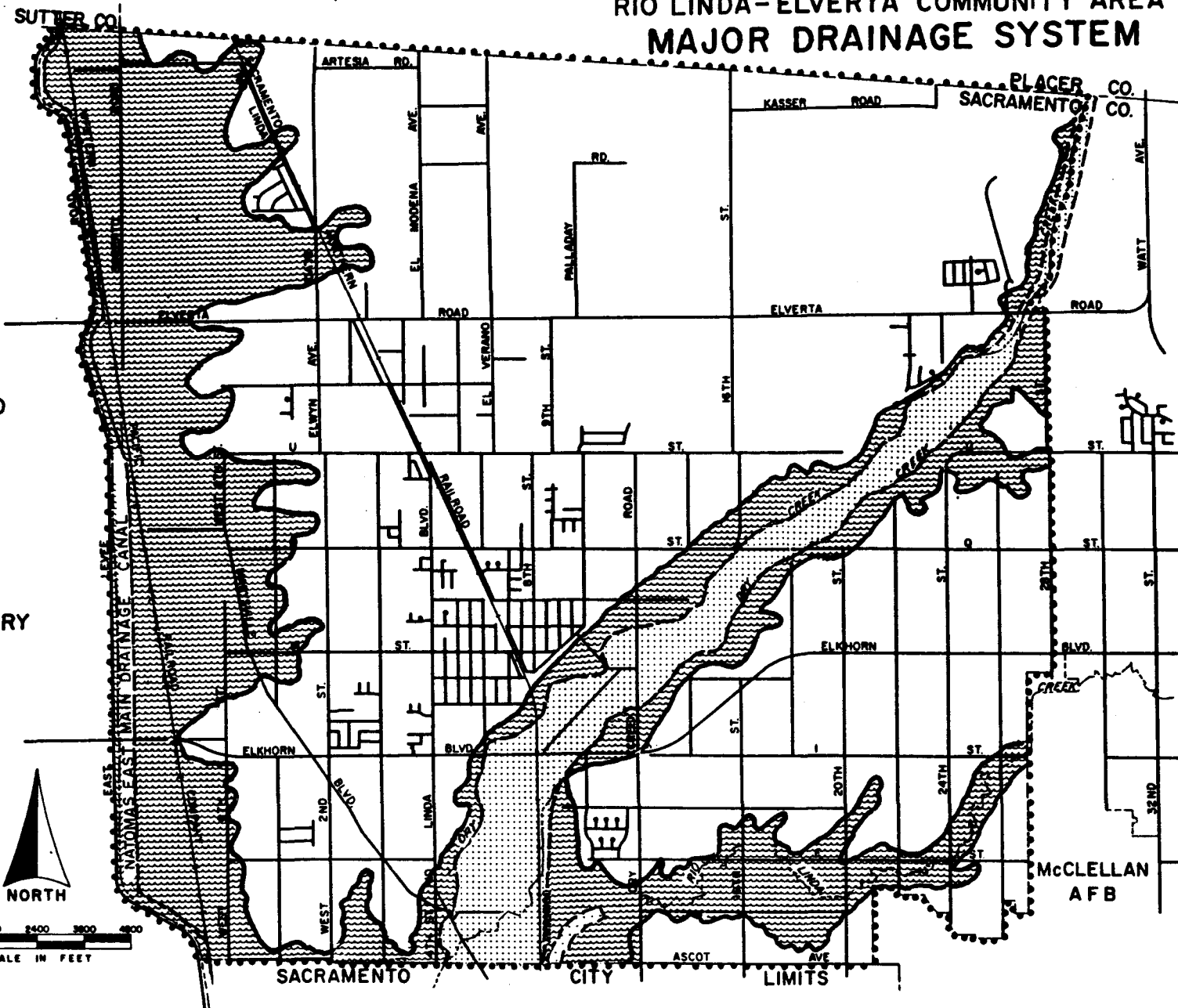
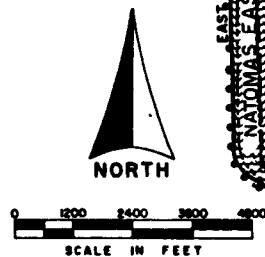
FIGURE 8

RIO LINDA-ELVERTA COMMUNITY AREA MAJOR DRAINAGE SYSTEM

Appendix F

-  100 YEAR FLOOD BOUNDARY
-  DESIGNATED FLOODWAY
-  STUDY BOUNDARY

- 96 -



Appendix D — Resolution No. 82-385

PLEASE RETURN TO:

SACRAMENTO LOCAL AGENCY
FORMATION COMMISSION
700 H St., Suite 424
Sacramento, CA 95814

(Official Use Only) RECORDS
SACRAMENTO COUNTY

1982 JUN 29 AM 8 50

J. G. Simpson
COUNTY CLERK-RECORDER

NO
FEE
C

(File Stamp)

CERTIFICATE OF COMPLETION

TO: OFFICE OF THE COUNTY RECORDER
P. O. Box 1206
Sacramento, California 95806

I, JOHN S. FARRELL, the Executive Officer of the Local Agency
Formation Commission named herein, hereby certify that the District has completed
a change of organization pursuant to the District Reorganization Act of 1965,
and specifically, Section 56451 of the Government Code, as follows:

The Name of the ~~District~~ ^{City} is: THE CITY OF SACRAMENTO

The Name of the County or Counties in which the entire District is located is (are):
THE COUNTY OF SACRAMENTO

The kind of change of organization completed is:

 An Annexation A Detachment XXX A Reorganization

The short title, if any, of the annexation, detachment or reorganization proceeding is:

RANEY REORGANIZATION (6-82)

The legal description of the territory annexed or detached is set forth in the
attached Exhibit A.

The terms and conditions, if any, of the change of organization as set forth in the
resolution ordering the change of organization are contained in the attached Exhibit B.

The change of organization was:

XXXX Ordered without an election and the resolution ordering the change of
organization was adopted by the Governing Board of the District on
June 1, 1982.

 Confirmed by the voters and the resolution confirming the change of
organization after confirmation by the voters was adopted by the
Governing Board of the District on .

CERTIFIED:

Marian Ann Flemer
Marian Ann Flemer, Clerk
SACRAMENTO LOCAL AGENCY FORMATION COMMISSION
June 25 1982

John S. Farrell
John S. Farrell, Executive Officer
SACRAMENTO LOCAL AGENCY FORMATION COMMISSION

BOOK PAGE

82 06 29 (570)

RESOLUTION NO. 82-365

ADOPTED BY THE SACRAMENTO CITY COUNCIL ON DATE OF

JUN 1 1982

RESOLUTION ORDERING REORGANIZATION OF THE RANEY
PROPERTY PURSUANT TO THE DISTRICT REORGANIZATION
ACT OF 1965 (UNINHABITED) (P-8702)

WHEREAS, a reorganization pursuant to the District Reorganization Act of
1965 (Government Code Section 5600 et seq.) proposing annexation of territory
to the City of Sacramento has been commenced by petition of a landowner of
such territory; and

WHEREAS, the proposal is for annexation of 111.1+ acres of territory to
the City of Sacramento and detachment from the Natoma5 Fire Protection District,
said territory generally being located south of I-880, west of Rosin Court, and
more particularly described as set forth in Exhibit "A" attached hereto and
incorporated by this reference; and

WHEREAS, the Sacramento County Local Agency Formation Commission has
approved the reorganization of the territory, and the City Council of the City
of Sacramento has rezoned the territory to the R-1A and A zones; and

WHEREAS, the proposed reorganization is consistent with the Sacramento City
General Plan and the 1978 South Natomas Community Plan; the property is contiguous
to the City of Sacramento; the property is planned for residential and highway
commercial development requiring urban services; and the City of Sacramento is
the only agency capable of providing such urban services; and

WHEREAS, the proposed reorganization will implement these plans and will
benefit, and is in the interest of, the City of Sacramento and the future inhabi-
tants of the territory; and

WHEREAS, all the property owners within the annexation territory have submitted
approval of the proposed reorganization; and

WHEREAS, the Sacramento County Local Agency Formation Commission has determined
the City Council may order the reorganization without notice and hearing, or an
election, pursuant to Government Code Section 56261 and 56439.5.

NOW, THEREFORE, BE IT RESOLVED by the Council of the City of Sacramento:

1. That pursuant to Government Code Sections 56261 and 56439.5 the reorganization
for the Raney Property, which is described in Exhibit "A" attached hereto and
incorporated by this reference, is hereby approved and ordered without notice
and hearing or an election.

CERTIFIED AS TRUE COPY
of Resolution No. 82-365

JUN 1 1982

Carroll Meyer
DATE CERTIFIED
CITY CLERK, CITY OF SACRAMENTO

02 06 23 0579

-2-

2. That the City Clerk is directed to immediately transmit a certified copy of this resolution to the Executive Officer of the Sacramento Local Agency Formation Commission.

PHILLIP L. ISENBERG
MAYOR

ATTEST:

ANNE J. MASON
CITY CLERK

P-8702

BOOK PAGE
02 05 29 0532

PROPOSED ANNEXATION TO THE CITY OF SACRAMENTO

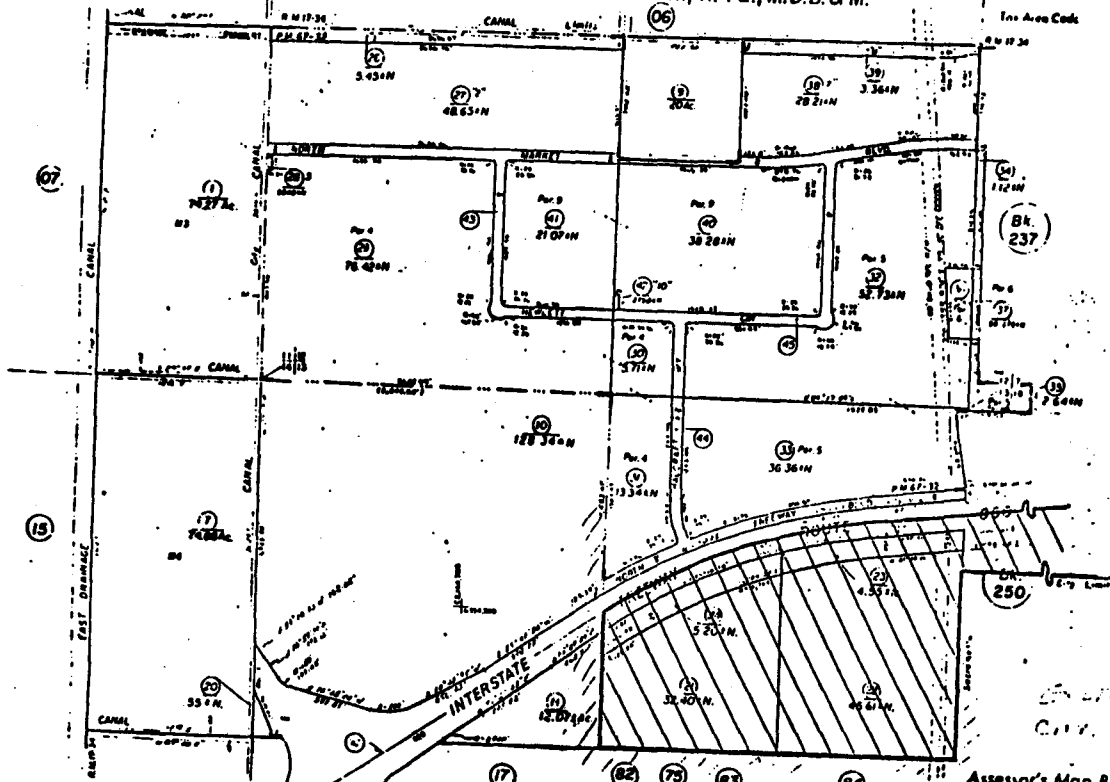
All that real property situate in the County of Sacramento, State of California, described as follows:

Beginning at the center of Section 13, Township 9 North, Range 4 East, M.D.B.&M.; thence from said point of beginning northerly along the west line of the Northeast 1/4 of said Section 13 to its intersection with the centerline of U.S. Freeway Interstate 880; thence easterly along the centerline of Interstate 880 to its intersection with the east line of Section 18, Township 9 North, Range 5 East, M.D.B.&M.; thence southerly along the east line of said Section 18 to its intersection with the easterly production of the northerly line of that certain property deeded to Robert C. Cook, described in the deed recorded in the office of the Recorder of Sacramento County, California in Book 4624, Official Records, Page 317; thence westerly along said easterly production and said northerly line of the Robert C. Cook property to its intersection with the west line of said Section 18, said point being situate on the east line of Section 13, Township 9 North, Range 4 East, M.D.B.&M.; thence southerly along the east line of said Section 13 to the east 1/4 corner of said Section 13; thence westerly along the south line of the Northeast 1/4 of said Section 13 to the center of said Section 13 and the point of beginning.

PHC
100
92
BY *Amfimer*

POR. SEC'S. 11, 12, 13 & 14 - 9N., R. 4 E., M.D.B. & M.

225-16



Notomas East Side Sub. R.M. Bk. 17, Pg. 34

Assessor's Map Bk. 225-Pg. 16
County of Sacramento, Calif.

NOTE—Assessor's Block Numbers Shown in Ellipses.
Assessor's Parcel Numbers Shown in Circles.

BOOK PAGE

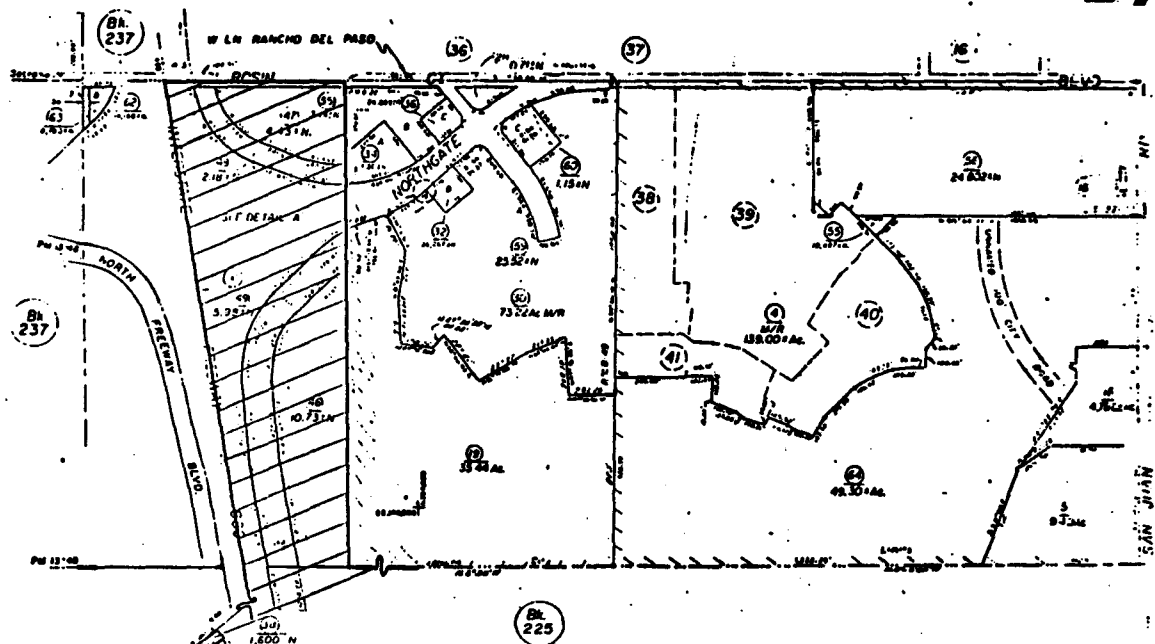
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SEC. 18, T. 9 N., R. 5 E., M.D.B. & M.

Spec Area Code

250



DETAIL A
SCALE 1"=100'

CITY OF SACRAMENTO
Assessor's Map Bk. 225-Pg. 17
County of Sacramento, Calif.

NOTE—Assessor's Block Numbers Shown in Ellipses.

02 06 32 0581

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Appendix E — Rio Linda & Elverta Recreation and Park District Recreation Needs Survey – Summary Results

The following is a summary of the results from the Recreation Needs Survey taken by residents of the District.

Please rate the Rio Linda & Elverta Recreation and Park District's performance in caring for its parks and facilities:

	Total Responses	A Excellent	B Good	C Fair	D Poor	E No Opinion
1. Maintaining park turf and planting areas.	45	10 (22%)	22 (48%)	11 (24%)	1 (2%)	1 (2%)
2. Keeping parks clean of papers and trash.	45	12 (26%)	21 (46%)	10 (22%)	1 (2%)	1 (2%)
3. Maintaining athletic fields and play equipment.	46	9 (20%)	18 (39%)	6 (13%)	2 (4%)	11 (24%)
4. Keeping parks safe to visit at night.	38	6 (16%)	7 (18%)	3 (8%)	8 (26%)	14 (37%)
5. Keeping parks safe to visit during the daytime.	45	11 (24%)	19 (42%)	9 (20%)	1 (2%)	5 (11%)
6. Maintaining clean restrooms in the park.	43	6 (14%)	9 (21%)	9 (21%)	6 (14%)	13 (30%)

7. What do you like most about our District parks and facilities?

Summary Responses

Playground Equipment	5
Easy Access	4
Clean and Friendly	4

8. What do you like least about our District parks and facilities?

Summary Responses

Lack of maintenance/upkeep	3
Trash or litter in parks	3
Not enough activities/dissatisfaction with current activities	3
Lack of shade/trees	2

9. What additional park and recreational facilities would you like to see developed in our District?

Summary Responses

Pool that is open year round	10
Gym	6
Playground equipment	2
CPHA	2
Skate Park	2

10. If additional recreation facilities such as gyms, swimming pools or additional community centers are needed, how should they be provided? (**91 total responses**)

Number of Responses

A. Use school facilities during unused hours	24 (26%)
B. Develop new facilities on park land	20 (22%)
C. Expand existing facilities	18 (20%)
D. Rent or lease an existing facility	9 (10%)
E. Other	6 (7%)
F. Combination of A, B, C, D or E	14 (15%)

11. Where should the Rio Linda & Elverta Recreation and Park District place its emphasis for park development in the future years? (**74 total responses**)

Number of Responses

A. Maintain, redesign or rehabilitate existing facilities	24 (32%)
B. Provide additional or different recreational facilities	21 (28%)
C. Purchase new park lands for construction of new facilities	10 (14%)
D. Other	4 (5%)
E. Combination of A, B, C, or D	15 (20%)

12. What types of parks and natural areas do you think are most needed in the community?

	Total Responses	A High	B Moderate	C Low	D No Opinion
Mini Parks (less than an acre) at many locations in the District.	40	6 (15%)	9 (23%)	20 (50%)	5 (12%)
Neighborhood Parks (5-10 acres) within easy bicycle ride of homes.	41	21 (51%)	14 (34%)	4 (10%)	2 (5%)
Community Parks (25-75 acres) in several areas of the District with organized recreational facilities.	44	15 (34%)	12 (27%)	12 (27%)	5 (11%)
Natural open space areas for passive recreation (trails, nature study, bird watching, etc.) and for wildlife protection.	41	17 (41%)	15 (37%)	6 (15%)	3 (7%)

13. Please rate the importance of providing future recreational programs for the differing age groups in the District:

	Total Responses	A High	B Moderate	C Low	D No Opinion
Preschool, Age 1-4	42	13 (31%)	18 (43%)	7 (17%)	4 (10%)
Children, Age 5-12	41	23 (56%)	16 (39%)	0	2 (5%)
Teenagers, Age 13-18	41	27 (66%)	13 (32%)	0	1 (2%)
Adults	40	17 (42%)	15 (38%)	6 (15%)	2 (5%)
Senior Citizens	39	17 (44%)	14 (36%)	6 (15%)	2 (5%)

14. Which of the following recreation program areas should the Rio Linda & Elverta Recreation and Park District emphasize? (Please check all that apply). **(132 total responses)**.

	Number of Responses
A. Special Events (Halloween Carnival, Easter Egg Hunts, etc.)	28 (21%)
B. Trips and Excursions (Marine World, Wine Country Trips, etc)	15 (11%)
C. Sports, Athletics and Leagues (Softball, Basketball, etc.)	29 (22%)
D. Special Interest Classes (Crafts, Aerobics, etc.)	34 (26%)
E. Outdoor Oriented Programs (Nature Study, Day Camps, etc.)	26 (20%)
F. Other	Folk dance, educational classes, developmental learning for toddlers

15. If you or your family currently participate in any of the District programs, please check all the programs that apply: **(50 total responses)**

	Number of Responses
A. Classes (i.e.: dances, after school programs, aerobics, etc.)	21 (35%)
B. Youth Sports Activities	11 (18%)
C. Adult Sports	7 (12%)
D. Senior Programs	2 (3%)
E. Special Events	19 (32%)

16. Please indicate your level of agreement or disagreement with the following five policy questions relating to the Rio Linda & Elverta Recreation and Park District:

	Total Responses	A Strongly Agree	B Agree	C Disagree	D Strongly Disagree	E No Opinion
Use of alcoholic beverages should be prohibited in certain parks.	43	25 (58%)	14 (33%)	1 (2%)	3 (7%)	0
Parks should only be open for public use from dawn to dusk, except for parks with lighted facilities.	44	28 (64%)	9 (20%)	3 (7%)	3 (7%)	1 (2%)
Special programs and activities should be supported by user fees.	41	17 (41%)	20 (49%)	2 (5%)	2 (5%)	0

RECREATION PREFERENCES:

17. Please list your family's five most popular recreation activities:

	Number of Responses		Number of Responses
Golf	2	Gardening	4
Dance	4	Fishing	5
Easter	2	Tennis	3
Horseback Riding	6	After School	2
Basketball	6	Walking/Hiking	8
Horses	3	Piano	2
Swimming	8	Biking	11
Arts and crafts	4	Dogs	2
Camping	7	Baseball	3
Adult Softball	6	Picnic/BBQ	5
Halloween	2	Roller Blading	2

18. What community/local, City, County or Regional Park does your family visit most frequently and why?

	Number of Responses
Westside Park	3
RLCC	14
Gibson Ranch	8
Discovery Park	5
CPHA	2

NOW WE WOULD LIKE TO ASK YOU SOME QUESTIONS ABOUT YOUR HOUSEHOLD THAT WILL ASSIST US IN PLANNING FOR YOUR FUTURE RECREATION AND PARK SERVICES. PLEASE BE ASSURED THAT ALL RESPONSES ARE CONFIDENTIAL AND FOR STATISTICAL PURPOSE ONLY.

19. What is your gender? **(43 total responses)**

A. Male	7 (16%)
B. Female	36 (84%)

20. What are the age groups of persons living in your household? (Please check all that apply)
(74 total responses)

- | | |
|--------------------------|----------|
| A. Under 12 years of age | 14 (19%) |
| B. 13 – 18 years of age | 5 (7%) |
| C. 19 – 40 years of age | 23 (31%) |
| D. 41 – 55 years of age | 24 (32%) |
| E. 56 years or over | 8 (11%) |

21. How long have you resided in the Rio Linda & Elverta Area? (43 total responses)

- | | |
|-----------------------|----------|
| A. Less than one year | 1 (2%) |
| B. 1 – 5 years | 9 (21%) |
| C. 6 – 10 years | 4 (9%) |
| D. 11 – 20 years | 15 (35%) |
| E. Over 20 year | 14 (32%) |

22. Please refer to the attached District Map and check the Planning Area that you reside in.

- | | |
|--------------------|--------------------------------|
| A. Planning Area 1 | Data omitted from the District |
| B. Planning Area 2 | |
| C. Planning Area 3 | |
| D. Planning Area 4 | |
| E. Planning Area 5 | |

23. Does any person in your household require special recreation programs for the disabled?
(41 total responses)

- | | |
|--------|----------|
| A. Yes | 1 (2%) |
| B. No | 40 (98%) |

24. Taking all members of your household into account, what income group did your household fall into in year 2000? (39 total responses)

- | | |
|----------------------------------|----------|
| A. Below \$25,350 | 3 (8%) |
| B. Between \$25,351 and \$40,550 | 5 (13%) |
| C. Between \$40,551 and \$50,650 | 2 (5%) |
| D. Between \$50,651 and \$60,800 | 12 (31%) |
| E. Greater than \$60,800 | 17 (44%) |

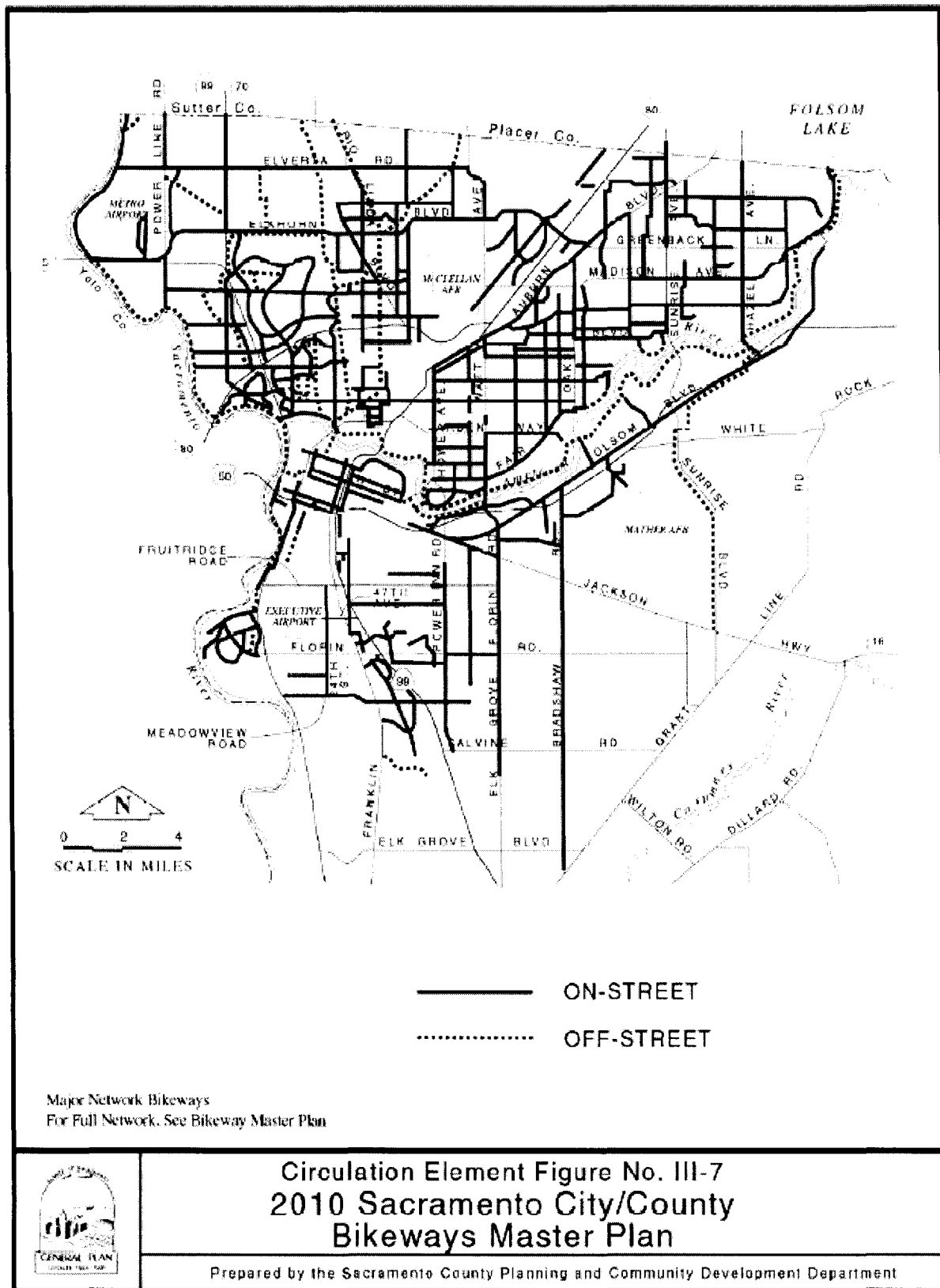
25. Please indicate the number of people in your household. (**43 total responses**)

A. One	4 (9%)
B. Two	15 (35%)
C. Three	9 (21%)
D. Four	10 (23%)
E. Five or more	5 (12%)

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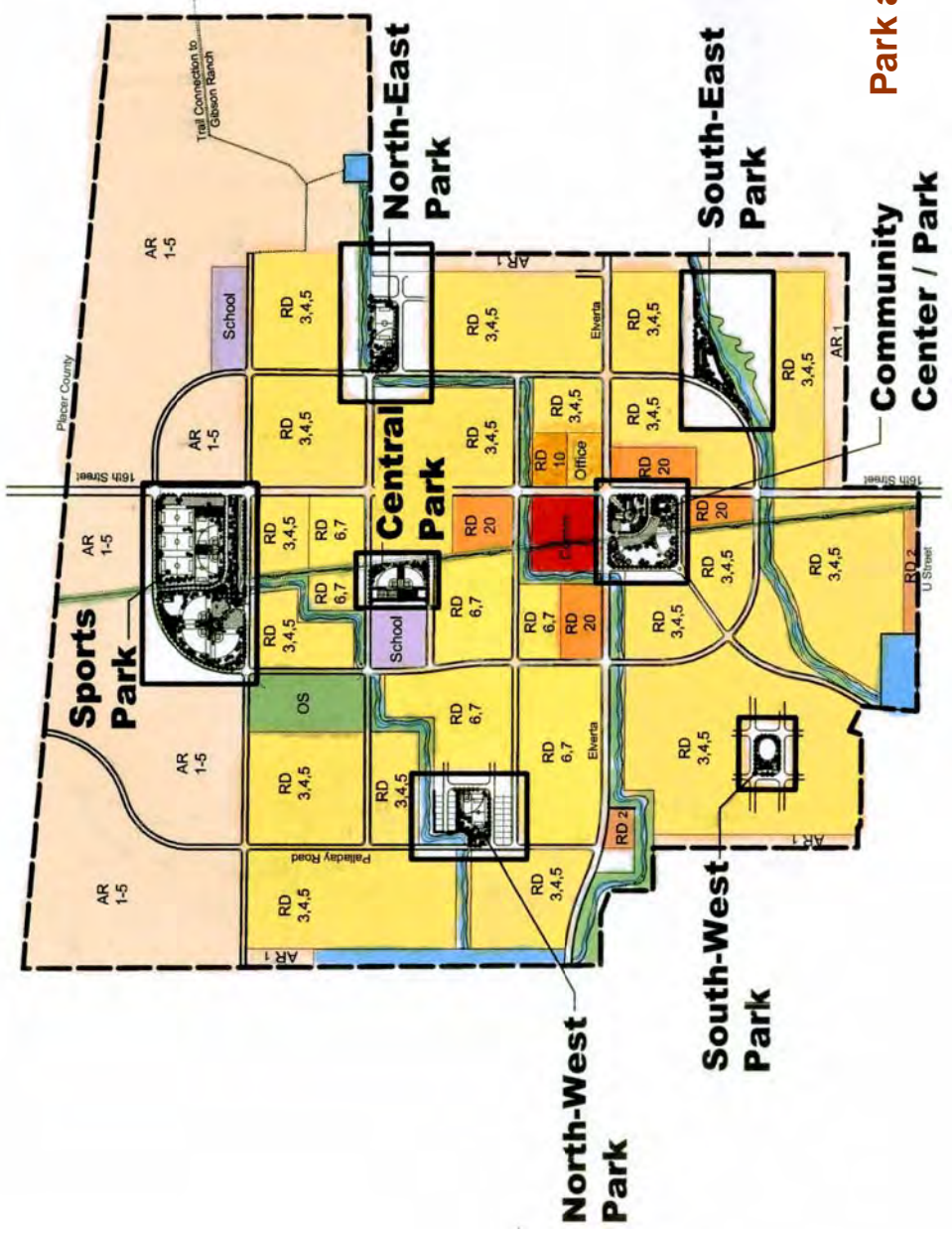
Appendix F — Average Daily Traffic Volumes – Existing Conditions

Appendix G — 2010 Sacramento City/County Bikeways Master Plan



Appendix H — Elverta Specific Plan

Draft Parks and Recreation Program



Appendix I — Panhandle Planned Unit Development

At the time of writing this Master Plan, the Panhandle Planned Unit Development planning process was incomplete and a final plan had not yet been approved. The data included in this appendix is the best data available at the time, but should be updated once the final Panhandle PUD plan is approved. The planning project is being carried out by MacKay and Soms Civil Engineers' Sacramento office under the direction of the Law Offices of George E. Phillips.

**Panhandle
Project Overview
May 16, 2005**

1.0 BACKGROUND INFORMATION

Project Name: Panhandle

Applicants/
Developers: Dunmore Homes
2150 Professional Drive
Roseville, CA 95661
(916) 771-7500

Vaquero Land Holdings, LLC
4855 Ketchum Court
Roseville, CA 95746
(916) 847-4482

Applicants'
Representative: Law Offices of George Phillips
2306 Garfield Avenue
Carmichael, CA 95608
(916) 979-4800

Property Owners: See Section 3, Table 1 for list of owners.

2.0 INTRODUCTION

The proposed Panhandle project (Project) is a residential mixed-use community proposed within the North Natomas Community Plan (NNCP) area. The Project area includes approximately 595 acres between Elkhorn Boulevard and Del Paso Road in unincorporated Sacramento County. The Project is surrounded on the south, east and west by existing development within the City of Sacramento. The property location and its configuration create an infill opportunity within the NNCP.

Panhandle is proposed to assist in meeting the region's future needs for residential opportunities in a way that implements the best of traditional and historical urban planning principles. The Project is designed to implement the intent of the NNCP, the "smart growth" principles advocated by the Sacramento Area Council of Governments (SACOG) and the Panhandle Working Group Principles (2005).

3.0 PROPERTIES WITHIN PROJECT AREA

Project Site

The developers of the Panhandle Project are Dunmore Homes and Vaquero Land Holdings, LLC. Dunmore Homes controls approximately 348.9 acres of the site, consisting of APNs (201-0320-020, 225-0050-020, 225-0050-021, 225-0050-003, 225-0050-022 and 225-0050-021). Vaquero Land Holdings, LLC controls approximately 136.74 acres consisting of the Krumenacher Ranch (APN 201-0320-021).

Grant Joint Union School District controls 68.9 acres (APN 201-0320-018 and 201-0320-019).

The Project site area is 594.5 acres and consists of the participating properties controlled by Dunmore Homes, Vaquero Land Holdings, LLC and Grant Joint Union School District.

Annexation Area

The area north of Del Paso Road and south of Elkhorn Boulevard proposed for annexation consists of 594.7 acres and includes the Panhandle Project area APN 225-0050-016 owned by Ernest Brothers (40.3 acres). Although not a part of the Project, the parcel owned by Ernest Brothers is located in the annexation area.

An inventory of properties within the Project area is shown on Table 1.

Table 1
Panhandle Properties

APN	Owner/Mailing Address	Acreage	Controlled By
201-0320-021	Alice A. Krumenacher Trust 6301 E. Levee Road Rio Linda, CA 95673	136.74	Vaquero Land Holdings, LLC
201-0320-018	Kenneth Cayocca P.O. Box 340723 Sacramento, CA 95834-0723 (916) 991-2480	33.70	Grant Joint Union School District
201-0320-019	Sandra Cayocca Cunha P.O. Box 340723 Sacramento, CA 95834-0723 (916) 991-2480	35.15	Grant Joint Union School District
201-0320-020	BD Properties 8570 Elm Avenue Orangevale, CA 95662 Attn: Orin Bennett (916) 783-4100	80.82	Dunmore Homes
225-0050-020	Laverne P. Brothers c/o Law Offices of Jo Anne M. Berhard 2621 K Street Sacramento, CA 95816 (916) 442-4908	30.86	Dunmore Homes
225-0050-021	Laverne P. Brothers c/o Law Offices of Jo Anne M. Berhard 2621 K Street Sacramento, CA 95816 (916) 442-4908	9.40	Dunmore Homes
225-0050-003	Tasso Peter Cononelos 2505 Del Monte Street West Sacramento, CA 95691 (916) 452-2667	40.25	Dunmore Homes
225-0050-022	J. Rise Richter 30872 South Coast Highway Laguna Beach, CA 92651	119.85	Dunmore Homes
225-0050-021	J. Rise Richter 30872 South Coast Highway Laguna Beach, CA 92651	67.70	Dunmore Homes
Total Application		554.47	

The following parcel located within the annexation area is not included in the application.

225-0050-016	Ernest G. Brothers 414 L Street Rio Linda, CA 95673	40.26	
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4.0 PROJECT LOCATION

The Project site encompasses 554.7 acres (gross) of land located south of Elkhorn Boulevard and north of Del Paso Road in unincorporated Sacramento County. The Project site is located immediately west of the Natomas East Main Drainage, Sorento Road and E. Levee Road and immediately east of the Natomas Park subdivisions. The Project site is located in unincorporated Sacramento County, in the City's sphere of influence. The site is bound on the east and west by lands that are within the City's limits.

5.0 PROJECT SETTING

The Project is covered with grasses and is undeveloped. There are a few existing home sites, along with barns and outbuildings on the site. Existing residential uses served by domestic wells and private septic systems. Historically, the site was used for agricultural uses including wheat, hay and barley. There are no farming operations on the site today.

On the eastern portion of the property, high-voltage power lines traverse in a north-south direction. Two sets of steel lattice towers are constructed in the corridor that support double-circuit 230 kV lines owned by the Western Area Power Administration and a 115 kV line owned by Sacramento Municipal Utility District (SMUD). Radio towers are mounted on top of the steel towers that support the electric lines.

Elkhorn Boulevard is the northern boundary of the Project area. Lands north of Elkhorn Boulevard are within unincorporated Sacramento County and are zoned AG-80. An existing residential unit is located at the northwest corner of Elkhorn Boulevard and E. Levee Road and the area west of the home site is being used for rock material stockpiling. E. Levee Road and the Natomas East Main Drain Canal (NEMDC) are located along the eastern edge of the site. East of the NEMDC, are the Elkhorn Asphalt Plant operated by Granite and other light industrial uses. Farther south and east of Sorento Road are ranchette home sites in the Valley View Acres neighborhood.

Del Paso Road forms the southern boundary of the Project area and light industrial office buildings are located south of Del Paso Road. The area west of the Project site is completely developed within the North Natomas Community Plan with residential uses in the Regency Park and Natomas Park communities. Natomas Charter School is located immediately west of the Project site, on Del Paso Road.

6.0 ENTITLEMENT REQUEST

The Project includes the following entitlement requests:

1. **General Plan Amendments** from Low Density Residential, Medium Density Residential, Parks-Recreation-Open Space, Public/Quasi-Public to Low Density Residential, Medium Density Residential, Parks-Recreation-Open Space, Public/Quasi-Public, Community Commercial;
2. **Community Plan Amendments** from Low Density Residential, Medium Density Residential, High Density Residential, Parks-Open Space to Low Density Residential, Medium Density Residential, High Density Residential, Parks-Open Space, General Public Facilities (schools) and Village Commercial;
3. **Pre-Zoning** of the site from AG-80 (Sacramento County Zoning Designation) to R-1 PUD, R-1 PUD (School), R-1A, R-2A PUD, C-1 PUD, and A-OS (PUD);
4. **Establishment of the Panhandle Planned Unit Development;**
5. **Inclusionary Housing Plan** - Krumenacher Ranch (Vaquero Land Holdings, LLC) for a portion of the Panhandle Project.
6. **Inclusionary Housing Plan** - Dunmore Homes for a portion of the Panhandle Project;
7. **Development Agreement** between the City of Sacramento and Dunmore Land Company, LLC for a portion of the Panhandle Project; and
8. **Development Agreement** between the City of Sacramento and Vaquero Land Holdings, LLC (Krumenacher Ranch) for a portion of the Panhandle Project.

The following entitlements are necessary for implementation of the Project and will be requested in separate applications that will complement the application for plan amendments:

1. Master Tentative Parcel (Large Lot) Map to create large lot parcels for the purpose of creating legal parcels corresponding to villages within Panhandle.

2. Small Lot Tentative Subdivision Maps for the Project to subdivide the property into small lots for single-family residential home sites and other uses.

In addition to the above City approvals and entitlements, implementation of Panhandle will/may require approval of the following permits from federal, state and local agencies prior to construction. This list is not inclusive; additional permits may be identified during preparation of the EIR.

- Sacramento Local Area Formation Commission (LAFCO) approval of Municipal Services Review, annexation of territory to the City of Sacramento and detachment from Sacramento County Water Maintenance District, County Service Area #1, Rio Linda/Elverta Parks and Recreation District, Natomas Fire District, and Sylvan Cemetery District;
- U.S. Army Corps of Engineers section 404 permit to fill wetland areas;
- Department of Fish and Game Streambed Alteration Agreement for work in any water courses;
- State General Construction Activity Stormwater Permit, issued by the Regional Water Quality Control Board; and
- Regional Water Quality Control Board permits related to the control of nonpoint source runoff pursuant to the National Pollution Discharge Elimination System (NPDES) permit requirements, and approval for the recycled water deliveries for non-potable use.

7.0 REGULATORY FRAMEWORK

General Plan Amendments

The Project site is designated in the City's General Plan with the following land uses: The existing and proposed General Plan designations for the site are shown below:

General Plan Designation	Existing Acreage	Proposed Acreage
Low Density Residential (4-15 du/ac)	335.8	271.3
Medium Density Residential (16-29 du/ac)	72.4	95.0
Parks, Recreation, Open Space	176.5	121.5
Public/Quasi-Public – Misc	10.0	76.1
Community Commercial		30.8
	594.7	594.7

Community Plan Amendments

The Project site is located within the North Natomas Community Plan (NNCP) (1994). The 1994 NNCP designates the Project site for Low Density Residential, Medium Density Residential, High Density Residential and Parks-Open Space. The existing and proposed NNCP designations for the site are shown below:

Community Plan Designation	Existing Acreage	Proposed Acreage
Low Density Residential (3-10 du/ac)	339.7	271.3
Medium Density Residential (7-21 du/ac)	20.9	45.9
High Density Residential (11-29 du/ac)	51.4	49.1
Parks – Open Space	176.5	121.5
General Public Facilities (Schools)	6.2	76.1
Village Commercial		30.8
	594.7	594.7

Prezone/Rezone

The site is located in unincorporated Sacramento County is zoned Agriculture-80 (AG-80). A Planned Unit Development (PUD) will be established for the site, known as the Panhandle Planned Unit Development. The existing zoning and proposed zoning within the PUD are shown below:

Zone	Existing Acreage	Proposed Acreage
AG-80 (Sacramento County)	594.7	0
R-1 PUD	0	303.0
R-1 PUD (School)		66.1
R-1A PUD	0	47.8
R-2A PUD	0	49.1
C-1 PUD	0	30.8
A-OS PUD	0	97.9
	594.7	594.7

Inclusionary Housing Plans

Upon annexation, the Project site will be located in a new growth area and will be subject to the City's Mixed Income Housing Policy. The Mixed Income Housing Policy adopted in the City's Housing Element and required by the City's Mixed Income Housing Ordinance, City of Sacramento City Code Chapter 17.190 requires that ten percent (10%) of the total units in a Residential Project be affordable to very low income households and five percent (5%) for low income households (Inclusionary Requirement). The affordable housing plans ensure that affordable units are developed concurrent with market rate units.

The Project consists of 2,977 dwelling units. Based on the current Project proposal, the Inclusionary Requirement for the Project is 298 units for Very Low Income (10%) and 149 units for Low Income (5%) for a total of 447 inclusionary units. All Inclusionary Units will be constructed on-site within the Panhandle Project area.

The Project includes two draft Inclusionary Housing Plans prepared for Vaquero-controlled parcels (Krumenacher) and Dunmore-controlled parcels.

Development Agreements

Two development agreements are proposed for the Project. One agreement will be between the City of Sacramento and Dunmore Homes, et al for a portion of the Panhandle Project and the other will be between the City of Sacramento and Vaquero Land Holdings, LLC. The agreements are based on the North Natomas Development Agreement model.

Annexation

The Project site is located within the City's Sphere of Influence and within the Frying Panhandle Annexation (Reorganization) (M00-066) for which the City initiated annexation of the territory to the City of Sacramento in December 2000 (Resolution 2000-734). The Frying Panhandle Annexation (Reorganization) consists of the following:

- Annexation of territory to the City of Sacramento
- Detachment of territory from Sacramento County Water Maintenance District, County Service Area #1, Rio Linda/Elverta Parks and Recreation District, Natomas Fire District, and Sylvan Cemetery District;

The Frying Panhandle Annexation consists of approximately 1,430 acres, of which the Project is approximately 555 acres and the Ernest Brothers property (APN 225-0050-016) is approximately 40 acres. Most of the annexation area outside of the Project consists of light industrial and office park uses south of Del Paso Road.

In initiating the reorganization, the City Council found the following:

- The affected territory is within the Sphere of Influence of the City;
- The affected territory is within the North Natomas Community Plan area;
- The affected territory is within the Urban Service Boundary of the County General Plan;

- The annexation represents a logical and reasonable extension of the City boundaries because it is surrounded on three sides by the existing City limits;
- The annexation would facilitate the more efficient provision of municipal services, including compliance with the uniform City planning and development standards throughout the North Natomas Community Plan area.
- The annexation would constitute a fiscally sound addition to the City because the revenue generated by the non-residential land uses would likely exceed the costs of providing municipal services;
- The annexation area can be served by existing or planned infrastructure and municipal services, consistent with the City Master Services Element;

8.0 OVERVIEW OF LAND USES

The proposed Project is a residential mixed-use community proposed within the North Natomas Community Plan area. The goal of Panhandle is to create a variety of residential neighborhoods with a nearby open space parkway nearby. Panhandle is designed to adhere to the NNCP's goal of encouraging pedestrian-friendly neighborhood circulation and convenient access to open space and recreation uses.

Panhandle consists of residential, commercial mixed use, open space, parks and school sites on 595 acres. The Project proposes 2,977 dwelling units in a mix of residential unit types, lot sizes and densities. Table 2 summarizes proposed land uses.

Table 2
Land Use Summary

Use	Acreage (gross)	Units	Density (gross)
Residential			
<u>Low Density Residential</u>			
40 x 60' Alley	38.5	243	
40' 80'	22.9	174	
45 x 75' Alley	24.9	144	
45' x 100'	22.3	104	
50' x 90'	33.1	190	
50' x 100'	32.5	186	
55' x 95'	79.2	411	
60' x 105'	17.9	81	
Subtotal	271.3	1,533	5.7
<u>Medium Density Residential</u>			
Cluster	45.9	498	10.8
<u>High Density Residential</u>			
Multi-Family Attached	49.1	926	18.9
Subtotal	366.3	2,957	8.1
Commercial Mixed Use			
Commercial Mixed Use (CMU)	30.8	20	
Open Space and Park			
Pocket Parks	15.7		
Neighborhood Parks	33.3		
Open Space Parkway	51.2		
Open Space- Detention Basins	21.3		
Subtotal	121.5		
Public/Quasi-Public			
Elementary School	10.0		
High School/Middle School	66.1		
Subtotal	76.1		
TOTAL	594.7	2,977	5.0

Table 3
Land Use by Planning Area

Planning Area	Land Use	Product Type	Units	Gross Acreage	Density
1	Single Family	Cluster	105	13.3	7.9
2	Singe Family	45 x 100	104	22.3	4.7
3	Single Family	50 x 100	186	32.5	5.7
4	Single Family	45 x 75 Alley	144	24.9	5.8
8	Multi-Family	Attached	186	9.3	20.0
9	Single Family	50 x 90	71	12.2	5.8
10	Single Family	50 x 90	119	20.9	5.7
11	Single Family	Cluster	214	17.4	12.3
13	Multi-Family	Attached	255	15	17.0
14	Multi-Family	Attached	380	19	20.0
15	Single Family	55 x 95	107	21	5.1
16	Single Family	40 x 80	174	22.9	7.6
17	Single Family	60 x 105	81	17.9	4.5
18	Single Family	55 x 95	136	26.1	5.2
19	Multi-Family	Attached	105	5.8	18.1
20	Single Family	40 x 60 Alley	119	15.1	7.9
21	Single Family	40 x 60 Alley	124	23.4	5.3
22	Single Family	55 x 95	90	17.4	5.2
23	Single Family	55 x 95	78	14.7	5.3
24	Single Family	Cluster	99	8.4	11.8
25	Single Family	Cluster	80	6.8	11.8
26	High School/Middle School			66.1	
28	Elementary School			10	
29	Commercial Mixed Use		20	23.2	
30	Commercial Mixed Use			7.6	
31	Park			4.2	
32	Park			3.8	
33	Park			8.3	
34	Park			1.9	
35	Park			3.7	
36	Park			2.1	
37	Park			10	
38	Park			15	
39	Open Space	Detention		11.7	
40	Open Space	Detention		9.6	
41	Open Space Parkway			51.2	
Total			2,977	594.7	

Residential

In the Panhandle Plan, 2,957 residential units are proposed on approximately 366.3 acres. Densities of residential uses range from 4.5 to 20 units per acre. The density among residential uses is 8.1 units per acre and the average density over the Project site is 5.0 units per acre. The pattern of residential land uses is generally in a radiating form with a mix of dwelling types centered by some form of park or recreation facility. The mix of lot sizes and densities will supply housing stock for a variety of lifestyles and price ranges. Higher density residential areas have been dispersed.

Commercial Mixed Use

The Panhandle project will be anchored by a thematic mixed-use commercial center. The center consists of two sites at the southern end of the Project, north of Del Paso Road, on each side of National Drive. The commercial sites are located at the southern entry to the Project at National Drive and will provide community-serving commercial uses. Twenty residential units are proposed within the commercial site.

Schools

Grant Joint Union School District proposes a middle school and high school site within the Project, west of the proposed alignment of National Drive. An elementary school is proposed in the southern portion of the Project area. The elementary school is located within the Rio Linda Union School District.

Parks and Open Space

Panhandle includes approximately 121.5 acres of parks and open space uses. The land use concept for Panhandle includes a variety of park sizes rather than three or four traditional eight to ten-acre parks. Nearly 50 acres of parks are proposed in several pocket park and neighborhood park locations. This approach to park planning ensures that open space and recreation uses are generally available within 600 to 800 feet of each residential unit.

A highly amenitized bicycle and pedestrian trail system is proposed from Del Paso Road north to Elkhorn Boulevard within the open space parkway beneath the power lines. The open space area that would include the trail system would be approximately 200 feet in width and would link to the remainder of the plan area through east-west connections. The trail system will increase connectivity to other areas of Natomas and to existing trails to the south that connect to the American River Trail System.

Access/Circulation

Primary access to the Project site is available from Elkhorn Boulevard and Del Paso Road. The Project proposes to extend National Drive north from its existing terminus at Del Paso Road to Elkhorn Boulevard. National Drive will be

the primary arterial through Panhandle with an alignment that bends west through the site.



Reserve Study Transmittal Letter

Date: October 13, 2011
To: Wayne Lowery, Rio Linda Elverta Rec Prk Dist
From: Browning Reserve Group (BRG)

Re: Rio Linda Elverta Recreation and Park District

Attached, please find the reserve study for the association. To assist in your understanding of the study, and to highlight key information you may need quickly, we have listed below some of the important information contained in the study. At BRG our goal is to bring clarity from complexity, so should you have any questions, please do not hesitate to contact us anytime.

1. Where do I find the recommended reserve contribution for next year's budget?

This is found in *Section III, "30 Year Reserve Funding Plan, Cash Flow Method."* **\$90,000** is the annual amount. Directly under the annual amount is the amount per ownership interest, per month, or other period, as applicable. **\$7,500.00 /Unit/month @ 1.** For any other funding related issues, if any, see *Section III, "30 Year Reserve Funding Plan, Cash Flow Method."*

2. Where do I find the status of the reserve fund, based on the Percent Funded calculation?

This is found for the 30-year term of the study in *Section IV, "30 Year Reserve Funding Plan, Including Fully Funded Balance and % Funded."* For the year for which the study was prepared, 2012/2013, the association is **23.0%** funded.

Based on the 30 year cash flow projection, the Project's reserves appear adequately funded as the reserve fund ending balances remain positive throughout the replacement of all major components during the next 30 years.

California statute imposes no reserve funding level requirements nor does it address funding level adequacy, and although one or more of the reserve fund percentages expressed in this report may be less than one hundred percent, those percentages do not necessarily indicate that the Project's reserves are inadequately funded.

3. Where do I find the assumptions for interest and inflation factors?

While this information is in various places in the study, it can always be found in *Section III, "30 Year Reserve Funding Plan, Cash Flow Method."* For this study the assumption is **2.5%** for the interest rate and **2.5%** for the inflation factor. Please be advised these rates estimate the values that will stand the test of time over the 30-year term of the study, not simply only next year.

Please read the two helpful sections entitled "Glossary" and "Notes to the Auditor." The glossary explains common reserve study terms as well as BRG specific terminology. The Notes to the Auditor while intended to assist the auditor, has useful information for the casual reader on how year zero, (2011/2012) the current fiscal year is dealt with in the study.

Thank you for the opportunity to work with the Rio Linda Elverta Recreation and Park District on this study.



RIO LINDA ELVERTA RECREATION AND PARK DISTRICT

RESERVE STUDY

Full Study



Third Draft

Published - October 13, 2011

Prepared for the 2012/2013 Fiscal Year

BROWNING RESERVE GROUP

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Third Draft

RIO LINDA ELVERTA RECREATION AND PARK DISTRICT

Table of Contents

<i>Section</i>	<i>Report</i>	<i>Page</i>
<i>Section I:</i>	Summary of Project Reserves	1
<i>Section II:</i>	30 Year Expense Forecast <i>Detailed</i>	5
<i>Section III:</i>	30 Year Reserve Funding Plan <i>Cash Flow Method {c}</i>	31
<i>Section III-a:</i>	30 Year Reserve Funding Plan <i>Cash Flow Method - Ending Balances Chart</i>	32
<i>Section IV:</i>	30 Year Reserve Funding Plan <i>Fully Funded Balance and % Funded</i>	33
<i>Section V:</i>	Reserve Fund Balance Forecast <i>Component Method</i>	34
<i>Section VI:</i>	Component Listing <i>Included Components</i>	49
<i>Section VI-a:</i>	Component Index <i>by Level / Component</i>	149
<i>Section VII:</i>	Tabular Component Listing <i>Included Components</i>	158
<i>Section VII-a:</i>	Expenditures by Year <i>For 3 Years</i>	172
<i>Section X:</i>	Auditor Notes	177
<i>Section X-a:</i>	Supplementary Information for Auditor <i>Component Method</i>	179
<i>Section XI:</i>	Glossary <i>Reserve Study Terms</i>	190



Reserve Study

Full Study

Prepared for the 2012/2013 Fiscal Year

Rio Linda Elverta Recreation and Park District

Reserve Study Summary

A Reserve Study was conducted of Rio Linda Elverta Recreation and Park District (the "**Project**"). A **Full Study** includes an on-site review upon where the following tasks are performed:

- development of a reserve component inventory;
- condition assessment based upon on-site visual observation;
- life and valuation estimates;
- fund status;
- and a funding plan.

Physical Inspection

Browning Reserve Group ("**BRG**") conducted a physical inspection of the Project. The inspection encompassed those major components that the Project is required to maintain. For this study components are determined to be major components if:

1. As of the date of the study, they have a remaining useful life of less than 30 years, and a value greater than \$1,000.
2. Such additional components, if any, determined by the Project Manager.

During the inspection, BRG utilized the services of our own construction cost estimator. In addition, independent contractors were retained to render opinions on selected components as indicated in **Section VI, Included Component Listing.**

Supplemental information to the physical inspection may have been obtained from the following sources:

1. Project plans where available.
2. Maintenance records of the reserve components where available.
3. Association board members, management and staff.

Summary of Reserves

For the first year of the Reserve Study, the reserve contribution is based upon the existing budget unless otherwise noted in "**Section III, Reserve Funding Plan.**" In addition BRG relied on the Project to provide an accurate Beginning Reserve Balance.

The status of the Project's reserves, as reflected in the following Reserve Study, is as follows:

- 1. The Expenditure Forecast of the following Reserve Study identifies the major components which the Project is obligated to repair, replace, restore or maintain, as determined in accordance with the criteria specified above, and specifies for each such component:**
 - a. Its current estimated replacement cost;**
 - b. Its estimated useful life; and**
 - c. Its estimated remaining useful life.**
- 2. It is estimated that the total cash reserves necessary to repair, replace, restore or maintain such major components (in the aggregate) during and at the end of their first remaining useful life is \$613,256.**
 - [For purposes of this calculation, "necessary" is defined as the Fully Funded Balance (FFB) (Component Current Cost X Effective Age / Useful Life, including a provision for interest and inflation in future years.)]**
- 3. The current amount of accumulated cash reserves actually set aside to repair, replace, restore, or maintain such major components as of the fiscal year ending June 30, 2013 is estimated to be \$140,861, constituting 23.0% of the total expenditures anticipated for all such major components through their first end of useful life replacement.**
- 4. Based upon the schedule of annual reserve contributions necessary to defray the cost of repairing, replacing, restoring or maintaining such major components in the years such expenditures are estimated to be required, it is estimated that annual reserve contributions in the initial amount of \$90,000 [*\$7,500.00 per Unit per month (average)*] for the fiscal year ending June 30, 2013 (the first full fiscal year following first distribution of this report) will be necessary in order to meet all such reserve expenditures when they are projected to come due.**

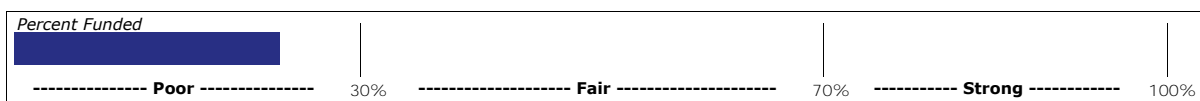
Funding Assessment

Based on the 30 year cash flow projection, the Project's reserves appear adequately funded as the reserve fund ending balances remain positive throughout the replacement of all major components during the next 30 years.

California statute imposes no reserve funding level requirements nor does it address funding level adequacy, and although one or more of the reserve fund percentages expressed in this report may be less than one hundred percent, those percentages do not necessarily indicate that the Project's reserves are inadequately funded.

Percent Funded Status

Based on paragraphs 1 - 3 above, the Project is 23.0% funded. The following scale can be used as a measure to determine the association's financial picture whereas the lower the percentage, the higher the likelihood of the Project requiring a special assessment, or other large increases to the reserve contribution in the future.



Methodology

The above recommended reserve contribution for the next fiscal year (and future fiscal years as outlined in *Section III, Reserve Fund Balance Forecast*) was developed using the cash flow method. This is a method of developing a reserve funding plan where the contributions to the reserve fund are designed to offset the variable annual expenditures from the reserve fund. Different reserve funding plans are tested against the anticipated schedule of reserve expenses until the desired funding goal is achieved.

Funding Goals

The funding goal employed for Rio Linda Elverta Recreation and Park District is

Threshold Funding: Establishing a Reserve funding goal of keeping the Reserve balance above a specified dollar or Percent Funded amount. Depending on the threshold, this may be more or less conservative than "Fully Funding."

Limitations

The intention of the Reserve Study is to forecast the Project's ability to repair or replace major components as they wear out in future years. The Reserve Study is not an engineering report, and no destructive testing was performed. The costs outlined in the study are for budgetary and planning purposes only, and actual bid costs would depend upon the defined scope of work at the time repairs are made. Also, any latent defects are excluded from this report.

Compliance

The Reserve Study was conducted pursuant with standards set forth by the Community Associations Institute (CAI) and the Association of Professional Reserve Analysts (APRA).

Supplemental Disclosures

General:

BRG has no other involvement(s) with the Project which could result in actual or perceived conflicts of interest.

Personnel Credentials:

BRG is a licensed general building contractor in California and the owner, Robert W. Browning, holds the Reserve Specialist designation from the Community Associations Institute.

Completeness:

BRG has found no material issues which, if not disclosed, would cause a distortion of the Project's situation.

Reliance on Client Data:

Information provided by the official representative of the Project regarding financial, physical, quantity, or historical issues will be deemed reliable by BRG.

Scope:

This Reserve Study is a reflection of information provided to BRG and assembled for the Project's use, not for the purpose of performing an audit, quality/forensic analysis, health and safety inspection, or background checks of historical records.

Reserve Balance:

The actual beginning reserve fund balance in this Reserve Study is based upon information provided and was not audited.

Reserve Projects:

Information provided about reserve projects will be considered reliable. Any on-site inspection should not be considered a project audit, quality inspection, or health and safety review.



Browning Reserve Group



Rio Linda Elverta Recreation and Park District

Section II

Third Draft

30 Year Expense Forecast - Detailed

Prepared for the 2012/2013 Fiscal Year

Current Life
Replacement Useful /
Cost Remaining

Reserve Component

Babe Best Park

01000 - Paving

100 - Asphalt: Sealing { 25,370 Sq. Ft. Paved Parking Lot}	3,121	5	2		3,278				3,709						4,197
200 - Asphalt: Ongoing Repairs { 25,370 Sq. Ft. Paved Parking Lot (2%)}	1,690	5	2		1,776				2,009						2,273
300 - Asphalt: Petromat Overlay { 25,370 Sq. Ft. Paved Parking Lot}	41,607	25	12												55,957
800 - Striping { Paved Parking Lot}	512	5	2		538				609						689
Total 01000 - Paving	46,930				5,593				6,328						63,116

02000 - Concrete

220 - Walkways { 1,590 Sq. Ft. Concrete Walkways (2%)}	522	10	7						620						
380 - Pad { 1,320 Sq. Ft. Dugout Slabs (2%)}	433	3	1		444			478		515		554			597
Total 02000 - Concrete	954				444			478		1,135		554			597

03000 - Painting: Exterior

120 - Surface Restoration { 1,040 Sq. Ft. Snack Bar/Restroom Building}	1,066	10	7						1,267						
122 - Surface Restoration { 750 Sq. Ft. Backstop Wood}	769	5	2		808				914						1,034
Total 03000 - Painting: Exterior	1,835				808				2,181						1,034

04000 - Structural Repairs

910 - Building Maintenance { 1,040 Sq. Ft. Restroom/Snack Bar}	5,330	20	17												
950 - Dry-rot repairs- ongoing { 750 Sq. Ft. Backstop Wood (16.7%)}	1,281	5	1		1,313			1,486							1,681
990 - Miscellaneous { 391 Sq. Ft. Shade Structure Repairs}	1,025	5	5					1,160				1,312			
Total 04000 - Structural Repairs	7,636				1,313			1,160	1,486			1,312	1,681		

05000 - Roofing

440 - Pitched: Dimensional Composition { 4 Squares- Shade Structure}	2,050	25	25												
650 - Pitched: Fibrous Cement { 7 Squares- Restroom/Snack Bar}	4,305	30	19												
Total 05000 - Roofing	6,355														

08000 - Rehab

100 - General { 24 Lin. Ft. Metal Gates}	512	5	2		538				609						689
220 - Restrooms { 2 Restrooms}	4,100	10	7						4,874						

30 Year Expense Forecast - Detailed

Third Draft

Current Life
Replacement Useful /
Cost Remaining

Prepared for the 2012/2013 Fiscal Year

Reserve Component	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
Total 08000 - Rehab	4,612		538					5,483					689		
18000 - Landscaping															
100 - Irrigation: Misc. {Common Area}	1,025	3	1	1,051		1,131		1,218		1,312				1,413	
420 - General Repairs/Upgrades {Common Area}	1,537	3	1	1,576		1,697		1,828		1,968				2,119	
Total 18000 - Landscaping	2,562		2,627		2,829			3,046		3,280				3,532	
19000 - Fencing															
100 - Chain Link: 4' {1,119 Lin. Ft. Ballfield Perimeters}	12,617	30	14												17,827
108 - Chain Link: 6' {1,043 Lin. Ft. Ballfield Perimeters}	12,829	30	15												
120 - Chain Link: 8' {202 Lin. Ft. Ballfield Perimeters}	2,899	30	16												
130 - Chain Link: 10' {440 Lin. Ft. Backstops & Dugouts}	8,118	30	17												
510 - Post & Cable {1,086 Lin. Ft. Perimeter}	22,263	25	9							27,803					
Total 19000 - Fencing	58,725									27,803					17,827
21000 - Signage															
790 - Monument {Park Entrance}	1,537	10	4		1,697										2,172
Total 21000 - Signage	1,537				1,697										2,172
26000 - Outdoor Equipment															
100 - Tot Lot: Play Equipment {Tot Lot}	10,250	20	10							13,121					
140 - Tot Lot: Safety Surface {Tot Lot}	512	3	1	525		566		609		656				706	
280 - Picnic Tables {7 Picnic Area}	4,305	20	11									5,649			
302 - Benches {8 Dugout Benches}	4,920	20	15												
316 - Benches {2 Tot Lot}	1,025	12	5			1,160									
430 - Bleachers {4 Wood Bleachers}	6,150	20	9							7,681					
440 - Bleachers: Aluminum {4 Aluminum Bleachers}	8,200	20	16												
480 - Drinking Fountain {4 Ballfields & Restrooms}	9,840	20	14												13,904
900 - Miscellaneous {Electronic Scoreboard}	7,687	20	14												10,862
Total 26000 - Outdoor Equipment	52,890		525		566	1,160		609		7,681	13,777	5,649		706	24,766
Total [Babe Best Park] Expenditures Inflated @ 2.50%			4,909	6,939	5,569	2,319	1,486	18,781		35,484	18,923	7,330	64,839	4,836	44,765

Central Park Horse Arena/BMX Track

01000 - Paving

102 - Asphalt: Sealing {29,154 Sq. Ft. Access Road & Parking}	3,586	5	1	3,676			4,159				4,705				
202 - Asphalt: Ongoing Repairs {29,154 Sq. Ft. Access Road & Parking (2%)}	1,942	5	1	1,991			2,253				2,549				
302 - Asphalt: Petromat Overlay {29,154 Sq. Ft. Access Road & Parking}	47,813	25	16												

30 Year Expense Forecast - Detailed

Third Draft

Current Life
Replacement Useful /

Prepared for the 2012/2013 Fiscal Year

Reserve Component	Cost	Remaining	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
462 - Gravel { 41,350 Sq. Ft. Access Road & Parking (5%)}	2,119	5	1	2,172					2,458				2,781				
502 - Curbs: Concrete { 150 Lin. Ft. Parking Lot}	1,230	10	6						1,426								
802 - Striping {Parking Lot}	512	5	1	525					594				672				
Total 01000 - Paving	57,203			8,364					10,890				10,707				
03000 - Painting: Exterior																	
126 - Surface Restoration { 1,762 Sq. Ft. Wood Booths}	1,806	5	2		1,897					2,147					2,429		
130 - Surface Restoration { 1,424 Sq. Ft. Wood Bleachers}	1,460	5	2		1,533					1,735					1,963		
132 - Surface Restoration { 6 Wood Benches in Pens}	1,230	5	2		1,292					1,462					1,654		
400 - Wrought Iron { 1,928 Lin. Ft. Tubular Steel Fencing}	11,857	5	2		12,457					14,094					15,947		
Total 03000 - Painting: Exterior	16,353				17,181					19,438					21,993		
04000 - Structural Repairs																	
954 - Dry-rot repairs- ongoing { 1,762 Sq. Ft. Wood Booths (16.7%)}	3,024	5	2		3,177					3,594					4,067		
Total 04000 - Structural Repairs	3,024				3,177					3,594					4,067		
18000 - Landscaping																	
460 - General Repairs/Upgrades { Open Area}	1,537	1	1	1,576	1,615	1,656	1,697	1,740	1,783	1,828	1,873	1,920	1,968	2,017	2,068	2,119	2,172
Total 18000 - Landscaping	1,537			1,576	1,615	1,656	1,697	1,740	1,783	1,828	1,873	1,920	1,968	2,017	2,068	2,119	2,172
19000 - Fencing																	
110 - Chain Link: 6' { 24 Lin. Ft. Entrance Gates}	369	30	19														
210 - Wrought Iron: 3' { 72 Lin. Ft. Tubular Steel Hitching Posts [6]}	1,845	30	19														
224 - Wrought Iron: 5' { 956 Lin. Ft. 5' Tubular Steel Fencing}	33,317	30	19														
230 - Wrought Iron: 6' { 900 Lin. Ft. 6' Tubular Steel Fencing}	33,210	30	19														
512 - Post & Cable { 728 Lin. Ft. Perimeter Paved Parking}	14,924	25	12												20,071		
780 - Gates { 14 Lin. Ft. Access Road Gate}	717	20	9									896					
Total 19000 - Fencing	84,382											896			20,071		
20000 - Lighting																	
100 - Exterior: Misc. Fixtures { 8 Athletic Field Lighting (13%)}	2,562	5	9									3,200					3,621
Total 20000 - Lighting	2,562											3,200					3,621
21000 - Signage																	
710 - Entry Signs { Main Entrance Sign}	1,025	15	7							1,218							
Total 21000 - Signage	1,025									1,218							
24500 - Audio / Visual																	
300 - PA System { 6 Speakers}	1,537	10	6						1,783								

30 Year Expense Forecast - Detailed

Third Draft

Current Life
Replacement Useful /

Prepared for the 2012/2013 Fiscal Year

Reserve Component Cost Remaining 2011/12 2012/13 2013/14 2014/15 2015/16 2016/17 2017/18 2018/19 2019/20 2020/21 2021/22 2022/23 2023/24 2024/25 2025/26

Total 24500 - Audio / Visual 1,537 1,783

26000 - Outdoor Equipment

282 - Picnic Tables { 5 Common Area}	2,562	20	9							3,200						
304 - Benches { 2 Common Area}	1,025	12	7					1,218								
306 - Benches { 6 Wood Benches in Pens}	3,690	12	7					4,386								
380 - Garbage Receptacles { 15 Trash Cans}	1,537	20	10							1,968						
432 - Bleachers { 2 Wood Bleachers}	6,150	20	11								8,069					
442 - Bleachers: Aluminum { 2 Aluminum Bleachers}	8,200	20	13											11,304		
450 - Bleachers { 2 BMX Bleachers}	4,100	20	12										5,514			
Total 26000 - Outdoor Equipment	27,265							5,605		3,200	1,968	8,069	5,514	11,304		

Total [Central Park Horse Arena/BMX Track] Expenditures Inflated @ 2.50% 9,940 21,973 1,656 1,697 1,740 14,456 31,683 1,873 9,217 3,936 20,793 53,712 13,423 5,793

Community Center Park

01000 - Paving

104 - Asphalt: Sealing { 35,650 Sq. Ft. Parking Lot}	5,481	5	2		5,759			6,515					7,372			
204 - Asphalt: Ongoing Repairs { 35,650 Sq. Ft. Parking Lot (2%)}	2,375	5	2		2,495			2,823					3,194			
304 - Asphalt: Petromat Overlay { 35,650 Sq. Ft. Parking Lot}	58,466	25	12										78,630			
464 - Gravel { 18,200 Sq. Ft. Harvey House Yard}	4,664	10	5					5,277								
Total 01000 - Paving	70,986				8,254			5,277		9,339			89,196			

02000 - Concrete

900 - Miscellaneous { 18,209 Sq. Ft. All Concrete Flatwork (2%)}	5,973	5	1		6,122			6,926				7,837				
Total 02000 - Concrete	5,973				6,122			6,926				7,837				

03000 - Painting: Exterior

134 - Surface Restoration { 5,400 Sq. Ft. Building Surface}	5,535	5	3			5,961				6,744					7,630	
136 - Surface Restoration { 483 Sq. Ft. Wood Trellis}	495	5	1		507			574				650				
138 - Surface Restoration { 3,108 Sq. Ft. Harvey House}	3,186	10	6					3,694								
402 - Wrought Iron { 160 Lin. Ft. 4' Wrought Iron Fencing}	1,476	4	1		1,513			1,670			1,843				2,035	
410 - Wrought Iron Gates { 12 Building Perimeter}	7,380	4	1		7,564			8,350			9,217				10,173	
450 - Wood Fencing { 1,200 Sq. Ft. Perimeter}	615	5	3			662				749					848	
Total 03000 - Painting: Exterior	18,687				9,585		6,623	10,020	4,269		7,493	11,060		650	20,686	

03500 - Painting: Interior

100 - Building { 7,138 Sq. Ft. All Interior Spaces}	7,316	10	4					8,076								10,338
Total 03500 - Painting: Interior	7,316							8,076								10,338

30 Year Expense Forecast - Detailed

Third Draft

Current Life
Replacement Useful /

Prepared for the 2012/2013 Fiscal Year

Reserve Component	Cost	Remaining	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
04000 - Structural Repairs																	
290 - Ceilings {3,500 Sq. Ft. Acoustic Ceilings}	5,022	30	14														7,097
300 - Trellis {Shuffleboard Area}	1,025	20	10										1,312				
994 - Miscellaneous {5 Wood Planter Boxes}	2,562	10	7							3,046							
Total 04000 - Structural Repairs	8,610									3,046			1,312				7,097
05000 - Roofing																	
200 - Low Slope: BUR {16 Squares- Community Center}	4,920	20	9									6,144					
442 - Pitched: Dimensional Composition {74 Squares- Community Center}	30,340	25	19														
448 - Pitched: Dimensional Composition {30 Squares- Harvey House}	12,300	25	14														17,380
Total 05000 - Roofing	47,560											6,144					17,380
08000 - Rehab																	
104 - General {1,944 Sq. Ft. Harvey House Interior}	5,832	10	4				6,437										8,240
108 - General {2,300 Sq. Ft. [4] Comm.Ctr.Offices}	3,450	20	9									4,309					
120 - General {Main Room}	3,075	20	9									3,840					
222 - Restrooms {2 Restrooms}	3,000	20	9									3,747					
230 - Kitchen {Kitchen}	3,075	20	9									3,840					
Total 08000 - Rehab	18,432						6,437					15,736					8,240
17000 - Tennis Court																	
100 - Reseal {7,200 Tennis Court}	738	7	3			795						945					
500 - Resurface {7,200 Sq. Ft. Tennis Court}	8,856	21	10										11,336				
Total 17000 - Tennis Court	9,594					795							12,281				
17500 - Basketball / Sport Court																	
200 - Seal & Striping {6,993 Sq. Ft. Asphalt Basketball Court}	717	7	3			772						918					
400 - Overlay {6,993 Sq. Ft. Asphalt Basketball Court}	7,168	21	10										9,175				
Total 17500 - Basketball / Sport Court	7,885					772							10,093				
18000 - Landscaping																	
102 - Irrigation: Misc. {Irrigation Items}	1,025	3	1		1,051		1,131			1,218			1,312			1,413	
422 - General Repairs/Upgrades {Landscaped Area}	1,025	3	1		1,051		1,131			1,218			1,312			1,413	
Total 18000 - Landscaping	2,050				2,101		2,263			2,437			2,624			2,826	
19000 - Fencing																	
050 - Chain Link {128 Lin. Ft. [16] Horseshoe Backstops}	1,443	30	21														
112 - Chain Link: 6' {110 Lin. Ft. Perimeter}	1,353	30	19														
114 - Chain Link: 6' {665 Lin. Ft. Harvey House Perimeter}	8,179	30	19														

30 Year Expense Forecast - Detailed

Third Draft

Current Life
Replacement Useful /

Prepared for the 2012/2013 Fiscal Year

Reserve Component	Cost	Remaining	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
122 - Chain Link: 8' { 336 Lin. Ft. Perimeter & Utility Enclosure}	4,822	30	19														
132 - Chain Link: 10' { 360 Lin. Ft. Tennis Court Perimeter}	6,642	30	19														
190 - Chain Link: Slats { 136 Lin. Ft. Utility Enclosure}	1,394	30	12												1,875		
220 - Wrought Iron: 4' { 160 Lin. Ft. Building Perimeter}	4,920	30	19														
310 - Wood: 3' { 198 Lin. Ft. Wood Rail Fence}	3,044	15	9									3,802					
320 - Wood: 4' { 145 Lin. Ft. Harvey House Perimeter}	2,675	15	11											3,510			
340 - Wood: 6' { 200 Lin. Ft. Perimeter}	5,125	15	10										6,560				
420 - Masonry Wall: On-going Maint. { 180 Building Exterior}	922	5	3			993					1,124					1,272	
514 - Post & Cable { 650 Lin. Ft. Perimeter}	13,325	25	12												17,921		
Total 19000 - Fencing	53,845					993					1,124	3,802	6,560	3,510	19,795	1,272	
19500 - Retaining Wall																	
990 - Miscellaneous { 185 Lin. Ft. Keystone Retaining Wall}	1,896	20	16														
Total 19500 - Retaining Wall	1,896																
20000 - Lighting																	
540 - Parking Lot { 3 Parking Lot}	6,765	25	19														
Total 20000 - Lighting	6,765																
21000 - Signage																	
792 - Monument { Oak Lane Frontage}	1,537	10	4				1,697										2,172
Total 21000 - Signage	1,537						1,697										2,172
22000 - Office Equipment																	
200 - Computers, Misc. { 4 Offices}	10,250	8	3			11,038								13,449			
Total 22000 - Office Equipment	10,250					11,038								13,449			
23000 - Mechanical Equipment																	
200 - HVAC { 3 Building Units}	15,375	15	9									19,201					
202 - HVAC { 2 Building Units}	10,250	15	15														
Total 23000 - Mechanical Equipment	25,625											19,201					
24000 - Furnishings																	
110 - Miscellaneous { 155 Main Room Furnishings}	7,944	20	9									9,921					
400 - Miscellaneous { 8 Entry Furnishings}	4,100	15	7							4,874							
640 - Modular Office Desk { 4 Offices}	9,840	20	9									12,289					
Total 24000 - Furnishings	21,884									4,874		22,209					
25000 - Flooring																	
200 - Carpeting { 314 Sq. Yds. Carpeted Rooms}	10,299	10	4				11,368										14,552

30 Year Expense Forecast - Detailed

Third Draft

Current Life
Replacement Useful /
Cost Remaining

Prepared for the 2012/2013 Fiscal Year

Reserve Component	Cost	Remaining	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
400 - Tile { 1,942 Sq. Ft. Restrooms & Kitchen}	11,943	20	9									14,916					
600 - Vinyl { 89 Sq. Yds. Main Room}	2,372	30	14														3,351
Total 25000 - Flooring	24,614						11,368					14,916					17,904
25500 - Wallcoverings																	
100 - Wallpaper { 94 Sq. Yds. Main Room Wallcovering}	2,890	20	9									3,610					
900 - Miscellaneous { 1,660 Sq. Ft. Wood Paneling}	11,910	20	9									14,875					
Total 25500 - Wallcoverings	14,801											18,484					
26000 - Outdoor Equipment																	
060 - Flag Pole { Flag Pole}	4,100	20	0	4,100													
102 - Tot Lot: Play Equipment { 10 Smaller Structures}	10,250	20	8								12,489						
108 - Tot Lot: Play Equipment { Large Structure}	10,250	20	8								12,489						
180 - Bike Rack { 4 Metal Bike Racks}	410	20	13													565	
200 - Pedestal Grill BBQ { 2 Picnic Area}	615	15	7							731							
284 - Picnic Tables { 6 Tot Lot Area}	3,690	20	5					4,175									
308 - Benches { 7 Outdoor Benches}	4,305	12	5					4,871									
482 - Drinking Fountain { Tot Lot Area}	2,460	20	9								3,072						
840 - Shade Structure { 400 Sq. Ft. Metal Gazebo}	12,300	30	24														
904 - Miscellaneous { Miscellaneous Outdoor Items}	1,537	10	5					1,740									
Total 26000 - Outdoor Equipment	49,917			4,100				10,785		731	24,977	3,072				565	
27000 - Appliances																	
080 - Warming Drawers { Kitchen}	2,050	15	7							2,437							
082 - Warming Drawers { Kitchen}	2,050	15	7							2,437							
200 - Refrigerator { Kitchen}	1,025	10	4				1,131										1,448
220 - Refrigerator: Commercial: Large { Kitchen}	4,100	15	14														5,793
270 - Stove / Oven: Commercial grade 6-burner { Kitchen}	4,100	20	9								5,120						
284 - Microwave Oven { 2 Kitchen}	615	10	4				679										869
296 - Stove: Exhaust Hood w/ Fan { Kitchen}	2,665	20	9								3,328						
940 - Drinking Fountain { Entry Area}	2,460	15	13													3,391	
970 - Dishwasher { Kitchen}	1,000	12	6						1,160								
Total 27000 - Appliances	20,065						1,810		1,160	4,874		8,449				3,391	8,110
Total [Community Center Park] Expenditures Inflated @ 2.50%				4,100	17,808	8,254	20,221	31,652	26,082	12,355	25,300	33,594	123,073	32,871	25,445	108,992	71,241

Depot Park

01000 - Paving

30 Year Expense Forecast - Detailed

Third Draft

Current Life
Replacement Useful /

Prepared for the 2012/2013 Fiscal Year

Reserve Component	Cost	Remaining	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
106 - Asphalt: Sealing { 1,428 Sq. Ft. Parking Area}	220	5	1	225					255					288			
206 - Asphalt: Ongoing Repairs { 1,428 Sq. Ft. Parking Area (5%)}	238	5	1	244					276					312			
306 - Asphalt: Petromat Overlay { 1,428 Sq. Ft. Parking Area}	2,342	25	10										2,998				
Total 01000 - Paving	2,799			469					530				2,998	600			
02000 - Concrete																	
200 - Sidewalks, Curbs & Gutters { 2,933 Sq. Ft. All Concrete (3%)}	1,203	3	1	1,233			1,327			1,429			1,539			1,658	
Total 02000 - Concrete	1,203			1,233			1,327			1,429			1,539			1,658	
03000 - Painting: Exterior																	
140 - Surface Restoration { 3,270 Sq. Ft. Depot Building}	3,352	6	3			3,609						4,186					
404 - Wrought Iron { 100 Lin. Ft. Gazebo}	922	6	1	946						1,097						1,272	
Total 03000 - Painting: Exterior	4,274			946		3,609				1,097			4,186			1,272	
04000 - Structural Repairs																	
200 - Wood: Siding & Trim { 3,270 Depot Building (5%)}	838	12	9									1,046					
Total 04000 - Structural Repairs	838											1,046					
04500 - Decking/Balconies																	
520 - Railing: Wood { 104 Lin. Ft. Depot Building}	2,452	15	9									3,062					
Total 04500 - Decking/Balconies	2,452											3,062					
05000 - Roofing																	
444 - Pitched: Dimensional Composition { 23 Squares- Depot Building}	9,430	25	19														
500 - Pitched: Wood Shake { 6 Squares- Gazebo}	3,690	15	8								4,496						
700 - Gutters / Downspouts { 200 Lin. Ft. Depot Building}	1,230	25	19														
Total 05000 - Roofing	14,350										4,496						
08000 - Rehab																	
224 - Restrooms { 2 Depot Building Restrooms}	3,000	20	14														4,239
Total 08000 - Rehab	3,000																4,239
18000 - Landscaping																	
104 - Irrigation: Misc. {Irrigated Areas}	1,025	3	1	1,051			1,131			1,218			1,312			1,413	
424 - General Repairs/Upgrades {Landscaped Areas}	1,025	3	1	1,051			1,131			1,218			1,312			1,413	
Total 18000 - Landscaping	2,050			2,101			2,263			2,437			2,624			2,826	
19000 - Fencing																	
116 - Chain Link: 6' { 36 Lin. Ft. HVAC Enclosure}	922	20	13													1,272	
222 - Wrought Iron: 4' { 100 Lin. Ft. Gazebo}	3,075	30	14														4,345

30 Year Expense Forecast - Detailed

Third Draft

Current Life
Replacement Useful /

Prepared for the 2012/2013 Fiscal Year

Reserve Component	Cost	Remaining	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
516 - Post & Cable { 250 Lin. Ft. Perimeter Fencing}	5,125	25	13													7,065	
Total 19000 - Fencing	9,122															8,337	4,345
20000 - Lighting																	
104 - Exterior: Misc. Fixtures { 7 Exterior Lights}	3,587	15	10										4,592				
Total 20000 - Lighting	3,587												4,592				
23000 - Mechanical Equipment																	
204 - HVAC { 2 Trane HVAC}	10,250	15	10										13,121				
Total 23000 - Mechanical Equipment	10,250												13,121				
26000 - Outdoor Equipment																	
204 - Pedestal Grill BBQ { Gazebo Area}	512	20	9									640					
906 - Miscellaneous { Miscellaneous Park Items}	1,537	20	11											2,017			
Total 26000 - Outdoor Equipment	2,050											640		2,017			
Total [Depot Park] Expenditures Inflated @ 2.50%				4,748		3,609	3,590		530	4,963	4,496	8,934	24,875	2,617		14,092	8,584
Northbrook Park																	
01000 - Paving																	
108 - Asphalt: Sealing { 7,804 Sq. Ft. Sport Court & Driveway}	1,200	5	2		1,261					1,426					1,614		
208 - Asphalt: Ongoing Repairs { 7,804 Sq. Ft. Sport Court & Driveway (5%)}	1,300	5	2		1,366					1,545					1,748		
408 - Asphalt: Major Repairs { 7,804 Sq. Ft. Sport Court & Driveway}	39,995	25	17														
Total 01000 - Paving	42,495				2,626					2,971					3,362		
02000 - Concrete																	
222 - Walkways { 7,241 Sq. Ft. Walkways, Slabs & Tot Lot (2%)}	2,375	3	1	2,434			2,622			2,823			3,040			3,274	
Total 02000 - Concrete	2,375			2,434			2,622			2,823			3,040			3,274	
03000 - Painting: Exterior																	
142 - Surface Restoration { 20 Lin. Ft. Metal Vehicle Gate}	123	4	1	126				139				154				170	
406 - Wrought Iron { 40 Lin. Ft. Park Entrance}	369	4	1	378				417				461				509	
Total 03000 - Painting: Exterior	492			504				557				614				678	
18000 - Landscaping																	
106 - Irrigation: Misc. { Common Area}	1,025	3	1	1,051			1,131			1,218			1,312			1,413	
426 - General Repairs/Upgrades { Common Area}	1,025	3	1	1,051			1,131			1,218			1,312			1,413	
Total 18000 - Landscaping	2,050			2,101			2,263			2,437			2,624			2,826	
19000 - Fencing																	
118 - Chain Link: 6' { 505 Lin. Ft. East Perimeter (50%)}	3,106	30	21														

30 Year Expense Forecast - Detailed

Third Draft

Current Life
Replacement Useful /

Prepared for the 2012/2013 Fiscal Year

Reserve Component	Cost	Remaining	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
240 - Wrought Iron: 8' {40 Lin. Ft. Park Entrance}	1,845	30	19														
Total 19000 - Fencing	4,951																
21000 - Signage																	
720 - Entry Signs {Park Entrance}	512	10	5					580									
Total 21000 - Signage	512							580									
26000 - Outdoor Equipment																	
104 - Tot Lot: Play Equipment {Tot Lot}	10,250	20	10									13,121					
144 - Tot Lot: Safety Surface {Tot Lot}	1,537	5	3			1,656					1,873					2,119	
310 - Benches {2 Tot Lot}	1,230	12	6						1,426								
318 - Picnic Table: Metal {4 Picnic Area}	3,485	20	12												4,687		
908 - Miscellaneous {7 Exercise Stations}	2,152	15	7							2,559							
Total 26000 - Outdoor Equipment	18,655					1,656			1,426	2,559	1,873		13,121		4,687	2,119	
Total [Northbrook Park] Expenditures Inflated @ 2.50%				5,040	2,626	1,656	4,884	1,136	1,426	10,790	1,873	614	18,785		8,049	8,898	
Roy E Hayer Park																	
01000 - Paving																	
110 - Asphalt: Sealing {21,120 Sq. Ft. Parking Lot}	3,247	5	2		3,412					3,860					4,367		
210 - Asphalt: Ongoing Repairs {21,120 Sq. Ft. Parking Lot (2%)}	1,407	5	2		1,478					1,673					1,892		
310 - Asphalt: Petromat Overlay {21,120 Sq. Ft. Parking Lot}	34,637	25	12												46,583		
510 - Curbs: Concrete {315 Lin. Ft. Parking Lot}	2,583	15	7							3,070							
Total 01000 - Paving	41,874				4,890					8,603					52,842		
03000 - Painting: Exterior																	
144 - Surface Restoration {1,060 Sq. Ft. Restroom Building}	1,086	10	5					1,229									
Total 03000 - Painting: Exterior	1,086							1,229									
04000 - Structural Repairs																	
998 - Miscellaneous {200 Sq. Ft. [3] Horseshoe Pits}	1,230	5	3			1,325					1,499					1,696	
Total 04000 - Structural Repairs	1,230					1,325					1,499					1,696	
05000 - Roofing																	
446 - Pitched: Dimensional Composition {10 Squares- Restroom Building}	4,100	25	19														
Total 05000 - Roofing	4,100																
08000 - Rehab																	
226 - Restrooms {2 Restroom Building}	6,150	20	10										7,873				
Total 08000 - Rehab	6,150												7,873				
11000 - Gate Equipment																	

30 Year Expense Forecast - Detailed

Third Draft

Current Life
Replacement Useful /
Cost Remaining

Prepared for the 2012/2013 Fiscal Year

Reserve Component	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
910 - Vehicle Gate Replacement { Parking Entrance}	1,537	30	22												
Total 11000 - Gate Equipment	1,537														
18000 - Landscaping															
108 - Irrigation: Misc. {Irrigation Items}	1,025	3	1	1,051		1,131		1,218		1,312				1,413	
428 - General Repairs/Upgrades {Landscaped Areas}	1,025	3	1	1,051		1,131		1,218		1,312				1,413	
Total 18000 - Landscaping	2,050		2,101		2,263		2,437		2,624					2,826	
19000 - Fencing															
518 - Post & Cable {685 Lin. Ft. Perimeter}	14,042	25	14												19,842
Total 19000 - Fencing	14,042														19,842
21000 - Signage															
794 - Monument {Parking Lot Entrance}	1,537	10	7					1,828							
Total 21000 - Signage	1,537							1,828							
26000 - Outdoor Equipment															
208 - Pedestal Grill BBQ {2 Picnic Area}	615	15	4		679										
286 - Picnic Tables {10 Picnic Area}	6,150	20	9						7,681						
312 - Benches {3 Picnic Area}	1,845	15	9						2,304						
484 - Drinking Fountain {Restroom Building}	2,460	20	6				2,853								
910 - Miscellaneous {7 Miscellaneous Outdoor Items}	1,435	10	4		1,584										2,028
Total 26000 - Outdoor Equipment	12,505				2,263		2,853		9,985						2,028
Total [Roy E Hayer Park] Expenditures Inflated @ 2.50%		2,101	4,890	1,325	4,526	1,229	2,853	12,867	1,499	9,985	10,497		52,842	4,522	21,869
Westside Park															
01000 - Paving															
112 - Asphalt: Sealing {23,170 Sq. Ft. Paved Parking}	3,562	5	2	3,743				4,235					4,791		
212 - Asphalt: Ongoing Repairs {23,170 Sq. Ft. Paved Parking (2%)}	1,544	5	2	1,622				1,835					2,076		
312 - Asphalt: Petromat Overlay {23,170 Sq. Ft. Paved Parking}	37,999	25	12										51,104		
460 - Gravel {16,920 Sq. Ft. Unpaved Parking & Access Roads}	1,734	5	2	1,822				2,062					2,332		
Total 01000 - Paving	44,839			7,187				8,131					60,304		
02000 - Concrete															
902 - Miscellaneous {8,257 Sq. Ft. Slabs & Walkways (2%)}	2,708	3	1	2,776		2,989		3,219		3,467				3,733	
Total 02000 - Concrete	2,708			2,776		2,989		3,219		3,467				3,733	
03000 - Painting: Exterior															
148 - Surface Restoration {468 Sq. Ft. Backstop Wood & Score Table}	480	4	1	492		543			599					661	
Total 03000 - Painting: Exterior	480			492		543			599					661	

30 Year Expense Forecast - Detailed

Third Draft

Current Life
Replacement Useful /

Prepared for the 2012/2013 Fiscal Year

Reserve Component	Cost	Remaining	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
04000 - Structural Repairs																	
914 - Building Maintenance { Restroom Building}	3,075	20	14														4,345
958 - Dry-rot repairs- ongoing { 468 Sq. Ft. Backstop Wood}	2,398	8	5					2,714								3,306	
Total 04000 - Structural Repairs	5,473							2,714								3,306	4,345
08000 - Rehab																	
228 - Restrooms { Restroom Building}	3,075	20	9									3,840					
Total 08000 - Rehab	3,075											3,840					
11000 - Gate Equipment																	
912 - Vehicle Gate Replacement { 3 Driveways & Access Road}	4,612	30	23														
Total 11000 - Gate Equipment	4,612																
18000 - Landscaping																	
110 - Irrigation: Misc. {Irrigation Items}	1,025	3	1		1,051		1,131			1,218			1,312			1,413	
430 - General Repairs/Upgrades { Landscaped Areas}	1,025	3	1		1,051		1,131			1,218			1,312			1,413	
Total 18000 - Landscaping	2,050				2,101		2,263			2,437			2,624			2,826	
19000 - Fencing																	
052 - Chain Link { 61 Lin. Ft. 20' Backstop Fencing}	2,251	30	19														
102 - Chain Link: 4' { 1,354 Lin. Ft. Dog Park Fencing}	15,266	30	28														
104 - Chain Link: 4' { 60 Lin. Ft. Ballfield}	676	30	19														
126 - Chain Link: 8' { 976 Lin. Ft. Ballfield}	14,006	30	19														
134 - Chain Link: 10' { 220 Lin. Ft. Ballfield}	4,059	30	19														
520 - Post & Cable { 749 Lin. Ft. Perimeter}	15,354	25	13													21,166	
Total 19000 - Fencing	51,613															21,166	
20000 - Lighting																	
108 - Exterior: Misc. Fixtures { 6 Light Poles (8%)}	1,281	5	9									1,600					1,810
Total 20000 - Lighting	1,281											1,600					1,810
21000 - Signage																	
796 - Monument { W 2nd St. Frontage}	1,537	10	4				1,697										2,172
Total 21000 - Signage	1,537						1,697										2,172
26000 - Outdoor Equipment																	
106 - Tot Lot: Play Equipment { Tot Lot Play Area}	15,375	20	16														
148 - Tot Lot: Safety Surface { Tot Lot Play Area}	1,537	10	5					1,740									
300 - Benches { 2 Ballfield Dugouts}	1,537	20	20														
314 - Benches { 2 Tot Lot Area}	1,230	20	17														
320 - Picnic Table: Metal { Tot Lot Area}	1,230	20	17														

30 Year Expense Forecast - Detailed

Third Draft

Current Life
Replacement Useful /

Prepared for the 2012/2013 Fiscal Year

Reserve Component	Cost	Remaining	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
434 - Bleachers { 2 Ballfield}	4,100	20	10									5,248					
444 - Bleachers: Aluminum { Ballfield}	3,075	20	12												4,136		
486 - Drinking Fountain { South Side Ballfield}	2,460	20	14														3,476
912 - Miscellaneous { Miscellaneous Outdoor Items}	1,537	10	4				1,697										2,172
916 - Miscellaneous { Electronic Scoreboard}	10,250	20	19														
Total 26000 - Outdoor Equipment	42,332						1,697	1,740				5,248			4,136		5,648
Total [Westside Park] Expenditures Inflated @ 2.50%				5,369	7,187		8,646	4,996		13,787		6,039	11,339		64,439	31,693	13,976

Elkhorn Equestrian Staging Area

18000 - Landscaping

432 - General Repairs/Upgrades { General Upkeep}		512	3	1		525		566		609		656			706				
Total 18000 - Landscaping		512				525		566		609		656			706				
Total [Elkhorn Equestrian Staging Area] Expenditures Inflated @ 2.50%						525		566		609		656			706				
Total Expenditures Inflated @ 2.50%					4,100	50,441	51,869	28,467	61,131	37,502	33,106	118,781	43,336	193,347	121,882	56,186	352,873	106,910	166,229
Total Current Replacement Cost		1,181,355																	

30 Year Expense Forecast - Detailed

Third Draft

Prepared for the 2012/2013 Fiscal Year

Reserve Component

2026/27 2027/28 2028/29 2029/30 2030/31 2031/32 2032/33 2033/34 2034/35 2035/36 2036/37 2037/38 2038/39 2039/40 2040/41

Babe Best Park

01000 - Paving

100 - Asphalt: Sealing { 25,370 Sq. Ft. Paved Parking Lot}			4,748					5,372					6,078	
200 - Asphalt: Ongoing Repairs { 25,370 Sq. Ft. Paved Parking Lot (2%)}			2,572					2,910					3,292	
300 - Asphalt: Petromat Overlay { 25,370 Sq. Ft. Paved Parking Lot}														
800 - Striping { Paved Parking Lot}			780					882					998	
Total 01000 - Paving			8,100					9,164					10,369	

02000 - Concrete

220 - Walkways { 1,590 Sq. Ft. Concrete Walkways (2%)}			794										1,016	
380 - Pad { 1,320 Sq. Ft. Dugout Slabs (2%)}			643			692		745			803			864
Total 02000 - Concrete			643	794		692		745			803		1,016	864

03000 - Painting: Exterior

120 - Surface Restoration { 1,040 Sq. Ft. Snack Bar/Restroom Building}			1,622										2,076	
122 - Surface Restoration { 750 Sq. Ft. Backstop Wood}			1,170					1,323					1,497	
Total 03000 - Painting: Exterior			2,792					1,323					3,574	

04000 - Structural Repairs

910 - Building Maintenance { 1,040 Sq. Ft. Restroom/Snack Bar}			8,110											
950 - Dry-rot repairs- ongoing { 750 Sq. Ft. Backstop Wood (16.7%)}			1,902					2,152					2,435	
990 - Miscellaneous { 391 Sq. Ft. Shade Structure Repairs}			1,485				1,680				1,900			
Total 04000 - Structural Repairs			1,485	1,902	8,110		1,680	2,152			1,900		2,435	

05000 - Roofing

440 - Pitched: Dimensional Composition { 4 Squares- Shade Structure}											3,801			
650 - Pitched: Fibrous Cement { 7 Squares- Restroom/Snack Bar}						6,882								
Total 05000 - Roofing						6,882					3,801			

08000 - Rehab

100 - General { 24 Lin. Ft. Metal Gates}			780					882					998	
220 - Restrooms { 2 Restrooms}			6,239										7,986	
Total 08000 - Rehab			7,018					882					8,984	

18000 - Landscaping

100 - Irrigation: Misc. { Common Area}			1,522			1,639		1,765			1,900			2,046
420 - General Repairs/Upgrades { Common Area}			2,282			2,458		2,647			2,850			3,070
Total 18000 - Landscaping			3,804			4,097		4,412			4,751			5,116

30 Year Expense Forecast - Detailed

Third Draft

Prepared for the 2012/2013 Fiscal Year

Reserve Component

2026/27 2027/28 2028/29 2029/30 2030/31 2031/32 2032/33 2033/34 2034/35 2035/36 2036/37 2037/38 2038/39 2039/40 2040/41

19000 - Fencing

100 - Chain Link: 4' { 1,119 Lin. Ft. Ballfield Perimeters}														
108 - Chain Link: 6' { 1,043 Lin. Ft. Ballfield Perimeters}	18,580													
120 - Chain Link: 8' { 202 Lin. Ft. Ballfield Perimeters}		4,303												
130 - Chain Link: 10' { 440 Lin. Ft. Backstops & Dugouts}			12,352											
510 - Post & Cable { 1,086 Lin. Ft. Perimeter}														
Total 19000 - Fencing	18,580	4,303	12,352											

21000 - Signage

790 - Monument {Park Entrance}									2,781					
Total 21000 - Signage									2,781					

26000 - Outdoor Equipment

100 - Tot Lot: Play Equipment {Tot Lot}														
140 - Tot Lot: Safety Surface {Tot Lot}	761			819			882			950			1,023	
280 - Picnic Tables { 7 Picnic Area}														
302 - Benches { 8 Dugout Benches}	7,126													
316 - Benches { 2 Tot Lot}			1,560											2,098
430 - Bleachers { 4 Wood Bleachers}														12,585
440 - Bleachers: Aluminum { 4 Aluminum Bleachers}	12,173													
480 - Drinking Fountain { 4 Ballfields & Restrooms}														
900 - Miscellaneous { Electronic Scoreboard}														
Total 26000 - Outdoor Equipment	7,126	12,934	1,560	819			882			950			1,023	14,683
Total [Babe Best Park] Expenditures Inflated @ 2.50%	27,190	23,586	40,726	12,490	1,680	2,152	17,409		2,781	12,204	2,435	23,942	7,004	14,683

Central Park Horse Arena/BMX Track

01000 - Paving

102 - Asphalt: Sealing { 29,154 Sq. Ft. Access Road & Parking}	5,323					6,023				6,814				
202 - Asphalt: Ongoing Repairs { 29,154 Sq. Ft. Access Road & Parking (2%)}	2,883					3,262				3,691				
302 - Asphalt: Petromat Overlay { 29,154 Sq. Ft. Access Road & Parking}	70,978													
462 - Gravel { 41,350 Sq. Ft. Access Road & Parking (5%)}	3,146					3,559				4,027				
502 - Curbs: Concrete { 150 Lin. Ft. Parking Lot}	1,826									2,337				
802 - Striping {Parking Lot}	761					861				974				
Total 01000 - Paving	84,918					13,705				17,844				

03000 - Painting: Exterior

30 Year Expense Forecast - Detailed

Third Draft

Prepared for the 2012/2013 Fiscal Year

Reserve Component	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41
126 - Surface Restoration { 1,762 Sq. Ft. Wood Booths}			2,748					3,109					3,518		
130 - Surface Restoration { 1,424 Sq. Ft. Wood Bleachers}			2,221					2,513					2,843		
132 - Surface Restoration { 6 Wood Benches in Pens}			1,872					2,118					2,396		
400 - Wrought Iron { 1,928 Lin. Ft. Tubular Steel Fencing}			18,042					20,413					23,095		
Total 03000 - Painting: Exterior			24,883					28,153					31,852		
04000 - Structural Repairs															
954 - Dry-rot repairs- ongoing { 1,762 Sq. Ft. Wood Booths (16.7%)}			4,601					5,206					5,890		
Total 04000 - Structural Repairs			4,601					5,206					5,890		
18000 - Landscaping															
460 - General Repairs/Upgrades { Open Area}	2,227	2,282	2,339	2,398	2,458	2,519	2,582	2,647	2,713	2,781	2,850	2,922	2,995	3,070	3,146
Total 18000 - Landscaping	2,227	2,282	2,339	2,398	2,458	2,519	2,582	2,647	2,713	2,781	2,850	2,922	2,995	3,070	3,146
19000 - Fencing															
110 - Chain Link: 6' { 24 Lin. Ft. Entrance Gates}					590										
210 - Wrought Iron: 3' { 72 Lin. Ft. Tubular Steel Hitching Posts [6]}					2,950										
224 - Wrought Iron: 5' { 956 Lin. Ft. 5' Tubular Steel Fencing}					53,262										
230 - Wrought Iron: 6' { 900 Lin. Ft. 6' Tubular Steel Fencing}					53,091										
512 - Post & Cable { 728 Lin. Ft. Perimeter Paved Parking}															
780 - Gates { 14 Lin. Ft. Access Road Gate}															1,468
Total 19000 - Fencing					109,892										1,468
20000 - Lighting															
100 - Exterior: Misc. Fixtures { 8 Athletic Field Lighting (13%)}					4,097					4,635					5,244
Total 20000 - Lighting					4,097					4,635					5,244
21000 - Signage															
710 - Entry Signs { Main Entrance Sign}								1,765							
Total 21000 - Signage								1,765							
24500 - Audio / Visual															
300 - PA System { 6 Speakers}		2,282										2,922			
Total 24500 - Audio / Visual		2,282										2,922			
26000 - Outdoor Equipment															
282 - Picnic Tables { 5 Common Area}															5,244
304 - Benches { 2 Common Area}					1,639										
306 - Benches { 6 Wood Benches in Pens}					5,899										
380 - Garbage Receptacles { 15 Trash Cans}															

30 Year Expense Forecast - Detailed

Third Draft

Prepared for the 2012/2013 Fiscal Year

Reserve Component

2026/27 2027/28 2028/29 2029/30 2030/31 2031/32 2032/33 2033/34 2034/35 2035/36 2036/37 2037/38 2038/39 2039/40 2040/41

432 - Bleachers { 2 Wood Bleachers}															
442 - Bleachers: Aluminum { 2 Aluminum Bleachers}															
450 - Bleachers { 2 BMX Bleachers}															
Total 26000 - Outdoor Equipment					7,538										5,244
Total [Central Park Horse Arena/BMX Track] Expenditures Inflated @ 2.50%	2,227	89,482	31,823	2,398	123,984	2,519	16,288	37,770	2,713	7,416	2,850	23,687	40,736	3,070	15,102

Community Center Park

01000 - Paving

104 - Asphalt: Sealing { 35,650 Sq. Ft. Parking Lot}			8,340					9,436					10,676		
204 - Asphalt: Ongoing Repairs { 35,650 Sq. Ft. Parking Lot (2%)}			3,614					4,089					4,626		
304 - Asphalt: Petromat Overlay { 35,650 Sq. Ft. Parking Lot}															
464 - Gravel { 18,200 Sq. Ft. Harvey House Yard}	6,755									8,646					
Total 01000 - Paving	6,755		11,954					13,525		8,646			15,303		

02000 - Concrete

900 - Miscellaneous { 18,209 Sq. Ft. All Concrete Flatwork (2%)}		8,866					10,031					11,350			
Total 02000 - Concrete		8,866					10,031					11,350			

03000 - Painting: Exterior

134 - Surface Restoration { 5,400 Sq. Ft. Building Surface}			8,633					9,767						11,051	
136 - Surface Restoration { 483 Sq. Ft. Wood Trellis}		735					832					941			
138 - Surface Restoration { 3,108 Sq. Ft. Harvey House}		4,729										6,054			
402 - Wrought Iron { 160 Lin. Ft. 4' Wrought Iron Fencing}			2,246				2,479			2,736					3,020
410 - Wrought Iron Gates { 12 Building Perimeter}			11,230				12,395			13,682					15,102
450 - Wood Fencing { 1,200 Sq. Ft. Perimeter}				959					1,085					1,228	
Total 03000 - Painting: Exterior		5,464	13,475	9,592			15,706		10,852	16,419	6,995		12,278	18,123	

03500 - Painting: Interior

100 - Building { 7,138 Sq. Ft. All Interior Spaces}										13,233					
Total 03500 - Painting: Interior										13,233					

04000 - Structural Repairs

290 - Ceilings { 3,500 Sq. Ft. Acoustic Ceilings}															
300 - Trellis { Shuffleboard Area}															
994 - Miscellaneous { 5 Wood Planter Boxes}			3,899										4,991		
Total 04000 - Structural Repairs			3,899										4,991		

30 Year Expense Forecast - Detailed

Third Draft

Prepared for the 2012/2013 Fiscal Year

Reserve Component

2026/27 2027/28 2028/29 2029/30 2030/31 2031/32 2032/33 2033/34 2034/35 2035/36 2036/37 2037/38 2038/39 2039/40 2040/41

05000 - Roofing

200 - Low Slope: BUR { 16 Squares- Community Center}														10,068
442 - Pitched: Dimensional Composition { 74 Squares- Community Center}				48,503										
448 - Pitched: Dimensional Composition { 30 Squares- Harvey House}														
Total 05000 - Roofing				48,503										10,068

08000 - Rehab

104 - General { 1,944 Sq. Ft. Harvey House Interior}									10,548					
108 - General { 2,300 Sq. Ft. [4] Comm.Ctr.Offices}													7,060	
120 - General {Main Room}													6,293	
222 - Restrooms { 2 Restrooms}													6,139	
230 - Kitchen {Kitchen}													6,293	
Total 08000 - Rehab									10,548				25,785	

17000 - Tennis Court

100 - Reseal { 7,200 Tennis Court}			1,123						1,335					
500 - Resurface { 7,200 Sq. Ft. Tennis Court}														
Total 17000 - Tennis Court			1,123						1,335					

17500 - Basketball / Sport Court

200 - Seal & Striping { 6,993 Sq. Ft. Asphalt Basketball Court}			1,091						1,296					
400 - Overlay { 6,993 Sq. Ft. Asphalt Basketball Court}														
Total 17500 - Basketball / Sport Court			1,091						1,296					

18000 - Landscaping

102 - Irrigation: Misc. {Irrigation Items}		1,522		1,639			1,765		1,900				2,046	
422 - General Repairs/Upgrades { Landscaped Area}		1,522		1,639			1,765		1,900				2,046	
Total 18000 - Landscaping		3,043		3,277			3,529		3,801				4,093	

19000 - Fencing

050 - Chain Link { 128 Lin. Ft. [16] Horseshoe Backstops}							2,424							
112 - Chain Link: 6' {110 Lin. Ft. Perimeter}				2,163										
114 - Chain Link: 6' { 665 Lin. Ft. Harvey House Perimeter}				13,076										
122 - Chain Link: 8' { 336 Lin. Ft. Perimeter & Utility Enclosure}				7,708										
132 - Chain Link: 10' { 360 Lin. Ft. Tennis Court Perimeter}				10,618										
190 - Chain Link: Slats { 136 Lin. Ft. Utility Enclosure}														
220 - Wrought Iron: 4' { 160 Lin. Ft. Building Perimeter}				7,865										

30 Year Expense Forecast - Detailed

Third Draft

Prepared for the 2012/2013 Fiscal Year

Reserve Component	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41
310 - Wood: 3' { 198 Lin. Ft. Wood Rail Fence}										5,506					
320 - Wood: 4' { 145 Lin. Ft. Harvey House Perimeter}												5,084			
340 - Wood: 6' { 200 Lin. Ft. Perimeter}											9,501				
420 - Masonry Wall: On-going Maint. { 180 Building Exterior}				1,439					1,628					1,842	
514 - Post & Cable { 650 Lin. Ft. Perimeter}															
Total 19000 - Fencing				1,439	41,431		2,424		1,628	5,506	9,501	5,084		1,842	
19500 - Retaining Wall															
990 - Miscellaneous { 185 Lin. Ft. Keystone Retaining Wall}		2,815													
Total 19500 - Retaining Wall		2,815													
20000 - Lighting															
540 - Parking Lot { 3 Parking Lot}					10,815										
Total 20000 - Lighting					10,815										
21000 - Signage															
792 - Monument { Oak Lane Frontage}										2,781					
Total 21000 - Signage										2,781					
22000 - Office Equipment															
200 - Computers, Misc. { 4 Offices}					16,386								19,965		
Total 22000 - Office Equipment					16,386								19,965		
23000 - Mechanical Equipment															
200 - HVAC { 3 Building Units}										27,809					
202 - HVAC { 2 Building Units}			14,845												
Total 23000 - Mechanical Equipment			14,845							27,809					
24000 - Furnishings															
110 - Miscellaneous { 155 Main Room Furnishings}														16,256	
400 - Miscellaneous { 8 Entry Furnishings}								7,058							
640 - Modular Office Desk { 4 Offices}														20,137	
Total 24000 - Furnishings								7,058						36,393	
25000 - Flooring															
200 - Carpeting { 314 Sq. Yds. Carpeted Rooms}										18,628					
400 - Tile { 1,942 Sq. Ft. Restrooms & Kitchen}														24,441	
600 - Vinyl { 89 Sq. Yds. Main Room}															
Total 25000 - Flooring										18,628				24,441	
25500 - Wallcoverings															
100 - Wallpaper { 94 Sq. Yds. Main Room Wallcovering}														5,915	

30 Year Expense Forecast - Detailed

Third Draft

Prepared for the 2012/2013 Fiscal Year

Reserve Component 2026/27 2027/28 2028/29 2029/30 2030/31 2031/32 2032/33 2033/34 2034/35 2035/36 2036/37 2037/38 2038/39 2039/40 2040/41

900 - Miscellaneous { 1,660 Sq. Ft. Wood Paneling}																24,374
Total 25500 - Wallcoverings																30,289

26000 - Outdoor Equipment

060 - Flag Pole { Flag Pole}					6,718											
102 - Tot Lot: Play Equipment { 10 Smaller Structures}															20,464	
108 - Tot Lot: Play Equipment { Large Structure}															20,464	
180 - Bike Rack { 4 Metal Bike Racks}																
200 - Pedestal Grill BBQ { 2 Picnic Area}								1,059								
284 - Picnic Tables { 6 Tot Lot Area}											6,841					
308 - Benches { 7 Outdoor Benches}			6,551													8,810
482 - Drinking Fountain { Tot Lot Area}																5,034
840 - Shade Structure { 400 Sq. Ft. Metal Gazebo}										22,247						
904 - Miscellaneous { Miscellaneous Outdoor Items}	2,227										2,850					
Total 26000 - Outdoor Equipment	2,227		6,551			6,718		1,059		22,247	9,691			40,928		13,844

27000 - Appliances

080 - Warming Drawers { Kitchen}								3,529								
082 - Warming Drawers { Kitchen}								3,529								
200 - Refrigerator { Kitchen}										1,854						
220 - Refrigerator: Commercial: Large { Kitchen}																8,390
270 - Stove / Oven: Commercial grade 6-burner { Kitchen}																8,390
284 - Microwave Oven { 2 Kitchen}										1,112						
296 - Stove: Exhaust Hood w/ Fan { Kitchen}																5,454
940 - Drinking Fountain { Entry Area}														4,911		
970 - Dishwasher { Kitchen}				1,560												
Total 27000 - Appliances				1,560				7,058		2,966				4,911		22,234
Total [Community Center Park] Expenditures Inflated @ 2.50%	23,826	20,189	38,093	12,590	120,412	6,718	28,161	32,230	12,480	106,352	48,058	23,428	40,259	64,053		181,177

Depot Park

01000 - Paving

106 - Asphalt: Sealing { 1,428 Sq. Ft. Parking Area}		326						369						417		
206 - Asphalt: Ongoing Repairs { 1,428 Sq. Ft. Parking Area (5%)}		353						399						452		
306 - Asphalt: Petromat Overlay { 1,428 Sq. Ft. Parking Area}																
Total 01000 - Paving		679						768						869		

02000 - Concrete

30 Year Expense Forecast - Detailed

Third Draft

Prepared for the 2012/2013 Fiscal Year

Reserve Component	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41
200 - Sidewalks, Curbs & Gutters { 2,933 Sq. Ft. All Concrete (3%)}		1,785			1,922			2,070			2,229			2,401	
Total 02000 - Concrete		1,785			1,922			2,070			2,229			2,401	
03000 - Painting: Exterior															
140 - Surface Restoration { 3,270 Sq. Ft. Depot Building}		4,854					5,630						6,529		
404 - Wrought Iron { 100 Lin. Ft. Gazebo}					1,475						1,710				
Total 03000 - Painting: Exterior		4,854			1,475		5,630				1,710		6,529		
04000 - Structural Repairs															
200 - Wood: Siding & Trim { 3,270 Depot Building (5%)}							1,407								
Total 04000 - Structural Repairs							1,407								
04500 - Decking/Balconies															
520 - Railing: Wood { 104 Lin. Ft. Depot Building}										4,435					
Total 04500 - Decking/Balconies										4,435					
05000 - Roofing															
444 - Pitched: Dimensional Composition { 23 Squares- Depot Building}					15,075										
500 - Pitched: Wood Shake { 6 Squares- Gazebo}									6,511						
700 - Gutters / Downspouts { 200 Lin. Ft. Depot Building}					1,966										
Total 05000 - Roofing					17,042				6,511						
08000 - Rehab															
224 - Restrooms { 2 Depot Building Restrooms}															
Total 08000 - Rehab															
18000 - Landscaping															
104 - Irrigation: Misc. {Irrigated Areas}		1,522			1,639			1,765			1,900			2,046	
424 - General Repairs/Upgrades { Landscaped Areas}		1,522			1,639			1,765			1,900			2,046	
Total 18000 - Landscaping		3,043			3,277			3,529			3,801			4,093	
19000 - Fencing															
116 - Chain Link: 6' { 36 Lin. Ft. HVAC Enclosure}															
222 - Wrought Iron: 4' { 100 Lin. Ft. Gazebo}															
516 - Post & Cable { 250 Lin. Ft. Perimeter Fencing}															
Total 19000 - Fencing															
20000 - Lighting															
104 - Exterior: Misc. Fixtures { 7 Exterior Lights}											6,651				
Total 20000 - Lighting											6,651				

30 Year Expense Forecast - Detailed

Third Draft

Prepared for the 2012/2013 Fiscal Year

Reserve Component

2026/27 2027/28 2028/29 2029/30 2030/31 2031/32 2032/33 2033/34 2034/35 2035/36 2036/37 2037/38 2038/39 2039/40 2040/41

23000 - Mechanical Equipment

204 - HVAC { 2 Trane HVAC}															19,003
Total 23000 - Mechanical Equipment															19,003

26000 - Outdoor Equipment

204 - Pedestal Grill BBQ { Gazebo Area}															1,049
906 - Miscellaneous { Miscellaneous Park Items}															
Total 26000 - Outdoor Equipment															1,049
Total [Depot Park] Expenditures Inflated @ 2.50%	4,854	5,507		23,716		7,805	5,599	6,511	4,435	33,394	869	6,529	6,494	1,049	

Northbrook Park

01000 - Paving

108 - Asphalt: Sealing { 7,804 Sq. Ft. Sport Court & Driveway}		1,826					2,066					2,337			
208 - Asphalt: Ongoing Repairs { 7,804 Sq. Ft. Sport Court & Driveway (5%)}		1,978					2,238					2,532			
408 - Asphalt: Major Repairs { 7,804 Sq. Ft. Sport Court & Driveway}			60,858												
Total 01000 - Paving			64,661				4,303					4,869			

02000 - Concrete

222 - Walkways { 7,241 Sq. Ft. Walkways, Slabs & Tot Lot (2%)}		3,526		3,797			4,089			4,403			4,742		
Total 02000 - Concrete		3,526		3,797			4,089			4,403			4,742		

03000 - Painting: Exterior

142 - Surface Restoration { 20 Lin. Ft. Metal Vehicle Gate}		187				207				228					252
406 - Wrought Iron { 40 Lin. Ft. Park Entrance}		561				620				684					755
Total 03000 - Painting: Exterior		749				826				912					1,007

18000 - Landscaping

106 - Irrigation: Misc. { Common Area}		1,522		1,639			1,765			1,900				2,046	
426 - General Repairs/Upgrades { Common Area}		1,522		1,639			1,765			1,900				2,046	
Total 18000 - Landscaping		3,043		3,277			3,529			3,801				4,093	

19000 - Fencing

118 - Chain Link: 6' { 505 Lin. Ft. East Perimeter (50%)}						5,216									
240 - Wrought Iron: 8' { 40 Lin. Ft. Park Entrance}				2,950											
Total 19000 - Fencing				2,950		5,216									

21000 - Signage

720 - Entry Signs { Park Entrance}		742								950					
Total 21000 - Signage		742								950					

26000 - Outdoor Equipment

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Rio Linda Elverta Recreation and Park District

2026/27 to 2040/41

30 Year Expense Forecast - Detailed

Third Draft

Prepared for the 2012/2013 Fiscal Year

Reserve Component	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41
104 - Tot Lot: Play Equipment { Tot Lot}															
144 - Tot Lot: Safety Surface { Tot Lot}				2,398					2,713					3,070	
310 - Benches { 2 Tot Lot}				1,918											
318 - Picnic Table: Metal { 4 Picnic Area}															
908 - Miscellaneous { 7 Exercise Stations}								3,706							
Total 26000 - Outdoor Equipment				4,316				3,706	2,713					3,070	
Total [Northbrook Park] Expenditures Inflated @ 2.50%	742	6,569	65,410	4,316	10,024		6,043	15,627	2,713		10,066		4,869	11,904	1,007

Roy E Hayer Park

01000 - Paving

110 - Asphalt: Sealing { 21,120 Sq. Ft. Parking Lot}			4,941					5,590					6,325		
210 - Asphalt: Ongoing Repairs { 21,120 Sq. Ft. Parking Lot (2%)}			2,141					2,422					2,741		
310 - Asphalt: Petromat Overlay { 21,120 Sq. Ft. Parking Lot}															
510 - Curbs: Concrete { 315 Lin. Ft. Parking Lot}								4,447							
Total 01000 - Paving			7,082					12,460					9,066		

03000 - Painting: Exterior

144 - Surface Restoration { 1,060 Sq. Ft. Restroom Building}	1,574										2,014				
Total 03000 - Painting: Exterior	1,574										2,014				

04000 - Structural Repairs

998 - Miscellaneous { 200 Sq. Ft. [3] Horseshoe Pits}				1,918				2,170						2,456	
Total 04000 - Structural Repairs				1,918				2,170						2,456	

05000 - Roofing

446 - Pitched: Dimensional Composition { 10 Squares- Restroom Building}					6,554										
Total 05000 - Roofing					6,554										

08000 - Rehab

226 - Restrooms { 2 Restroom Building}															
Total 08000 - Rehab															

11000 - Gate Equipment

910 - Vehicle Gate Replacement { Parking Entrance}								2,647							
Total 11000 - Gate Equipment								2,647							

18000 - Landscaping

108 - Irrigation: Misc. {Irrigation Items}		1,522			1,639			1,765			1,900			2,046	
428 - General Repairs/Upgrades { Landscaped Areas}		1,522			1,639			1,765			1,900			2,046	
Total 18000 - Landscaping		3,043			3,277			3,529			3,801			4,093	

30 Year Expense Forecast - Detailed

Third Draft

Prepared for the 2012/2013 Fiscal Year

Reserve Component

2026/27 2027/28 2028/29 2029/30 2030/31 2031/32 2032/33 2033/34 2034/35 2035/36 2036/37 2037/38 2038/39 2039/40 2040/41

19000 - Fencing

518 - Post & Cable { 685 Lin. Ft. Perimeter}

Total 19000 - Fencing

21000 - Signage

794 - Monument {Parking Lot Entrance}

2,339

2,995

Total 21000 - Signage

2,339

2,995

26000 - Outdoor Equipment

208 - Pedestal Grill BBQ { 2 Picnic Area}

983

286 - Picnic Tables { 10 Picnic Area}

12,585

312 - Benches { 3 Picnic Area}

3,337

484 - Drinking Fountain { Restroom Building}

4,675

910 - Miscellaneous { 7 Miscellaneous Outdoor Items}

2,596

Total 26000 - Outdoor Equipment

983

5,933

4,675

12,585

Total [Roy E Hayer Park] Expenditures Inflated @ 2.50%

1,574

3,043

9,422

1,918

10,815

18,636

2,170

5,933

5,815

4,675

12,060

6,549

12,585

Westside Park

01000 - Paving

112 - Asphalt: Sealing { 23,170 Sq. Ft. Paved Parking}

5,421

6,133

6,939

212 - Asphalt: Ongoing Repairs { 23,170 Sq. Ft. Paved Parking (2%)}

2,349

2,658

3,007

312 - Asphalt: Petromat Overlay { 23,170 Sq. Ft. Paved Parking}

460 - Gravel { 16,920 Sq. Ft. Unpaved Parking & Access Roads}

2,639

2,986

3,378

Total 01000 - Paving

10,408

11,776

13,324

02000 - Concrete

902 - Miscellaneous { 8,257 Sq. Ft. Slabs & Walkways (2%)}

4,020

4,330

4,663

5,021

5,407

Total 02000 - Concrete

4,020

4,330

4,663

5,021

5,407

03000 - Painting: Exterior

148 - Surface Restoration { 468 Sq. Ft. Backstop Wood & Score Table}

730

806

889

982

Total 03000 - Painting: Exterior

730

806

889

982

04000 - Structural Repairs

914 - Building Maintenance { Restroom Building}

958 - Dry-rot repairs- ongoing { 468 Sq. Ft. Backstop Wood}

4,028

4,908

Total 04000 - Structural Repairs

4,028

4,908

08000 - Rehab

228 - Restrooms { Restroom Building}

6,293

30 Year Expense Forecast - Detailed

Third Draft

Prepared for the 2012/2013 Fiscal Year

Reserve Component

2026/27 2027/28 2028/29 2029/30 2030/31 2031/32 2032/33 2033/34 2034/35 2035/36 2036/37 2037/38 2038/39 2039/40 2040/41

Total 08000 - Rehab

6,293

11000 - Gate Equipment

912 - Vehicle Gate Replacement { 3
Driveways & Access Road}

8,139

Total 11000 - Gate Equipment

8,139

18000 - Landscaping

110 - Irrigation: Misc. {Irrigation Items}

1,522

1,639

1,765

1,900

2,046

430 - General Repairs/Upgrades
{ Landscaped Areas}

1,522

1,639

1,765

1,900

2,046

Total 18000 - Landscaping

3,043

3,277

3,529

3,801

4,093

19000 - Fencing

052 - Chain Link { 61 Lin. Ft. 20' Backstop
Fencing}

3,598

102 - Chain Link: 4' { 1,354 Lin. Ft. Dog
Park Fencing}

30,479

104 - Chain Link: 4' { 60 Lin. Ft. Ballfield}

1,081

126 - Chain Link: 8' { 976 Lin. Ft. Ballfield}

22,390

134 - Chain Link: 10' { 220 Lin. Ft. Ballfield}

6,489

520 - Post & Cable { 749 Lin. Ft. Perimeter}

Total 19000 - Fencing

33,559

30,479

20000 - Lighting

108 - Exterior: Misc. Fixtures { 6 Light Poles
(8%)}

2,048

2,317

2,622

Total 20000 - Lighting

2,048

2,317

2,622

21000 - Signage

796 - Monument { W 2nd St. Frontage}

2,781

Total 21000 - Signage

2,781

26000 - Outdoor Equipment

106 - Tot Lot: Play Equipment { Tot Lot Play
Area}

22,824

148 - Tot Lot: Safety Surface { Tot Lot Play
Area}

2,227

2,850

300 - Benches { 2 Ballfield Dugouts}

2,519

314 - Benches { 2 Tot Lot Area}

1,872

320 - Picnic Table: Metal { Tot Lot Area}

1,872

434 - Bleachers { 2 Ballfield}

444 - Bleachers: Aluminum { Ballfield}

486 - Drinking Fountain { South Side
Ballfield}

912 - Miscellaneous { Miscellaneous Outdoor
Items}

2,781

916 - Miscellaneous { Electronic Scoreboard}

16,386

Total 26000 - Outdoor Equipment

2,227

22,824

3,743

16,386

2,519

2,781

2,850

30 Year Expense Forecast - Detailed

Third Draft

Prepared for the 2012/2013 Fiscal Year

Reserve Component	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41
Total [Westside Park] Expenditures Inflated @ 2.50%	2,227	29,888	14,882		59,600	2,519	4,834	19,968	8,139	7,879	12,561		13,324	39,979	14,805
Elkhorn Equestrian Staging Area															
18000 - Landscaping															
432 - General Repairs/Upgrades (General Upkeep)		761			819			882			950			1,023	
Total 18000 - Landscaping		761			819			882			950			1,023	
Total [Elkhorn Equestrian Staging Area] Expenditures Inflated @ 2.50%		761			819			882			950			1,023	
Total Expenditures Inflated @ 2.50%	62,640	179,025	200,356	21,223	361,861	13,437	65,283	148,122	34,728	134,795	125,900	55,094	141,719	140,074	240,408



Rio Linda Elverta Recreation and Park District

Section III

Third Draft

30 Year Reserve Funding Plan

Cash Flow Method

Prepared for the 2012/2013 Fiscal Year

	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
Beginning Balance	100,000	98,349	140,861	185,269	256,816	299,473	369,574	448,393	445,015	520,583
Inflated Expenditures @ 2.5%	4,100	50,441	51,869	28,467	61,131	37,502	33,106	118,781	43,336	193,347
Reserve Contribution	0	90,000	92,250	94,556	96,920	99,343	101,827	104,373	106,982	109,657
<i>Unit/month @ 1</i>	<i>0.00</i>	<i>7,500.00</i>	<i>7,687.50</i>	<i>7,879.67</i>	<i>8,076.67</i>	<i>8,278.58</i>	<i>8,485.58</i>	<i>8,697.75</i>	<i>8,915.17</i>	<i>9,138.08</i>
<i>Percentage Increase</i>		<i>0.0%</i>	<i>2.5%</i>	<i>2.5%</i>	<i>2.5%</i>	<i>2.5%</i>	<i>2.5%</i>	<i>2.5%</i>	<i>2.5%</i>	<i>2.5%</i>
Special Assessments / Other	0	0	0	0	0	0	0	0	0	0
Interest Pre Tax @ 2.50%	2,449	2,953	4,026	5,458	6,868	8,260	10,098	11,030	11,921	11,968
Ending Balance	98,349	140,861	185,269	256,816	299,473	369,574	448,393	445,015	520,583	448,861

	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31
Beginning Balance	448,861	450,480	521,502	296,820	318,547	283,820	356,250	315,870	256,182	379,756
Inflated Expenditures @ 2.5%	121,882	56,186	352,873	106,910	166,229	62,640	179,025	200,356	21,223	361,861
Reserve Contribution	112,398	115,208	118,088	121,040	124,066	127,168	130,347	133,606	136,946	140,370
<i>Unit/month @ 1</i>	<i>9,366.50</i>	<i>9,600.67</i>	<i>9,840.67</i>	<i>10,086.67</i>	<i>10,338.83</i>	<i>10,597.33</i>	<i>10,862.25</i>	<i>11,133.83</i>	<i>11,412.17</i>	<i>11,697.50</i>
<i>Percentage Increase</i>	<i>2.5%</i>	<i>2.5%</i>	<i>2.5%</i>	<i>2.5%</i>	<i>2.5%</i>	<i>2.5%</i>	<i>2.5%</i>	<i>2.5%</i>	<i>2.5%</i>	<i>2.5%</i>
Special Assessments / Other	0	0	0	0	0	0	0	0	0	0
Interest Pre Tax @ 2.50%	11,103	12,000	10,103	7,597	7,437	7,902	8,298	7,062	7,851	6,725
Ending Balance	450,480	521,502	296,820	318,547	283,820	356,250	315,870	256,182	379,756	164,991

	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41
Beginning Balance	164,991	301,189	391,939	404,817	536,654	574,392	626,099	754,911	803,457	859,213
Inflated Expenditures @ 2.5%	13,437	65,283	148,122	34,728	134,795	125,900	55,094	141,719	140,074	240,408
Reserve Contribution	143,879	147,476	151,163	154,942	158,816	162,786	166,856	171,027	175,303	179,686
<i>Unit/month @ 1</i>	<i>11,989.92</i>	<i>12,289.67</i>	<i>12,596.92</i>	<i>12,911.83</i>	<i>13,234.67</i>	<i>13,565.50</i>	<i>13,904.67</i>	<i>14,252.25</i>	<i>14,608.58</i>	<i>14,973.83</i>
<i>Percentage Increase</i>	<i>2.5%</i>	<i>2.5%</i>	<i>2.5%</i>	<i>2.5%</i>	<i>2.5%</i>	<i>2.5%</i>	<i>2.5%</i>	<i>2.5%</i>	<i>2.5%</i>	<i>2.5%</i>
Special Assessments / Other	0	0	0	0	0	0	0	0	0	0
Interest Pre Tax @ 2.50%	5,755	8,557	9,836	11,623	13,717	14,821	17,050	19,239	20,527	20,721
Ending Balance	301,189	391,939	404,817	536,654	574,392	626,099	754,911	803,457	859,213	819,212



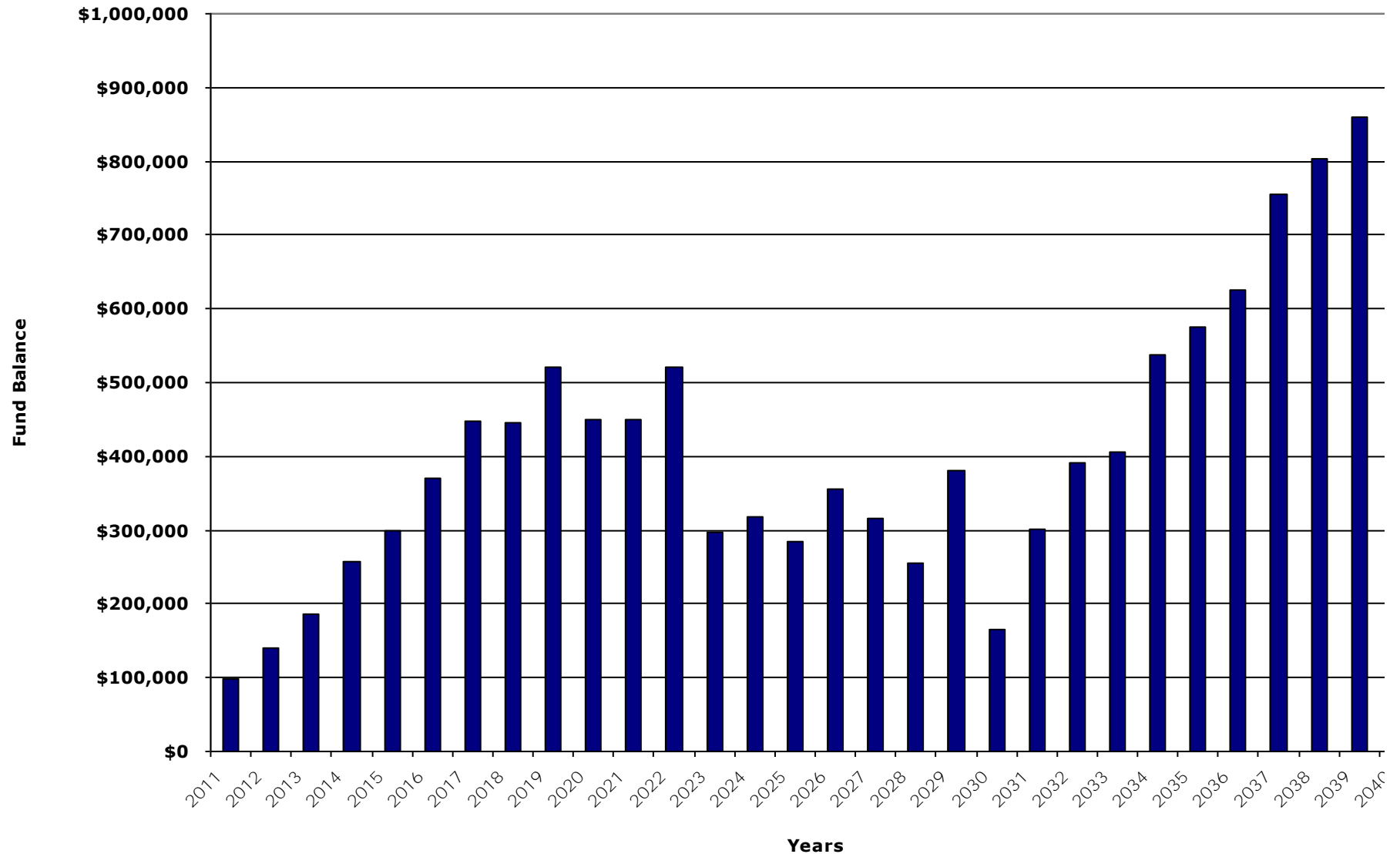
Rio Linda Elverta Recreation and Park District

30 Year Reserve Funding Plan

Cash Flow Method - Ending Balances

Third Draft

Prepared for the 2012/2013 Fiscal Year



30 Year Reserve Funding Plan Including Fully Funded Balance and % Funded

Prepared for the 2012/2013 Fiscal Year

Year	Beginning Balance	Fully Funded Balance	Percent Funded	Inflated Expenditures @ 2.50%	Reserve Contribution	Special Assessments & Other Contributions	Interest	Ending Balance
2011/12	100,000	526,114	18.7%	4,100	0	0	2,449	98,349
2012/13	98,349	613,256	23.0%	50,441	90,000	0	2,953	140,861
2013/14	140,861	658,863	28.1%	51,869	92,250	0	4,026	185,269
2014/15	185,269	706,213	36.4%	28,467	94,556	0	5,458	256,816
2015/16	256,816	780,860	38.4%	61,131	96,920	0	6,868	299,473
2016/17	299,473	826,088	44.7%	37,502	99,343	0	8,260	369,574
2017/18	369,574	899,618	49.8%	33,106	101,827	0	10,098	448,393
2018/19	448,393	981,776	45.3%	118,781	104,373	0	11,030	445,015
2019/20	445,015	980,511	53.1%	43,336	106,982	0	11,921	520,583
2020/21	520,583	1,058,944	42.4%	193,347	109,657	0	11,968	448,861
2021/22	448,861	988,034	45.6%	121,882	112,398	0	11,103	450,480
2022/23	450,480	991,124	52.6%	56,186	115,208	0	12,000	521,502
2023/24	521,502	1,064,212	27.9%	352,873	118,088	0	10,103	296,820
2024/25	296,820	837,670	38.0%	106,910	121,040	0	7,597	318,547
2025/26	318,547	860,291	33.0%	166,229	124,066	0	7,437	283,820
2026/27	283,820	825,457	43.2%	62,640	127,168	0	7,902	356,250
2027/28	356,250	898,781	35.1%	179,025	130,347	0	8,298	315,870
2028/29	315,870	857,567	29.9%	200,356	133,606	0	7,062	256,182
2029/30	256,182	796,453	47.7%	21,223	136,946	0	7,851	379,756
2030/31	379,756	920,493	17.9%	361,861	140,370	0	6,725	164,991
2031/32	164,991	701,628	42.9%	13,437	143,879	0	5,755	301,189
2032/33	301,189	837,652	46.8%	65,283	147,476	0	8,557	391,939
2033/34	391,939	927,239	43.7%	148,122	151,163	0	9,836	404,817
2034/35	404,817	937,546	57.2%	34,728	154,942	0	11,623	536,654
2035/36	536,654	1,067,813	53.8%	134,795	158,816	0	13,717	574,392
2036/37	574,392	1,102,329	56.8%	125,900	162,786	0	14,821	626,099
2037/38	626,099	1,150,475	65.6%	55,094	166,856	0	17,050	754,911
2038/39	754,911	1,276,141	63.0%	141,719	171,027	0	19,239	803,457
2039/40	803,457	1,319,992	65.1%	140,074	175,303	0	20,527	859,213
2040/41	859,213	1,370,556	59.8%	240,408	179,686	0	20,721	819,212



Rio Linda Elverta Recreation and Park District

Section V

Third Draft

Prepared for the 2012/2013 Fiscal Year

Reserve Fund Balance Forecast Component Method

Reserve Component	Current Repl. Cost	Useful Life	Remaining Life	Estimated Future Replacement Costs	Per Year	2011/2012 Fully Funded Balance	2012/2013 Fully Funded Balance	% Per Year Straight Line	2012/2013 Line Item Contribution based on Cash Flow Method
Babe Best Park									
01000 - Paving									
100 - Asphalt: Sealing { 25,370 Sq. Ft. Paved Parking Lot}	3,121	5	2	3,278	656	1,872	2,559	0.68%	610
200 - Asphalt: Ongoing Repairs { 25,370 Sq. Ft. Paved Parking Lot (2%)}	1,690	5	2	1,776	355	1,014	1,386	0.37%	330
300 - Asphalt: Petromat Overlay { 25,370 Sq. Ft. Paved Parking Lot}	41,607	25	12	55,957	2,238	21,636	23,882	2.31%	2,083
800 - Striping {Paved Parking Lot}	513	5	2	538	108	308	420	0.11%	100
Sub-total [01000 - Paving]	46,930			61,549	3,357	24,830	28,247	3.47%	3,123
02000 - Concrete									
220 - Walkways { 1,590 Sq. Ft. Concrete Walkways (2%)}	522	10	7	620	62	156	214	0.06%	58
380 - Pad { 1,320 Sq. Ft. Dugout Slabs (2%)}	433	3	1	444	148	289	444	0.15%	138
Sub-total [02000 - Concrete]	954			1,064	210	445	658	0.22%	195
03000 - Painting: Exterior									
120 - Surface Restoration { 1,040 Sq. Ft. Snack Bar/Restroom Building}	1,066	10	7	1,267	127	320	437	0.13%	118
122 - Surface Restoration { 750 Sq. Ft. Backstop Wood}	769	5	2	808	162	461	630	0.17%	150
Sub-total [03000 - Painting: Exterior]	1,835			2,075	288	781	1,067	0.30%	268
04000 - Structural Repairs									
910 - Building Maintenance { 1,040 Sq. Ft. Restroom/Snack Bar}	5,330	20	17	8,110	406	800	1,093	0.42%	377
950 - Dry-rot repairs- ongoing { 750 Sq. Ft. Backstop Wood (16.7%)}	1,281	5	1	1,313	263	1,025	1,313	0.27%	244
990 - Miscellaneous { 391 Sq. Ft. Shade Structure Repairs}	1,025	5	5	1,160	193	171	210	0.20%	180
Sub-total [04000 - Structural Repairs]	7,636			10,583	861	1,995	2,616	0.89%	802
05000 - Roofing									
440 - Pitched: Dimensional Composition { 4 Squares- Shade Structure}	2,050	25	25	3,801	146	79	84	0.15%	136
650 - Pitched: Fibrous Cement { 7 Squares- Restroom/Snack Bar}	4,305	30	19	6,882	229	1,579	1,765	0.24%	213

Reserve Fund Balance Forecast

Component Method

Third Draft
Prepared for the 2012/2013 Fiscal Year

Reserve Component	Current Repl. Cost	Useful Life	Remaining Life	Estimated Future Replacement Costs	Per Year	2011/2012 Fully Funded Balance	2012/2013 Fully Funded Balance	% Per Year Straight Line	2012/2013 Line Item Contribution based on Cash Flow Method
Sub-total [05000 - Roofing]	6,355			10,683	376	1,657	1,849	0.39%	349
08000 - Rehab									
100 - General { 24 Lin. Ft. Metal Gates}	513	5	2	538	108	308	420	0.11%	100
220 - Restrooms { 2 Restrooms}	4,100	10	7	4,874	487	1,230	1,681	0.50%	453
Sub-total [08000 - Rehab]	4,612			5,412	595	1,538	2,101	0.62%	554
18000 - Landscaping									
100 - Irrigation: Misc. { Common Area}	1,025	3	1	1,051	350	683	1,051	0.36%	326
420 - General Repairs/Upgrades { Common Area}	1,538	3	1	1,576	525	1,025	1,576	0.54%	489
Sub-total [18000 - Landscaping]	2,563			2,627	876	1,708	2,627	0.91%	815
19000 - Fencing									
100 - Chain Link: 4' { 1,119 Lin. Ft. Ballfield Perimeters}	12,617	30	14	17,827	594	6,729	7,328	0.61%	553
108 - Chain Link: 6' { 1,043 Lin. Ft. Ballfield Perimeters}	12,829	30	15	18,580	619	6,414	7,013	0.64%	576
120 - Chain Link: 8' { 202 Lin. Ft. Ballfield Perimeters}	2,899	30	16	4,303	143	1,353	1,486	0.15%	133
130 - Chain Link: 10' { 440 Lin. Ft. Backstops & Dugouts}	8,118	30	17	12,352	412	3,518	3,883	0.43%	383
510 - Post & Cable { 1,086 Lin. Ft. Perimeter}	22,263	25	9	27,803	1,112	14,248	15,517	1.15%	1,035
Sub-total [19000 - Fencing]	58,725			80,866	2,881	32,262	35,227	2.98%	2,680
21000 - Signage									
790 - Monument { Park Entrance}	1,538	10	4	1,697	170	923	1,103	0.18%	158
26000 - Outdoor Equipment									
100 - Tot Lot: Play Equipment { Tot Lot}	10,250	20	10	13,121	656	5,125	5,778	0.68%	610
140 - Tot Lot: Safety Surface { Tot Lot}	513	3	1	525	175	342	525	0.18%	163
280 - Picnic Tables { 7 Picnic Area}	4,305	20	11	5,649	282	1,937	2,206	0.29%	263
302 - Benches { 8 Dugout Benches}	4,920	20	15	7,126	356	1,230	1,513	0.37%	331
316 - Benches { 2 Tot Lot}	1,025	12	5	1,160	97	598	700	0.10%	90
430 - Bleachers { 4 Wood Bleachers}	6,150	20	9	7,681	384	3,383	3,782	0.40%	357
440 - Bleachers: Aluminum { 4 Aluminum Bleachers}	8,200	20	16	12,173	609	1,640	2,101	0.63%	566
480 - Drinking Fountain { 4 Ballfields & Restrooms}	9,840	20	14	13,904	695	2,952	3,530	0.72%	647
900 - Miscellaneous { Electronic Scoreboard}	7,687	20	14	10,862	543	2,306	2,758	0.56%	505

Reserve Fund Balance Forecast

Component Method

Third Draft
Prepared for the 2012/2013 Fiscal Year

Reserve Component	Current Repl. Cost	Useful Life	Remaining Life	Estimated Future Replacement Costs	Per Year	2011/2012 Fully Funded Balance	2012/2013 Fully Funded Balance	% Per Year Straight Line	2012/2013 Line Item Contribution based on Cash Flow Method
Sub-total [26000 - Outdoor Equipment]	52,890			72,199	3,797	19,513	22,895	3.93%	3,533
Sub-total Babe Best Park	184,038			248,755	13,411	85,651	98,391	13.86%	12,478

Central Park Horse Arena/BMX Track

01000 - Paving

102 - Asphalt: Sealing { 29,154 Sq. Ft. Access Road & Parking}	3,586	5	1	3,676	735	2,869	3,676	0.76%	684
202 - Asphalt: Ongoing Repairs { 29,154 Sq. Ft. Access Road & Parking (2%)}	1,942	5	1	1,991	398	1,554	1,991	0.41%	370
302 - Asphalt: Petromat Overlay { 29,154 Sq. Ft. Access Road & Parking}	47,813	25	16	70,978	2,839	17,213	19,603	2.94%	2,642
462 - Gravel { 41,350 Sq. Ft. Access Road & Parking (5%)}	2,119	5	1	2,172	434	1,695	2,172	0.45%	404
502 - Curbs: Concrete { 150 Lin. Ft. Parking Lot}	1,230	10	6	1,426	143	492	630	0.15%	133
802 - Striping { Parking Lot}	513	5	1	525	105	410	525	0.11%	98
Sub-total [01000 - Paving]	57,203			80,768	4,655	24,233	28,598	4.81%	4,331

03000 - Painting: Exterior

126 - Surface Restoration { 1,762 Sq. Ft. Wood Booths}	1,806	5	2	1,897	379	1,084	1,481	0.39%	353
130 - Surface Restoration { 1,424 Sq. Ft. Wood Bleachers}	1,460	5	2	1,533	307	876	1,197	0.32%	285
132 - Surface Restoration { 6 Wood Benches in Pens}	1,230	5	2	1,292	258	738	1,009	0.27%	240
400 - Wrought Iron { 1,928 Lin. Ft. Tubular Steel Fencing}	11,857	5	2	12,457	2,491	7,114	9,723	2.58%	2,318
Sub-total [03000 - Painting: Exterior]	16,353			17,181	3,436	9,812	13,409	3.55%	3,197

04000 - Structural Repairs

954 - Dry-rot repairs- ongoing { 1,762 Sq. Ft. Wood Booths (16.7%)}	3,024	5	2	3,177	635	1,814	2,479	0.66%	591
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18000 - Landscaping

460 - General Repairs/Upgrades { Open Area}	1,538	1	1	1,576	788	769	1,576	0.81%	733
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19000 - Fencing

110 - Chain Link: 6' { 24 Lin. Ft. Entrance Gates}	369	30	19	590	20	135	151	0.02%	18
210 - Wrought Iron: 3' { 72 Lin. Ft. Tubular Steel Hitching Posts [6]}	1,845	30	19	2,950	98	677	756	0.10%	91

Reserve Fund Balance Forecast

Component Method

Third Draft
Prepared for the 2012/2013 Fiscal Year

Reserve Component	Current Repl. Cost	Useful Life	Remaining Life	Estimated Future Replacement Costs	Per Year	2011/2012 Fully Funded Balance	2012/2013 Fully Funded Balance	% Per Year Straight Line	2012/2013 Line Item Contribution based on Cash Flow Method
224 - Wrought Iron: 5' { 956 Lin. Ft. 5' Tubular Steel Fencing}	33,317	30	19	53,262	1,775	12,216	13,660	1.84%	1,652
230 - Wrought Iron: 6' { 900 Lin. Ft. 6' Tubular Steel Fencing}	33,210	30	19	53,091	1,770	12,177	13,616	1.83%	1,647
512 - Post & Cable { 728 Lin. Ft. Perimeter Paved Parking}	14,924	25	12	20,071	803	7,760	8,566	0.83%	747
780 - Gates { 14 Lin. Ft. Access Road Gate}	718	20	9	896	45	395	441	0.05%	42
Sub-total [19000 - Fencing]	84,382			130,859	4,511	33,360	37,191	4.66%	4,197

20000 - Lighting

100 - Exterior: Misc. Fixtures { 8 Athletic Field Lighting (13%)}	2,562	5	9	3,200	320	256	292	0.33%	298
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21000 - Signage

710 - Entry Signs { Main Entrance Sign}	1,025	15	7	1,218	81	547	630	0.08%	76
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24500 - Audio / Visual

300 - PA System { 6 Speakers}	1,538	10	6	1,783	178	615	788	0.18%	166
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26000 - Outdoor Equipment

282 - Picnic Tables { 5 Common Area}	2,562	20	9	3,200	160	1,409	1,576	0.17%	149
304 - Benches { 2 Common Area}	1,025	12	7	1,218	102	427	525	0.10%	94
306 - Benches { 6 Wood Benches in Pens}	3,690	12	7	4,386	366	1,538	1,891	0.38%	340
380 - Garbage Receptacles { 15 Trash Cans}	1,538	20	10	1,968	98	769	867	0.10%	92
432 - Bleachers { 2 Wood Bleachers}	6,150	20	11	8,069	403	2,768	3,152	0.42%	375
442 - Bleachers: Aluminum { 2 Aluminum Bleachers}	8,200	20	13	11,304	565	2,870	3,362	0.58%	526
450 - Bleachers { 2 BMX Bleachers}	4,100	20	12	5,514	276	1,640	1,891	0.29%	257
Sub-total [26000 - Outdoor Equipment]	27,265			35,660	1,970	11,420	13,264	2.04%	1,833

Sub-total Central Park Horse Arena/BMX Track	194,889			275,423	16,574	82,825	98,228	17.13%	15,421
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Community Center Park

01000 - Paving

104 - Asphalt: Sealing { 35,650 Sq. Ft. Parking Lot}	5,481	5	2	5,759	1,152	3,289	4,495	1.19%	1,072
204 - Asphalt: Ongoing Repairs { 35,650 Sq. Ft. Parking Lot (2%)}	2,375	5	2	2,495	499	1,425	1,948	0.52%	464

Reserve Fund Balance Forecast

Component Method

Third Draft
Prepared for the 2012/2013 Fiscal Year

Reserve Component	Current Repl. Cost	Useful Life	Remaining Life	Estimated Future Replacement Costs	Per Year	2011/2012 Fully Funded Balance	2012/2013 Fully Funded Balance	% Per Year Straight Line	2012/2013 Line Item Contribution based on Cash Flow Method
304 - Asphalt: Petromat Overlay { 35,650 Sq. Ft. Parking Lot}	58,466	25	12	78,630	3,145	30,402	33,559	3.25%	2,926
464 - Gravel { 18,200 Sq. Ft. Harvey House Yard}	4,664	10	5	5,277	528	2,332	2,868	0.55%	491
Sub-total [01000 - Paving]	70,986			92,161	5,324	37,448	42,870	5.50%	4,953

02000 - Concrete

900 - Miscellaneous { 18,209 Sq. Ft. All Concrete Flatwork (2%)}	5,973	5	1	6,122	1,224	4,778	6,122	1.27%	1,139
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03000 - Painting: Exterior

134 - Surface Restoration { 5,400 Sq. Ft. Building Surface}	5,535	5	3	5,961	1,192	2,214	3,404	1.23%	1,109
136 - Surface Restoration { 483 Sq. Ft. Wood Trellis}	495	5	1	507	101	396	507	0.10%	94
138 - Surface Restoration { 3,108 Sq. Ft. Harvey House}	3,186	10	6	3,694	369	1,274	1,633	0.38%	344
402 - Wrought Iron { 160 Lin. Ft. 4' Wrought Iron Fencing}	1,476	4	1	1,513	378	1,107	1,513	0.39%	352
410 - Wrought Iron Gates { 12 Building Perimeter}	7,380	4	1	7,564	1,891	5,535	7,565	1.96%	1,760
450 - Wood Fencing { 1,200 Sq. Ft. Perimeter}	615	5	3	662	132	246	378	0.14%	123
Sub-total [03000 - Painting: Exterior]	18,687			19,902	4,065	10,772	15,000	4.20%	3,782

03500 - Painting: Interior

100 - Building { 7,138 Sq. Ft. All Interior Spaces}	7,316	10	4	8,076	808	4,390	5,250	0.83%	751
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04000 - Structural Repairs

290 - Ceilings { 3,500 Sq. Ft. Acoustic Ceilings}	5,022	30	14	7,097	237	2,679	2,917	0.24%	220
300 - Trellis { Shuffleboard Area}	1,025	20	10	1,312	66	513	578	0.07%	61
994 - Miscellaneous { 5 Wood Planter Boxes}	2,562	10	7	3,046	305	769	1,051	0.31%	283
Sub-total [04000 - Structural Repairs]	8,610			11,455	607	3,960	4,546	0.63%	565

05000 - Roofing

200 - Low Slope: BUR { 16 Squares- Community Center}	4,920	20	9	6,144	307	2,706	3,026	0.32%	286
442 - Pitched: Dimensional Composition { 74 Squares- Community Center}	30,340	25	19	48,503	1,940	7,282	8,708	2.01%	1,805
448 - Pitched: Dimensional Composition { 30 Squares- Harvey House}	12,300	25	14	17,380	695	5,412	6,052	0.72%	647
Sub-total [05000 - Roofing]	47,560			72,027	2,943	15,400	17,785	3.04%	2,738

08000 - Rehab

Reserve Fund Balance Forecast

Component Method

Third Draft
Prepared for the 2012/2013 Fiscal Year

Reserve Component	Current Repl. Cost	Useful Life	Remaining Life	Estimated Future Replacement Costs	Per Year	2011/2012 Fully Funded Balance	2012/2013 Fully Funded Balance	% Per Year Straight Line	2012/2013 Line Item Contribution based on Cash Flow Method
104 - General {1,944 Sq. Ft. Harvey House Interior}	5,832	10	4	6,437	644	3,499	4,184	0.67%	599
108 - General {2,300 Sq. Ft. [4] Comm.Ctr.Offices}	3,450	20	9	4,309	215	1,898	2,122	0.22%	200
120 - General {Main Room}	3,075	20	9	3,840	192	1,691	1,891	0.20%	179
222 - Restrooms {2 Restrooms}	3,000	20	9	3,747	187	1,650	1,845	0.19%	174
230 - Kitchen {Kitchen}	3,075	20	9	3,840	192	1,691	1,891	0.20%	179
Sub-total [08000 - Rehab]	18,432			22,173	1,431	10,429	11,933	1.48%	1,331
17000 - Tennis Court									
100 - Reseal {7,200 Tennis Court}	738	7	3	795	114	422	540	0.12%	106
500 - Resurface {7,200 Sq. Ft. Tennis Court}	8,856	21	10	11,336	540	4,639	5,187	0.56%	502
Sub-total [17000 - Tennis Court]	9,594			12,131	653	5,061	5,727	0.68%	608
17500 - Basketball / Sport Court									
200 - Seal & Striping {6,993 Sq. Ft. Asphalt Basketball Court}	717	7	3	772	110	410	525	0.11%	103
400 - Overlay {6,993 Sq. Ft. Asphalt Basketball Court}	7,168	21	10	9,175	437	3,755	4,198	0.45%	407
Sub-total [17500 - Basketball / Sport Court]	7,885			9,947	547	4,164	4,723	0.57%	509
18000 - Landscaping									
102 - Irrigation: Misc. {Irrigation Items}	1,025	3	1	1,051	350	683	1,051	0.36%	326
422 - General Repairs/Upgrades {Landscaped Area}	1,025	3	1	1,051	350	683	1,051	0.36%	326
Sub-total [18000 - Landscaping]	2,050			2,101	700	1,367	2,101	0.72%	652
19000 - Fencing									
050 - Chain Link {128 Lin. Ft. [16] Horseshoe Backstops}	1,443	30	21	2,424	81	433	493	0.08%	75
112 - Chain Link: 6' {110 Lin. Ft. Perimeter}	1,353	30	19	2,163	72	496	555	0.07%	67
114 - Chain Link: 6' {665 Lin. Ft. Harvey House Perimeter}	8,179	30	19	13,076	436	2,999	3,354	0.45%	406
122 - Chain Link: 8' {336 Lin. Ft. Perimeter & Utility Enclosure}	4,822	30	19	7,708	257	1,768	1,977	0.27%	239
132 - Chain Link: 10' {360 Lin. Ft. Tennis Court Perimeter}	6,642	30	19	10,618	354	2,435	2,723	0.37%	329
190 - Chain Link: Slats {136 Lin. Ft. Utility Enclosure}	1,394	30	12	1,875	62	836	905	0.06%	58
220 - Wrought Iron: 4' {160 Lin. Ft. Building Perimeter}	4,920	30	19	7,865	262	1,804	2,017	0.27%	244
310 - Wood: 3' {198 Lin. Ft. Wood Rail Fence}	3,044	15	9	3,802	253	1,218	1,456	0.26%	236
320 - Wood: 4' {145 Lin. Ft. Harvey House Perimeter}	2,675	15	11	3,510	234	713	914	0.24%	218
340 - Wood: 6' {200 Lin. Ft. Perimeter}	5,125	15	10	6,560	437	1,708	2,101	0.45%	407
420 - Masonry Wall: On-going Maint. {180 Building Exterior}	923	5	3	993	199	369	567	0.21%	185
514 - Post & Cable {650 Lin. Ft. Perimeter}	13,325	25	12	17,921	717	6,929	7,649	0.74%	667

Reserve Fund Balance Forecast

Component Method

Third Draft
Prepared for the 2012/2013 Fiscal Year

Reserve Component	Current Repl. Cost	Useful Life	Remaining Life	Estimated Future Replacement Costs	Per Year	2011/2012 Fully Funded Balance	2012/2013 Fully Funded Balance	% Per Year Straight Line	2012/2013 Line Item Contribution based on Cash Flow Method
Sub-total [19000 - Fencing]	53,845			78,516	3,365	21,709	24,711	3.48%	3,131
19500 - Retaining Wall									
990 - Miscellaneous { 185 Lin. Ft. Keystone Retaining Wall}	1,896	20	16	2,815	141	379	486	0.15%	131
20000 - Lighting									
540 - Parking Lot { 3 Parking Lot}	6,765	25	19	10,815	433	1,624	1,942	0.45%	403
21000 - Signage									
792 - Monument { Oak Lane Frontage}	1,538	10	4	1,697	170	923	1,103	0.18%	158
22000 - Office Equipment									
200 - Computers, Misc. { 4 Offices}	10,250	8	3	11,038	1,380	6,406	7,880	1.43%	1,284
23000 - Mechanical Equipment									
200 - HVAC { 3 Building Units}	15,375	15	9	19,201	1,280	6,150	7,354	1.32%	1,191
202 - HVAC { 2 Building Units}	10,250	15	15	14,845	928	641	700	0.96%	863
Sub-total [23000 - Mechanical Equipment]	25,625			34,046	2,208	6,791	8,055	2.28%	2,054
24000 - Furnishings									
110 - Miscellaneous { 155 Main Room Furnishings}	7,944	20	9	9,921	496	4,369	4,885	0.51%	462
400 - Miscellaneous { 8 Entry Furnishings}	4,100	15	7	4,874	325	2,187	2,522	0.34%	302
640 - Modular Office Desk { 4 Offices}	9,840	20	9	12,289	614	5,412	6,052	0.64%	572
Sub-total [24000 - Furnishings]	21,884			27,083	1,435	11,968	13,459	1.48%	1,336
25000 - Flooring									
200 - Carpeting { 314 Sq. Yds. Carpeted Rooms}	10,299	10	4	11,368	1,137	6,180	7,390	1.18%	1,058
400 - Tile { 1,942 Sq. Ft. Restrooms & Kitchen}	11,943	20	9	14,916	746	6,569	7,345	0.77%	694
600 - Vinyl { 89 Sq. Yds. Main Room}	2,372	30	14	3,351	112	1,265	1,378	0.12%	104

Reserve Fund Balance Forecast

Component Method

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Sub-total [25000 - Flooring]	24,614			29,635	1,994	14,013	16,112	2.06%	1,856
25500 - Wallcoverings									
100 - Wallpaper { 94 Sq. Yds. Main Room Wallcovering }	2,890	20	9	3,610	180	1,590	1,778	0.19%	168
900 - Miscellaneous { 1,660 Sq. Ft. Wood Paneling }	11,910	20	9	14,875	744	6,551	7,325	0.77%	692
Sub-total [25500 - Wallcoverings]	14,801			18,484	924	8,141	9,103	0.96%	860
26000 - Outdoor Equipment									
060 - Flag Pole { Flag Pole }	4,100	20	0	4,100	205	4,100	210	0.21%	191
102 - Tot Lot: Play Equipment { 10 Smaller Structures }	10,250	20	8	12,489	624	6,150	6,829	0.65%	581
108 - Tot Lot: Play Equipment { Large Structure }	10,250	20	8	12,489	624	6,150	6,829	0.65%	581
180 - Bike Rack { 4 Metal Bike Racks }	410	20	13	565	28	144	168	0.03%	26
200 - Pedestal Grill BBQ { 2 Picnic Area }	615	15	7	731	49	328	378	0.05%	45
284 - Picnic Tables { 6 Tot Lot Area }	3,690	20	5	4,175	209	2,768	3,026	0.22%	194
308 - Benches { 7 Outdoor Benches }	4,305	12	5	4,871	406	2,511	2,942	0.42%	378
482 - Drinking Fountain { Tot Lot Area }	2,460	20	9	3,072	154	1,353	1,513	0.16%	143
840 - Shade Structure { 400 Sq. Ft. Metal Gazebo }	12,300	30	24	22,247	742	2,460	2,942	0.77%	690
904 - Miscellaneous { Miscellaneous Outdoor Items }	1,538	10	5	1,740	174	769	946	0.18%	162
Sub-total [26000 - Outdoor Equipment]	49,917			66,478	3,215	26,732	25,782	3.32%	2,991
27000 - Appliances									
080 - Warming Drawers { Kitchen }	2,050	15	7	2,437	162	1,093	1,261	0.17%	151
082 - Warming Drawers { Kitchen }	2,050	15	7	2,437	162	1,093	1,261	0.17%	151
200 - Refrigerator { Kitchen }	1,025	10	4	1,131	113	615	735	0.12%	105
220 - Refrigerator: Commercial: Large { Kitchen }	4,100	15	14	5,793	386	273	560	0.40%	359
270 - Stove / Oven: Commercial grade 6-burner { Kitchen }	4,100	20	9	5,120	256	2,255	2,522	0.26%	238
284 - Microwave Oven { 2 Kitchen }	615	10	4	679	68	369	441	0.07%	63
296 - Stove: Exhaust Hood w/ Fan { Kitchen }	2,665	20	9	3,328	166	1,466	1,639	0.17%	155
940 - Drinking Fountain { Entry Area }	2,460	15	13	3,391	226	328	504	0.23%	210
970 - Dishwasher { Kitchen }	1,000	12	6	1,160	97	500	598	0.10%	90
Sub-total [27000 - Appliances]	20,065			25,476	1,637	7,993	9,521	1.69%	1,523
Sub-total Community Center Park	428,293			562,181	35,203	204,446	234,210	36.39%	32,754

Reserve Fund Balance Forecast

Component Method

Third Draft
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Depot Park									
01000 - Paving									
106 - Asphalt: Sealing { 1,428 Sq. Ft. Parking Area}	220	5	1	225	45	176	225	0.05%	42
206 - Asphalt: Ongoing Repairs { 1,428 Sq. Ft. Parking Area (5%)}	238	5	1	244	49	190	244	0.05%	45
306 - Asphalt: Petromat Overlay { 1,428 Sq. Ft. Parking Area}	2,342	25	10	2,998	120	1,405	1,536	0.12%	112
Sub-total [01000 - Paving]	2,799			3,467	214	1,771	2,005	0.22%	199
02000 - Concrete									
200 - Sidewalks, Curbs & Gutters { 2,933 Sq. Ft. All Concrete (3%)}	1,203	3	1	1,233	411	802	1,233	0.42%	382
03000 - Painting: Exterior									
140 - Surface Restoration { 3,270 Sq. Ft. Depot Building}	3,352	6	3	3,609	602	1,676	2,290	0.62%	560
404 - Wrought Iron { 100 Lin. Ft. Gazebo}	923	6	1	946	158	769	946	0.16%	147
Sub-total [03000 - Painting: Exterior]	4,274			4,555	759	2,445	3,236	0.78%	706
04000 - Structural Repairs									
200 - Wood: Siding & Trim { 3,270 Depot Building (5%)}	838	12	9	1,046	87	209	286	0.09%	81
04500 - Decking/Balconies									
520 - Railing: Wood { 104 Lin. Ft. Depot Building}	2,452	15	9	3,062	204	981	1,173	0.21%	190
05000 - Roofing									
444 - Pitched: Dimensional Composition { 23 Squares- Depot Building}	9,430	25	19	15,075	603	2,263	2,706	0.62%	561
500 - Pitched: Wood Shake { 6 Squares- Gazebo}	3,690	15	8	4,496	300	1,722	2,017	0.31%	279
700 - Gutters / Downspouts { 200 Lin. Ft. Depot Building}	1,230	25	19	1,966	79	295	353	0.08%	73
Sub-total [05000 - Roofing]	14,350			21,538	981	4,280	5,077	1.01%	913
08000 - Rehab									
224 - Restrooms { 2 Depot Building Restrooms}	3,000	20	14	4,239	212	900	1,076	0.22%	197

Reserve Fund Balance Forecast

Component Method

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18000 - Landscaping									
104 - Irrigation: Misc. { Irrigated Areas}	1,025	3	1	1,051	350	683	1,051	0.36%	326
424 - General Repairs/Upgrades { Landscaped Areas}	1,025	3	1	1,051	350	683	1,051	0.36%	326
Sub-total [18000 - Landscaping]	2,050			2,101	700	1,367	2,101	0.72%	652
19000 - Fencing									
116 - Chain Link: 6' { 36 Lin. Ft. HVAC Enclosure}	923	20	13	1,272	64	323	378	0.07%	59
222 - Wrought Iron: 4' { 100 Lin. Ft. Gazebo}	3,075	30	14	4,345	145	1,640	1,786	0.15%	135
516 - Post & Cable { 250 Lin. Ft. Perimeter Fencing}	5,125	25	13	7,065	283	2,460	2,732	0.29%	263
Sub-total [19000 - Fencing]	9,122			12,681	491	4,423	4,896	0.51%	457
20000 - Lighting									
104 - Exterior: Misc. Fixtures { 7 Exterior Lights}	3,587	15	10	4,592	306	1,196	1,471	0.32%	285
23000 - Mechanical Equipment									
204 - HVAC { 2 Trane HVAC}	10,250	15	10	13,121	875	3,417	4,203	0.90%	814
26000 - Outdoor Equipment									
204 - Pedestal Grill BBQ { Gazebo Area}	513	20	9	640	32	282	315	0.03%	30
906 - Miscellaneous { Miscellaneous Park Items}	1,538	20	11	2,017	101	692	788	0.10%	94
Sub-total [26000 - Outdoor Equipment]	2,050			2,657	133	974	1,103	0.14%	124
Sub-total Depot Park	55,976			74,292	5,374	22,764	27,859	5.56%	5,000

Northbrook Park

01000 - Paving

108 - Asphalt: Sealing { 7,804 Sq. Ft. Sport Court & Driveway}	1,200	5	2	1,261	252	720	984	0.26%	235
208 - Asphalt: Ongoing Repairs { 7,804 Sq. Ft. Sport Court & Driveway (5%)}	1,300	5	2	1,366	273	780	1,066	0.28%	254
408 - Asphalt: Major Repairs { 7,804 Sq. Ft. Sport Court & Driveway}	39,995	25	17	60,858	2,434	12,799	14,758	2.52%	2,265

Reserve Fund Balance Forecast

Component Method

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Sub-total [01000 - Paving]	42,495			63,484	2,960	14,298	16,808	3.06%	2,754
02000 - Concrete									
222 - Walkways { 7,241 Sq. Ft. Walkways, Slabs & Tot Lot (2%)}	2,375	3	1	2,434	811	1,583	2,434	0.84%	755
03000 - Painting: Exterior									
142 - Surface Restoration { 20 Lin. Ft. Metal Vehicle Gate}	123	4	1	126	32	92	126	0.03%	29
406 - Wrought Iron { 40 Lin. Ft. Park Entrance}	369	4	1	378	95	277	378	0.10%	88
Sub-total [03000 - Painting: Exterior]	492			504	126	369	504	0.13%	117
18000 - Landscaping									
106 - Irrigation: Misc. { Common Area}	1,025	3	1	1,051	350	683	1,051	0.36%	326
426 - General Repairs/Upgrades { Common Area}	1,025	3	1	1,051	350	683	1,051	0.36%	326
Sub-total [18000 - Landscaping]	2,050			2,101	700	1,367	2,101	0.72%	652
19000 - Fencing									
118 - Chain Link: 6' { 505 Lin. Ft. East Perimeter (50%)}	3,106	30	21	5,216	174	932	1,061	0.18%	162
240 - Wrought Iron: 8' { 40 Lin. Ft. Park Entrance}	1,845	30	19	2,950	98	677	756	0.10%	91
Sub-total [19000 - Fencing]	4,951			8,166	272	1,608	1,818	0.28%	253
21000 - Signage									
720 - Entry Signs { Park Entrance}	513	10	5	580	58	256	315	0.06%	54
26000 - Outdoor Equipment									
104 - Tot Lot: Play Equipment { Tot Lot}	10,250	20	10	13,121	656	5,125	5,778	0.68%	610
144 - Tot Lot: Safety Surface { Tot Lot}	1,538	5	3	1,656	331	615	946	0.34%	308
310 - Benches { 2 Tot Lot}	1,230	12	6	1,426	119	615	735	0.12%	111
318 - Picnic Table: Metal { 4 Picnic Area}	3,485	20	12	4,687	234	1,394	1,607	0.24%	218
908 - Miscellaneous { 7 Exercise Stations}	2,152	15	7	2,559	171	1,148	1,324	0.18%	159
Sub-total [26000 - Outdoor Equipment]	18,655			23,449	1,511	8,897	10,391	1.56%	1,406
Sub-total Northbrook Park	71,531			100,718	6,439	28,379	34,372	6.66%	5,991

Reserve Fund Balance Forecast

Component Method

Third Draft
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Roy E Hayer Park									
01000 - Paving									
110 - Asphalt: Sealing { 21,120 Sq. Ft. Parking Lot}	3,247	5	2	3,412	682	1,948	2,663	0.71%	635
210 - Asphalt: Ongoing Repairs { 21,120 Sq. Ft. Parking Lot (2%)}	1,407	5	2	1,478	296	844	1,154	0.31%	275
310 - Asphalt: Petromat Overlay { 21,120 Sq. Ft. Parking Lot}	34,637	25	12	46,583	1,863	18,011	19,882	1.93%	1,734
510 - Curbs: Concrete { 315 Lin. Ft. Parking Lot}	2,583	15	7	3,070	205	1,378	1,589	0.21%	190
Sub-total [01000 - Paving]	41,874			54,543	3,046	22,181	25,287	3.15%	2,834
03000 - Painting: Exterior									
144 - Surface Restoration { 1,060 Sq. Ft. Restroom Building}	1,087	10	5	1,229	123	543	668	0.13%	114
04000 - Structural Repairs									
998 - Miscellaneous { 200 Sq. Ft. [3] Horseshoe Pits}	1,230	5	3	1,325	265	492	756	0.27%	246
05000 - Roofing									
446 - Pitched: Dimensional Composition { 10 Squares- Restroom Building}	4,100	25	19	6,554	262	984	1,177	0.27%	244
08000 - Rehab									
226 - Restrooms { 2 Restroom Building}	6,150	20	10	7,873	394	3,075	3,467	0.41%	366
11000 - Gate Equipment									
910 - Vehicle Gate Replacement {Parking Entrance}	1,538	30	22	2,647	88	410	473	0.09%	82
18000 - Landscaping									
108 - Irrigation: Misc. {Irrigation Items}	1,025	3	1	1,051	350	683	1,051	0.36%	326
428 - General Repairs/Upgrades {Landscaped Areas}	1,025	3	1	1,051	350	683	1,051	0.36%	326
Sub-total [18000 - Landscaping]	2,050			2,101	700	1,367	2,101	0.72%	652

Reserve Fund Balance Forecast

Component Method

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19000 - Fencing									
518 - Post & Cable { 685 Lin. Ft. Perimeter }	14,042	25	14	19,842	794	6,179	6,909	0.82%	738
21000 - Signage									
794 - Monument { Parking Lot Entrance }	1,538	10	7	1,828	183	461	630	0.19%	170
26000 - Outdoor Equipment									
208 - Pedestal Grill BBQ { 2 Picnic Area }	615	15	4	679	45	451	504	0.05%	42
286 - Picnic Tables { 10 Picnic Area }	6,150	20	9	7,681	384	3,383	3,782	0.40%	357
312 - Benches { 3 Picnic Area }	1,845	15	9	2,304	154	738	883	0.16%	143
484 - Drinking Fountain { Restroom Building }	2,460	20	6	2,853	143	1,722	1,891	0.15%	133
910 - Miscellaneous { 7 Miscellaneous Outdoor Items }	1,435	10	4	1,584	158	861	1,030	0.16%	147
Sub-total [26000 - Outdoor Equipment]	12,505			15,100	884	7,155	8,090	0.91%	822
Sub-total Roy E Hayer Park	86,113			113,042	6,739	42,847	49,558	6.97%	6,270
Westside Park									
01000 - Paving									
112 - Asphalt: Sealing { 23,170 Sq. Ft. Paved Parking }	3,562	5	2	3,743	749	2,137	2,921	0.77%	696
212 - Asphalt: Ongoing Repairs { 23,170 Sq. Ft. Paved Parking (2%) }	1,544	5	2	1,622	324	926	1,266	0.34%	302
312 - Asphalt: Petromat Overlay { 23,170 Sq. Ft. Paved Parking }	37,999	25	12	51,104	2,044	19,759	21,811	2.11%	1,902
460 - Gravel { 16,920 Sq. Ft. Unpaved Parking & Access Roads }	1,734	5	2	1,822	364	1,041	1,422	0.38%	339
Sub-total [01000 - Paving]	44,839			58,291	3,482	23,864	27,420	3.60%	3,239
02000 - Concrete									
902 - Miscellaneous { 8,257 Sq. Ft. Slabs & Walkways (2%) }	2,708	3	1	2,776	925	1,806	2,776	0.96%	861
03000 - Painting: Exterior									
148 - Surface Restoration { 468 Sq. Ft. Backstop Wood & Score Table }	480	4	1	492	123	360	492	0.13%	114

Reserve Fund Balance Forecast

Component Method

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04000 - Structural Repairs									
914 - Building Maintenance { Restroom Building}	3,075	20	14	4,345	217	923	1,103	0.22%	202
958 - Dry-rot repairs- ongoing { 468 Sq. Ft. Backstop Wood}	2,398	8	5	2,714	339	899	1,229	0.35%	316
Sub-total [04000 - Structural Repairs]	5,473			7,059	556	1,822	2,332	0.58%	518
08000 - Rehab									
228 - Restrooms { Restroom Building}	3,075	20	9	3,840	192	1,691	1,891	0.20%	179
11000 - Gate Equipment									
912 - Vehicle Gate Replacement { 3 Driveways & Access Road}	4,612	30	23	8,139	271	1,076	1,261	0.28%	252
18000 - Landscaping									
110 - Irrigation: Misc. { Irrigation Items}	1,025	3	1	1,051	350	683	1,051	0.36%	326
430 - General Repairs/Upgrades { Landscaped Areas}	1,025	3	1	1,051	350	683	1,051	0.36%	326
Sub-total [18000 - Landscaping]	2,050			2,101	700	1,367	2,101	0.72%	652
19000 - Fencing									
052 - Chain Link { 61 Lin. Ft. 20' Backstop Fencing}	2,251	30	19	3,598	120	825	923	0.12%	112
102 - Chain Link: 4' { 1,354 Lin. Ft. Dog Park Fencing}	15,266	30	28	30,479	1,016	1,018	1,565	1.05%	945
104 - Chain Link: 4' { 60 Lin. Ft. Ballfield}	677	30	19	1,081	36	248	277	0.04%	34
126 - Chain Link: 8' { 976 Lin. Ft. Ballfield}	14,006	30	19	22,390	746	5,135	5,742	0.77%	694
134 - Chain Link: 10' { 220 Lin. Ft. Ballfield}	4,059	30	19	6,489	216	1,488	1,664	0.22%	201
520 - Post & Cable { 749 Lin. Ft. Perimeter}	15,354	25	13	21,166	847	7,370	8,184	0.88%	788
Sub-total [19000 - Fencing]	51,613			85,204	2,981	16,085	18,355	3.08%	2,774
20000 - Lighting									
108 - Exterior: Misc. Fixtures { 6 Light Poles (8%)}	1,281	5	9	1,600	160	128	146	0.17%	149
21000 - Signage									

Reserve Fund Balance Forecast

Component Method

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796 - Monument { W 2nd St. Frontage}	1,538	10	4	1,697	170	923	1,103	0.18%	158
26000 - Outdoor Equipment									
106 - Tot Lot: Play Equipment { Tot Lot Play Area}	15,375	20	16	22,824	1,141	3,075	3,940	1.18%	1,062
148 - Tot Lot: Safety Surface { Tot Lot Play Area}	1,538	10	5	1,740	174	769	946	0.18%	162
300 - Benches { 2 Ballfield Dugouts}	1,538	20	20	2,519	120	73	79	0.12%	112
314 - Benches { 2 Tot Lot Area}	1,230	20	17	1,872	94	185	252	0.10%	87
320 - Picnic Table: Metal { Tot Lot Area}	1,230	20	17	1,872	94	185	252	0.10%	87
434 - Bleachers { 2 Ballfield}	4,100	20	10	5,248	262	2,050	2,311	0.27%	244
444 - Bleachers: Aluminum { Ballfield}	3,075	20	12	4,136	207	1,230	1,418	0.21%	192
486 - Drinking Fountain { South Side Ballfield}	2,460	20	14	3,476	174	738	883	0.18%	162
912 - Miscellaneous { Miscellaneous Outdoor Items}	1,538	10	4	1,697	170	923	1,103	0.18%	158
916 - Miscellaneous { Electronic Scoreboard}	10,250	20	19	16,386	819	513	1,051	0.85%	762
Sub-total [26000 - Outdoor Equipment]	42,332			61,769	3,254	9,739	12,235	3.36%	3,028
Sub-total Westside Park	160,002			232,969	12,815	58,860	70,113	13.25%	11,924
Elkhorn Equestrian Staging Area									
18000 - Landscaping									
432 - General Repairs/Upgrades { General Upkeep}	513	3	1	525	175	342	525	0.18%	163
Sub-total Elkhorn Equestrian Staging Area	513			525	175	342	525	0.18%	163
Totals	1,181,355			1,607,905	96,729	[A] 526,114 [EndBal]	[B] 613,256 [EndBal]	100.00%	90,000
Percent Funded						[A] 18.69%	[B] 22.97%		

Component Listing Included Components

Prepared for the 2012/2013 Fiscal Year

Babe Best Park

01000 - Paving

100 - Asphalt: Sealing	Useful Life 5	Remaining Life 2
25,370 Sq. Ft. Paved Parking Lot	Quantity 25,370	Unit of Measure Square Feet
	Cost /SqFt \$0.123	
	% Included 100.00%	Total Cost/Study \$3,121
Summary	Replacement Year 2013/2014	Future Cost \$3,278

This is to prepare the surface and apply a single coat asphalt emulsion product. If a second coat is desired the cost is generally 10% to 20% higher.



200 - Asphalt: Ongoing Repairs	Useful Life 5	Remaining Life 2
25,370 Sq. Ft. Paved Parking Lot (2%)	Quantity 25,370	Unit of Measure Square Feet
	Cost /SqFt \$3.33	Qty * \$/SqFt \$84,514
	% Included 2.00%	Total Cost/Study \$1,690
Summary	Replacement Year 2013/2014	Future Cost \$1,776

This is for miscellaneous repairs including crackfill, skin patching and minor dig out & fill.

Component Listing

Included Components

Third Draft
Prepared for the 2012/2013 Fiscal Year

Babe Best Park

01000 - Paving

300 - Asphalt: Petromat Overlay	Useful Life 25	Remaining Life 12
25,370 Sq. Ft. Paved Parking Lot	Quantity 25,370	Unit of Measure Square Feet
	Cost /SqFt \$1.64	
	% Included 100.00%	Total Cost/Study \$41,607
Summary	Replacement Year 2023/2024	Future Cost \$55,957

This is to apply a Petromat overlay on top of the existing asphalt surface along with 1-1/2" of new hot asphalt. Generally this includes edge grinding and utility box extensions.



800 - Striping	Useful Life 5	Remaining Life 2
Paved Parking Lot	Quantity 1	Unit of Measure Lump Sum
	Cost /LS \$512	
	% Included 100.00%	Total Cost/Study \$512
Summary	Replacement Year 2013/2014	Future Cost \$538

This is to re-stripe asphalt to match existing plan.



Babe Best Park

02000 - Concrete

220 - Walkways	Useful Life 10	Remaining Life 7
1,590 Sq. Ft. Concrete Walkways (2%)	Quantity 1,590	Unit of Measure Square Feet
	Cost /SqFt \$16.40	Qty * \$/SqFt \$26,076
	% Included 2.00%	Total Cost/Study \$522
Summary	Replacement Year 2018/2019	Future Cost \$620

This is to repair, replace or grind failed concrete flatwork to remove abrupt elevation changes and maintain functionality. Since the concrete useful life exceeds the scope of this study, this component provides for repair only and not full replacement. This component provides for the concrete beneath the shade structure. Dugout slabs are provided for in another component.



380 - Pad	Useful Life 3	Remaining Life 1
1,320 Sq. Ft. Dugout Slabs (2%)	Quantity 1,320	Unit of Measure Square Feet
	Cost /SqFt \$16.40	Qty * \$/SqFt \$21,648
	% Included 2.00%	Total Cost/Study \$433
Summary	Replacement Year 2012/2013	Future Cost \$444

This is to maintain and repair the concrete dugout slabs.

03000 - Painting: Exterior

120 - Surface Restoration	Useful Life 10	Remaining Life 7
1,040 Sq. Ft. Snack Bar/Restroom Building	Quantity 1,040	Unit of Measure Square Feet
	Cost /SqFt \$1.02	
	% Included 100.00%	Total Cost/Study \$1,066
Summary	Replacement Year 2018/2019	Future Cost \$1,267

This is to prepare, power wash, sand, scrape, caulk and paint with a 100% premium acrylic paint.



Babe Best Park

03000 - Painting: Exterior

122 - Surface Restoration	Useful Life 5	Remaining Life 2
750 Sq. Ft. Backstop Wood	Quantity 750	Unit of Measure Square Feet
	Cost /SqFt \$1.02	
	% Included 100.00%	Total Cost/Study \$769
Summary	Replacement Year 2013/2014	Future Cost \$808

This is to prepare, power wash, sand, scrape, caulk and paint with a 100% premium acrylic paint. Includes the backstop wood and the scorers booth.

04000 - Structural Repairs

910 - Building Maintenance	Useful Life 20	Remaining Life 17
1,040 Sq. Ft. Restroom/Snack Bar	Quantity 1,040	Unit of Measure Square Feet
	Cost /SqFt \$5.12	
	% Included 100.00%	Total Cost/Study \$5,330
Summary	Replacement Year 2028/2029	Future Cost \$8,110

This is for general building repairs to external surface area of the masonry walls of the restroom/snack bar building..



950 - Dry-rot repairs- ongoing	Useful Life 5	Remaining Life 1
750 Sq. Ft. Backstop Wood (16.7%)	Quantity 750	Unit of Measure Square Feet
	Cost /SqFt \$10.25	Qty * \$/SqFt \$7,687
	% Included 16.67%	Total Cost/Study \$1,281
Summary	Replacement Year 2012/2013	Future Cost \$1,313

This is for general repairs and on-going replacement of the wood at the backstops.



Babe Best Park

04000 - Structural Repairs

990 - Miscellaneous	Useful Life 5	Remaining Life 5
391 Sq. Ft. Shade Structure Repairs	Quantity 391	Unit of Measure Square Feet
	Cost /SqFt \$2.62	
	% Included 100.00%	Total Cost/Study \$1,025
Summary	Replacement Year 2016/2017	Future Cost \$1,160
This is for miscellaneous on-going repairs to the shade structure. Roofing is provided for in another component.		



05000 - Roofing

440 - Pitched: Dimensional Composition	Useful Life 25	Remaining Life 25
4 Squares- Shade Structure	Quantity 4	Unit of Measure Squares
	Cost /Sqrs \$512	
	% Included 100.00%	Total Cost/Study \$2,050
Summary	Replacement Year 2036/2037	Future Cost \$3,801
This is to reroof with a dimensional composition roofing product. Composition roofs should be regularly inspected and repaired as indicated to ensure maximum life.		



Babe Best Park

05000 - Roofing

650 - Pitched: Fibrous Cement	Useful Life 30	Remaining Life 19
7 Squares- Restroom/Snack Bar	Quantity 7	Unit of Measure Squares
	Cost /Sqrs \$615	
	% Included 100.00%	Total Cost/Study \$4,305
Summary	Replacement Year 2030/2031	Future Cost \$6,882

This is to replace the cement tile roofing system. Tile roofs should be regularly inspected and repaired as indicated to ensure maximum life.



08000 - Rehab

100 - General	Useful Life 5	Remaining Life 2
24 Lin. Ft. Metal Gates	Quantity 24	Unit of Measure Linear Feet
	Cost /l.f. \$21.35	
	% Included 100.00%	Total Cost/Study \$512
Summary	Replacement Year 2013/2014	Future Cost \$538

This is for a general rehab of the yellow metal gates. Includes minor repairs and painting.



Component Listing

Included Components

Third Draft
Prepared for the 2012/2013 Fiscal Year

Babe Best Park

08000 - Rehab

220 - Restrooms	Useful Life 10	Remaining Life 7
2 Restrooms	Quantity 2	Unit of Measure Items
	Cost /Itm \$2,050	
	% Included 100.00%	Total Cost/Study \$4,100
Summary	Replacement Year 2018/2019	Future Cost \$4,874

This is to rehab and redecorate the restrooms. Includes items such as partitions, fixtures, lighting, tile, etc. This item can be further defined with association input.



18000 - Landscaping

100 - Irrigation: Misc.	Useful Life 3	Remaining Life 1
Common Area	Quantity 1	Unit of Measure Lump Sum
	Cost /LS \$1,025	
	% Included 100.00%	Total Cost/Study \$1,025
Summary	Replacement Year 2012/2013	Future Cost \$1,051

This is for major irrigation system repair in excess of the operating budget.

420 - General Repairs/Upgrades	Useful Life 3	Remaining Life 1
Common Area	Quantity 1	Unit of Measure Lump Sum
	Cost /LS \$1,537	
	% Included 100.00%	Total Cost/Study \$1,537
Summary	Replacement Year 2012/2013	Future Cost \$1,576

This is to have funds in excess of the operating budget for miscellaneous plantings, removals and other work as directed by the association.

Component Listing

Included Components

Third Draft
Prepared for the 2012/2013 Fiscal Year

Babe Best Park

19000 - Fencing

100 - Chain Link: 4'	Useful Life 30	Remaining Life 14
1,119 Lin. Ft. Ballfield Perimeters	Quantity 1,119	Unit of Measure Linear Feet
	Cost /l.f. \$11.27	
	% Included 100.00%	Total Cost/Study \$12,617
Summary	Replacement Year 2025/2026	Future Cost \$17,827
This is to replace the 4' chain link fencing.		



108 - Chain Link: 6'	Useful Life 30	Remaining Life 15
1,043 Lin. Ft. Ballfield Perimeters	Quantity 1,043	Unit of Measure Linear Feet
	Cost /l.f. \$12.30	
	% Included 100.00%	Total Cost/Study \$12,829
Summary	Replacement Year 2026/2027	Future Cost \$18,580
This is to replace the 6' chain link fencing.		



Component Listing

Included Components

Third Draft
Prepared for the 2012/2013 Fiscal Year

Babe Best Park

19000 - Fencing

120 - Chain Link: 8'	Useful Life 30	Remaining Life 16
202 Lin. Ft. Ballfield Perimeters	Quantity 202	Unit of Measure Linear Feet
	Cost /l.f. \$14.35	
	% Included 100.00%	Total Cost/Study \$2,899
Summary	Replacement Year 2027/2028	Future Cost \$4,303
This is to replace the 8' chain link fencing.		



130 - Chain Link: 10'	Useful Life 30	Remaining Life 17
440 Lin. Ft. Backstops & Dugouts	Quantity 440	Unit of Measure Linear Feet
	Cost /l.f. \$18.45	
	% Included 100.00%	Total Cost/Study \$8,118
Summary	Replacement Year 2028/2029	Future Cost \$12,352
This is to replace the 10' chain link fencing.		

510 - Post & Cable	Useful Life 25	Remaining Life 9
1,086 Lin. Ft. Perimeter	Quantity 1,086	Unit of Measure Linear Feet
	Cost /l.f. \$20.50	
	% Included 100.00%	Total Cost/Study \$22,263
Summary	Replacement Year 2020/2021	Future Cost \$27,803
This is to repair and replace the post and cable fence.		



Babe Best Park

21000 - Signage

790 - Monument	Useful Life 10	Remaining Life 4
Park Entrance	Quantity 1	Unit of Measure Items
	Cost /Itm \$1,537	
	% Included 100.00%	Total Cost/Study \$1,537
Summary	Replacement Year 2015/2016	Future Cost \$1,697

This is to repair and repaint the custom identity monument sign. Approximately 108 square feet of surface area.



26000 - Outdoor Equipment

100 - Tot Lot: Play Equipment	Useful Life 20	Remaining Life 10
Tot Lot	Quantity 1	Unit of Measure Items
	Cost /Itm \$10,250	
	% Included 100.00%	Total Cost/Study \$10,250
Summary	Replacement Year 2021/2022	Future Cost \$13,121

This is to replace the tot lot play equipment.



Babe Best Park

26000 - Outdoor Equipment

140 - Tot Lot: Safety Surface	Useful Life 3	Remaining Life 1
Tot Lot	Quantity 1	Unit of Measure Lump Sum
	Cost /LS \$512	
	% Included 100.00%	Total Cost/Study \$512
Summary	Replacement Year 2012/2013	Future Cost \$525
This is to replenish the play area impact absorbing wood safety surface.		



280 - Picnic Tables	Useful Life 20	Remaining Life 11
7 Picnic Area	Quantity 7	Unit of Measure Items
	Cost /ltm \$615	
	% Included 100.00%	Total Cost/Study \$4,305
Summary	Replacement Year 2022/2023	Future Cost \$5,649
This is to replace the picnic tables.		



Babe Best Park

26000 - Outdoor Equipment

302 - Benches	Useful Life 20	Remaining Life 15
8 Dugout Benches	Quantity 8	Unit of Measure Items
	Cost /Itm \$615	
	% Included 100.00%	Total Cost/Study \$4,920
Summary	Replacement Year 2026/2027	Future Cost \$7,126

This is to replace the metal dugout benches.

- 4 - 21 linear foot benches
- 4 - 18 linear foot benches



316 - Benches	Useful Life 12	Remaining Life 5
2 Tot Lot	Quantity 2	Unit of Measure Items
	Cost /Itm \$512	
	% Included 100.00%	Total Cost/Study \$1,025
Summary	Replacement Year 2016/2017	Future Cost \$1,160

This is to replace the tot lot benches.



Component Listing

Included Components

Third Draft
Prepared for the 2012/2013 Fiscal Year

Babe Best Park

26000 - Outdoor Equipment

430 - Bleachers	Useful Life 20	Remaining Life 9
4 Wood Bleachers	Quantity 4	Unit of Measure Items
	Cost /Itm \$1,537	
	% Included 100.00%	Total Cost/Study \$6,150
Summary	Replacement Year 2020/2021	Future Cost \$7,681
This is to replace the 10' x 18' wood bleachers.		



440 - Bleachers: Aluminum	Useful Life 20	Remaining Life 16
4 Aluminum Bleachers	Quantity 4	Unit of Measure Items
	Cost /Itm \$2,050	
	% Included 100.00%	Total Cost/Study \$8,200
Summary	Replacement Year 2027/2028	Future Cost \$12,173
This is to replace the 10' x 25' aluminum bleachers.		



Babe Best Park

26000 - Outdoor Equipment

480 - Drinking Fountain	Useful Life 20	Remaining Life 14
4 Ballfields & Restrooms	Quantity 4	Unit of Measure Items
	Cost /Itm \$2,460	
	% Included 100.00%	Total Cost/Study \$9,840
Summary	Replacement Year 2025/2026	Future Cost \$13,904

This is to replace the drinking fountains. The fountains should be inspected, cleaned and sanitized frequently. Handle assemblies should be lubricated every six months.



900 - Miscellaneous	Useful Life 20	Remaining Life 14
Electronic Scoreboard	Quantity 1	Unit of Measure Lump Sum
	Cost /LS \$7,687	
	% Included 100.00%	Total Cost/Study \$7,687
Summary	Replacement Year 2025/2026	Future Cost \$10,862

This is to replace the ball field electronic scoreboard.



Central Park Horse Arena/BMX Track

01000 - Paving

102 - Asphalt: Sealing	Useful Life 5	Remaining Life 1
29,154 Sq. Ft. Access Road & Parking	Quantity 29,154	Unit of Measure Square Feet
	Cost /SqFt \$0.123	
	% Included 100.00%	Total Cost/Study \$3,586
Summary	Replacement Year 2012/2013	Future Cost \$3,676

This is to prepare the surface and apply a single coat asphalt emulsion product. If a second coat is desired the cost is generally 10% to 20% higher.



202 - Asphalt: Ongoing Repairs	Useful Life 5	Remaining Life 1
29,154 Sq. Ft. Access Road & Parking (2%)	Quantity 29,154	Unit of Measure Square Feet
	Cost /SqFt \$3.33	Qty * \$/SqFt \$97,119
	% Included 2.00%	Total Cost/Study \$1,942
Summary	Replacement Year 2012/2013	Future Cost \$1,991

This is for miscellaneous repairs including crackfill, skin patching and minor dig out & fill.



Central Park Horse Arena/BMX Track

01000 - Paving

302 - Asphalt: Petromat Overlay	Useful Life 25	Remaining Life 16
29,154 Sq. Ft. Access Road & Parking	Quantity 29,154	Unit of Measure Square Feet
	Cost /SqFt \$1.64	
	% Included 100.00%	Total Cost/Study \$47,813
Summary	Replacement Year 2027/2028	Future Cost \$70,978

This is to apply a Petromat overlay on top of the existing asphalt surface along with 1-1/2" of new hot asphalt. Generally this includes edge grinding and utility box extensions.



462 - Gravel	Useful Life 5	Remaining Life 1
41,350 Sq. Ft. Access Road & Parking (5%)	Quantity 41,350	Unit of Measure Square Feet
	Cost /SqFt \$1.02	Qty * \$/SqFt \$42,384
	% Included 5.00%	Total Cost/Study \$2,119
Summary	Replacement Year 2012/2013	Future Cost \$2,172

This is to replenish the gravel rock throughout the unpaved access road and unpaved parking areas.



Central Park Horse Arena/BMX Track

01000 - Paving

502 - Curbs: Concrete	Useful Life 10	Remaining Life 6
150 Lin. Ft. Parking Lot	Quantity 150	Unit of Measure Linear Feet
	Cost /l.f. \$8.20	
	% Included 100.00%	Total Cost/Study \$1,230
Summary	Replacement Year 2017/2018	Future Cost \$1,426
This is to replace the concrete curbing.		



802 - Striping	Useful Life 5	Remaining Life 1
Parking Lot	Quantity 1	Unit of Measure Lump Sum
	Cost /LS \$512	
	% Included 100.00%	Total Cost/Study \$512
Summary	Replacement Year 2012/2013	Future Cost \$525
This is to re-stripe asphalt to match existing plan.		



Central Park Horse Arena/BMX Track

03000 - Painting: Exterior

126 - Surface Restoration	Useful Life 5	Remaining Life 2
1,762 Sq. Ft. Wood Booths	Quantity 1,762	Unit of Measure Square Feet
	Cost /SqFt \$1.02	
	% Included 100.00%	Total Cost/Study \$1,806
Summary	Replacement Year 2013/2014	Future Cost \$1,897

This is to prepare, power wash, sand, scrape, caulk and paint with a 100% premium acrylic paint. This component provides for the Announcer's booth at the horse arena as well as the booths at the BMX track.



130 - Surface Restoration	Useful Life 5	Remaining Life 2
1,424 Sq. Ft. Wood Bleachers	Quantity 1,424	Unit of Measure Square Feet
	Cost /SqFt \$1.02	
	% Included 100.00%	Total Cost/Study \$1,460
Summary	Replacement Year 2013/2014	Future Cost \$1,533

This is to prepare and paint the wooden bleachers at both the horse arena and the BMX track.

Horse Arena - 1,168 square feet of paintable surface.
BMX Track - 256 square feet of paintable surface.



Central Park Horse Arena/BMX Track

03000 - Painting: Exterior

132 - Surface Restoration	Useful Life 5	Remaining Life 2
6 Wood Benches in Pens	Quantity 6	Unit of Measure Items
	Cost /ltn \$205	
	% Included 100.00%	Total Cost/Study \$1,230
Summary	Replacement Year 2013/2014	Future Cost \$1,292
This is to prepare and paint the wood benches.		



400 - Wrought Iron	Useful Life 5	Remaining Life 2
1,928 Lin. Ft. Tubular Steel Fencing	Quantity 1,928	Unit of Measure Linear Feet
	Cost /l.f. \$6.15	
	% Included 100.00%	Total Cost/Study \$11,857
Summary	Replacement Year 2013/2014	Future Cost \$12,457
This is to prepare and paint the 3, 5 & 6' tubular steel fencing.		



Central Park Horse Arena/BMX Track

04000 - Structural Repairs

954 - Dry-rot repairs- ongoing	Useful Life 5	Remaining Life 2
1,762 Sq. Ft. Wood Booths (16.7%)	Quantity 1,762	Unit of Measure Square Feet
	Cost /SqFt \$10.25	Qty * \$/SqFt \$18,060
	% Included 16.74%	Total Cost/Study \$3,024
Summary	Replacement Year 2013/2014	Future Cost \$3,177

This is for repair and replacement of the wooden announcer's/spectators booths at both the horse arena and the BMX track.



18000 - Landscaping

460 - General Repairs/Upgrades	Useful Life 1	Remaining Life 1
Open Area	Quantity 1	Unit of Measure Lump Sum
	Cost /LS \$1,537	
	% Included 100.00%	Total Cost/Study \$1,537
Summary	Replacement Year 2012/2013	Future Cost \$1,576

This is to maintain the open area and keep vegetation overgrowth to a minimum.



Central Park Horse Arena/BMX Track

19000 - Fencing

110 - Chain Link: 6'	Useful Life 30	Remaining Life 19
24 Lin. Ft. Entrance Gates	Quantity 24	Unit of Measure Linear Feet
	Cost /l.f. \$15.37	
	% Included 100.00%	Total Cost/Study \$369
Summary	Replacement Year 2030/2031	Future Cost \$590
This is to replace the 6' chain link manually operated entrance gates.		



210 - Wrought Iron: 3'	Useful Life 30	Remaining Life 19
72 Lin. Ft. Tubular Steel Hitching Posts [6]	Quantity 72	Unit of Measure Linear Feet
	Cost /l.f. \$25.62	
	% Included 100.00%	Total Cost/Study \$1,845
Summary	Replacement Year 2030/2031	Future Cost \$2,950

This is to replace the six 3' tubular steel hitching posts. With aggressive paint maintenance, this component's life may be extended. Painting is provided for within another component.



Central Park Horse Arena/BMX Track

19000 - Fencing

224 - Wrought Iron: 5'	Useful Life 30	Remaining Life 19
956 Lin. Ft. 5' Tubular Steel Fencing	Quantity 956	Unit of Measure Linear Feet
	Cost /l.f. \$34.85	
	% Included 100.00%	Total Cost/Study \$33,317
Summary	Replacement Year 2030/2031	Future Cost \$53,262
This is to replace the 5' tubular steel fencing forming the horse pens.		



230 - Wrought Iron: 6'	Useful Life 30	Remaining Life 19
900 Lin. Ft. 6' Tubular Steel Fencing	Quantity 900	Unit of Measure Linear Feet
	Cost /l.f. \$36.90	
	% Included 100.00%	Total Cost/Study \$33,210
Summary	Replacement Year 2030/2031	Future Cost \$53,091
This is to replace the 6' tubular steel fencing bordering the horse arena.		



Central Park Horse Arena/BMX Track

19000 - Fencing

512 - Post & Cable	Useful Life 25	Remaining Life 12
728 Lin. Ft. Perimeter Paved Parking	Quantity 728	Unit of Measure Linear Feet
	Cost /l.f. \$20.50	
	% Included 100.00%	Total Cost/Study \$14,924
Summary	Replacement Year 2023/2024	Future Cost \$20,071
This is to repair and replace the 3' post and cable fence.		



780 - Gates	Useful Life 20	Remaining Life 9
14 Lin. Ft. Access Road Gate	Quantity 14	Unit of Measure Linear Feet
	Cost /l.f. \$51.25	
	% Included 100.00%	Total Cost/Study \$717
Summary	Replacement Year 2020/2021	Future Cost \$896
This is to maintain, repair and replace the gates and gate hardware.		



Central Park Horse Arena/BMX Track

20000 - Lighting

100 - Exterior: Misc. Fixtures	Useful Life 5	Remaining Life 9
8 Athletic Field Lighting (13%)	Quantity 8	Unit of Measure Items
	Cost /Itm \$2,562	Qty * \$/Itm \$20,500
	% Included 12.50%	Total Cost/Study \$2,562
Summary	Replacement Year 2020/2021	Future Cost \$3,200

This is on-going replacement of the Athletic Field Lighting.



21000 - Signage

710 - Entry Signs	Useful Life 15	Remaining Life 7
Main Entrance Sign	Quantity 1	Unit of Measure Items
	Cost /Itm \$1,025	
	% Included 100.00%	Total Cost/Study \$1,025
Summary	Replacement Year 2018/2019	Future Cost \$1,218

This is to replace the "Elkhorn BMX" entry sign.



Central Park Horse Arena/BMX Track

24500 - Audio / Visual

300 - PA System	Useful Life 10	Remaining Life 6
6 Speakers	Quantity 6	Unit of Measure Items
	Cost /Itm \$256	
	% Included 100.00%	Total Cost/Study \$1,537
Summary	Replacement Year 2017/2018	Future Cost \$1,783
This is to replace the public address system speakers.		



26000 - Outdoor Equipment

282 - Picnic Tables	Useful Life 20	Remaining Life 9
5 Common Area	Quantity 5	Unit of Measure Items
	Cost /Itm \$512	
	% Included 100.00%	Total Cost/Study \$2,562
Summary	Replacement Year 2020/2021	Future Cost \$3,200
This is to replace the picnic tables.		



Central Park Horse Arena/BMX Track

26000 - Outdoor Equipment

304 - Benches	Useful Life 12	Remaining Life 7
2 Common Area	Quantity 2	Unit of Measure Items
	Cost /Itm \$512	
	% Included 100.00%	Total Cost/Study \$1,025
Summary	Replacement Year 2018/2019	Future Cost \$1,218
This is to replace the benches.		



306 - Benches	Useful Life 12	Remaining Life 7
6 Wood Benches in Pens	Quantity 6	Unit of Measure Items
	Cost /Itm \$615	
	% Included 100.00%	Total Cost/Study \$3,690
Summary	Replacement Year 2018/2019	Future Cost \$4,386
This is to replace the wood benches.		



380 - Garbage Receptacles	Useful Life 20	Remaining Life 10
15 Trash Cans	Quantity 15	Unit of Measure Items
	Cost /Itm \$102	
	% Included 100.00%	Total Cost/Study \$1,537
Summary	Replacement Year 2021/2022	Future Cost \$1,968
This is to replace the garbage containers.		

Central Park Horse Arena/BMX Track

26000 - Outdoor Equipment

432 - Bleachers	Useful Life 20	Remaining Life 11
2 Wood Bleachers	Quantity 2	Unit of Measure Items
	Cost /Itm \$3,075	
	% Included 100.00%	Total Cost/Study \$6,150
Summary	Replacement Year 2022/2023	Future Cost \$8,069

This is to replace the 2 sets of 15' x 73' (8 rows each) wood bleachers.



442 - Bleachers: Aluminum	Useful Life 20	Remaining Life 13
2 Aluminum Bleachers	Quantity 2	Unit of Measure Items
	Cost /Itm \$4,100	
	% Included 100.00%	Total Cost/Study \$8,200
Summary	Replacement Year 2024/2025	Future Cost \$11,304

This is to replace the 2 sets of 19' x 26' (10 rows each) aluminum bleachers.



450 - Bleachers	Useful Life 20	Remaining Life 12
2 BMX Bleachers	Quantity 2	Unit of Measure Items
	Cost /Itm \$2,050	
	% Included 100.00%	Total Cost/Study \$4,100
Summary	Replacement Year 2023/2024	Future Cost \$5,514

This is to replace the wood bleachers at the BMX track.

1 - 6' x 16' , 3 rows
1 - 9' x 16' , 5 rows

Community Center Park

01000 - Paving

104 - Asphalt: Sealing	Useful Life 5	Remaining Life 2
35,650 Sq. Ft. Parking Lot	Quantity 35,650	Unit of Measure Square Feet
	Cost /SqFt \$0.154	
	% Included 100.00%	Total Cost/Study \$5,481
Summary	Replacement Year 2013/2014	Future Cost \$5,759

This is to prepare the surface and apply a single coat asphalt emulsion product. If a second coat is desired the cost is generally 10% to 20% higher.



204 - Asphalt: Ongoing Repairs	Useful Life 5	Remaining Life 2
35,650 Sq. Ft. Parking Lot (2%)	Quantity 35,650	Unit of Measure Square Feet
	Cost /SqFt \$3.33	Qty * \$/SqFt \$118,759
	% Included 2.00%	Total Cost/Study \$2,375
Summary	Replacement Year 2013/2014	Future Cost \$2,495

This is for miscellaneous repairs including crackfill, skin patching and minor dig out & fill.



304 - Asphalt: Petromat Overlay	Useful Life 25	Remaining Life 12
35,650 Sq. Ft. Parking Lot	Quantity 35,650	Unit of Measure Square Feet
	Cost /SqFt \$1.64	
	% Included 100.00%	Total Cost/Study \$58,466
Summary	Replacement Year 2023/2024	Future Cost \$78,630

This is to apply a Petromat overlay on top of the existing asphalt surface along with 1-1/2" of new hot asphalt. Generally this includes edge grinding and utility box extensions.

Component Listing

Included Components

Third Draft
Prepared for the 2012/2013 Fiscal Year

Community Center Park

01000 - Paving

464 - Gravel	Useful Life 10	Remaining Life 5
18,200 Sq. Ft. Harvey House Yard	Quantity 18,200	Unit of Measure Square Feet
	Cost /SqFt \$0.256	
	% Included 100.00%	Total Cost/Study \$4,664
Summary	Replacement Year 2016/2017	Future Cost \$5,277
This is to replenish the gravel rock at the Harvey House yard.		



02000 - Concrete

900 - Miscellaneous	Useful Life 5	Remaining Life 1
18,209 Sq. Ft. All Concrete Flatwork (2%)	Quantity 18,209	Unit of Measure Square Feet
	Cost /SqFt \$16.40	Qty * \$/SqFt \$298,628
	% Included 2.00%	Total Cost/Study \$5,973
Summary	Replacement Year 2012/2013	Future Cost \$6,122
This is for miscellaneous concrete repair. This component provides for vertical curb, mowing strips, walkways, slabs, concrete courtyards, horseshoe pit concrete, and the shuffleboard courts. This is for on-going repairs not full replacement.		



Community Center Park

03000 - Painting: Exterior

134 - Surface Restoration	Useful Life 5	Remaining Life 3
5,400 Sq. Ft. Building Surface	Quantity 5,400	Unit of Measure Square Feet
	Cost /SqFt \$1.02	
	% Included 100.00%	Total Cost/Study \$5,535
Summary	Replacement Year 2014/2015	Future Cost \$5,961
This is to prepare, power wash, sand, scrape, caulk and paint with a 100% premium acrylic paint.		



136 - Surface Restoration	Useful Life 5	Remaining Life 1
483 Sq. Ft. Wood Trellis	Quantity 483	Unit of Measure Square Feet
	Cost /SqFt \$1.02	
	% Included 100.00%	Total Cost/Study \$495
Summary	Replacement Year 2012/2013	Future Cost \$507
This is to prepare, power wash, sand, scrape, caulk and paint with a 100% premium acrylic paint.		



Community Center Park

03000 - Painting: Exterior

138 - Surface Restoration	Useful Life 10	Remaining Life 6
3,108 Sq. Ft. Harvey House	Quantity 3,108	Unit of Measure Square Feet
	Cost /SqFt \$1.02	
	% Included 100.00%	Total Cost/Study \$3,186
Summary	Replacement Year 2017/2018	Future Cost \$3,694
This is to prepare, power wash, sand, scrape, caulk and paint with a 100% premium acrylic paint.		



402 - Wrought Iron	Useful Life 4	Remaining Life 1
160 Lin. Ft. 4' Wrought Iron Fencing	Quantity 160	Unit of Measure Linear Feet
	Cost /l.f. \$9.22	
	% Included 100.00%	Total Cost/Study \$1,476
Summary	Replacement Year 2012/2013	Future Cost \$1,513
This is to prepare, power wash, sand, scrape, spot prime and paint the wrought iron.		



Community Center Park

03000 - Painting: Exterior

410 - Wrought Iron Gates	Useful Life 4	Remaining Life 1
12 Building Perimeter	Quantity 12	Unit of Measure Items
	Cost /Itm \$615	
	% Included 100.00%	Total Cost/Study \$7,380
Summary	Replacement Year 2012/2013	Future Cost \$7,565
This is to prepare, power wash, sand, scrape, spot prime and paint the wrought iron gates.		



450 - Wood Fencing	Useful Life 5	Remaining Life 3
1,200 Sq. Ft. Perimeter	Quantity 1,200	Unit of Measure Square Feet
	Cost /SqFt \$0.512	
	% Included 100.00%	Total Cost/Study \$615
Summary	Replacement Year 2014/2015	Future Cost \$662
This is to prepare and paint the wood fencing.		



Community Center Park

03500 - Painting: Interior

100 - Building	Useful Life 10	Remaining Life 4
7,138 Sq. Ft. All Interior Spaces	Quantity 7,138	Unit of Measure Square Feet
	Cost /SqFt \$1.02	
	% Included 100.00%	Total Cost/Study \$7,316
Summary	Replacement Year 2015/2016	Future Cost \$8,076

This is to prepare and paint all building interior spaces. In 2011, the paint appeared in fair to good condition.

Paintable Surfaces:

- Entry - 600 square feet
- Halls - 736 square feet
- Restrooms - 480 square feet
- Kitchen - 1,322 square feet
- Main Room - 1,600 square feet
- 4 Offices - 2,400 square feet



04000 - Structural Repairs

290 - Ceilings	Useful Life 30	Remaining Life 14
3,500 Sq. Ft. Acoustic Ceilings	Quantity 3,500	Unit of Measure Square Feet
	Cost /SqFt \$1.43	
	% Included 100.00%	Total Cost/Study \$5,022
Summary	Replacement Year 2025/2026	Future Cost \$7,097

This is to replace the acoustic ceiling.

- Entry - 600 square feet
- Halls - 160 square feet
- Main Room - 1,940 square feet
- 4 Offices - 800 square feet



Component Listing

Included Components

Third Draft
Prepared for the 2012/2013 Fiscal Year

Community Center Park

04000 - Structural Repairs

300 - Trellis	Useful Life 20	Remaining Life 10
Shuffleboard Area	Quantity 1	Unit of Measure Lump Sum
	Cost /LS \$1,025	
	% Included 100.00%	Total Cost/Study \$1,025
Summary	Replacement Year 2021/2022	Future Cost \$1,312
This is to repair, replace and maintain the trellis.		

994 - Miscellaneous	Useful Life 10	Remaining Life 7
5 Wood Planter Boxes	Quantity 5	Unit of Measure Items
	Cost /ltm \$512	
	% Included 100.00%	Total Cost/Study \$2,562
Summary	Replacement Year 2018/2019	Future Cost \$3,046
This is repair, replace, and maintain the 12' square wood planter boxes.		



05000 - Roofing

200 - Low Slope: BUR	Useful Life 20	Remaining Life 9
16 Squares- Community Center	Quantity 16	Unit of Measure Squares
	Cost /Sqrs \$307	
	% Included 100.00%	Total Cost/Study \$4,920
Summary	Replacement Year 2020/2021	Future Cost \$6,144
This is to replace the built-up roofing.		



Community Center Park

05000 - Roofing

442 - Pitched: Dimensional Composition	Useful Life 25	Remaining Life 19
74 Squares- Community Center	Quantity 74	Unit of Measure Squares
	Cost /Sqrs \$410	
	% Included 100.00%	Total Cost/Study \$30,340
Summary	Replacement Year 2030/2031	Future Cost \$48,503

This is to reroof with a dimensional composition roofing product. Composition roofs should be regularly inspected and repaired as indicated to ensure maximum life.



448 - Pitched: Dimensional Composition	Useful Life 25	Remaining Life 14
30 Squares- Harvey House	Quantity 30	Unit of Measure Squares
	Cost /Sqrs \$410	
	% Included 100.00%	Total Cost/Study \$12,300
Summary	Replacement Year 2025/2026	Future Cost \$17,380

This is to reroof the Harvey House with a dimensional composition roofing product. Composition roofs should be regularly inspected and repaired as indicated to ensure maximum life.



08000 - Rehab

104 - General	Useful Life 10	Remaining Life 4
1,944 Sq. Ft. Harvey House Interior	Quantity 1,944	Unit of Measure Square Feet
	Cost /SqFt \$3.00	
	% Included 100.00%	Total Cost/Study \$5,832
Summary	Replacement Year 2015/2016	Future Cost \$6,437

This is for a general rehab of the interiors of the Harvey House. Includes paint, flooring, lighting, wall coverings, fixtures, and furniture. The Harvey House interior was not visually inspected during the 2011 site visit.

Community Center Park
08000 - Rehab

108 - General	Useful Life 20	Remaining Life 9
2,300 Sq. Ft. [4] Comm.Ctr.Offices	Quantity 2,300	Unit of Measure Square Feet
	Cost /SqFt \$1.50	
	% Included 100.00%	Total Cost/Study \$3,450
Summary	Replacement Year 2020/2021	Future Cost \$4,309

This is for a general rehab of the office interiors. Includes lighting, fixtures, window coverings, doors, etc. Furnishings, paint, carpeting, ceilings and computers are provided for in other components.



120 - General	Useful Life 20	Remaining Life 9
Main Room	Quantity 1	Unit of Measure Lump Sum
	Cost /LS \$3,075	
	% Included 100.00%	Total Cost/Study \$3,075
Summary	Replacement Year 2020/2021	Future Cost \$3,840

This is for a general rehab of the main room interior. Includes interior doors, exterior doors with panic hardware, lighting, signage, windows, etc. Paint, wood paneling, carpet, vinyl flooring, ceilings, and furnishings are provided for in other components.



Component Listing

Included Components

Third Draft
Prepared for the 2012/2013 Fiscal Year

Community Center Park

08000 - Rehab

222 - Restrooms	Useful Life 20	Remaining Life 9
2 Restrooms	Quantity 2	Unit of Measure Items
	Cost /Itm \$1,500	
	% Included 100.00%	Total Cost/Study \$3,000
Summary	Replacement Year 2020/2021	Future Cost \$3,747

This is to rehab and redecorate the restrooms. Includes items such as partitions, fixtures, doors and lighting. This item can be further defined with association input. Paint and tile are provided for in other components.



230 - Kitchen	Useful Life 20	Remaining Life 9
Kitchen	Quantity 1	Unit of Measure Items
	Cost /Itm \$3,075	
	% Included 100.00%	Total Cost/Study \$3,075
Summary	Replacement Year 2020/2021	Future Cost \$3,840

This is to rehab and redecorate the kitchen. Includes items such as cabinets, countertops, fixtures, doors, and lighting. This item can be further defined with association input. Appliances, paint, and flooring are provided for in other components.



Community Center Park

17000 - Tennis Court

100 - Reseal	Useful Life 7	Remaining Life 3
7,200 Tennis Court	Quantity 7,200	Unit of Measure Lump Sum
	Cost /LS \$0.102	
	% Included 100.00%	Total Cost/Study \$738
Summary	Replacement Year 2014/2015	Future Cost \$795
This is to reseal and re-stripe the tennis courts.		



500 - Resurface	Useful Life 21	Remaining Life 10
7,200 Sq. Ft. Tennis Court	Quantity 7,200	Unit of Measure Square Feet
	Cost /SqFt \$1.23	
	% Included 100.00%	Total Cost/Study \$8,856
Summary	Replacement Year 2021/2022	Future Cost \$11,336
This is to resurface the tennis courts utilizing a Petromat overlay, color coat and striping.		



Community Center Park
17500 - Basketball / Sport Court

200 - Seal & Striping	Useful Life 7	Remaining Life 3
6,993 Sq. Ft. Asphalt Basketball Court	Quantity 6,993	Unit of Measure Square Feet
	Cost /SqFt \$0.102	
	% Included 100.00%	Total Cost/Study \$717
Summary	Replacement Year 2014/2015	Future Cost \$772
This is to seal and re-stripe the surface on an ongoing basis.		



400 - Overlay	Useful Life 21	Remaining Life 10
6,993 Sq. Ft. Asphalt Basketball Court	Quantity 6,993	Unit of Measure Square Feet
	Cost /SqFt \$1.02	
	% Included 100.00%	Total Cost/Study \$7,168
Summary	Replacement Year 2021/2022	Future Cost \$9,175
This is to overlay the surface with new hot asphalt.		



Community Center Park
18000 - Landscaping

102 - Irrigation: Misc.	Useful Life 3	Remaining Life 1
Irrigation Items	Quantity 1	Unit of Measure Lump Sum
	Cost /LS \$1,025	
	% Included 100.00%	Total Cost/Study \$1,025
Summary	Replacement Year 2012/2013	Future Cost \$1,051

This is for major irrigation system repair in excess of the operating budget. Includes valves, timers and backflow prevention devices.



422 - General Repairs/Upgrades	Useful Life 3	Remaining Life 1
Landscaped Area	Quantity 1	Unit of Measure Lump Sum
	Cost /LS \$1,025	
	% Included 100.00%	Total Cost/Study \$1,025
Summary	Replacement Year 2012/2013	Future Cost \$1,051

This is to have funds in excess of the operating budget for miscellaneous plantings, removals and other work as directed by the association.



Community Center Park

19000 - Fencing

050 - Chain Link	Useful Life 30	Remaining Life 21
128 Lin. Ft. [16] Horseshoe Backstops	Quantity 128	Unit of Measure Linear Feet
	Cost /l.f. \$11.27	
	% Included 100.00%	Total Cost/Study \$1,443
Summary	Replacement Year 2032/2033	Future Cost \$2,424
This is to replace the horseshoe pit backstops, comprised of chain link fencing.		



112 - Chain Link: 6'	Useful Life 30	Remaining Life 19
110 Lin. Ft. Perimeter	Quantity 110	Unit of Measure Linear Feet
	Cost /l.f. \$12.30	
	% Included 100.00%	Total Cost/Study \$1,353
Summary	Replacement Year 2030/2031	Future Cost \$2,163
This is to replace the 6' chain link fencing.		



Community Center Park

19000 - Fencing

114 - Chain Link: 6'	Useful Life 30	Remaining Life 19
665 Lin. Ft. Harvey House Perimeter	Quantity 665	Unit of Measure Linear Feet
	Cost /l.f. \$12.30	
	% Included 100.00%	Total Cost/Study \$8,179
Summary	Replacement Year 2030/2031	Future Cost \$13,076
This is to replace the 6' chain link fencing at the perimeter of the Harvey House lot.		



122 - Chain Link: 8'	Useful Life 30	Remaining Life 19
336 Lin. Ft. Perimeter & Utility Enclosure	Quantity 336	Unit of Measure Linear Feet
	Cost /l.f. \$14.35	
	% Included 100.00%	Total Cost/Study \$4,822
Summary	Replacement Year 2030/2031	Future Cost \$7,708
This is to replace the 8' chain link fencing.		



Community Center Park

19000 - Fencing

132 - Chain Link: 10'	Useful Life 30	Remaining Life 19
360 Lin. Ft. Tennis Court Perimeter	Quantity 360	Unit of Measure Linear Feet
	Cost /l.f. \$18.45	
	% Included 100.00%	Total Cost/Study \$6,642
Summary	Replacement Year 2030/2031	Future Cost \$10,618
This is to replace the tennis court 10' chain link fencing. Includes the 2 pedestrian gates.		



190 - Chain Link: Slats	Useful Life 30	Remaining Life 12
136 Lin. Ft. Utility Enclosure	Quantity 136	Unit of Measure Linear Feet
	Cost /l.f. \$10.25	
	% Included 100.00%	Total Cost/Study \$1,394
Summary	Replacement Year 2023/2024	Future Cost \$1,875
This is to replace the chain link privacy slats.		



Community Center Park

19000 - Fencing

220 - Wrought Iron: 4'	Useful Life 30	Remaining Life 19
160 Lin. Ft. Building Perimeter	Quantity 160	Unit of Measure Linear Feet
	Cost /l.f. \$30.75	
	% Included 100.00%	Total Cost/Study \$4,920
Summary	Replacement Year 2030/2031	Future Cost \$7,865

This is to replace the 4' wrought iron fencing. With aggressive paint maintenance, this component's life may be extended. Painting is provided for within another component.



310 - Wood: 3'	Useful Life 15	Remaining Life 9
198 Lin. Ft. Wood Rail Fence	Quantity 198	Unit of Measure Linear Feet
	Cost /l.f. \$15.37	
	% Included 100.00%	Total Cost/Study \$3,044
Summary	Replacement Year 2020/2021	Future Cost \$3,802

This is to replace the 3' wood hitching post type fencing including discarded fence material removal and disposal.



Community Center Park

19000 - Fencing

320 - Wood: 4'	Useful Life 15	Remaining Life 11
145 Lin. Ft. Harvey House Perimeter	Quantity 145	Unit of Measure Linear Feet
	Cost /l.f. \$18.45	
	% Included 100.00%	Total Cost/Study \$2,675
Summary	Replacement Year 2022/2023	Future Cost \$3,510
This is to replace the 4' wood fencing including discarded fence material removal and disposal.		



340 - Wood: 6'	Useful Life 15	Remaining Life 10
200 Lin. Ft. Perimeter	Quantity 200	Unit of Measure Linear Feet
	Cost /l.f. \$25.62	
	% Included 100.00%	Total Cost/Study \$5,125
Summary	Replacement Year 2021/2022	Future Cost \$6,560
This is to replace the 6' wood fencing including discarded fence material removal and disposal.		



Community Center Park

19000 - Fencing

420 - Masonry Wall: On-going Maint.
180 Building Exterior

Useful Life 5 Remaining Life 3
Quantity 180 Unit of Measure Lump Sum
Cost /LS \$5.12
% Included 100.00% Total Cost/Study \$922

Summary

Replacement Year 2014/2015 Future Cost \$993

This is for ongoing masonry wall maintenance. Since the core masonry wall useful life exceeds the scope of this thirty year study, this component provides for repair only and not full replacement. Maintenance may include paint touchup, graffiti removal, and minor structural repairs.



514 - Post & Cable
650 Lin. Ft. Perimeter

Useful Life 25 Remaining Life 12
Quantity 650 Unit of Measure Linear Feet
Cost /l.f. \$20.50
% Included 100.00% Total Cost/Study \$13,325

Summary

Replacement Year 2023/2024 Future Cost \$17,921

This is to repair and replace the post and cable fence.



Community Center Park

19500 - Retaining Wall

990 - Miscellaneous	Useful Life 20	Remaining Life 16
185 Lin. Ft. Keystone Retaining Wall	Quantity 185	Unit of Measure Linear Feet
	Cost /l.f. \$10.25	
	% Included 100.00%	Total Cost/Study \$1,896
Summary	Replacement Year 2027/2028	Future Cost \$2,815
This is to replace the keystone retaining wall at the building exterior. 3' nominal height.		



20000 - Lighting

540 - Parking Lot	Useful Life 25	Remaining Life 19
3 Parking Lot	Quantity 3	Unit of Measure Items
	Cost /itm \$2,255	
	% Included 100.00%	Total Cost/Study \$6,765
Summary	Replacement Year 2030/2031	Future Cost \$10,815
This is to replace the parking lot lights.		



Community Center Park

21000 - Signage

792 - Monument	Useful Life 10	Remaining Life 4
Oak Lane Frontage	Quantity 1	Unit of Measure Items
	Cost /Itm \$1,537	
	% Included 100.00%	Total Cost/Study \$1,537
Summary	Replacement Year 2015/2016	Future Cost \$1,697

This is to repair and repaint the custom identity monument sign. Approximately 108 square feet of surface area.



22000 - Office Equipment

200 - Computers, Misc.	Useful Life 8	Remaining Life 3
4 Offices	Quantity 4	Unit of Measure Items
	Cost /Itm \$2,562	
	% Included 100.00%	Total Cost/Study \$10,250
Summary	Replacement Year 2014/2015	Future Cost \$11,038

This is to replace computers, printers, scanners and networking equipment as needed.



Community Center Park
23000 - Mechanical Equipment

200 - HVAC	Useful Life 15	Remaining Life 9
3 Building Units	Quantity 3	Unit of Measure Items
	Cost /Itm \$5,125	
	% Included 100.00%	Total Cost/Study \$15,375
Summary	Replacement Year 2020/2021	Future Cost \$19,201

This is to replace 3 units in the HVAC system. It is possible that sub-components of this system can be replaced or re-built to extend its life. Two newer units are provided for in another component.



202 - HVAC	Useful Life 15	Remaining Life 15
2 Building Units	Quantity 2	Unit of Measure Items
	Cost /Itm \$5,125	
	% Included 100.00%	Total Cost/Study \$10,250
Summary	Replacement Year 2026/2027	Future Cost \$14,845

This is to replace the two newer units in the HVAC system. It is possible that sub-components of this system can be replaced or re-built to extend its life. Three older units are provided for in another component.

Community Center Park

24000 - Furnishings

110 - Miscellaneous	Useful Life 20	Remaining Life 9
155 Main Room Furnishings	Quantity 155	Unit of Measure Items
	Cost /Itm \$51.25	
	% Included 100.00%	Total Cost/Study \$7,944
Summary	Replacement Year 2020/2021	Future Cost \$9,921

This is to replace the furnishings in the main room.

- 90 - Orange stackable chairs (metal & plastic)
- 42 - Green metal arm chairs
- 23 - Folding tables



400 - Miscellaneous	Useful Life 15	Remaining Life 7
8 Entry Furnishings	Quantity 8	Unit of Measure Items
	Cost /Itm \$512	
	% Included 100.00%	Total Cost/Study \$4,100
Summary	Replacement Year 2018/2019	Future Cost \$4,874

This is to replace the entry furnishings.

- 4 - sofas
- 2 - coffee tables
- 1 - chair
- 1 - end table



Community Center Park

24000 - Furnishings

640 - Modular Office Desk	Useful Life 20	Remaining Life 9
4 Offices	Quantity 4	Unit of Measure Items
	Cost /Itm \$2,460	
	% Included 100.00%	Total Cost/Study \$9,840
Summary	Replacement Year 2020/2021	Future Cost \$12,289
This is for a modular desk system including a desk, hutches, partitions and chair.		



25000 - Flooring

200 - Carpeting	Useful Life 10	Remaining Life 4
314 Sq. Yds. Carpeted Rooms	Quantity 314	Unit of Measure Square Yard
	Cost /SqYd \$32.80	
	% Included 100.00%	Total Cost/Study \$10,299
Summary	Replacement Year 2015/2016	Future Cost \$11,368
This is to replace the carpeting. The carpeting in general is showing wear, with stains noticed in the entry room.		
Entry - 67 square yards		
Halls - 31 square yards		
Main Room - 127 square yards		
4 Offices - 89 square yards		



Community Center Park
25000 - Flooring

400 - Tile	Useful Life 20	Remaining Life 9
1,942 Sq. Ft. Restrooms & Kitchen	Quantity 1,942	Unit of Measure Square Feet
	Cost /SqFt \$6.15	
	% Included 100.00%	Total Cost/Study \$11,943
Summary	Replacement Year 2020/2021	Future Cost \$14,916
This is to replace the tile flooring. Includes the wall tile in the restrooms.		
Restrooms - 1,480 square feet		
Kitchen - 462 square feet		



600 - Vinyl	Useful Life 30	Remaining Life 14
89 Sq. Yds. Main Room	Quantity 89	Unit of Measure Square Yard
	Cost /SqYd \$26.65	
	% Included 100.00%	Total Cost/Study \$2,372
Summary	Replacement Year 2025/2026	Future Cost \$3,351
This is to replace the vinyl flooring.		



Community Center Park

25500 - Wallcoverings

100 - Wallpaper	Useful Life 20	Remaining Life 9
94 Sq. Yds. Main Room Wallcovering	Quantity 94	Unit of Measure Square Yard
	Cost /SqYd \$30.75	
	% Included 100.00%	Total Cost/Study \$2,890
Summary	Replacement Year 2020/2021	Future Cost \$3,610
This is to replace the carpet type wallpaper with equivalent.		



900 - Miscellaneous	Useful Life 20	Remaining Life 9
1,660 Sq. Ft. Wood Paneling	Quantity 1,660	Unit of Measure Square Feet
	Cost /SqFt \$7.17	
	% Included 100.00%	Total Cost/Study \$11,910
Summary	Replacement Year 2020/2021	Future Cost \$14,875
This is to replace the interior wood wall coverings.		



26000 - Outdoor Equipment

060 - Flag Pole	Useful Life 20	Remaining Life 0
Flag Pole	Quantity 1	Unit of Measure Items
	Cost /ltm \$4,100	
	% Included 100.00%	Total Cost/Study \$4,100
Summary	Replacement Year 2011/2012	Future Cost \$4,100
This is to install a large flag pole in the common area.		

Community Center Park

26000 - Outdoor Equipment

102 - Tot Lot: Play Equipment	Useful Life 20	Remaining Life 8
10 Smaller Structures	Quantity 10	Unit of Measure Items
	Cost /Itm \$1,025	
	% Included 100.00%	Total Cost/Study \$10,250
Summary	Replacement Year 2019/2020	Future Cost \$12,489
This is to replace the tot lot play equipment.		



108 - Tot Lot: Play Equipment	Useful Life 20	Remaining Life 8
Large Structure	Quantity 1	Unit of Measure Items
	Cost /Itm \$10,250	
	% Included 100.00%	Total Cost/Study \$10,250
Summary	Replacement Year 2019/2020	Future Cost \$12,489
This is to replace the tot lot play equipment.		



Component Listing

Included Components

Third Draft
Prepared for the 2012/2013 Fiscal Year

Community Center Park

26000 - Outdoor Equipment

180 - Bike Rack	Useful Life 20	Remaining Life 13
4 Metal Bike Racks	Quantity 4	Unit of Measure Items
	Cost /Itm \$102	
	% Included 100.00%	Total Cost/Study \$410
Summary	Replacement Year 2024/2025	Future Cost \$565
This is to replace the common area bike racks.		



200 - Pedestal Grill BBQ	Useful Life 15	Remaining Life 7
2 Picnic Area	Quantity 2	Unit of Measure Items
	Cost /Itm \$307	
	% Included 100.00%	Total Cost/Study \$615
Summary	Replacement Year 2018/2019	Future Cost \$731
This is to replace the pedestal grill BBQ's.		



Community Center Park
26000 - Outdoor Equipment

284 - Picnic Tables	Useful Life 20	Remaining Life 5	
6 Tot Lot Area	Quantity 6	Unit of Measure	Items
	Cost /Itm \$615		
	% Included 100.00%	Total Cost/Study	\$3,690
Summary	Replacement Year 2016/2017	Future Cost	\$4,175
This is to replace the picnic tables.			



308 - Benches	Useful Life 12	Remaining Life 5	
7 Outdoor Benches	Quantity 7	Unit of Measure	Items
	Cost /Itm \$615		
	% Included 100.00%	Total Cost/Study	\$4,305
Summary	Replacement Year 2016/2017	Future Cost	\$4,871
This is to replace the benches.			



Community Center Park

26000 - Outdoor Equipment

482 - Drinking Fountain	Useful Life 20	Remaining Life 9
Tot Lot Area	Quantity 1	Unit of Measure Items
	Cost /Itm \$2,460	
	% Included 100.00%	Total Cost/Study \$2,460
Summary	Replacement Year 2020/2021	Future Cost \$3,072

This is to replace the drinking fountain. The fountain(s) should be inspected, cleaned and sanitized frequently. Handle assemblies should be lubricated every six months.



840 - Shade Structure	Useful Life 30	Remaining Life 24
400 Sq. Ft. Metal Gazebo	Quantity 400	Unit of Measure Square Feet
	Cost /SqFt \$30.75	
	% Included 100.00%	Total Cost/Study \$12,300
Summary	Replacement Year 2035/2036	Future Cost \$22,247

This is to replace the shade structure with new similar model. 20' x 20'.



Community Center Park

26000 - Outdoor Equipment

904 - Miscellaneous	Useful Life 10	Remaining Life 5
Miscellaneous Outdoor Items	Quantity 1	Unit of Measure Lump Sum
	Cost /LS \$1,537	
	% Included 100.00%	Total Cost/Study \$1,537
Summary	Replacement Year 2016/2017	Future Cost \$1,740

This is to replace miscellaneous outdoor equipment. Includes 5 trash cans, miscellaneous signage, and pet station.



27000 - Appliances

080 - Warming Drawers	Useful Life 15	Remaining Life 7
Kitchen	Quantity 1	Unit of Measure Items
	Cost /ltm \$2,050	
	% Included 100.00%	Total Cost/Study \$2,050
Summary	Replacement Year 2018/2019	Future Cost \$2,437

This is to replace the Hobart warmer.



Community Center Park

27000 - Appliances

082 - Warming Drawers	Useful Life 15	Remaining Life 7
Kitchen	Quantity 1	Unit of Measure Items
	Cost /Itm \$2,050	
	% Included 100.00%	Total Cost/Study \$2,050
Summary	Replacement Year 2018/2019	Future Cost \$2,437
This is to replace the Wells commercial warming drawers.		



200 - Refrigerator	Useful Life 10	Remaining Life 4
Kitchen	Quantity 1	Unit of Measure Items
	Cost /Itm \$1,025	
	% Included 100.00%	Total Cost/Study \$1,025
Summary	Replacement Year 2015/2016	Future Cost \$1,131
This is to replace the GE 18 cubic foot refrigerator with top freezer and ice maker.		



Community Center Park

27000 - Appliances

220 - Refrigerator: Commercial: Large Kitchen	Useful Life 15 Quantity 1 Cost /Itm \$4,100 % Included 100.00%	Remaining Life 14 Unit of Measure Items Total Cost/Study \$4,100 Future Cost \$5,793
Summary	Replacement Year 2025/2026	
This is to replace the Ascend 35 degrees large commercial type refrigerator.		



270 - Stove / Oven: Commercial grade 6-burner Kitchen	Useful Life 20 Quantity 1 Cost /Itm \$4,100 % Included 100.00%	Remaining Life 9 Unit of Measure Items Total Cost/Study \$4,100 Future Cost \$5,120
Summary	Replacement Year 2020/2021	
This is to replace the Vulcan 6-burner stove/oven with a similar model.		



Community Center Park

27000 - Appliances

284 - Microwave Oven
2 Kitchen

Useful Life 10 Remaining Life 4
Quantity 2 Unit of Measure Items
Cost /Itm \$307

% Included 100.00% Total Cost/Study \$615

Summary

Replacement Year 2015/2016 Future Cost \$679

This is to replace the microwave ovens.

1 - Montgomery Ward
1 - Gold Star



296 - Stove: Exhaust Hood w/ Fan
Kitchen

Useful Life 20 Remaining Life 9
Quantity 1 Unit of Measure Items
Cost /Itm \$2,665

% Included 100.00% Total Cost/Study \$2,665

Summary

Replacement Year 2020/2021 Future Cost \$3,328

This is to replace the Vulcan exhaust hood.



Community Center Park

27000 - Appliances

940 - Drinking Fountain
Entry Area

Useful Life 15 Remaining Life 13
Quantity 1 Unit of Measure Items
Cost /Itm \$2,460
% Included 100.00% Total Cost/Study \$2,460
Replacement Year 2024/2025 Future Cost \$3,391

Summary

This is to replace the drinking fountain.



970 - Dishwasher
Kitchen

Useful Life 12 Remaining Life 6
Quantity 1 Unit of Measure Items
Cost /Itm \$1,000
% Included 100.00% Total Cost/Study \$1,000
Replacement Year 2017/2018 Future Cost \$1,160

Summary

This is to replace the Hobart dishwasher.



Depot Park

01000 - Paving

106 - Asphalt: Sealing	Useful Life 5	Remaining Life 1
1,428 Sq. Ft. Parking Area	Quantity 1,428	Unit of Measure Square Feet
	Cost /SqFt \$0.154	
	% Included 100.00%	Total Cost/Study \$220
Summary	Replacement Year 2012/2013	Future Cost \$225

This is to prepare the surface and apply a single coat asphalt emulsion product. If a second coat is desired the cost is generally 10% to 20% higher. This component also provides for re-stripping.



206 - Asphalt: Ongoing Repairs	Useful Life 5	Remaining Life 1
1,428 Sq. Ft. Parking Area (5%)	Quantity 1,428	Unit of Measure Square Feet
	Cost /SqFt \$3.33	Qty * \$/SqFt \$4,757
	% Included 5.00%	Total Cost/Study \$238
Summary	Replacement Year 2012/2013	Future Cost \$244

This is for miscellaneous repairs including crackfill, skin patching and minor dig out & fill, as well as maintaining the parking blocks. In 2011, the asphalt is cracked and in poor condition.



Depot Park

01000 - Paving

306 - Asphalt: Petromat Overlay	Useful Life 25	Remaining Life 10
1,428 Sq. Ft. Parking Area	Quantity 1,428	Unit of Measure Square Feet
	Cost /SqFt \$1.64	
	% Included 100.00%	Total Cost/Study \$2,342
Summary	Replacement Year 2021/2022	Future Cost \$2,998

This is to apply a Petromat overlay on top of the existing asphalt surface along with 1-1/2" of new hot asphalt. Generally this includes edge grinding and utility box extensions.



02000 - Concrete

200 - Sidewalks, Curbs & Gutters	Useful Life 3	Remaining Life 1
2,933 Sq. Ft. All Concrete (3%)	Quantity 2,933	Unit of Measure Square Feet
	Cost /SqFt \$16.40	Qty * \$/SqFt \$48,101
	% Included 2.50%	Total Cost/Study \$1,203
Summary	Replacement Year 2012/2013	Future Cost \$1,233

This is to repair, replace or grind failed concrete sidewalks, curbs and gutters to remove abrupt elevation changes and maintain functionality. Since the concrete useful life exceeds the scope of this study, this component provides for repair only and not full replacement. In 2011, the concrete appears in good condition.



Depot Park

03000 - Painting: Exterior

140 - Surface Restoration	Useful Life 6	Remaining Life 3
3,270 Sq. Ft. Depot Building	Quantity 3,270	Unit of Measure Square Feet
	Cost /SqFt \$1.02	
	% Included 100.00%	Total Cost/Study \$3,352
Summary	Replacement Year 2014/2015	Future Cost \$3,609

This is to prepare, power wash, sand, scrape, caulk and paint with a 100% premium acrylic paint. In 2011, the paint appeared in good condition.



404 - Wrought Iron	Useful Life 6	Remaining Life 1
100 Lin. Ft. Gazebo	Quantity 100	Unit of Measure Linear Feet
	Cost /l.f. \$9.22	
	% Included 100.00%	Total Cost/Study \$922
Summary	Replacement Year 2012/2013	Future Cost \$946

This is to prepare, power wash, sand, scrape, spot prime and paint the gazebo's 4' wrought iron fencing.



Depot Park

04000 - Structural Repairs

200 - Wood: Siding & Trim	Useful Life 12	Remaining Life 9
3,270 Depot Building (5%)	Quantity 3,270	Unit of Measure Items
	Cost /Itm \$5.12	Qty * \$/Itm \$16,759
	% Included 5.00%	Total Cost/Study \$838
Summary	Replacement Year 2020/2021	Future Cost \$1,046

This is to replace siding and wood trim. The actual scope of the work will depend on what is found after the existing siding is removed. Includes primer and paint on all new wood surfaces. In conjunction with every other paint cycle.



04500 - Decking/Balconies

520 - Railing: Wood	Useful Life 15	Remaining Life 9
104 Lin. Ft. Depot Building	Quantity 104	Unit of Measure Linear Feet
	Cost /l.f. \$23.57	
	% Included 100.00%	Total Cost/Study \$2,452
Summary	Replacement Year 2020/2021	Future Cost \$3,062

This is to replace the 4' wood safety rail at the concrete slab edge.



Depot Park
05000 - Roofing

444 - Pitched: Dimensional Composition	Useful Life 25	Remaining Life 19
23 Squares- Depot Building	Quantity 23	Unit of Measure Squares
	Cost /Sqrs \$410	
	% Included 100.00%	Total Cost/Study \$9,430
Summary	Replacement Year 2030/2031	Future Cost \$15,075

This is to reroof with a dimensional composition roofing product. Composition roofs should be regularly inspected and repaired as indicated to ensure maximum life.



500 - Pitched: Wood Shake	Useful Life 15	Remaining Life 8
6 Squares- Gazebo	Quantity 6	Unit of Measure Squares
	Cost /Sqrs \$615	
	% Included 100.00%	Total Cost/Study \$3,690
Summary	Replacement Year 2019/2020	Future Cost \$4,496

This is to replace the wood shake roofing. Shake roofs should be regularly inspected and repaired as indicated to ensure maximum life. In 2011, the gazebo roofing is in fair condition.



Depot Park
05000 - Roofing

700 - Gutters / Downspouts	Useful Life 25	Remaining Life 19
200 Lin. Ft. Depot Building	Quantity 200	Unit of Measure Linear Feet
	Cost /l.f. \$6.15	
	% Included 100.00%	Total Cost/Study \$1,230
Summary	Replacement Year 2030/2031	Future Cost \$1,966
This is to replace the gutters and downspouts.		



08000 - Rehab

224 - Restrooms	Useful Life 20	Remaining Life 14
2 Depot Building Restrooms	Quantity 2	Unit of Measure Items
	Cost /ltn \$1,500	
	% Included 100.00%	Total Cost/Study \$3,000
Summary	Replacement Year 2025/2026	Future Cost \$4,239

This is to rehab and redecorate the restrooms. Includes items such as partitions, fixtures, lighting, tile, paint, etc. This item can be further defined with association input. The restrooms were locked during the 2011 site visit and not visually inspected.



Component Listing

Included Components

Third Draft
Prepared for the 2012/2013 Fiscal Year

Depot Park

18000 - Landscaping

104 - Irrigation: Misc.	Useful Life 3	Remaining Life 1
Irrigated Areas	Quantity 1	Unit of Measure Lump Sum
	Cost /LS \$1,025	
	% Included 100.00%	Total Cost/Study \$1,025
Summary	Replacement Year 2012/2013	Future Cost \$1,051
This is for major irrigation system repair in excess of the operating budget.		



424 - General Repairs/Upgrades	Useful Life 3	Remaining Life 1
Landscaped Areas	Quantity 1	Unit of Measure Lump Sum
	Cost /LS \$1,025	
	% Included 100.00%	Total Cost/Study \$1,025
Summary	Replacement Year 2012/2013	Future Cost \$1,051

This is to have funds in excess of the operating budget for miscellaneous plantings, removals and other work as directed by the association.



Depot Park
19000 - Fencing

116 - Chain Link: 6'	Useful Life 20	Remaining Life 13
36 Lin. Ft. HVAC Enclosure	Quantity 36	Unit of Measure Linear Feet
	Cost /l.f. \$25.62	
	% Included 100.00%	Total Cost/Study \$922
Summary	Replacement Year 2024/2025	Future Cost \$1,272
This is to replace the 6' chain link HVAC enclosure, includes privacy slats and gate hardware.		



222 - Wrought Iron: 4'	Useful Life 30	Remaining Life 14
100 Lin. Ft. Gazebo	Quantity 100	Unit of Measure Linear Feet
	Cost /l.f. \$30.75	
	% Included 100.00%	Total Cost/Study \$3,075
Summary	Replacement Year 2025/2026	Future Cost \$4,345

This is to replace the 4' wrought iron fencing. With aggressive paint maintenance, this component's life may be extended. Painting is provided for within another component.



Depot Park

19000 - Fencing

516 - Post & Cable	Useful Life 25	Remaining Life 13
250 Lin. Ft. Perimeter Fencing	Quantity 250	Unit of Measure Linear Feet
	Cost /l.f. \$20.50	
	% Included 100.00%	Total Cost/Study \$5,125
Summary	Replacement Year 2024/2025	Future Cost \$7,065
This is to repair and replace the post and cable fence.		



20000 - Lighting

104 - Exterior: Misc. Fixtures	Useful Life 15	Remaining Life 10
7 Exterior Lights	Quantity 7	Unit of Measure Items
	Cost /lrm \$512	
	% Included 100.00%	Total Cost/Study \$3,587
Summary	Replacement Year 2021/2022	Future Cost \$4,592
This is to replace miscellaneous common area lighting fixtures.		

- 3 - building lights
- 2 - walkway bollard lights
- 2 - parking lot lights



Depot Park

23000 - Mechanical Equipment

204 - HVAC	Useful Life 15	Remaining Life 10
2 Trane HVAC	Quantity 2	Unit of Measure Items
	Cost /Itm \$5,125	
	% Included 100.00%	Total Cost/Study \$10,250
Summary	Replacement Year 2021/2022	Future Cost \$13,121

This is to replace the Trane HVAC system. It is possible that sub-components of this system can be replaced or re-built to extend its life.



26000 - Outdoor Equipment

204 - Pedestal Grill BBQ	Useful Life 20	Remaining Life 9
Gazebo Area	Quantity 1	Unit of Measure Items
	Cost /Itm \$512	
	% Included 100.00%	Total Cost/Study \$512
Summary	Replacement Year 2020/2021	Future Cost \$640

This is to replace the large 4' x 4' pedestal grill BBQ.



Component Listing

Included Components

Third Draft
Prepared for the 2012/2013 Fiscal Year

Depot Park

26000 - Outdoor Equipment

906 - Miscellaneous	Useful Life 20	Remaining Life 11
Miscellaneous Park Items	Quantity 1	Unit of Measure Lump Sum
	Cost /LS \$1,537	
	% Included 100.00%	Total Cost/Study \$1,537
Summary	Replacement Year 2022/2023	Future Cost \$2,017
This is to replace miscellaneous signage, the pet station and the trash can.		



Northbrook Park

01000 - Paving

108 - Asphalt: Sealing	Useful Life 5	Remaining Life 2
7,804 Sq. Ft. Sport Court & Driveway	Quantity 7,804	Unit of Measure Square Feet
	Cost /SqFt \$0.154	
	% Included 100.00%	Total Cost/Study \$1,200
Summary	Replacement Year 2013/2014	Future Cost \$1,261

This is to prepare the surface and apply a single coat asphalt emulsion product. If a second coat is desired the cost is generally 10% to 20% higher. Includes re-striping the half basketball court.



Component Listing

Included Components

Third Draft
Prepared for the 2012/2013 Fiscal Year

Northbrook Park

01000 - Paving

208 - Asphalt: Ongoing Repairs	Useful Life 5	Remaining Life 2
7,804 Sq. Ft. Sport Court & Driveway (5%)	Quantity 7,804	Unit of Measure Square Feet
	Cost /SqFt \$3.33	Qty * \$/SqFt \$25,997
	% Included 5.00%	Total Cost/Study \$1,300
Summary	Replacement Year 2013/2014	Future Cost \$1,366
This is for miscellaneous repairs including crackfill, skin patching and minor dig out & fill.		



408 - Asphalt: Major Repairs	Useful Life 25	Remaining Life 17
7,804 Sq. Ft. Sport Court & Driveway	Quantity 7,804	Unit of Measure Square Feet
	Cost /SqFt \$5.12	
	% Included 100.00%	Total Cost/Study \$39,995
Summary	Replacement Year 2028/2029	Future Cost \$60,858
This is for major excavation, recompaction and installation of new hot asphalt to selected areas.		



Northbrook Park

02000 - Concrete

222 - Walkways	Useful Life 3	Remaining Life 1
7,241 Sq. Ft. Walkways, Slabs & Tot Lot (2%)	Quantity 7,241	Unit of Measure Square Feet
	Cost /SqFt \$16.40	Qty * \$/SqFt \$118,752
	% Included 2.00%	Total Cost/Study \$2,375
Summary	Replacement Year 2012/2013	Future Cost \$2,434

This is to repair, replace or grind failed concrete flatwork to remove abrupt elevation changes and maintain functionality. Since the concrete useful life exceeds the scope of this study, this component provides for repair only and not full replacement. In 2011, the concrete appears in good condition.



03000 - Painting: Exterior

142 - Surface Restoration	Useful Life 4	Remaining Life 1
20 Lin. Ft. Metal Vehicle Gate	Quantity 20	Unit of Measure Linear Feet
	Cost /l.f. \$6.15	
	% Included 100.00%	Total Cost/Study \$123
Summary	Replacement Year 2012/2013	Future Cost \$126

This is to prepare and paint the yellow metal vehicle gate and post.



Component Listing

Included Components

Third Draft
Prepared for the 2012/2013 Fiscal Year

Northbrook Park

03000 - Painting: Exterior

406 - Wrought Iron	Useful Life 4	Remaining Life 1
40 Lin. Ft. Park Entrance	Quantity 40	Unit of Measure Linear Feet
	Cost /l.f. \$9.22	
	% Included 100.00%	Total Cost/Study \$369
Summary	Replacement Year 2012/2013	Future Cost \$378

This is to prepare, power wash, sand, scrape, spot prime and paint the wrought iron. This component provides for the fencing, the pedestrian gate and the twin vehicle gate. Rust is exhibited in 2011.



18000 - Landscaping

106 - Irrigation: Misc.	Useful Life 3	Remaining Life 1
Common Area	Quantity 1	Unit of Measure Lump Sum
	Cost /LS \$1,025	
	% Included 100.00%	Total Cost/Study \$1,025
Summary	Replacement Year 2012/2013	Future Cost \$1,051

This is for major irrigation system repair in excess of the operating budget.



Component Listing

Included Components

Third Draft
Prepared for the 2012/2013 Fiscal Year

Northbrook Park

18000 - Landscaping

426 - General Repairs/Upgrades Common Area	Useful Life 3 Quantity 1 Cost /LS \$1,025 % Included 100.00%	Remaining Life 1 Unit of Measure Lump Sum Total Cost/Study \$1,025 Replacement Year 2012/2013 Future Cost \$1,051
Summary		

This is to have funds in excess of the operating budget for miscellaneous plantings, removals and other work as directed by the association.



19000 - Fencing

118 - Chain Link: 6' 505 Lin. Ft. East Perimeter (50%)	Useful Life 30 Quantity 505 Cost /l.f. \$12.30 % Included 50.00%	Remaining Life 21 Unit of Measure Linear Feet Qty * \$/l.f. \$6,211 Total Cost/Study \$3,106 Replacement Year 2032/2033 Future Cost \$5,216
Summary		

This is to replace the 6' chain link fencing. This component assumes a 50% good neighbor policy.

240 - Wrought Iron: 8' 40 Lin. Ft. Park Entrance	Useful Life 30 Quantity 40 Cost /l.f. \$46.12 % Included 100.00%	Remaining Life 19 Unit of Measure Linear Feet Total Cost/Study \$1,845 Replacement Year 2030/2031 Future Cost \$2,950
Summary		

This is to replace the 8' wrought iron fencing. With aggressive paint maintenance, this component's life may be extended. Painting is provided for within another component.



Northbrook Park

21000 - Signage

720 - Entry Signs	Useful Life 10	Remaining Life 5
Park Entrance	Quantity 1	Unit of Measure Items
	Cost /Itm \$512	
	% Included 100.00%	Total Cost/Study \$512
Summary	Replacement Year 2016/2017	Future Cost \$580
This is to replace the park entry sign.		



26000 - Outdoor Equipment

104 - Tot Lot: Play Equipment	Useful Life 20	Remaining Life 10
Tot Lot	Quantity 1	Unit of Measure Lump Sum
	Cost /LS \$10,250	
	% Included 100.00%	Total Cost/Study \$10,250
Summary	Replacement Year 2021/2022	Future Cost \$13,121
This is to replace the tot lot play equipment.		



Northbrook Park

26000 - Outdoor Equipment

144 - Tot Lot: Safety Surface	Useful Life 5	Remaining Life 3
Tot Lot	Quantity 1	Unit of Measure Lump Sum
	Cost /LS \$1,537	
	% Included 100.00%	Total Cost/Study \$1,537
Summary	Replacement Year 2014/2015	Future Cost \$1,656
This is to replenish and replace the play area impact absorbing wood fiber safety surface.		



310 - Benches	Useful Life 12	Remaining Life 6
2 Tot Lot	Quantity 2	Unit of Measure Items
	Cost /ltm \$615	
	% Included 100.00%	Total Cost/Study \$1,230
Summary	Replacement Year 2017/2018	Future Cost \$1,426
This is to replace the benches. One is a metal bench coated with Plastisol, the other is wood.		



Component Listing

Included Components

Third Draft
Prepared for the 2012/2013 Fiscal Year

Northbrook Park

26000 - Outdoor Equipment

318 - Picnic Table: Metal	Useful Life 20	Remaining Life 12
4 Picnic Area	Quantity 4	Unit of Measure Items
	Cost /Itm \$871	
	% Included 100.00%	Total Cost/Study \$3,485
Summary	Replacement Year 2023/2024	Future Cost \$4,687
This is to replace the picnic tables with an expanded metal model coated with Plastisol.		



908 - Miscellaneous	Useful Life 15	Remaining Life 7
7 Exercise Stations	Quantity 7	Unit of Measure Lump Sum
	Cost /LS \$307	
	% Included 100.00%	Total Cost/Study \$2,152
Summary	Replacement Year 2018/2019	Future Cost \$2,559
This is to replace the 7 PAR course exercise stations.		



Component Listing

Included Components

Third Draft
Prepared for the 2012/2013 Fiscal Year

Roy E Hayer Park

01000 - Paving

110 - Asphalt: Sealing	Useful Life 5	Remaining Life 2
21,120 Sq. Ft. Parking Lot	Quantity 21,120	Unit of Measure Square Feet
	Cost /SqFt \$0.154	
	% Included 100.00%	Total Cost/Study \$3,247
Summary	Replacement Year 2013/2014	Future Cost \$3,412

This is to prepare the surface and apply a single coat asphalt emulsion product. If a second coat is desired the cost is generally 10% to 20% higher.



210 - Asphalt: Ongoing Repairs	Useful Life 5	Remaining Life 2
21,120 Sq. Ft. Parking Lot (2%)	Quantity 21,120	Unit of Measure Square Feet
	Cost /SqFt \$3.33	Qty * \$/SqFt \$70,356
	% Included 2.00%	Total Cost/Study \$1,407
Summary	Replacement Year 2013/2014	Future Cost \$1,478

This is for miscellaneous repairs including crackfill, skin patching and minor dig out & fill.



Component Listing

Included Components

Third Draft
Prepared for the 2012/2013 Fiscal Year

Roy E Hayer Park

01000 - Paving

310 - Asphalt: Petromat Overlay	Useful Life 25	Remaining Life 12
21,120 Sq. Ft. Parking Lot	Quantity 21,120	Unit of Measure Square Feet
	Cost /SqFt \$1.64	
	% Included 100.00%	Total Cost/Study \$34,637
Summary	Replacement Year 2023/2024	Future Cost \$46,583

This is to apply a Petromat overlay on top of the existing asphalt surface along with 1-1/2" of new hot asphalt. Generally this includes edge grinding and utility box extensions.



510 - Curbs: Concrete	Useful Life 15	Remaining Life 7
315 Lin. Ft. Parking Lot	Quantity 315	Unit of Measure Linear Feet
	Cost /l.f. \$8.20	
	% Included 100.00%	Total Cost/Study \$2,583
Summary	Replacement Year 2018/2019	Future Cost \$3,070

This is to replace the concrete curbing.



Roy E Hayer Park

03000 - Painting: Exterior

144 - Surface Restoration	Useful Life 10	Remaining Life 5
1,060 Sq. Ft. Restroom Building	Quantity 1,060	Unit of Measure Square Feet
	Cost /SqFt \$1.02	
	% Included 100.00%	Total Cost/Study \$1,086
Summary	Replacement Year 2016/2017	Future Cost \$1,229
This is to prepare, power wash, sand, scrape, caulk and paint with a 100% premium acrylic paint.		



04000 - Structural Repairs

998 - Miscellaneous	Useful Life 5	Remaining Life 3
200 Sq. Ft. [3] Horseshoe Pits	Quantity 200	Unit of Measure Square Feet
	Cost /SqFt \$6.15	
	% Included 100.00%	Total Cost/Study \$1,230
Summary	Replacement Year 2014/2015	Future Cost \$1,325
This is repair and paint the horseshoe pit backboards.		



Roy E Hayer Park

05000 - Roofing

446 - Pitched: Dimensional Composition	Useful Life 25	Remaining Life 19
10 Squares- Restroom Building	Quantity 10	Unit of Measure Squares
	Cost /Sqrs \$410	
	% Included 100.00%	Total Cost/Study \$4,100
Summary	Replacement Year 2030/2031	Future Cost \$6,554

This is to reroof with a dimensional composition roofing product. Composition roofs should be regularly inspected and repaired as indicated to ensure maximum life.



08000 - Rehab

226 - Restrooms	Useful Life 20	Remaining Life 10
2 Restroom Building	Quantity 2	Unit of Measure Items
	Cost /Itm \$3,075	
	% Included 100.00%	Total Cost/Study \$6,150
Summary	Replacement Year 2021/2022	Future Cost \$7,873

This is to rehab and redecorate the restrooms. Includes items such as partitions, fixtures, lighting, tile, interior paint, flooring etc. This item can be further defined with association input. In 2011, the restrooms were lock and not visually inspected.

11000 - Gate Equipment

910 - Vehicle Gate Replacement	Useful Life 30	Remaining Life 22
Parking Entrance	Quantity 1	Unit of Measure Items
	Cost /Itm \$1,537	
	% Included 100.00%	Total Cost/Study \$1,537
Summary	Replacement Year 2033/2034	Future Cost \$2,647

This is to replace the existing yellow metal manually operated vehicle gate.



Component Listing

Included Components

Third Draft
Prepared for the 2012/2013 Fiscal Year

Roy E Hayer Park

18000 - Landscaping

108 - Irrigation: Misc.	Useful Life 3	Remaining Life 1
Irrigation Items	Quantity 1	Unit of Measure Lump Sum
	Cost /LS \$1,025	
	% Included 100.00%	Total Cost/Study \$1,025
Summary	Replacement Year 2012/2013	Future Cost \$1,051
This is for major irrigation system repair in excess of the operating budget.		



428 - General Repairs/Upgrades	Useful Life 3	Remaining Life 1
Landscaped Areas	Quantity 1	Unit of Measure Lump Sum
	Cost /LS \$1,025	
	% Included 100.00%	Total Cost/Study \$1,025
Summary	Replacement Year 2012/2013	Future Cost \$1,051
This is to have funds in excess of the operating budget for miscellaneous plantings, removals and other work.		

19000 - Fencing

518 - Post & Cable	Useful Life 25	Remaining Life 14
685 Lin. Ft. Perimeter	Quantity 685	Unit of Measure Linear Feet
	Cost /l.f. \$20.50	
	% Included 100.00%	Total Cost/Study \$14,042
Summary	Replacement Year 2025/2026	Future Cost \$19,842
This is to repair and replace the post and cable fence.		



Component Listing

Included Components

Third Draft
Prepared for the 2012/2013 Fiscal Year

Roy E Hayer Park

21000 - Signage

794 - Monument	Useful Life 10	Remaining Life 7
Parking Lot Entrance	Quantity 1	Unit of Measure Items
	Cost /Itm \$1,537	
	% Included 100.00%	Total Cost/Study \$1,537
Summary	Replacement Year 2018/2019	Future Cost \$1,828

This is to repair and repaint the custom identity monument sign. Approximately 108 square feet of surface area.



26000 - Outdoor Equipment

208 - Pedestal Grill BBQ	Useful Life 15	Remaining Life 4
2 Picnic Area	Quantity 2	Unit of Measure Items
	Cost /Itm \$307	
	% Included 100.00%	Total Cost/Study \$615
Summary	Replacement Year 2015/2016	Future Cost \$679

This is to replace the pedestal grill BBQ's. Includes shipping and installation.



Component Listing

Included Components

Third Draft
Prepared for the 2012/2013 Fiscal Year

Roy E Hayer Park

26000 - Outdoor Equipment

286 - Picnic Tables	Useful Life 20	Remaining Life 9
10 Picnic Area	Quantity 10	Unit of Measure Items
	Cost /Itm \$615	
	% Included 100.00%	Total Cost/Study \$6,150
Summary	Replacement Year 2020/2021	Future Cost \$7,681
This is to replace the picnic tables.		



312 - Benches	Useful Life 15	Remaining Life 9
3 Picnic Area	Quantity 3	Unit of Measure Items
	Cost /Itm \$615	
	% Included 100.00%	Total Cost/Study \$1,845
Summary	Replacement Year 2020/2021	Future Cost \$2,304
This is to replace the benches.		



484 - Drinking Fountain	Useful Life 20	Remaining Life 6
Restroom Building	Quantity 1	Unit of Measure Items
	Cost /Itm \$2,460	
	% Included 100.00%	Total Cost/Study \$2,460
Summary	Replacement Year 2017/2018	Future Cost \$2,853
This is to replace the drinking fountain. The fountain(s) should be inspected, cleaned and sanitized frequently.		

Roy E Hayer Park

26000 - Outdoor Equipment

910 - Miscellaneous	Useful Life 10	Remaining Life 4
7 Miscellaneous Outdoor Items	Quantity 7	Unit of Measure Items
	Cost /Itm \$205	
	% Included 100.00%	Total Cost/Study \$1,435
Summary	Replacement Year 2015/2016	Future Cost \$1,584

This is to replace miscellaneous outdoor equipment. This component provides for the message board structure, the 4 trash cans, and the 2 pet stations.



Westside Park

01000 - Paving

112 - Asphalt: Sealing	Useful Life 5	Remaining Life 2
23,170 Sq. Ft. Paved Parking	Quantity 23,170	Unit of Measure Square Feet
	Cost /SqFt \$0.154	
	% Included 100.00%	Total Cost/Study \$3,562
Summary	Replacement Year 2013/2014	Future Cost \$3,743

This is to prepare the surface and apply a single coat asphalt emulsion product. If a second coat is desired the cost is generally 10% to 20% higher. Includes striping.

212 - Asphalt: Ongoing Repairs	Useful Life 5	Remaining Life 2
23,170 Sq. Ft. Paved Parking (2%)	Quantity 23,170	Unit of Measure Square Feet
	Cost /SqFt \$3.33	Qty * \$/SqFt \$77,185
	% Included 2.00%	Total Cost/Study \$1,544
Summary	Replacement Year 2013/2014	Future Cost \$1,622

This is for miscellaneous repairs including crackfill, skin patching and minor dig out & fill.

312 - Asphalt: Petromat Overlay	Useful Life 25	Remaining Life 12
23,170 Sq. Ft. Paved Parking	Quantity 23,170	Unit of Measure Square Feet
	Cost /SqFt \$1.64	
	% Included 100.00%	Total Cost/Study \$37,999
Summary	Replacement Year 2023/2024	Future Cost \$51,104

This is to apply a Petromat overlay on top of the existing asphalt surface along with 1-1/2" of new hot asphalt. Generally this includes edge grinding and utility box extensions.

Component Listing

Included Components

Third Draft
Prepared for the 2012/2013 Fiscal Year

Westside Park

01000 - Paving

460 - Gravel	Useful Life 5	Remaining Life 2
16,920 Sq. Ft. Unpaved Parking & Access Roads	Quantity 16,920	Unit of Measure Square Feet
	Cost /SqFt \$0.102	
	% Included 100.00%	Total Cost/Study \$1,734
Summary	Replacement Year 2013/2014	Future Cost \$1,822
This is to replenish the gravel rock throughout the unpaved vehicular areas.		

02000 - Concrete

902 - Miscellaneous	Useful Life 3	Remaining Life 1
8,257 Sq. Ft. Slabs & Walkways (2%)	Quantity 8,257	Unit of Measure Square Feet
	Cost /SqFt \$16.40	Qty * \$/SqFt \$135,415
	% Included 2.00%	Total Cost/Study \$2,708
Summary	Replacement Year 2012/2013	Future Cost \$2,776
This is to repair, replace or grind failed concrete flatwork to remove abrupt elevation changes and maintain functionality. Since the concrete useful life exceeds the scope of this study, this component provides for repair only and not full replacement. Includes the border curbing around the volley ball court.		



03000 - Painting: Exterior

148 - Surface Restoration	Useful Life 4	Remaining Life 1
468 Sq. Ft. Backstop Wood & Score Table	Quantity 468	Unit of Measure Square Feet
	Cost /SqFt \$1.02	
	% Included 100.00%	Total Cost/Study \$480
Summary	Replacement Year 2012/2013	Future Cost \$492
This is to prepare and paint the backstop wood and the scorekeeper's table.		



Westside Park

04000 - Structural Repairs

914 - Building Maintenance	Useful Life 20	Remaining Life 14
Restroom Building	Quantity 1	Unit of Measure Lump Sum
	Cost /LS \$3,075	
	% Included 100.00%	Total Cost/Study \$3,075
Summary	Replacement Year 2025/2026	Future Cost \$4,345
This is for general restroom building repairs.		



958 - Dry-rot repairs- ongoing	Useful Life 8	Remaining Life 5
468 Sq. Ft. Backstop Wood	Quantity 468	Unit of Measure Square Feet
	Cost /SqFt \$5.12	
	% Included 100.00%	Total Cost/Study \$2,398
Summary	Replacement Year 2016/2017	Future Cost \$2,714
This is for repair and replacement of the backstop wood and the scorekeeper's table. Painting is provided for in another component.		

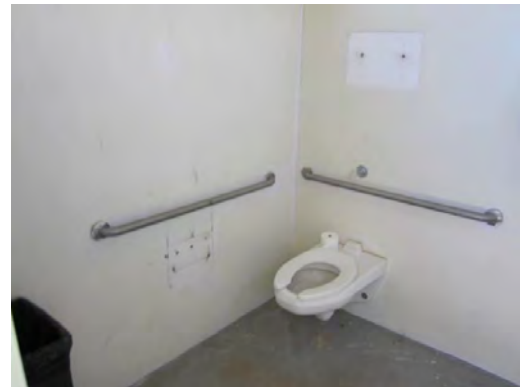


Westside Park

08000 - Rehab

228 - Restrooms	Useful Life 20	Remaining Life 9
Restroom Building	Quantity 1	Unit of Measure Lump Sum
	Cost /LS \$3,075	
	% Included 100.00%	Total Cost/Study \$3,075
Summary	Replacement Year 2020/2021	Future Cost \$3,840

This is to rehab and redecorate the restroom. Includes fixtures, lighting, & paint. This item can be further defined with association input. The restroom has a concrete floor and approximately 400 square feet of paintable interior surface.



11000 - Gate Equipment

912 - Vehicle Gate Replacement	Useful Life 30	Remaining Life 23
3 Driveways & Access Road	Quantity 3	Unit of Measure Items
	Cost /ltm \$1,537	
	% Included 100.00%	Total Cost/Study \$4,612
Summary	Replacement Year 2034/2035	Future Cost \$8,139

This is to replace the 3 existing manually operated vehicle gates.

18000 - Landscaping

110 - Irrigation: Misc.	Useful Life 3	Remaining Life 1
Irrigation Items	Quantity 1	Unit of Measure Lump Sum
	Cost /LS \$1,025	
	% Included 100.00%	Total Cost/Study \$1,025
Summary	Replacement Year 2012/2013	Future Cost \$1,051

This is for major irrigation system repair in excess of the operating budget.



Component Listing

Included Components

Third Draft
Prepared for the 2012/2013 Fiscal Year

Westside Park

18000 - Landscaping

430 - General Repairs/Upgrades	Useful Life 3	Remaining Life 1
Landscaped Areas	Quantity 1	Unit of Measure Lump Sum
	Cost /LS \$1,025	
	% Included 100.00%	Total Cost/Study \$1,025
Summary	Replacement Year 2012/2013	Future Cost \$1,051
This is to have funds in excess of the operating budget for miscellaneous plantings, removals and other work.		



19000 - Fencing

052 - Chain Link	Useful Life 30	Remaining Life 19
61 Lin. Ft. 20' Backstop Fencing	Quantity 61	Unit of Measure Linear Feet
	Cost /l.f. \$36.90	
	% Included 100.00%	Total Cost/Study \$2,251
Summary	Replacement Year 2030/2031	Future Cost \$3,598
This is to replace the chain link fencing.		



Westside Park

19000 - Fencing

102 - Chain Link: 4'	Useful Life 30	Remaining Life 28
1,354 Lin. Ft. Dog Park Fencing	Quantity 1,354	Unit of Measure Linear Feet
	Cost /l.f. \$11.27	
	% Included 100.00%	Total Cost/Study \$15,266
Summary	Replacement Year 2039/2040	Future Cost \$30,479

This is to replace the 4' chain link fencing at the dog park. In 2011, the dog park fencing is newer looking and in excellent condition. Includes the two 3' pedestrian gates and the two 10' maintenance gates.



104 - Chain Link: 4'	Useful Life 30	Remaining Life 19
60 Lin. Ft. Ballfield	Quantity 60	Unit of Measure Linear Feet
	Cost /l.f. \$11.27	
	% Included 100.00%	Total Cost/Study \$676
Summary	Replacement Year 2030/2031	Future Cost \$1,081

This is to replace the 4' chain link fencing.

126 - Chain Link: 8'	Useful Life 30	Remaining Life 19
976 Lin. Ft. Ballfield	Quantity 976	Unit of Measure Linear Feet
	Cost /l.f. \$14.35	
	% Included 100.00%	Total Cost/Study \$14,006
Summary	Replacement Year 2030/2031	Future Cost \$22,390

This is to replace the 8' chain link fencing.



Component Listing

Included Components

Third Draft
Prepared for the 2012/2013 Fiscal Year

Westside Park

19000 - Fencing

134 - Chain Link: 10'	Useful Life 30	Remaining Life 19
220 Lin. Ft. Ballfield	Quantity 220	Unit of Measure Linear Feet
	Cost /l.f. \$18.45	
	% Included 100.00%	Total Cost/Study \$4,059
Summary	Replacement Year 2030/2031	Future Cost \$6,489
This is to replace the 10' chain link fencing.		

520 - Post & Cable	Useful Life 25	Remaining Life 13
749 Lin. Ft. Perimeter	Quantity 749	Unit of Measure Linear Feet
	Cost /l.f. \$20.50	
	% Included 100.00%	Total Cost/Study \$15,354
Summary	Replacement Year 2024/2025	Future Cost \$21,166
This is to repair and replace the post and cable fence.		



20000 - Lighting

108 - Exterior: Misc. Fixtures	Useful Life 5	Remaining Life 9
6 Light Poles (8%)	Quantity 6	Unit of Measure Items
	Cost /lrm \$2,562	Qty * \$/lrm \$15,375
	% Included 8.33%	Total Cost/Study \$1,281
Summary	Replacement Year 2020/2021	Future Cost \$1,600
This is to replace the six athletic field light poles.		



Westside Park

21000 - Signage

796 - Monument	Useful Life 10	Remaining Life 4
W 2nd St. Frontage	Quantity 1	Unit of Measure Items
	Cost /Itm \$1,537	
	% Included 100.00%	Total Cost/Study \$1,537
Summary	Replacement Year 2015/2016	Future Cost \$1,697

This is to repair and repaint the custom identity monument sign. Approximately 108 square feet of surface area.



26000 - Outdoor Equipment

106 - Tot Lot: Play Equipment	Useful Life 20	Remaining Life 16
Tot Lot Play Area	Quantity 1	Unit of Measure Lump Sum
	Cost /LS \$15,375	
	% Included 100.00%	Total Cost/Study \$15,375
Summary	Replacement Year 2027/2028	Future Cost \$22,824

This is to replace the tot lot play equipment. Includes the large multi-station and the swing set.



Component Listing

Included Components

Third Draft
Prepared for the 2012/2013 Fiscal Year

Westside Park

26000 - Outdoor Equipment

148 - Tot Lot: Safety Surface	Useful Life 10	Remaining Life 5
Tot Lot Play Area	Quantity 1	Unit of Measure Lump Sum
	Cost /LS \$1,537	
	% Included 100.00%	Total Cost/Study \$1,537
Summary	Replacement Year 2016/2017	Future Cost \$1,740
This is to replenish and replace the play area impact absorbing wood fiber safety surface.		



300 - Benches	Useful Life 20	Remaining Life 20
2 Ballfield Dugouts	Quantity 2	Unit of Measure Items
	Cost /ltm \$769	
	% Included 100.00%	Total Cost/Study \$1,537
Summary	Replacement Year 2031/2032	Future Cost \$2,519
This is to replace the 20' long metal dugout benches. New and installed after the 2011 site inspection.		



Component Listing

Included Components

Third Draft
Prepared for the 2012/2013 Fiscal Year

Westside Park

26000 - Outdoor Equipment

314 - Benches	Useful Life 20	Remaining Life 17
2 Tot Lot Area	Quantity 2	Unit of Measure Items
	Cost /Itm \$615	
	% Included 100.00%	Total Cost/Study \$1,230
Summary	Replacement Year 2028/2029	Future Cost \$1,872
This is to replace the benches.		



320 - Picnic Table: Metal	Useful Life 20	Remaining Life 17
Tot Lot Area	Quantity 1	Unit of Measure Items
	Cost /Itm \$1,230	
	% Included 100.00%	Total Cost/Study \$1,230
Summary	Replacement Year 2028/2029	Future Cost \$1,872
This is to replace the covered picnic table with an expanded metal model coated with Plastisol.		



Westside Park

26000 - Outdoor Equipment

434 - Bleachers	Useful Life 20	Remaining Life 10
2 Ballfield	Quantity 2	Unit of Measure Items
	Cost /Itm \$2,050	
	% Included 100.00%	Total Cost/Study \$4,100
Summary	Replacement Year 2021/2022	Future Cost \$5,248
This is to replace the bleachers.		



444 - Bleachers: Aluminum	Useful Life 20	Remaining Life 12
Ballfield	Quantity 1	Unit of Measure Items
	Cost /Itm \$3,075	
	% Included 100.00%	Total Cost/Study \$3,075
Summary	Replacement Year 2023/2024	Future Cost \$4,136
This is to replace the aluminum bleachers.		

486 - Drinking Fountain	Useful Life 20	Remaining Life 14
South Side Ballfield	Quantity 1	Unit of Measure Items
	Cost /Itm \$2,460	
	% Included 100.00%	Total Cost/Study \$2,460
Summary	Replacement Year 2025/2026	Future Cost \$3,476
This is to replace the drinking fountain. The fountain should be inspected, cleaned and sanitized frequently.		



Westside Park

26000 - Outdoor Equipment

912 - Miscellaneous	Useful Life 10	Remaining Life 4
Miscellaneous Outdoor Items	Quantity 1	Unit of Measure Lump Sum
	Cost /LS \$1,537	
	% Included 100.00%	Total Cost/Study \$1,537
Summary	Replacement Year 2015/2016	Future Cost \$1,697

This is to replace miscellaneous outdoor equipment. Includes 10 trash cans, the pet station and the signage found throughout the park.



916 - Miscellaneous	Useful Life 20	Remaining Life 19
Electronic Scoreboard	Quantity 1	Unit of Measure Items
	Cost /Itm \$10,250	
	% Included 100.00%	Total Cost/Study \$10,250
Summary	Replacement Year 2030/2031	Future Cost \$16,386

This is to replace ball field electronic scoreboard.



Component Listing

Included Components

Third Draft
Prepared for the 2012/2013 Fiscal Year

Elkhorn Equestrian Staging Area

18000 - Landscaping

432 - General Repairs/Upgrades
General Upkeep

Useful Life 3 Remaining Life 1
Quantity 1 Unit of Measure Lump Sum
Cost /LS \$512

% Included 100.00% Total Cost/Study \$512

Summary

Replacement Year 2012/2013

Future Cost \$525

This is to have funds in excess of the operating budget for miscellaneous work as needed. Provisions may include unpaved parking, signage and trail linkage.



Component Index

by Level / Component

Prepared for the 2012/2013 Fiscal Year

Component Name	Component Number	Sub Component	Page Number
<u>Babe Best Park</u>			
Concrete	02000	220 - Walkways	51
		380 - Pad	51
Fencing	19000	100 - Chain Link: 4'	56
		108 - Chain Link: 6'	56
		120 - Chain Link: 8'	57
		130 - Chain Link: 10'	57
		510 - Post & Cable	57
Landscaping	18000	100 - Irrigation: Misc.	55
		420 - General Repairs/Upgrades	55
Outdoor Equipment	26000	100 - Tot Lot: Play Equipment	58
		140 - Tot Lot: Safety Surface	59
		280 - Picnic Tables	59
		302 - Benches	60
		316 - Benches	60
		430 - Bleachers	61
		440 - Bleachers: Aluminum	61
		480 - Drinking Fountain	62
		900 - Miscellaneous	62
Painting: Exterior	03000	120 - Surface Restoration	51
		122 - Surface Restoration	52
Paving	01000	100 - Asphalt: Sealing	49
		200 - Asphalt: Ongoing Repairs	49
		300 - Asphalt: Petromat Overlay	50
		800 - Striping	50
Rehab	08000	100 - General	54
		220 - Restrooms	55
Roofing			

Component Index

by Level / Component

Third Draft

Prepared for the 2012/2013 Fiscal Year

Component Name	Component Number	Sub Component	Page Number
<u>Babe Best Park</u>			
	05000	440 - Pitched: Dimensional Composition	53
		650 - Pitched: Fibrous Cement	54
Signage			
	21000	790 - Monument	58
Structural Repairs			
	04000	910 - Building Maintenance	52
		950 - Dry-rot repairs- ongoing	52
		990 - Miscellaneous	53
<u>Central Park Horse Arena/BMX Track</u>			
Audio / Visual			
	24500	300 - PA System	73
Fencing			
	19000	110 - Chain Link: 6'	69
		210 - Wrought Iron: 3'	69
		224 - Wrought Iron: 5'	70
		230 - Wrought Iron: 6'	70
		512 - Post & Cable	71
		780 - Gates	71
Landscaping			
	18000	460 - General Repairs/Upgrades	68
Lighting			
	20000	100 - Exterior: Misc. Fixtures	72
Outdoor Equipment			
	26000	282 - Picnic Tables	73
		304 - Benches	74
		306 - Benches	74
		380 - Garbage Receptacles	74
		432 - Bleachers	75
		442 - Bleachers: Aluminum	75
		450 - Bleachers	75
Painting: Exterior			
	03000	126 - Surface Restoration	66
		130 - Surface Restoration	66
		132 - Surface Restoration	67
		400 - Wrought Iron	67
Paving			
	01000	102 - Asphalt: Sealing	63
		202 - Asphalt: Ongoing Repairs	63

Component Index**by Level / Component**

Third Draft

Prepared for the 2012/2013 Fiscal Year

Component Name	Component Number	Sub Component	Page Number
<u>Central Park Horse Arena/BMX Track</u>			
	01000	302 - Asphalt: Petromat Overlay	64
		462 - Gravel	64
		502 - Curbs: Concrete	65
		802 - Striping	65
Signage	21000	710 - Entry Signs	72
Structural Repairs	04000	954 - Dry-rot repairs- ongoing	68
<u>Community Center Park</u>			
Appliances	27000	080 - Warming Drawers	106
		082 - Warming Drawers	107
		200 - Refrigerator	107
		220 - Refrigerator: Commercial: Large	108
		270 - Stove / Oven: Commercial grade 6-burner	108
		284 - Microwave Oven	109
		296 - Stove: Exhaust Hood w/ Fan	109
		940 - Drinking Fountain	110
		970 - Dishwasher	110
Basketball / Sport Court	17500	200 - Seal & Striping	87
		400 - Overlay	87
Concrete	02000	900 - Miscellaneous	77
Fencing	19000	050 - Chain Link	89
		112 - Chain Link: 6'	89
		114 - Chain Link: 6'	90
		122 - Chain Link: 8'	90
		132 - Chain Link: 10'	91
		190 - Chain Link: Slats	91
		220 - Wrought Iron: 4'	92
		310 - Wood: 3'	92
		320 - Wood: 4'	93
		340 - Wood: 6'	93
		420 - Masonry Wall: On-going Maint.	94

Component Index**by Level / Component**

Third Draft

Prepared for the 2012/2013 Fiscal Year

Component Name	Component Number	Sub Component	Page Number
<u>Community Center Park</u>			
Flooring	19000	514 - Post & Cable	94
	25000	200 - Carpeting	99
		400 - Tile	100
		600 - Vinyl	100
Furnishings	24000	110 - Miscellaneous	98
		400 - Miscellaneous	98
		640 - Modular Office Desk	99
Landscaping	18000	102 - Irrigation: Misc.	88
		422 - General Repairs/Upgrades	88
Lighting	20000	540 - Parking Lot	95
Mechanical Equipment	23000	200 - HVAC	97
		202 - HVAC	97
Office Equipment	22000	200 - Computers, Misc.	96
Outdoor Equipment	26000	060 - Flag Pole	101
		102 - Tot Lot: Play Equipment	102
		108 - Tot Lot: Play Equipment	102
		180 - Bike Rack	103
		200 - Pedestal Grill BBQ	103
		284 - Picnic Tables	104
		308 - Benches	104
		482 - Drinking Fountain	105
		840 - Shade Structure	105
		904 - Miscellaneous	106
Painting: Exterior	03000	134 - Surface Restoration	78
		136 - Surface Restoration	78
		138 - Surface Restoration	79
		402 - Wrought Iron	79
		410 - Wrought Iron Gates	80
		450 - Wood Fencing	80
Painting: Interior			

Component Index**by Level / Component**

Third Draft

Prepared for the 2012/2013 Fiscal Year

Component Name	Component Number	Sub Component	Page Number
<u>Community Center Park</u>			
	03500	100 - Building	81
Paving			
	01000	104 - Asphalt: Sealing	76
		204 - Asphalt: Ongoing Repairs	76
		304 - Asphalt: Petromat Overlay	76
		464 - Gravel	77
Rehab			
	08000	104 - General	83
		108 - General	84
		120 - General	84
		222 - Restrooms	85
		230 - Kitchen	85
Retaining Wall			
	19500	990 - Miscellaneous	95
Roofing			
	05000	200 - Low Slope: BUR	82
		442 - Pitched: Dimensional Composition	83
		448 - Pitched: Dimensional Composition	83
Signage			
	21000	792 - Monument	96
Structural Repairs			
	04000	290 - Ceilings	81
		300 - Trellis	82
		994 - Miscellaneous	82
Tennis Court			
	17000	100 - Reseal	86
		500 - Resurface	86
Wallcoverings			
	25500	100 - Wallpaper	101
		900 - Miscellaneous	101
<u>Depot Park</u>			
Concrete			
	02000	200 - Sidewalks, Curbs & Gutters	112
Decking/Balconies			
	04500	520 - Railing: Wood	114
Fencing			
	19000	116 - Chain Link: 6'	118
		222 - Wrought Iron: 4'	118

Component Index*by Level / Component*

Third Draft

Prepared for the 2012/2013 Fiscal Year

Component Name	Component Number	Sub Component	Page Number
<u>Depot Park</u>			
	19000	516 - Post & Cable	119
Landscaping	18000	104 - Irrigation: Misc.	117
		424 - General Repairs/Upgrades	117
Lighting	20000	104 - Exterior: Misc. Fixtures	119
Mechanical Equipment	23000	204 - HVAC	120
Outdoor Equipment	26000	204 - Pedestal Grill BBQ	120
		906 - Miscellaneous	121
Painting: Exterior	03000	140 - Surface Restoration	113
		404 - Wrought Iron	113
Paving	01000	106 - Asphalt: Sealing	111
		206 - Asphalt: Ongoing Repairs	111
		306 - Asphalt: Petromat Overlay	112
Rehab	08000	224 - Restrooms	116
Roofing	05000	444 - Pitched: Dimensional Composition	115
		500 - Pitched: Wood Shake	115
		700 - Gutters / Downspouts	116
Structural Repairs	04000	200 - Wood: Siding & Trim	114
<u>Elkhorn Equestrian Staging Area</u>			
Landscaping	18000	432 - General Repairs/Upgrades	148
<u>Northbrook Park</u>			
Concrete	02000	222 - Walkways	123
Fencing	19000	118 - Chain Link: 6'	125
		240 - Wrought Iron: 8'	125
Landscaping	18000	106 - Irrigation: Misc.	124
		426 - General Repairs/Upgrades	125
Outdoor Equipment			

Component Index*by Level / Component*

Third Draft

Prepared for the 2012/2013 Fiscal Year

Component Name	Component Number	Sub Component	Page Number
<u>Northbrook Park</u>			
	26000	104 - Tot Lot: Play Equipment	126
		144 - Tot Lot: Safety Surface	127
		310 - Benches	127
		318 - Picnic Table: Metal	128
		908 - Miscellaneous	128
Painting: Exterior	03000	142 - Surface Restoration	123
		406 - Wrought Iron	124
Paving	01000	108 - Asphalt: Sealing	121
		208 - Asphalt: Ongoing Repairs	122
		408 - Asphalt: Major Repairs	122
Signage	21000	720 - Entry Signs	126
<u>Roy E Hayer Park</u>			
Fencing	19000	518 - Post & Cable	133
Gate Equipment	11000	910 - Vehicle Gate Replacement	132
Landscaping	18000	108 - Irrigation: Misc.	133
		428 - General Repairs/Upgrades	133
Outdoor Equipment	26000	208 - Pedestal Grill BBQ	134
		286 - Picnic Tables	135
		312 - Benches	135
		484 - Drinking Fountain	135
		910 - Miscellaneous	136
Painting: Exterior	03000	144 - Surface Restoration	131
Paving	01000	110 - Asphalt: Sealing	129
		210 - Asphalt: Ongoing Repairs	129
		310 - Asphalt: Petromat Overlay	130
		510 - Curbs: Concrete	130
Rehab	08000	226 - Restrooms	132
Roofing			

Component Index

by Level / Component

Third Draft

Prepared for the 2012/2013 Fiscal Year

Component Name	Component Number	Sub Component	Page Number
<u>Roy E Hayer Park</u>			
	05000	446 - Pitched: Dimensional Composition	132
Signage	21000	794 - Monument	134
Structural Repairs	04000	998 - Miscellaneous	131
<u>Westside Park</u>			
Concrete	02000	902 - Miscellaneous	137
Fencing	19000	052 - Chain Link	140
		102 - Chain Link: 4'	141
		104 - Chain Link: 4'	141
		126 - Chain Link: 8'	141
		134 - Chain Link: 10'	142
		520 - Post & Cable	142
Gate Equipment	11000	912 - Vehicle Gate Replacement	139
Landscaping	18000	110 - Irrigation: Misc.	139
		430 - General Repairs/Upgrades	140
Lighting	20000	108 - Exterior: Misc. Fixtures	142
Outdoor Equipment	26000	106 - Tot Lot: Play Equipment	143
		148 - Tot Lot: Safety Surface	144
		300 - Benches	144
		314 - Benches	145
		320 - Picnic Table: Metal	145
		434 - Bleachers	146
		444 - Bleachers: Aluminum	146
		486 - Drinking Fountain	146
		912 - Miscellaneous	147
		916 - Miscellaneous	147
Painting: Exterior	03000	148 - Surface Restoration	137
Paving	01000	112 - Asphalt: Sealing	136
		212 - Asphalt: Ongoing Repairs	136

Component Index

by Level / Component

Third Draft

Prepared for the 2012/2013 Fiscal Year

Component Name	Component Number	Sub Component	Page Number
<u>Westside Park</u>			
	01000	312 - Asphalt: Petromat Overlay	136
		460 - Gravel	137
Rehab	08000	228 - Restrooms	139
Signage	21000	796 - Monument	143
Structural Repairs	04000	914 - Building Maintenance	138
		958 - Dry-rot repairs- ongoing	138



Rio Linda Elverta Recreation and Park District

Section VII

Third Draft

Component Tabular Listing

Included Components

Prepared for the 2012/2013 Fiscal Year

Component	Current Replacement Cost	Useful Life	Remaining Life	Quantity	Cost/ U of M	Treatment	Location
Babe Best Park							
01000 - Paving							
100 - Asphalt: Sealing	\$3,121	5	2	25,370	\$.12/SqFt		Paved Parking Lot
200 - Asphalt: Ongoing Repairs	\$1,690	5	2	25,370	\$3.33/SqFt (2%)		Paved Parking Lot
300 - Asphalt: Petromat Overlay	\$41,607	25	12	25,370	\$1.64/SqFt		Paved Parking Lot
800 - Striping	\$512	5	2	1	\$512/LS		Paved Parking Lot
02000 - Concrete							
220 - Walkways	\$522	10	7	1,590	\$16.40/SqFt (2%)		Concrete Walkways
380 - Pad	\$433	3	1	1,320	\$16.40/SqFt (2%)		Dugout Slabs
03000 - Painting: Exterior							
120 - Surface Restoration	\$1,066	10	7	1,040	\$1.02/SqFt		Snack Bar/Restroom Building
122 - Surface Restoration	\$769	5	2	750	\$1.02/SqFt		Backstop Wood
04000 - Structural Repairs							
910 - Building Maintenance	\$5,330	20	17	1,040	\$5.12/SqFt		Restroom/Snack Bar
950 - Dry-rot repairs- ongoing	\$1,281	5	1	750	\$10.25/SqFt (16.7%)		Backstop Wood
990 - Miscellaneous	\$1,025	5	5	391	\$2.62/SqFt		Shade Structure Repairs
05000 - Roofing							
440 - Pitched: Dimensional Composition	\$2,050	25	25	4	\$512/Sqrs		Shade Structure
650 - Pitched: Fibrous Cement	\$4,305	30	19	7	\$615/Sqrs		Restroom/Snack Bar
08000 - Rehab							
100 - General	\$512	5	2	24	\$21.35/l.f.		Metal Gates
220 - Restrooms	\$4,100	10	7	2	\$2,050/l tm		Restrooms

Component Tabular Listing

Included Components

Third Draft

Prepared for the 2012/2013 Fiscal Year

Component	Current Replacement Cost	Useful Life	Remaining Life	Quantity	Cost/ U of M	Treatment	Location
Babe Best Park							
08000 - Rehab							
18000 - Landscaping							
100 - Irrigation: Misc.	\$1,025	3	1	1	\$1,025/LS		Common Area
420 - General Repairs/Upgrades	\$1,537	3	1	1	\$1,537/LS		Common Area
19000 - Fencing							
100 - Chain Link: 4'	\$12,617	30	14	1,119	\$11.27/l.f.		Ballfield Perimeters
108 - Chain Link: 6'	\$12,829	30	15	1,043	\$12.30/l.f.		Ballfield Perimeters
120 - Chain Link: 8'	\$2,899	30	16	202	\$14.35/l.f.		Ballfield Perimeters
130 - Chain Link: 10'	\$8,118	30	17	440	\$18.45/l.f.		Backstops & Dugouts
510 - Post & Cable	\$22,263	25	9	1,086	\$20.50/l.f.		Perimeter
21000 - Signage							
790 - Monument	\$1,537	10	4	1	\$1,537/lrm		Park Entrance
26000 - Outdoor Equipment							
100 - Tot Lot: Play Equipment	\$10,250	20	10	1	\$10,250/lrm		Tot Lot
140 - Tot Lot: Safety Surface	\$512	3	1	1	\$512/LS		Tot Lot
280 - Picnic Tables	\$4,305	20	11	7	\$615/lrm		Picnic Area
302 - Benches	\$4,920	20	15	8	\$615/lrm		Dugout Benches
316 - Benches	\$1,025	12	5	2	\$512/lrm		Tot Lot
430 - Bleachers	\$6,150	20	9	4	\$1,537/lrm		Wood Bleachers
440 - Bleachers: Aluminum	\$8,200	20	16	4	\$2,050/lrm		Aluminum Bleachers
480 - Drinking Fountain	\$9,840	20	14	4	\$2,460/lrm		Ballfields & Restrooms
900 - Miscellaneous	\$7,687	20	14	1	\$7,687/LS		Electronic Scoreboard
Central Park Horse Arena/BMX Track							
01000 - Paving							
102 - Asphalt: Sealing	\$3,586	5	1	29,154	\$.12/SqFt		Access Road & Parking

Component Tabular Listing

Included Components

Third Draft

Prepared for the 2012/2013 Fiscal Year

Component	Current Replacement Cost	Useful Life	Remaining Life	Quantity	Cost/ U of M	Treatment	Location
Central Park Horse Arena/BMX Track							
01000 - Paving							
202 - Asphalt: Ongoing Repairs	\$1,942	5	1	29,154	\$3.33/SqFt (2%)		Access Road & Parking
302 - Asphalt: Petromat Overlay	\$47,813	25	16	29,154	\$1.64/SqFt		Access Road & Parking
462 - Gravel	\$2,119	5	1	41,350	\$1.02/SqFt (5%)		Access Road & Parking
502 - Curbs: Concrete	\$1,230	10	6	150	\$8.20/l.f.		Parking Lot
802 - Striping	\$512	5	1	1	\$512/LS		Parking Lot
03000 - Painting: Exterior							
126 - Surface Restoration	\$1,806	5	2	1,762	\$1.02/SqFt		Wood Booths
130 - Surface Restoration	\$1,460	5	2	1,424	\$1.02/SqFt		Wood Bleachers
132 - Surface Restoration	\$1,230	5	2	6	\$205/lm		Wood Benches in Pens
400 - Wrought Iron	\$11,857	5	2	1,928	\$6.15/l.f.		Tubular Steel Fencing
04000 - Structural Repairs							
954 - Dry-rot repairs- ongoing	\$3,024	5	2	1,762	\$10.25/SqFt (16.7%)		Wood Booths
18000 - Landscaping							
460 - General Repairs/Upgrades	\$1,537	1	1	1	\$1,537/LS		Open Area
19000 - Fencing							
110 - Chain Link: 6'	\$369	30	19	24	\$15.37/l.f.		Entrance Gates
210 - Wrought Iron: 3'	\$1,845	30	19	72	\$25.62/l.f.		Tubular Steel Hitching Posts [6]
224 - Wrought Iron: 5'	\$33,317	30	19	956	\$34.85/l.f.		5' Tubular Steel Fencing
230 - Wrought Iron: 6'	\$33,210	30	19	900	\$36.90/l.f.		6' Tubular Steel Fencing
512 - Post & Cable	\$14,924	25	12	728	\$20.50/l.f.		Perimeter Paved Parking
780 - Gates	\$717	20	9	14	\$51.25/l.f.		Access Road Gate
20000 - Lighting							
100 - Exterior: Misc. Fixtures	\$2,562	5	9	8	\$2,562/lm (13%)		Athletic Field Lighting

Component Tabular Listing

Included Components

Third Draft

Prepared for the 2012/2013 Fiscal Year

Component	Current Replacement Cost	Useful Life	Remaining Life	Quantity	Cost/ U of M	Treatment	Location
Central Park Horse Arena/BMX Track							
21000 - Signage							
710 - Entry Signs	\$1,025	15	7	1	\$1,025/ltm		Main Entrance Sign
24500 - Audio / Visual							
300 - PA System	\$1,537	10	6	6	\$256/ltm		Speakers
26000 - Outdoor Equipment							
282 - Picnic Tables	\$2,562	20	9	5	\$512/ltm		Common Area
304 - Benches	\$1,025	12	7	2	\$512/ltm		Common Area
306 - Benches	\$3,690	12	7	6	\$615/ltm		Wood Benches in Pens
380 - Garbage Receptacles	\$1,537	20	10	15	\$102/ltm		Trash Cans
432 - Bleachers	\$6,150	20	11	2	\$3,075/ltm		Wood Bleachers
442 - Bleachers: Aluminum	\$8,200	20	13	2	\$4,100/ltm		Aluminum Bleachers
450 - Bleachers	\$4,100	20	12	2	\$2,050/ltm		BMX Bleachers
Community Center Park							
01000 - Paving							
104 - Asphalt: Sealing	\$5,481	5	2	35,650	\$.15/SqFt		Parking Lot
204 - Asphalt: Ongoing Repairs	\$2,375	5	2	35,650	\$3.33/SqFt (2%)		Parking Lot
304 - Asphalt: Petromat Overlay	\$58,466	25	12	35,650	\$1.64/SqFt		Parking Lot
464 - Gravel	\$4,664	10	5	18,200	\$.26/SqFt		Harvey House Yard
02000 - Concrete							
900 - Miscellaneous	\$5,973	5	1	18,209	\$16.40/SqFt (2%)		All Concrete Flatwork
03000 - Painting: Exterior							
134 - Surface Restoration	\$5,535	5	3	5,400	\$1.02/SqFt		Building Surface
136 - Surface Restoration	\$495	5	1	483	\$1.02/SqFt		Wood Trellis
138 - Surface Restoration	\$3,186	10	6	3,108	\$1.02/SqFt		Harvey House
402 - Wrought Iron	\$1,476	4	1	160	\$9.22/l.f.		4' Wrought Iron Fencing

Component Tabular Listing

Included Components

Third Draft

Prepared for the 2012/2013 Fiscal Year

Component	Current Replacement Cost	Useful Life	Remaining Life	Quantity	Cost/ U of M	Treatment	Location
Community Center Park							
03000 - Painting: Exterior							
410 - Wrought Iron Gates	\$7,380	4	1	12	\$615/Itm		Building Perimeter
450 - Wood Fencing	\$615	5	3	1,200	\$.51/SqFt		Perimeter
03500 - Painting: Interior							
100 - Building	\$7,316	10	4	7,138	\$1.02/SqFt		All Interior Spaces
04000 - Structural Repairs							
290 - Ceilings	\$5,022	30	14	3,500	\$1.43/SqFt		Acoustic Ceilings
300 - Trellis	\$1,025	20	10	1	\$1,025/LS		Shuffleboard Area
994 - Miscellaneous	\$2,562	10	7	5	\$512/Itm		Wood Planter Boxes
05000 - Roofing							
200 - Low Slope: BUR	\$4,920	20	9	16	\$307/Sqrs		Community Center
442 - Pitched: Dimensional Composition	\$30,340	25	19	74	\$410/Sqrs		Community Center
448 - Pitched: Dimensional Composition	\$12,300	25	14	30	\$410/Sqrs		Harvey House
08000 - Rehab							
104 - General	\$5,832	10	4	1,944	\$3.00/SqFt		Harvey House Interior
108 - General	\$3,450	20	9	2,300	\$1.50/SqFt		[4] Comm.Ctr.Offices
120 - General	\$3,075	20	9	1	\$3,075/LS		Main Room
222 - Restrooms	\$3,000	20	9	2	\$1,500/Itm		Restrooms
230 - Kitchen	\$3,075	20	9	1	\$3,075/Itm		Kitchen
17000 - Tennis Court							
100 - Reseal	\$738	7	3	7,200	\$.10/LS		Tennis Court
500 - Resurface	\$8,856	21	10	7,200	\$1.23/SqFt		Tennis Court

Component Tabular Listing

Included Components

Third Draft

Prepared for the 2012/2013 Fiscal Year

Component	Current Replacement Cost	Useful Life	Remaining Life	Quantity	Cost/ U of M	Treatment	Location
Community Center Park							
17500 - Basketball / Sport Court							
200 - Seal & Striping	\$717	7	3	6,993	\$.10/SqFt		Asphalt Basketball Court
400 - Overlay	\$7,168	21	10	6,993	\$1.02/SqFt		Asphalt Basketball Court
18000 - Landscaping							
102 - Irrigation: Misc.	\$1,025	3	1	1	\$1,025/LS		Irrigation Items
422 - General Repairs/Upgrades	\$1,025	3	1	1	\$1,025/LS		Landscaped Area
19000 - Fencing							
050 - Chain Link	\$1,443	30	21	128	\$11.27/I.f.		[16] Horseshoe Backstops
112 - Chain Link: 6'	\$1,353	30	19	110	\$12.30/I.f.		Perimeter
114 - Chain Link: 6'	\$8,179	30	19	665	\$12.30/I.f.		Harvey House Perimeter
122 - Chain Link: 8'	\$4,822	30	19	336	\$14.35/I.f.		Perimeter & Utility Enclosure
132 - Chain Link: 10'	\$6,642	30	19	360	\$18.45/I.f.		Tennis Court Perimeter
190 - Chain Link: Slats	\$1,394	30	12	136	\$10.25/I.f.		Utility Enclosure
220 - Wrought Iron: 4'	\$4,920	30	19	160	\$30.75/I.f.		Building Perimeter
310 - Wood: 3'	\$3,044	15	9	198	\$15.37/I.f.		Wood Rail Fence
320 - Wood: 4'	\$2,675	15	11	145	\$18.45/I.f.		Harvey House Perimeter
340 - Wood: 6'	\$5,125	15	10	200	\$25.62/I.f.		Perimeter
420 - Masonry Wall: On-going Maint.	\$922	5	3	180	\$5.12/LS		Building Exterior
514 - Post & Cable	\$13,325	25	12	650	\$20.50/I.f.		Perimeter
19500 - Retaining Wall							
990 - Miscellaneous	\$1,896	20	16	185	\$10.25/I.f.		Keystone Retaining Wall
20000 - Lighting							
540 - Parking Lot	\$6,765	25	19	3	\$2,255/I tm		Parking Lot
21000 - Signage							
792 - Monument	\$1,537	10	4	1	\$1,537/I tm		Oak Lane Frontage

Component Tabular Listing

Included Components

Third Draft

Prepared for the 2012/2013 Fiscal Year

Component	Current Replacement Cost	Useful Life	Remaining Life	Quantity	Cost/ U of M	Treatment	Location
Community Center Park							
21000 - Signage							
22000 - Office Equipment							
200 - Computers, Misc.	\$10,250	8	3	4	\$2,562/Itm		Offices
23000 - Mechanical Equipment							
200 - HVAC	\$15,375	15	9	3	\$5,125/Itm		Building Units
202 - HVAC	\$10,250	15	15	2	\$5,125/Itm		Building Units
24000 - Furnishings							
110 - Miscellaneous	\$7,944	20	9	155	\$51.25/Itm		Main Room Furnishings
400 - Miscellaneous	\$4,100	15	7	8	\$512/Itm		Entry Furnishings
640 - Modular Office Desk	\$9,840	20	9	4	\$2,460/Itm		Offices
25000 - Flooring							
200 - Carpeting	\$10,299	10	4	314	\$32.80/SqYd		Carpeted Rooms
400 - Tile	\$11,943	20	9	1,942	\$6.15/SqFt		Restrooms & Kitchen
600 - Vinyl	\$2,372	30	14	89	\$26.65/SqYd		Main Room
25500 - Wallcoverings							
100 - Wallpaper	\$2,890	20	9	94	\$30.75/SqYd		Main Room Wallcovering
900 - Miscellaneous	\$11,910	20	9	1,660	\$7.17/SqFt		Wood Paneling
26000 - Outdoor Equipment							
060 - Flag Pole	\$4,100	20	0	1	\$4,100/Itm		Flag Pole
102 - Tot Lot: Play Equipment	\$10,250	20	8	10	\$1,025/Itm		Smaller Structures
108 - Tot Lot: Play Equipment	\$10,250	20	8	1	\$10,250/Itm		Large Structure
180 - Bike Rack	\$410	20	13	4	\$102/Itm		Metal Bike Racks
200 - Pedestal Grill BBQ	\$615	15	7	2	\$307/Itm		Picnic Area
284 - Picnic Tables	\$3,690	20	5	6	\$615/Itm		Tot Lot Area

Component Tabular Listing

Included Components

Third Draft

Prepared for the 2012/2013 Fiscal Year

Component	Current Replacement Cost	Useful Life	Remaining Life	Quantity	Cost/ U of M	Treatment	Location
Community Center Park							
26000 - Outdoor Equipment							
308 - Benches	\$4,305	12	5	7	\$615/Itm		Outdoor Benches
482 - Drinking Fountain	\$2,460	20	9	1	\$2,460/Itm		Tot Lot Area
840 - Shade Structure	\$12,300	30	24	400	\$30.75/SqFt		Metal Gazebo
904 - Miscellaneous	\$1,537	10	5	1	\$1,537/LS		Miscellaneous Outdoor Items
27000 - Appliances							
080 - Warming Drawers	\$2,050	15	7	1	\$2,050/Itm		Kitchen
082 - Warming Drawers	\$2,050	15	7	1	\$2,050/Itm		Kitchen
200 - Refrigerator	\$1,025	10	4	1	\$1,025/Itm		Kitchen
220 - Refrigerator: Commercial: Large	\$4,100	15	14	1	\$4,100/Itm		Kitchen
270 - Stove / Oven: Commercial grade 6-burner	\$4,100	20	9	1	\$4,100/Itm		Kitchen
284 - Microwave Oven	\$615	10	4	2	\$307/Itm		Kitchen
296 - Stove: Exhaust Hood w/ Fan	\$2,665	20	9	1	\$2,665/Itm		Kitchen
940 - Drinking Fountain	\$2,460	15	13	1	\$2,460/Itm		Entry Area
970 - Dishwasher	\$1,000	12	6	1	\$1,000/Itm		Kitchen
Depot Park							
01000 - Paving							
106 - Asphalt: Sealing	\$220	5	1	1,428	\$.15/SqFt		Parking Area
206 - Asphalt: Ongoing Repairs	\$238	5	1	1,428	\$3.33/SqFt (5%)		Parking Area
306 - Asphalt: Petromat Overlay	\$2,342	25	10	1,428	\$1.64/SqFt		Parking Area
02000 - Concrete							
200 - Sidewalks, Curbs & Gutters	\$1,203	3	1	2,933	\$16.40/SqFt (3%)		All Concrete
03000 - Painting: Exterior							
140 - Surface Restoration	\$3,352	6	3	3,270	\$1.02/SqFt		Depot Building

Component Tabular Listing

Included Components

Third Draft

Prepared for the 2012/2013 Fiscal Year

Component	Current Replacement Cost	Useful Life	Remaining Life	Quantity	Cost/ U of M	Treatment	Location
Depot Park							
03000 - Painting: Exterior							
404 - Wrought Iron	\$922	6	1	100	\$9.22/l.f.		Gazebo
04000 - Structural Repairs							
200 - Wood: Siding & Trim	\$838	12	9	3,270	\$5.12/ltm (5%)		Depot Building
04500 - Decking/Balconies							
520 - Railing: Wood	\$2,452	15	9	104	\$23.57/l.f.		Depot Building
05000 - Roofing							
444 - Pitched: Dimensional Composition	\$9,430	25	19	23	\$410/Sqrs		Depot Building
500 - Pitched: Wood Shake	\$3,690	15	8	6	\$615/Sqrs		Gazebo
700 - Gutters / Downspouts	\$1,230	25	19	200	\$6.15/l.f.		Depot Building
08000 - Rehab							
224 - Restrooms	\$3,000	20	14	2	\$1,500/ltm		Depot Building Restrooms
18000 - Landscaping							
104 - Irrigation: Misc.	\$1,025	3	1	1	\$1,025/LS		Irrigated Areas
424 - General Repairs/Upgrades	\$1,025	3	1	1	\$1,025/LS		Landscaped Areas
19000 - Fencing							
116 - Chain Link: 6'	\$922	20	13	36	\$25.62/l.f.		HVAC Enclosure
222 - Wrought Iron: 4'	\$3,075	30	14	100	\$30.75/l.f.		Gazebo
516 - Post & Cable	\$5,125	25	13	250	\$20.50/l.f.		Perimeter Fencing
20000 - Lighting							
104 - Exterior: Misc. Fixtures	\$3,587	15	10	7	\$512/ltm		Exterior Lights
23000 - Mechanical Equipment							
204 - HVAC	\$10,250	15	10	2	\$5,125/ltm		Trane HVAC

Component Tabular Listing

Included Components

Third Draft

Prepared for the 2012/2013 Fiscal Year

Component	Current Replacement Cost	Useful Life	Remaining Life	Quantity	Cost/ U of M	Treatment	Location
Depot Park							
26000 - Outdoor Equipment							
204 - Pedestal Grill BBQ	\$512	20	9	1	\$512/Itm		Gazebo Area
906 - Miscellaneous	\$1,537	20	11	1	\$1,537/LS		Miscellaneous Park Items
Northbrook Park							
01000 - Paving							
108 - Asphalt: Sealing	\$1,200	5	2	7,804	\$.15/SqFt		Sport Court & Driveway
208 - Asphalt: Ongoing Repairs	\$1,300	5	2	7,804	\$3.33/SqFt (5%)		Sport Court & Driveway
408 - Asphalt: Major Repairs	\$39,995	25	17	7,804	\$5.12/SqFt		Sport Court & Driveway
02000 - Concrete							
222 - Walkways	\$2,375	3	1	7,241	\$16.40/SqFt (2%)		Walkways, Slabs & Tot Lot
03000 - Painting: Exterior							
142 - Surface Restoration	\$123	4	1	20	\$6.15/l.f.		Metal Vehicle Gate
406 - Wrought Iron	\$369	4	1	40	\$9.22/l.f.		Park Entrance
18000 - Landscaping							
106 - Irrigation: Misc.	\$1,025	3	1	1	\$1,025/LS		Common Area
426 - General Repairs/Upgrades	\$1,025	3	1	1	\$1,025/LS		Common Area
19000 - Fencing							
118 - Chain Link: 6'	\$3,106	30	21	505	\$12.30/l.f. (50%)		East Perimeter
240 - Wrought Iron: 8'	\$1,845	30	19	40	\$46.12/l.f.		Park Entrance
21000 - Signage							
720 - Entry Signs	\$512	10	5	1	\$512/Itm		Park Entrance
26000 - Outdoor Equipment							
104 - Tot Lot: Play Equipment	\$10,250	20	10	1	\$10,250/LS		Tot Lot
144 - Tot Lot: Safety Surface	\$1,537	5	3	1	\$1,537/LS		Tot Lot

Component Tabular Listing

Included Components

Third Draft

Prepared for the 2012/2013 Fiscal Year

Component	Current Replacement Cost	Useful Life	Remaining Life	Quantity	Cost/ U of M	Treatment	Location
Northbrook Park							
26000 - Outdoor Equipment							
310 - Benches	\$1,230	12	6	2	\$615/ltm		Tot Lot
318 - Picnic Table: Metal	\$3,485	20	12	4	\$871/ltm		Picnic Area
908 - Miscellaneous	\$2,152	15	7	7	\$307/LS		Exercise Stations
Roy E Hayer Park							
01000 - Paving							
110 - Asphalt: Sealing	\$3,247	5	2	21,120	\$.15/SqFt		Parking Lot
210 - Asphalt: Ongoing Repairs	\$1,407	5	2	21,120	\$3.33/SqFt (2%)		Parking Lot
310 - Asphalt: Petromat Overlay	\$34,637	25	12	21,120	\$1.64/SqFt		Parking Lot
510 - Curbs: Concrete	\$2,583	15	7	315	\$8.20/l.f.		Parking Lot
03000 - Painting: Exterior							
144 - Surface Restoration	\$1,086	10	5	1,060	\$1.02/SqFt		Restroom Building
04000 - Structural Repairs							
998 - Miscellaneous	\$1,230	5	3	200	\$6.15/SqFt		[3] Horseshoe Pits
05000 - Roofing							
446 - Pitched: Dimensional Composition	\$4,100	25	19	10	\$410/Sqrs		Restroom Building
08000 - Rehab							
226 - Restrooms	\$6,150	20	10	2	\$3,075/ltm		Restroom Building
11000 - Gate Equipment							
910 - Vehicle Gate Replacement	\$1,537	30	22	1	\$1,537/ltm		Parking Entrance
18000 - Landscaping							
108 - Irrigation: Misc.	\$1,025	3	1	1	\$1,025/LS		Irrigation Items
428 - General Repairs/Upgrades	\$1,025	3	1	1	\$1,025/LS		Landscaped Areas

Component Tabular Listing

Included Components

Third Draft

Prepared for the 2012/2013 Fiscal Year

Component	Current Replacement Cost	Useful Life	Remaining Life	Quantity	Cost/ U of M	Treatment	Location
Roy E Hayer Park							
19000 - Fencing							
518 - Post & Cable	\$14,042	25	14	685	\$20.50/l.f.		Perimeter
21000 - Signage							
794 - Monument	\$1,537	10	7	1	\$1,537/lrm		Parking Lot Entrance
26000 - Outdoor Equipment							
208 - Pedestal Grill BBQ	\$615	15	4	2	\$307/lrm		Picnic Area
286 - Picnic Tables	\$6,150	20	9	10	\$615/lrm		Picnic Area
312 - Benches	\$1,845	15	9	3	\$615/lrm		Picnic Area
484 - Drinking Fountain	\$2,460	20	6	1	\$2,460/lrm		Restroom Building
910 - Miscellaneous	\$1,435	10	4	7	\$205/lrm		Miscellaneous Outdoor Items
Westside Park							
01000 - Paving							
112 - Asphalt: Sealing	\$3,562	5	2	23,170	\$.15/SqFt		Paved Parking
212 - Asphalt: Ongoing Repairs	\$1,544	5	2	23,170	\$3.33/SqFt (2%)		Paved Parking
312 - Asphalt: Petromat Overlay	\$37,999	25	12	23,170	\$1.64/SqFt		Paved Parking
460 - Gravel	\$1,734	5	2	16,920	\$.10/SqFt		Unpaved Parking & Access Roads
02000 - Concrete							
902 - Miscellaneous	\$2,708	3	1	8,257	\$16.40/SqFt (2%)		Slabs & Walkways
03000 - Painting: Exterior							
148 - Surface Restoration	\$480	4	1	468	\$1.02/SqFt		Backstop Wood & Score Table
04000 - Structural Repairs							
914 - Building Maintenance	\$3,075	20	14	1	\$3,075/LS		Restroom Building
958 - Dry-rot repairs- ongoing	\$2,398	8	5	468	\$5.12/SqFt		Backstop Wood

Component Tabular Listing

Included Components

Third Draft

Prepared for the 2012/2013 Fiscal Year

Component	Current Replacement Cost	Useful Life	Remaining Life	Quantity	Cost/ U of M	Treatment	Location
Westside Park							
08000 - Rehab							
228 - Restrooms	\$3,075	20	9	1	\$3,075/LS		Restroom Building
11000 - Gate Equipment							
912 - Vehicle Gate Replacement	\$4,612	30	23	3	\$1,537/ltm		Driveways & Access Road
18000 - Landscaping							
110 - Irrigation: Misc.	\$1,025	3	1	1	\$1,025/LS		Irrigation Items
430 - General Repairs/Upgrades	\$1,025	3	1	1	\$1,025/LS		Landscaped Areas
19000 - Fencing							
052 - Chain Link	\$2,251	30	19	61	\$36.90/l.f.		20' Backstop Fencing
102 - Chain Link: 4'	\$15,266	30	28	1,354	\$11.27/l.f.		Dog Park Fencing
104 - Chain Link: 4'	\$676	30	19	60	\$11.27/l.f.		Ballfield
126 - Chain Link: 8'	\$14,006	30	19	976	\$14.35/l.f.		Ballfield
134 - Chain Link: 10'	\$4,059	30	19	220	\$18.45/l.f.		Ballfield
520 - Post & Cable	\$15,354	25	13	749	\$20.50/l.f.		Perimeter
20000 - Lighting							
108 - Exterior: Misc. Fixtures	\$1,281	5	9	6	\$2,562/ltm (8%)		Light Poles
21000 - Signage							
796 - Monument	\$1,537	10	4	1	\$1,537/ltm		W 2nd St. Frontage
26000 - Outdoor Equipment							
106 - Tot Lot: Play Equipment	\$15,375	20	16	1	\$15,375/LS		Tot Lot Play Area
148 - Tot Lot: Safety Surface	\$1,537	10	5	1	\$1,537/LS		Tot Lot Play Area
300 - Benches	\$1,537	20	20	2	\$769/ltm		Ballfield Dugouts
314 - Benches	\$1,230	20	17	2	\$615/ltm		Tot Lot Area
320 - Picnic Table: Metal	\$1,230	20	17	1	\$1,230/ltm		Tot Lot Area

Component Tabular Listing

Included Components

Third Draft

Prepared for the 2012/2013 Fiscal Year

Component	Current Replacement Cost	Useful Life	Remaining Life	Quantity	Cost/ U of M	Treatment	Location
Westside Park							
26000 - Outdoor Equipment							
434 - Bleachers	\$4,100	20	10	2	\$2,050/Itm		Ballfield
444 - Bleachers: Aluminum	\$3,075	20	12	1	\$3,075/Itm		Ballfield
486 - Drinking Fountain	\$2,460	20	14	1	\$2,460/Itm		South Side Ballfield
912 - Miscellaneous	\$1,537	10	4	1	\$1,537/LS		Miscellaneous Outdoor Items
916 - Miscellaneous	\$10,250	20	19	1	\$10,250/Itm		Electronic Scoreboard
Elkhorn Equestrian Staging Area							
18000 - Landscaping							
432 - General Repairs/Upgrades	\$512	3	1	1	\$512/LS		General Upkeep

Expenditures by Year
For 3 Years

Prepared for the 2012/2013 Fiscal Year

Reserve Component	Life Useful	Current Replacement Cost	Forecast Inflated Cost @ 2.50%
2011/12			
<u>Community Center Park</u>			
<u>26000 - Outdoor Equipment</u>			
060 - Flag Pole { Flag Pole }	20	4,100	
Total 2011/12:		4,100	
2012/13			
<u>Babe Best Park</u>			
<u>02000 - Concrete</u>			
380 - Pad { 1,320 Sq. Ft. Dugout Slabs (2%) }	3	433	444
<u>04000 - Structural Repairs</u>			
950 - Dry-rot repairs- ongoing { 750 Sq. Ft. Backstop Wood (16.7%) }	5	1,281	1,313
<u>18000 - Landscaping</u>			
100 - Irrigation: Misc. { Common Area }	3	1,025	1,051
420 - General Repairs/Upgrades { Common Area }	3	1,537	1,576
Total 18000 - Landscaping:		2,562	2,627
<u>26000 - Outdoor Equipment</u>			
140 - Tot Lot: Safety Surface { Tot Lot }	3	512	525
Total Babe Best Park:		4,788	4,909
<u>Central Park Horse Arena/BMX Track</u>			
<u>01000 - Paving</u>			
102 - Asphalt: Sealing { 29,154 Sq. Ft. Access Road & Parking }	5	3,586	3,676
202 - Asphalt: Ongoing Repairs { 29,154 Sq. Ft. Access Road & Parking (2%) }	5	1,942	1,991
462 - Gravel { 41,350 Sq. Ft. Access Road & Parking (5%) }	5	2,119	2,172
802 - Striping { Parking Lot }	5	512	525
Total 01000 - Paving:		8,159	8,364
<u>18000 - Landscaping</u>			
460 - General Repairs/Upgrades { Open Area }	1	1,537	1,576

Expenditures by Year
For 3 Years

Third Draft

Prepared for the 2012/2013 Fiscal Year

Reserve Component

*Life
Useful Current
Replacement Cost Forecast
Inflated Cost @ 2.50%*

2012/13

Central Park Horse Arena/BMX Track

Total Central Park Horse Arena/BMX Track:	9,696	9,940
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Community Center Park

02000 - Concrete

900 - Miscellaneous { 18,209 Sq. Ft. All Concrete Flatwork (2%)}	5	5,973	6,122
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03000 - Painting: Exterior

136 - Surface Restoration { 483 Sq. Ft. Wood Trellis}	5	495	507
402 - Wrought Iron { 160 Lin. Ft. 4' Wrought Iron Fencing}	4	1,476	1,513
410 - Wrought Iron Gates { 12 Building Perimeter}	4	7,380	7,565
Total 03000 - Painting: Exterior:		9,351	9,585

18000 - Landscaping

102 - Irrigation: Misc. {Irrigation Items}	3	1,025	1,051
422 - General Repairs/Upgrades {Landscaped Area}	3	1,025	1,051
Total 18000 - Landscaping:		2,050	2,102
Total Community Center Park:		17,374	17,809

Depot Park

01000 - Paving

106 - Asphalt: Sealing { 1,428 Sq. Ft. Parking Area}	5	220	225
206 - Asphalt: Ongoing Repairs { 1,428 Sq. Ft. Parking Area (5%)}	5	238	244
Total 01000 - Paving:		458	469

02000 - Concrete

200 - Sidewalks, Curbs & Gutters { 2,933 Sq. Ft. All Concrete (3%)}	3	1,203	1,233
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03000 - Painting: Exterior

404 - Wrought Iron { 100 Lin. Ft. Gazebo}	6	922	946
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18000 - Landscaping

104 - Irrigation: Misc. {Irrigated Areas}	3	1,025	1,051
424 - General Repairs/Upgrades {Landscaped Areas}	3	1,025	1,051
Total 18000 - Landscaping:		2,050	2,102
Total Depot Park:		4,633	4,750

Expenditures by Year
For 3 Years

Third Draft

Prepared for the 2012/2013 Fiscal Year

Reserve Component

*Life
Useful Current
Replacement Cost Forecast
Inflated Cost @ 2.50%*

2012/13

Northbrook Park

02000 - Concrete

222 - Walkways { 7,241 Sq. Ft. Walkways, Slabs & Tot Lot (2%)}	3	2,375	2,434
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03000 - Painting: Exterior

142 - Surface Restoration { 20 Lin. Ft. Metal Vehicle Gate}	4	123	126
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406 - Wrought Iron { 40 Lin. Ft. Park Entrance}	4	369	378
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Total 03000 - Painting: Exterior:		492	504
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18000 - Landscaping

106 - Irrigation: Misc. { Common Area}	3	1,025	1,051
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426 - General Repairs/Upgrades { Common Area}	3	1,025	1,051
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Total 18000 - Landscaping:		2,050	2,102
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Total Northbrook Park:		4,917	5,040
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Roy E Hayer Park

18000 - Landscaping

108 - Irrigation: Misc. { Irrigation Items}	3	1,025	1,051
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428 - General Repairs/Upgrades { Landscaped Areas}	3	1,025	1,051
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Total 18000 - Landscaping:		2,050	2,102
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Total Roy E Hayer Park:		2,050	2,102
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Westside Park

02000 - Concrete

902 - Miscellaneous { 8,257 Sq. Ft. Slabs & Walkways (2%)}	3	2,708	2,776
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03000 - Painting: Exterior

148 - Surface Restoration { 468 Sq. Ft. Backstop Wood & Score Table}	4	480	492
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18000 - Landscaping

110 - Irrigation: Misc. { Irrigation Items}	3	1,025	1,051
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430 - General Repairs/Upgrades { Landscaped Areas}	3	1,025	1,051
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Total 18000 - Landscaping:		2,050	2,102
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Total Westside Park:		5,238	5,370
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Expenditures by Year
For 3 Years

Third Draft

Prepared for the 2012/2013 Fiscal Year

Reserve Component

Life Current Forecast
Useful Replacement Cost Inflated Cost @ 2.50%

2012/13

Elkhorn Equestrian Staging Area

18000 - Landscaping

432 - General Repairs/Upgrades { General Upkeep}	3	512	525
Total Elkhorn Equestrian Staging Area:		512	525
Total 2012/13:		49,208	50,445

2013/14

Babe Best Park

01000 - Paving

100 - Asphalt: Sealing { 25,370 Sq. Ft. Paved Parking Lot}	5	3,121	3,278
200 - Asphalt: Ongoing Repairs { 25,370 Sq. Ft. Paved Parking Lot (2%)}	5	1,690	1,776
800 - Striping { Paved Parking Lot}	5	512	538
Total 01000 - Paving:		5,323	5,592

03000 - Painting: Exterior

122 - Surface Restoration { 750 Sq. Ft. Backstop Wood}	5	769	808
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08000 - Rehab

100 - General { 24 Lin. Ft. Metal Gates}	5	512	538
Total Babe Best Park:		6,604	6,938

Central Park Horse Arena/BMX Track

03000 - Painting: Exterior

126 - Surface Restoration { 1,762 Sq. Ft. Wood Booths}	5	1,806	1,897
130 - Surface Restoration { 1,424 Sq. Ft. Wood Bleachers}	5	1,460	1,533
132 - Surface Restoration { 6 Wood Benches in Pens}	5	1,230	1,292
400 - Wrought Iron { 1,928 Lin. Ft. Tubular Steel Fencing}	5	11,857	12,457
Total 03000 - Painting: Exterior:		16,353	17,179

04000 - Structural Repairs

954 - Dry-rot repairs- ongoing { 1,762 Sq. Ft. Wood Booths (16.7%)}	5	3,024	3,177
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18000 - Landscaping

460 - General Repairs/Upgrades { Open Area}	1	1,537	1,615
Total Central Park Horse Arena/BMX Track:		20,914	21,971

Expenditures by Year

For 3 Years

Third Draft

Prepared for the 2012/2013 Fiscal Year

Reserve Component

Life Useful Current Replacement Cost Forecast Inflated Cost @ 2.50%

2013/14

Community Center Park

01000 - Paving

104 - Asphalt: Sealing { 35,650 Sq. Ft. Parking Lot}	5	5,481	5,759
204 - Asphalt: Ongoing Repairs { 35,650 Sq. Ft. Parking Lot (2%)}	5	2,375	2,495
Total 01000 - Paving:		7,856	8,254
Total Community Center Park:		7,856	8,254

Northbrook Park

01000 - Paving

108 - Asphalt: Sealing { 7,804 Sq. Ft. Sport Court & Driveway}	5	1,200	1,261
208 - Asphalt: Ongoing Repairs { 7,804 Sq. Ft. Sport Court & Driveway (5%)}	5	1,300	1,366
Total 01000 - Paving:		2,500	2,627
Total Northbrook Park:		2,500	2,627

Roy E Hayer Park

01000 - Paving

110 - Asphalt: Sealing { 21,120 Sq. Ft. Parking Lot}	5	3,247	3,412
210 - Asphalt: Ongoing Repairs { 21,120 Sq. Ft. Parking Lot (2%)}	5	1,407	1,478
Total 01000 - Paving:		4,654	4,890
Total Roy E Hayer Park:		4,654	4,890

Westside Park

01000 - Paving

112 - Asphalt: Sealing { 23,170 Sq. Ft. Paved Parking}	5	3,562	3,743
212 - Asphalt: Ongoing Repairs { 23,170 Sq. Ft. Paved Parking (2%)}	5	1,544	1,622
460 - Gravel { 16,920 Sq. Ft. Unpaved Parking & Access Roads}	5	1,734	1,822
Total 01000 - Paving:		6,840	7,187
Total Westside Park:		6,840	7,187
Total 2013/14:		49,368	51,867



Rio Linda Elverta Recreation and Park District

Section X

Notes to the Auditor

Third Draft

Prepared for the 2012/2013 Fiscal Year

This report is intended to assist the auditor while preparing the audit, review or compilation of Rio Linda Elverta Recreation and Park District's (the "Project") financial documents.

Browning Reserve Group ("BRG") prepared a reserve study for the Project during the 2011/2012 fiscal year. This was done to help determine the Project's reserve contribution for the next fiscal year (2012/2013) and future fiscal years. In addition, BRG prepared reserve fund disclosures for distribution to the Project members.

This Reserve Study is a Full Study. A **Full Study** includes an on-site review upon where the following tasks are performed:

- development of a reserve component inventory;
- condition assessment based upon on-site visual observation;
- life and valuation estimates;
- fund status;
- and a funding plan. Please note, in order to complete these study tasks, one or more visits were conducted by BRG to Rio Linda Elverta Recreation and Park District.

For BRG reserve studies, the year in which the study is being conducted, is the first year of the study. For example, this study is being prepared during 2011/2012 and is the Project's first year in the study. This enables BRG to use a starting point which ties to the last audited financial statement, June 30, 2011. You will notice in Section III, Reserve Fund Balance Forecast, a Beginning Reserve Balance of \$100,000 is being used which ties to the last completed audit or review of the Project's financial statements. BRG then re-builds the first year of the study, in this case 2011/2012, and estimates an ending reserve fund balance. Again, see Section III and the 2011/2012 ending reserve balance estimate of \$98,349.

"Re-building" the first year of the study as mentioned above simply means using the 2011/2012 adopted budget for the 2011/2012 reserve contribution. Finally, the 2011/2012 reserve expenses both actual and projected are estimated.

We find by using the above method a more accurate reserve study is possible because the beginning reserve fund balance ties directly to the Project's audited financial statement or, in the absence of an audit or review, the year end balance sheet. There is no need to rely on others for determining mid year reserve balances or estimating current year ending reserve balances. This approach forces all involved, to look at the current year's reserve fund activities so a more accurate ending reserve fund balance can be estimated.

With respect to the reserve component information on the next page/s, here are the calculations:

$$\text{FFB} = \text{Current Cost} \times \text{Effective Age} / \text{Useful Life}$$

$$\% \text{ Funded} = \text{First Year Estimated Ending Reserve Balance} / \text{FFB}$$

Please see Section V - Reserve Fund Balance Forecast.

Browning Reserve Group



Rio Linda Elverta Recreation and Park District

Schedule of Supplementary Information for Auditor

Component Method

Third Draft

Prepared for the 2012/2013 Fiscal Year

Reserve Component	Current Repl. Cost	Useful Life	Remaining Life	2011/2012 Fully Funded Balance	2012/2013 Fully Funded Balance	2012/2013 Line Item Contribution based on Cash Flow Method
Babe Best Park						
01000 - Paving						
100 - Asphalt: Sealing { 25,370 Sq. Ft. Paved Parking Lot}	3,121	5	2	1,872	2,559	610
200 - Asphalt: Ongoing Repairs { 25,370 Sq. Ft. Paved Parking Lot (2%)}	1,690	5	2	1,014	1,386	330
300 - Asphalt: Petromat Overlay { 25,370 Sq. Ft. Paved Parking Lot}	41,607	25	12	21,636	23,882	2,083
800 - Striping { Paved Parking Lot}	513	5	2	308	420	100
02000 - Concrete						
220 - Walkways { 1,590 Sq. Ft. Concrete Walkways (2%)}	522	10	7	156	214	58
380 - Pad { 1,320 Sq. Ft. Dugout Slabs (2%)}	433	3	1	289	444	138
03000 - Painting: Exterior						
120 - Surface Restoration { 1,040 Sq. Ft. Snack Bar/Restroom Building}	1,066	10	7	320	437	118
122 - Surface Restoration { 750 Sq. Ft. Backstop Wood}	769	5	2	461	630	150
04000 - Structural Repairs						
910 - Building Maintenance { 1,040 Sq. Ft. Restroom/Snack Bar}	5,330	20	17	800	1,093	377
950 - Dry-rot repairs- ongoing { 750 Sq. Ft. Backstop Wood (16.7%)}	1,281	5	1	1,025	1,313	244
990 - Miscellaneous { 391 Sq. Ft. Shade Structure Repairs}	1,025	5	5	171	210	180
05000 - Roofing						
440 - Pitched: Dimensional Composition { 4 Squares-Shade Structure}	2,050	25	25	79	84	136
650 - Pitched: Fibrous Cement { 7 Squares-Restroom/Snack Bar}	4,305	30	19	1,579	1,765	213
08000 - Rehab						
100 - General { 24 Lin. Ft. Metal Gates}	513	5	2	308	420	100
220 - Restrooms { 2 Restrooms}	4,100	10	7	1,230	1,681	453
18000 - Landscaping						
100 - Irrigation: Misc. { Common Area}	1,025	3	1	683	1,051	326
420 - General Repairs/Upgrades { Common Area}	1,538	3	1	1,025	1,576	489
19000 - Fencing						
100 - Chain Link: 4' { 1,119 Lin. Ft. Ballfield Perimeters}	12,617	30	14	6,729	7,328	553

Rio Linda Elverta Recreation and Park District

Schedule of Supplementary Information for Auditor

Component Method

Third Draft

Prepared for the 2012/2013 Fiscal Year

Reserve Component	Current Repl. Cost	Useful Life	Remaining Life	2011/2012 Fully Funded Balance	2012/2013 Fully Funded Balance	2012/2013 Line Item Contribution based on Cash Flow Method
Babe Best Park						
19000 - Fencing						
108 - Chain Link: 6' { 1,043 Lin. Ft. Ballfield Perimeters}	12,829	30	15	6,414	7,013	576
120 - Chain Link: 8' { 202 Lin. Ft. Ballfield Perimeters}	2,899	30	16	1,353	1,486	133
130 - Chain Link: 10' { 440 Lin. Ft. Backstops & Dugouts}	8,118	30	17	3,518	3,883	383
510 - Post & Cable { 1,086 Lin. Ft. Perimeter}	22,263	25	9	14,248	15,517	1,035
21000 - Signage						
790 - Monument { Park Entrance}	1,538	10	4	923	1,103	158
26000 - Outdoor Equipment						
100 - Tot Lot: Play Equipment { Tot Lot}	10,250	20	10	5,125	5,778	610
140 - Tot Lot: Safety Surface { Tot Lot}	513	3	1	342	525	163
280 - Picnic Tables { 7 Picnic Area}	4,305	20	11	1,937	2,206	263
302 - Benches { 8 Dugout Benches}	4,920	20	15	1,230	1,513	331
316 - Benches { 2 Tot Lot}	1,025	12	5	598	700	90
430 - Bleachers { 4 Wood Bleachers}	6,150	20	9	3,383	3,782	357
440 - Bleachers: Aluminum { 4 Aluminum Bleachers}	8,200	20	16	1,640	2,101	566
480 - Drinking Fountain { 4 Ballfields & Restrooms}	9,840	20	14	2,952	3,530	647
900 - Miscellaneous { Electronic Scoreboard}	7,687	20	14	2,306	2,758	505
Sub-total Babe Best Park	184,038			85,651	98,391	12,478
Central Park Horse Arena/BMX Track						
01000 - Paving						
102 - Asphalt: Sealing { 29,154 Sq. Ft. Access Road & Parking}	3,586	5	1	2,869	3,676	684
202 - Asphalt: Ongoing Repairs { 29,154 Sq. Ft. Access Road & Parking (2%)}	1,942	5	1	1,554	1,991	370
302 - Asphalt: Petromat Overlay { 29,154 Sq. Ft. Access Road & Parking}	47,813	25	16	17,213	19,603	2,642
462 - Gravel { 41,350 Sq. Ft. Access Road & Parking (5%)}	2,119	5	1	1,695	2,172	404
502 - Curbs: Concrete { 150 Lin. Ft. Parking Lot}	1,230	10	6	492	630	133
802 - Striping { Parking Lot}	513	5	1	410	525	98
03000 - Painting: Exterior						
126 - Surface Restoration { 1,762 Sq. Ft. Wood Booths}	1,806	5	2	1,084	1,481	353
130 - Surface Restoration { 1,424 Sq. Ft. Wood Bleachers}	1,460	5	2	876	1,197	285
132 - Surface Restoration { 6 Wood Benches in Pens}	1,230	5	2	738	1,009	240
400 - Wrought Iron { 1,928 Lin. Ft. Tubular Steel Fencing}	11,857	5	2	7,114	9,723	2,318
04000 - Structural Repairs						
954 - Dry-rot repairs- ongoing { 1,762 Sq. Ft. Wood Booths (16.7%)}	3,024	5	2	1,814	2,479	591
18000 - Landscaping						
460 - General Repairs/Upgrades { Open Area}	1,538	1	1	769	1,576	733

Rio Linda Elverta Recreation and Park District

Schedule of Supplementary Information for Auditor

Component Method

Third Draft

Prepared for the 2012/2013 Fiscal Year

2012/2013 Line Item
Contribution
based on
Cash Flow Method

Reserve Component

Central Park Horse Arena/BMX Track

18000 - Landscaping

19000 - Fencing

110 - Chain Link: 6' { 24 Lin. Ft. Entrance Gates}	369	30	19	135	151	18
210 - Wrought Iron: 3' { 72 Lin. Ft. Tubular Steel Hitching Posts [6]}	1,845	30	19	677	756	91
224 - Wrought Iron: 5' { 956 Lin. Ft. 5' Tubular Steel Fencing}	33,317	30	19	12,216	13,660	1,652
230 - Wrought Iron: 6' { 900 Lin. Ft. 6' Tubular Steel Fencing}	33,210	30	19	12,177	13,616	1,647
512 - Post & Cable { 728 Lin. Ft. Perimeter Paved Parking}	14,924	25	12	7,760	8,566	747
780 - Gates { 14 Lin. Ft. Access Road Gate}	718	20	9	395	441	42

20000 - Lighting

100 - Exterior: Misc. Fixtures { 8 Athletic Field Lighting (13%)}	2,562	5	9	256	292	298
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21000 - Signage

710 - Entry Signs { Main Entrance Sign}	1,025	15	7	547	630	76
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24500 - Audio / Visual

300 - PA System { 6 Speakers}	1,538	10	6	615	788	166
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26000 - Outdoor Equipment

282 - Picnic Tables { 5 Common Area}	2,562	20	9	1,409	1,576	149
304 - Benches { 2 Common Area}	1,025	12	7	427	525	94
306 - Benches { 6 Wood Benches in Pens}	3,690	12	7	1,538	1,891	340
380 - Garbage Receptacles { 15 Trash Cans}	1,538	20	10	769	867	92
432 - Bleachers { 2 Wood Bleachers}	6,150	20	11	2,768	3,152	375
442 - Bleachers: Aluminum { 2 Aluminum Bleachers}	8,200	20	13	2,870	3,362	526
450 - Bleachers { 2 BMX Bleachers}	4,100	20	12	1,640	1,891	257

Sub-total Central Park Horse Arena/BMX Track

194,889				82,825	98,228	15,421
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Community Center Park

01000 - Paving

104 - Asphalt: Sealing { 35,650 Sq. Ft. Parking Lot}	5,481	5	2	3,289	4,495	1,072
204 - Asphalt: Ongoing Repairs { 35,650 Sq. Ft. Parking Lot (2%)}	2,375	5	2	1,425	1,948	464
304 - Asphalt: Petromat Overlay { 35,650 Sq. Ft. Parking Lot}	58,466	25	12	30,402	33,559	2,926
464 - Gravel { 18,200 Sq. Ft. Harvey House Yard}	4,664	10	5	2,332	2,868	491

02000 - Concrete

900 - Miscellaneous { 18,209 Sq. Ft. All Concrete Flatwork (2%)}	5,973	5	1	4,778	6,122	1,139
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Rio Linda Elverta Recreation and Park District

Schedule of Supplementary Information for Auditor

Component Method

Third Draft

Prepared for the 2012/2013 Fiscal Year

2012/2013 Line Item
Contribution
based on
Cash Flow Method

Reserve Component

Community Center Park

03000 - Painting: Exterior

	Current Repl. Cost	Useful Life	Remaining Life	2011/2012 Fully Funded Balance	2012/2013 Fully Funded Balance	2012/2013 Line Item Contribution based on Cash Flow Method
134 - Surface Restoration { 5,400 Sq. Ft. Building Surface}	5,535	5	3	2,214	3,404	1,109
136 - Surface Restoration { 483 Sq. Ft. Wood Trellis}	495	5	1	396	507	94
138 - Surface Restoration { 3,108 Sq. Ft. Harvey House}	3,186	10	6	1,274	1,633	344
402 - Wrought Iron { 160 Lin. Ft. 4' Wrought Iron Fencing}	1,476	4	1	1,107	1,513	352
410 - Wrought Iron Gates { 12 Building Perimeter}	7,380	4	1	5,535	7,565	1,760
450 - Wood Fencing { 1,200 Sq. Ft. Perimeter}	615	5	3	246	378	123

03500 - Painting: Interior

100 - Building { 7,138 Sq. Ft. All Interior Spaces}	7,316	10	4	4,390	5,250	751
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04000 - Structural Repairs

290 - Ceilings { 3,500 Sq. Ft. Acoustic Ceilings}	5,022	30	14	2,679	2,917	220
300 - Trellis { Shuffleboard Area}	1,025	20	10	513	578	61
994 - Miscellaneous { 5 Wood Planter Boxes}	2,562	10	7	769	1,051	283

05000 - Roofing

200 - Low Slope: BUR { 16 Squares- Community Center}	4,920	20	9	2,706	3,026	286
442 - Pitched: Dimensional Composition { 74 Squares- Community Center}	30,340	25	19	7,282	8,708	1,805
448 - Pitched: Dimensional Composition { 30 Squares- Harvey House}	12,300	25	14	5,412	6,052	647

08000 - Rehab

104 - General { 1,944 Sq. Ft. Harvey House Interior}	5,832	10	4	3,499	4,184	599
108 - General { 2,300 Sq. Ft. [4] Comm.Ctr.Offices}	3,450	20	9	1,898	2,122	200
120 - General { Main Room}	3,075	20	9	1,691	1,891	179
222 - Restrooms { 2 Restrooms}	3,000	20	9	1,650	1,845	174
230 - Kitchen { Kitchen}	3,075	20	9	1,691	1,891	179

17000 - Tennis Court

100 - Reseal { 7,200 Tennis Court}	738	7	3	422	540	106
500 - Resurface { 7,200 Sq. Ft. Tennis Court}	8,856	21	10	4,639	5,187	502

17500 - Basketball / Sport Court

200 - Seal & Striping { 6,993 Sq. Ft. Asphalt Basketball Court}	717	7	3	410	525	103
400 - Overlay { 6,993 Sq. Ft. Asphalt Basketball Court}	7,168	21	10	3,755	4,198	407

18000 - Landscaping

102 - Irrigation: Misc. { Irrigation Items}	1,025	3	1	683	1,051	326
422 - General Repairs/Upgrades { Landscaped Area}	1,025	3	1	683	1,051	326

19000 - Fencing

050 - Chain Link { 128 Lin. Ft. [16] Horseshoe Backstops}	1,443	30	21	433	493	75
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Rio Linda Elverta Recreation and Park District

Schedule of Supplementary Information for Auditor

Component Method

Third Draft

Prepared for the 2012/2013 Fiscal Year

2012/2013 Line Item
Contribution
based on
Cash Flow Method

Reserve Component

Community Center Park

	Current Repl. Cost	Useful Life	Remaining Life	2011/2012 Fully Funded Balance	2012/2013 Fully Funded Balance	2012/2013 Line Item Contribution based on Cash Flow Method
19000 - Fencing						
112 - Chain Link: 6' { 110 Lin. Ft. Perimeter}	1,353	30	19	496	555	67
114 - Chain Link: 6' { 665 Lin. Ft. Harvey House Perimeter}	8,179	30	19	2,999	3,354	406
122 - Chain Link: 8' { 336 Lin. Ft. Perimeter & Utility Enclosure}	4,822	30	19	1,768	1,977	239
132 - Chain Link: 10' { 360 Lin. Ft. Tennis Court Perimeter}	6,642	30	19	2,435	2,723	329
190 - Chain Link: Slats { 136 Lin. Ft. Utility Enclosure}	1,394	30	12	836	905	58
220 - Wrought Iron: 4' { 160 Lin. Ft. Building Perimeter}	4,920	30	19	1,804	2,017	244
310 - Wood: 3' { 198 Lin. Ft. Wood Rail Fence}	3,044	15	9	1,218	1,456	236
320 - Wood: 4' { 145 Lin. Ft. Harvey House Perimeter}	2,675	15	11	713	914	218
340 - Wood: 6' { 200 Lin. Ft. Perimeter}	5,125	15	10	1,708	2,101	407
420 - Masonry Wall: On-going Maint. { 180 Building Exterior}	923	5	3	369	567	185
514 - Post & Cable { 650 Lin. Ft. Perimeter}	13,325	25	12	6,929	7,649	667
19500 - Retaining Wall						
990 - Miscellaneous { 185 Lin. Ft. Keystone Retaining Wall}	1,896	20	16	379	486	131
20000 - Lighting						
540 - Parking Lot { 3 Parking Lot}	6,765	25	19	1,624	1,942	403
21000 - Signage						
792 - Monument { Oak Lane Frontage}	1,538	10	4	923	1,103	158
22000 - Office Equipment						
200 - Computers, Misc. { 4 Offices}	10,250	8	3	6,406	7,880	1,284
23000 - Mechanical Equipment						
200 - HVAC { 3 Building Units}	15,375	15	9	6,150	7,354	1,191
202 - HVAC { 2 Building Units}	10,250	15	15	641	700	863
24000 - Furnishings						
110 - Miscellaneous { 155 Main Room Furnishings}	7,944	20	9	4,369	4,885	462
400 - Miscellaneous { 8 Entry Furnishings}	4,100	15	7	2,187	2,522	302
640 - Modular Office Desk { 4 Offices}	9,840	20	9	5,412	6,052	572
25000 - Flooring						
200 - Carpeting { 314 Sq. Yds. Carpeted Rooms}	10,299	10	4	6,180	7,390	1,058
400 - Tile { 1,942 Sq. Ft. Restrooms & Kitchen}	11,943	20	9	6,569	7,345	694
600 - Vinyl { 89 Sq. Yds. Main Room}	2,372	30	14	1,265	1,378	104
25500 - Wallcoverings						
100 - Wallpaper { 94 Sq. Yds. Main Room Wallcovering}	2,890	20	9	1,590	1,778	168
900 - Miscellaneous { 1,660 Sq. Ft. Wood Paneling}	11,910	20	9	6,551	7,325	692

Rio Linda Elverta Recreation and Park District

Schedule of Supplementary Information for Auditor

Component Method

Third Draft

Prepared for the 2012/2013 Fiscal Year

2012/2013 Line Item
Contribution
based on
Cash Flow Method

Reserve Component

Community Center Park

25500 - Wallcoverings

26000 - Outdoor Equipment

	Current Repl. Cost	Useful Life	Remaining Life	2011/2012 Fully Funded Balance	2012/2013 Fully Funded Balance	2012/2013 Line Item Contribution based on Cash Flow Method
060 - Flag Pole {Flag Pole}	4,100	20	0	4,100	210	191
102 - Tot Lot: Play Equipment {10 Smaller Structures}	10,250	20	8	6,150	6,829	581
108 - Tot Lot: Play Equipment {Large Structure}	10,250	20	8	6,150	6,829	581
180 - Bike Rack {4 Metal Bike Racks}	410	20	13	144	168	26
200 - Pedestal Grill BBQ {2 Picnic Area}	615	15	7	328	378	45
284 - Picnic Tables {6 Tot Lot Area}	3,690	20	5	2,768	3,026	194
308 - Benches {7 Outdoor Benches}	4,305	12	5	2,511	2,942	378
482 - Drinking Fountain {Tot Lot Area}	2,460	20	9	1,353	1,513	143
840 - Shade Structure {400 Sq. Ft. Metal Gazebo}	12,300	30	24	2,460	2,942	690
904 - Miscellaneous {Miscellaneous Outdoor Items}	1,538	10	5	769	946	162

27000 - Appliances

080 - Warming Drawers {Kitchen}	2,050	15	7	1,093	1,261	151
082 - Warming Drawers {Kitchen}	2,050	15	7	1,093	1,261	151
200 - Refrigerator {Kitchen}	1,025	10	4	615	735	105
220 - Refrigerator: Commercial: Large {Kitchen}	4,100	15	14	273	560	359
270 - Stove / Oven: Commercial grade 6-burner {Kitchen}	4,100	20	9	2,255	2,522	238
284 - Microwave Oven {2 Kitchen}	615	10	4	369	441	63
296 - Stove: Exhaust Hood w/ Fan {Kitchen}	2,665	20	9	1,466	1,639	155
940 - Drinking Fountain {Entry Area}	2,460	15	13	328	504	210
970 - Dishwasher {Kitchen}	1,000	12	6	500	598	90

Sub-total Community Center Park

428,293			204,446	234,210	32,754
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Depot Park

01000 - Paving

106 - Asphalt: Sealing {1,428 Sq. Ft. Parking Area}	220	5	1	176	225	42
206 - Asphalt: Ongoing Repairs {1,428 Sq. Ft. Parking Area (5%)}	238	5	1	190	244	45
306 - Asphalt: Petromat Overlay {1,428 Sq. Ft. Parking Area}	2,342	25	10	1,405	1,536	112

02000 - Concrete

200 - Sidewalks, Curbs & Gutters {2,933 Sq. Ft. All Concrete (3%)}	1,203	3	1	802	1,233	382
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03000 - Painting: Exterior

140 - Surface Restoration {3,270 Sq. Ft. Depot Building}	3,352	6	3	1,676	2,290	560
404 - Wrought Iron {100 Lin. Ft. Gazebo}	923	6	1	769	946	147

04000 - Structural Repairs

200 - Wood: Siding & Trim {3,270 Depot Building (5%)}	838	12	9	209	286	81
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Rio Linda Elverta Recreation and Park District

Schedule of Supplementary Information for Auditor

Component Method

Third Draft

Prepared for the 2012/2013 Fiscal Year

	Current Repl. Cost	Useful Life	Remaining Life	2011/2012 Fully Funded Balance	2012/2013 Fully Funded Balance	2012/2013 Line Item Contribution based on Cash Flow Method
Reserve Component						
Depot Park						
04500 - Decking/Balconies						
520 - Railing: Wood {104 Lin. Ft. Depot Building}	2,452	15	9	981	1,173	190
05000 - Roofing						
444 - Pitched: Dimensional Composition {23 Squares- Depot Building}	9,430	25	19	2,263	2,706	561
500 - Pitched: Wood Shake {6 Squares- Gazebo}	3,690	15	8	1,722	2,017	279
700 - Gutters / Downspouts {200 Lin. Ft. Depot Building}	1,230	25	19	295	353	73
08000 - Rehab						
224 - Restrooms {2 Depot Building Restrooms}	3,000	20	14	900	1,076	197
18000 - Landscaping						
104 - Irrigation: Misc. {Irrigated Areas}	1,025	3	1	683	1,051	326
424 - General Repairs/Upgrades {Landscaped Areas}	1,025	3	1	683	1,051	326
19000 - Fencing						
116 - Chain Link: 6' {36 Lin. Ft. HVAC Enclosure}	923	20	13	323	378	59
222 - Wrought Iron: 4' {100 Lin. Ft. Gazebo}	3,075	30	14	1,640	1,786	135
516 - Post & Cable {250 Lin. Ft. Perimeter Fencing}	5,125	25	13	2,460	2,732	263
20000 - Lighting						
104 - Exterior: Misc. Fixtures {7 Exterior Lights}	3,587	15	10	1,196	1,471	285
23000 - Mechanical Equipment						
204 - HVAC {2 Trane HVAC}	10,250	15	10	3,417	4,203	814
26000 - Outdoor Equipment						
204 - Pedestal Grill BBQ {Gazebo Area}	513	20	9	282	315	30
906 - Miscellaneous {Miscellaneous Park Items}	1,538	20	11	692	788	94
Sub-total Depot Park	55,976			22,764	27,859	5,000
Northbrook Park						
01000 - Paving						
108 - Asphalt: Sealing {7,804 Sq. Ft. Sport Court & Driveway}	1,200	5	2	720	984	235
208 - Asphalt: Ongoing Repairs {7,804 Sq. Ft. Sport Court & Driveway (5%)}	1,300	5	2	780	1,066	254
408 - Asphalt: Major Repairs {7,804 Sq. Ft. Sport Court & Driveway}	39,995	25	17	12,799	14,758	2,265
02000 - Concrete						
222 - Walkways {7,241 Sq. Ft. Walkways, Slabs & Tot Lot (2%)}	2,375	3	1	1,583	2,434	755

Rio Linda Elverta Recreation and Park District

Schedule of Supplementary Information for Auditor

Component Method

Third Draft

Prepared for the 2012/2013 Fiscal Year

	Current Repl. Cost	Useful Life	Remaining Life	2011/2012 Fully Funded Balance	2012/2013 Fully Funded Balance	2012/2013 Line Item Contribution based on Cash Flow Method
Reserve Component						
Northbrook Park						
02000 - Concrete						
03000 - Painting: Exterior						
142 - Surface Restoration { 20 Lin. Ft. Metal Vehicle Gate}	123	4	1	92	126	29
406 - Wrought Iron { 40 Lin. Ft. Park Entrance}	369	4	1	277	378	88
18000 - Landscaping						
106 - Irrigation: Misc. { Common Area}	1,025	3	1	683	1,051	326
426 - General Repairs/Upgrades { Common Area}	1,025	3	1	683	1,051	326
19000 - Fencing						
118 - Chain Link: 6' { 505 Lin. Ft. East Perimeter (50%)}	3,106	30	21	932	1,061	162
240 - Wrought Iron: 8' { 40 Lin. Ft. Park Entrance}	1,845	30	19	677	756	91
21000 - Signage						
720 - Entry Signs { Park Entrance}	513	10	5	256	315	54
26000 - Outdoor Equipment						
104 - Tot Lot: Play Equipment { Tot Lot}	10,250	20	10	5,125	5,778	610
144 - Tot Lot: Safety Surface { Tot Lot}	1,538	5	3	615	946	308
310 - Benches { 2 Tot Lot}	1,230	12	6	615	735	111
318 - Picnic Table: Metal { 4 Picnic Area}	3,485	20	12	1,394	1,607	218
908 - Miscellaneous { 7 Exercise Stations}	2,152	15	7	1,148	1,324	159
Sub-total Northbrook Park	71,531			28,379	34,372	5,991
Roy E Hayer Park						
01000 - Paving						
110 - Asphalt: Sealing { 21,120 Sq. Ft. Parking Lot}	3,247	5	2	1,948	2,663	635
210 - Asphalt: Ongoing Repairs { 21,120 Sq. Ft. Parking Lot (2%)}	1,407	5	2	844	1,154	275
310 - Asphalt: Petromat Overlay { 21,120 Sq. Ft. Parking Lot}	34,637	25	12	18,011	19,882	1,734
510 - Curbs: Concrete { 315 Lin. Ft. Parking Lot}	2,583	15	7	1,378	1,589	190
03000 - Painting: Exterior						
144 - Surface Restoration { 1,060 Sq. Ft. Restroom Building}	1,087	10	5	543	668	114
04000 - Structural Repairs						
998 - Miscellaneous { 200 Sq. Ft. [3] Horseshoe Pits}	1,230	5	3	492	756	246
05000 - Roofing						
446 - Pitched: Dimensional Composition { 10 Squares- Restroom Building}	4,100	25	19	984	1,177	244

Rio Linda Elverta Recreation and Park District

Schedule of Supplementary Information for Auditor

Component Method

Third Draft

Prepared for the 2012/2013 Fiscal Year

Reserve Component	Current Repl. Cost	Useful Life	Remaining Life	2011/2012 Fully Funded Balance	2012/2013 Fully Funded Balance	2012/2013 Line Item Contribution based on Cash Flow Method
Roy E Hayer Park						
08000 - Rehab						
226 - Restrooms { 2 Restroom Building}	6,150	20	10	3,075	3,467	366
11000 - Gate Equipment						
910 - Vehicle Gate Replacement { Parking Entrance}	1,538	30	22	410	473	82
18000 - Landscaping						
108 - Irrigation: Misc. { Irrigation Items}	1,025	3	1	683	1,051	326
428 - General Repairs/Upgrades { Landscaped Areas}	1,025	3	1	683	1,051	326
19000 - Fencing						
518 - Post & Cable {685 Lin. Ft. Perimeter}	14,042	25	14	6,179	6,909	738
21000 - Signage						
794 - Monument { Parking Lot Entrance}	1,538	10	7	461	630	170
26000 - Outdoor Equipment						
208 - Pedestal Grill BBQ { 2 Picnic Area}	615	15	4	451	504	42
286 - Picnic Tables { 10 Picnic Area}	6,150	20	9	3,383	3,782	357
312 - Benches { 3 Picnic Area}	1,845	15	9	738	883	143
484 - Drinking Fountain { Restroom Building}	2,460	20	6	1,722	1,891	133
910 - Miscellaneous { 7 Miscellaneous Outdoor Items}	1,435	10	4	861	1,030	147
Sub-total Roy E Hayer Park	86,113			42,847	49,558	6,270
Westside Park						
01000 - Paving						
112 - Asphalt: Sealing { 23,170 Sq. Ft. Paved Parking}	3,562	5	2	2,137	2,921	696
212 - Asphalt: Ongoing Repairs { 23,170 Sq. Ft. Paved Parking (2%)}	1,544	5	2	926	1,266	302
312 - Asphalt: Petromat Overlay { 23,170 Sq. Ft. Paved Parking}	37,999	25	12	19,759	21,811	1,902
460 - Gravel { 16,920 Sq. Ft. Unpaved Parking & Access Roads}	1,734	5	2	1,041	1,422	339
02000 - Concrete						
902 - Miscellaneous { 8,257 Sq. Ft. Slabs & Walkways (2%)}	2,708	3	1	1,806	2,776	861
03000 - Painting: Exterior						
148 - Surface Restoration { 468 Sq. Ft. Backstop Wood & Score Table}	480	4	1	360	492	114
04000 - Structural Repairs						
914 - Building Maintenance { Restroom Building}	3,075	20	14	923	1,103	202
958 - Dry-rot repairs- ongoing { 468 Sq. Ft. Backstop	2,398	8	5	899	1,229	316

Rio Linda Elverta Recreation and Park District

Schedule of Supplementary Information for Auditor

Component Method

Third Draft

Prepared for the 2012/2013 Fiscal Year

2012/2013 Line Item
Contribution
based on
Cash Flow Method

Reserve Component

Westside Park

04000 - Structural Repairs
Wood}

08000 - Rehab

	Current Repl. Cost	Useful Life	Remaining Life	2011/2012 Fully Funded Balance	2012/2013 Fully Funded Balance	2012/2013 Line Item Contribution based on Cash Flow Method
228 - Restrooms { Restroom Building}	3,075	20	9	1,691	1,891	179

11000 - Gate Equipment

912 - Vehicle Gate Replacement { 3 Driveways & Access Road}	4,612	30	23	1,076	1,261	252
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18000 - Landscaping

110 - Irrigation: Misc. { Irrigation Items}	1,025	3	1	683	1,051	326
430 - General Repairs/Upgrades { Landscaped Areas}	1,025	3	1	683	1,051	326

19000 - Fencing

052 - Chain Link { 61 Lin. Ft. 20' Backstop Fencing}	2,251	30	19	825	923	112
102 - Chain Link: 4' { 1,354 Lin. Ft. Dog Park Fencing}	15,266	30	28	1,018	1,565	945
104 - Chain Link: 4' { 60 Lin. Ft. Ballfield}	677	30	19	248	277	34
126 - Chain Link: 8' { 976 Lin. Ft. Ballfield}	14,006	30	19	5,135	5,742	694
134 - Chain Link: 10' { 220 Lin. Ft. Ballfield}	4,059	30	19	1,488	1,664	201
520 - Post & Cable { 749 Lin. Ft. Perimeter}	15,354	25	13	7,370	8,184	788

20000 - Lighting

108 - Exterior: Misc. Fixtures { 6 Light Poles (8%)}	1,281	5	9	128	146	149
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21000 - Signage

796 - Monument { W 2nd St. Frontage}	1,538	10	4	923	1,103	158
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26000 - Outdoor Equipment

106 - Tot Lot: Play Equipment { Tot Lot Play Area}	15,375	20	16	3,075	3,940	1,062
148 - Tot Lot: Safety Surface { Tot Lot Play Area}	1,538	10	5	769	946	162
300 - Benches { 2 Ballfield Dugouts}	1,538	20	20	73	79	112
314 - Benches { 2 Tot Lot Area}	1,230	20	17	185	252	87
320 - Picnic Table: Metal { Tot Lot Area}	1,230	20	17	185	252	87
434 - Bleachers { 2 Ballfield}	4,100	20	10	2,050	2,311	244
444 - Bleachers: Aluminum { Ballfield}	3,075	20	12	1,230	1,418	192
486 - Drinking Fountain { South Side Ballfield}	2,460	20	14	738	883	162
912 - Miscellaneous { Miscellaneous Outdoor Items}	1,538	10	4	923	1,103	158
916 - Miscellaneous { Electronic Scoreboard}	10,250	20	19	513	1,051	762

Sub-total Westside Park

160,002				58,860	70,113	11,924
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Rio Linda Elverta Recreation and Park District

Schedule of Supplementary Information for Auditor

Component Method

Third Draft

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2012/2013 Line Item
Contribution
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Cash Flow Method

Reserve Component

Elkhorn Equestrian Staging Area

18000 - Landscaping

432 - General Repairs/Upgrades { General Upkeep }

Sub-total Elkhorn Equestrian Staging Area

Totals

Percent Funded

Current
Repl. Cost

Useful
Life

Remaining
Life

2011/2012
Fully Funded
Balance

2012/2013
Fully Funded
Balance

513

3

1

342

525

163

513

342

525

163

[A]

[B]

1,181,355

526,114

613,256

90,000

[EndBal]

[EndBal]

[A]

[B]

18.69%

22.97%

Terms & Definitions

CASH FLOW METHOD: A method of developing a Reserve Funding Plan where contributions to the Reserve fund are designed to offset the variable annual expenditures from the Reserve fund. Different Reserve Funding Plans are tested against the anticipated schedule of Reserve expenses until the desired Funding Goal is achieved.

COMPONENT INVENTORY: The task of selecting and quantifying Reserve Components. This task can be accomplished through on-site visual observations, review of association design and organizational documents, a review of established association precedents, and discussion with appropriate representative(s) of the association or cooperative.

COMPONENT METHOD: A method of developing a Reserve Funding Plan where the total **contribution is based on the sum of contributions for individual components.** See "Cash Flow Method."

COMPONENT: The individual line items in the Reserve Study, developed or updated in the Physical Analysis. These elements form the building blocks for the Reserve Study. Components typically are: 1) Association responsibility, 2) with limited Useful Life expectancies, 3) predictable Remaining Useful Life expectancies, 4) above a minimum threshold cost, and 5) as required by local codes.

CONDITION ASSESSMENT: The task of evaluating the current condition of the component based on observed or reported characteristics.

CURRENT REPLACEMENT COST: See "Replacement Cost."

DEFICIT: An actual (or projected) Reserve Balance less than the Fully Funded Balance. The opposite would be a Surplus.

EFFECTIVE AGE: The difference between Useful Life and Remaining Useful Life. Not always equivalent to chronological age, since some components age irregularly. Used primarily in computations.

FINANCIAL ANALYSIS: The portion of a Reserve Study where current status of the Reserves (measured as cash or Percent Funded) and a recommended Reserve contribution rate (Reserve Funding Plan) are derived, and the projected Reserve income and expense over time is presented. The Financial Analysis is one of the two parts of a Reserve Study.

FULLY FUNDED BALANCE (FFB): Total Accrued Depreciation. An indicator against which Actual (or projected) Reserve balance can be compared. The Reserve balance that is in **direct proportion to the fraction of life "used up" of the current Repair or Replacement cost.** This number is calculated for each component, then summed together for an association **total. Two formulae can be utilized, depending on the provider's sensitivity to interest and inflation effects.** Note: Both yield identical results when interest and inflation are equivalent.

$$\text{FFB} = \text{Current Cost} \times \text{Effective Age} / \text{Useful Life}$$

or

$$\text{FFB} = (\text{Current Cost} \times \text{Effective Age} / \text{Useful Life}) + \\ [(\text{Current Cost} \times \text{Effective Age} / \text{Useful Life}) / (1 + \text{Interest Rate}) ^ \text{Remaining Life}] - \\ [(\text{Current Cost} \times \text{Effective Age} / \text{Useful Life}) / (1 + \text{Inflation Rate}) ^ \text{Remaining Life}]$$

FULLY FUNDED: 100% Funded. When the actual (or projected) Reserve balance is equal to the Fully Funded Balance.

FUND STATUS: The status of the reserve fund as compared to an established benchmark such as percent funding.

FUNDING GOALS: Independent of methodology utilized, the following represent the basic categories of Funding Plan goals:

Baseline Funding: Establishing a Reserve funding goal of keeping the Reserve cash balance above zero.

Full Funding: Setting a Reserve funding goal of attaining and maintaining Reserves at or near 100% funded.

Statutory Funding: Establishing a Reserve funding goal of setting aside the specific minimum amount of Reserves required by local statutes.

Threshold Funding: Establishing a Reserve funding goal of keeping the Reserve balance above a specified dollar or Percent Funded amount. Depending on the threshold, this may be more or less **conservative than "Fully Funding."**

FUNDING PLAN: An association's plan to provide income to a Reserve fund to offset anticipated expenditures from that fund.

FUNDING PRINCIPLES:

- Sufficient Funds When Required
- Stable Contribution Rate over the Years
- Evenly Distributed Contributions over the Years
- Fiscally Responsible

LIFE AND VALUATION ESTIMATES: The task of estimating Useful Life, Remaining Useful Life, and Repair or Replacement Costs for the Reserve components.

PERCENT FUNDED: The ratio, at a particular point of time (typically the beginning of the Fiscal Year), of the **actual (or projected)** Reserve Balance to the **Fully Funded Balance**, expressed as a percentage.

PHYSICAL ANALYSIS: The portion of the Reserve Study where the Component Inventory, Condition Assessment, and Life and Valuation Estimate tasks are performed. This represents one of the two parts of the Reserve Study.

REMAINING USEFUL LIFE (RUL): Also referred to as "Remaining Life" (RL). The estimated time, in years, that a reserve component can be expected to continue to serve its **intended function**. **Projects anticipated to occur in the initial year have "zero" Remaining Useful Life.**

REPLACEMENT COST: The cost of replacing, repairing, or restoring a Reserve Component to its original functional condition. The Current Replacement Cost would be the cost to replace, repair, or restore the component during that particular year.

RESERVE BALANCE: Actual or projected funds as of a particular point in time that the association has identified for use to defray the future repair or replacement of those major components which the association is obligated to maintain. Also known as Reserves, Reserve Accounts and Cash Reserves. Based upon information provided and not audited.

RESERVE PROVIDER: An individual that prepares Reserve Studies.

RESERVE STUDY: A budget planning tool which identifies the current status of the Reserve fund and a stable and equitable Funding Plan to offset the anticipated future major common area expenditures. The Reserve Study consists of two parts: the Physical Analysis and the Financial Analysis.

RESPONSIBLE CHARGE: A reserve specialist in responsible charge of a reserve study shall render regular and effective supervision to those individuals performing services which directly and materially affect the quality and competence rendered by the reserve specialist. A reserve specialist shall maintain such records as are reasonably necessary to establish that the reserve specialist exercised regular and effective supervision of a reserve study of which he was in responsible charge. A reserve specialist engaged in any of the following acts or practices shall be deemed not to have rendered the regular and effective supervision required herein:

1. The regular and continuous absence from principal office premises from which professional services are rendered; expect for performance of field work or presence in a field office maintained exclusively for a specific project;
2. The failure to personally inspect or review the work of subordinates where necessary and appropriate;
3. The rendering of a limited, cursory or perfunctory review of plans or projects in lieu of an appropriate detailed review;
4. The failure to personally be available on a reasonable basis or with adequate advance notice for consultation and inspection where circumstances require personal availability.

SPECIAL ASSESSMENT: An assessment levied on the members of an association in addition to regular assessments. Special Assessments are often regulated by governing documents or local statutes.

SURPLUS: An actual (or projected) Reserve Balance greater than the Fully Funded **Balance**. **See "Deficit."**

USEFUL LIFE (UL): Total Useful Life or Depreciable Life. The estimated time, in years, that a reserve component can be expected to serve its intended function if properly constructed in its present application or installation.

The above terms and definitions are from the Community Associations Institute (CAI) national standards.

**RIO LINDA & ELVERTA RECREATION
AND PARK DISTRICT**

FINANCIAL STATEMENTS

JUNE 30, 2012

RIO LINDA & ELVERTA RECREATION AND PARK DISTRICT

Table of Contents

Independent Auditor's Report.....	1
Basic Financial Statements:	
Government-Wide Financial Statements:	
Statement of Net Assets	2
Statement of Activities	3
Fund Financial Statements	
Governmental Funds:	
Balance Sheet	4
Reconciliation of the Governmental Funds Balance Sheet to the Government-Wide Statement of Net Assets	5
Statement of Revenues, Expenditures and Changes in Fund Balances	6
Reconciliation of the Statement of Revenues, Expenditures and Changes In Fund Balances of Governmental Funds to the Government-Wide Statement of Activities	7
Notes to the Financial Statements	8
Required Supplementary Information:	
Budgetary Comparison Schedule:	
General Fund	16
Note to the Required Supplementary Information	17
Report On Internal Control over Financial Reporting	18
Schedule of Findings	19

**LARRY BAIN, CPA,
AN ACCOUNTING CORPORATION
2148 Frascati Dr.
El Dorado Hills, CA 95762**

INDEPENDENT AUDITOR'S REPORT

Board of Directors
Rio Linda & Elverta Recreation and Park District
Rio Linda, CA

We have audited the accompanying financial statements of the governmental activities and fund information which comprise the basic financial statements of Rio Linda & Elverta Recreation and Park District as of and for the fiscal year ended June 30, 2012, as listed in the table of contents. These financial statements are the responsibility of the District's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the basic financial statements referred to above present fairly, in all material respects, the respective financial position of the governmental activities and fund information of the Rio Linda & Elverta Recreation and Park District as of June 30, 2012, and the changes in financial position, of those activities and funds for the fiscal year then ended in conformity with accounting principles generally accepted in the United States of America.

We have also issued a report dated March 11, 2013 on our consideration of the District's internal control over financial reporting. That report is an integral part of an audit and should be read in conjunction with this report in considering the results of our audit.

The Rio Linda & Elverta Recreation and Park District has not presented the Management Discussion and Analysis that accounting principles generally accepted in the United States have determined is necessary to supplement, although not required to be part of, the basic financial statements.

The required supplementary information other than MD&A, as listed in the table of contents, are not a required part of the basic financial statements but are supplementary information required by the Governmental Accounting Standards Board. We have applied certain limited procedures, which consisted principally of inquiries of management regarding the methods of measurement and presentation of the required supplementary information. However, we did not audit the information and express no opinion on it.

Larry Bain, CPA
An Accounting Corporation
March 11, 2013

RIO LINDA & ELVERTA RECREATION AND PARK DISTRICT

STATEMENT OF NET ASSETS JUNE 30, 2012

	<u>Governmental Activities</u>
Assets	
Current assets	
Cash and investments	\$ 272,364
Due from others	3,034
Grants receivable	44,000
Restricted cash and investments	<u>168,475</u>
Total current assets	<u>487,873</u>
Capital assets:	
Land	494,927
Site improvements	1,206,589
Buildings and improvements	1,654,915
Equipment	282,674
Less: accumulated depreciation	<u>(1,302,108)</u>
Total Capital Assets	<u>2,336,997</u>
Total Assets	<u><u>\$ 2,824,870</u></u>
Liabilities	
Current liabilities:	
Claims payable	\$ 57,532
Due to other government	-
Accrued payroll	25,120
Deposits	1,236
Noncurrent liabilities:	
Due in more than one year	<u>19,021</u>
Total Liabilities	<u>102,909</u>
Net Assets	
Invested in capital assets, net of related debt	2,336,997
Restricted for developer fees	168,675
Unrestricted	<u>216,289</u>
Total Net Assets	<u><u>\$ 2,721,961</u></u>

The notes to the financial statements are an integral part of this statement

RIO LINDA & ELVERTA RECREATION AND PARK DISTRICT

**STATEMENT OF ACTIVITIES
FOR THE FISCAL YEAR ENDED JUNE 30, 2012**

		<u>Program Revenues</u>		
	<u>Expenses</u>	<u>Charges for Services</u>	<u>Capital Grants and Contributions</u>	<u>Total</u>
Governmental Activities:				
Recreation services	\$ 934,230	\$ 155,819	\$ 21,311	\$ (757,100)
Total Governmental Activities	<u>\$ 934,230</u>	<u>\$ 155,819</u>	<u>\$ 21,311</u>	<u>(757,100)</u>

General Revenues:

 Taxes:

Property tax, levied for general purposes	723,166
Investment income	1,122
Other revenues	<u>4,121</u>
Total general revenues	<u>728,409</u>
Change in net assets	(28,691)
Net assets - beginning	<u>2,750,652</u>
Net assets - ending	<u><u>\$ 2,721,961</u></u>

The notes to the financial statements are an integral part of this statement

RIO LINDA & ELVERTA RECREATION AND PARK DISTRICT

GOVERNMENTAL FUNDS BALANCE SHEET JUNE 30, 2012

	General Fund	Special Revenue Fund Developer In-Lieu Fund	Totals Governmental Funds
Assets			
Cash and investments	\$ 272,364	\$ -	\$ 272,364
Due from others	2,834	200	3,034
Grants receivable	44,000	-	44,000
Restricted cash and investments	-	168,475	168,475
Total Assets	\$ 319,198	\$ 168,675	\$ 487,873
Liabilities and Fund Balances			
Liabilities			
Claims payable	\$ 57,532	\$ -	\$ 57,532
Due to other government	-	-	-
Accrued payroll and benefits	25,120	-	25,120
Deferred revenue	44,000	-	44,000
Deposits	1,236	-	1,236
Total Liabilities	127,888	-	127,888
Fund Balances			
Fund balances			
Reserved for developer fees	-	168,675	168,675
Unreserved, reported in:			
Designated for subsequent years expenditures	191,310	-	191,310
Total Fund Balances	191,310	168,675	359,985
Total Liabilities and Fund Balances	\$ 319,198	\$ 168,675	\$ 487,873

The notes to the financial statements are an integral part of this statement

RIO LINDA & ELVERTA RECREATION AND PARK DISTRICT

**RECONCILIATION OF THE GOVERNMENTAL FUNDS BALANCE SHEET
TO THE STATEMENT OF NET ASSET
JUNE 30, 2012**

Fund Balances of Governmental Funds	\$ 359,985
Amounts reported for governmental activities in the Statement of Net Assets are different because:	
Capital assets, net of accumulated depreciation, are not current financial resources and are not included in the governmental funds.	2,336,997
Certain revenues received after sixty days from the end of the fiscal year are recorded as deferred revenue in the funds and as revenues in the government wide statement.	44,000
Compensated absences are not due and payable in the current period and therefore are not reported in the funds.	<u>(19,021)</u>
Net assets of governmental activities	<u><u>\$ 2,721,961</u></u>

The notes to the financial statements are an integral part of this statement

RIO LINDA & ELVERTA RECREATION AND PARK DISTRICT

**GOVERNMENTAL FUNDS
STATEMENT OF REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCE
FOR THE FISCAL YEAR ENDED JUNE 30, 2012**

	General Fund	Special Revenue Fund Developer Fees Fund	Total Governmental Funds
Revenues			
Property taxes	\$ 712,727	\$ -	\$ 712,727
Intergovernmental revenues	31,710	-	31,710
Use of money and property	23,246	725	23,971
Charges for current services	133,044	40	133,084
Other revenues	4,047	-	4,047
Total Revenues	<u>904,774</u>	<u>765</u>	<u>905,539</u>
Expenditures			
Current:			
Recreation services	851,463	-	851,463
Capital outlay	143,024	-	143,024
Total Expenditures	<u>994,487</u>	<u>-</u>	<u>994,487</u>
Excess (Deficit) of Revenues Over Expenditures	<u>(89,713)</u>	<u>765</u>	<u>(88,948)</u>
Other Financing Sources (Uses)			
Operating transfers in	20,000		20,000
Operating transfers out		(20,000)	(20,000)
Total Other Financing Sources (Uses)	<u>20,000</u>	<u>(20,000)</u>	<u>-</u>
Excess (Deficit) of Revenues and Other Financing Sources over Expenditures and Other Financing Uses	<u>(69,713)</u>	<u>(19,235)</u>	<u>(88,948)</u>
Fund Balances, July 1, 2011	<u>261,023</u>	<u>187,910</u>	<u>448,933</u>
Fund Balances, June 30, 2012	<u>\$ 191,310</u>	<u>\$ 168,675</u>	<u>\$ 359,985</u>

The notes to the financial statements are an integral part of this statement

RIO LINDA & ELVERTA RECREATION AND PARK DISTRICT

**RECONCILIATION OF THE GOVERNMENTAL FUNDS
STATEMENT OF REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCE
TO THE STATEMENT OF ACTIVITIES
FOR THE FISCAL YEAR ENDED JUNE 30, 2012**

Net Change in Fund Balances - Total Governmental Funds \$ (88,948)

Amounts reported for governmental activities in the Statement of Activities
differs from the amounts reported in the Statement of Revenues, Expenditures
and Changes in Fund Balances because:

Governmental funds report capital outlays as expenditures. However, in the
Statement of Activities. The costs of those assets is allocated over their
estimated useful lives as depreciation expense are allocated to the
appropriate functional expense when the cost is below the capitalization
threshold. This activity is reconciled as follows:

Cost of assets capitalized	143,024
Depreciation expense	(83,060)

Certain revenues recognized in the Statement of Activities that do not provide
current financial resources were not reported as revenues in the funds. -

Compensated absences reported in the statement of activities do not require
the use of current financial resources and, therefore, are not reported in
governmental funds. 293

Change in net assets of governmental activities \$ (28,691)

RIO LINDA & ELVERTA RECREATION AND PARK DISTRICT

NOTES TO THE FINANCIAL STATEMENTS

JUNE 30, 2012

Note 1: Summary of Significant Accounting Policies

The District was established in 1990, as a reorganization consisting of the formation of the District and the dissolution of County Service Area No. 3. It is operated under the advisement of a five member Board of Directors duly elected and empowered by the electorate with sole authority over the District's operations. Although the District is now independent from the Sacramento County's Board of Supervisors, its financial activities are still processed through the Sacramento County Auditor-Controller's Office.

In addition to providing recreational programs and services to the community, the District maintains park sites. The accounting policies of the District conform to accounting principles generally accepted in the United States of America as applicable to governments. The following is a summary of the more significant accounting policies:

A. Reporting Entity

The District has defined its reporting entity in accordance with accounting principles generally accepted in the United States of America, which provide guidance for determining which governmental activities, organizations, and functions should be included in the reporting entity. In evaluating how to define the District for financial reporting purposes, management has considered all potential component units. The primary criterion for including a potential component unit within the reporting entity is the governing body's financial accountability. A primary governmental entity is financially accountable if it appoints a voting majority of a component unit's governing body and it is able to impose its will on the component unit, or if there is a potential for the component unit to provide specific financial benefits to, or impose specific financial burdens on, the primary government. A primary government may also be financially accountable if a component unit is fiscally dependent on the primary governmental entity regardless of whether the component unit has a separately elected governing board, a governing board appointed by a higher level of government, or a jointly appointed board.

Based on the aforementioned oversight criteria, there are no component units in accordance with Governmental Accounting Standards Board Statement No. 14.

B. Basis of Accounting

Government-wide financial statements are reported using the economic resources measurement focus and the accrual basis of accounting. Revenues are recorded when earned or, for property tax revenues, in the period for which levied. Expenses are recorded when a liability is incurred, regardless of the timing of related cash flows.

Governmental funds are reported using the current financial resources measurement focus and the modified accrual basis of accounting. Revenues are recognized when both measurable and available. Measurable means the amount of the transaction can be determined and available means collectible in the current period or soon enough thereafter to be used to pay liabilities of the current period. Resources not available to finance expenditures and commitments of the current period are recognized as deferred revenue or as a reservation of fund balance. The District considers property taxes available if they are collected within sixty-days after year-end. Expenditures are recorded when the related fund liability is incurred. Principal and interest on general long-term debt, as well as compensated absences and claims and judgments are recorded only when payment is due. General capital acquisitions are reported as expenditures in governmental funds. Proceeds of general long-term debt and capital leases are reported as other financing sources.

RIO LINDA & ELVERTA RECREATION AND PARK DISTRICT

NOTES TO THE FINANCIAL STATEMENTS

JUNE 30, 2012

Note 1: Summary of Significant Accounting Policies (Continued)

C. Non-Current Governmental Assets/Liabilities

GASB Statement 34 eliminates the presentation of account groups, but provides for these records to be maintained and incorporates the information into the Governmental Activities column in the government-wide statement of net assets.

D. Basis of Presentation

The accounts of the District are organized and operated on the basis of funds. A fund is an independent fiscal and accounting entity with a self-balancing set of accounts established for the purpose of carrying on specific activities or attaining certain objectives in accordance with special regulations, restrictions or limitations. The District's resources are accounted for in these individual funds based on the purposes for which they are to be spent and the means by which spending activity is controlled. For financial reporting, these funds have been grouped into the fund types discussed below.

Governmental Fund Types

Governmental funds are used to account for the District's expendable financial resources and related liabilities (except those accounted for in proprietary and similar trust funds). The measurement focus is based upon determination of changes in financial position. Following are the District's governmental funds:

General Fund - This fund accounts for all the financial resources not required to be accounted for in another fund. This fund consists primarily of general government type activities.

Special Revenue Fund - This funds account for the activity of the developer in lieu fees that are legally restricted to expenditures for specific purposes.

E. Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenditures/expenses during the reporting period. Actual results could differ from those estimates.

F. Restricted Assets

Restricted assets are financial resources generated for a specific purpose such as construction of improvements and financing of debt obligations. These amounts are restricted, as their use is limited by applicable bond covenants or other external requirements.

G. Fund Equity

Reservations of fund balances of governmental funds are established to either (1) satisfy legal covenants that require a portion of fund balance to be segregated or (2) identify the portion of the fund balance that is not appropriable for future expenditures.

RIO LINDA & ELVERTA RECREATION AND PARK DISTRICT

NOTES TO THE FINANCIAL STATEMENTS JUNE 30, 2012

Note 1: Summary of Significant Accounting Policies (Continued)

H. Compensated Absences

Compensated absences represent the vested portion of accumulated vacation. In accordance with GASB 16, the liability for accumulated leave includes all salary - related payments that are directly and incrementally connected with leave payments to employees, such as retirement pay. A current liability has been recorded in the governmental fund type to account for these vested leave accruals, which are expected to be used within the next fiscal year. At June 30, 2012, a long-term liability of \$19,021 for unpaid vacation and sick leave has been recorded in the government-wide, statement of net assets.

I. Property Taxes

The District receives property taxes from the County of Sacramento, which has been assigned the responsibility for assessment, collections, and apportionment of property taxes for all taxing jurisdictions within the County. Secured property taxes are levied on January 1 for the following fiscal year and on which date it becomes a lien on real property. Secured property taxes are due in two installments on November 1 and February 1 and are delinquent after December 10 and April 10, respectively, for the secured roll. Based on a policy by the County called the Teeter Plan, 100% of the allocated taxes are transmitted by the County to the District, eliminating the need for an allowance for uncollectible. The County, in return, receives all penalties and interest. Property taxes on the unsecured roll are due on the January 1 lien date and become delinquent if unpaid by August 31. Property tax revenues are recognized in the fiscal year they are received.

J. Capital Assets

Capital assets, recorded at historical cost or estimated historical cost if actual historical cost is not available, are reported in governmental activities column of the government-wide financial statements. Contributed fixed assets are valued at their estimated fair market value. Capital assets include land, buildings and building improvements and equipment. Capital assets are defined by the District as assets with an initial, individual cost of more than \$5,000.

The costs of normal maintenance and repairs that do not add to the value of the asset or materially extend assets lives are not capitalized. Major outlays for capital assets and improvements are capitalized as projects are constructed. Depreciation is recorded in the government-wide financial statements on the straight-line basis over the useful life of the assets as follows:

<u>Assets</u>	<u>Useful Life</u>
Buildings	50 years
Building improvements	10-20 years
Site improvements	10-20 years
Equipment and machinery	5 to 20 years

RIO LINDA & ELVERTA RECREATION AND PARK DISTRICT

NOTES TO THE FINANCIAL STATEMENTS JUNE 30, 2012

Note 2: Cash and Investments

Cash and investments at June 30, 2012, consisted of the following:

Checking account	\$ 8,413
Imprest cash	300
Cash and investments with County Treasurer	<u>263,651</u>
Total cash and investments	<u><u>\$ 272,364</u></u>

A. Investments Authorized by the California Government Code and the Entity's Investment Policy

The table below identifies the **investment types** that are authorized for the Rio Linda Recreation and Park District by the California Government Code (or the District's investment policy, where more restrictive). The table also identifies certain provisions of the California Government Code (or the District's investment policy, where more restrictive) that address **interest rate risk**, **credit risk** and **concentration of credit risk**. This table does not address investments of debt proceeds held by bond trustees that are governed by the provisions of debt agreements of the District, rather than the general provisions of the California Government Code or the District investment policy.

Authorized Investment Type	Maximum Maturity	Percentage of Portfolio	Investment in One Issuer
Investment pools authorized under CA			
Statutes governed by Government Code	N/A	None	\$40 million
U.S. Treasury Obligations	5 years	None	None
Bank Savings Accounts	N/A	25%	None
Federal Agencies	5 years	75%	None
Commercial Paper	180 days	20%	None
Negotiable Certificates of Deposit	180 days	20%	None
Re-Purchase Agreements	180 days	20%	None
Corporate Debt	5 years	25%	None

B. Disclosures Relating to Interest Rate Risk

Interest rate risk is the risk that changes in market interest rates will adversely affect the fair value of and investment. Generally, the longer the maturity of an investment the greater the sensitivity of its fair value to changes in market interest rates. Information about the sensitivity of the fair values of the District's investments to market interest rate fluctuations is provided by the following table that shows the distribution of the District's investment maturity:

Investment Type	Totals	Remaining Maturity (in Months)			
		12 Months or Less	13 - 24 Months	25 - 36 Months	37 - 48 Months
Sacramento County*	\$ 263,651	\$ 263,651	\$ -	\$ -	\$ -
Total	<u>\$ 263,651</u>	<u>\$ 263,651</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>

*Not subject to categorization

RIO LINDA & ELVERTA RECREATION AND PARK DISTRICT

NOTES TO THE FINANCIAL STATEMENTS JUNE 30, 2012

Note 2: Cash and Investments (Continued)

C. Concentrations of Credit Risk

The investment policy of the District contains limitations on the amount that can be invested in any one issuer. There are no investments to one issuer exceeding those limits.

D. Custodial Credit Risk

Custodial credit risk for deposits is the risk that, in the event of the failure of a depository financial institution, a government will not be able to recover its deposit or will not be able to recover collateral securities that are in the possession of an outside party. The custodial credit risk for investments is the risk that, in the event of the failure of the counterparty (e.g. broker-dealer) to a transaction, a government will not be able to recover the value of its investment of collateral securities that are in the possession of another party. The California Government Code and the District's investment policy do not contain legal or policy requirements that would limit the exposure to custodial credit risk for deposits or investments, other than the following provision for deposits; The California Government Code requires that a financial institution secured deposits made by state or local governmental units by pledging securities in an undivided collateral pool held by a depository regulated under state law (unless so waived by the government unit). The fair value of the pledged securities in the collateral pool must equal at least 110% of the total amount deposited by the public agencies. California law also allows financial institutions to secure the District's deposits by pledging first deed mortgage notes having a value of 150% of the secured public deposits.

At June 30, 2012, the District's deposits balance was \$8,413 and the carrying amount was \$8,413. Of the bank balance, all was covered by the Federal Depository Insurance and none was covered by collateral held in the pledging bank's trust department in the District's name.

E. Investment in Government Pool

Investments are accounted for in accordance with the provisions of GASB Statement No. 31, which requires governmental entities to report certain investments at fair value in the balance sheet and recognize the corresponding change in fair value of investments in the year in which the change occurred. The District reports its investment in the Sacramento County investment pool at fair value based on quoted market information obtained from fiscal agents or other sources if the change is material to the financial statements.

RIO LINDA & ELVERTA RECREATION AND PARK DISTRICT

NOTES TO THE FINANCIAL STATEMENTS JUNE 30, 2012

Note 3: Property, Plant, and Equipment

Activity for general fixed assets capitalized by the District is summarized below:

	Balance July 1, 2011	Additions	Deletions	Balance June 30, 2012
Governmental Activities				
Capital assets, not being depreciated:				
Land	\$ 494,927	\$ -	\$ -	\$ 494,927
Construction in progress	-			-
Capital assets, being depreciated:				
Buildings and improvements	1,654,915	-	-	1,654,915
Site and improvements	1,119,640	86,949	-	1,206,589
Equipment	226,599	56,075	-	282,674
Total capital assets, being depreciated	3,001,154	143,024	-	3,144,178
Less accumulated depreciation for:				
Building and improvements	(418,100)	(32,338)	-	(450,438)
Site improvements	(629,597)	(40,566)	-	(670,163)
Equipment	(171,351)	(10,156)	-	(181,507)
Total accumulated depreciation	(1,219,048)	(83,060)	-	(1,302,108)
Total capital assets, being depreciated net	1,782,106	59,964	-	1,842,070
Governmental activities capital assets, net	\$ 2,277,033	\$ 59,964	\$ -	\$ 2,336,997

Note 4: Long-Term Liabilities

The following is a summary of changes in the long-term liabilities for the fiscal year ended June 30, 2012:

Long-term obligations consisted of the following:

	Balance July 1, 2011	Additions	Deletions	Balance June 30, 2012
Compensated absences	\$ 19,314	\$ 18,284	\$ 18,577	\$ 19,021
Totals	\$ 19,314	\$ 18,284	\$ 18,577	\$ 19,021

Compensated Absences

The District recognizes the accumulated unpaid employee vacation time off as a liability and the long-term portion is recorded as compensated absences in the government-wide statement of net assets. The current portion, if any, is also recorded in the fund financial statement in the general fund.

RIO LINDA & ELVERTA RECREATION AND PARK DISTRICT

NOTES TO THE FINANCIAL STATEMENTS

JUNE 30, 2012

Note 5: Park Dedication Fund

The County maintains a separate fund for the benefit of the Rio Linda & Elverta Recreation and Park District. The corpus of the fund consists of in lieu fees paid by developers of subdivisions within the boundaries of the District. The use of these funds by the District is restricted for the purpose of providing park and recreation facilities to serve the population. The activity of this fund is recorded in the special revenue fund of the District.

Note 6: Risk Management

The District is exposed to various risks of loss related to torts; theft of, damage to, and destruction of assets; errors and omissions; injuries to employees; and natural disasters. The District together with other districts in the State carry California Association For Park And Recreation Insurance (CAPRI), a public entity risk pool currently operating as a common risk management and insurance program for member districts. The District pays an annual premium to CAPRI for its general insurance coverage. Furthermore the District carries workers compensation coverage with other districts in the State through the CAPRI. Membership in the California Association of Recreation and Park Districts is required when applying for CAPRI.

The Agreement for Formation provides that CAPRI will be self-sustaining through member premiums. CAPRI reinsures through commercial companies for claims up to \$10,000,000 for general and automobile liability and all risk property insurance, including boiler and machinery coverage, is subject to a \$2,000 deductible occurrence payable by the District. Financial statements for CAPRI are available at the District's office for fiscal year ending June 30, 2012.

The District carries commercial insurance for other risks of loss, including employees' health insurance.

Note 7: Lease Agreement

The District acting as lessor, is providing the community center facility to serve meals to senior citizens under the Sacramento Elderly Nutrition Program. This lease is treated as an operating lease by the District. The agreement is entered into on a yearly basis and has been renewed for the 2011-12 fiscal year. The District also has operating leases for the BMX track with the Capital Quarter Midget Association and for Ponderosa Farms.

Note 8: Defined Contribution Pension Plan

The District participates in a deferred compensation plan created in accordance with Internal Revenue Code Section 457. The plan is established as an alternative plan to social security and requires all District full time and part time employees to defer a portion of their salary until future years. Plan provisions are established or amended by District board resolution. The District contributes 7.5% of full time salaries and matches 3.75% of part time salaries. The total wages earned, during the fiscal year, by full time, part time participants and Board members was \$470,527. The contributions made by the District, during the fiscal year on behalf of full time, part time participants and Board members was \$29,267. The retirement plan includes 6 full time employees, 5 board members and 20 part time employees at June 30, 2012. Participants vest at service inception and are entitled to 100% of vested contributions.

Note 9: Contracts and Commitments

The District has entered into an agreement with the Monument Security Inc. whereby they provide security for the Park District and are reimbursed on a monthly basis. The District also has entered into an agreement with SAFCA for debris cleanup within the District. SAFCA bills the District for services performed.

RIO LINDA & ELVERTA RECREATION AND PARK DISTRICT

NOTES TO THE FINANCIAL STATEMENTS

JUNE 30, 2012

Note 10: Related Party Transactions

The District Board is the same Board for the non profit organization known as the Rio Linda-Elverta Foundation for the Future. The foundation maintains a separate bank account where donations are deposited for the nonprofit organization. The District Board can apply these funds towards paying for programs for disadvantaged enrollee's or for other approved expenditures. During the 2011/12 fiscal year the District collected \$7,000 from the Foundation fundraising for the swim team. The Foundation activity is not recorded in these financial statements.

Note 11: Net Assets/Fund Balances

Net Assets

The government-wide activities fund financial statements utilize a net assets presentation. Net assets are categorized as invested in capital assets (net of related debt), restricted and unrestricted.

- *Invested in Capital Assets, Net of Related Debt* – This category groups all capital assets, into one component of net assets. Accumulated depreciation and the outstanding balances of debt that are attributable to the acquisition, construction or improvement of these assets reduce the balance in this category.
- *Restricted Net Assets* – This category presents external restrictions imposed by creditors, grantors, contributors or laws and regulations of other governments and restrictions imposed by law through constitutional provisions or enabling legislation.
- *Unrestricted Net Assets* – This category represents net assets the District, not restricted for any project or other purpose.

Fund Balances

In the fund financial statements, reserves segregate portions of fund balance that are either not available or have been earmarked for specific purposes.

As of June 30, 2012, reservations of fund balance are described below:

The term “reserved” is used to indicate that a portion of reported fund balance is legally restricted to a specific purpose or not available for appropriation or expenditure. The District has reserved fund balances as follows:

- *Reserved for developer fees*- unavailable for appropriation because the District must use these funds for future capital improvements in lieu of developers directly making improvements.

Note 12: Contingent Liabilities:

Grants

Amounts received or receivable from grant agencies are subject to audit and adjustment by grantor agencies. Any disallowed claims, including amounts already collected, may constitute a liability of the applicable funds. The amount, if any, of expenditures that may be disallowed by the grantor cannot be determined at this time.

RIO LINDA & ELVERTA RECREATION AND PARK DISTRICT

**REQUIRED SUPPLEMENTARY INFORMATION
BUDGETARY COMPARISON SCHEDULE
GENERAL FUND
FOR THE FISCAL YEAR ENDED JUNE 30, 2012**

	<u>Budgeted Amounts</u>			Variance Favorable (Unfavorable)
	<u>Original</u>	<u>Final</u>	<u>Actual</u>	
Revenues				
Property taxes	\$ 732,900	\$ 732,900	\$ 712,727	\$ (20,173)
Intergovernmental revenues	135,000	355,000	31,710	(323,290)
Use of money and property	22,992	22,992	23,246	254
Charges for current services	146,036	146,036	133,044	(12,992)
Other revenues			4,047	4,047
Total Revenues	<u>1,036,928</u>	<u>1,256,928</u>	<u>904,774</u>	<u>(352,154)</u>
Expenditures				
Salaries and benefits	598,279	598,279	551,022	47,257
Services and supplies	345,055	344,455	300,441	44,014
Capital outlay	126,000	126,000	143,024	(17,024)
Contingency	315,962	315,962	-	315,962
Total Expenditures	<u>1,385,296</u>	<u>1,384,696</u>	<u>994,487</u>	<u>390,209</u>
Excess (Deficit) of Revenues Over Expenditu	<u>(348,368)</u>	<u>(127,768)</u>	<u>(89,713)</u>	<u>38,055</u>
Other Financing Sources (Uses)				
Operating transfers in			20,000	
Operating transfers out				
Total Other Financing Sources (Uses)	<u>-</u>	<u>-</u>	<u>20,000</u>	<u>-</u>
Excess (Deficit) of Revenues and Other Financing Sources over Expenditures and Other Financing Uses	<u>(348,368)</u>	<u>(127,768)</u>	<u>(69,713)</u>	<u>38,055</u>
Fund Balance, July 1, 2011			<u>261,023</u>	
Fund Balance, June 30, 2012			<u>\$ 191,310</u>	

RIO LINDA & ELVERTA RECREATION AND PARK DISTRICT

**NOTES TO THE REQUIRED SUPPLEMENTARY INFORMATION
JUNE 30, 2012**

Note 1: Budgets and Budgetary Accounting

As required by State law the District prepares and legally adopts a final operating budget. Public hearings were conducted on the proposed and final budget to review all appropriations and the sources of financing.

The budget for the general fund is adopted on the modified accrual basis of accounting. The budget for the general fund is the only legally adopted budgets.

At the object level, actual expenditures cannot exceed budgeted appropriations. Management can transfer budgeted amounts between expenditure accounts within an object without the approval of the Board of Directors. Significant amendments and appropriation transfers between objects or funds must be approved by the Board of Directors. Appropriations lapse at fiscal year end.

The budgetary data presented in the accompanying financial statements includes all revisions approved by the Board of Directors.

LARRY BAIN, CPA,
AN ACCOUNTING CORPORATION
2148 Frascati Dr.
El Dorado Hills, CA 95762

REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

We have audited the financial statements of the Rio Linda & Elverta Recreation and Park District as of and for the fiscal year ended June 30, 2012, and have issued our report thereon dated March 11, 2013. In our report, our opinion was unqualified. We conducted our audit in accordance with auditing standards generally accepted in the United States of America.

Internal Control over Financial Reporting

In planning and performing our audit of the financial statements of Rio Linda Elverta Recreation and Park District (District) as of and for the year ended June 30, 2012, in accordance with auditing standards generally accepted in the United States of America, we considered the District's internal control over financial reporting (internal control) as a basis for designing our auditing procedures for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the (District)'s internal control. Accordingly, we do not express an opinion on the effectiveness of the (District)'s internal control. Our consideration of internal control was for the limited purpose described in the preceding paragraph and was not designed to identify all deficiencies in internal control that might be significant deficiencies or material weaknesses and therefore there can be no assurance that all such deficiencies have been identified. We consider the matters noted as 12-1 and 12-2 in the schedule of findings following this report to be a significant deficiencies and material weaknesses in internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct misstatements on a timely basis. A material weakness is a deficiency or combination of deficiencies in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis.

A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance. We consider the matters noted as 12-3, 12-4, 12-5, 12-6, 12-7, 12-8 and 12-9 in the schedule of findings following this report to be significant deficiencies that were not deemed material weakness in internal control.

The Rio Linda Elverta Recreation and Park District's written response (if any) to the significant deficiencies identified in our audit and any follow up for subsequent year corrections has not been subjected to the audit procedures applied in the audit of the financial statements and accordingly, we do not express an opinion on it.

This communication is intended solely for the information and use of the Board of Directors, management, the Sacramento County Auditor Controller's Office and the Controller's Office of the State of California and is not intended to be and should not be used by anyone other than these specified parties.

Larry Bain, CPA,
An Accounting Corporation
March 11, 2013

RIO LINDA & ELVERTA RECREATION AND PARK DISTRICT

FINDINGS AND RECOMMENDATIONS

JUNE 30, 2012

Significant Deficiencies Deemed to be Material Weaknesses:

Finding 12-1 (Prior year finding 11-1): During our audit we proposed recording the following material audit entries, recorded \$220,000 grant receivable, \$176,000 grant revenue and \$44,000 deferred revenue for state grant reimbursements received in the 2012/12 fiscal year for 2010/11 fiscal year expenditures. Recorded \$13,759 accounts payable discovered during our search for unrecorded liabilities. Reclassified \$51,142 from contingency expense account to due to other governments to properly reflect amount owed to the State for prior years Harvey House project cancellation.

Current Year Follow Up: During the current fiscal year audit we noted the District received \$176,000 of the grant proceeds, but needs to satisfy certain conditions prior to the remaining \$44,000 being paid by the granting agency. We proposed the current year audit entry to eliminate \$176,000 of the prior year receivable accrual offset by a reduction of \$176,000 to grant revenue.

Recommendation: Because the County closes the District books in early July the District is unable to process all year end closing entries with the County. We recommend the District maintain schedules for year-end entries that were not posted at the County and provide these entries to the auditor prior to the audit.

Management Response: District will track and record year-end entries that are not posted at the County and provide these entries to the auditor prior to the annual audit.

Finding 12-2 (Prior year finding 11-3): The District did not implement the provisions of Government Accounting Standards Board Statement 54 as required by U.S. generally accepted accounting policies. This new standard went into effect for fiscal year ending June 30, 2011. The new requirement categorizes fund balances into five separate categories and sets a new definition for special revenue funds.

Current Year Follow Up: During the current fiscal year we noted the District did adopt a GASB 54 policy, but we were not presented with a schedule showing the authorized beginning fund balance amount for each category and the authorized change in those amounts during the 2011/12 fiscal year.

Recommendation: We recommend the District prepare the schedule showing the beginning balances per category and the change in balances during the fiscal year for each category.

Management Response: The District will review provisions for implementing GASB 54 during the 2012/13 fiscal year.

Significant Deficiencies not Deemed Material Weaknesses:

Finding 12-3 (Prior year finding 11-4): During the audit we noted instances where employees took time off, but the schedule used to track compensated absences was not updated. We noted one instance where there was an addition error resulting in under accruing 3 hours of compensated time off. We also noted discrepancies between actual compensated absence accruals and expected accruals based on district policies or employment agreements. We brought these items to the attention of management and the record keeper who made the necessary corrections. We also noted the policy for the vacation accrual did not define if years of service as a part time employee will apply to years of service if employee converts to full time status. The effect of this deficiency is that lack of monitoring could result in valuation errors for accrued time off.

RIO LINDA & ELVERTA RECREATION AND PARK DISTRICT

FINDINGS AND RECOMMENDATIONS

JUNE 30, 2012

Significant Deficiencies not Deemed Material Weaknesses (Continued):

Current year follow up: During the current audit we noted several computational errors that were brought to the attention of the bookkeeper and corrected. We noted one instance where 16 hours vacation, which had been taken and logged in the prior fiscal year, was removed from the schedule during the current fiscal year increasing the employee's current vacation balance. Management was unable to substantiate why those hours were removed from the schedule.

Recommendation: Continue to monitor the vacation and sick leave in accordance with the District policy and employment agreements. An employee independent of the recordkeeping should monitor and reconcile the excel schedules and periodically perform internal checks to verify the accuracy of the accrual/usage activity and formulas.

Management Response: District will continue to monitor the vacation and sick leave in accordance with District Policy and employment agreements. Further, the District will provide additional staff training as needed to enable monitoring Excel schedules and perform periodic internal checks to verify the accuracy of the leave time accrual, usage, and associated formulas.

Finding 12-4 (Prior year finding 11-5): During our testing of cash receipts we noted, for the items tested, cash and check receipts were held at the District for 10 to 29 days before being deposited into bank. This increases the risk of cash larceny and kiting.

Current year follow up: During the current year testing cash and check receipts were held between 5 and 26 days from date of collection to date of deposit to outside bank.

Recommendation: We recommend the District make more frequent deposits to the outside holding account.

Management Response: Currently the District makes weekly deposits of revenues to its account at the Bank of America.

Finding 12-5: We noted the District had a lack of segregation of duties, as one person is capable of handling all aspects of processing transactions from beginning to end. A lack of segregation of duties increases the risk of potential errors or irregularities; however, due to a limited number of personnel an adequate segregation of duties is not possible without incurring additional costs. We have noted this comment in previous audits.

Recommendation: The District should attempt to segregate accounting functions to the greatest extent possible. The Board of Directors also plays a more vital oversight role in reviewing and authorizing accounting records such as cash disbursements, cash receipts, cash transfers, account write-offs, payroll and monthly bank reconciliations. The District could also consider hiring an outside consultant to review the current segregation of incompatible duties to determine the cost of correcting the weakness.

Management Response: The District will investigate the feasibility of contracting for an outside accounting consultant to review the current segregation of incompatible duties in order to determine alternative opportunities for correcting this weakness. The Board's Administration and Finance Committee, as well as the Board of Directors itself, will be encouraged to take a more vial oversight role in reviewing accounting records.

RIO LINDA & ELVERTA RECREATION AND PARK DISTRICT

FINDINGS AND RECOMMENDATIONS

JUNE 30, 2012

Significant Deficiencies not Deemed Material Weaknesses (Continued):

Finding 12-6: During our audit we noted the District did not have a written financial and accounting policy/manual that included internal control procedures. The District should create the financial and accounting policies that demonstrate how transactions are processed from beginning to end. The policy should include the processes for internal controls that are designed to provide reasonable assurance that objectives related to effectiveness and efficiency of operations, reliability of financial reporting and compliance with applicable laws and regulations are met. This also should include documenting controls over processing transactions, authorizing transactions and for maintaining and safeguarding assets.

The District also relies on the external auditor to ensure its financial statements are in accordance with GAAP. In addition, the District relies on the external auditor to ensure that all necessary disclosures are included in the notes to the financial statements. The District does not employ a staff member with the necessary knowledge and training to prepare governmental financial statements. In accordance with Statement of Auditing Standards No. 115 external auditors cannot be part of an entity's internal controls over preparation of the financial statements and are prohibited from auditing their own work, which would impair their independence. The District is limited in preparing GAAP financial statements because the County of Sacramento closes their books in mid July which does not give the District sufficient time to process all year end closing entries. We have noted this comment in previous audits.

Recommendation: We recommend the District create a written financial and accounting policy. The District should also consider training staff in preparing GAAP financial statements or hire an external qualified accountant to prepare the GAAP financial statements. The District should provide the auditor with all known year end accounting entries that were not posted at the County. The District could opt to take no action if it considers the cost will outweigh the benefit.

Management Response: District staff initiated development of a written financial and accounting policy manual in January 2012 and is exploring training opportunities for the Administrative Analyst to prepare the GAAP financial statements. It is unlikely the District can afford to contract with an external accountant for this service.

Finding 12-7: During our search of repair and maintenance accounts we discovered \$26,158 expenses that should have been recognized as capital expense. During our search for unrecorded accounts payable we also discovered an additional \$48,311 that should have been accrued and recorded as capital additions at June 30, 2012. We proposed reclassification/journal entries to properly recognize these items as capital expense in the fund financial statements and as capital assets in the government-wide financial statements.

Recommendation: We recommend the District review controls over account coding to ensure that expenses are recorded in the appropriate expense accounts. We also recommend the District provide the auditor with a list of accounts payables at fiscal year-end for items that meet the definition of an accrual, but were not recorded at the County because of the Counties short year end cut off period.

Finding 12-8: During our testing of cash in the outside holding account we noted that no formal bank reconciliation was being prepared. Furthermore we noted after the June 19, 2012 transfer to the County was made, there was a \$314.51 negative balance resulting in a \$35 overdraft fee. During our receipts testing we noted that when a credit card refund is made from this account there is no authorization from a management/supervisory employee approving the refund transaction. This increases the risk that refunds can be made for personal gain without being detected by District internal controls.

Recommendation: We recommend the District reconcile the outside holding account on a monthly basis. We also recommend that an employee independent of the receipting process review and approve credit card refunds.

RIO LINDA & ELVERTA RECREATION AND PARK DISTRICT

FINDINGS AND RECOMMENDATIONS

JUNE 30, 2012

Significant Deficiencies not Deemed Material Weaknesses (Continued):

Finding 12-9: During our testing of payroll we noted two instances where payments were made to independent contractors, however no contract could be located by the District to verify the payments being made and terms of the agreement.

Recommendation: We recommend obtaining/retaining independent contractor agreements to support the payment and terms for these individuals.

SACRAMENTO LOCAL AGENCY FORMATION COMMISSION
1112 I Street, Suite #100
SACRAMENTO, California 95814
(916) 874-6458

August 7, 2013

TO: Sacramento Local Agency Formation Commission

FROM: Peter Brundage, Executive Officer

RE: **FORMATION OF COUNTY SERVICE AREA NO. 13 and**
REORGANIZATION
(LAFC 02-13) [CEQA: Responsible Agency SCH 2010062069]

RECOMMENDATION

1. **Adopt LAFC Resolution 2013-05-0807-02-13** related to CEQA Findings of Fact and Statement of Overriding Considerations by Sacramento Local Agency Formation Commission for the proposed formation of CSA No. 13, detachment from the Sacramento County Regional Parks Department County Service Area 4B, and annexation to the SASD and the SRCSD, the responsible agency is LAFCo. As a responsible agency, project consideration by LAFCo is governed by the requirements of CEQA Guidelines Section 15096 as set forth below.

The Cordova Hills EIR (SCH 2010062069) has been prepared by the County of Sacramento as a Project EIR pursuant to CEQA Guidelines Section 15161. The purpose of a project-level EIR is to provide environmental review of the planning, construction, and operational impacts of a project.

All other agencies with jurisdiction over aspects of the Cordova Hills project are considered to be “responsible agencies” for purposes of CEQA. As specified by Section 15096 of the CEQA Guidelines, the duties of a responsible agency in using an environmental document prepared by the lead agency include:

- Prior to reaching a decision on the project, the responsible agency must consider the environmental effects of the project as shown in the EIR or Negative Declaration.
- In considering the environmental conclusions of the EIR or Negative Declaration, the responsible agency must evaluate whether any of the conditions set forth in Sections 15162 or 15163 of the CEQA Guidelines

- requiring preparation of a subsequent or supplemental environmental document exist.
- When considering alternatives and mitigation measures, a responsible agency is more limited than a Lead Agency. A responsible agency has responsibility for mitigating or avoiding only the direct or indirect environmental effects of those parts of the project which it decides to carry out, finance, or approve.
 - When an EIR has been prepared for a project, the responsible agency shall not approve the project as proposed if the agency finds any feasible alternative or feasible mitigation measures within its powers that would substantially lessen or avoid any significant effect the project would have on the environment.
 - The responsible agency shall make the findings required by Section 15091 for each significant effect of the project and shall make the findings in Section 15093 if necessary.
 - The responsible agency should file a Notice of Determination in the same manner as a lead agency under Section 15075 or 15094 except that the responsible agency does not need to state that the EIR or Negative Declaration complies with CEQA. The responsible agency should state that it considered the EIR or Negative Declaration as prepared by a lead agency.
2. **Adopt LAFC Resolution 2013-06-0807-02-13** approving the Municipal Service Review and establishment of Sphere of Influence for County Service Area No. 13.
 3. **Adopt LAFC Resolution 2013-07-0807-02-13** approving the following reorganization:
 - a. Approve the formation of County Service Area No. 13.
 - b. Approve the annexation to Sacramento Regional County Sanitation District;
 - c. Approve the annexation to Sacramento Area Sewer District; and
 - d. Approve the detachment from County Service Area 4B (Wilton-Cosumnes Park and Recreation); and
 6. Condition approval of the Formation of County Service Area No. 13, annexations, and detachment on the terms and conditions listed below:
 - a. The effective date of said formation, annexations, and detachment will be upon the filing of the Certificate of Completion by the Executive Officer of the Sacramento Local Agency Formation Commission;
 - b. The name of the County Service Area shall be COUNTY SERVICE AREA No. 13, and it shall have the following miscellaneous extended services:
 - a. Recreation and Parks
 - b. Open Space and Trails

- c. Habitat Operations and Maintenance
 - d. Landscape Corridors
 - e. Road Maintenance
 - f. Transit Operations and Maintenance
 - g. Transportation Demand Management
 - h. Administration and Communications
 - i. Solid Waste
- c. The service boundary of the CSA No. 13 is set forth in Exhibit A, attached.
- d. Activation/Formation is dependent upon the landowner voter adoption of assessments, fees, charges and any Special Taxes as provided under Proposition 218 to fund services to be provided by the CSA No. 13.
7. Adopt a Sphere of Influence for County Service Area No. 13 which is coterminous with the CSA No. 13 boundary.
8. Pursuant to provisions of the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000, your Commission may waive the Conducting Authority Hearing (protest hearings) since it is uninhabited and there is 100 percent landowner consent and no agency protest.
9. Order the formation of CSA No. 13 subject to approval by the voters of a Special Tax, the approval by the property owners of a Benefit Assessment, or the approval of property related fees or charges, as required by law. The County Board of Supervisors shall conduct the necessary election(s).
10. Direct the Executive Officer to record the Certificate of Completion after the 30-day Reconsideration period provided no request for Reconsideration is submitted to the Executive Officer.
11. Authorize your Chair to sign the Resolution making these determinations.

FPPC DISCLOSURE

None.

PROPONENTS

Sacramento County Board of Supervisors
c/o Chris Marx
County Debt Officer
700 H Street, Suite 7650
Sacramento, CA 95814
(916) 874-5239

Cordova Hills, LLC
c/o Mark Hansen
5241 Arnold Avenue
McClellan, CA 95652

BACKGROUND

The Sacramento County Board of Supervisors has adopted Resolution No. 2013-0386 requesting the formation of County Service Area No. 13, a dependent special district, for the purpose of providing miscellaneous extended services to the proposed Cordova Hills Special Planning Area.

The County Board of Supervisors recently approved the Cordova Hills' entitlements on January 29, 2013, March 12, 2013 and April 23, 2013 that consisted of the following actions:

The following entitlements were approved on January 29, 2013 by the Board of Supervisors:

1. A General Plan Amendment to move the Urban Policy Area (UPA) boundary, which abuts the property at Grant Line Road, to include approximately 2,366.3 acres of the Cordova Hills project site.
2. A General Plan to amend the Land Use Diagram from General Agriculture to Low Density Residential, Medium Density Residential, Commercial and Office, Recreation, Natural Preserve, and Public/Quasi Public for approximately 2,366.3 acres.
3. A General Plan to include a new policy in the Land Use Element to address the provision of public water service to serve uses potentially allowed by the Cordova Hills Special Planning Area for 251 acres located in proximity to the Kiefer Landfill, and an to LU-1 to reference this exception.
4. An Amendment of the General Plan Transportation Plan to show new thoroughfares, arterials and collectors as shown in the Transportation Plan Diagram dated October 24, 2011.
5. An Amendment of the Bikeway Master Plan to add on and off-street bikeways as shown in the Bikeways Master Plan Diagram dated October 17, 2011.

The following entitlements were approved on March 12, 2013 by the Board of Supervisors:

1. A Zoning Ordinance to adopt the Cordova Hills Special Planning Area (SPA) and to incorporate a Master Plan including Design Guidelines and Development Standards. The SPA consists of a total of 2,668.7 acres in three distinct areas:
 - a. Cordova Hills urban areas - 2,119.7 acres.

- b. University/College Campus Center-246.6 acres, including 223 acres for the campus.
 - c. Buffer lands and floodplain outside the Urban Policy Area - 302.4 acres. The areas will be designated Agriculture, Recreation (sports park), and Avoidance in the SPA.
- 2. An Affordable Housing Plan consisting of on-site construction of affordable units and land dedication.
- 3. A Development Agreement by and between the County of Sacramento and the landowners.
- 4. A Public Facilities Financing Plan for Cordova Hills that includes a Capital Improvement Program and Financing Plan.
- 5. An Urban Services and Governance Plan.

On April 23, 2013, the Board of Supervisors approved the following additional entitlements:

- 1. A Large Lot Tentative Subdivision Map to create 155 large lot parcels for the purpose of creating legal parcels corresponding to villages within the Cordova Hills SPA. Included on the Map are requests for abandonment of easements.

In order to facilitate the provision of sanitary sewer services associated with the development of the Cordova Hills project that was approved by the Sacramento County Board of Supervisors; the following requested LAFCo actions must also be approved:

- 1. Annexation of the territory of Cordova Hills into the Sacramento Regional County Sanitation District; and
- 2. Annexation of the territory of Cordova Hills into the Sacramento Area Sewer District.

The Board of Supervisors has requested that the landowner make application for sanitary sewer service from Sacramento Regional County Sanitation District and Sacramento Area Sewer District.

LAFCo has received both applications and have merged the applications into a combined project file.

Project Description

The Cordova Hills Special Planning Area (Cordova Hills or Project) is vacant and located in the unincorporated area of Sacramento County on 2,668 acres just east of the approved Sunridge Specific Plan and the proposed Suncreek Specific Plan in the City of Rancho Cordova bordered to the west by Grant Line Road, to the north by Glory Lane (about one-third mile south of Douglas Road), and to the east by Carson Creek. The Kiefer Landfill and its associated buffer lands are southwest of the Project, and the required buffer lands extend into the southwest portion of Cordova Hills. Planned development in Cordova Hills consists of a maximum of 8,000 residential units on approximately 1,089 acres, and approximately 103 acres of commercial and office development

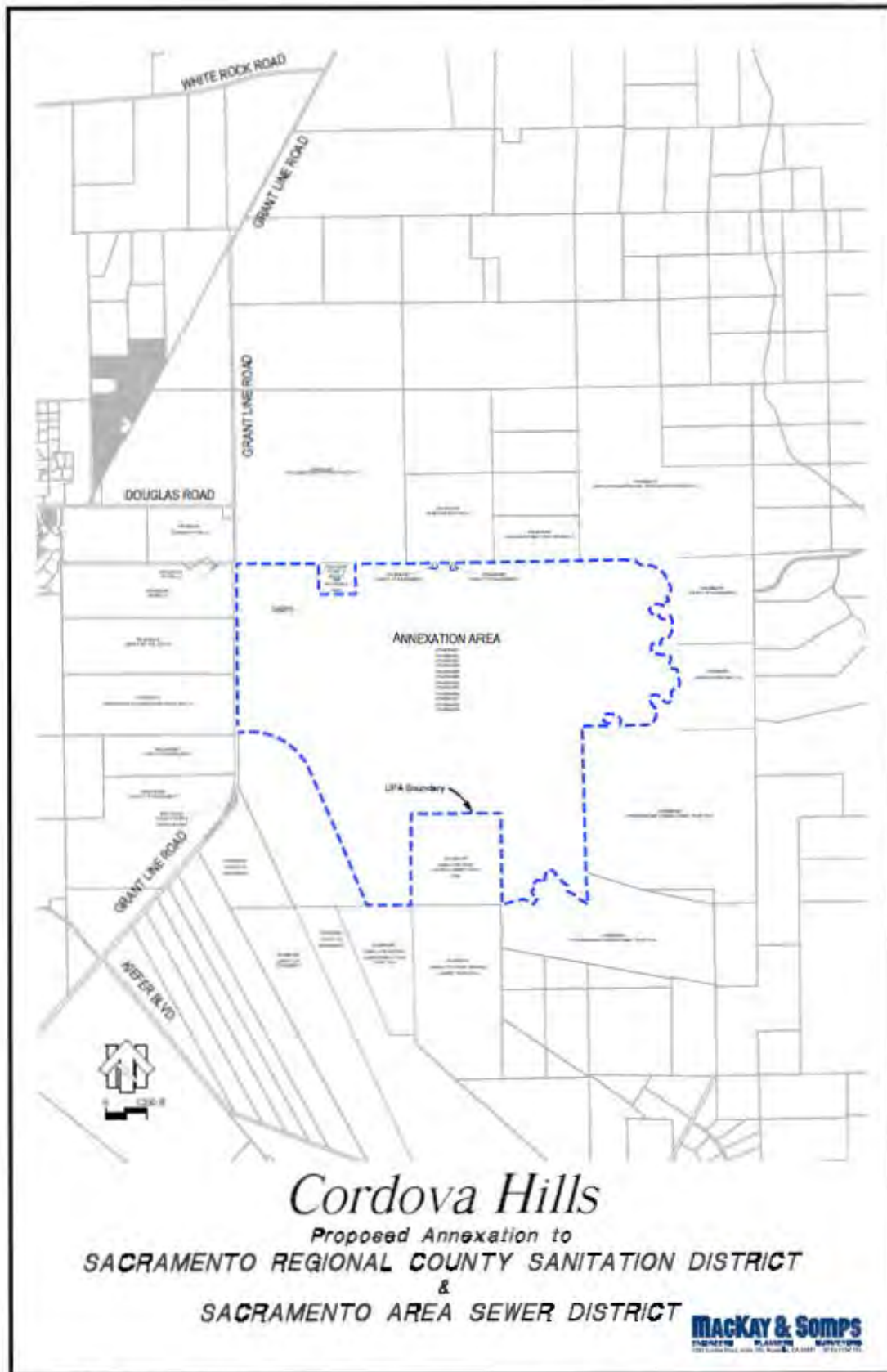
The Project will include a mix of uses consisting of residential, office, retail, university/college campus center, schools, parks, trails, open space, and public uses. The Project includes six distinct villages, the proposed university/college campus center, a large preservation (avoided) area, and other permanent open space that serves to separate villages. The Project includes a wide mix of residential uses, from high-density residential along the western edge, to low-density residential along the eastern edge. The majority of the commercial development is planned for the Town Center Village in the western part of the Project adjacent to Grant Line Road. A 223-acre university/college campus center is planned just southeast of the Town Center. The land uses and estimated development, population, and employees in this report are obtained from the Public Review Final Cordova Hills Public Facilities Financing Plan (Financing Plan).

The project lies within the Urban Services Boundary as designated on the County General Plan. Also, the affected territory lies within the Sphere of Influence of both Sacramento Regional County Sanitation District and Sacramento Area Sewer District.

The County of Sacramento has amended its General Plan, approved the Cordova Hills Development Project, and submitted a Resolution Making Application to LAFCo.

Map 1-1
Cordova Hills Vicinity





ANALYSIS OF PROPOSAL

Factors to be Considered by LAFCo

The Commission must evaluate the service plan, level of service, financing of services, and environmental considerations when reviewing a proposal. The following sections of this report will summarize these considerations for the proposed Formation of County Service Area No. 13, detachment from County Service Area 4B, annexation to Sacramento Regional County Sanitation District, and Sacramento Area Sewer District.

Policy Considerations

The Cortese-Knox-Hertzberg Local Government Reorganization Act recognizes that urban population densities and intensive residential, commercial, and industrial development necessitate a broad spectrum and high level of community services and controls. The Legislature also recognizes that when areas become urbanized to the extent that they need the full range of community services, priorities are required to be established regarding the type and levels of services that the residents of an urban community need and desire; that community service priorities be established by weighing the total community service needs against the total financial resources available for securing community services; and that those community service priorities are required to reflect local circumstances, conditions, and limited financial resources (Sec. 56001).

A core issue that your Commission may consider is that the Sacramento region is expected to gain one million new residents in the next 20 years. This anticipated growth raises an important question regarding sustainable economic development and job creation.

Formation of a County Service Area

Your Commission has the authority to establish new County Service Areas, pursuant to California Government Code Section 25210. A County Service Area may be established to provide a broad array of extended services, and "Miscellaneous extended services," including Transportation Services. At the time of the adoption of the resolution of intention to establish a county service area, the Board of Supervisors shall specify the type or types of services which are proposed to be provided within the area.

A County Service Area is capable of providing a dependable and adjustable revenue source by placing a proportionate service charge on properties which derive benefit from the service provided. It allows the levying of service charges either on the property tax bill, or on a utility billing; and facilitates annexations for new development to avail of the CSA service.

Process for Formation and Implementation

Your Commission has the power to review and approve or disapprove with or without, wholly, partially, or conditionally, proposals for the establishment of a dependent service district. If your Commission approves the formation of County Service Area No. 13, you may waive the protest hearing because it is uninhabited; there is 100 percent landowner consent, and no agency protest.

Staff recommends that your Commission direct the Executive Officer to record the Certificate of Completion after the close of the reconsideration period if no requests for reconsideration have been filed.

In the event of successful completion of LAFCo proceedings the following steps will provide the Board of Supervisors the authority to activate CSA No. 13 and levy the special tax.

1. The Board of Supervisors holds a public hearing and approves the election process pursuant to Proposition 218 and canvasses the results.
2. Board of Supervisors holds hearing to affirm the canvass results and impose the special tax, assessments, charges, fees, and establish rates based on the financing plan.

LAFCO STANDARDS AND POLICIES

Your Commission has adopted specific standards for actions to ensure that fair and consistent decisions are reached in accordance with the CKH Act. Your Commission may make exceptions to these specific standards if it determines that such exceptions:

- Are necessary due to unique circumstances;
- Are necessary due to conflicts between general and specific standards;
- Result in improved quality or lower cost of services available; or
- There exists no feasible or logical alternative.

Standards

1. LAFCo will encourage special district formation in areas that demonstrate a need for unmet or improved level of services due to the inadequate level or quality of services currently provided.
2. LAFCo requires a Municipal Service Review/Master Services Element which defines financing, service levels and how services are delivered.
3. LAFCo requires a definite Sphere of Influence map, plan and definite boundaries.

4. The proposed district formation should be consistent with the County's General Plan and any applicable Specific Plans.
5. LAFCo will not approve district formations when the Master Service Element conflicts with the Master Services Element of other agencies.
6. When considering applications for district formation, LAFCo will ensure that no special interest group is given the status of being a governmental agency.
7. LAFCo will not approve an application for district formation unless the proponent can demonstrate it can fund the services it intends to provide.
8. If a district becomes insolvent or unable to provide services, then LAFCo may approve consolidation with a solvent and capable district.

Each of the above standards and requirements have been satisfactorily met for the formation of the proposed County Service Area No. 13. Each of these items listed above has been discussed in detail in this report, and in the accompanying attachments.

SOI, Annexation and Formation Factors

LAFCo has sole discretion regarding formation of a CSA and the related local government reorganization actions, including completing a Municipal Services Review (MSR)/Plan for Services (PFS) and establishing an SOI for the new district. As part of the MSR/PFS, LAFCo will evaluate the service delivery of the CSA and make determinations regarding the effectiveness of the service delivery program and means and timing of financing. As part of its action on the proposed CSA application, LAFCo will determine whether the proposal is financially feasible.

Proposed CSA No. 13

This proposal to form a new county services area has been initiated by the Sacramento County Board of Supervisors. After conducting a public hearing, the Board adopted a Resolution of Application requesting the formation of County Service Area No. 13 (CSA No. 13). The purpose of CSA No. 13, along with other revenue sources, is to fund the annual operation and maintenance activities associated with the Cordova Hills Special Planning Area development project.

The formation of a County Service Area is pursuant to Government Code Section 25210 et.seq. Section 25213 provides that “a CSA may be established to provide certain miscellaneous extended services, which the county is authorized by law to perform and which the county does not also perform to the same extent on a countywide basis.”

Purpose of CSA No. 13

The purpose of the CSA is to enable the provision of extended miscellaneous urban services for Cordova Hills' development proposal. In addition, the Cordova Hills Development Project will receive core municipal services from current providers including Special Districts and the County of Sacramento.

The CSA is only proposed to provide certain urban services that are not or cannot be efficiently delivered by existing service providers. Therefore, the CSA has limited jurisdiction related only to services described herein.

The CSA is envisioned for two reasons. First, there are no special districts currently providing the type or level of services the Project will require during its initial phases of development and throughout build out. Second, and most importantly, the Cordova Hills Community is envisioned as a highly sustainable development in which water, soil, air, and habitat are carefully managed as integral components of the urban development. A locally governed entity with coordinated service responsibilities will be more efficient at achieving this sustainable vision than several overlapping single purpose districts.

The CSA will reduce the need for citizens to coordinate with numerous organizations. The CSA would provide services not provided by the County or independent agencies and enhanced levels of services from the level typically provided by the County. These services ultimately would be funded through an annual services special tax or assessment, although, initially, additional funding, such as developer funding, may be required. The CSA will be designed to provide the following services for the residents and businesses located in Cordova Hills:

- Parks and recreation
- Open space and trails
- Habitat
- Enhanced levels of landscaping
- Road maintenance
- Transit
- Transportation systems management
- Community communications
- Solid Waste

Cordova Hills will grow in time to a population of more than 21,000. As such, it will require construction and operation of substantial new municipal infrastructure, including water and sewer utilities, roads, drainage, parks and open spaces, and civic facilities, as described and evaluated in the Public Facilities Financing Plan. These facilities will require ongoing operations and maintenance. Meanwhile, the full range of urban services will be needed. The Governance Plan recognizes that urban services demanded must be efficient (i.e., take advantage of existing service capacities), provide enfranchisement of local residents, and have the revenue-generating capacity necessary to fund infrastructure and ongoing urban service standards and operations and maintenance costs.

Based on these objectives, the County Board of Supervisors has opted to augment the service delivery system by requesting LAFCo to form a County Service Area to provide additional services and funding.

Governance Objectives

The Governance Plan is intended to achieve several urban service and fiscal objectives for the Cordova Hills Community, including these:

1. Provide a high level of urban services to the Cordova Hills Community consistent with policies set forth in the County's General Plan and the Cordova Hills Master Plan.
2. Assure efficient and effective urban services at Cordova Hills by relying on the capacity of existing service providers when they offer the most efficient and cost-effective approach.
3. Establish a multi-purpose special district that (1) provides urban services not offered (or not offered effectively) by existing entities, and (2) enfranchises community residents regarding local urban service provision and future transitions.
4. Provide an adequate fiscal base for the new community so desired urban service levels can be achieved and maintained over time, while also maintaining "revenue neutrality" for the County and other urban service providers.

DISCUSSION

Overview of Urban Services to be Provided by CSA No. 13

The Urban Services and Governance Plan attached to this report describes the urban services, service levels, and funding of the urban services that will be provided to the Project's residents, businesses, and employees. The urban services provided in the Cordova Hills Community will include continuation or extension of existing services provided by the County and independent agencies, as well as new or enhanced services to be provided by the CSA. The Cordova Hills Sphere of Influence and CSA will be coterminous with the Cordova Hills boundary as described in the Cordova Hills Master Plan.

Funding of Services

The services provided by independent agencies and the County will be funded, as is the case with other urbanized portions of the unincorporated County, from the County General Fund, user fees, and property tax allocations to special districts (e.g., for fire and library services) and related connection fees.

The services provided by the CSA will be funded through user fees and special taxes or assessments, applied only in the CSA. The introduction of urban services will generally be phased-in over-time to match urban service costs with revenue sources as they increase with the Cordova Hills Community's growth.

For some services, however, a higher level of service will be necessary than can be funded by the development in the early years. An example is landscaping maintenance, which must be provided once the landscaping has been established, whether or not development is great enough to generate the necessary revenue. If available revenue from developed property is insufficient to meet minimum service levels, then special taxes/assessments will be levied against undeveloped property to pay for the service costs. It is projected, based on the phasing plan set forth in this report, that General Fund revenue, user fees, property tax allocations, and special taxes or assessments on developed property will be adequate to fund service costs before the end of the first phase of development, so the special tax/assessment on undeveloped property would no longer be needed.

Proposition 218 Process

LAFCo is responsible for the formation and configuration of the boundary of the CSA. After the CSA is formed, the County Board of Supervisors, acting as the CSA Board of Directors will set the funding question for a vote of affected landowners.

Registered Voters

There are no registered voters within the affected territory.

Land Ownership

The proposed project territory is owned by the same landowner/project proponent and therefore, there is 100 percent consent.

County Service Area No. 13 Sphere of Influence and Service Boundaries

Sphere of Influence

"Sphere of influence" (SOI) means a plan for the probable physical boundaries and service area of CSA 13, as determined by your Commission. The proposed Sphere of Influence is recommended to be coterminous with the CSA No. 13 boundary.

(1) The present and planned land uses in the area.

The Cordova Hills Development Project is currently undeveloped. The County of Sacramento has adopted a land use plan that includes residential, commercial, and a proposed university that contains approximately 2,669 acres in the eastern portion of the unincorporated county.

There is no present population within the boundaries of the Project. The maximum build out population from the Draft Cordova Hills Master Plan is estimated at 21,379. The university/college campus center at full development in several years may accommodate approximately 4,040 resident students out of a total student enrollment of 6,000. The student resident recreation needs will be met by on-campus sports and recreation facilities and programs.

The service area proposed for the CSA No. 13 is coterminous with the boundary of the Project. If, at some time in the future, the Project area is amended to include additional territory, then an SOI amendment must be considered, before any related annexation could be approved.

Currently, there are minimal services being provided to this area. The proposed County Service Area No. 13, together with existing special districts, and the County of Sacramento will provide urban and municipal services needed for development of this project.

The Cordova Hills Special Planning Area (Cordova Hills or Project) is located in the unincorporated area of Sacramento County on 2,668 acres just east of the approved Sunridge Specific Plan and the proposed Suncreek Specific Plan in the City of Rancho Cordova bordered to the west by Grant Line Road, to the north by Glory Lane (about one-third mile south of Douglas Road), and to the east by Carson Creek. The Kiefer Landfill and its associated buffer lands are southwest of the Project, and the required buffer lands extend into the southwest portion of Cordova Hills. Planned development in Cordova Hills consists of a maximum of 8,000 residential units on approximately 1,089 acres, approximately 103 acres of commercial and office development

The Project will include a mix of uses consisting of residential, office, retail, university/college campus center, schools, parks, trails, open space, and public uses. The Project includes six distinct villages, the proposed university/college campus center, a large preservation (avoided) area, and other permanent open space that serves to separate villages. The Project includes a wide mix of residential uses, from high-density residential along the western edge, to low-density residential along the eastern edge. The majority of the commercial development is planned for the Town Center Village in the western part of the Project adjacent to Grant Line Road. A 223-acre university/college campus center is planned just southeast of the Town Center. The land uses and estimated development, population, and employees in this report are obtained from the Public Review Final Cordova Hills Public Facilities Financing Plan (Financing Plan).

(2) The present and probable need for facilities and services in the area.

The SOI is a plan for the CSA No. 13 future probable physical and service area boundaries for the Cordova Hills Development project. The SOI may be subject

to terms and conditions imposed by the Commission to ensure orderly and planned growth is tempered by the need to preserve open space, habitat for species and agricultural land. No objections to the SOI have been raised by affected agencies or jurisdictions or the public.

The CSA would be authorized to provide the following services:

- a. Parks and recreation.
- b. Open space and trails.
- c. Habitat operations and maintenance.
- d. Enhanced levels of landscaping.
- e. Supplemental road maintenance.
- f. Transit operations and maintenance.
- g. Transportation systems management.
- h. Administration and community communications.
- i. Solid Waste.

The SOI is consistent with County General Plan and the Cordova Hills Development Plan approved by the County of Sacramento;

The SOI does not split parcels and does not create any areas that are difficult to serve. This finding is based on the Record of Proceedings, the Boundary Map, and the Executive Officer's report.

The SOI does not pose a threat to public health and safety. This finding is based on the Record of Proceedings, the Boundary Map, the Executive Officer's report, the Final EIR, and the MSR.

(3) The present capacity of Public Facilities and adequacy of Public Facilities that the agency provides or is authorized to provide

The SOI will not result in significant unmitigable adverse effects upon other service recipients or other agencies serving the affected area. This finding is based on the Record of Proceedings, the MSR, and the comments of affected agencies.

In addition, based on the Public Facilities Financing Plan, the County and affected Special Districts have the capacity to provide all other necessary public services

to area residents and commercial/industrial customers within the affected territory.

At this time, minimal services are provided to this area because of its rural character.

(4) The existence of any social or economic communities of interest in the area if the commission determines that they are relevant to the Agency

The territory within the SOI area is mostly rural and agricultural and has economic and social communities of interest similar to the existing characteristics of the County.

In many cases the territory within the SOI area directly benefits from the services provided by the County and indirectly benefits from the County's economic and social community, such as businesses, social clubs, recreational activities, churches, and other community organizations.

The County has provided information and data in the MSR concluding that development will not adversely affect adjacent communities of interest.

The SOI does not divide any existing communities or other areas having identifiable social and economic homogeneity.

Cordova Hills has been designed to provide an interdependent social and economic community. The CSA would be planned to be the organizational entity that enhances the sense of community identity and provides efficient coordinated community services, with a focus on communications, recreational activities, and transportation services. These networked activities will be the backbone of community activities. The only proximate existing entity that might provide some of the proposed activities of the CSA is CRPD. However, the CRPD does not provide the full range of services proposed for Cordova Hills. The CRPD currently provides only recreation and park services. Cordova Hills needs not only recreation and park services, but also open space and trails maintenance, habitat maintenance, landscape corridor maintenance, road maintenance, transit operations, and transportation management services. This range of services planned for Cordova Hills would place a burden on the CRPD, which does not have the staffing or facilities to provide these services.

It would be difficult for the CRPD to provide the services levels prescribed for Cordova Hills because Cordova Hills would be only a small part of the CRPD service area and the CRPD would not be providing the same services and service levels to the existing CRPD service area. The added services provided only in Cordova Hills would create a notable differentiation in services types and levels of service in the CRPD that would likely result in difficult management and policy issues. In addition, because Cordova Hills would be only a small part of the

CRPD service area, it is unlikely that there would be any representation for Cordova Hills on CRPD's Board of Directors until build out of the Project, and even then, representation on CPRD'S Board is uncertain.

The CSA, however, could provide all of the needed services to Cordova Hills. The CSA would establish a sense of community in Cordova Hills because it would provide services to Cordova Hills only and would serve as an organizing element to manage all of the needed services. A community communications network would be established to aid in management and administration of services.

There are no urban services currently being provided to the area. Cordova Hills is within the boundary of County Service Area 4B administered by the County Regional Parks Department. The County focuses on regional park facilities and does not provide local community and neighborhood parks. A reorganization that would remove Cordova Hills from the boundary of CSA 4B is part of the proposed LAFCo action.

Cordova Hills is currently within Sacramento Metropolitan Fire District, Sacramento-Yolo Mosquito and Vector Control District, as well as other districts and agencies that provide municipal services. This proposal also provides that Cordova Hills will be annexed into Sacramento Regional County Sanitation District and Sacramento Area Sewer District.

Summary of Level of Services and Financing to be Provided by CSA No. 13

The level of service delivered by the CSA will be established each year by the BOS appointed Advisory Board of Directors based on the goals for public services set out in the Cordova Hills' Master Plan and on input from the community. The estimated total annual service costs to be funded by the special tax or assessment at the completion of Phase 1 development and at build out are summarized below.

If formation of CSA No.13 is approved by your Commission, approval of the special taxes, assessments, fees, and charges will subject to a Prop. 218 election, to be called by the Board of Supervisors as provided in the Cordova Hills Financing Plan.

Summary of Estimated Revenue per Dwelling Unit

Development Phase	Estimated CSA Annual Service Costs Funded by Special Taxes/Assessments (2011\$)
Phase 1	\$1.70 Million
Build out	\$6.75 Million

The CSA costs were allocated to the various land uses, and a cost per dwelling unit or per 1,000 building square feet at completion of Phase 1 and at build out was estimated for each land use. Adjustments were made to the build out cost allocations to arrive at maximum special tax or assessment rates by land use. The adjustments reduced the tax burden on affordable and high density housing. The estimated maximum special tax or assessment rates by land use are summarized below.

Land Use [1]	Estimated CSA Maximum Annual Special Tax (2011\$)
Residential	
Estates Residential	\$1,400 per dwelling unit
Low Density Residential	\$1,400 per dwelling unit
Medium Density Residential	\$1,100 per dwelling unit
Residential 20 - Owner-Occupied	\$1,000 per dwelling unit
Residential 20 - Renter-Occupied	\$ 850 per dwelling unit
HDR - Owner-Occupied & Market Rate	\$ 850 per dwelling unit
HDR - Renter-Occupied & Market Rate	\$ 720 per dwelling unit
HDR - Renter-Occupied & Affordable	\$ 250 per dwelling unit
Nonresidential	
Commercial	\$ 160 per 1,000 bldg.sq.ft
Office	\$ 240 per 1,000 bldg.sq.ft

[1] No service costs have been estimated or allocated to the university/college campus center at this time, but it is possible that future reports will include university/college campus center cost allocations for some services.

Summary Description of Services to be Provided by CSA No. 13

The following section summarizes the services to be provided by CSA No. 13.

Recreation Services

Elements of Service

The CSA will provide recreation services and programs. The programs will include traditional sports activities, such as youth and adult basketball and soccer, and coordination with other sports organizations such as Little League. Programs also will include traditional special interest activities such as dance, music training, crafts, youth summer day camp, and others typically associated with a park district or department. The recreation service is envisioned as extending into community health and wellness education and environmental awareness and education. Thus, the recreation services might include classes on nutrition, gardening, individual wellness, walking, nature studies, and so on. In addition, the recreation services would coordinate a community gardens program and a local farmers market.

Preliminary Service Level Standards

The actual selection of programs and services will evolve and change with the needs and interests of the community and will be determined by the County BOS or CSA Advisory Board.

Park Maintenance

Elements of Service

Park maintenance services will be provided by the CSA and will comprise maintenance of park facilities and upkeep of all parklands, including turf, irrigation, playgrounds, and sports facilities. In addition, the CSA will be responsible for maintaining the lighting in the parks. Staff crews also will clean restrooms and repair facilities damaged by vandalism.

The park plan for Cordova Hills includes a combination of large sports facilities, a Community Park, and several neighborhood parks. In addition to the formal parks, there is an extensive network of open space areas that weave through the residential neighborhoods and along the edge of the major resource avoidance open space areas.

The Sports Park is a 50-acre complex located near the university/college campus center at the west side of Cordova Hills. This site will include soccer fields, baseball and softball fields, extensive picnic areas, and parking, among other amenities. The Sports Park is envisioned as a primary community resource that will serve much of the active sport's needs, particularly for league and tournament play.

The Community Park is located adjacent to the commercial center in East Valley near the geographic center of the community. The Community Park encompasses 18 acres and will abut the commercial site to provide an opportunity for a restaurant to be located overlooking the park. The park will be distinctly urban in character and will include a community center, a village green for a farmers market and large community events,

playgrounds and picnic areas, and a splash fountain, in addition to open turf and play fields.

Neighborhood parks will encompass 5 or 6 acres and will include open turf for soccer, picnic facilities, and a playground. Tot lots are not the obligation of the CSA but may be developed as part of subdivision development, with funding paid through a homeowners association (HOA).

Preliminary Service Level Standards

The County General Plan requires 5 acres of parkland per 1,000 residents. As detailed in the Draft Cordova Hills Master Plan, the maximum residential development of 8,000 units would generate a projected population of 21,379 at build out. This population would create a need for a total of 106.9 acres of designated parkland in the Cordova Hills community, in addition to the avoided areas and other non-credited open space/parks. The Cordova Hills Master Plan includes 99.1 acres of active neighborhood, community, and sports parks, leaving the Project with another 7.8 acres of required active parks. Consequently, the park maintenance cost estimates assume that 7.8 acres of open space will be developed as active parkland (see discussion below).

Open Space and Trails Maintenance

Elements of Service

The CSA will maintain all open space/greenbelts, open space edge conditions, paseos, and trails outside the public ROW, as well as the lighting located in paseos and along trails. Maintenance of the open spaces does not include maintenance of the three distinct preserves (referred to as avoided areas), which will be maintained through an endowment. The maintenance does, however, include treatment of physical edge conditions surrounding the avoided areas. All the edge conditions include a landscaped area, trail, and swale that create a hydrological barrier from urban runoff toward the avoidance area. This landscaped area would be located outside the avoidance area boundary and would serve as an additional buffer, decreasing “edge effects” on wildlife and habitat in the avoided area.

Habitat Operations and Maintenance

Elements of Service

Wetlands preservation will be required in the avoidance areas of the Project. Most of the avoidance areas are in the western third of the Project. In addition, offsite habitat mitigation will be required. The offsite mitigation costs will include creation, restoration, and preservation costs and are discussed in the Cordova Hills Financing Plan and proposed to be funded through the Cordova Hills Special Financing District.

The ongoing costs of operating and maintaining the onsite preserve are planned to be funded through the annual CSA tax or assessment. The ongoing operations and maintenance of the habitat includes legal, construction, survey, maintenance, operations, and reporting functions.

Landscape Corridors

Elements of Service

Landscaping in the Project refers to landscaping in road medians and adjacent to roads. It will include water features, traditional landscaping, landscaping with Low Impact Development (LID) features, rain gardens, gateways, sidewalks, walls and fences, directional and project signage, and accent and signage lighting. For the purposes of determining the landscaping that will be maintained by the CSA and the cost of that landscaping, the landscaping features have been divided into the following categories:

- Landscape Corridors
- Landscape Corridors with LID Features
- Median Landscaping
- Median Landscaping with LID features
- Sidewalks
- Sound Walls

The CSA will maintain some of these landscaping features, depending on the adjacent type of property. The CSA-maintained landscaping is detailed below by landscaping category.

Landscape Corridors and Landscape Corridors with LID Features

The CSA will maintain the following landscape corridors:

- All landscape corridors with LID features.
- All landscape corridors without LID features that do not directly front commercial, residential, or school district properties.

All landscape corridors without LID features that front commercial, residential, or school district properties will be privately maintained by commercial property owners, home owners, or the Elk Grove Unified School District (EGUSD).

Median Landscaping and Median Landscaping with LID Features

The CSA will maintain all median landscaping (with and without LID features).

Sidewalks and Sound Walls

The CSA will maintain the following sidewalks:

- All sidewalks in single-family residential areas.
- All other sidewalks that do not front commercial, multifamily, condominium, or school district properties.
- All sidewalks that front commercial, multifamily, condominium, or school district properties will be privately maintained by commercial property owners, home owners associations, or the EGUSD.
- The CSA will maintain all sound walls.

Preliminary Service Level Standards

The landscape maintenance standards will comply with the design vision and standards established in the Cordova Hills Master Plan/Special Plan Area Ordinance. This will require a low maintenance and low water demand landscape design. Regular periodic maintenance on a weekly schedule will be required to maintain visual quality and to sustain the viability of the plantings. The maintenance also will include vandalism and graffiti abatement in all public common areas outside the public street ROW.

Road Maintenance

Elements of Service

The County DOT will maintain the roads and adjacent facilities in the public street ROW consisting of paved section, curb and gutter. County DOT road maintenance services are funded through revenues recorded in the County's Road Fund (e.g., gas tax; property tax; Measure A half-cent sales tax). EPS prepared a Draft Fiscal Impact Analysis, which estimated whether Road Fund revenues generated by the Project would adequately cover the cost of the County DOT-provided road maintenance services described previously. The results of the Fiscal Impact Analysis indicated that the County Road Fund would result in an annual net deficit of \$34,000 in Phase 1 and an annual net deficit of \$201,000 at build out of the Project. This annual deficit is anticipated to be funded by the Mello-Roos CFD special tax. To the extent that there are surplus revenues in the County Road Fund (i.e., revenues are greater than expenditures), the CSA could provide supplemental road maintenance services consisting of expanded street sweeping or other on-site road maintenance.

Estimated Annual Maintenance Costs

The Draft Fiscal Impact Analysis prepared by EPS indicates an annual net fiscal deficit in the County Road Fund of \$34,000 for Phase 1 and \$201,000 at build out of the Project. As such, this Urban Services Analysis uses these deficits as costs to allocate to development in the Project.

Transit Operations and Maintenance

Elements of Service

The Cordova Hills proponent proposes including a local transit system consisting of two distinct but coordinated bus routes. An internal route will operate around a loop in the Cordova Hills Plan Area. An external loop will provide a connection to the Mather/Mills Light Rail Transit (LRT) station. The loops can operate independently with a transfer hub in the Cordova Hills Town Center, but the routes will be coordinated so they can operate as a single continuous route with no transfers required.

The planned system will connect to Sacramento Regional Transit (RT) system but will not be part of RT. The Cordova Hills system would be operated by a service operator under contract to the County or CSA.

The CSA will lease buses and will own and manage all bus shelters, turnouts, and signage associated with the transit system. The CSA also would provide Transportation Management Association (TMA) services or contract with another TMA for management of TMA services (detailed later in this chapter). The internal services may include a range of rideshare initiatives, travel demand management (TDM) methods, and alternative mode promotional activities undertaken by the TMA.

Preliminary Service Level Standards

The transit system will begin with limited services that may involve only an external shuttle to the Mather/Mills LRT station. The County BOS or CSA Board and General Manager of the transit system for Cordova Hills will assess the appropriate transit routes and timing for Phase 1 and subsequent phases based on funding and actual ridership. The transit plan summarized in this report is a guide for the CSA to follow. As the community grows, the transit plan envisions that an internal loop system will be developed. The internal loop will expand with the community along the primary street system, a modified grid form that allows flexibility for routing to serve the greatest number of potential riders. Transit service will provide “timed transfers” or continuous loops to minimize the need for transfer between the internal shuttle and external connection to the LRT station. The transit system is planned to operate 365 days per year with a full schedule on weekdays and a reduced schedule on weekends and holidays, as detailed in the remainder of this section.

Internal Route

At build out of the Project, the internal system would operate from 6:00 AM to 9:00 PM every day. The transit plan assumes two 2-hour peak periods on weekdays: one in the morning from 7:00 to 9:00 and one in the afternoon from 4:00 to 6:00. There would not be peak periods on weekends. Headways would be 15 minutes during peak hours and 30 minutes during all other times of the day. Routes would be run in both directions. Walk access distances to transit stops will be designed in the location of primary roads, pedestrian ways, and the location of major destinations and housing areas to achieve ¼-mile at maximum.

Transportation Demand Management (TDM) Services

Elements of Service

The CSA will provide TDM services through programs serving the community residents, as well as businesses and institutions. Services to the residents, businesses, and institutions in Cordova Hills that encourage more efficient use of transportation and parking resources may include these:

- Marketing and Promotion
- Parking Management and Brokerage
- Pedestrian and Bicycle Planning
- Pedways
- Rideshare Matching and Vanpool Coordination
- Shared Parking Coordination
- Shuttle Services
- Special Event Transport Management
- Telework Support
- Transit Improvements
- Transportation Access Guides
- Wayfinding and Multi-Modal Navigation Tools

The CSA would implement the TDM programs for the community residents, businesses, and institutions through a TMA. The CSA either would establish an internal TMA or would participate in another geographically broader TMA.

TMA's are generally public-private partnerships. They provide an institutional framework for the TDM services programs and allow small employers to provide commute trip reduction services comparable to those offered by large companies.

TMA's can provide a variety of services, including these:

- Access Management
- Commute Trip Reduction
- Commuter Financial Incentives
- Flextime Support
- Guaranteed Ride Home Services

Participation in the TMA will be required for land zoned Town Center (TC), Flex Commercial (FC), and Public/Quasi Public (P/QP) in Cordova Hills through one or more of the following mechanisms: the purchase and sale agreement for individual parcels; a Master Property Owners' Association; or the Conditions, Covenants, and Restrictions (CC&R).

CSA Administration and Communications

Elements of Service

Initially, the County will administer and coordinate the activity of all services provided directly by the CSA and County agencies and departments. The County also will coordinate with other service providers who are not directly under the administration of the CSA, such as the SMFD, the County DOT and others.

If a CSA is chosen as the most efficient governance option, the County will continue to administer and coordinate these services. The County BOS could also create a Local Advisory Board (CSA Board) comprised of local representatives to administer and coordinate services.

The CSA administration activities will include overseeing the daily operations of the services, preparing and administering the annual budget, providing a liaison to other service agencies, and providing a point of contact for the residents and businesses in the service area. In addition, each individual CSA service type (and associated cost estimate) is assumed to include an administrative component for daily administration of the particular service.

CSA administration will include a core community communication network to disseminate information about community activities; to facilitate services, such as rideshare opportunities and transit schedules; and to provide emergency service information. The communication network will take the form of a community intranet

that includes community and special interest Web sites, public meeting broadcasts, and such public services as may become apparent as the community grows.

Preliminary Service Level Standards

The CSA will provide adequate administrative support to manage all services administered and funded through the CSA. As development progresses and the level of demand for services increases, the level of administrative support also will increase.

To implement the community communication network aspect of the administration, the entire community will be wired with cable or wireless services that are capable of providing a communication link to all homes and businesses. This is intended to provide a public access channel that will “piggy-back” onto or supplement such commercial services that may be available in the community. The CSA will provide content for the network and will provide for maintenance of the system. Such maintenance may be by contract with a commercial provider.

Funding and Financing Plan Summary

Phasing of Services and Additional Funding

Initially, where possible, CSA services will be phased to match the special tax/assessment revenue, along with user fees and other revenues. Service levels will increase to meet the planned services standards over time. Minimum service levels are determined by the mitigation requirements in the EIR, tentative map conditions, and Development Agreement requirements.

For some services, however, a higher level of service will be necessary than can be funded by the special tax/assessment revenue in the early years of development. An example is landscaping maintenance, which must be provided once the landscaping has been established, whether or not development is great enough to generate the necessary revenue. If the annual special tax revenue on developed property is insufficient to meet minimum service levels, then the special tax/assessment will be levied against undeveloped property to help fund the annual services costs. The tax rate on undeveloped property will be on a per acre basis. The Draft Development Agreement proposes the following hierarchy for levying the special tax on undeveloped property if needed:

1. The special tax shall first be levied on undeveloped lots shown on recorded final small lot subdivision maps at up to 100% of the maximum special tax rate for developed property.
2. If the additional revenue from the undeveloped lots described above is insufficient to cover the funding shortfall, then a special tax shall be levied on property with approved tentative small lot subdivision maps at up to a specified percentage of the maximum special tax rate for developed

property. This percentage will be determined when the funding mechanism to pay for services is adopted.

3. If the additional revenue from the two sources above still is insufficient to cover the funding shortfall, then the special tax shall be levied on property with recorded final parcel maps at up to a specified percent of the maximum special tax rate for developed property. This percentage will be determined when the funding mechanism to pay for services is adopted. It should be noted that the estimated annual revenue from the tax on developed property is estimated to be sufficient to fully cover the annual Phase 1 services costs. Additional revenue from the tax on undeveloped property would only be needed in the event that the Phase 1 costs were higher than anticipated or Phase 1 development was less than anticipated.

ENVIRONMENTAL CONSIDERATIONS

According to §15096(f), the Commission only "considers" the County-certified EIR. As part of that consideration, the commission must adopt findings (15096(h)) and issue a Notice of Determination (15096(i)). The guidelines (15096g1) state that the responsible agency shall not approve the project as proposed if the responsible agency finds any feasible mitigation or alternative within its jurisdiction to implement. The findings demonstrate that the commission did not find any feasible mitigation measures or alternatives within its jurisdiction since they were all the responsibility of the county.

Also, the Commission finds that it has "considered the EIR as prepared by the Lead Agency and determined that all mitigation measures and alternatives identified in the EIR are within the purview of Sacramento County and not that of LAFCo. (Note: LAFCo staff and our environmental consultant provided comments as a Responsible Agency on the EIR prepared by the County).

The Commission finds that the County did adopt all of the mitigation measures and adopted an MMRP for the Cordova Hills project.

The Final Environmental Impact Report ("FEIR") prepared for the Cordova Hills Project (the "Project") as adopted by Sacramento County addresses the environmental effects associated with construction and operation of the proposed Cordova Hills Special Planning Area. As part of the implementation process of the Cordova Hills project, the Sacramento Local Agency Formation Commission ("LAFCo") would approve the formation of the County Service Area No. 13 (CSA) to serve the Cordova Hills Community, detachment from the Sacramento County Regional Parks Department County Service Area 4B, and annexation to the Sacramento Area Sewer District (SASD) for the collection of wastewater and the Sacramento Regional County Sanitation District (SRCSD) for conveyance and treatment of wastewater. These LAFCo actions are part of the larger Cordova Hills project described below and is the "LAFCo Project" subject to these findings.

These CEQA Findings of Fact and Statement of Overriding Considerations have been prepared to comply with the requirements of the California Environmental Quality Act (“CEQA”) (Public Resources Code, Section 21000 *et seq.*) and the CEQA Guidelines (Cal. Code of Regulations, Title 14, Section 15000 *et seq.*) These findings refer to the Final EIR (“FEIR”) where the material appears in that document. Otherwise, references are to the Draft EIR (“DEIR”).

CEQA generally requires that a lead agency must take reasonable efforts to mitigate or avoid significant environmental impacts when approving a project. For the Cordova Hills, the lead agency is Sacramento County. In order to effectively evaluate any potentially significant environmental impacts of a proposed project, an environmental impact report (“EIR”) must be prepared. The EIR is an informational document that serves to inform the agency decision-making body and the public in general of any potentially significant environmental impacts. The preparation of an EIR also serves as a medium for identifying possible methods of minimizing any significant effects and assessing and describing reasonable alternatives to the project.

The Cordova Hills EIR has been prepared as a Project EIR pursuant to CEQA Guidelines Section 15161. The purpose of a project-level EIR is to provide environmental review of the planning, construction, and operational impacts of a project.

All other agencies with jurisdiction over aspects of the Cordova Hills project are considered to be “responsible agencies” for purposes of CEQA. As specified by Section 15096 of the CEQA Guidelines, the duties of a responsible agency in using an environmental document prepared by the lead agency include:

- Prior to reaching a decision on the project, the responsible agency must consider the environmental effects of the project as shown in the EIR or Negative Declaration.
- In considering the environmental conclusions of the EIR or Negative Declaration, the responsible agency must evaluate whether any of the conditions set forth in Sections 15162 or 15163 of the CEQA Guidelines requiring preparation of a subsequent or supplemental environmental document exist.
- When considering alternatives and mitigation measures, a responsible agency is more limited than a Lead Agency. A responsible agency has responsibility for mitigating or avoiding only the direct or indirect environmental effects of those parts of the project which it decides to carry out, finance, or approve.
- When an EIR has been prepared for a project, the responsible agency shall not approve the project as proposed if the agency finds any feasible alternative or feasible mitigation measures within its powers that would substantially lessen or avoid any significant effect the project would have on the environment.
- The responsible agency shall make the findings required by Section 15091 for each significant effect of the project and shall make the findings in Section 15093 if necessary.

- The responsible agency should file a Notice of Determination in the same manner as a lead agency under Section 15075 or 15094 except that the responsible agency does not need to state that the EIR or Negative Declaration complies with CEQA. The responsible agency should state that it considered the EIR or Negative Declaration as prepared by a lead agency.

For the proposed formation of CSA No. 13, detachment from the Sacramento County Regional Parks Department County Service Area 4B, and annexation to the SASD and the SRCSD, the responsible agency is LAFCo. As a responsible agency, Project consideration by LAFCo is governed by the requirements of CEQA Guidelines Section 15096 as set forth above.

MUNICIPAL SERVICE REVIEW AND MASTER SERVICES ELEMENT

The formation of CSA No. 13 is consistent with LAFCo Policies and Procedures which require a Master Services Element for the establishment of a Sphere of Influence.

Spheres of Influence are the primary planning tool for LAFCo. Sacramento LAFCo has developed standards related to the Master Service Element of any agency's Sphere of Influence. Agencies must have an updated Master Services Element which meets the following standards:

- a. Is consistent with the Master Services Element of the Spheres of Influence of any overlapping jurisdiction;
- b. Demonstrates that adequate services will be provided within the time frame needed by the inhabitants of the area included within the proposed boundary;
- c. Identifies existing land use and a reasonable projection of land uses which would occur if services were provided consistent with the updated Element;
- d. Presents a map that clearly indicates the location of existing and proposed facilities, including plan for timing and location of facilities;
- e. Describes the nature of each service to be provided;
- f. Describes the service level capacity of the service provider's facilities;
- g. Identifies the anticipated service level to be provided;
- h. Describes any actions, improvements, or construction necessary to reach required service levels, including costs and financing methods;
- i. Provides copies of district enabling legislation pertinent to the provision of service levels, including costs and financing methods;

- j. Identifies projected revenue and identifies savings occurring as a result of the action; and
- k. Provides existing and five year population projects within agency boundaries.

The proponent has provided the EPS Public Facilities Financing Plan for the formation of CSA No. 13. The formation of the CSA, including its structure (organization), proposed services, and method of apportionment and charges that are described in the Report are based on recent studies prepared by EPS.

The Report complies with the Municipal Service Review and Master Services Element criteria.

The project is consistent with the County General Plan and the Cordova Hills Community Plan.

Municipal Service Review Determinations

LAFCo is required to make determinations related to several specific areas. Each of these areas is addressed below. This section only discusses responsibilities that would be related to the CSA and not other municipal services provided by existing entities. Based on the Public Facilities Financing Plan and Urban Service and Governance Plan, CSA No. 13 would be able to provide the proposed services to meet the standards set forth above.

The Following sections summarize the MSR Determinations:

1. Infrastructure needs or deficiencies.

There is no infrastructure in Cordova Hills. Construction of the infrastructure will be controlled by the Project conditions of approval, the Development Agreement with the County, and the EIR. The infrastructure funding program is detailed in the Financing Plan. The CSA would be responsible for construction of park and recreation facilities and landscaping in the open space corridors and in certain streetscape areas outside the public ROW. This will include some signage, lighting, and transit support facilities including bus shelters and bus parking. These facilities may be funded by a variety of sources, including direct developer funding, development impact fees, and a Cordova Hills Mello-Roos CFD.

2. Growth and population projections for the affected area.

There is no present population within the boundaries of the Project area. The maximum Build out population is estimated at 21,379.

3. Financing constraints and opportunity.

A Mello-Roos CFD special tax is planned to pay for the costs of services not funded directly through user fees/charges or other revenue sources. Special taxes will be established to pay for the costs of services not funded directly through user fees/charges or other revenue sources. Special taxes on undeveloped property would cover shortfalls in the early years until the tax base has grown to a sufficient level to fund needed services.

4. Cost avoidance opportunities.

The annual CSA budget would be evaluated by a County BOS-appointed advisory committee to provide the highest level of service for the least cost. Because the CSA would be a new entity, it could implement many “best practices” techniques as it begins to provide services.

5. Rate restructuring.

Because the CSA would be a new special district, it would have the opportunity to set the appropriate rate structure to pay for the necessary services. The rate structure would have a built-in cost-of-living escalation factor.

6. Opportunities for shared cost.

The goals of the Project include partnerships with other public entities. The most likely arrangement would be shared park and recreation facilities with the EGUSD. Another opportunity may be a joint partnership with the SMFD.

7. Government structure options, including advantages and disadvantages of consolidation or reorganization.

The Urban Services and Governance Plan has been designed to minimize the need for new government organizations. Many of the services are planned to be provided by existing service providers. The proposed services that would be provided by the CSA are more comprehensive than the authorized services for any other service provider. The CSA would be designed to be the community organizing vehicle that brings together all elements of the community. The communication, recreation, and transportation functions of the CSA would form the basis of the community network.

One advantage of a CSA is the efficiencies in the cost of providing the multiple services proposed. Where a multitude of single-purpose agencies would have administrative and other overhead costs associated with each agency, a CSA would have a single unified administration. Where a multitude of single purpose agencies would require individual employees with limited skill sets, the CSA would facilitate use of cross-trained, multifunctional personnel who can be allocated to diverse tasks efficiently. For example, park maintenance staff also would maintain the open space and trails network, signage,

streetscape, and bus shelters. The cost savings because of efficiencies in administrative overhead, continuing use of maintenance equipment, and staffing flexibility is one of the chief attributes of a multi-service CSA. In addition, the creation of a locally controlled Board of Directors would significantly rectify the limited representation that Cordova Hills residents and businesses would have in other organizations that could provide a similar set of services.

8. Evaluation of management efficiencies.

As a new entity, the CSA would be designed to promote management efficiencies. It would be funded adequately through the levy of a special tax without burdening other special districts. The CSA would have the advantage of starting out with a highly efficient network communications system, which should produce substantial savings in day-to-day operations. The CSA services plan would provide the option of contracting out many of the maintenance functions, which could provide cost effective delivery of these services.

9. Local accountability and governance.

A CSA would be planned to start out as a dependent district governed ex-officio by the County BOS. It would be managed by a five-member advisory board of directors appointed by the County BOS. At some point in the future, the residents of Cordova Hills could decide to become an independent district and elect their own Board of Directors. Outreach would be provided by the communications services function of the CSA. The CSA would establish and operate a communitywide intranet as the key component of a communications network that would distribute information about community activities and services and provide transportation management services such as ride-sharing bulletins, real-time bus location information, and transit system routing and schedules, as well as provide emergency information. Community meetings would be held in the CSA administrative building or other community meeting spaces.

Other Service Providers

The following table describes the other service providers that will serve the Cordova Hills Development project. All agencies have been notified and no protests or negative comments have been received. They have all indicated that they have the ability to provide the services within the boundaries of CSA No. 13.

Affected Districts

Service	Current Agency	Proposed Agency
Police	Sacramento County Sheriff Department	Sacramento County Sheriff Department
Fire	Sacramento Metro Fire	Sacramento Metro Fire
Water	Sacramento County Water Agency	Sacramento County Water Agency
Sewer	None	SRCS and SASD
Solid Waste	Sacramento County	Sacramento County
Street Lighting	CSA-1	CSA-1 and Cordova Hills CSA
Road Maintenance	Sacramento County	Sacramento County and CSA No. 13
Flood Control	Sacramento County	Sacramento County
Parks and Recreation	CSA-4b	CSA No.13
Library	Sacramento County Library Authority	Sacramento County Library Authority
Electricity/Gas	SMUD/PG&E	SMUD/PG&E
Transit	None	CSA No. 13
Code Enforcement	County of Sacramento	County of Sacramento
Storm Drainage	County of Sacramento	County of Sacramento
Animal Control	County of Sacramento	County of Sacramento
Mosquito/Vector	Sacramento-Yolo MVCD	Sacramento-Yolo MVCD
Cable TV	Various	Various
Cemetery District	None	Elk Grove-Cosumnes SOI
Schools	Elk Grove Unified Schools	Elk Grove Unified Schools

The proposal was routed for review and comment to Sacramento County and affected Special Districts and agencies.

No negative comments have been received from any affected district or agency.

MSR for Affected Agencies

Roads

The Cordova Hills Special Planning Area (Cordova Hills) provides a comprehensive transportation network designed in accordance with anticipated traffic volumes and travel demands of the planned land uses, as well as the regional system envisioned by the County General Plan.

At the time of preparation of this Cordova Hills Financing Plan, there were certain variables present that could affect Cordova Hills's fair share allocation of certain offsite roadway costs. These variables include roadway improvements within the jurisdictional boundaries of the City of Rancho Cordova and the City of Elk Grove, as well as the impact of the proposed Capital Southeast Connector Project on Grant Line Road improvements. The analyses included in the Financing Plan are based on the best assumptions and information currently available. For the implementation of the financing mechanisms and updates thereafter, revisions will be made if assumptions change or the outcome of discussions with the cities yields a different fair share cost obligation.

The County currently requires development projects to pay their fair share of offsite road improvements to other jurisdictions. The Board of Supervisors provided further direction that if a reciprocal agreement cannot be reached by both jurisdictions at the time of fee collection, then mitigation payments for impacts wholly in the other jurisdiction will not be collected. The County intends to enter into a Cross Jurisdictional Memorandum of Understanding (MOU) with other jurisdictions to collaboratively address the impacts of its development within neighboring jurisdictions.

The proposed Capital Southeast Connector Project is another variable that may result in a need to amend the assumptions of Cordova Hills' final cost and construction responsibilities at implementation. The County General Plan calls for Grant Line Road ultimately to be improved to a 6-lane thoroughfare configuration, which this Financing Plan takes into account; however, the proposed Connector Project likely would turn Grant Line Road into a limited access 4-lane expressway. Consequently, if and when the Connector Project develops, the implementation plan would reallocate Cordova Hills' fair share funding of Grant Line Road to the Connector Project configuration of Grant Line Road (anticipated to be a 4-lane expressway with grade separated interchanges). Cordova Hills' fair share cost might be reduced if Cordova Hills' fair share funding for the Connector project is less than its fair share cost allocation for the 6 lane Grant Line Road thoroughfare configuration. Cordova Hills' fair share allocation percent will not be increased as a result of this project change because the Cordova Hills project does not require the Connector project as a mitigation measure for its traffic impacts.

Offsite Roadway Costs

Cordova Hills has an obligation to construct many of the off-site roadways included in the Offsite Roadway CIP at various stages of development. The cost to Cordova Hills to construct these roadways would be reduced to just Cordova Hills' fair share if other regional development projects trigger and construct the roadways before Cordova Hills triggers them. In addition, Cordova Hills has a responsibility to fund its fair share of certain roadway improvements with no construction responsibility. Cordova Hills' total fair share of offsite roadway costs will be payable through the Cordova Hills SFD. The remainder of offsite Roadway CIP costs may be funded by other sources, such as County and City fee programs, state and federal funding, and other surrounding new development projects that are conditioned to participate in funding the improvements if required by California Environmental Quality Act (CEQA) mitigations prior to Cordova Hills' responsibility to construct. As noted earlier, the availability and timing of funding from other sources is uncertain.

Sanitary Sewer

In January 2012, Sacramento Area Sewer District's (SASD's) Board of Directors approved an SASD Sewer System Capacity Plan 2010 Update that outlines the District's most current midrange and long-term plan for sewer service to the Cordova Hills area. Sacramento Regional County Sanitation District (SRCSD) is in the process of finalizing its own Interceptor Sequencing Study that will aid SRCSD in planning and implementing regional conveyance projects based on SASD's local collection plans.

SRCSD's regional Interceptor facilities will convey sewage from local trunk sewers to the Sacramento Regional Wastewater Treatment Plant (SRWTP) located near the Sacramento River in Elk Grove. Cordova Hills is located outside of the SASD and SRCSD service areas and will thus need to be annexed into both of these service areas through LAFCO in order to receive sewer service.

Once annexed, the Project proponents will pay the applicable sewer impact fees and construct the required onsite and offsite local collection and trunk conveyance facilities in order to receive service. SRCSD constructs the regional interceptor facilities. Based on the most current planning documents, Cordova Hills will ultimately be served by the SRCSD Douglas Interceptor (DI). This Financing Plan is consistent with the most current SASD and SRCSD planning documents (SASD and SRCSD East Rancho Mid-Range Plans and SASD System Capacity Plan).

Storm Drainage

The Cordova Hills backbone storm drainage system is detailed in the Drainage Master Plan for Cordova Hills, prepared by MacKay & Soms (Drainage Master Plan). The Drainage Master Plan analyzes drainage impacts resulting from development of the proposed land uses in Cordova Hills. It conceptually defines at the master plan level how potential impacts of the proposed development on existing receiving waters can be fully

mitigated to existing or better than existing conditions. It preliminarily details construction of on-site combination Flood and Flow Duration Control Detention Basins that mitigate for the development impacts. Further more detailed analysis will be required prior to the next phase of the development process, tentative map approval or improvement map approval, whichever comes first. Estimated costs and facility location are described in further detail in the Public Facilities Financing Plan.

- Storm drainage pipes;
- Manholes;
- Drainage inlets; and
- Flood control and water quality basin facilities and land.

Water

With the exception of the Buffer lands, Cordova Hills is in the Sacramento County Water Agency (SCWA) Zone 40 Service Area. Zone 40 is responsible for construction of potable water facilities within its boundaries. Limited Zone 40 water facilities will be extended into the Buffer lands. Cordova Hills ultimately will be serviced from proposed storage tanks anticipated to be located just north of the Project, east of Ridgeline Road. The Cordova Hills potable water system ultimately will be integrated into the SCWA Zone 40 North Service Area system with connections along Grant Line Road. The potable water system includes the following types of improvements:

- Onsite and offsite water transmission mains;
- Pressure reducing station;
- Above ground water storage tanks (capacity of 3.5 million gallons); and
- Ground tank booster pumps.

Fire

The Sacramento Metropolitan Fire District (SMFD) is the fire protection service provider for Cordova Hills and will continue to provide services once the community has developed. The SMFD has indicated that development in the Cordova Hills area will increase the need for fire protection, including additional staffing, vehicles and equipment. Given the current mix of land uses, SMFD has indicated that one station will be adequate to serve Cordova Hills. SMFD has indicated that this station should be located in the commercial center in the East Valley Village in order to meet travel time standards. It is possible that a second station could be located in Cordova Hills if needed to serve neighboring development projects as well as Cordova Hills.

The Public Facility Financing Plan shows the estimated cost to construct a fire station and provide the major equipment needed for the station. It is estimated that a fire station of approximately 6,500 square feet will be required and that an engine, a truck, a medic vehicle, and staff and support vehicles will be required to service the area. The total cost is estimated at \$5.3 million.

All new development within the SMFD will be subject to the District-wide Capital Fire Facilities fee (SMFD fee) to fund construction and equipment costs for new fire stations. The Project will generate approximately \$2.0 million in fee revenue at the end of Phase 1 and \$9.7 million at build out. It is assumed that the total build out fee revenue will be sufficient to fund Cordova Hills' impact on fire facilities and that no other funding sources will be necessary. Fee revenue from the other communities served by the fire station(s) sited in Cordova Hills may also be available for the construction of new station(s).

At the time of this Financing Plan, there are too many variables to assess the precise timing of fire and medical services facilities for the Project. The timing of the fire station(s) located within the adjacent Sunridge or Suncreek Specific Plans will dictate the timing of when the Cordova Hills fire station will need to be constructed. SMFD has agreed to assess the phasing of fire and medical service facilities at the small lot tentative map stage of the Project. As such, this Financing Plan assumes that development in the Project will pay the SMFD fee and additional funding sources for any shortfalls will be evaluated at the time facilities are required. At build out the Project is projected to generate a surplus of SMFD fee revenues to cover the estimated facility costs of \$5.3 million.

The Cordova Hills developer will be required to dedicate land for the fire station site. Depending on the outcome of negotiations between the Cordova Hills developer and the SMFD, the developer may receive fee credits against the SMFD fee for all or a portion of the site acquisition costs.

Law Enforcement

The Sacramento County Sheriff's Department currently provides law enforcement services to Cordova Hills and will continue to provide services to the area. The Sheriff's Department plans to operate a substation in the Cordova Hills Town Center village through a lease with Cordova Hills. Expenditures associated with leasing a substation will be covered through the fiscal impact analysis surplus estimated in EPS's Draft Fiscal Impact Analysis. The Draft Fiscal Impact Analysis estimated that County General Fund and Police Services Community Facilities District (CFD) 2005-1 revenues would generate a fiscal surplus of \$750,000 in Phase 1 and \$2.7 million at build out of the Project, after accounting for the cost of providing countywide and County administered municipal services.

Library

Library services for Cordova Hills are provided by the Sacramento Public Library Authority (Library Authority). Cordova Hills will be required to contribute toward the provision of library services for its residents.

The County is in the process of implementing a countywide library development impact fee program. Cordova Hills will participate in this fee program if and when it is implemented. The estimated fee rates proposed for the program are \$827 for single-family detached dwelling units; \$643 for 2-4 units attached; \$537 for 5+ units attached; and \$530 for mobile homes and second residential units, based on this proposed fee level. At build out, the Project will generate approximately \$5.5 million in fee revenue. In the event that the County does not implement a countywide library development impact fee program, the Project will fund its fair share of library facilities through the proposed Cordova Hills SFD.

The Library Authority plans a 15,000 square foot library to serve Cordova Hills and adjacent areas. Cordova Hills could provide an appropriate library facility in the Town Center and lease the facility to the Library Authority. The development impact fee that Cordova Hills pays ultimately could be adjusted if this arrangement was established. However, it should be noted that the Cordova Hills developers are not required to construct a library facility.

As of the end of 2010, the Library Authority considered the estimated \$5.5 million from potential library fees adequate to fund the Cordova Hills' portion of construction, furnishing, and materials acquisitions for a 15,000 square foot library facility. Sufficiency of funding, however, is entirely dependent on economic conditions at the time of construction. The timing of constructing a library facility is at the discretion of the Library Authority and will be dependent on funding from all benefiting areas.

Further, no operating funds have been allocated to the Library Authority to support the opening and annual operation of a new library facility. Annual operations include staffing, collections, maintenance and security, and utilities. These additional costs are currently estimated at \$800,000 annually and would need to be budgeted and allocated to the Library Authority prior to construction. The operating costs and funding of these costs are discussed further in the Urban Services Plan.

Schools

Cordova Hills is within the boundaries of the Elk Grove Unified School District (EGUSD). Information regarding school costs was obtained from the EGUSD Development fee Justification Study/school facilities Needs Analysis (SFNA) dated June 2010.

Proposed Facilities

Cordova Hills will provide at build out three elementary school sites and one combination middle and high school site. Based on the number of units expected in Cordova Hills, student yield factors from the SFNA, and EGUSD typical school sizes, Cordova Hills will generate the need for approximately 3 elementary schools but only about 62 percent of a middle/high school. The students and funding for the portion of the high school not attributable to Cordova Hills will come from other nearby areas outside of Cordova Hills.

Benefit of CSA No. 13

The primary benefit of CSA No. 13 is that it will enhance service levels within the proposed Cordova Hills Development Project to augment additional amenities for the community. The proposed dedicated funding will be captured and stay within the community for its benefit.

RECOMMENDATION

I recommend your Commission adopt the Resolution approving 1) the Sphere of Influence for County Service Area No. 13; 2) the formation of County Service Area No. 13; 4) detachment from CSA No 4b; 5) annexation to Sacramento Regional County Sanitation District and Sacramento Area Sewer District; and 5) to waive the Conducting Authority (protest hearing) for CSA No. 13.

Respectfully,

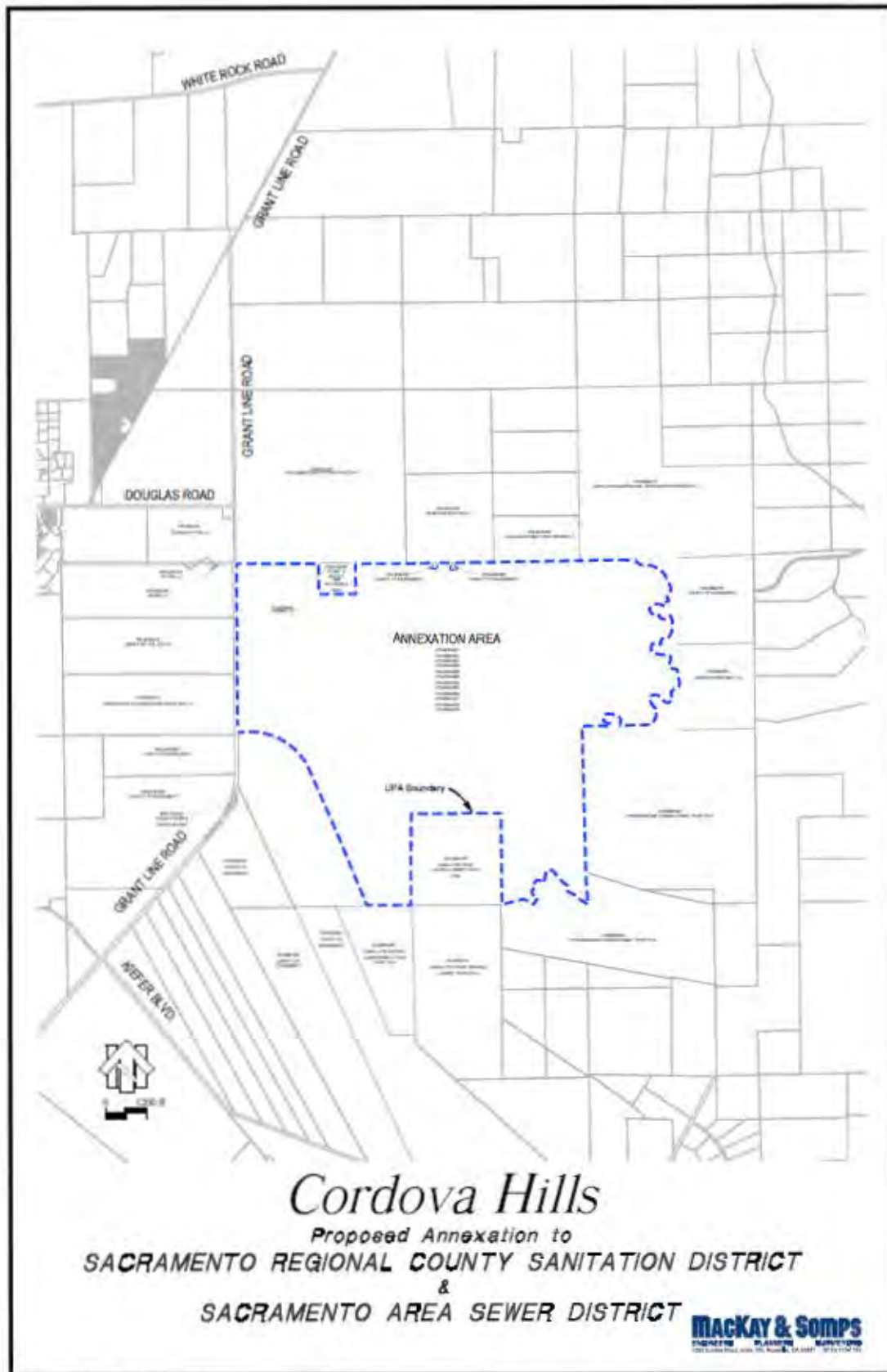
SACRAMENTO LOCAL AGENCY FORMATION COMMISSION

Peter Brundage
Executive Officer

Attachments:
Maps (Exhibit A)
Cordova Hills Urban Service and Governance Plan

PB

(CSA 13)



CORDOVA HILLS PROPERTY

Legal Description for CSA Formation and CSA-4B Detachment

Being a portion of Sections 13, 14, 22, & 23, Township 8 North, Range 7 East & a portion of Section 18, Township 8 North, Range 8 East, Mount Diablo Meridian, County of Sacramento, State of California, being more particularly described as follows:

Beginning at the Northwest corner of said Section 14, said corner being the **TRUE POINT OF BEGINNING;**

1. thence South 89°53'53" East along the North line of said Section 14 a distance of 2648.35 feet;
2. thence leaving said North line South 00°41'41" East along the West line of the Kellett property a distance of 987.11 feet;
3. thence North 89°43'47" East along the South line of said Kellett property a distance of 932.73 feet;
4. thence North 00°42'22" West along the East line of said Kellett property a distance of 981.05 feet to a point on the North line of said Section 14;
5. thence South 89°53'53" East along said North line a distance of 1694.42 feet to the Northeast corner of said Section 14;
6. thence North 89°04'12" East along the North line of said Section 13 a distance of 1706.57 feet;
7. thence leaving said North line South 00°55'48" East along the West line of Well Site #4 as described in Book 20090205, Page 0974 Official Records Sacramento County a distance of 200.00 feet;
8. thence North 89°04'12" East along the South line of said Well Site #4 a distance of 100.00 feet;
9. thence North 00°55'48" West along the East line of said Well Site #4 a distance of 200.00 feet to the North line of said Section 13;
10. thence North 89°04'12" East along said North line a distance of 839.33 feet to the North ¼ corner of said Section 13;
11. thence continuing along said North line North 89°06'59" East a distance of 2630.68 feet to the Northeast corner of Said Section 13;
12. thence North 88°53'52" East along the North line of said Section 18 a distance of 2933.82 feet ;
13. thence leaving said North line South 01°14'05" East along the West line of that certain real property as described in Book 3660, Page 633 Official Records Sacramento County a distance of 2639.82 feet to the Southwest corner of said property;
14. thence continuing South 01°14'05" East along the West line of that certain real property as described in Book 20080930, Page 0331, Official Records Sacramento county a distance of 2641.07 feet to the Southwest corner of said property coincident with the South line of said Section 18;

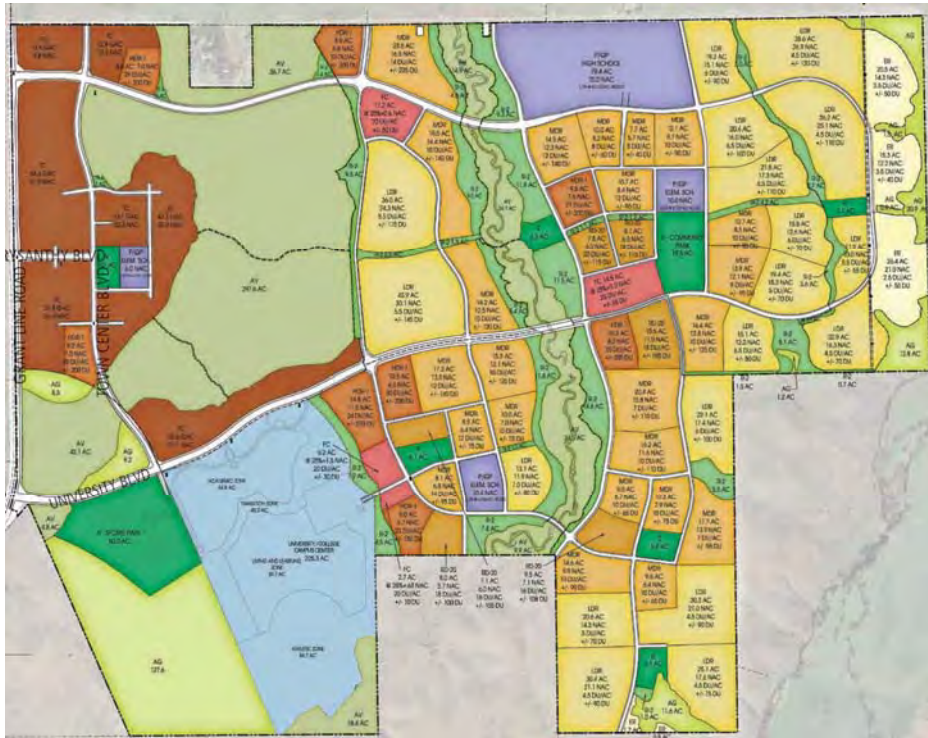
15. thence South 88°53'27" West along said South line a distance of 2917.90 feet to the southwest corner of said Section 18;
16. thence leaving said South line South 00°43'33" East along the East line of said Section 24 a distance of 5297.55 feet to the Southeast corner of said Section 24;
17. thence South 89°42'30" West along the South line of said Section 24 a distance of 2656.25 feet to the South $\frac{1}{4}$ corner of said Section 24;
18. thence North 00°48'17" West along the West line of the Southeast $\frac{1}{4}$ of said Section 24 a distance of 2634.97 feet to the Northwest corner of said Southeast $\frac{1}{4}$;
19. thence South 89°49'29" West along the South line of the northwest $\frac{1}{4}$ of said Section 24 a distance of 2662.82 feet to the West $\frac{1}{4}$ corner of said Section 24;
20. thence South 00°56'45" East along the East line of said Section 23 a distance of 2640.45 to the southeast corner of said Section 23;
21. thence South 89°34'49" West a distance of 2542.76 feet to the South $\frac{1}{4}$ corner of said Section 23;
22. thence South 89°32'16" West a distance of 1128.58 feet;
23. thence North 23°48'54" West a distance of 1525.00 feet;
24. thence North 23°24'29" West a distance of 875.00 feet;
25. thence North 23°37'04" West a distance of 1345.77 feet;
26. thence South 40°32'21" West a distance of 246.75 feet;
27. thence North 00°35'59" West a distance of 73.89 feet;
28. thence North 71°23'31" West a distance of 118.02 feet;
29. thence in a northerly direction with a non-tangent curve turning to the left with a radius of 2540.00 feet, having a chord bearing of North 13°20'05" East and a chord distance of 462.81, having a central angle of 10°27'16" and an arc length of 463.46;
30. thence North 00°35'59" West a distance of 1479.04 feet;
31. thence North 00°52'14" West a distance of 5273.59 feet; to the point of beginning.

Containing 2667.835 acres, more or less..

FINAL ENVIRONMENTAL IMPACT REPORT

VOLUME I OF III

CORDOVA HILLS



Control Number: 2008-GPB-SDP-ZOB-AHP-00142
State Clearinghouse Number: 2010062069
November 2012

COUNTY OF SACRAMENTO
DEPARTMENT OF COMMUNITY DEVELOPMENT
PLANNING AND ENVIRONMENTAL REVIEW
827 7TH STREET, ROOM 220
SACRAMENTO, CALIFORNIA 95814



BOARD OF SUPERVISORS

1st District: Phil Serna
2nd District: Jimmie Yee
3rd District: Susan Peters
4th District: Roberta MacGlashan
5th District: Don Nottoli

COUNTY EXECUTIVE

Bradley J. Hudson, County Executive

PREPARED BY

DEPARTMENT OF COMMUNITY DEVELOPMENT
PLANNING AND ENVIRONMENTAL REVIEW

WITH ASSISTANCE BY

Sacramento County Department of Transportation
Sacramento County Department of Water Resources
DKS Transportation Solutions
Atkins (formerly PBS&J)
ECORP Consulting, Inc.

FINAL ENVIRONMENTAL IMPACT REPORT

CORDOVA HILLS

General Plan Amendment, Large Lot Tentative Subdivision
Map, Zoning Ordinance Amendment, and Affordable Housing
Plan

Control Number 2008-GPB-SDP-ZOB-AHP-00142

State Clearinghouse Number: 2010062069

This Environmental Impact Report has been prepared pursuant to the California Environmental Quality Act of 1970 (Public Resources Code Division 13). An Environmental Impact Report is an informational document which, when this Division requires its preparation, shall be considered by every public agency prior to its approval or disapproval of a project. The purpose of an Environmental Impact Report is to provide public agencies with detailed information about the effect that a proposed project is likely to have on the environment; to list ways in which any adverse effects of such a project might be minimized; and to suggest alternatives to such a project.

Prepared by the
COUNTY OF SACRAMENTO
DEPARTMENT OF COMMUNITY DEVELOPMENT
PLANNING AND ENVIRONMENTAL REVIEW
www.DERA.saccounty.net
827 7TH STREET, ROOM 220
SACRAMENTO, CALIFORNIA 95814

**Department of
Community Development
Lori A. Moss, Director**



Divisions
Building Permits & Inspection
Code Enforcement
County Engineering
Planning & Environmental Review

November 28, 2012

TO: All Interested Parties

**SUBJECT: FINAL EIR FOR "CORDOVA HILLS"
(CONTROL NO: 2008-GPB-SDP-ZOB-AHP-00142)**

The subject Final Environmental Impact Report (FEIR) is attached for your review. The first Sacramento County Board of Supervisors hearing on the Project will be held in the Board of Supervisors Chambers, at 700 H Street in Sacramento, but the date has not been scheduled at this time. A notice of the date and time of the public hearing will be provided to all property owners within 500 feet of the Project site by the hearing body authorized to conduct the public hearing for the proposed project. Interested individuals not within this radius should contact the Clerk of the Board (<http://www.sccob.saccounty.net/pages/plan.html>) to be placed on the hearing notice mailing list. Interested individuals may also check the materials for upcoming hearings on the Sacramento County website (www.saccounty.net) by clicking on the Public Meetings link, and then on the Board of Supervisors Meeting Agenda link.

For questions about this environmental document, please contact Lauren Hocker or John Lundgren of this office at 874-7914.

Sincerely,

[Original Signature on File]

Catherine Hack,
Environmental Coordinator

P:\2008\08-00142 CORDOVA HILLS\Env Docs\FEIR\00 cvr lttr.doc

TABLE OF CONTENTS

PREFACE	1
EXECUTIVE SUMMARY AND MITIGATION MEASURES	1
TERMINOLOGY USED IN THIS EIR	46
MITIGATION MONITORING AND REPORTING PROGRAM	47
1 PROJECT DESCRIPTION.....	1-1
PROJECT LOCATION.....	1-1
ENVIRONMENTAL SETTING.....	1-6
PROJECT PROPOSAL	1-7
PROJECT OBJECTIVES	1-40
2 ALTERNATIVES TO THE PROPOSED PROJECT	2-1
INTRODUCTION.....	2-1
RANGE OF ALTERNATIVES	2-2
ALTERNATIVES CONSIDERED BUT REJECTED	2-2
DESCRIPTION OF ALTERNATIVES	2-14
IMPACT ANALYSIS.....	2-24
ENVIRONMENTALLY SUPERIOR ALTERNATIVE	2-140
3 AESTHETICS.....	3-1
INTRODUCTION.....	3-1
EXISTING SETTING	3-1
REGULATORY SETTING.....	3-3
SIGNIFICANCE CRITERIA	3-4
METHODOLOGY	3-4
IMPACTS AND ANALYSIS	3-10
4 AGRICULTURAL RESOURCES	4-1
INTRODUCTION.....	4-1
ENVIRONMENTAL SETTING.....	4-1
REGULATORY SETTING.....	4-6
SIGNIFICANCE CRITERIA	4-10
METHODOLOGY	4-11

IMPACTS AND ANALYSIS	4-11
5 AIR QUALITY	5-1
INTRODUCTION.....	5-1
SETTING.....	5-1
EXISTING AIR QUALITY CONDITIONS.....	5-8
ADDITIONAL SITE-SPECIFIC AIR QUALITY ISSUES.....	5-10
REGULATORY SETTING.....	5-11
SIGNIFICANCE CRITERIA	5-18
METHODOLOGY	5-19
IMPACTS AND ANALYSIS	5-24
6 BIOLOGICAL RESOURCES.....	6-1
INTRODUCTION.....	6-1
ENVIRONMENTAL SETTING.....	6-1
REGULATORY SETTING.....	6-3
SIGNIFICANCE CRITERIA	6-14
METHODOLOGY	6-16
IMPACTS AND ANALYSIS	6-16

LIST OF PLATES

PLATE PD-1: REGIONAL LOCATION	1-2
PLATE PD-2: EAST COUNTY LOCATION MAP	1-3
PLATE PD-3: EXISTING ZONING	1-4
PLATE PD-4: AERIAL PHOTO OF PROJECT SITE AND VICINITY (YEAR 2009).....	1-5
PLATE PD-5: PROPOSED CORDOVA HILLS LAND USE PLAN	1-10
PLATE PD-6: CORDOVA HILLS VILLAGES.....	1-11
PLATE PD-7: PROPOSED GENERAL PLAN AMENDMENT	1-12
PLATE PD-8: PROPOSED GENERAL PLAN TRANSPORTATION DIAGRAM AMENDMENT.....	1-13
PLATE PD-9: PROPOSED GENERAL PLAN BIKEWAYS MASTER PLAN AMENDMENT	1-15
PLATE PD-10: LARGE LOT TENTATIVE SUBDIVISION MAP	1-16
PLATE PD-11: CONCEPTUAL UNIVERSITY/COLLEGE CAMPUS CENTER	1-18
PLATE PD-12: AFFORDABLE HOUSING PLAN EXHIBIT.....	1-19
PLATE PD-13: PROPOSED ZONE 40 BOUNDARY.....	1-20
PLATE PD-14: PROPOSED ZONE 41 BOUNDARY	1-21
PLATE PD-15: WILLIAMSON ACT CONTRACTS EXHIBIT	1-22
PLATE PD-16: PHASING DIAGRAM	1-23
PLATE PD-17: PROPOSED PARKS.....	1-32
PLATE PD-18: PROPOSED TRAILS PLAN	1-33
PLATE PD-19: APPROXIMATE LOCATION OF “BUFFERLANDS” USES	1-35
PLATE ALT-1: SWALE PRESERVATION ALTERNATIVE	2-5
PLATE ALT-2: LOCATIONS WITH EXISTING MASTER PLANNING PROPOSALS/APPROVALS... 2-8	
PLATE ALT-3: POTENTIAL ALTERNATIVE LOCATIONS.....	2-10
PLATE ALT-4: CONSTRAINTS ON PROPERTY WEST OF GRANT LINE ROAD	2-13
PLATE ALT-5: EXPANDED PRESERVES – WETLAND PRESERVES AND ACCESS POINTS.....	2-16

PLATE ALT-6: EXPANDED PRESERVES – PRESERVE AREAS AND PROJECT LAND USES ...	2-19
PLATE ALT-7: EXPANDED FOOTPRINT – WETLAND PRESERVES AND ACCESS POINTS	2-21
PLATE ALT-8: EXPANDED FOOTPRINT – CONCEPTUAL DEVELOPMENT AREAS	2-22
PLATE ALT-9: LOCATION OF ALTERNATIVE RELATIVE TO SCOTT ROAD	2-27
PLATE ALT-10: EXPANDED FOOTPRINT ALTERNATIVE WILLIAMSON ACT CONTRACTS.....	2-31
PLATE ALT-11: EXPANDED FOOTPRINT AND SACRAMENTO COUNTY MRZ ZONES	2-52
PLATE ALT-12: EXPANDED FOOTPRINT SOILS	2-53
PLATE AE-1: EXAMPLE OF HIGH VISUAL QUALITY	3-6
PLATE AE-2: EXAMPLE OF LOW VISUAL QUALITY	3-6
PLATE AE-3: VIEWPOINT MAP	3-9
PLATE AE-4: VIEW FROM DOUGLAS ROAD	3-11
PLATE AE-5: VIEW FROM GRANT LINE ROAD	3-13
PLATE AE-6: VIEW FROM KIEFER ROAD	3-15
PLATE AE-7: VIEW FROM LATROBE ROAD	3-17
PLATE AE-8: VIEW FROM NORTH OF GLORY LANE	3-19
PLATE AR-1: EXISTING ZONING	4-2
PLATE AR-2: FARMLAND CLASSIFICATIONS	4-3
PLATE AR-3: UNIQUE FARMLAND AND PROPOSED LAND USES	4-4
PLATE AR-4: WILLIAMSON ACT CONTRACTS IN VICINITY	4-5
PLATE AR-5: ON-SITE SOIL TYPES	4-13
PLATE AQ-1: KIEFER LANDFILL BOUNDARIES IN RELATION TO THE PROJECT.....	5-35
PLATE BR-1: PROPOSED AVOIDED AREAS (PROJECT ROADWAYS SHOWN)	6-17
PLATE BR-2: PROPOSED URBAN, RECREATION, AND AGRICULTURE AREAS	6-18
PLATE BR-3: WETLAND DELINEATION	6-20
PLATE BR-4: APPLICANT ESTIMATE OF WETLAND AVOIDANCE AND IMPACTS.....	6-21

PLATE BR-5: WETLANDS AND PROJECT LAND USES.....	6-22
PLATE BR-6: WATER TANK WETLAND IMPACTS.....	6-25
PLATE BR-7: RECOVERY PLAN CORE AREAS IN PROJECT VICINITY	6-27
PLATE BR-8: LOCATION OF LEGENERE AND SACRAMENTO ORCUTT GRASS	6-60

LIST OF TABLES

TABLE ES-1: EXECUTIVE SUMMARY OF IMPACTS AND MITIGATION	2
TABLE PD-1: LAND USE DESIGNATIONS	1-25
TABLE PD-2: FLEX AND COMMERCIAL ZONE PERMITTED USES	1-26
TABLE PD-3: PHASE ONE.....	1-27
TABLE PD-4: PHASE TWO – ADDITIONAL BUILDINGS.....	1-28
TABLE PD-5: PHASE THREE – ADDITIONAL BUILDINGS.....	1-28
TABLE PD-6: PHASE FOUR – ADDITIONAL BUILDINGS	1-29
TABLE PD-7: LAND USE DENSITIES.....	1-29
TABLE PD-8: RESIDENTIAL UNIT TOTALS	1-30
TABLE PD-9: PARKS WITHIN THE PROJECT.....	1-31
TABLE PD-10: POTENTIAL DISTRICT ENERGY PLANT EQUIPMENT	1-37
TABLE ALT-1: SWALE PRESERVATION WETLAND IMPACTS COMPARED TO THE PROJECT ...	2-3
TABLE ALT-2: EXPANDED PRESERVES RESIDENTIAL UNIT TOTALS.....	2-18
TABLE ALT-3: SUMMARY OF ALTERNATIVE DEVELOPMENT ASSUMPTIONS.....	2-24
TABLE ALT-4: EXPANDED PRESERVES NO_x AND ROG OPERATIONAL EMISSIONS	2-34
TABLE ALT-5: EXPANDED FOOTPRINT NO_x AND ROG OPERATIONAL EMISSIONS	2-36
TABLE ALT-6: WETLANDS AND IMPACTS ON THE 862-ACRE NORTHERN PROPERTY	2-42
TABLE ALT-7: TRAFFIC DATA USED IN THE GHG ANALYSIS FOR ALTERNATIVE 1 AND 2... 	2-48
TABLE ALT-8: CUMULATIVE PLUS EXPANDED PRESERVES ON-SITE ROADWAY NOISE	2-62
TABLE ALT-9: EXISTING AND EXISTING PLUS EXPANDED PRESERVES OFF-SITE ROAD NOISE	2-63
TABLE ALT-10: CUMULATIVE AND CUMULATIVE PLUS EXPANDED PRESERVES OFF-SITE ROAD NOISE	2-65
TABLE ALT-11: CUMULATIVE PLUS EXPANDED FOOTPRINT ON-SITE ROADWAY NOISE	2-69

TABLE ALT-12: EXISTING AND EXISTING PLUS EXPANDED FOOTPRINT OFF-SITE ROAD NOISE	2-70
TABLE ALT-13: CUMULATIVE AND CUMULATIVE PLUS EXPANDED FOOTPRINT OFF-SITE ROAD NOISE	2-72
TABLE ALT-14: EXISTING PLUS EXPANDED PRESERVES TRIP GENERATION	2-91
TABLE ALT-15: CUMULATIVE PLUS EXPANDED PRESERVES TRIP GENERATION	2-92
TABLE ALT-16: EXISTING CONDITIONS EXPANDED PRESERVES INTERSECTION OPERATING CONDITIONS.....	2-93
TABLE ALT-17: CUMULATIVE CONDITIONS EXPANDED PRESERVES INTERSECTION OPERATING CONDITIONS	2-95
TABLE ALT-18: EXISTING AND EXISTING PLUS EXPANDED PRESERVES ROADWAY OPERATING CONDITIONS.....	2-98
TABLE ALT-19: CUMULATIVE PLUS EXPANDED PRESERVES ROADWAY OPERATING CONDITIONS.....	2-102
TABLE ALT-20: EXPANDED PRESERVES FREEWAY SEGMENT OPERATING CONDITIONS .	2-108
TABLE ALT-21: EXPANDED PRESERVES FREEWAY RAMP OPERATING CONDITIONS	2-109
TABLE ALT-22: EXISTING PLUS EXPANDED FOOTPRINT TRIP GENERATION	2-121
TABLE ALT-23: CUMULATIVE PLUS EXPANDED FOOTPRINT TRIP GENERATION	2-122
TABLE ALT-24: EXISTING CONDITIONS EXPANDED FOOTPRINT INTERSECTION OPERATING CONDITIONS.....	2-123
TABLE ALT-25: CUMULATIVE CONDITIONS EXPANDED FOOTPRINT INTERSECTION OPERATING CONDITIONS.....	2-125
TABLE ALT-26: EXISTING AND EXISTING PLUS EXPANDED FOOTPRINT ROADWAY OPERATING CONDITIONS.....	2-128
TABLE ALT-27: CUMULATIVE AND CUMULATIVE PLUS EXPANDED FOOTPRINT ROADWAY OPERATING CONDITIONS	2-132
TABLE ALT-28: EXPANDED FOOTPRINT FREEWAY SEGMENT OPERATING CONDITIONS...	2-138
TABLE ALT-29: EXPANDED FOOTPRINT FREEWAY RAMP OPERATING CONDITIONS	2-139
TABLE ALT-30: SUMMARY COMPARISON OF QUANTIFIED IMPACTS.....	2-141

TABLE ALT-31: SUMMARY COMPARISON OF ALTERNATIVES AND PROJECT CONCLUSIONS ..	2-142
TABLE AE-1: EVALUATION SCALE.....	3-8
TABLE AQ-1: HEALTH EFFECTS OF MAIN CRITERIA POLLUTANTS	5-5
TABLE AQ-2: STATE AND FEDERAL AMBIENT AIR QUALITY STANDARDS	5-7
TABLE AQ-3: EXCEEDANCE OF NATIONAL AND STATE AIR POLLUTION STANDARDS IN THE SACRAMENTO AREA.....	5-9
TABLE AQ-4: PROJECT NO_x EMISSIONS DURING CONSTRUCTION (LBS/DAY)	5-26
TABLE AQ-5: PROJECT NO_x AND ROG OPERATIONAL EMISSIONS AT BUILDOUT	5-27
TABLE AQ-6: INTERSECTION LOS AND PEAK HOURLY VOLUMES	5-31
TABLE BR-1: WETLAND RESOURCES	6-19
TABLE BR-2: APPLICANT ESTIMATE OF IMPACTS TO WETLAND RESOURCES.....	6-19
TABLE BR-3: SPECIAL STATUS SPECIES MATRIX	6-32
TABLE BR-4: SWAINSON’S HAWK FORAGING HABITAT VALUE BY ZONING CATEGORY	6-42

LIST OF APPENDICES

- ALT-1:** Wetland Delineation and Exhibit for Grant Line Pilatus Property
- AQ-1:** Sacramento Metropolitan Air Quality Management District Basic and Enhanced Emission Control Practices
- AQ-2:** Air Quality Mitigation Plan
- AQ-3:** Construction URBEMIS Modeling
- AQ-4:** Operation URBEMIS Modeling
- AQ-5:** Screening Level Analysis for Carbon Monoxide
- BR-1:** Wetland Delineations and Exhibit (includes the Army Corps verification letters; the verified delineation exhibit; and the Conwy, Solitu, and Grant Line Mesa delineation reports)
- BR-2:** Watershed Analysis for Wetlands
- BR-3:** Special Status Plant Survey Reports
- BR-4:** California Tiger Salamander Supporting Information (includes ECORPs memorandum as well as published Biological Opinions)
- CC-1:** Greenhouse Gas Reduction Plan
- GS-1:** Geotechnical Reports
- HM-1:** Environmental Site Assessments
- HY-1:** Drainage Master Plan (due to size, this does not contain the report appendices; these can be viewed at 827 7th Street, Room 220, Sacramento, CA)
- NO-1:** Cumulative Plus Project Noise Contours and Roadway Exhibit
- PS-1:** Urban Services Plan
- PS-2:** Fire Station Location Assessment
- PU-1:** Water Supply Assessment
- PU-2:** Zone 40 Water Supply Master Plan Amendment
- PU-3:** Non-Potable Water Master Plan (includes original and supplemental report)
- PU-4:** Potable Water Master Plan (includes original and supplemental report)
- PU-5:** Sewer Master Plan
- PU-6:** Technical Dry Utilities Study
- TR-1:** Traffic Impact Study
- TR-1.A** Supplemental Analysis of the Douglas Road/Zinfandel Drive Intersection
- TR-1.B** Data Sheets For Supplemental Analysis

Appendices on CD inside back cover

EXECUTIVE SUMMARY AND MITIGATION MEASURES

The subject of this Environmental Impact Report (EIR) is a project known as Cordova Hills. The project is located on the eastern side of Grant Line Road, south of Glory Lane, in unincorporated Sacramento County.

The following environmental impact and mitigation summary table (*Table ES-1: Executive Summary of Impacts and Mitigation on page 2*) briefly describes the project impacts and the mitigation measures recommended to eliminate or reduce the impacts. The residual impact after mitigation is also identified. Immediately following the summary table is a description of mandated mitigation monitoring requirements (see *Mitigation Monitoring and Reporting Program on page 45*). Detailed discussions of each of the identified impacts and mitigation measures, including pertinent support data, can be found in the specific topic sections in the remainder of this report.

This report has identified project-related impacts associated with cultural resources, air quality (related to construction ozone precursors, toxic air contaminants, and odor), biological resources (bird species, western spadefoot toad, and plant species), hazardous materials (landfill gas migration), noise, and traffic and circulation (pedestrian/bicycle network, public transit, and some facilities) as potentially significant, which could be reduced to a less than significant level through inclusion of recommended mitigation measures.

This report identifies significant and unavoidable impacts related to aesthetics, air quality (related to construction particulate matter, operational ozone precursors, and implementation of the State Implementation Plan for ozone), biological resources (wetlands and vernal pool crustaceans), climate change, land use (SACOG Blueprint principles conflict), noise (substantial increases in existing ambient levels), public utility construction, and traffic and circulation (some facilities).

Impacts associated with agricultural resources, air quality (related to carbon monoxide emissions), geology and soils, hydrology and water quality, general land use, noise (Kiefer Landfill and Mather Airport), public services, and public utilities are considered less than significant.

Since publication of the DEIR, the university/college campus center portion of the Project has become an area of known controversy. At the time of the Project application, there was an identified tenant for the university use proposed as part of the Project. In July of 2011, the University of Sacramento announced that they were closing the University, and would no longer be the tenant on the Project site. As a result of this, there is now controversy over whether the university/college campus center should still be included as part of the Project. The basis of the controversy is the assertion that because a tenant is no longer identified that the proposed university/college campus center is a speculative use and/or that loss of this tenant should be treated as a change in the Project Description. The Sacramento Metropolitan Air Quality Management District has

commented that they no longer consider the Air Quality Mitigation Plan to be technically adequate because of this controversy.

The lead agency has considered these arguments, but has concluded that no portion of a Project can simply be excluded from analysis at the discretion of the EIR preparers; this could be characterized as an improper segmentation, as CEQA requires analysis of the whole of a Project (CEQA Guidelines Section 15378.a). The analysis examines the Project application which has been submitted to, and accepted by, the County. The Project Description identified and described the proposed use and the associated design standards proposed in the SPA Master Plan; none of these Project elements have been altered, and thus the Project Description has not changed. Furthermore, the identification of the end user of a project is not required under CEQA for purposes of the project's environmental analysis (see, *Maintain Our Desert Environment v. Town of Apple Valley* (2004) 124 Cal.App.4th 430, 15 Cal.Rptr.3d 322; *American Canyon Community v City of American Canyon* (2006) 145 CalApp.4th 1062, 52 Cal.Rptr.3d 312; also see, *Friends of Davis v. City of Davis* (2000) 83 Cal.App.4th 1004, 100 Cal.Rptr.2d 413.)

The applicant has proposed a university/college campus center as part of the Project, and has included a chapter in the SPA Master Plan which describes the proposed use. Any change to the proposed land use would require an SPA Amendment and environmental review pursuant to CEQA. Furthermore, mitigation requires that any SPA amendment include an analysis of the Air Quality Mitigation Plan and GHG Reduction Plan, to ensure that the performance criteria on which those plans are based will still be met despite the amendment. On these grounds, the FEIR still contains an analysis of the entire Project that has been proposed.

Table ES-1: Executive Summary of Impacts and Mitigation

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
AESTHETICS			
Degradation of Existing Views and Visual Quality			
The Project will remove the illusion of continuity – that is, the illusion that the grasslands continue unbroken up to the foothills – both due to the introduction of the structures themselves, and because of the substantial changes in the color and texture of the viewshed. The Project will introduce hard, angled shapes into an area that previously appeared smooth, and will introduce a wider array of color into an area that was previously quite uniform. Though this will increase the diversity of the view, the loss of continuity and the partial obstruction of views of the Sierra Nevada significantly and negatively impacts the quality of the views. These impacts are due to the placement of a large urban development in an area currently dominated by open space; the impact is not due to any particular feature or features that could be changed. The Project will substantially degrade the existing visual character and quality of the site.	S	None available.	SU
New Source of Light or Glare			
Project lighting will not result in sleep disruption or significant wildlife impacts, but will nonetheless introduce a substantial new source of light. This impact is not due to any individual feature or features, but due to the result of introducing a large urban development within a rural landscape. Though the impact cannot be made less than significant, usage of lighting fixtures that minimize glare and light trespass can reduce the impact to some degree.	S	AE-1. The SPA shall be amended to require all lighting applications subject to the 2008 Building Efficiency Standards Section 147 to use fixtures approved by the International Dark Sky Association.	SU

¹ PS = Potentially Significant S = Significant SU = Significant and Unavoidable LS = Less Than Significant

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
AGRICULTURAL RESOURCES			
<p>The proposed uses are permitted with approval of the Zoning Ordinance Amendment to adopt the Cordova Hills SPA, the Project does not convert the Unique Farmland outside of the USB to urban uses, and the land does not support intensive agricultural investment. Though there are soils that are considered prime when irrigated, the site is not irrigated. The Project will result in the loss of 8.6 acres of Unique Farmland and 242.4 acres of Grazing Land, which exceeds the 50-acre threshold established by the County; mitigation is required. The Project will not result in substantial conflicts with existing agricultural use of adjacent lands, though mitigation requiring deed notices is recommended.</p> <p>There is one existing Williamson Act Contract (72-AP-109) within the Project limits. The landowner initiated the non-renewal process for this contract in February 2007. Under the nonrenewal process the contract will expire in the year 2016, and the land will no longer be subject to Williamson Act contract restrictions. The Project proposal includes a large-lot subdivision map which would create parcels that range from less than an acre in size to approximately 35 acres, and also includes a rezone from an agricultural to an urban designation. In order to approve the subdivision map, the approval action would either need to be deferred until February 2013 (within three years of nonrenewal) or the Board of Supervisors would need to be make findings that the parcels can maintain agricultural use. In order to approve the rezoning, the approval action would need to stipulate that the zoning agreement will not become effective until 2016. Mitigation is included to ensure agricultural activities are maintained until expiration. Provided these actions take place, the Project would be consistent with the provisions of the Williamson Act.</p>	LS	<p>AG-1. <u>The applicant shall disclose to all</u> All prospective buyers of properties within 500 feet of the northern property boundary shall receive a recorded notice that would appear in the Title report that they could be subject to inconvenience or discomfort resulting from accepted farming practices as per provisions of the County Right-To-Farm Ordinance <u>and shall include a Note on all final maps disclosing the Right-To-Farm Ordinance.</u></p> <p>AG-2. The applicant shall enter into an agreement with an agricultural operator to maintain grazing use, or other more intensive use, on the land which is subject to Williamson Act contract 72-AP-109. Agricultural use shall be maintained until Williamson Act contract expiration. Documentation of this agreement shall be submitted to the Environmental Coordinator prior to approval of the zoning agreement for the Williamson Act contracted property.</p> <p>AG-3. Prior to the approval of improvement plans, building permits, or recordation of the final map, whichever occurs first, the applicant shall offset the loss of 8.6 acres of Unique Farmland and 242.4 acres of Grazing Land through 1:1 preservation of farmland within a permanent conservation easement. Preservation land must be in-kind or of similar resource value.</p>	LS

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
AIR QUALITY			
Construction Activities Would Increase NO_x Emissions			
The Project has the potential to result in significant impacts throughout most of the life of the Project, even after implementation of the Basic Construction Emission Control Practices and Enhanced Construction Emission Control Practices which are required by rule through the Sacramento Metropolitan Air Quality District (SMAQMD). Mitigation is included (which is in addition to the rules) to ensure that all subsequent projects which occur within the Project area conform to the SMAQMD mitigation and abatement requirements which are in effect at the time. This will offset Project emissions.	S	AQ-1. The following language shall be added to the SPA: All individual development projects shall implement Sacramento Metropolitan Air Quality Management District rules and mitigation pertinent to construction-related ozone precursor emissions, as defined by the most current version of the Sacramento Metropolitan Air Quality Management District Guide to Air Quality Assessment.	LS
Operational Emissions of Ozone Precursors			
The Project will result in worst-case NO _x and ROG emissions of 415.22 pounds per day and 857.40 pounds per day, respectively, which is significantly above the threshold of 65 pounds per day. A mitigation plan is included to reduce emissions by 35%, but emissions will still exceed the threshold.	S	AQ-2. Comply with the provisions of the Air Quality Management Plan dated June 1, 2011, and incorporate the requirements of this plan into the Cordova Hills Special Planning Area conditions. <u>Also, the following text shall be added to the Cordova Hills SPA: “All amendments to the Cordova Hills SPA with the potential to result in a change in ozone precursor emissions shall include an analysis which quantifies, to the extent practicable, the effect of the proposed SPA amendment on ozone precursor emissions. The amendment shall not increase total ozone precursor emissions above what was considered in the AQMP for the entire Cordova Hills project and shall achieve the original 35% reduction in total overall project emissions. If the amendment would require a change in the AQMP to meet that requirement, then the proponent of the SPA amendment shall consult with SMAQMD on the revised analysis and shall prepare a revised AQMP for approval by the County, in consultation with SMAQMD.”</u>	SU

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
Construction Activities Would Increase Particulate Matter Emissions			
Modeling conducted by SMAQMD has indicated that applying basic construction rules will ensure that impacts will not be significant provided that construction is limited to no more than 15 acres of active grading. On a project of this size, it is unreasonable to assume that construction will be limited to such a small area. The Project will generate particulate matter emissions which exceed thresholds.	S	None available.	SU
Conflict With or Obstruct Air Quality Plans			
The current State Implementation Plan (SIP) did not assume that the land east of Grant Line Road would develop, and thus even if the Project's emissions of ozone precursors were not significant, the Project would still conflict with implementation of the SIP.	S	Refer to AQ-2.	SU
Project Operation Would Generate CO Emissions			
Eighteen intersections would either be subject to degradation of LOS to a level of service E or worse, or add vehicles to an intersection already operating at an LOS of E or worse. Examining these facilities as compared to the SMAQMD screening methodology for CO impacts, Project traffic would not cause threshold exceedance.	LS	None required.	LS

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
Project Operation Would Result in TAC Emissions			
<p>Using the published California Air Resources Board siting criteria for sources of toxic air contaminants (TAC) and sensitive receptors, there are no off-site TAC sources proximate to the sensitive receptors of the Project, and the Project will not generate TAC that would impact off-site sensitive receptors. The Project could result in exposure of proposed on-site uses to proposed on-site stationary source TAC, but mitigation is included to ensure that the siting of new uses conforms to ARB recommendations.</p>	PS	<p>AQ-3. <i>The following language shall be added to the SPA:</i></p> <p>Buffers shall be established on a project-by-project basis and incorporated during permit or project review to provide for buffer separations between sensitive land uses and sources of air pollution or odor. The California Air Resources Board's "Air Quality and Land Use Handbook: A Community Health Perspective", or more current document, shall be utilized when establishing these buffers. Sensitive uses include schools, daycare facilities, congregate care facilities, hospitals, or other places of long-term residency for people (this includes both single- and multiple-family). The buffers shall be applied to the source of air pollution or odor, and shall be established based either on proximity to existing sensitive uses or proximity to the property boundary of land designated for sensitive uses. Buffers current at the time of the establishment of this SPA indicate that sensitive uses should be:</p> <ul style="list-style-type: none"> A. A least 500 feet from auto body repair services. B. At least 50 feet from existing gasoline dispensing stations with an annual throughput of less than 3.6 million gallons and 300 feet from existing gasoline dispensing stations with an annual throughput at or above 3.6 million gallons. C. At least 300 feet from existing land uses that use methylene chloride or other solvents identified as a TAC, including furniture manufacturing and repair services. 	LS

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
Project Operation May Result in Exposure to Objectionable Odors			
<p>The Project is proximate to both the Boys Ranch and the Kiefer Landfill. The former facility includes wastewater treatment ponds. The facility is specifically prohibited from causing a nuisance odor condition, and nuisance odor is fully controllable through maintenance of aerated conditions in the ponds. Though based on historic operation of wastewater facilities in general and of this facility in specific it can be expected that there will be events when aeration fails (a pump malfunctions, for instance), it can also be expected that these will be infrequent events of short duration.</p> <p>Only considering the meteorological conditions and the proximity of the Project to the landfill, it would be likely that some significant odor impacts to the Project could occur; however, the SMAQMD Guide does provide further information regarding factors that can reduce odor impacts, if present. Kiefer Landfill has established an active gas-to-energy system that employs active gas extraction from the landfill for use in electrical generation. As landfill gas is a major source of odor from a landfill, the active extraction of gases for use in generating electricity is an effective form of limiting odors. Given the foregoing and the mitigation incorporated below, odor impacts are not expected to be substantial.</p>	PS	<p>AQ-4. Include in the SPA a requirement that the western perimeter of the Sports Park and University/College Campus Center (where these are within 2,000 feet of the Kiefer landfill) include a minimum 25-foot-wide landscaping area. This landscaping area shall include a dense mix of trees and shrubs, to screen the uses from the landfill. Acceptable tree species include those expected to reach minimum heights of 40 feet.</p>	LS
BIOLOGICAL RESOURCES			
Wetlands and Surface Waters			
<p>In total, there are approximately 89.11 acres of wetland resources on the Project site. The Project will result in the fill or dredge of 41.37 acres of wetlands on the site, which includes approximately 16 acres of vernal pool; three acres of seasonal wetland; 15 acres of seasonal wetland swale; six acres of intermittent drainage; and less than one acre of</p>	S	<p>BR-1. To compensate for the permanent loss of wetlands, the applicant shall perform one or a combination of the following prior to issuance of building permits, <u>and shall also obtain all applicable permits from the Army Corps of Engineers, the U.S. Fish and Wildlife Service, the Central Valley Regional Water Quality</u></p>	SU

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
<p>seep, stock pond, and creek. Mitigation is required to offset these direct impacts, but given the extent of wetland loss (46% of the wetlands on the site) and the fact that this is in a Rank 1 Vernal Pool Recovery Plan area the mitigation is not sufficient to reduce impacts.</p> <p>Future development within the SPA could include amendments to the SPA which would modify the Avoided Area boundaries. This could result in additional incremental losses of needed uplands and/or wetlands, increasing the severity of what is already a significant impact in an area noted as vital to the recovery of vernal pool resources. For this reason, mitigation is also included which would require the establishment of a permanent conservation easement over all areas designed as Avoided.</p>		<p><u>Control Board, and the California Department of Fish and Game:</u></p> <p>A. Where a Section 404 Permit has been issued by the Army Corps of Engineers, or an application has been made to obtain a Section 404 Permit, the Mitigation and Management Plan required by that permit or proposed to satisfy the requirements of the Corps for granting a permit may be submitted for purposes of achieving a no net-loss of wetlands. The required Plan shall be submitted to the Environmental Coordinator, U.S. Army Corps of Engineers, and U.S. Fish and Wildlife Service for approval prior to its implementation.</p> <p>B. If regulatory permitting processes result in less than a 1:1 compensation ratio for loss of wetlands, the Project applicant shall demonstrate that the wetlands which went unmitigated/uncompensated as a result of permitting have been mitigated through other means. Acceptable methods include payment into a mitigation bank or protection of off-site wetlands through the establishment of a permanent conservation easement, subject to the approval of the Environmental Coordinator.</p> <p>C. The Project applicant may participate in the South Sacramento Habitat Conservation Plan if it is adopted, and if the Project area and activities are covered. The applicant shall prepare Project plans in accordance with that Plan and any and all fees or land dedications shall be completed prior to construction.</p> <p>BR-2. Prior to issuance of building permits, all areas designated within the SPA as Avoided shall be placed within a permanent conservation easement, which shall be reviewed and approved by the Environmental Coordinator. At a minimum, the permanent conservation</p>	

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
		easements must cover all areas which are required to be preserved as part of the Section 404 and Section 401 wetland permits.	
Special Status Species			
<i>Bird Species</i>			
<p>The following special status bird species are identified as having potential to occur on or near the Project site: burrowing owl, Cooper's hawk, ferruginous hawk, golden eagle, grasshopper sparrow, northern harrier, Swainson's hawk, tricolored blackbird, and white-tailed kite. Excluding the large avoided area and two adjacent smaller avoided areas on the western side of the site, the Project will result in the conversion of 2,120 acres of grassland habitat to urban uses (note that the central linear avoided area is not considered preserved for the purposes of Swainson's hawk habitat, which is why the mitigation requirement in BR-4 is higher than the total grassland lost). Except the tricolored blackbird, all of the species listed above use grasslands for foraging and/or nesting and will be impacted by Project development. The Swainson's hawk is the only Threatened species, and mitigation is included requiring 1:1 habitat mitigation. Mitigation of habitat for the benefit of the Swainson's hawk will also provide habitat compensation for other bird species.</p> <p>The Project site does not contain any trees for nesting, but there are offsite trees nearby; pre-construction nesting surveys have been included for tree-nesting raptors. Pre-construction nesting surveys are also included for burrowing owl (which is ground-nesting), and are also included for tricolored blackbird (for those areas which are within 300 feet of suitable habitat, such as cattail or blackberry).</p>	S	<p>BR-3. If construction, grading, or Project-related improvements are to occur between March 1 and September 15, a focused tree survey for <u>tree- or ground-</u>nesting raptors within 500 feet of the <u>construction site (1/2-mile for Swainson's hawk) and for ground-nesting grasshopper sparrow</u> shall be conducted by a qualified biologist within 14 days prior to the start of construction work (including clearing and grubbing). If active nests are found, the California Department of Fish and Game shall be contacted to determine appropriate protective measures. If no active nests are found during the focused survey, no further mitigation will be required.</p> <p>BR-4. Prior to the approval of improvement plans, building permits, or recordation of the final map, whichever occurs first, implement one of the options below to mitigate for the loss of Swainson's hawk foraging habitat on the Project site; based on current Project designs this is 2,267 acres. Based on current designs, this can be reduced to 2,231 acres of mitigation if the applicant establishes a permanent conservation easement over the areas designated Agriculture on the eastern and southeastern sides of the site (these are areas outside of the Urban Services Boundary). Foraging habitat preserved shall consist of grassland or similar habitat open habitat, not cropland, because this mitigation measure also offsets impacts to other species that do not use cropland habitat.</p> <p>A. The project proponent shall utilize one or more of the mitigation options (land dedication and/or fee payment)</p>	LS

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
		<p>established in Sacramento County's Swainson's Hawk Impact Mitigation Program (Chapter 16.130 of the Sacramento County Code).</p> <p>B. The Project proponent shall, to the satisfaction of the California Department of Fish and Game, prepare and implement a Swainson's hawk mitigation plan that will include preservation of Swainson's hawk foraging habitat.</p> <p>C. Should the County Board of Supervisors adopt a <u>new</u> Swainson's hawk mitigation policy/program (which may include a mitigation fee payable prior to issuance of building permits) prior to the implementation of one of the measures above, the Project proponent may be subject to that program instead.</p> <p>If the design of the primary avoided area on the western plateau (currently 382 acres in size) is increased in size in response to Section 404 wetland permitting requirements, the total amount of mitigation land required may be adjusted downward to reflect this increased avoidance, at the discretion of the Environmental Coordinator.</p> <p>BR-5. Prior to construction activity (including site improvements, and building construction) focused surveys shall be conducted by a qualified biologist for burrowing owls in the construction area and within 500 feet of the construction area. Surveys shall be conducted no less than 14 days and no more than 30 days prior to commencement of construction activities. Surveys shall be conducted in accordance with "Burrowing Owl Survey Protocol and Mitigation Guidelines" published by The California Burrowing Owl Consortium (April 1993). The following shall also apply:</p> <p>A. If no occupied burrows are found in the survey area, a</p>	

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
		<p>letter report documenting survey methods and findings shall be submitted to the County and no further mitigation is necessary.</p> <p>B. If an occupied burrow is found the applicant shall contact the Environmental Coordinator and consult with the California Department of Fish (CDFG), prior to construction, to determine if avoidance is possible or if burrow relocation will be required.</p> <p>C. If owls are to remain on-site, a minimum of 6.5 acres of foraging habitat for each occupied burrow needs to be permanently preserved according to California Department of Fish and Game guidelines. In addition, no activity shall take place within <u>160 feet</u> of an active burrow from September 1 to January 31 (wintering season) or <u>250 feet</u> from February 1 through August 31 (breeding season). Protective fencing shall be placed, at the distances above, around the active burrows and no activity shall occur within the protected buffer areas. Permanent improvements shall be a minimum of 250 feet from an occupied burrow.</p> <p>D. Any impact to active owl burrows, relocation of owls, or mitigation for habitat loss shall be done in accordance with the Fish and Game "Staff Report on Burrowing Owl Mitigation" (October 17, 1995) or the version current at the time of construction. Written evidence from Fish and Game staff shall be provided to the Environmental Coordinator attesting to the permission to remove burrows, relocate owls, or mitigate for lost habitat, and shall include a plan to monitor mitigation success.</p> <p>BR-6. If construction occurs between March 1 and July 31 pre-construction surveys for nesting tricolored blackbirds shall be performed by a qualified biologist. Surveys shall</p>	

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
		<p>include the project construction site and areas of appropriate habitat within 300 feet of the construction site. The survey shall occur no longer than 14 days prior to the start of construction work (including clearing, grubbing or grading). The biologist shall supply a brief written report (including date, time of survey, survey method, name of surveyor and survey results) to the Environmental Coordinator prior to ground disturbing activity. If no tricolored blackbird were found during the pre-construction survey, no further mitigation would be required. If an active tricolored blackbird colony is found on-site or within 300 feet of the project construction site the project proponent shall do the following:</p> <p>A. Consult with the California Department of Fish and Game to determine if project activity will impact the tricolored blackbird colony(s), and implement appropriate avoidance and impact minimization measures if so directed. Provide the Environmental Coordinator with written evidence of the consultation or a contact name and number from the California Department of Fish and Game.</p> <p>B. The applicant may avoid impacts to tricolored blackbird by establishing a 300-foot temporary setback with fencing that prevents any project activity within 300 feet of the colony. A qualified biologist shall verify that setbacks and fencing are adequate and will determine when the colonies are no longer dependent on the nesting habitat (i.e. nestlings have fledged and are no longer using habitat), which will determine when the fencing may be removed. The breeding season typically ends in July.</p>	
Amphibians			

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
<p>The Project site contains suitable breeding habitat and suitable upland habitat for the western spadefoot toad. The latter species has been observed within the site. The Project will result in loss of approximately 19 acres of seasonal wetlands and vernal pools which are potential breeding habitat for the species, for which 1:1 mitigation is required pursuant to County policies regarding wetland loss.</p> <p>Western spadefoot, a Species of Concern, has been observed in several counties across the state, and a number of sites with suitable habitat for western spadefoot are already being protected. Additionally, 23 vernal pool species are federally protected; preservation efforts for those species and associated habitats will contribute to the conservation of the western spadefoot. While a localized population of the toad may be reduced through development of the Project site, the regional population will not be reduced significantly for the reasons stated above.</p>	LS	Refer to Mitigation Measure BR-1.	LS
<i>Invertebrates</i>			
<p>The site contains wetlands suitable for the California linderiella, midvalley fairy shrimp, Ricksecker's water scavenger beetle, vernal pool fairy shrimp, and vernal pool tadpole shrimp. Published protocols for the vernal pool fairy shrimp and vernal pool tadpole shrimp contain survey requirement for determining absence, and mitigation to be applied in case of presence or if presence is being assumed. These same measures are applied to the Species of Concern, California linderiella and midvalley fairy shrimp as well. Mitigation being required for these species will also serve to provide mitigation for the Ricksecker's water scavenger beetle, which uses the same habitats. Though in-kind mitigation will be required for the loss of habitat on the site, the loss of 46% of the wetlands on the site within an area identified as vital to the recovery for vernal pool habitats and their dependent species is</p>	S	<p>BR-7. Presence of California linderiella, midvalley fairy shrimp, vernal pool fairy shrimp and vernal pool tadpole shrimp shall be assumed unless determinate surveys that comply with U.S. Fish and Wildlife protocol conclude that the species are absent. If the protocol surveys are performed and all listed crustacean species are absent, Ricksecker's water scavenger beetle may also be presumed absent, and no further mitigation shall be required for listed vernal pool invertebrates. If species are found, one or a combination of the following shall apply:</p> <p>A. <i>Total Avoidance: Species are present or assumed to be present.</i> Unless a smaller buffer is approved through formal consultation with the Fish and Wildlife Service, construction fencing shall be installed a minimum of 250 feet from all delineated vernal pool</p>	SU

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
significant even with mitigation.		<p>margins. All construction activities are prohibited within this buffer area. For all vernal pools where total avoidance is achieved, no further action is required.</p> <p>B. <i>Compensate for habitat removed.</i> Obtain all applicable permits from the U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, California Department of Fish and Game, and the Central Valley Regional Water Quality Control Board for any proposed modifications to vernal pools and mitigate for habitat loss in accordance with the Biological Opinion and Section 404 permits obtained for the Project. At a minimum, mitigation ratios shall be consistent with County General Plan Policy, which requires no net loss of wetland resources. Any vernal pool loss not mitigated through the permitting process shall be mitigated for by payment into a mitigation bank or protection of off-site wetlands through the establishment of a permanent conservation easement, subject to the approval of the Environmental Coordinator.</p>	
<i>Plants</i>			
<p>The Project site was surveyed for special status plant species in May 2007, April and June 2008, and May and July 2010 by ECORP Consulting Inc. The special status plant surveys revealed two special status species present on the Project site: legenere and Sacramento Orcutt grass. The wetlands containing these plants are located within Avoided Areas, but given the proximity of these wetlands to development areas, mitigation requires additional measures be implemented to control invasive species and to avoid pollution runoff from urban activities.</p>	PS	<p>BR-8. If construction activities encroach within the 250-foot buffer for vernal pools 358, 363, 370, 426 or 511 the applicant shall prepare a pesticide and pollution prevention plan. The plan shall include measures to reduce pollution run-off, pesticide drift, and other similar potential contaminates, to protect surrounding preserve areas from urban contaminates. Measures shall include the implementation of best management practices (e.g. straw wattles, silt fencing, and soil stabilization) for stormwater control. The plan shall be incorporated in the Operations and Management Plan which is a requirement of the Section 404 permit process.</p> <p>BR-9. The project applicant shall prepare an invasive species</p>	LS

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
		<p>removal and prevention plan. The plan shall provide methods to remove invasive species from preservation areas and to restore the affected wetland features. The plan shall include methods for the prevention of the introduction of new invasive species from landscapes associated with the development. Minimum components of such a plan shall include: mapping of existing invasive plant populations within the avoided areas, with the map being updated a minimum of every five years; a description of acceptable methods for removing invasive species, examples of which include hand removal or biological controls (e.g. natural parasites); and a prohibition on the use of non-native plants within either the avoided areas or the Recreation-2 areas. The plan shall be incorporated in the Operations and Management Plan which is a requirement of the Section 404 permit process.</p>	

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
CLIMATE CHANGE			
<p>In concert with state and federal activities, the design features of the SPA are intended to offset the Project climate change impact. Ideally, this mitigation would reduce the Project emissions and climate change impacts to levels that are not cumulatively significant, but there are many unknown variables and implementation challenges. Given the substantial emissions which will result from the Project and the uncertainties related to target-setting and the current state of modeling this analysis concludes that Project impacts may remain significant.</p> <p>The effects of climatic changes on the Sacramento region are potentially significant, and can only be mitigated through both adaptation and reduction strategies. By requiring mitigation of projects that may result in significant greenhouse gas emissions, and by adopting County programs and changes in government operations, the County is implementing all feasible strategies to reduce the effects of climate change on the region. Nonetheless, it is probable that these strategies will not be sufficient to offset all of the impacts of climate change, and that some of these impacts will be significant.</p>	S	<p>CC-1. The following text shall be added to the Cordova Hills SPA: All amendments to the SPA <u>with the potential to change SPA-wide GHG emissions</u> shall include an analysis which quantifies, to the extent practicable, the effect of the Amendment on <u>SPA-wide</u> greenhouse gas emissions. The Amendment shall not increase <u>SPA-wide</u> greenhouse gas emissions above an average 5.80 metric tons per capita (including emissions from building energy usage and vehicles). <u>If the SPA amendment would require a change in the approved GHG Reduction Plan in order to meet the 5.80 MT CO₂e threshold, then the proponent of the SPA amendment shall consult with the SMAQMD on the revised analysis and shall prepare a revised GHG Reduction Plan for approval by the County, in consultation with SMAQMD.</u></p>	SU
CULTURAL RESOURCES			
<p>The project area contains three historic era sites, and a fourth historical site that is included in a multi-component site. One prehistoric bedrock mortar station site and one prehistoric component of a multi-component site were discovered in the project area. None of the sites are associated with any important persons or events in California or national history. They are not considered to be unique and do not represent the work of a master or possess high artistic values. In all cases, the historic sites lack sufficient cultural material to address research questions. All of the historic sites were evaluated as not eligible under any criteria for the National Register of</p>	PS	<p>CR-1. If subsurface deposits believed to be cultural or human in origin are discovered during construction, then all work must halt within a 200-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeology, shall be retained at the Applicant's expense to evaluate the significance of the find. If it is determined due to the types of deposits discovered that a Native American monitor is required, the Guidelines for Monitors/Consultants of Native American Cultural, Religious, and Burial Sites as established by the Native</p>	LS

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
<p>Historic Places or the California Register of Historical Resources and are not considered a historical resource or unique archeological resource as defined by CEQA. There always remains a potential to encounter buried or as yet undiscovered resources during land clearing and construction work. Mitigation is included to ensure that such resources are treated appropriately if discovered.</p>		<p>American Heritage Commission shall be followed, and the monitor shall be retained at the Applicant's expense.</p> <p>Work cannot continue within the 200-foot radius of the discovery site until the archaeologist conducts sufficient research and data collection to make a determination that the resource is either 1) not cultural in origin; or 2) not potentially eligible for listing on the National Register of Historic Places or California Register of Historical Resources.</p> <p>If a potentially-eligible resource is encountered, then the archaeologist, the Environmental Coordinator, and project proponent shall arrange for either 1) total avoidance of the resource, if possible; or 2) test excavations or total data recovery as mitigation. The determination shall be formally documented in writing and submitted to the Environmental Coordinator as verification that the provisions of CEQA for managing unanticipated discoveries have been met.</p> <p>In addition, pursuant to Section 5097.97 of the State Public Resources Code and Section 7050.5 of the State Health and Safety Code, in the event of the discovery of human remains, all work is to stop and the County Coroner shall be immediately notified. If the remains are determined to be Native American, guidelines of the Native American Heritage Commission shall be adhered to in the treatment and disposition of the remains.</p>	

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
GEOLOGY AND SOILS			
<p>Multiple topics were examined: soil erosion, expansive soils, naturally occurring asbestos, mineral resources, and geologic hazards. The Project has the potential to increase soil erosion due to disturbance of onsite soils, and some of the soils in the Project area have a high shrink-swell potential. There are existing regulations in place to address both of these issues, including the Sacramento County Land Grading and Erosion Control Ordinance, the Uniform Building Code, and the California Building Code. The Project site is not considered likely to include asbestos-containing soils, and soil testing found no evidence of naturally occurring asbestos. There are no mapped mineral resources on the site, and furthermore, the Project includes a plan to use whatever suitable rock deposits are found on the site to serve Project construction needs; the Project will not obstruct access to mineral resources. Seismic ground-shaking hazards are low in Sacramento County, and existing building codes require adherence to seismic design standards.</p>	LS	None required.	LS

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
HAZARDOUS MATERIALS			
<p>The site was assessed for on-site hazardous conditions, and this assessment concluded that there is no evidence of any recognized hazardous conditions that may have a significant adverse effect on the development of the project site. There are three agency-listed contaminated sites within approximately one mile of the project site. These include the Sacramento County Boys Ranch (a juvenile correction facility within 1,000 feet of the eastern Project boundary), Aerojet (located just over a mile to the northwest), and the Kiefer Landfill (located approximately 2,000 feet to the south). The Boys Ranch hazardous condition was remediated and the case closed. Aerojet remediation activities are ongoing. Contaminated soils from Aerojet would not affect the Project, as these are off-site, while the groundwater contamination plumes are migrating away from the Project area. Groundwater contamination at Kiefer Landfill is likewise migrating away from the Project site. The Project will also be using public water provided through the Sacramento County Water Agency, not groundwater. Landfill gas migration from Kiefer Landfill also appears not to affect the site, but a mitigation measure is nonetheless included for the small portion of the site outside of the Urban Services Boundary that is within the 2,000 foot buffer established around the Kiefer Landfill.</p>	PS	<p>HM-1. Any structure within the project boundaries (including but not limited to, buildings, subsurface vaults, utilities, or any other areas where potential landfill gas buildup may cause adverse impacts to the public health or safety or the environment) within 1,000 feet of buried waste or proposed buried waste at Kiefer Landfill (refer to Plate HM-2 of the EIR) shall be continuously monitored <u>by the owner/operator of said structure</u> for landfill gas and be designed and constructed to prevent landfill gas accumulation in those structures.</p>	LS

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
HYDROLOGY AND WATER QUALITY			
7Hydrology			
<p>The Project included a Drainage Master Plan which evaluated the on- and off-site floodplains, the potential for hydromodification of stream channels, and the adequacy of existing and planned stormwater infrastructure. The existing floodplains on the site will be within the Avoided Areas where no development will occur, and detention basins have been included to ensure that the post-Project flow rates do not exceed pre-Project rates. Put in general terms, the design to prevent hydromodification is a detention basin outlet control structure which retains all stormwater runoff generated up to a 10-year event and slowly releases the runoff through a very small outlet. The Project also includes stormwater infrastructure which is sufficient to handle flows.</p>	LS	None required.	LS
Water Quality			
<p>Compliance with adopted Ordinances and standards will ensure that future development projects implemented as a result of Project approval will not cause violation of a water quality standard or waste discharge requirement, result in substantial erosion or siltation, and will not result in substantial increases to polluted runoff associated with construction. Compliance with the County Stormwater Ordinance, implementation of Low Impact Development Standards, and implementation of the Drainage Master Plan will ensure that development of the site will not alter the course of local waterways in a manner that results in substantial erosion or siltation, will not cause violation of a water quality standard or waste discharge requirement, and will not result in substantial increases to polluted runoff.</p>	LS	None required.	LS

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
LAND USE			
Conflict With Adopted Land Use Plans			
The Project uses are compatible with surrounding existing and proposed land use plans, and would not result in substantial conflicts with land use plans designed to avoid environmental effects.	LS	None required.	LS
Conflict With the SACOG Blueprint and General Plan Policy			
The Project includes a wide variety of transportation choices, an array of housing choices, a mix of uses, compact community design, and fosters a sense of place. While acknowledging that in terms of internal community design the Project appears to be an excellent example of “smart growth” development and is consistent with relevant General Plan policies, it must also be acknowledged that the Project conflicts with the principles with respect to the preservation of open space and the proximity to existing developed communities. In terms of open space preservation, the analysis is somewhat subjective, and the Project has directed preservation toward the most sensitive vernal pool areas of the site. In terms of directing development toward existing communities, the conflict is more clear. Though projected for future development, the Blueprint envisions growth occurring from the existing city centers outward rather than the reverse. This is a fundamental underpinning to the Blueprint, and as a result, the Project's inconsistency with this principle is considered substantial.	S	None available.	SU

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
Conflict with General Plan Growth Management Policy			
A project must be consistent with LU-120 before it may be considered for approval. The Planning Division has reviewed the Project for consistency with LU-120 and has found in the affirmative. The Project has been deemed consistent with criteria PC-1 through PC-10, and has achieved a total of 21 points in the criteria-based standards (CB-1 through CB-5). A total of 18 points is required and 24 points are possible. Given that the Project has been deemed consistent, Project impacts related to conflict with growth management policy are <i>less than significant</i> .	LS	None recommended.	LS
Conflict With General Plan Policies Related to Growth Inducement			
The Project is inconsistent with Policy LU-1, and includes a General Plan Amendment to address this inconsistency. The General Plan Amendment includes language specifically intended to avoid growth-inducing impacts.	LS	None required.	LS
Conflict With General Plan Policies Related to Public Services and Utilities			
Compliance with General Plan Policies LU-13, LU-66, LU-110, and LU-123 is intended to ensure that minimum service standards for public services and utilities are met. The Project includes a facilities financing plan which was submitted to all of the applicable service entities for review and approval. Long-term funding sources have been identified for the maintenance of public services. The Project will not result in any substantial environmental impacts related to conflict with General Plan policies which pertain to public services or utilities.	LS	None required	LS

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
Conflict With General Plan Policies Related to Air Quality and Transportation			
The Project results in significant impacts related to both transportation and air quality, but these impacts are not due to General Plan Policy inconsistency. The Project is consistent with policies intended to alleviate air quality and transportation impacts.	LS	None required.	LS
Conflict with General Plan Policies Related to Land Use Compatibility			
Policy LU-19 states that appropriate buffers should be placed between incompatible uses, and Policy LU-94 states that new development should be compatible with existing development. The Project is adjacent to two existing uses, the Boys Ranch and Kiefer Landfill, with the potential to result in conflicts. For the Boys Ranch, the distance from the majority of the site and the topographical changes between the site and the Boys Ranch act as a natural barrier. For the Kiefer Landfill, distance from the site combined with existing regulations for landfills will prevent substantial impacts. For both facilities, there remains the potential for nuisance impacts. For this reason, mitigation is included requiring disclosure of the facilities to prospective buyers.	LS	<p>LU-1. The location and nature of the Sacramento County Boys Ranch facility shall be disclosed to all prospective buyers of estate-residential properties.</p> <p>LU-2. The location and nature of the Kiefer Landfill facility shall be disclosed to all prospective buyers of properties within one mile of the ultimate active landfill boundary. <u>The disclosure notice shall include:</u></p> <p>A. <u>A statement substantially consistent with the following: “The landfill will expand in height and land area over time, and thus the visibility and proximity of the landfill from the property at the time of purchase does not reflect how visible or proximate the landfill will be in the future.” This statement shall be supplemented with relevant facts about ultimate landfill design, including the distance of the property to the ultimate planned edge of the landfill waste disposal area to the nearest 100 feet and the ultimate planned height of the landfill (as set forth in the Solid Waste Facilities Permit).</u></p> <p>B. <u>Notification that the landfill operates under a Solid Waste Facilities Permit and is required to control pests, vectors, litter, and odor to the extent</u></p>	LS

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
		<p><u>practicable, but that it is not possible to eliminate all of these nuisances. For this reason, property owners may experience some of these nuisance conditions.</u></p> <p>C. <u>Notification that the active landfill area is lighted at night.</u></p>	
Division/Disruption of An Established Community			
<p>The division or disruption of an established community is an impact considered by CEQA. Case law has established that a project must create physical barriers within the established community in order to be considered under this impact category. There is no existing development on the project site, nor are there developments north, south, or east of the site that could be divided or disrupted by the project. Furthermore, the Project includes stub streets so that if there is development north or south of the site in the future, those uses could connect into the Project. The project will not disrupt or divide an established community.</p>	LS	None required.	LS
Displacement of Housing			
<p>There is no existing housing on the Project site that could be displaced by the project, nor would the project uses cause the displacement of nearby housing. The site is not included in the affordable housing inventory as part of implementation of the Sacramento County General Plan Housing Element.</p>	LS	None required.	LS

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
NOISE			
Construction Noise			
It is acknowledged that construction related noise could be a nuisance to sensitive receptors; however, this increase in noise is short-term, and noise standards are intended to address long-term sources of noise. Construction-related noise would not result in a permanent increase in ambient noise. Though noise volumes would undergo short-term increases, the existing construction ordinance is designed to avoid significant community effects through the restriction of nighttime and weekend disturbance.	LS	None required.	LS

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
Traffic Noise			
<p>Traffic on the internal Project roadways and on Grant Line Road will generate noise that has the potential to exceed General Plan noise standards related to both residential and non-residential uses. Mitigation is included to ensure that future subdivisions and non-residential developments are constructed in a manner that achieves compliance with General Plan standards.</p>	S	<p>NO-1. All residential development projects exposed to greater than 65 dB L_{dn} (as identified in Appendix NO-1) at the property line shall be designed and constructed to reduce noise levels to within General Plan Noise Element standards for exterior activity areas. Potential options for achieving compliance with noise standards include, but are not limited to, noise barriers, increased setbacks, and/or strategic placement of structures. An acoustical analysis substantiating the required noise level reduction, prepared by a qualified acoustical consultant shall be submitted to and verified by the Environmental Coordinator prior to the issuance of any building permits for affected sites.</p> <p>NO-2. All residential development projects exposed to greater than 70 dB L_{dn} (as identified in Appendix NO-1) at the property line shall be designed and constructed to achieve an interior noise level of 45 dB L_{dn} or less. Potential options for achieving compliance with noise standards include, but are not limited to, noise barriers, increased setbacks, strategic placement of structures and/or enhanced building construction techniques. An acoustical analysis substantiating the required noise level reduction, prepared by a qualified acoustical consultant, shall be submitted to and verified by the Environmental Coordinator prior to the issuance of any building permits for the site.</p> <p>NO-3. Non-residential development projects such as churches, libraries, meeting halls, and schools exposed to greater than 60 dB L_{dn}, and all non-residential development projects such as transient lodging, hospitals and nursing homes, and office buildings exposed to greater than 65 dB L_{dn} (as identified in Appendix NO-1) at the property line shall demonstrate that interior noise volumes will not exceed General Plan Noise Element standards for non-</p>	LS

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
		<p>residential uses exposed to traffic noise. This may be accomplished by providing documentation that the type of use is within acceptable limits based on the location of the identified noise contours and assuming standard exterior-to-interior attenuation of 25 dB. If this cannot be demonstrated, an acoustical analysis substantiating the required noise level reduction, prepared by a qualified acoustical consultant, shall be submitted to and verified by the Environmental Coordinator prior to the issuance of any building permits for affected sites. Potential options for achieving compliance with noise standards include, but are not limited to, noise barriers, increased setbacks, strategic placement of structures and/or enhanced building construction techniques. The measure does not apply to commercial uses.</p> <p>NO-4. All parks exposed to noise volumes in excess of 70 dB (as identified in Appendix NO-1) at the property line shall be designed and constructed to reduce noise levels within park activity areas (benches, play structures, etc) to within General Plan Noise Element standards for parks. Potential options for achieving compliance with noise standards include, but are not limited to, noise barriers, increased setbacks, and/or strategic placement of structures. For barrier and other structural options, an acoustical analysis substantiating the required noise level reduction, prepared by a qualified acoustical consultant shall be submitted to and verified by the Environmental Coordinator prior to the issuance of any building permits for affected sites.</p>	

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
On-Site Stationary and Community Noise			
<p>The Project includes uses which include noise-generating sources such as playing fields, loading docks, a corporation yard, and other uses. Mitigation is included to require that all such uses located adjacent to residential lands be designed so as not to cause the General Plan standards to be exceeded.</p>	S	<p>NO-5. All non-residential development projects located adjacent to residentially designated properties shall be designed and constructed to ensure that noise levels generated by the uses do not result in General Plan Noise Element standards being exceeded on adjacent properties. An acoustical analysis substantiating the required noise level reduction, prepared by a qualified acoustical consultant shall be submitted to and verified by the Environmental Coordinator prior to the issuance of any building permits for the non-residential projects with the potential to generate substantial noise (e.g. car wash, auto repair, or buildings with heavy-duty truck loading docks) if those uses are adjacent to residentially designated properties. The acoustical analysis shall include, but not be limited to, consideration of potential noise conflicts due to operation of the following items:</p> <ul style="list-style-type: none"> • Outdoor playing fields; • Mechanical building equipment, including HVAC systems; • Loading docks and associated truck routes; • Refuse pick up locations; and • Refuse or recycling compactor units. 	LS
Kiefer Landfill Noise			
<p>All sensitive uses are located a sufficient distance from the landfill to avoid substantial noise exposure. Noise at the university/college campus center (the nearest area where residences would be located) would be 44 dB, which is well within standards.</p>	LS	None required.	LS

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
Substantial Increase in Existing Ambient Noise			
<p>The Project would result in a substantial increase in existing ambient noise for multiple roadway segments, but only two of these include receptors which would be impacted: Sunrise Boulevard and Douglas Boulevard. Noise volumes would be increased by 2 dB on Sunrise Boulevard and by 7 dB and 10 dB along Douglas Boulevard. Based on the existing noise environments, these are substantial increases. On Sunrise Boulevard, a noise barrier is not appropriate because businesses rely on visibility to attract customers, and on Douglas Road a barrier is already present. Thus, no further improvements can be made to reduce impacts.</p>	S	None available.	SU

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
Mather Airport			
<p>The project site is located approximately four miles east of Mather Airport. Although the project site is located outside the 60 dB CNEL contour of Mather Airport, the project site is located within the overflight path of approaching and departing aircraft that fly below 3,000 feet above ground level. During an average one-month time period, a very small percentage of total departure (two percent) and arrival (eight percent) flights are passing over the project site and there is less than 15 percent of the total touch-and-go flights passing over the project site. Though the Project will not expose people to excessive aircraft noise, continued and future use of Mather Airport has the potential to be a nuisance and generate objections by residents and other sensitive receptors. An Avigation Easement to inform future potential residential buyers will be required to help reduce the impact to Mather Airport from new complaints by future residents or other sensitive receptors of the proposed Project; these various conditions are included as mitigation.</p>	LS	<p>NO-6. The following conditions will be required to ensure adequate disclosure of Mather Airport operations:</p> <ol style="list-style-type: none"> 1. Notification in the Public Report prepared by the California Department of Real Estate shall be provided disclosing to prospective buyers that the parcel is located within the applicable Airport Planning Policy Area and that aircraft operations can be expected to overfly that area at varying altitudes less than 3,000 feet above ground level. 2. Avigation Easements prepared by the Sacramento County Counsel's Office shall be executed and recorded with the Sacramento County Recorder on each individual residential parcel contemplated in the development in favor of the County of Sacramento. All Avigation Easements recorded pursuant to this policy shall, once recorded, be copied to the director of Airports and shall acknowledge the property location within the appropriate Airport Planning Policy Area and shall grant the right of flight and obstructed passage of all aircraft into and out of the appropriate airport. 	LS

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
PUBLIC SERVICES			
Fire Protection			
<p>The Project site is located within an area of Sacramento County designated as a State Responsibility Area (SRA) by the California Department of Forestry and Fire Protection (CAL FIRE), and has been assigned a moderate fire hazard severity risk rating (the lowest fire hazard rating applied to SRAs). The site will be served by the Sacramento Metropolitan Fire District, which will need up to two fire stations on the site. The Project will be subject to the building standards and regulations of CAL FIRE and the Sacramento Metropolitan Fire District, and these regulations will be sufficient to ensure adequate protection.</p>	LS	None required.	LS
Police Protection			
<p>The Project is within the service area of the Sacramento County Sheriff's Department (SSD) and will increase the demand for SSD services. According to SSD, the development of the Project will "not likely necessitate the construction of additional police facilities". In order to meet staffing ratios, SSD would need to add 16 staff members. Law enforcement services will be funded through the County General Fund and through County Police Services Community Facilities District 2005-1 (CFD 2005-1) annual special tax, which will be levied on each new home. Existing funding mechanisms, policies and regulations will ensure that the Sheriff's Department can adequately serve the new growth.</p>	LS	None required.	LS

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
Solid Waste			
An annual total of 18,592 tons of waste will require landfill disposal, and a total of 25,241 tons of construction debris will need to be disposed of in the Kiefer Landfill. The Sacramento County Department of Waste Management and Recycling has indicated that landfill capacity is adequate to support the waste disposal needs generated by the Project.	LS	None required.	LS
Schools			
Student enrolment resulting from the Project will be approximately 4,686 total students, with approximately 2,553 of these in grades K – 6 (elementary school), 748 in grades 7 – 8 (middle school), and 1,384 in grades 9 – 12 (high school). The Project will generate the need for three elementary schools but only about 62% of a middle/high school; the land use plan includes these school sites. Elk Grove Unified School District (EGUSD) Facilities and Planning Department staff (K. Williams) has indicated that EGUSD has been working with the Project proponents to be sure that adequate school facilities can be accommodated within the Project area and is satisfied with the proposed development and financing plans for the needed schools.	LS	None required.	LS

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
Parks and Recreation			
<p>The Project area is located within CSA 4b which is staffed by the Sacramento County Regional Parks Department (Parks Department). The Project area will be detached from the CSA 4b, and will be provided park and recreation services under the proposed Cordova Hills <u>LSD</u> CSD; discretionary action by LAFCo is required for the detachment and formation actions. The Project generates a need for approximately 107 acres of parkland, and provides approximately 99 acres of formal parks and 150 acres of informal recreation areas (paseos, trails, etc) which may receive partial credit. The Parks Department has reviewed the plans and deemed them adequate.</p>	LS	None required.	LS
Libraries			
<p>The Cordova Hills SPA indicates that a new full service, 15,000 square foot branch library is planned within the proposed Town Center to serve the Cordova Hills community as well as residents in the surrounding area. According to the Sacramento Public Library Authority Facility Master Plan 2007 – 2025 (Library Master Plan), the proposed library size is adequate to serve the demands generated by the Project at buildout. The Project includes a funding mechanism for a new library that is of sufficient size to accommodate the expected population of the Project, which has been developed in coordination with the Sacramento Public Library System.</p>	LS	None required.	LS

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
PUBLIC UTILITIES			
Construction Impacts			
Water, sewer, and dry utility lines constructed within the Project boundaries would not cause any additional utility-specific construction impacts, as utility construction will occur within areas that will already urbanize as part of the Project. Most of the off-site utility lines are shown within areas already proposed for utility construction as part of service provider master planning documents. There are some improvement areas which have not already been studied or approved, and which are likely to contribute to wetland impacts and impacts to associated species.	S	Measures AQ-1, BR-1, BR-3, BR-4, BR-5, BR-7, BR-8, and CR-1 apply.	SU
Adequacy of Water Supply			
The projected annual water demand for the entire Project is 6,549.9 acre feet per year (AFY), including system losses. The Project will be served by the Sacramento County Water Agency (SCWA) Zone 40, which has total maximum water supply to Zone 40 of 102,151 AFY. There is sufficient capacity to serve the Project.	LS	None required.	LS
Adequacy of Sewage Disposal			
The Project will result in an average dry weather flow of 4.99 million gallons per day (mgd). The peak wet weather flow for Project buildout is 10.41 mgd. The Sacramento Regional Wastewater Treatment Plan has a permitted average dry weather flow (ADWF) design capacity of 181 mgd and wet weather flow (AWWF) of 392 mgd. The plant receives and treats approximately 141 mgd ADWF (Seyfried, 2008). The Project disposal demand can be met by this existing capacity.	LS	None required.	LS

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
Adequacy of Energy Services			
The estimated annual residential and commercial electricity demand for the Project will be 122,903,000 kilowatt hours and that the estimated annual residential and commercial natural gas demand for the Project will be 4,201,494 therms. The California Energy Commission's Energy Consumption Data Management System reports that 10,691.67 million kilowatt hours of energy and 315.57 million therms were consumed within Sacramento County in the year 2010. The estimated energy usage of the Project is substantially less than the annual energy production for either SMUD or PG&E.	LS	None required.	LS
Exceed Sustainable Groundwater Yield			
A long-term average annual yield of 40,900 AFY of groundwater has been identified in both the Water Forum Agreement (WFA) and Water Supply Master Plan for SCWA in the Central Basin. Additionally, as a signatory to the WFA and a member of the Sacramento Central Groundwater Authority (Groundwater Authority), SCWA recognizes the Water Forum-defined long-term sustainable average annual yield of the underlying groundwater basin of 273,000 AFY. The additional groundwater draw caused from implementation of the proposed Project will not result in exceedance of the agreed-upon sustainable yield of 273,000 AFY.	LS	None required.	LS
Groundwater Recharge			
The central intermittent drainage on the site is mapped as an area of high groundwater recharge potential. This area is being retained within open space in the Project, and will not be subject to direct impacts.	LS	None required.	LS

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
TRAFFIC AND CIRCULATION			
Existing Plus Project			
<p>The Project results in significant impacts to six County intersections, ten City of Rancho Cordova intersections, the Zinfandel and US 50 freeway ramp intersection, two County roadway segments, one City of Elk Grove roadway segment, eleven City of Rancho Cordova roadway segments, two US 50 freeway segments, and bicycle and pedestrian facilities. Mitigation is included which will improve operating conditions to acceptable levels for most of these facilities, but there are some impacts for which no feasible mitigation exists. These are: the Zinfandel and US 50 freeway ramp intersection and Sunrise Boulevard from US 50 to White Rock Road. Furthermore, the County does not have land use authority in other jurisdictions, and cannot guarantee that non-County facilities will be constructed.</p>	S	<p>TR-1. The applicant shall construct or fund, as set forth in the phasing and financing plan approved by the Sacramento County Department of Transportation, the below mitigation measures. The phasing and financing plan shall ensure commencement of construction of traffic improvements prior to degradation of LOS below applicable County standards. This mitigation recognizes that should any of the measures below benefit other projects, a reimbursement agreement and/or a fee credit to the applicant may be considered.</p> <p>A. <i>Bradshaw Road and Jackson Road</i> – Provide a second westbound through lane.</p> <p>B. <i>Mather Boulevard and Douglas Road</i> – Construct a new traffic signal. Provide a shared through-right turn lane on the northbound approach; provide a separate left turn lane and a through lane on the southbound approach; and a provide separate left turn lane and a separate right turn lane on the westbound approach.</p> <p>C. <i>Eagles Nest Road and Jackson Road</i> – Construct a new traffic signal. Provide a left turn lane and a through-right turn shared lane on the northbound and southbound approaches.</p> <p>D. <i>Grant Line Road and Sunrise Boulevard</i> – Provide a separate southbound right turn lane so the southbound approach has one left turn lane, one through lane and one right turn lane.</p> <p>E. <i>Grant Line Road and White Rock Road</i> – Construct a new Modify the intersection and traffic signal to provide dual left turn lanes and a separate two through</p>	SU

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
		<p>lanes on the northbound approach; provide a <u>two</u> through lanes and a separate right turn lane on the southbound approach; and provide separate <u>two</u> left turn lanes and a separate right turn lane on the eastbound approach. Also an extra westbound departure lane is needed for the dual northbound left movement. <u>On the western leg of the intersection, two westbound departure lanes are required.</u></p> <p>F. <i>Prairie City Road and White Rock Road</i> – The applicant shall be responsible for a fair share of this measure. Construct a new traffic signal. Provide a separate left turn lane and a separate right turn lane on the southbound approach; provide a separate left turn lane and a through lane on the eastbound approach; and provide a through lane and a separate right turn lane on the westbound approach. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation and may be up to 100% of the cost of the improvements.</p> <p>G. <i>School Access and North Loop Road</i> – Provide dual eastbound left turn lanes. The applicant shall be responsible for a focused access study addressing the internal circulation of the Cordova Hills project to finalize the design of intersection geometries and length of left turn pockets. The scope of work for the analysis shall be submitted to the Sacramento County DOT staff. Upon completion, the analysis shall be submitted to the Sacramento County DOT for approval and recommendations.</p> <p>TR-2. The applicant shall construct or fund, as set forth in the phasing and financing plan approved by the Sacramento County Department of Transportation, and in consultation with the City of Rancho Cordova, the below mitigation measures. The phasing and financing plan shall ensure</p>	

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
		<p>commencement of construction of traffic improvements prior to degradation of LOS below the applicable County or City standards. This mitigation recognizes that should any of the measures below benefit other projects, a reimbursement agreement may be considered.</p> <p>A. <i>Zinfandel Drive and White Rock Road</i> – The applicant shall be responsible for a fair share of this measure. Provide separate dual right turns on the westbound approach so the westbound approach has two left turn lanes, two through lanes and two right turn lanes. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation and may be up to 100% of the cost of the improvements.</p> <p>B. <i>Sunrise Boulevard and White Rock Road</i> – Provide overlap phasing on the eastbound and westbound approaches.</p> <p>C. <i>Sunrise Boulevard and Douglas Road</i> – Provide overlap phasing on the westbound approach.</p> <p>D. <i>Sunrise Boulevard and Jackson Road</i> – Provide dual through lanes on the eastbound and westbound approaches. <u>Provide an eastbound through lane, and eastbound through-right turn shared lane, and an eastbound left turn lane; a northbound left turn lane and a northbound through-right turn shared lane; two westbound through lanes, a westbound right turn lane, and a westbound left turn lane; a southbound through lane, a southbound left turn lane, and a southbound right turn lane.</u></p> <p>E. <i>Grant Line Road and Jackson Road</i> – The applicant shall be responsible for a fair share of this measure. Provide a left turn lane and a through-right shared lane on the eastbound and westbound approaches.</p>	

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
		<p>Provide a separate left turn lane, a through lane and a separate right turn lane on the northbound and southbound approaches. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation and may be up to 100% of the cost of the improvements.</p> <p>F. <i>Grant Line Road and Kiefer Boulevard</i> – Construct a new traffic signal. Provide a left turn lane, a through lane and a through-right turn shared lane on the northbound and southbound approaches; provide a left turn lane and a through-right turn shared lane on the eastbound and westbound approaches.</p> <p>G. <i>Grant Line Road and Douglas Road</i> – Construct a new traffic signal. Provide dual left turn lanes and a separate through lane on the northbound, a through lane and a through-right turn shared lane on the southbound approach, and a separate left turn lane and a free-right turn lane on the eastbound approach. Also an extra southbound departure lane is needed for the eastbound free-right movement. To be consistent with the segment mitigations a second northbound through lane is included.</p> <p>H. <i>Grant Line Road and North Loop Road</i> – Construct a new traffic signal. Provide two through lanes and a separate right turn lane on the northbound approach, dual left turn lanes and one through on the southbound approach, and one left turn lane and one free-right turn lane on the westbound approach. Also an extra northbound departure lane is needed for the westbound free-right movement. To be consistent with the segment mitigations a second southbound through lane is included.</p> <p>I. <i>Grant Line Road and Chrysanthy Boulevard</i> –</p>	

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
		<p>Construct a new traffic signal. Provide a through lane and a separate right turn lane on the northbound approach, dual left turn lanes and a through lane on the southbound approach, and dual left turn lanes and one right turn lane on the westbound approach. To be consistent with the segment mitigations a second northbound and southbound through lane is included. Also provide two westbound through lanes for when Chrysanthy Boulevard is connected through Rancho Cordova.</p> <p>J. <i>Grant Line Road and University Boulevard</i> – Construct a new traffic signal. Provide a through lane and a separate free-right turn lane on the northbound approach, dual left turn lanes and one through lanes on the southbound approach, and dual left turn lanes and a right turn lane on the westbound approach. Also an extra eastbound departure lane is needed for the northbound free-right movement. To be consistent with the segment mitigations a second northbound and southbound through lane is included.</p> <p>TR-3. The applicant shall construct or fund, as set forth in the phasing and financing plan approved by the Sacramento County Department of Transportation, the below mitigation measures. The phasing and financing plan shall ensure commencement of construction of traffic improvements prior to degradation of LOS below applicable County standards. This mitigation recognizes that should any of the measures below benefit other projects, a reimbursement agreement and/or a fee credit to the applicant may be considered.</p> <p>A. <i>Prairie City Road from US 50 to White Rock Road</i> – Increase roadway capacity by upgrading the capacity class for this segment from a rural highway without</p>	

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
		<p>shoulders to a rural highway with shoulders.</p> <p>TR-4. The applicant shall construct or fund, as set forth in the phasing and financing plan approved by the Sacramento County Department of Transportation, and in consultation with the City of Elk Grove, the below mitigation measures. The phasing and financing plan shall ensure commencement of construction of traffic improvements prior to degradation of LOS below the applicable County or City standards. This mitigation recognizes that should any of the measures below benefit other projects, a reimbursement agreement may be considered.</p> <p>A. <i>Grant Line Road from Sheldon Road to Calvine Road</i> – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with moderate access control.</p> <p>TR-5. The applicant shall construct or fund, as set forth in the phasing and financing plan approved by the Sacramento County Department of Transportation, and in consultation with the City of Rancho Cordova, the below mitigation measures. The phasing and financing plan shall ensure commencement of construction of traffic improvements prior to degradation of LOS below the applicable County or City standards. This mitigation recognizes that should any of the measures below benefit other projects, a reimbursement agreement may be considered.</p> <p>A. <i>Grant Line Road from Jackson Road to Kiefer Boulevard</i> – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with moderate access control.</p> <p>B. <i>Grant Line Road from Kiefer Boulevard to University Boulevard</i> – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity</p>	

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
		<p>class to an arterial with moderate access control.</p> <p>C. <i>Grant Line Road from University Boulevard to Chrysanthy Boulevard</i> – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with moderate access control.</p> <p>D. <i>Grant Line Road from Chrysanthy Boulevard to North Loop</i> – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with moderate access control.</p> <p>E. <i>Grant Line Road from North Loop to Douglas Road</i> – Increase roadway capacity by widening this segment to 6 lanes and upgrading the capacity class to an arterial with moderate access control.</p> <p>F. <i>Grant Line Road from Douglas Road to White Rock Road</i> – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with moderate access control.</p> <p>G. <i>Jackson Road from Sunrise Boulevard to Grant Line Road</i> – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with moderate access control.</p> <p>H. <i>Douglas Road from Sunrise Boulevard to Rancho Cordova Parkway</i> – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with moderate access control.</p> <p>I. <i>Douglas Road from Rancho Cordova Parkway to Grant Line Road</i> – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity</p>	

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
		<p>class to an arterial with moderate access control <u>between Americanos Boulevard and Grant Line Road, and by adding two westbound travel lanes to Douglas between Rancho Cordova Parkway to Americanos Boulevard. Construct interim sidewalk improvements (typically a detached asphaltic concrete path) and bicycle lanes.</u></p> <p>TR-6. The applicant shall be responsible for funding a fair share of the construction costs of the below mitigation measures. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation, in consultation with Caltrans.</p> <p>A. <i>Westbound US 50 from Hazel Avenue to Sunrise Boulevard</i> – Add an auxiliary lane.</p> <p>B. <i>Eastbound US 50 from Sunrise Boulevard to Hazel Avenue</i> – Add an auxiliary lane.</p> <p>TR-7. The applicant shall be responsible for a fair share of the below mitigation measures. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation and may be up to 100% of the cost of the improvements.</p> <p>A. Construct <u>interim sidewalk improvements (typically a detached asphaltic concrete path)</u> and bicycle lanes along Grant Line Road from Douglas Road to White Rock Road and on Douglas Road from Rancho Cordova Parkway to Grant Line Road, <u>to the satisfaction of the Sacramento County Department of Transportation.</u></p>	
Cumulative Plus Project			
The Project results in significant impacts to five City of	S	TR-8. The applicant shall be responsible for a fair share of the	SU

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
<p>Rancho Cordova intersections, the Zinfandel and US 50 freeway ramp intersection, one new Project roadway segment, four City of Rancho Cordova roadway segments, six Caltrans freeway segments, and four Caltrans freeway ramps. Mitigation is included which will improve operating conditions to acceptable levels for most of these facilities, but there are some impacts for which no feasible mitigation exists. These are: the Zinfandel and US 50 freeway ramp intersection, the intersection of Sunrise Boulevard and International Drive, Grant Line Road from North Loop Road to Douglas Road, eastbound US 50 from Watt Avenue to Bradshaw Road, eastbound US 50 from Rancho Cordova Parkway to Hazel Avenue, westbound US 50 from Hazel Avenue to Rancho Cordova Parkway, westbound US 50 from Mather Field Road to Power Inn/Howe Avenue, eastbound US 50 Exit Ramp to Watt Avenue, eastbound US 50 Slip Ramp Entrance from Watt Avenue, westbound US 50 Exit Ramp to Watt Avenue, and westbound US 50 Slip Ramp Entrance from Watt Avenue.</p>		<p>below mitigation measures. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation and may be up to 100% of the cost of the improvements.</p> <p>A. <i>School Access and North Loop Road</i> – Provide dual eastbound left turn lanes.</p> <p>TR-9. The applicant shall be responsible for a fair share of the below mitigation measures. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation, in consultation with the City of Rancho Cordova, and may be up to 100% of the cost of the improvements.</p> <p>A. <i>Sunrise Boulevard and Douglas Road</i> – Provide overlap phasing on the eastbound and westbound right turns.</p> <p>B. <i>Grant Line Road and Douglas Road</i> – Provide a third southbound through lane and overlap phasing on the eastbound right turn lane. To be consistent with the segment mitigations a third northbound through lane is included.</p> <p>C. <i>Grant Line Road and North Loop Road</i> – Provide a westbound free-right turn lane. Also an extra northbound departure lane is needed for the westbound free-right movement.</p> <p>D. <i>Grant Line Road and University Boulevard</i> – Provide a northbound free-right turn lane. Also an extra eastbound departure lane is needed for the northbound free-right movement.</p> <p>TR-10. The applicant shall be responsible for a fair share of the below mitigation measures. The fair share shall be</p>	

Impacts	Level of Significance Before Mitigation ¹	Mitigation Measure	Level of Significance After Mitigation
		<p>calculated to the satisfaction of Sacramento County Department of Transportation and may be up to 100% of the cost of the improvements.</p> <p>A. <i>North Loop Road from Street D to Street F</i> – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with low access control.</p> <p>TR-11. The applicant shall be responsible for a fair share of the below mitigation measures. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation, in consultation with the City of Rancho Cordova, and may be up to 100% of the cost of the improvements.</p> <p>A. <i>Grant Line Road from Rancho Cordova Parkway to Kiefer Boulevard</i> – Increase roadway capacity by widening this segment to a 6 lane arterial with moderate access control.</p> <p>B. <i>Grant Line Road from Kiefer Boulevard to University Boulevard</i> – Increase roadway capacity by widening this segment to a 6 lane arterial with moderate access control.</p> <p>C. <i>Grant Line Road from North Loop to Douglas Road</i> – Increase roadway capacity by widening this segment to a 6 lane arterial with moderate access control.</p> <p>D. <i>Grant Line Road from Douglas Road to White Rock Road</i> – Increase roadway capacity by widening this segment to a 6 lane arterial with moderate access control.</p>	

TERMINOLOGY USED IN THIS EIR

This Draft EIR uses the following terminology to describe environmental effects of the project.

- **Significance Criteria.** A set of criteria used by the lead agency to determine at what level, or “threshold,” an impact would be considered significant. Significance criteria used in this EIR include those that are set forth in the CEQA Guidelines, or can be discerned from the CEQA Guidelines; criteria based on factual or scientific information; criteria based on regulatory standards of local, state, and federal agencies; and criteria based on goals and policies identified in the Sacramento County General Plan.
- **Less-than-Significant Impact.** A project impact is considered less than significant when it does not reach the standard of significance and would therefore cause no substantial change in the environment. No mitigation is required for less-than-significant impacts.
- **Potentially Significant Impact.** A potentially significant impact is a substantial, or potentially substantial, adverse change in the environment. Physical conditions which exist within the area will be directly or indirectly affected by the proposed project. Impacts may also be short-term or long-term. A project impact is considered significant if it reaches the threshold of significance identified in the EIR. Mitigation measures may reduce a potentially significant impact to less than significant.
- **Significant Unavoidable Impact.** A project impact is considered significant and unavoidable if it is significant and cannot be avoided or mitigated to a less-than-significant level once the project is implemented.
- **Cumulative Significant Impact.** A cumulative impact can result when a change in the environment results from the incremental impact of a project when added to other related past, present or reasonably foreseeable future projects. Significant cumulative impacts may result from individually minor but collectively significant projects.
- **Mitigation.** Mitigation measures are revisions to the project that would minimize, avoid, or reduce a significant effect on the environment. CEQA Guidelines §15370 identifies 5 types of mitigation:
 - a) Avoiding the impact altogether by not taking a certain action or parts of an action.
 - b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
 - c) Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment.
 - d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
 - e) Compensating for the impact by replacing or providing substitute resources or environments.

MITIGATION MONITORING AND REPORTING PROGRAM

Comply with the Mitigation Monitoring and Reporting Program (MMRP) for this project as follows:

1. It shall be the responsibility of the project applicant to reimburse the County for all expenses incurred in the implementation of the Mitigation Monitoring and Reporting Program (MMRP), including any necessary enforcement actions. The applicant shall pay an initial deposit of **\$15,000.00**, which includes administrative costs of **\$800.00**. Over the course of the project, the Environmental Coordinator will regularly conduct cost accountings and submit invoices to the applicant when the County monitoring costs exceed the initial deposit.
2. Until the MMRP has been recorded and the estimated MMRP fee has been paid, no final parcel map or final subdivision map for the subject property shall be approved; and no encroachment, grading, building, sewer connection, water connection or occupancy permit from Sacramento County shall be approved.

PREFACE

The Notice of Preparation (NOP) for the Project was published on June 22, 2010. An agency scoping meeting was held on July 19, 2010 at the Governor's Office of Planning and Research and a public scoping meeting was held on August 3, 2010 at the Sacramento County Department of Transportation Traffic Operations Center. At the time of NOP publication, the 2030 General Plan had not been approved, and it was unclear when the hearing process would be completed. The 2030 General Plan was adopted on November 9, 2011, and as a consequence this EIR includes the current adopted General Plan policies, not the policies of the 1993 General Plan which were in effect when the NOP was released.

Along with a Notice of Completion (NOC), the Draft EIR was released to the Governor's Office of Planning and Research to begin the public review period (Public Resources Code, Section 21161) on January 9, 2012. Concurrent with the NOC, the County also provided public notice of the availability of the Draft EIR for public review through publication in a local newspaper and with notices which were sent to individuals who had requested such notification. The written comment period began on January 9, 2012 was set to close on February 22, 2012 at 5 p.m, but was extended to March 5, 2012 at the request of the California Department of Transportation (Caltrans). Opportunity for oral comment on the DEIR was offered at the Sacramento County Planning Commission on September 24, 2012, at which time the comment period was closed and staff was directed to prepare this Final EIR.

Changes to text within the EIR follow two conventions to highlight them for the reader: text which is **bold and underlined** is new, and text which is shown in ~~striketrough~~ is deleted. There are also two chapters, the Project Description and the Traffic and Circulation chapters, which contain new text at the very outset of the chapter which provides some explanation of changes which are to be found in the chapter. Corrections to errors in pagination or format, spelling corrections, grammatical corrections, and other such editorial changes that are unrelated to the substantive content of the EIR are not highlighted. Also note that Sacramento County has undergone some internal organizational changes, and that Departmental and other name changes are reflected in the EIR but are not highlighted in the text.

The EIR and all appended materials are available electronically at www.dera.saccounty.net; under the "Major Projects" heading on the right-hand side of the page where reviewers will find a link titled "Cordova Hills". The direct link is: <http://www.dera.saccounty.net/PublicNotices/SQLView/ProjectDetails/tabid/71/Default.aspx?ProjectID=35697>.

The Board of Supervisors will use the Final EIR as one of the informational sources used to determine whether to approve or deny the Project.

1 PROJECT DESCRIPTION

Throughout the entire EIR, all references to the Cordova Hills Community Services District have been changed to Cordova Hills Local Services District. This latter term is more generic, and the change was made to reflect the fact that the government structure which ultimately provides services pursuant to the Urban Services Plan could be formed in a number of ways: by the creation of a Community Services District, creation of a new County services area, or a combination of the two. The proposed General Plan Transportation Plan Amendment exhibit and the proposed Large Lot Tentative Subdivision Map have also been updated; the DEIR version is shown with an “X” overlaid and the updated version follows immediately after. These two exhibits were changed to reflect conversion of the northern portion of Town Center Boulevard (north of North Loop) to the Chrysanthy arterial street section, at the request of the Sacramento County Department of Transportation. The Transportation Plan was also amended to show a wildlife grade separation.

PROJECT LOCATION

The proposed Project is located in the southeastern portion of Sacramento County on approximately 2,669 acres (Plate PD-1, Regional Location), adjacent to the City of Rancho Cordova (Plate PD-2, East County Location Map). The area is designated by the Sacramento County General Plan as General Agriculture (80 acres) and is currently zoned for AG-80 agricultural uses (Plate PD-3, Existing Zoning). Most of the Project is within the Urban Services Boundary (USB), but outside the Urban Policy Area (UPA). Grant Line Road, a two-lane thoroughfare, extends along the western Project boundary. The eastern side of the Project abuts Carson Creek and the northern boundary line of the property is Glory Lane, which is a two-lane gravel road that intersects Grant Line Road just south of Douglas Road. The Kiefer Landfill and the 2,000-foot buffer zone protecting the landfill from urban encroachment are southwest of the Project. Plate PD-4 is an aerial photograph of the Project area, taken in the year 2009.

ASSESSOR’S PARCEL NUMBERS

073-0040-020 through -026, 073-0040-029, 073-0050-023, and 073-0050-052

PROJECT PROPONENTS

Applicant:

Cordova Hills Ownership Group
Attn: Ron Alvarado

Owner:

Conwy, LLC; Cielo LLC; and Grantline LLC
Attn: Ron Alvarado

Plate PD-1: Regional Location

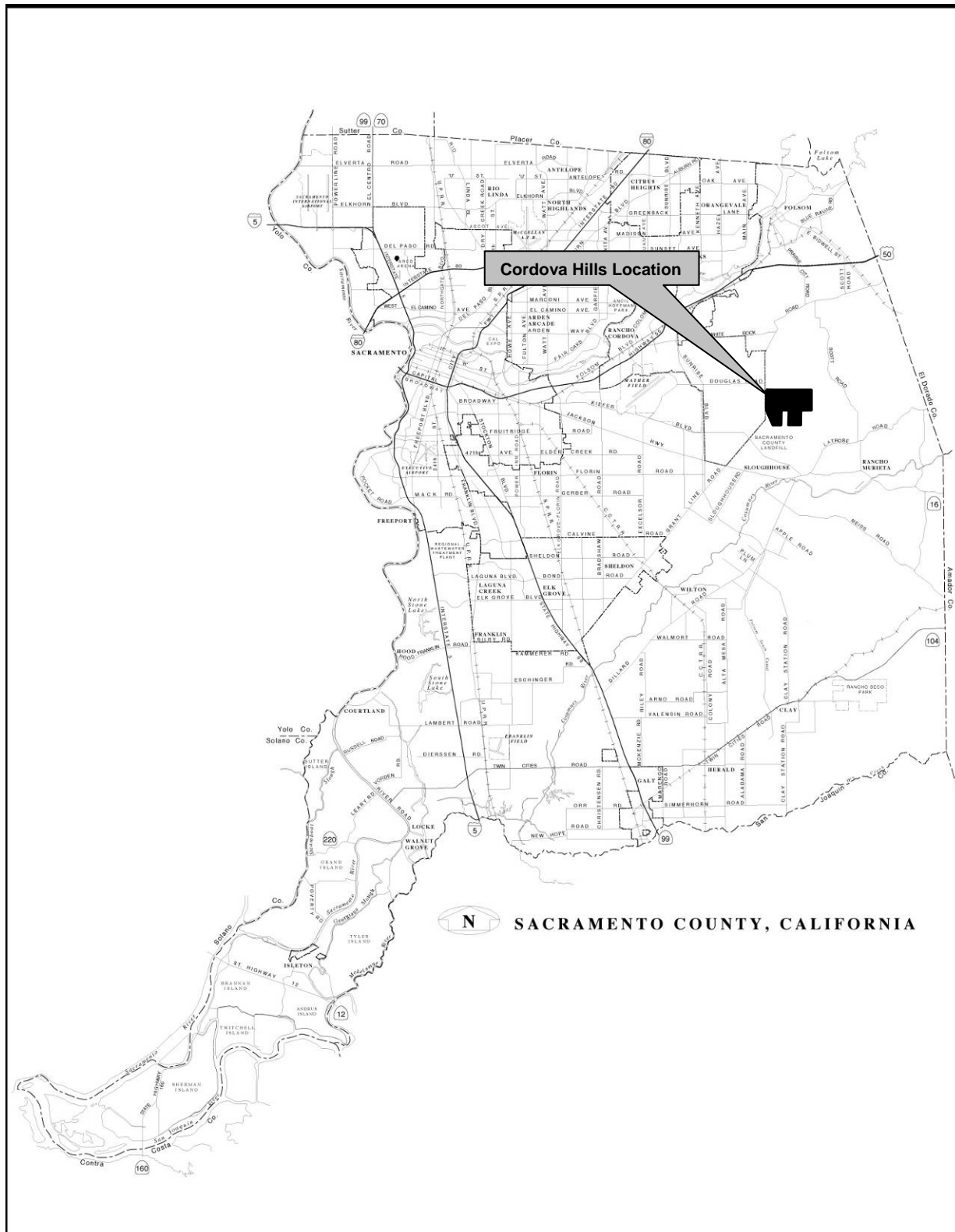


Plate PD-2: East County Location Map

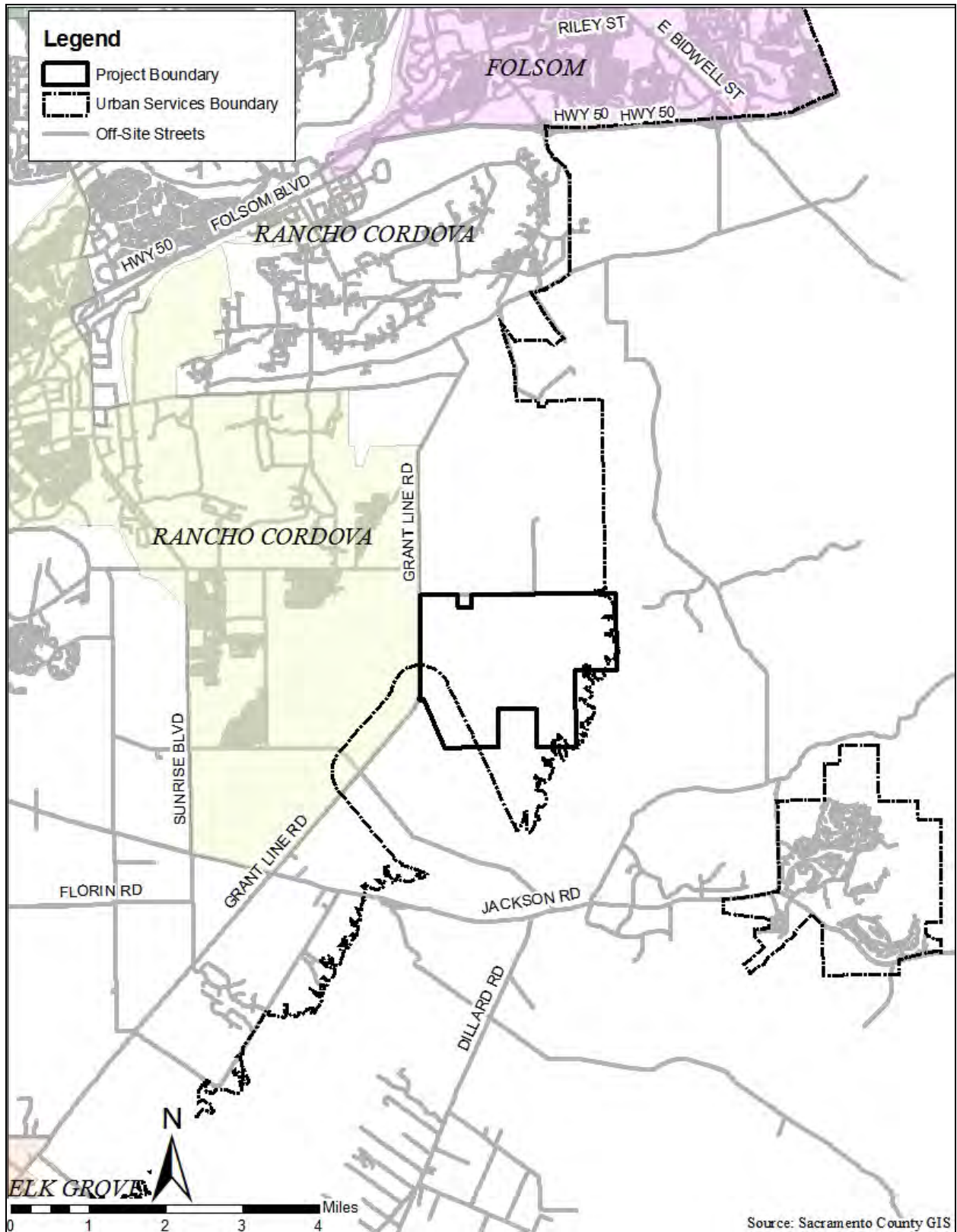


Plate PD-3: Existing Zoning

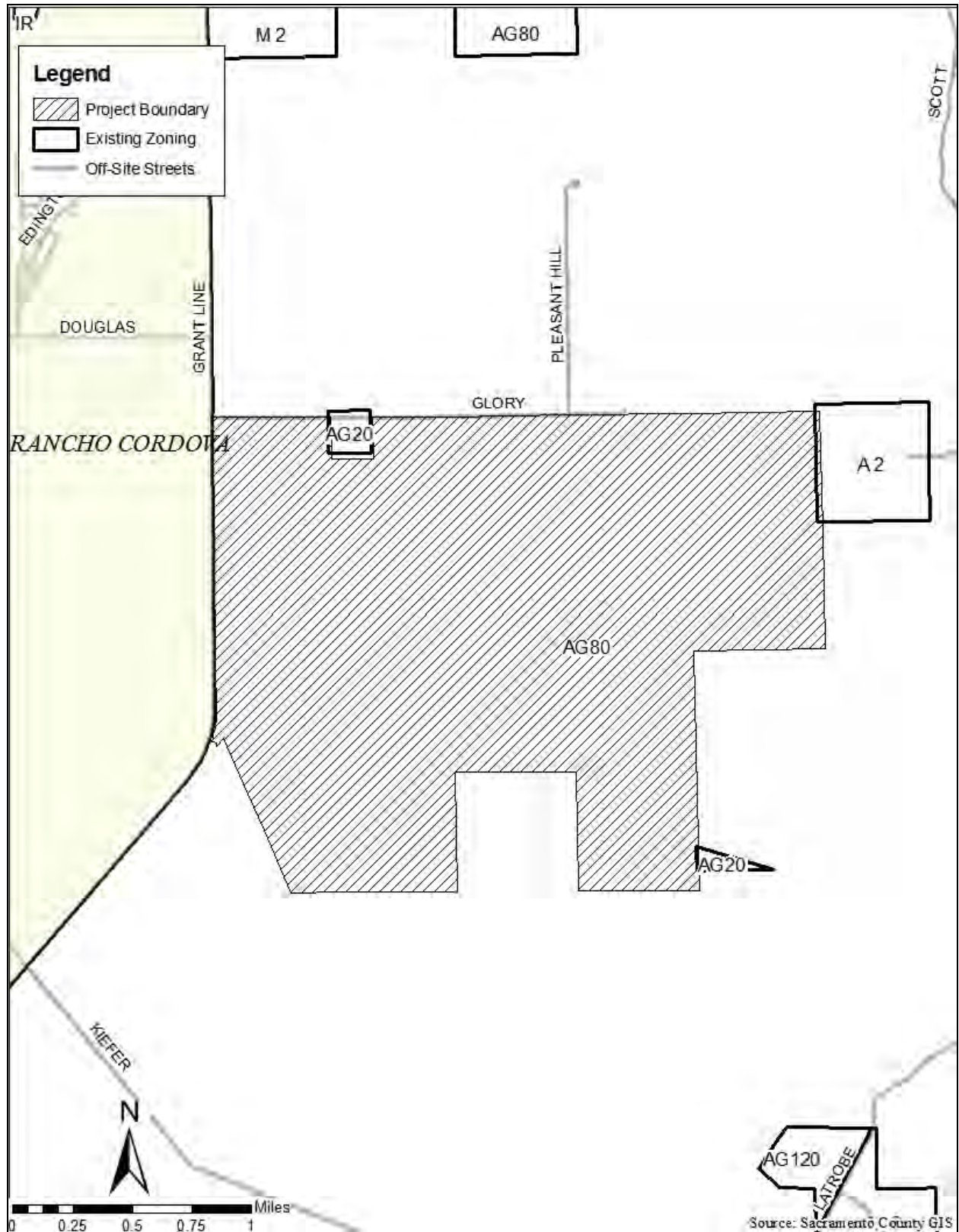
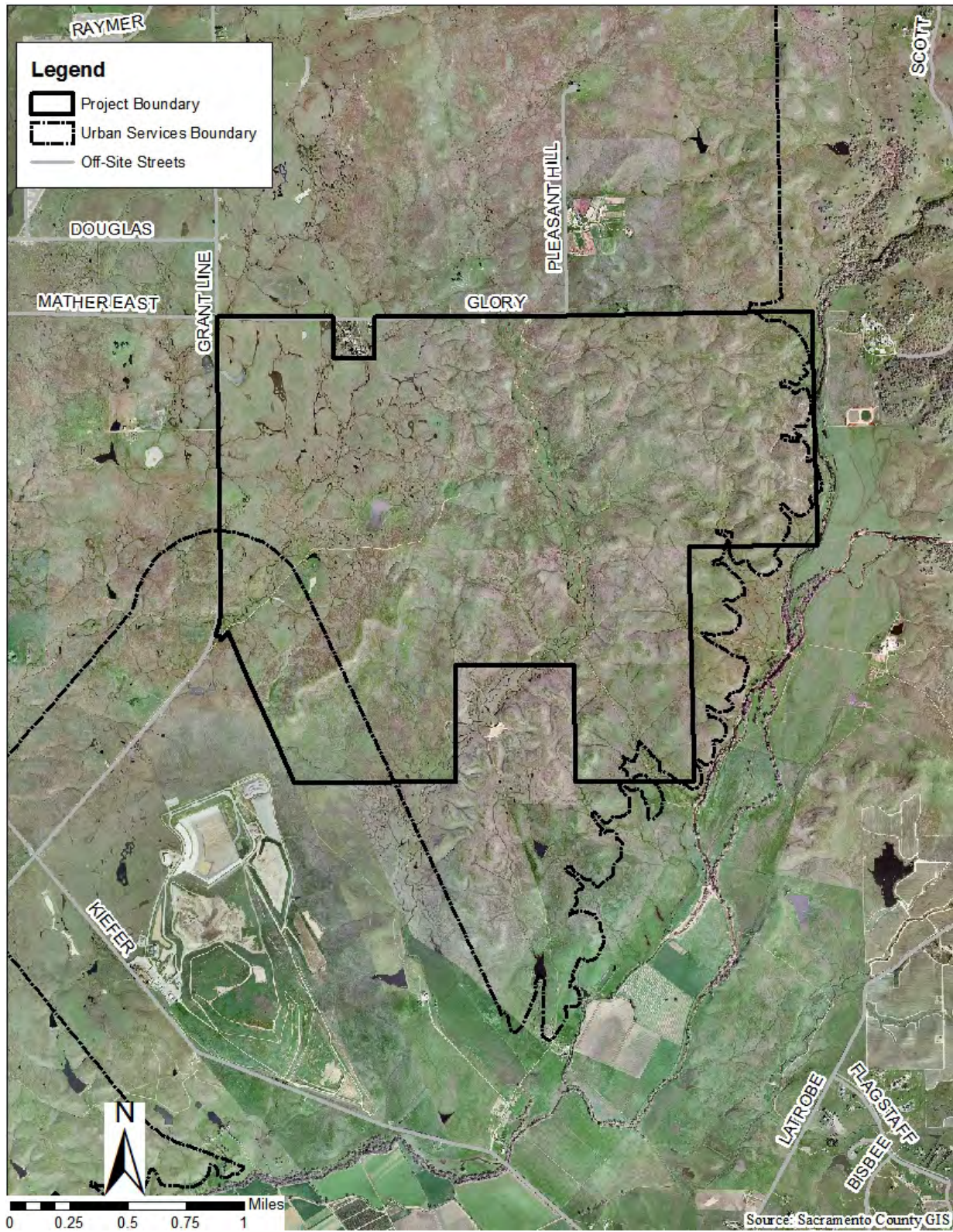


Plate PD-4: Aerial Photo of Project Site and Vicinity (Year 2009)



ENVIRONMENTAL SETTING

The Project site is in the Cosumnes Community within Sacramento County, just east of the City of Rancho Cordova boundary. The Cordova Hills site is currently used for cattle grazing, and does not contain any structures or other developments. The elevation of the site ranges from approximately 130 feet to 280 feet with the greatest elevation occurring at the proposed university/college campus center site bluff in the southeastern portion of the site, and the lowest elevation occurring at the foot of a bluff area in the southeastern corner of the site. The topography on the western third of the Project is relatively flat, consisting of a plateau next to Grant Line Road. The eastern edge of the plateau slopes down easterly into a north-south intermittent drainage that is located in the center of the Project site. The topography climbs back upward in elevation east of the drainage, at which point the site begins to undulate into gently rolling hills.

Habitats present on the site include grassland, wetland and vernal pool areas, and intermittent drainages and swales. The wetland delineation for the Project catalogues a total of 89 acres of surface waters. There are no trees on the site. Much of the wetland habitat is concentrated on the western side of the Project, within a large plateau area that is relatively flat. The swales and intermittent drainages are found throughout the Project area, but there is a main intermittent drainage running north-south which nearly bisects the site. Many of the swales and other drainages flow into this central waterway; this central waterway ultimately connects to Deer Creek. Carson Creek runs past the eastern site boundary, and the floodplain from the creek extends onto the Project site. Carson Creek eventually connects to Deer Creek, south of the Project site; Deer Creek is a tributary to the Cosumnes River. Other than the small area encumbered by the Carson Creek floodplain there are no federal 100-year floodplains identified within the Project area because federal floodplain mapping of the area has not been conducted at this time.

Grant Line Road is a two-lane thoroughfare that lies along the western Project boundary, and Glory Lane is a two-lane gravel road that lies along the northern boundary; there are no public roadways within the Project area. The surrounding lands are essentially undeveloped, but the land along the western property boundary is within the City of Rancho Cordova and has one approved and one proposed Specific Plan – the Sunridge Specific Plan and the proposed Suncreek Specific Plan. A 120-kilovolt Pacific Gas & Electric tower line traverses the eastern edge of the Project in a north-south direction adjacent and parallel to Carson Creek. The nearest public water and sewer lines are within Douglas Road, approximately ¾-mile to the northwest.

The Kiefer Landfill is located approximately 5,000 feet from the most southwesterly portion of the Project. The portion of the site which lies outside of the Urban Services Boundary lies partially within the 2,000-foot buffer surrounding Kiefer Landfill. This buffer was designated to protect the landfill from urban encroachment.

PROJECT PROPOSAL

The Cordova Hills Project is located on approximately 2,669 acres in southeastern Sacramento County, adjacent to the eastern city limits of Rancho Cordova. Most of the Project is within the Urban Services Boundary (USB). The portions outside of the USB will be preserved as open space or developed with uses compatible with agriculture. The Project includes a mix of residential uses from high density residential along the western edge of the Project to low density residential along the eastern boundary approaching the USB. The Project includes a Town Center commercial area adjacent to Grant Line Road. Just southeast of the Town Center is the proposed location of the university/college campus center. The Project includes mixed uses consisting of residential, office, retail, a university/college campus center, schools, parks, and a trail network (Plate PD-5, Cordova Hills Land Use Plan). Cordova Hills is organized into six distinct districts/villages (Town Center, University Village, Ridgeline, East Valley, Creekside, and Estates, Plate PD-6).

The Project will require amendments to the General Plan in order to include the site within the Urban Policy Area and recognize the proposed land uses, streets, and bikeways on the Land Use Diagram, Transportation Plan, and Bikeway Master Plan. The entire site will be rezoned from Agriculture (AG-80) to Special Planning Area (SPA). The adopted SPA will then become the primary land use document which stipulates uses and designs that are allowable within the Project area. There are 485 acres in the southeastern portion of the site that are under Williamson Act contract (Plate PD-15). The contract is in non-renewal and is expected to expire in 2016. The Project will also require an amendment of the Zone 40 Water Supply Master Plan, as the Project area is not included in the existing planning document, and includes a General Plan Amendment to allow limited water service outside of the Urban Services Boundary.

Project features are detailed after the exhibits and entitlement requests below:

1. A **General Plan Amendment** to move the Urban Policy Area (UPA) boundary east to include approximately 2,366.3 acres of the Cordova Hills site (Plate PD-7; **UPA would be moved from location at Grant Line Road to encompass all portions of the Project site within the USB**).
2. A **General Plan Amendment** to amend the Land Use Diagram from General Agriculture to Low Density Residential, Medium Density Residential, Commercial and Office, Recreation, Natural Preserve, and Public/Quasi Public for approximately 2,366.3 acres (Plate PD-7).
3. A **General Plan Amendment** to include a new policy in the Land Use Element to address the provision of limited public water service to serve uses potentially allowed by the Cordova Hills Special Planning Area for 251 acres located in proximity to the Kiefer Landfill, and an Amendment to LU-1 to reference this exception.
4. **Amend the General Plan Transportation Plan** to show new thoroughfares, arterials and collectors as shown in the Transportation General Plan Amendment Diagram dated October 17, 2011 (Plate PD-8).

5. **Amend the Bikeway Master Plan to add on- and off-street bikeways** as shown in the Bikeways Master Plan Amendment Diagram dated October 17, 2011 (Plate PD-9).
6. **A Zoning Ordinance Amendment** to adopt the Cordova Hills Special Planning Area (SPA) to incorporate a Master Plan including Design Guidelines and Development Standards. The SPA consists of a total of 2,668.7 acres in three distinct areas (Plate PD-5):
 - a. Cordova Hills urban areas – 2,119.7 acres
 - b. University/College Campus Center – 246.6 acres (Plate PD-11)
 - c. Buffer lands and floodplain outside the Urban Policy Area – 302.4 acres. The areas will be designated Agriculture, Recreation (sports park), and Avoidance in the SPA.
7. **A Large Lot Tentative Subdivision Map** to create 155 large parcels for the purpose of creating legal parcels corresponding to villages within Cordova Hills SPA and within the approximately 2,668.7-acre SPA (Plate PD-10).
8. **An Affordable Housing Plan** consisting of on-site construction of affordable units and/or land dedication (Plate PD-12).
9. **A Development Agreement** by and between the County of Sacramento and the landowners.
10. **Adoption of a Public Facilities Financing Plan** for Cordova Hills that includes a Capital Improvement Program and Financing Plan.
11. **A Street Resolution** to allow certain County streets within the Cordova Hills Land Use Master Plan to be based on less than a 40-foot right-of-way, pursuant to the State Streets and Highways Code Section 906.
12. **Zone 40 Boundary:** Amend Zone 40 boundary to include the 251 +/- acres of the Cordova Hills project which lies outside of the Urban Services Boundary (Plate PD-13).
13. **Zone 41 Boundary:** Amend Zone 41 boundary to include 251 +/- acres of the Cordova Hills project which lies outside of the Urban Services Boundary (Plate PD-14).
14. **Adoption of the Cordova Hills Water Supply Master Plan Amendment:** Amends the existing Zone 40 Water Supply Master Plan to include provision of water service to Cordova Hills.

In addition to the above entitlements, the Project will require the following discretionary actions which would take place subsequent to County Board of Supervisors' Project approval and that would require Local Agency Formation Commission (LAFCo) review, proceedings, and action:

1. Cordova Hills ~~Community~~ **Local** Services District (**CHLSD**): The Project includes the formation of a ~~Community~~ **Local** Services District that will provide parks and recreation services; administration and communication services (including community intranet); transportation management services; and operation and maintenance of Project parks, open space, trails, landscape corridors, transit,

and supplemental road maintenance. **The CHLSD will be either a community services district formed pursuant to Government Code Sections 61000, et. seq., or a new county service area formed under Government Code Sections 25210, et. seq., or a combination of both.**

2. Sacramento Regional County Sanitation District and Sacramento Area Sewer District: the Project is within the Sphere of Influence for both Districts but would need to be annexed.
3. County Service Area #4B (Parks): All parks within the Project will be owned and maintained by the Cordova Hills ~~Community~~ **Local** Services District, and so detachment from the County service area will be needed.
4. County Service Area #10: Transit services and administration of other trip-reducing services will be administered by the Cordova Hills ~~Community~~ **Local** Services District, and so detachment from the County service area will be needed.

With regard to the Cordova Hills ~~Community~~ **Local** Services District, several steps within the Local Agency Formation Commission (LAFCo) process would be required, including a Municipal Services Review (MSR) and application to LAFCo for creation of the ~~any Community Services District~~ and related Sphere of Influence (SOI) determination, prior to or concurrently with the other LAFCo actions requested. MSR reviews capture and analyze information about the governance structures, fiscal feasibility, and efficiencies of current and proposed service providers and identify opportunities for greater coordination and cooperation between providers. The MSR is a prerequisite to proposed reorganization and a Sphere of Influence determination, and is not subject to CEQA.

Concurrent with or subsequent to the MSR process, a Sphere of Influence application to LAFCo must be submitted. This process would include definition of the ultimate geographical boundaries of the Cordova Hills ~~Community~~ **Local** Services District, disclose the present and planned land uses in the area, describe the present and probable need of public services and facilities in the area, describe the present capacity of those services and facilities, disclose the presence of any relevant social or economic communities of interest in the area, and include MSR completion. The ~~CSD~~ **CHLSD** formation would also require the preparation of a Plan for Services (which is the Cordova Hills Urban Services Plan) **if a community services district is formed**, which would identify the timing, capacity, and means of financing for the proposed ~~CSD~~ **CHLSD** services. The formation of the ~~Cordova Hills a Community Services District~~ and the Sphere of Influence process is subject to CEQA; LAFCo has the sole authority and discretion to act on the formation of the ~~a Community Services District~~ and establishment of the SOI, and as lead agency will contribute to and rely on this EIR.

The proposed Project will be developed in three main phases, with the earliest phase encompassing the area closest to Grant Line Road, and the last phase farthest to the east. Refer to Plate PD-16, Phasing Diagram.

Plate PD-5: Proposed Cordova Hills Land Use Plan

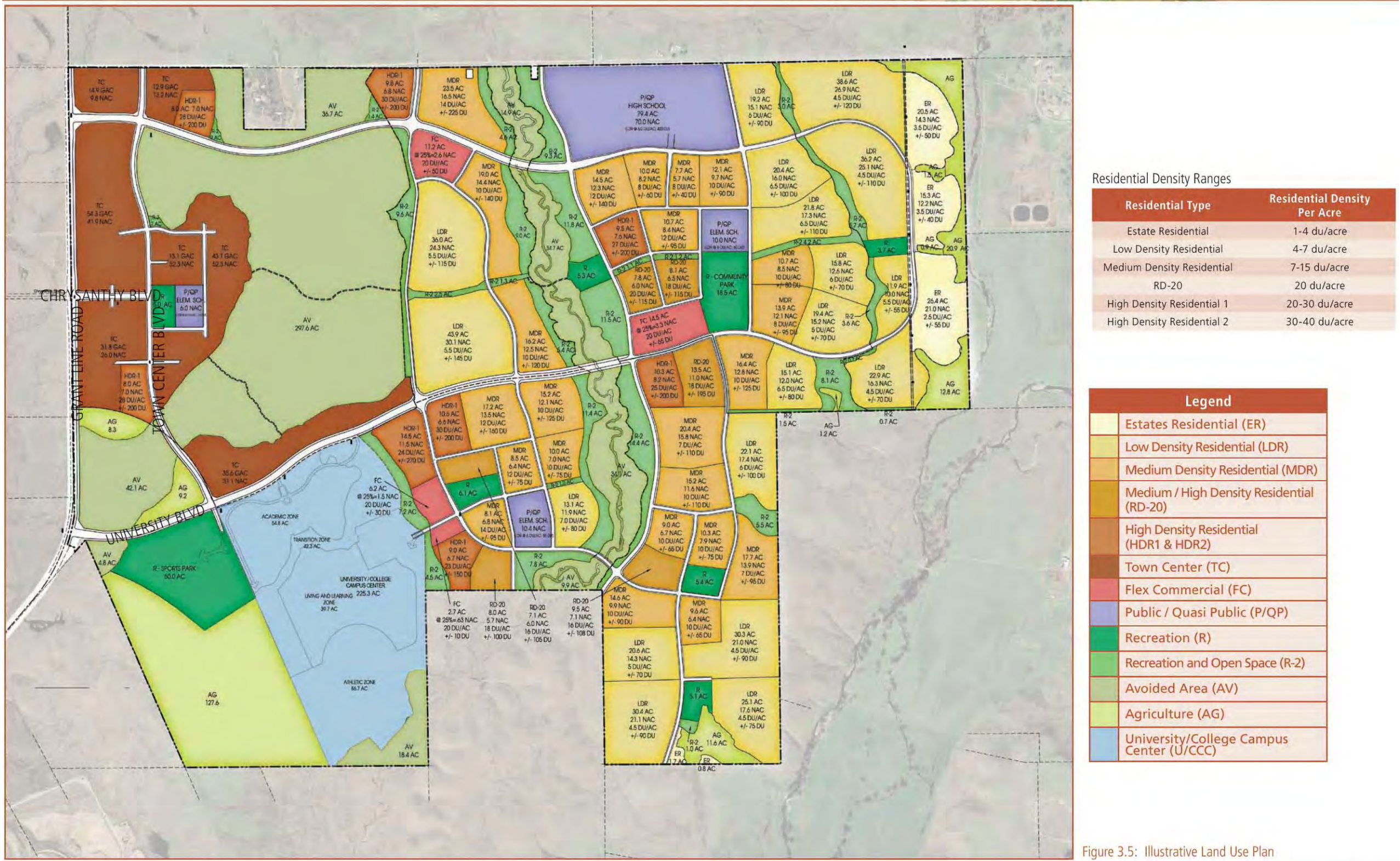


Plate PD-6: Cordova Hills Villages

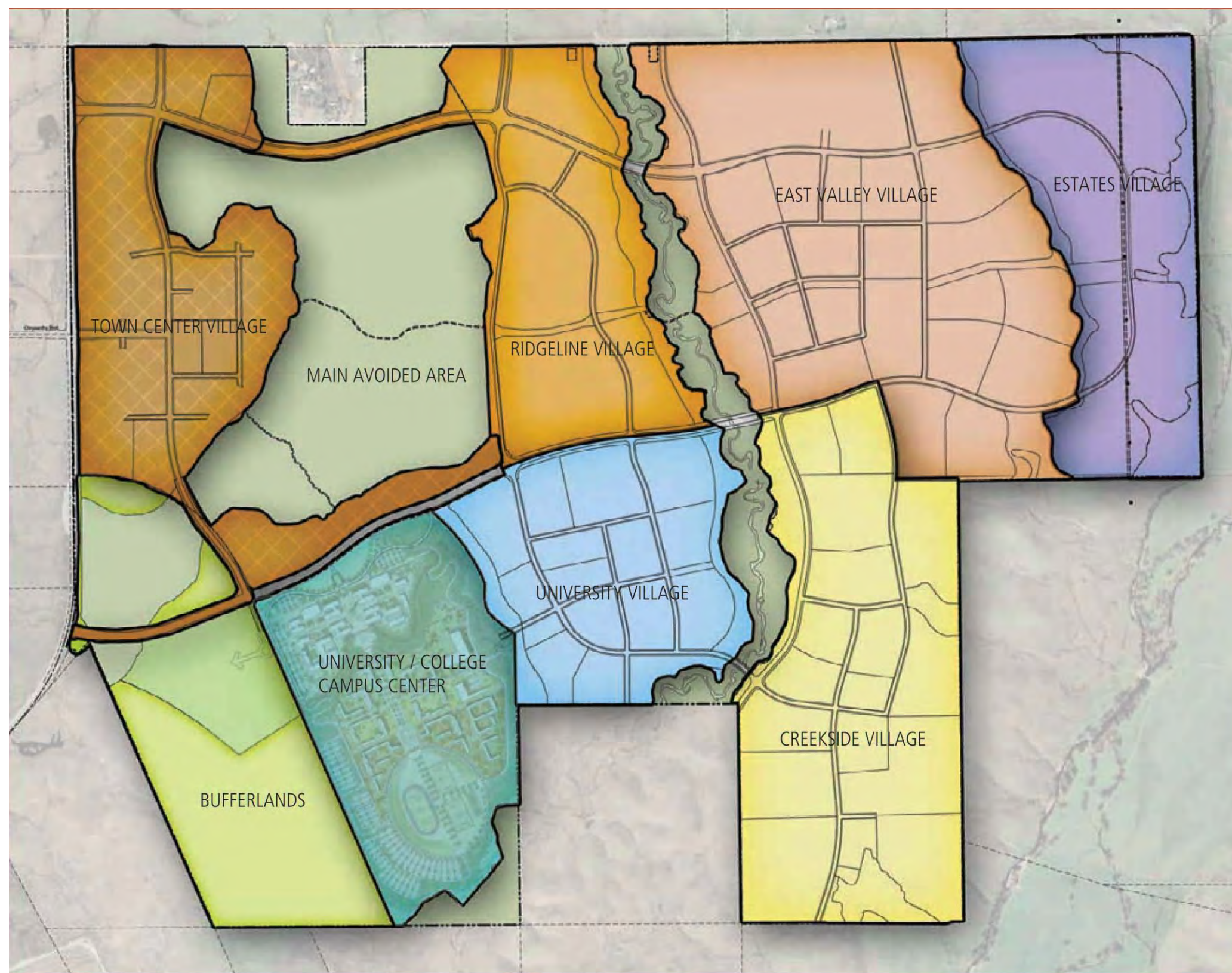
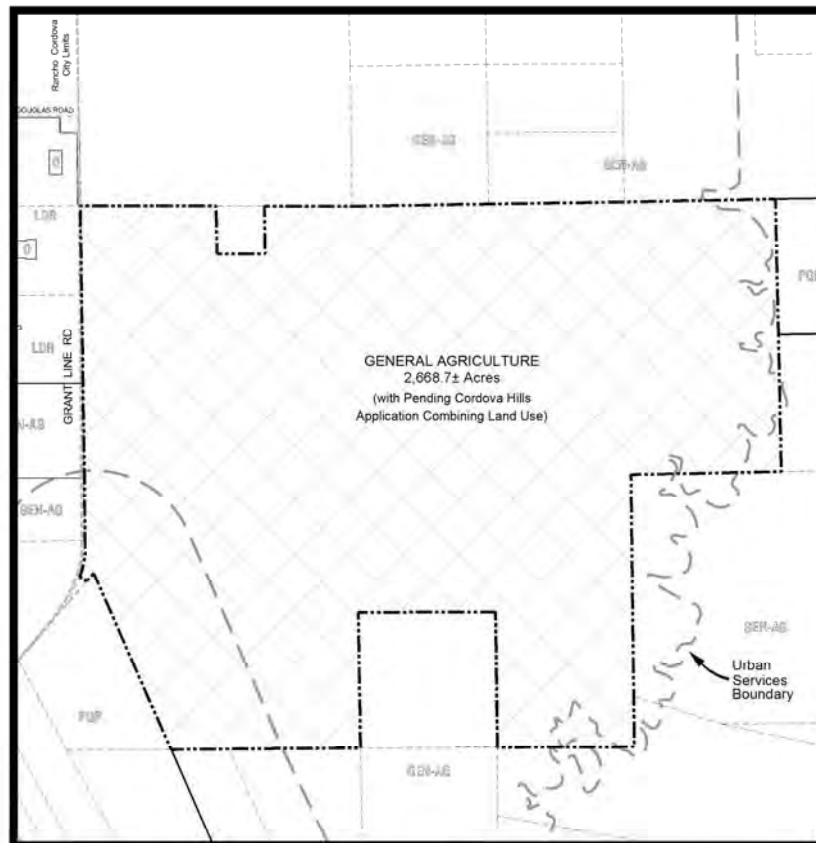
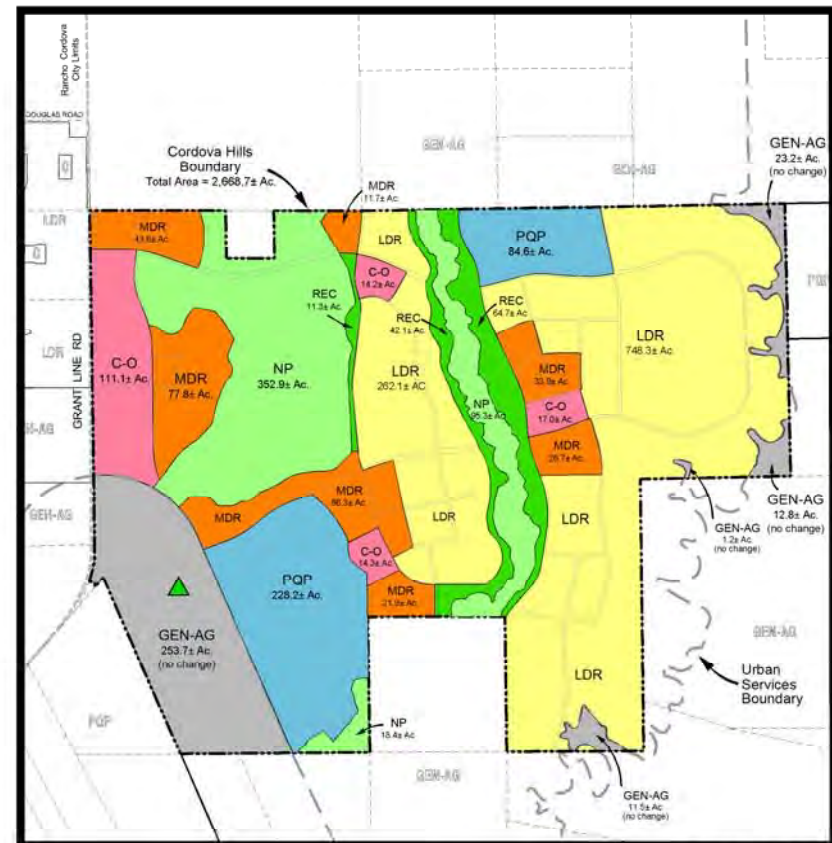


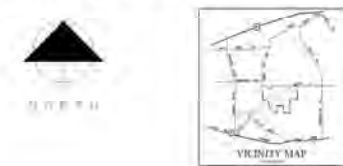
Plate PD-7: Proposed General Plan Amendment



Existing General Plan



Proposed General Plan



Legend

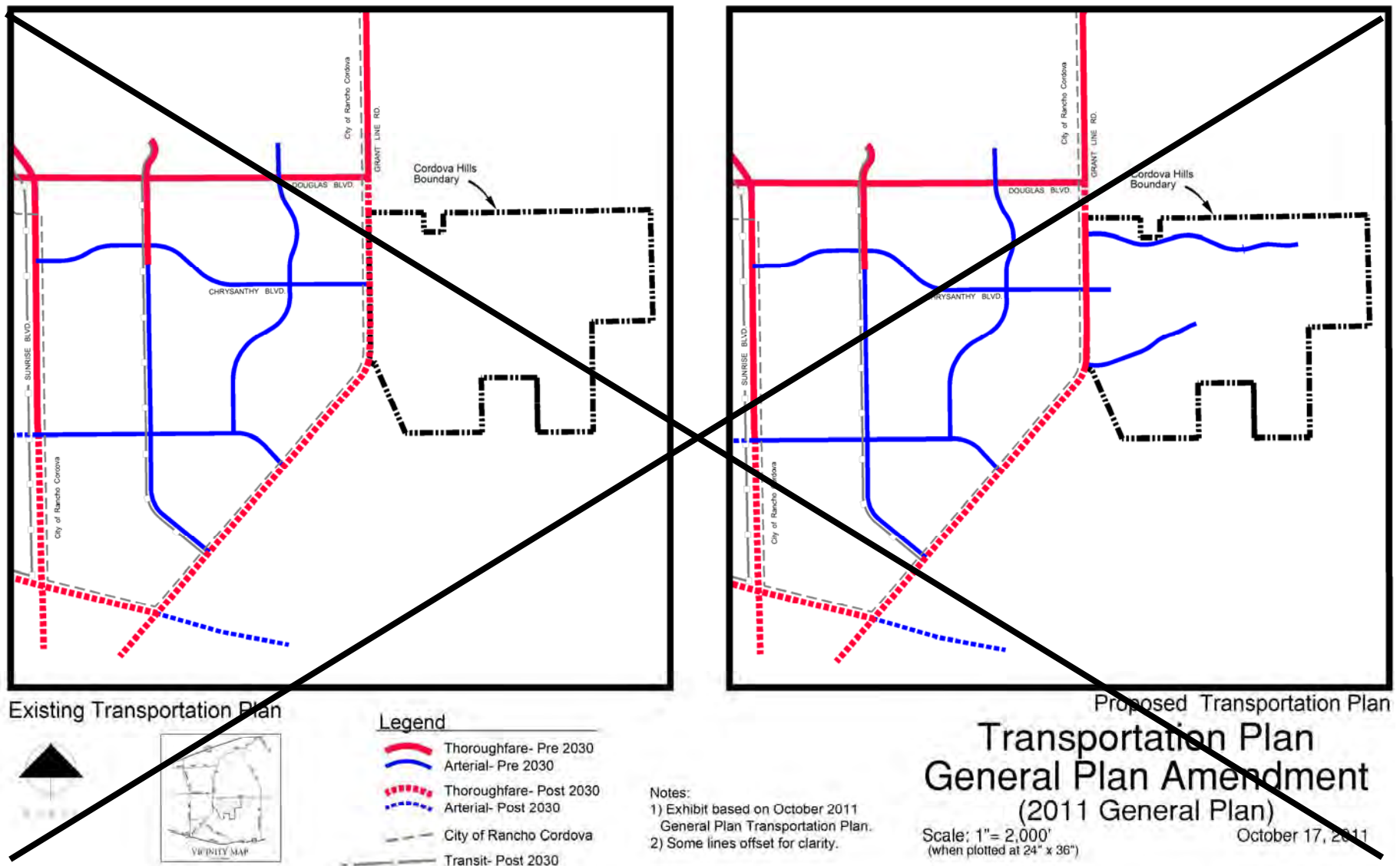
LDR	Low Density Residential (1-12 du/ac.)
MDR	Medium Density Residential (13-30 du/ac.)
C-O	Commercial & Offices
NP	Natural Preserve
REC	Recreation
GEN-AG	General Agriculture (80 Ac.)
PQP	Cemetery, Public & Quasi-Public
	Cordova Hills Boundary
	Rancho Cordova City Limit
	Urban Service Boundary
	Parks

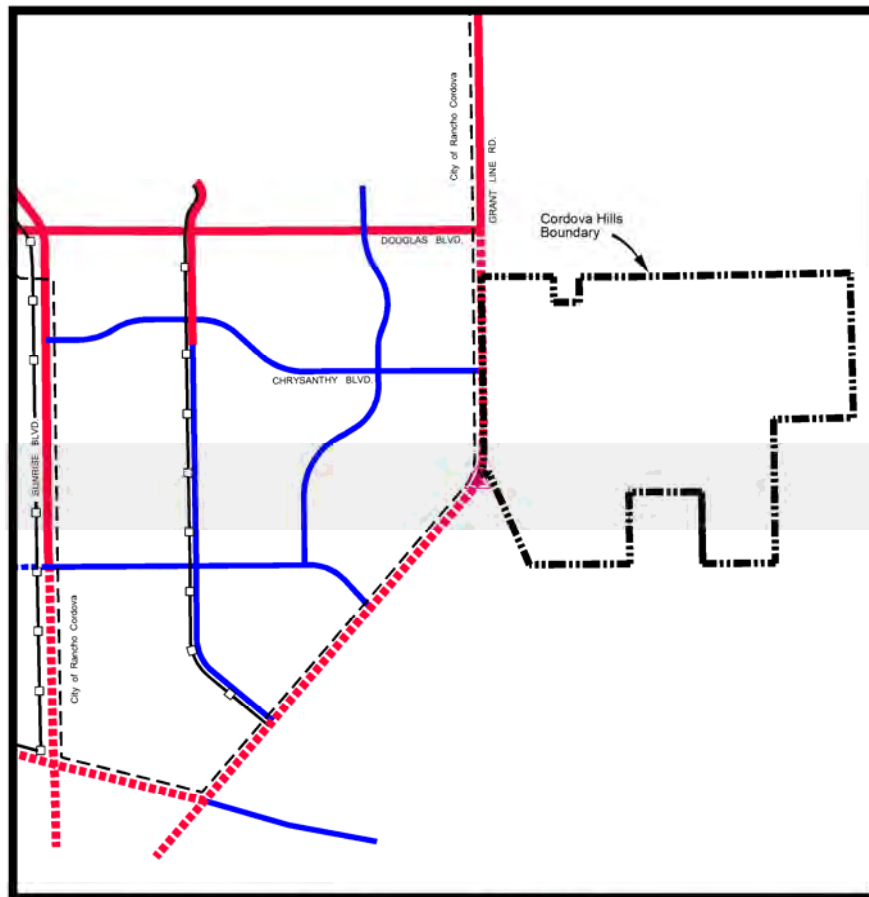
Land Use General Plan Amendment (2011 General Plan)

Scale: 1"= 1,000'

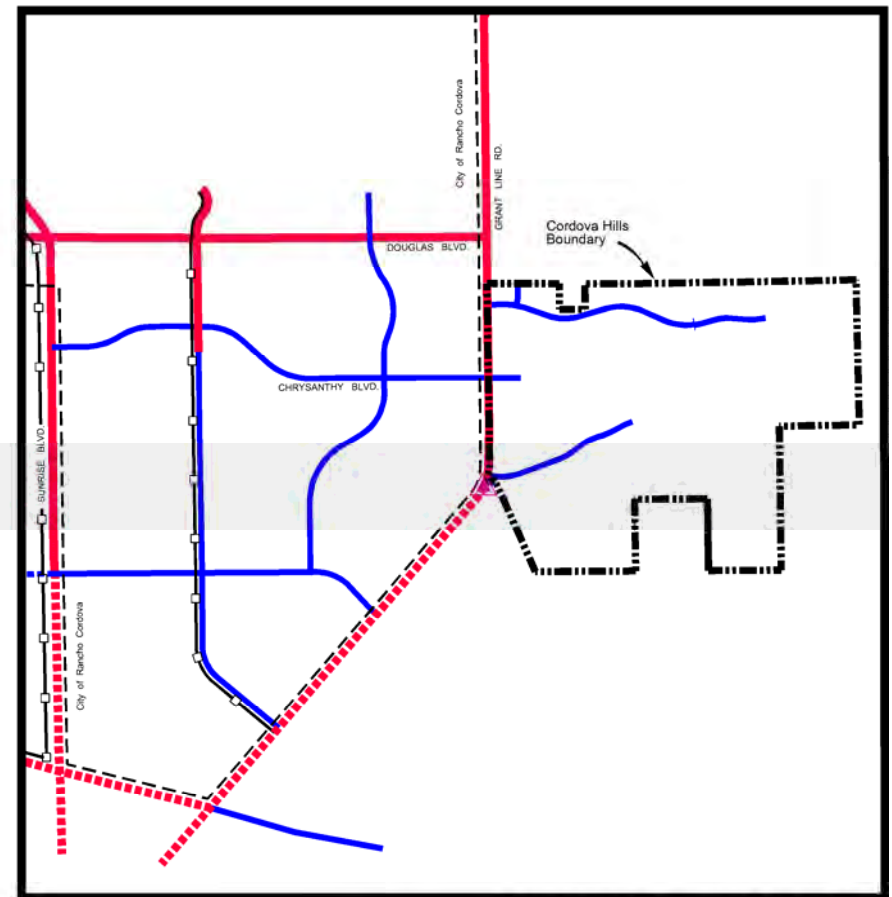
July 1, 2008
Revised: December 18, 2009
October 17, 2011

Plate PD-8: Proposed General Plan Transportation Diagram Amendment





Existing Transportation Plan



Proposed Transportation Plan

Legend

- Thoroughfare- Pre 2030
- Arterial- Pre 2030
- Thoroughfare- Post 2030
- Arterial- Post 2030
- City of Rancho Cordova
- Transit- Post 2030
- Wildlife Grade Separation

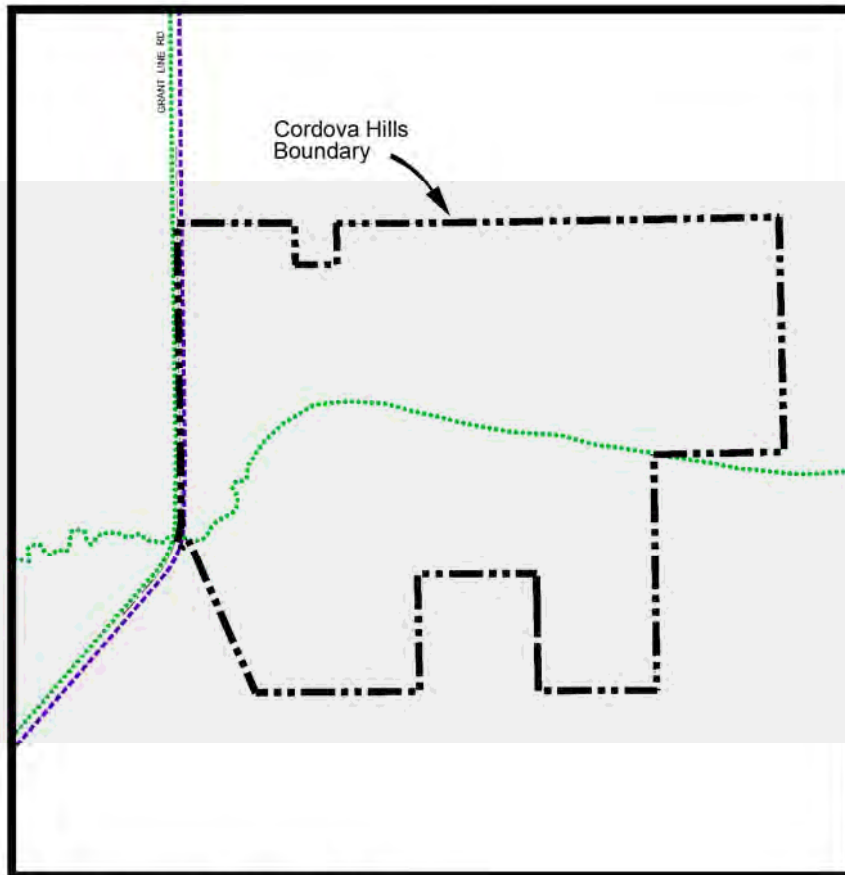
- Notes:
- 1) Exhibit based on November 2011 General Plan Transportation Plan.
 - 2) Some lines offset for clarity.

Transportation Plan General Plan Amendment (2011 General Plan)

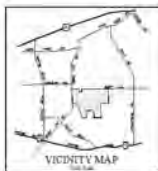
Scale: 1"= 2,000'
(when plotted at 24" x 36")

October 17, 2011
Revised: October 24, 2012

Plate PD-9: Proposed General Plan Bikeways Master Plan Amendment



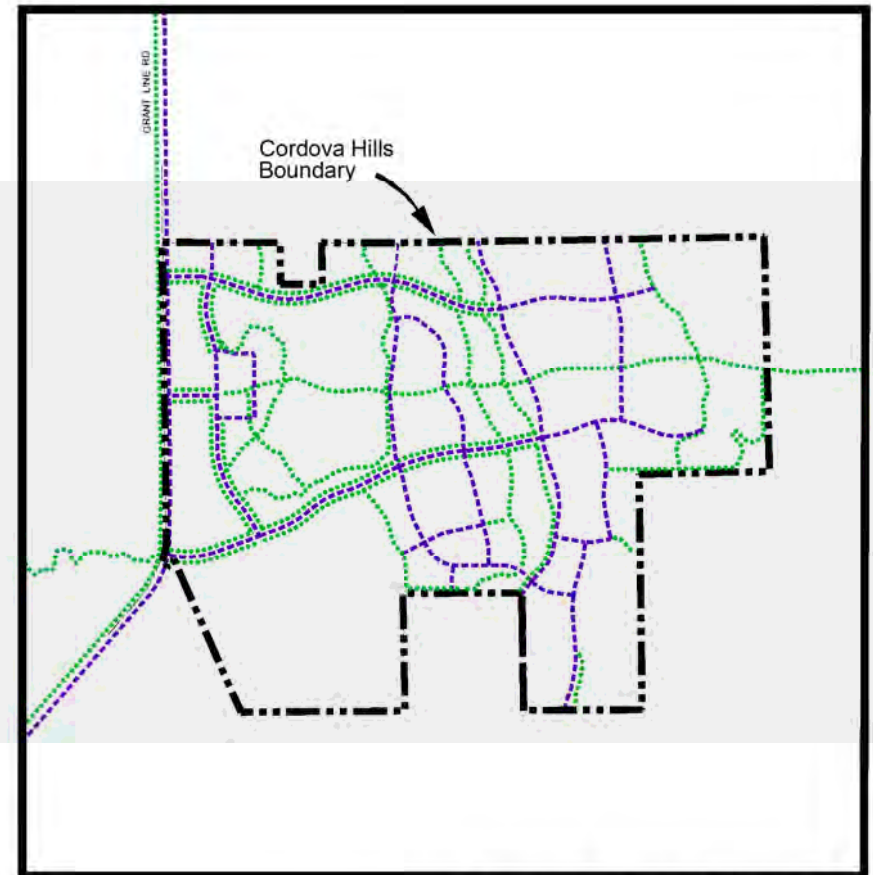
Existing Bikeway Master Plan
(adopted April, 2011)



Legend

- Future Class 1, Off-Street Bike Path
- Future Class 2, On-Street Bike Lane

Note: Some lines offset for clarity.



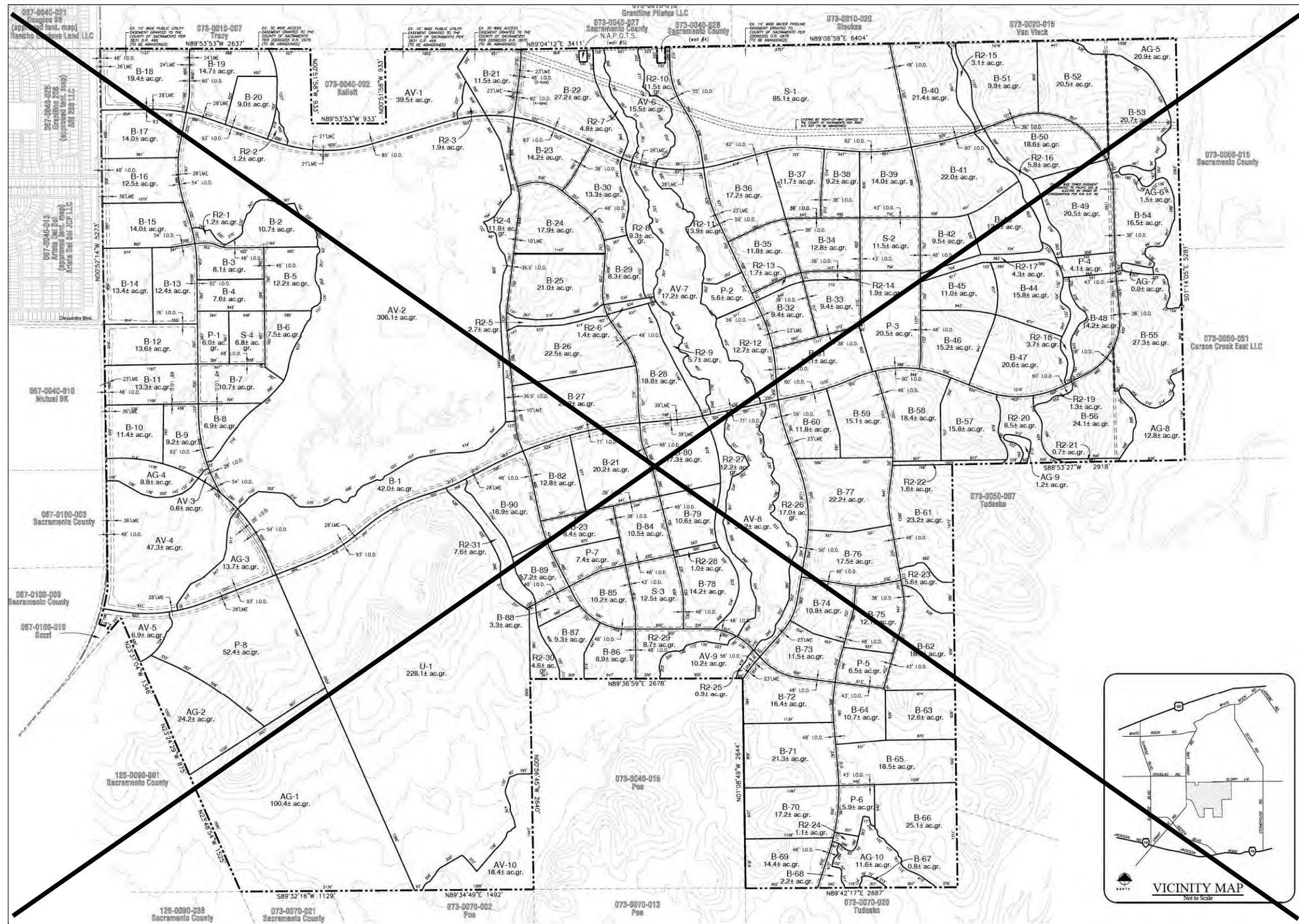
Proposed Bikeway Master Plan

Bikeways Master Plan General Plan Amendment (2011 General Plan)

Scale: 1"= 1,200'
(when plotted at 24" x 36")

October 17, 2011

Plate PD-10: Large Lot Tentative Subdivision Map



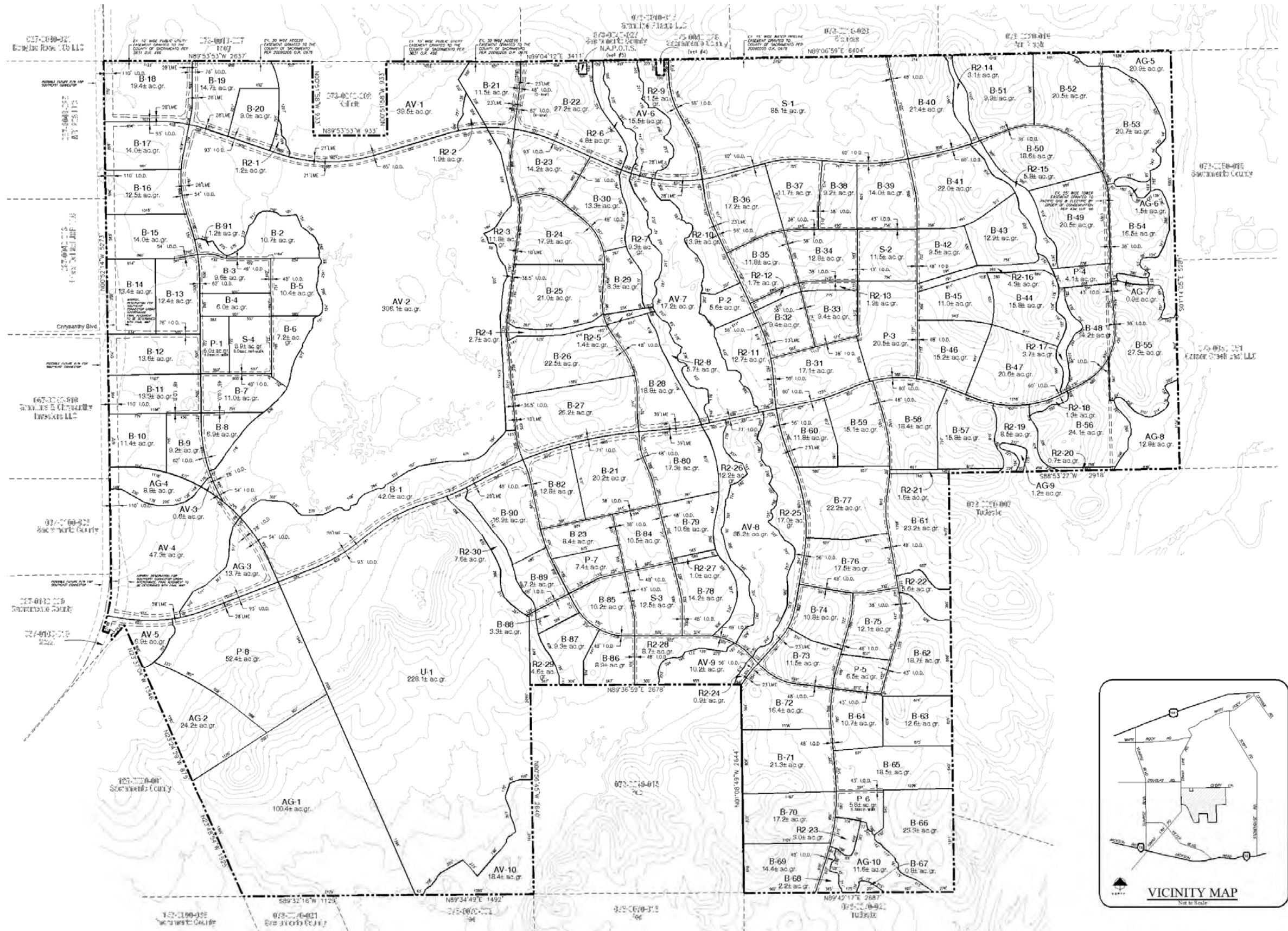


Plate PD-11: Conceptual University/College Campus Center

Planned Use Map with definitions

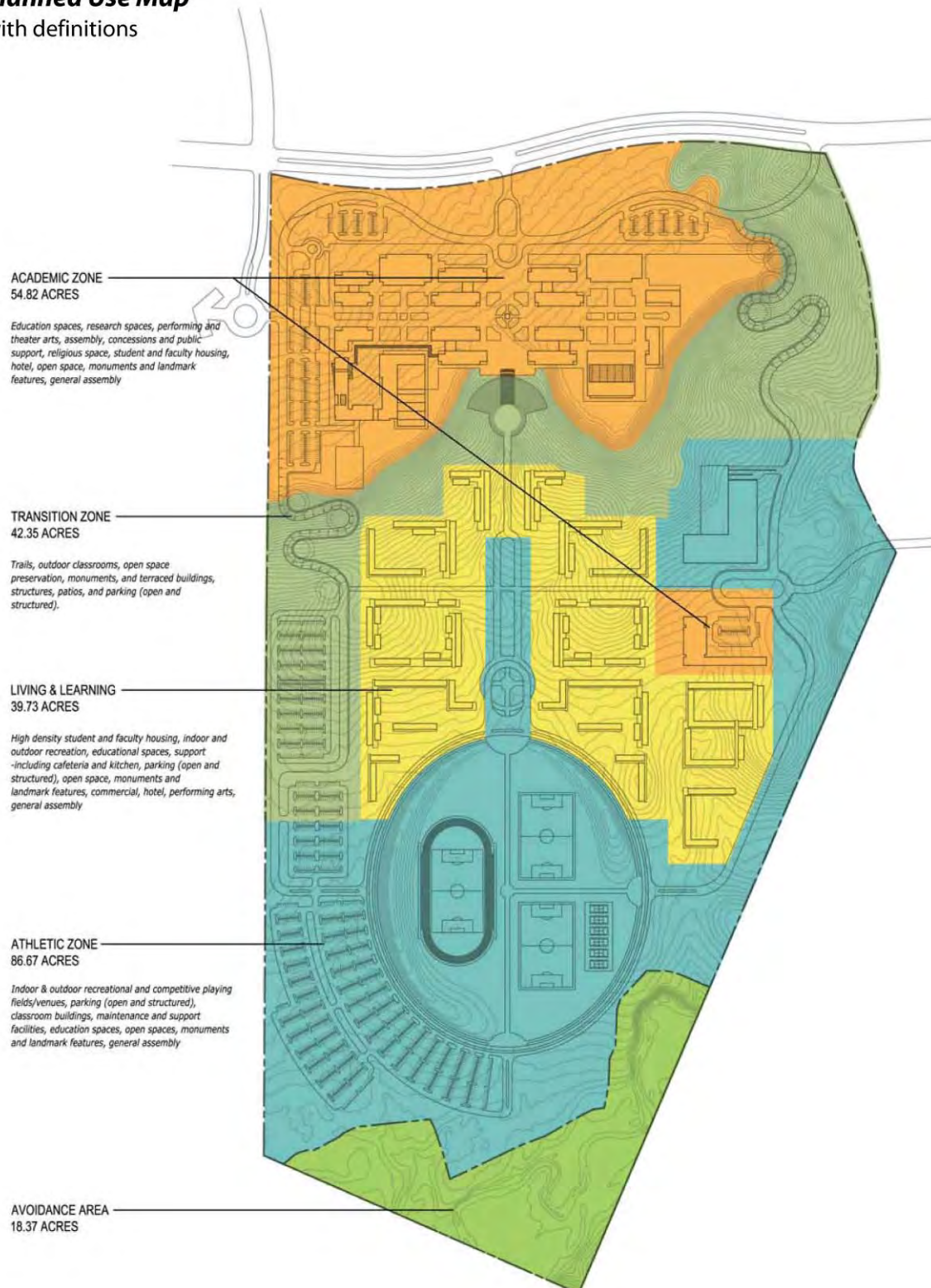
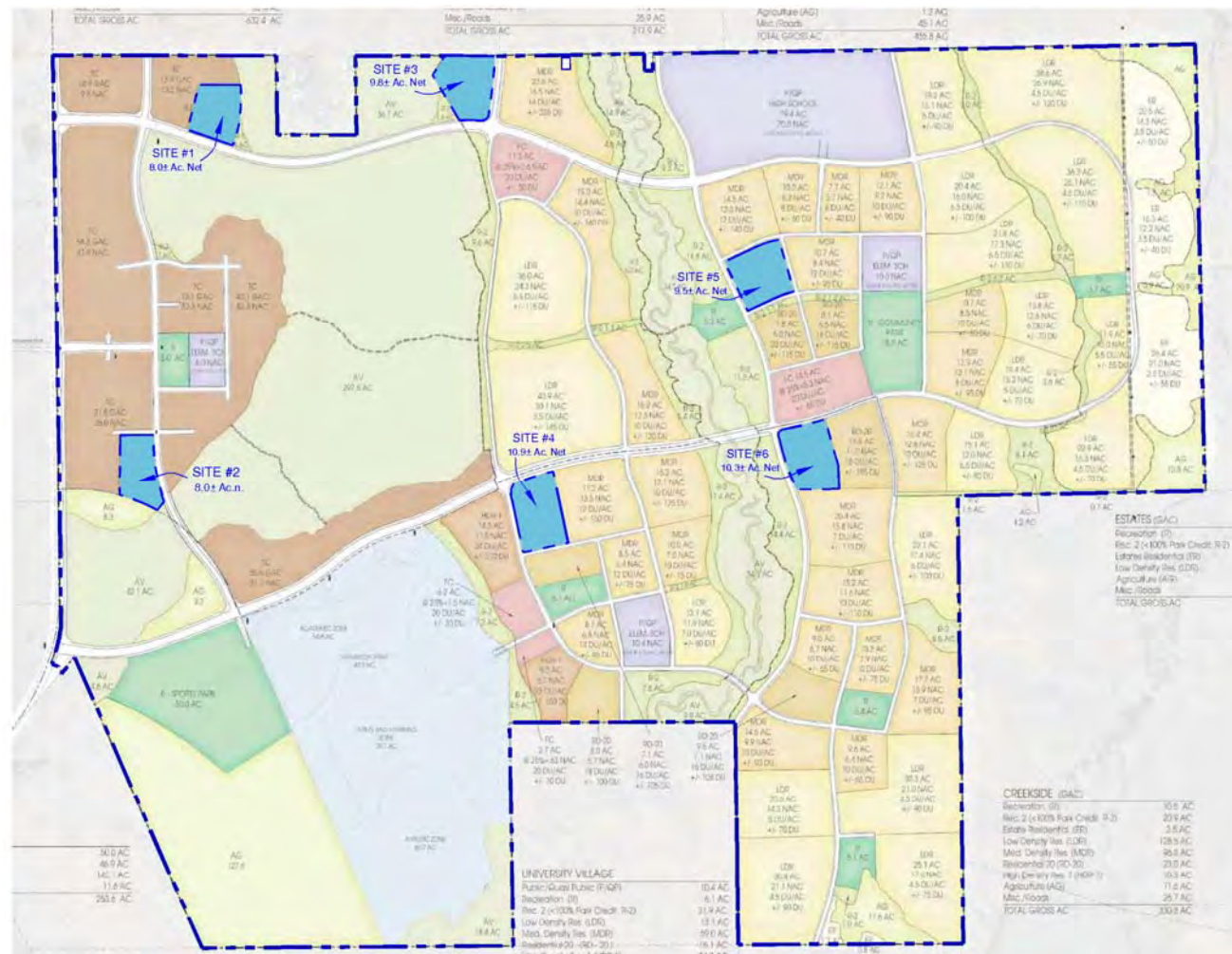


Plate PD-12: Affordable Housing Plan Exhibit

**NOTES:**

- 1) Areas shown are approximate and subject to change.
- 2) AH sites shown per Cordova Hills Affordable Housing Plan.
- 3) Land Use Plan source- Cordova Hills Master Plan- Figure 6.10 d.



MACKAY & SOMPS
ENGINEERS PLANNERS SURVEYORS

Cordova Hills

Plate PD-13: Proposed Zone 40 Boundary

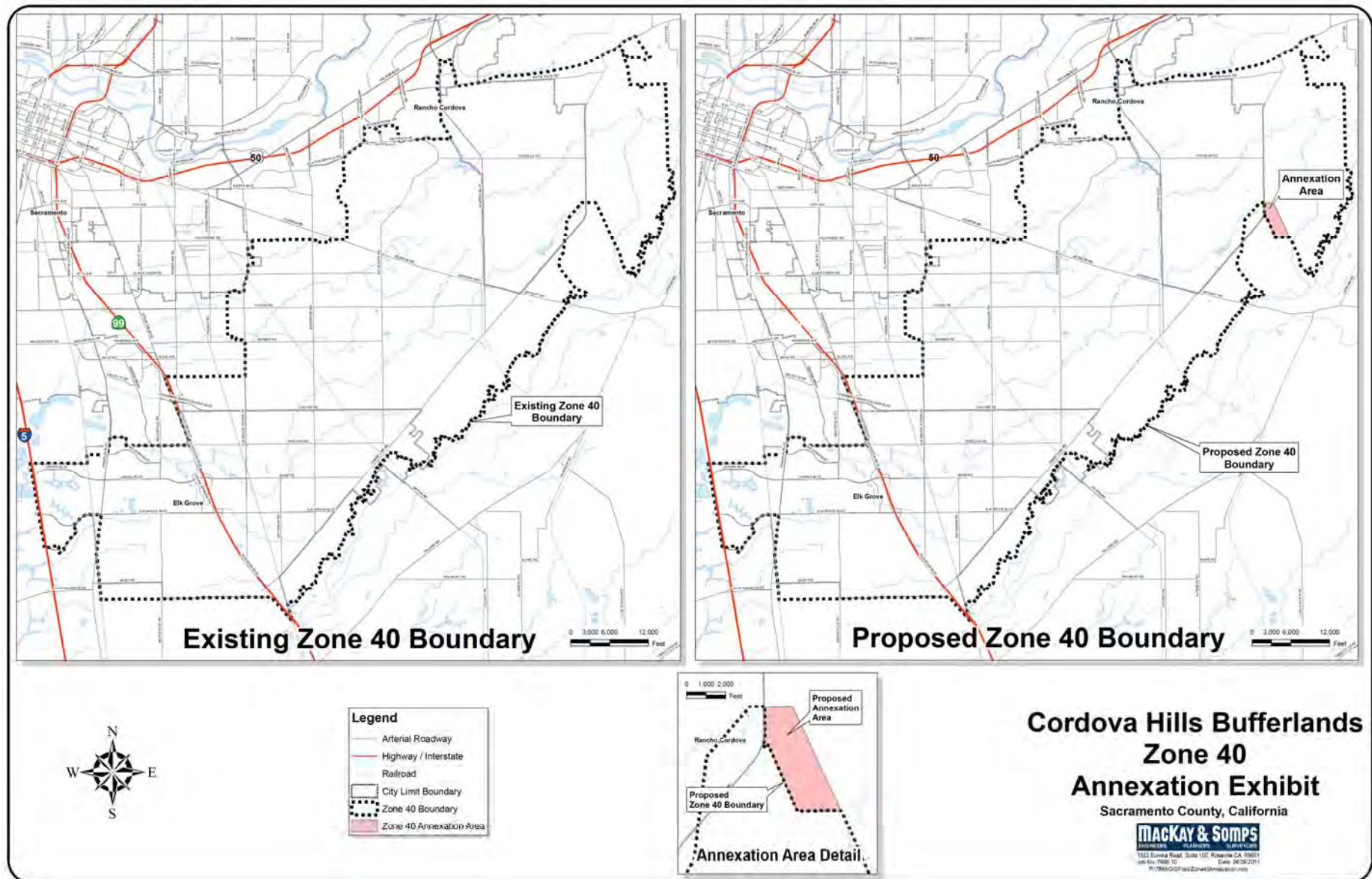


Plate PD-14: Proposed Zone 41 Boundary

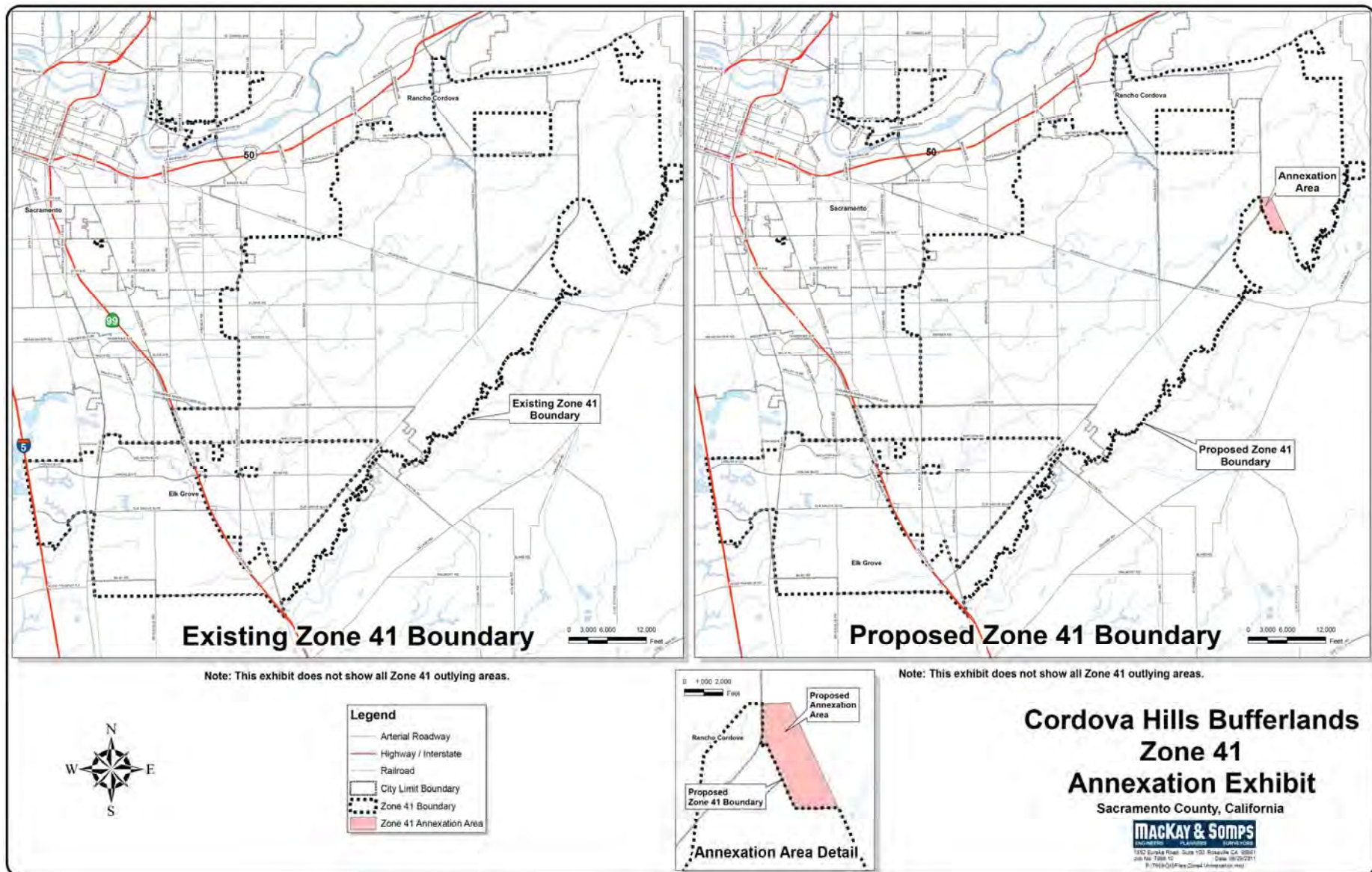


Plate PD-15: Williamson Act Contracts Exhibit

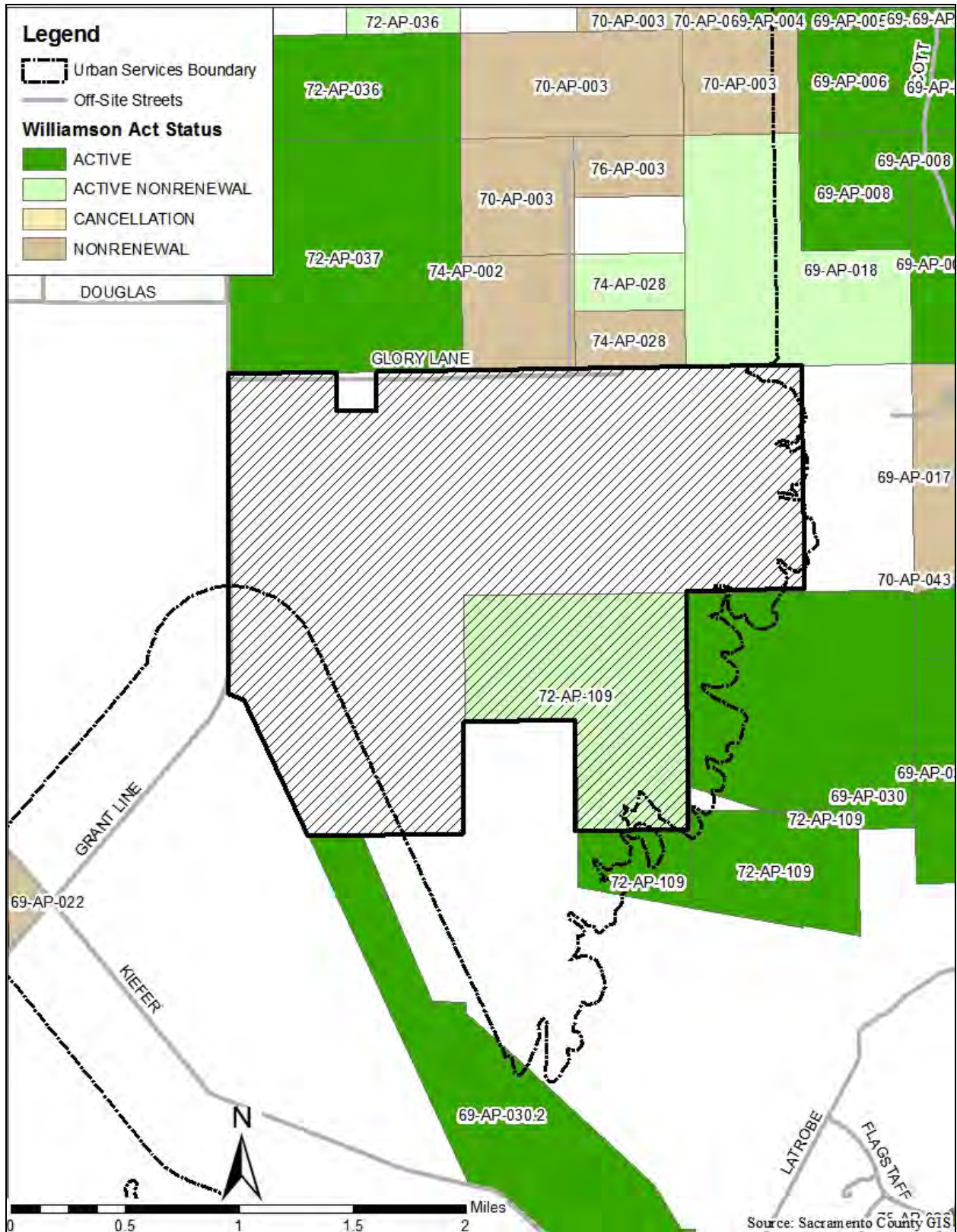
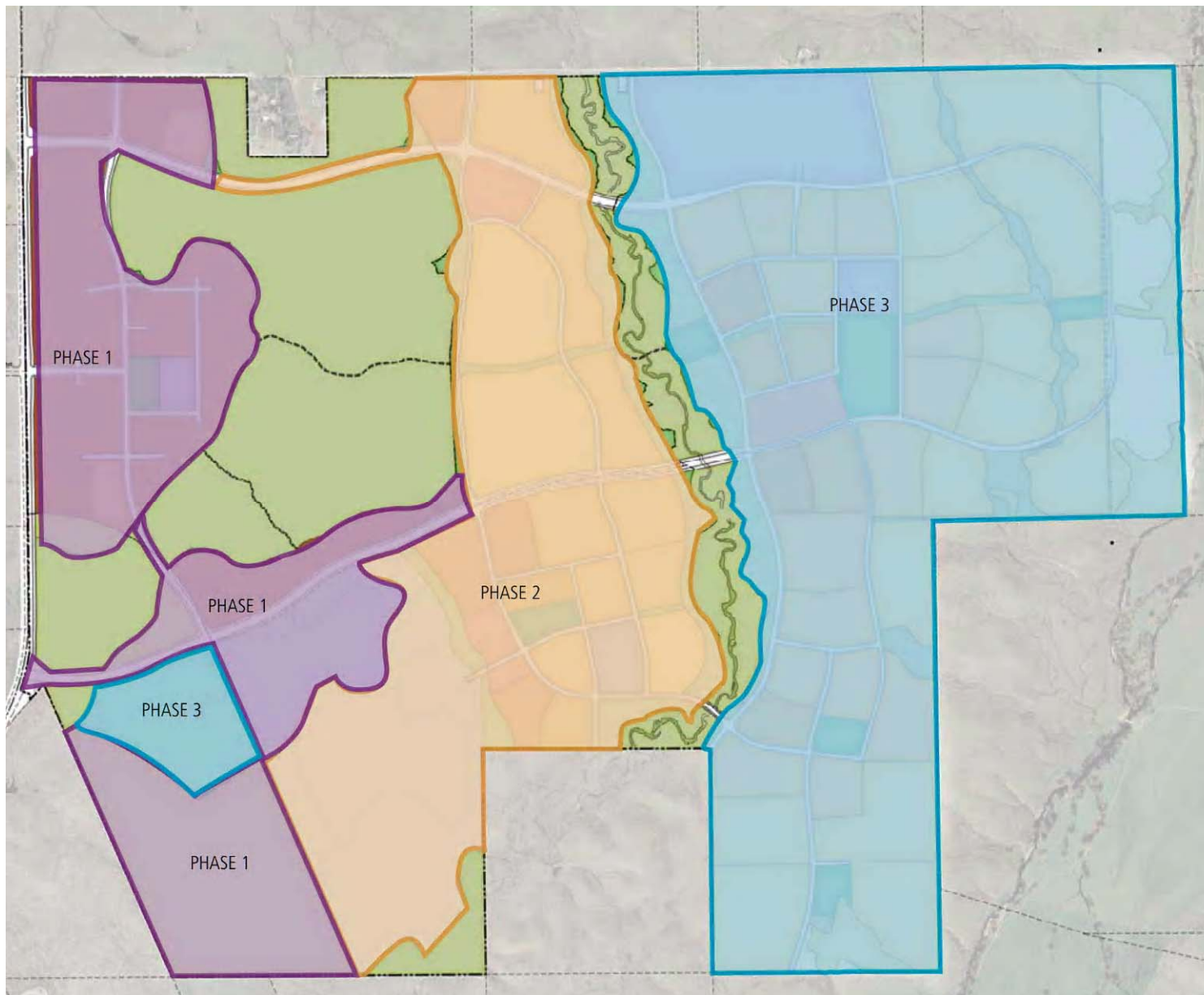


Plate PD-16: Phasing Diagram



DEVELOPMENT REGULATIONS

The Cordova Hills Land Use Master Plan identifies 16 land use classifications, which are described within the Cordova Hills SPA. Table PD-1 and Table PD-2 below provide a summary of the classifications and their use restrictions. The materials herein provide an overview; for more detailed descriptions please refer to the Cordova Hills SPA available for review at

<http://www.planningdocuments.saccounty.net/ViewProjectDetails.aspx?ProjectID=784>.

The Flex Commercial, Commercial Mixed Use, and Flex Office zones will allow some residential uses, though the SPA does restrict the type and amount of residential allowed in each zone. As stated in Table PD-1, the Town Center District allows all uses except the Flex-Residential Overlay and Estates. As stated in the application materials, the Town Center will be divided into districts (Retail/Entertainment, Business Mixed Use, Town Center North, Town Center East, and Southern Gateway). The SPA defines specific rules and guidelines applicable to each district. In the Town Center, a maximum of 1,750 dwelling units and 966,779 square feet of Commercial Mixed Use and Flex Office uses will be permitted.

In addition to the above, the SPA also includes a provision allowing a community-wide transfer of unit allocations. If a Village is developed with fewer units than originally allocated, these units may be transferred to another Village provided it does not significantly alter the character of the Village and it does not exceed the planned maximum cumulative average daily trips or dwelling units by 10%.

Table PD-1: Land Use Designations

Land Use Designations		Permitted Uses
(AG)	Agriculture	Agriculture, Sports Park, Solar Farm, District Energy Plant, Corporation Yard, Park and Ride Lot, Transit Parking Facility, Fueling Station, Roads, Storm Water and Storm Quality Basins, Community Gardens, Avoided Areas, Sewer Pump Station and Line, Water Tanks and Similar Utilities
(P/QP)	Public/Quasi Public	Churches, Schools, Parks, Public Utilities, Libraries, Fire Stations, Community Gardens, Flood Control and Storm Water Quality Treatment Facilities)
(R)	Recreation	Parks, Recreation Centers, Community Centers, Concessions, Minor Retail, Coffee Shop, Paseos, Open Space, Flood Control and Storm Water Quality Treatment Facilities
(R2)	Recreation and Open Space	Parks, Recreation Centers*, Community Gardens, Community Centers*, Concessions*, Minor Retail*, Coffee Shop*, Paseos, Open Space, Flood Control and Storm Water Quality Treatment Facilities
(AV)	Avoided Areas	Resource Avoidance, Trails, Outdoor Classroom, Interpretive Signage
(ER)	Estates Residential (1 to 4 du/acre)	Single Family Dwellings, Schools, Parks, Private Community Centers, Gardens, Landmark Features, Private Schools, Public Utilities, Flood Control and Storm Water Quality Treatment Facilities
(LDR)	Low Density Residential (4 to 7 du/acre)	Single Family Dwellings, Duplex and Halfplex Dwellings, Churches, Schools, Parks, Public and Private Community Centers, Gardens, Landmark Features, Private Schools, Public Utilities, Libraries, Fire Stations, Police Stations, Flood Control and Storm Water Quality Treatment Facilities
(MDR)	Medium Density Residential (7 to 15 du/acre)	Small Lot Single Family Dwellings, Greencourt, Motorcourt, Duplexes, Halfplexes, Townhomes, Live/Work Dwellings, Neighborhood Work Centers, Children and Senior Day Care Centers, Churches, Schools, Parks, Public and Private Community Centers, Gardens, Landmark Features Private Schools, Public Utilities, Libraries, Fire Stations, Police Stations, Flood Control and Storm Water Quality Treatment Facilities
(RD20)	Medium/High Density Residential (20 du/acre)	Same as MDR
(HDR1)	High Density Residential (20 to 30 du/acre)	Townhomes, Apartments, Live/Work Dwellings, Neighborhood Work Centers, Children and Senior Day Care Centers, Recreation Centers, Churches, Schools, Parks, Private Schools, Public Utilities, Libraries, Fire Stations, Flood Control and Storm Water Quality Treatment Facilities
(HDR2)	(30 to 40 du/acre)	Same as HDR 1
Land Use Designations		Permitted Uses
(FRO)	Flex Residential Overlay	Flex Residential Overlay applies to LDR, MDR, RD20, and HDR uses as indicated on the FRO Map. All uses allowed in the underlying land use designations, plus Retail and Work Centers, Live / Work Dwellings, Children and Senior Day Care Centers
(FC)	Flex Commercial	Please refer to the following description of permitted and prohibited uses.
(CMU)	Commercial Mixed-use	Hospital (100 bed maximum) Please refer to the following description of permitted and prohibited uses.
(FO)	Flex Office	Please refer to the following description of permitted uses.
(TC)	Town Center	TC permits all uses allowed in the other land use designations, except FRO and the Estates. Please refer to the following description.

* USES NOT ALLOWED IN THE PASEO CENTRAL AREA

Table PD-2: Flex and Commercial Zone Permitted Uses

Use	FC	CMU	FO
General Merchandise	X	X	
Business Services	X	X	X
Personal Services	X	X	X
Food Services	X	X	X
Neighborhood-Serving Food, Drug, or Liquor Sales	X	X	
Children and Senior Care Centers	X	X	
Parks and Recreation Centers	X	X	X
Churches	X	X	
Schools	X		
Libraries	X	X	
Fire and Police Stations	X	X	X
Gasoline Stations	1	X	
Gasoline Stations with Accessory (e.g. car wash)		X	
Auto Repair	1		
Auto Sales – Motorcycle, Alternative Vehicle and Moped Only	1	1	
Neighborhood Vehicle and Auto Rental	1	1	
Business or Professional Office	X		X
Insurance Office	X		
Bank/Financial Institution	X	X	X
Medical or Dental Office	X	X	X
Laboratory and Research	X	X	X
Office Support Services	X	X	X
Computer-Related Services	X	X	X
Public Utilities and Stormwater Facilities	X		
Hardware Stores	X	X	
Educational Services	X	X	X
Civic	X	X	
Entertainment	X	X	
Hospitality	X	X	
Primary-Use Parking Lot or Garage		X	
Recycling Centers		X	
Residential (not to exceed 25% of net area)	X	X	X
Farmer's Markets	X	X	X
X: Permitted 1: Requires a Use Permit			

UNIVERSITY/COLLEGE CAMPUS CENTER

The SPA reserves approximately 224 acres of land for a future college campus. At the time of this writing, a specific university or other higher-education institution had not been identified for the site. The SPA includes detailed concept plans for the future university/college campus center. For the purposes of environmental analysis, the anticipated enrollment is 6,000 students (4,300 undergraduate and 1,700 graduate) and 2,036 total employees. A total of 65% percent of students were assumed to live on the campus (4,040 students). It was also assumed that the university/college campus center will require approximately 1,870,000 square feet of facilities. Note that the phasing described below is a conceptual plan, and that the actual buildout will progress over the long-term planning horizon in response to demand and in response to the needs of the specific university which is ultimately located here – it cannot be predicted with precision. The specific floor areas, buildings, and uses identified in the following phases are conceptual and not intended as specific building entitlements. None of the environmental analyses in the main chapters rely on any aspect of this phasing plan to assess impacts; impacts are based on full buildout of the entire area reserved for the university/college campus center.

PHASE ONE

Phase One may span the first four years of facility operation, and could involve approximately 344,000 square feet of building construction. Phase One buildings are listed in Table PD-3. The Phase I campus could accommodate approximately 600 students and 207 employees.

Table PD-3: Phase One

Building	Gross Area (square feet)
Welcome Center	23,000
Student Union & Rec. Center	60,000
Administration Center	20,000
General Academic	20,000
General Academic & Library	20,000
Arts and Sciences	34,000
Campus Hotel	56,000
Housing	110,000
TOTAL	344,000

PHASE TWO

Phase Two may span years four through ten of facility operation, and could involve approximately 503,000 square feet of building construction. This phase could include the construction the buildings listed in Table PD-4.

Table PD-4: Phase Two – Additional Buildings

Building	Gross Area (square feet)
Performing Arts	45,000
Chapel	18,750
Library	120,000
Athletics and Wellness	130,000
Housing	189,250
TOTAL	503,000

PHASE THREE

Phase Three may span the years ten through twenty of facility operation, and could involve approximately 563,900 square feet of building construction. Phase Three buildings are listed in Table PD-5.

Table PD-5: Phase Three – Additional Buildings

Building	Gross Area (square feet)
Main Lecture Hall	48,000
Arts and Sciences	68,000
Executive Training Center	147,000
Physical Plant	30,000
Housing	270,900
TOTAL	563,900

ULTIMATE BUILD-OUT AND PHASE FOUR

The final phase may span years twenty to thirty of facility operation, and could add an additional 548,300 square feet of buildings, bringing the total university/college campus center size to 1,870,000 square feet. Phase four facilities are listed in Table PD-6. As stated, in this ultimate configuration the university/college campus center could accommodate 6,000 students and 2,036 total employees.

Table PD-6: Phase Four – Additional Buildings

Building	Gross Area (square feet)
Medicine and Nursing	41,100
Engineering	30,300
Business	33,450
Education	18,300
Law	16,800
Housing	408,350
TOTAL	548,300

RESIDENTIAL

The proposed Project includes a maximum of 8,000 residential units; assuming 2.54 persons per household for rental units and 2.71 persons per household for owner-occupied units, this will provide housing for a residential population of approximately 21,379 residents (persons per household data is from the Sacramento Area Council of Governments). In addition to this, the university/college campus center will include an on-campus population of 4,140, for a total Project residential total of 25,519. Table PD-7 and Table PD-8 below summarize the residential density ranges and the number of dwelling units that are proposed. Low Density Residential lot sizes will range from 5,000 to 20,000 square feet, and Medium Density Residential lot sizes will range from 2,000 to 4,999 square feet. High density residential zoning will be dedicated to attached condominiums and multi-family dwellings. The Project also includes on-site construction of affordable residential, totaling 1,044 units. In the aggregate, all residential units throughout Cordova Hills will have a total average density of ten or more dwelling units per acre of buildable land available for residential uses.

Table PD-7: Land Use Densities

Residential Type	Residential Density Per Acre	Dwelling Units
Estate Residential	1 – 4 du/acre	147
Low Density Residential	4 – 7 du/acre	1,930
Medium Density Residential	7 – 15 du/acre	3,110
RD-20	20 du/acre	888
High Density Residential 1	20 – 30 du/acre	1,620
High Density Residential 2	30 – 40 du/acre	150
NOTE: Units can build out at 75% of zoned maximum. Also, an additional 150 units are expected in the Flex Commercial designation.		

Table PD-8: Residential Unit Totals

Village	Number of Units	Net Residential Acres	Net Density
Town Center Village	1,750	194.6	9
Ridgeline Village	995	107.2	9
University Village	1,475	96.3	15
Estates Village	500	125.8	4
East Valley Village	1,740	188.6	9
Creekside Village	1,540	192.4	8
University/College Campus Center	1,010	39.7	25
Project Total	9,010	938.3	10

RETAIL/COMMERCIAL

The Project includes a total of 1.3 million square feet of commercial uses. The maximum commercial square footage permitted within the various villages where commercial uses are designated is: Ridgeline, 92,000; University Village, 88,860; East Valley, 111,200; and Town Center, 966,779. Adding up to 90,580 square feet of additional commercial uses within the Flex Residential Overlay yields a total maximum square footage of 1,349,419. The majority of the retail and office is located in the Town Center. The Town Center is proposed to contain a large array of retail types, including restaurants, movie theatres, book stores, home supply stores, electronic stores, and other types of similar retail. The application materials state that the Project is designed to accommodate this retail in a condensed “main street” atmosphere. The Town Center will also include some high density residential uses above the first-floor retail.

In the remaining districts there will be neighborhood-serving retail/office/mixed-use village centers. These neighborhood-serving retail villages will consist of grocery stores, dry cleaners, restaurants, and other retail stores that meet the daily needs of residents within the community.

RECREATION AND PRESERVES

PARKS AND TRAILS

The proposed Project SPA describes a mix of parks, open space, recreation, and non-vehicular circulation amenities, including: a sports park, community parks, neighborhood parks, pocket parks, linear parks, detention basin parks, community facilities, open space, utility easements, drainage corridors, wetland avoidance areas, and a large trail network. Proposed parks are listed in Table PD-9 and depicted on Plate PD-17.

Table PD-9: Parks Within The Project

Park Type	Quantity	Acreage Size	Service Area	Typical Features
Sports Park	1	50	Regional	Sports Fields
Community Park	1	18	3 miles	Sports Fields, Trails, Dog Park
Neighborhood Parks	6	4 - 5 acres	1/2 mile	Green space, Tot Lot, Restrooms, Sports Court

In addition to the formal parks above, the Project includes approximately 150 acres of land designated as R-2, which is for more passive recreation uses (paseos, trails, picnic areas, and informal play areas, along with detention basins). These areas provide opportunities for additional parkland resources, and the additional parkland needed will be provided in these areas at the time when small-lot tentative maps are proposed. The Project will also include 26 miles of Community Class II on-street bicycle paths and 22 miles of off-street trails and paths. Refer to Plate PD-18 for the trails exhibit. Every home will be no more than a ¼ mile from one of the trails, parks, or other open space.

The main Cordova Hills trail will traverse 3 miles from the western boundary of the Project to the eastern boundary without any at-grade crossings of a major arterial street. This trail will cross the major resource avoidance areas. The Project is situated adjacent to the Laguna Creek trail system vision area (which would connect Rancho Cordova to Elk Grove). Cordova Hills is designed to connect to this trail system, if the trail becomes a formal Project.

Plate PD-17: Proposed Parks

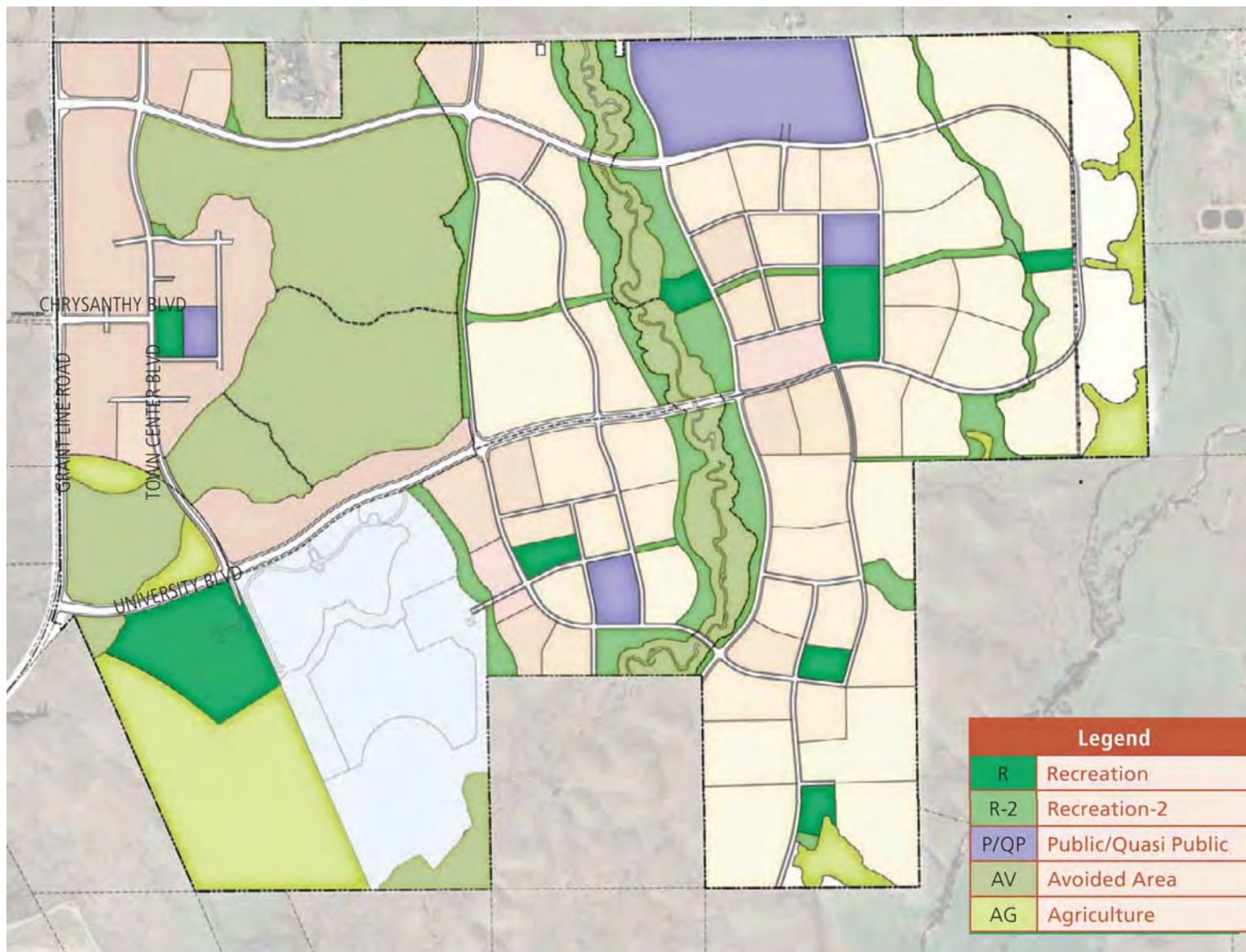


Plate PD-18: Proposed Trails Plan

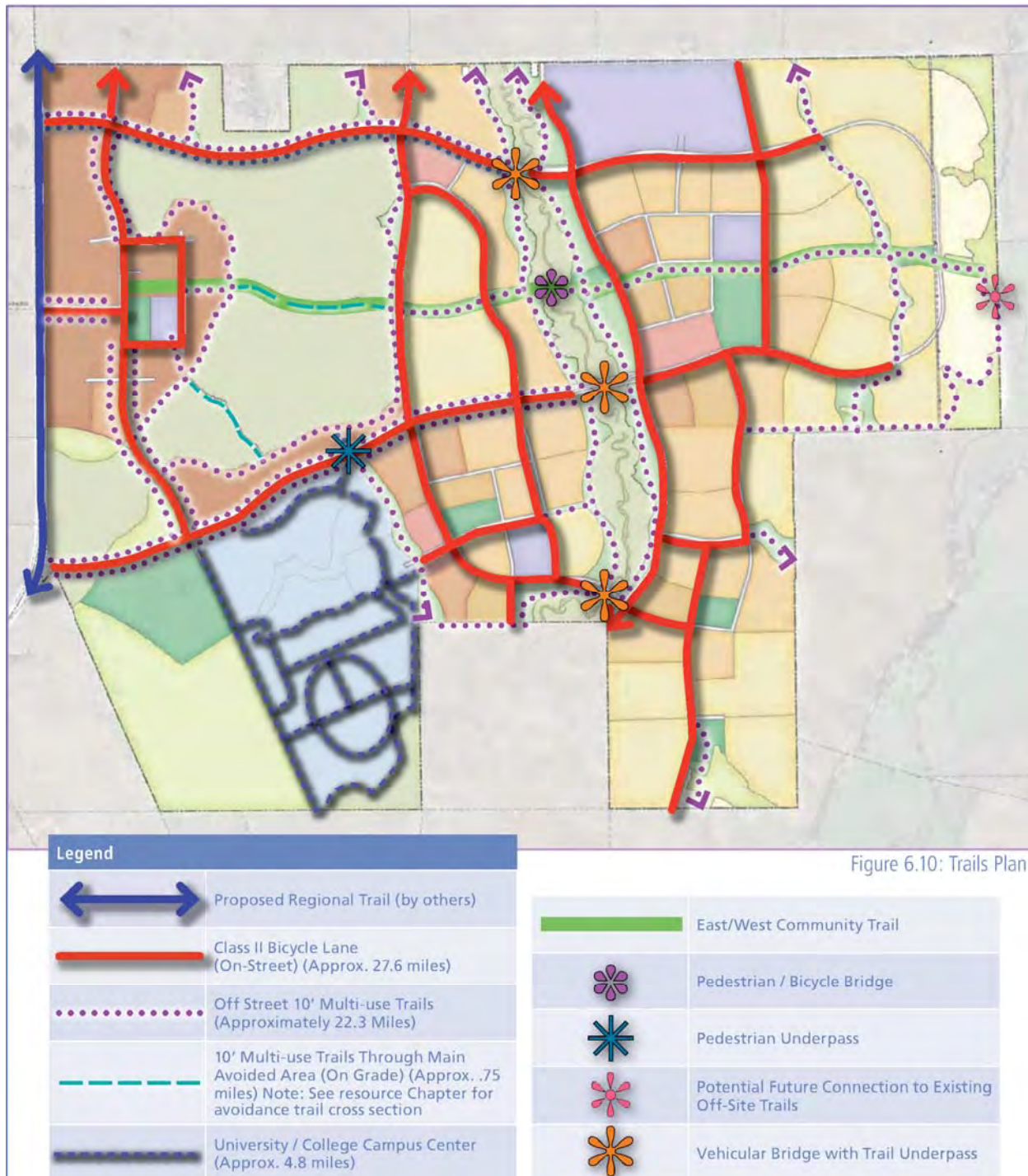


Figure 6.10: Trails Plan

AVOIDANCE AREA

The largest wetland avoidance area is proposed on the western third of the Project where the majority of the wetlands exist. This area extends from the southwestern property boundary of the Project to the northern boundary line. A north-south drainage that bisects the central portion of the Project will be avoided within an open space corridor – along with some of the wetlands connected to the drainage. Detention basins will be placed along the outer edges of the avoidance areas, in areas designated Recreation 2, which will both detain and treat water prior to discharge into the wetland systems. This drainage corridor exits the central portion of Cordova Hills to the south and then re-enters the site at the university/college campus center's southeastern corner. The drainage corridor's re-appearance on the university/college campus center site is proposed for avoidance in the same manner as it is on the central portion of the Project.

THE "BUFFERLANDS" AND AGRICULTURE

The Project includes multiple areas designated as Agriculture, which, according to the SPA development regulations, is a land use designation that allows many uses in addition to agriculture. Allowable uses include: agriculture, sports park, solar facility, district energy plant, corporation yard, park and ride lots, transit parking facilities, fueling stations, roads, stormwater basins, community gardens, Avoided Areas, sewer pump station and lines, water tanks and similar utilities. Many of these uses are specifically proposed within what the SPA calls the "bufferlands" area, in reference to the fact that the area lies partly within the 2,000-foot buffer surrounding Kiefer Landfill; this EIR will refer to these lands as those which lie outside of the USB. Among the uses which will lie in the portion of the Project outside of the USB is a sewer force main that will connect to the university/college campus center area (refer to the Public Utilities chapter) and a Sports Park proposed near the southern Project entrance (refer to the Public Services chapter). Other uses are conceptually laid out in the SPA, but there are no specific land use designations or master plans which describe them (the corporation yard, solar farm, and district energy plant). Because this portion of the Project is outside of the USB, public sewer systems cannot serve the sports park or other planned uses (pursuant to General Plan Policy; refer to the Public Utilities chapter). Uses in this area will rely on septic systems for sewer disposal. General Plan policy also excludes the use of public water to serve this area, but the Project includes a policy amendment that would allow the use of public water (refer to the Public Utilities chapter).

The SPA contains a specific section (Section 4.7, Development Standards in Agricultural Bufferlands) describing uses within the large Agriculture area outside of the USB. This section indicates that development of a corporation yard, solar farm, and district energy plant will not require a Use Permit as long as performance standards listed within the SPA are met. The SPA includes a figure noting approximate conceptual locations for these uses (Plate PD-19). Design-level plans are not included at this time, but the sections which follow provide general descriptions of facilities of this type.

Plate PD-19: Approximate Location of “Bufferlands” Uses



CORPORATION YARD

Corporation yards typically involve several buildings, an equipment maintenance shop, and an entirely paved surface for the parking of vehicles and other equipment. It is assumed that a fleet fueling station will also be constructed with the corporation yard.

SOLAR FACILITY

The SPA does not specify the size of the solar facility that may be constructed within the portion of the Project outside of the USB, so this discussion describes solar facilities in general. Approximately ten photovoltaic solar array applications have been processed in Sacramento County within the past few years. These large systems are installed by constructing a mounting system and then assembling the panels on top of the system. The panels are wired together in series to form long chains or rows of panels.

System construction typically involves trenching in long rows to enable installation of underground cables and wiring, vibratory driving of pipe pier supports, installation of the mounting system onto the supports (which may also include a tracking system, if the panels are designed to move with the sun), installation of the photovoltaic panels and wiring, construction of concrete pads for equipment, installation of inverters and transformers (energy must be switched from DC to AC), and construction of a substation.

The systems proposed in the County have varied in size from 20 acres to nearly 300 acres, and with a generation capacity of 3 megawatts to 30 megawatts. On average, systems in the County are capable of generating between 1 and 1.5 megawatts for every ten acres of land.

DISTRICT ENERGY PLANT

The applicant submitted a short description of the purpose and potential design of the energy plant, but no details are contained within the SPA, which simply states in Section 2.1.1 that one power source could be methane gas routed from the Kiefer Landfill (which operates a methane recapture program). The applicant indicates that the configuration with the best economic promise includes electric chillers, gas boilers, a thermal energy storage system, and an engine-based combined heat and power system.

A chiller uses electricity to reduce the temperature of water, and this water would then be circulated through a network of underground chilled water piping to air conditioning units which use the cold water to cool the air. The water is then recirculated back to the chiller to be cooled again. The gas boilers would use the opposite mechanism, using natural gas to generate hot water which is distributed through a heating system. Thermal Energy Storage includes a number of different technologies, but in essence would involve the storage of chilled water at night that could then be used to cool environments during the day. Chilling the water at night would shift some of the electricity load to off-peak periods and commensurately reduce the amount of energy needed during the day. Hot water would be similarly stored. Natural gas from the landfill would power the combined heat and power system that will generate electricity

for the system. The applicant provided some estimates of phasing and equipment needs for the system (Table PD-10), which may take up approximately ½-acre of land.

Table PD-10: Potential District Energy Plant Equipment

Equipment	Unit Size	# Units Total			
		Phase 1	Phase 2	Phase 3	Phase 4
Chiller, tons	750	2	4	4	5
Boiler, MVBTUh	10	2	2	2	2
Boiler, MVBTUh	20		2	2	3
Hot Water Storage, gallons	18,000	1	1	1	1
Chilled Water Storage, gallons	1,000,000	1	1	2	2
Engine, MW	1.4	2	2	2	2

CIRCULATION

The central proposed point of access into the Project site is an extension of the existing Chrysanthy Boulevard, which would bisect the center of the Project and provide the access point into the proposed Town Center. Two additional access points are proposed between ½-mile and ¾-mile north and south of the Chrysanthy access. The two access points to the south and north of Chrysanthy will traverse into the eastern area of the Project creating a loop where both the roads will eventually connect. These three access points into the Project will be four lanes and decrease to two lanes at the eastern side of the Project.

The Town Center and western third of the Project on the plateau will consist of a grid street network due to the flat topography and high density of land uses that exist in the area. Further to the east the density of land uses and topography do not provide as much of an opportunity for the traditional grid street network.

Cordova Hills will include a diversity of streets at full development, consisting of a Town Center Boulevard, four-lane arterials, two-lane Community Boulevards, two-lane Neighborhood Collectors, residential streets with detached sidewalks, and rural streets.

Traffic calming measures such as, traffic circles, roundabouts, intersection bulb-outs, lane width restrictions, and other measures will be utilized in order to reduce vehicle speeds and enhance pedestrian safety.

PUBLIC SERVICES

SCHOOLS

The Project includes three areas designated as elementary school sites (two of which are approximately ten acres each and one of which is approximately six acres), and one area designated as a high school (approximately 78 acres). Cordova Hills is within the Elk Grove Unified School District.

PUBLIC UTILITIES

WATER SUPPLY

Within the Urban Services Boundary, Cordova Hills is located within the Zone 40 service area of the Sacramento County Water Agency (SCWA). The areas outside of the Urban Services Boundary are likewise outside of Zone 40. The Project requires off-site extension of water lines. On-site transmission lines will be routed throughout the Project area. Due to the varying elevations of the Project, several booster pumps as well as pressure-reducing stations will be required to maintain system pressures to Zone 40 standards throughout the Project. Generally, the on-site transmission system will consist of 16-inch to 24-inch mains extending through the Project. A grid of 8-inch to 12-inch distribution mains will extend from the transmission system to serve local developments. Water infrastructure will be phased with development to meet end user demands as well as operational criteria of the system. The Project will ultimately include the construction of water storage tanks either within the Project site or on property controlled by the applicant which is just north of the Project boundary (refer to the Public Utilities chapter for details).

The Project also includes a request for Zone 40 water to be extended to the portion of the Project outside of the Urban Services Boundary. This will require an amendment to General Plan Policy LU-57. Policy LU-57 states: "The County shall not provide urban services beyond the Urban Policy Area, except when the County determines the need for health and safety purposes." New language is proposed as follows:

Policy LU-57. The County shall not provide urban services beyond the Urban Policy Area, except when the County determines the need for such services for health and safety purposes or where provision of such services is permitted pursuant to Policy LU-XX.

Policy LU-XX (numbering would be added after approval). Limited public water service and facilities can be extended beyond the Urban Policy Area/Urban Services Boundary to serve the 251 acre area located in proximity to Kiefer Landfill, as shown in Exhibit "A". Permitted uses within this area include agriculture, sports park, solar farm, district energy plant, corporation yard, park and ride lot, transit parking facility, fueling station, roads, storm water and storm water quality basins, community gardens, avoided areas, sewer pump station and lines, water tanks and similar utilities. Water facilities shall be sized adequately to only serve these permitted uses. Furthermore, proposed uses must be consistent with these permitted uses, act as a buffer between urban and open space uses, and help strengthen and preserve the current location of the Urban Services Boundary.

In addition to the General Plan policy amendment, the Project will require amendment of the Zone 40 and 41 boundaries to include the 241-acre area outside of the Urban Services Boundary.

WASTEWATER

The Cordova Hills Project area will need to be annexed into the Sacramento Area Sewer District (SASD) and the Sacramento Regional County Sanitation District (SRCSD). SASD owns and operates sewer trunk and collection systems throughout Sacramento County. SRCSD owns and operates the Sacramento Regional Wastewater Treatment Plant (SWRTP) and interceptor system throughout Sacramento County. Cordova Hills is in the Sphere of Influence (SOI) for SASD and SRCSD. Their SOI is coterminous with the Urban Services Boundary and their service boundary is coterminous with the Urban Policy Area. The Project requires off-site extension of sewer lines. On-site transmission lines will be routed throughout the Project area. A recycled water distribution system (purple pipe) will be installed for future use, so that recycled water may be used if an off-site treatment facility and recycled water delivery system to the Project site is made available.

STORM DRAINAGE

The waterways within Cordova Hills are tributary to two major creek systems. The western portions of the Project include intermittent drainages within the headwaters of Laguna Creek, the central and eastern portions drain to a tributary of Deer Creek, and a smaller portion in the east drains into Carson Creek, which is a tributary to Deer Creek. The Project includes detention basins and open stormwater swales, as well as an underground pipe system for stormwater.

Water quality will be conserved and enhanced through the use of local water quality features such as grassy swales, settling basins, and natural filters to clean surface runoff water before it reaches the natural drainage channels. These features will be incorporated in the pedestrian open space corridors and in dual-use park land. Low Impact Design (LID) principles such as bio swales, landscape retention areas, rain gutters dispensing to lawns, cobblestone driveways, and Hollywood driveways (two strips of pavement for the tires of the vehicle, with grass or landscaping in between) will be incorporated to the greatest extent feasible and when soil conditions permit.

CONSTRUCTION AND IMPLEMENTATION

As a master planned development, the Project will build out in response to market demand over the course of decades. Individual development Projects would be submitted to the County pursuant to the SPA requirements, with development generally progressing from the west (adjacent to Grant Line Road) to the east. Section 7.10 of the SPA (Materials Conservation) contains specific language noting that the Project site may contain aggregate material suitable for construction of road beds and other improvements, and that excavation and use of these materials is permitted as a temporary ancillary use in all development areas of the Cordova Hills Master Plan; it also notes that export of these materials off-site is expressly prohibited. The potential impacts of this are described in multiple chapters, including Geology and Soils, Noise, and Air Quality.

The Implementation chapter of the SPA (Chapter 9) indicates that amendments to the Master Plan may be permissible, including changing land use designations, design criteria, development standards, or policies. Definitions are included to describe a

Major Amendment or a Minor Amendment, with Major Amendments requiring the same process as the original Project (discretionary approval process) and Minor Amendments requiring approval by the Planning Director (non-discretionary approval process).

PROJECT OBJECTIVES

Outlined below are the primary objectives for the proposed Cordova Hills Project.

1. Develop a mixed use community that is designed in a manner that provides compatible land uses and reduces overall internal vehicle trips.
2. Develop an economically feasible master-planned community that reasonably minimizes its impact on biologically sensitive natural resources with feasible on-site wetland avoidance and preservation.
3. Develop a sustainable, multi-service town center that promotes walkability and alternative transit modes including but not limited to Neighborhood Electric Vehicles (NEVs), light rail, shuttle bus, and carpool facilities.
4. Provide uses for two underserved markets in the southeast Sacramento region:
 - a. Provide for the development of a major private university facility in Sacramento County.
 - b. Provide residential neighborhoods that are age restricted in order to serve seniors and larger lot sizes for executive housing to serve corporate executives.
5. Develop internal Project infrastructure and circulation networks of multiple modes that provide efficient connections to various land use components throughout the Project; specifically, trail opportunities to enhance the integration between the university/college campus center, town center, schools, and preserves/open space corridors surrounding the Project.
6. Develop recreational and open space opportunities that include neighborhood and community parks that are fully integrated into the Project through adequate trail connections and provide critical regional trail connections associated with adjacent trail systems
7. Allow for the inclusion of alternative energy sources to serve the mixed use community.

2 ALTERNATIVES TO THE PROPOSED PROJECT

INTRODUCTION

This chapter describes alternative versions of the proposed Project which could lessen impacts or that provide meaningful information to foster informed decisions. Impact discussions are more brief than those found in the Project chapters, consistent with CEQA Guidelines Section 15126.6(d). This chapter does not repeat background discussions or other subject matter which has already been described in the topical chapters of this EIR, but focuses on those Alternative impacts which are substantively different than the impacts described for the Project. Reviewers are encouraged to read the topical chapters describing Project impacts prior to reading the Alternatives chapter. A brief table of contents is included which lists the page number of each topical section.

TABLE OF CONTENTS

Alternatives Considered but Rejected:	2-2
Description Of Alternatives:	2-14
Aesthetics:	2-24
Agricultural Resources:	2-28
Air Quality:	2-32
Biological Resources:	2-38
Climate Change:	2-45
Cultural Resources:	2-48
Geology and Soils:	2-49
Hazards and Hazardous Materials:	2-53
Hydrology and Water Quality:	2-53
Land Use:	2-55
Noise:	2-59
Public Services:	2-73
Public Utilities:	2-74
Traffic and Circulation:	2-79
Environmentally Superior Alternative:	2-140

RANGE OF ALTERNATIVES

According to Section 15126.6 of the California Environmental Quality Act (CEQA) Guidelines:

An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives.

The purpose of this section is to identify alternative project designs that would mitigate, lessen, or avoid the significant effects of the Project. To foster meaningful public discussion and informed decision-making, a range of reasonable alternatives to the Project is provided. This range includes the “No Project” alternative, the purpose of which is to allow the hearing body to compare the impacts of approving the Project to the impacts of not approving the Project. The “No Project” alternative describes what would happen if the existing land use designations remained in effect.

The Project would result in significant impacts related to aesthetics, air quality, biological resources, climate change, and transportation. Many of these impacts are significant and unavoidable, because they are the inevitable result of developing such a large master planned community. Changing the location or the layout of the Project could reduce impacts to some degree, but it is unlikely that they could be reduced to levels which are not significant without radically changing the objectives and scope of the Project. The exception is Biological Resources, in which impacts are due to the location and layout of the Project. For this reason, though Alternatives are designed to reduce impacts to many topical areas, changes to the Project layout and location focus on avoidance of biological resources.

In addition to the No Project Alternative, this EIR includes detailed analysis of two Alternatives: “Expanded Preserve” and “Expanded Footprint”. Other alternatives were considered but ultimately eliminated from detailed analysis; these are also described below.

ALTERNATIVES CONSIDERED BUT REJECTED

Multiple Alternatives to the Project were considered but ultimately rejected. CEQA Guidelines section 15126.6 states that:

The EIR should also identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency’s

determination. Additional information explaining the choice of alternatives may be included in the administrative record. Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts.

An agency need not find that a project is literally impossible before it can reject an alternative as infeasible. The finding may be made based on policy considerations or project objectives (ex: *California Native Plant Society, et al. v. City of Santa Cruz, et al.*) or based on specific economic, legal, social, technological, or other considerations (CEQA Guidelines Section 15091). There is no ironclad definition of infeasibility, only guidance, and so it is left to the discretion of the lead agency to determine and explain what reasons are sufficient to exclude an alternative from analysis.

SWALE PRESERVATION ALTERNATIVE

A number of potential onsite alternatives were initially evaluated for feasibility and further detailed analysis, one of which was the “Swale Preservation Alternative.” As described in the Biological Resources chapter, the verified wetland delineation identified approximately 88.1 acres of jurisdictional waters (Table ALT-1). The Project focuses much of the avoidance area on vernal pools and seasonal wetlands, but this Alternative would focus additional avoidance on the swales and other linear waters.

Table ALT-1: Swale Preservation Wetland Impacts Compared to the Project

Wetland Type	Project		Swale Alternative	
	Impact	Avoided	Impact	Avoided
Vernal Pool	15.6	31.9	13.9	33.5
Seasonal Wetland	3.06	1.71	1.94	2.83
Seasonal Wetland Swale	13.9	4.35	8.15	10.1
Seep	0.012	0.00	0.012	0.00
Intermittent Drainage	6.36	10.4	1.12	15.8
Creek	0.00	0.174	0.00	0.174
Stock Pond	0.688	0.835	0.69	0.835
Total	39.6	49.3	25.9	63.2

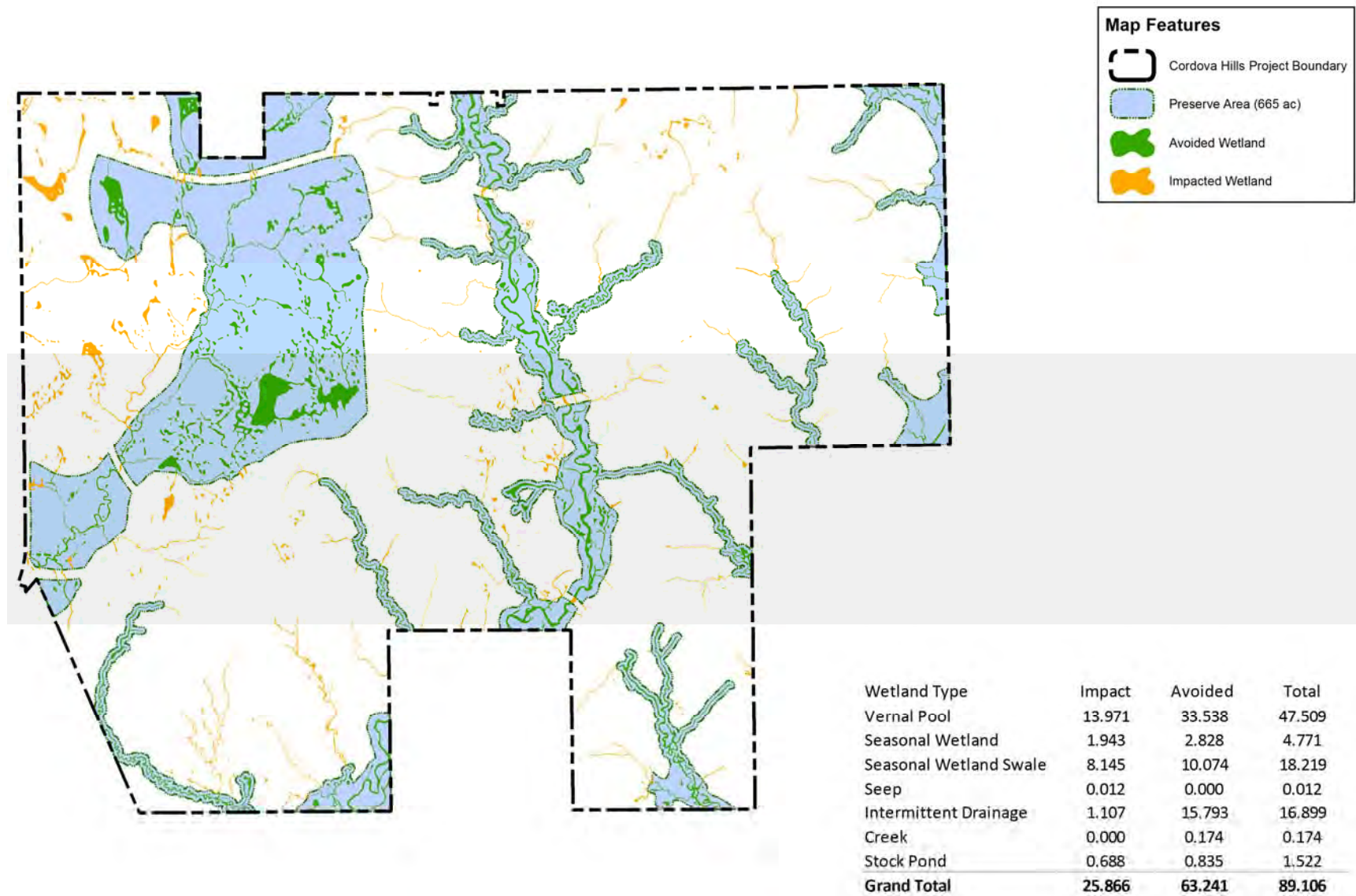
As part of the evaluation of the feasibility of potential onsite alternatives, the EIR preparers looked at whether the Swale Preservation Alternative would be able to substantially meet the basic Project objectives. As shown on Plate ALT-1, maintaining a portion of the swales connected to the primary intermittent drainages would break up the buildable areas of the site into segments, which would require significantly more retaining walls and street work associated with avoiding and working around the

retained swales. In addition to overall reductions in buildable area associated with avoidance of the features and construction of additional infrastructure, it would become more difficult to grade the larger, flatter areas which are necessary for high density development. The Project has included the higher density units on the western side of the property, where it is closest to the Town Center and the University/College Campus Center, and it is these areas which would be most affected by loss of buildable area. Thus, in addition to reducing the overall amount of land available for development, the alternative would result in a lowering of the density units on some of the remaining developable land.

The applicant indicated that the Alternative could increase infrastructure costs from \$323,030,000 to \$351,873,000. That is an increase of \$28,843,000 or approximately 9% in total infrastructure costs. In addition, the applicant estimated that the Alternative would result in a loss of 43.32 non-residential/open space acres, 52.78 acres of residential, and 30.4 acres of roads/misc./OS, for a total loss of 126.5 developable acres. The loss of 52.78 acres of residential land results in a loss of 870 dwelling units, which reduces the total unit count from 8,000 dwelling units to 7,130. While only an 11% reduction in total units, since the Alternative also increases total infrastructure costs, the overall effect would be to increase costs per unit by 22.2%. The CEQA Guidelines Section 15126.4(f)(1) provide that "among the factors that may be taken into account when addressing the feasibility of alternatives are ... economic feasibility...." A per-unit cost increase of 22.2% is a substantial increase, and was deemed infeasible.

In addition to financial issues, the segmentation of the developed areas by the preservation of many individual swales would either require a multitude of roadway overpasses (which would be even more costly than described in the calculations above) or would require substantial changes to circulation patterns which would ultimately deviate from the modified grid pattern currently proposed. Sacramento County General Plan Policy LU-120, criteria PC-5, requires interconnected streets with short block lengths, the achievement of which would be seriously hampered by the Alternative. The Swale Preservation Alternative breaks up the short block connections of streets and increases the isolation of neighborhoods throughout the plan. Unless the Alternative is able to meet PC-5, it cannot be considered for approval pursuant to General Plan policy. Both for fiscal reasons and for potential inability to meet required General Plan policy, this Alternative was rejected from further consideration.

Plate ALT-1: Swale Preservation Alternative



OFF-SITE ALTERNATIVES

Changing the location of the site is a major deviation from the intent of the Project, as a substantial amount of language in the Special Planning Area references the views of the Sierra and the landscape setting as informing and driving many of the design choices and other layout considerations of the Project. The Project site is also already owned by the applicants, and purchasing other property or entering into other development agreements in order to pursue an off-site alternative poses a substantial logistical and financial hurdle. Given that a change in location already represents a fundamental change in Project scope and poses a substantial challenge to implement, it was determined that any off-site location should allow the other basic Project designs and objectives to remain essentially intact. On-site alternatives have been designed to make more substantive changes to proposed uses and total developed area, but it was determined that the total land area and uses of the proposed Land Plan should be able to remain essentially intact for any offsite alternative.

Multiple factors were considered when investigating off-site alternatives. The Project includes approximately 1,732 acres of urban uses (exclusive of areas designated as Avoided Area, Agriculture, or Recreation), and will need an additional 107 acres of parkland, for a total of 1,837 acres. An alternative location should be able to accommodate a similar amount of development. The area also must be suitable for a mix of uses which is substantially consistent with the Project mix – both in terms of types of uses and proportions of those uses – in order to be considered consistent with the basic objectives of the Project (e.g. a site suited for industrial and commercial uses, with little residential, would be rejected).

Consistent with the intention to create an urban development, most properties lying outside of the Urban Services Boundary were excluded from consideration. The Urban Services Boundary is designed to be the ultimate edge of urban development in the County, and all long-range plans for infrastructure (such as roadways and utilities) have assumed that areas outside of the Urban Services Boundary would remain rural in nature. Development of land outside of the Urban Services Boundary would therefore result in greater environmental impacts, particularly due to growth inducement, as it would require a significant precedent-setting amendment to a central policy of the General Plan.

Another factor in the suitability of a site is the ability to obtain enough separate parcels of sufficient size. The Project area consists of ten parcels and only three owners, all of whom have elected to move forward with this single Project. Though there are many other properties within the Urban Services Boundary, these properties may not be obtainable, as there may be a multitude of separate owners who may be unwilling to sell or enter into some other agreement, the land may be within conservation easements, or the land may be in some other use which precludes urban development.

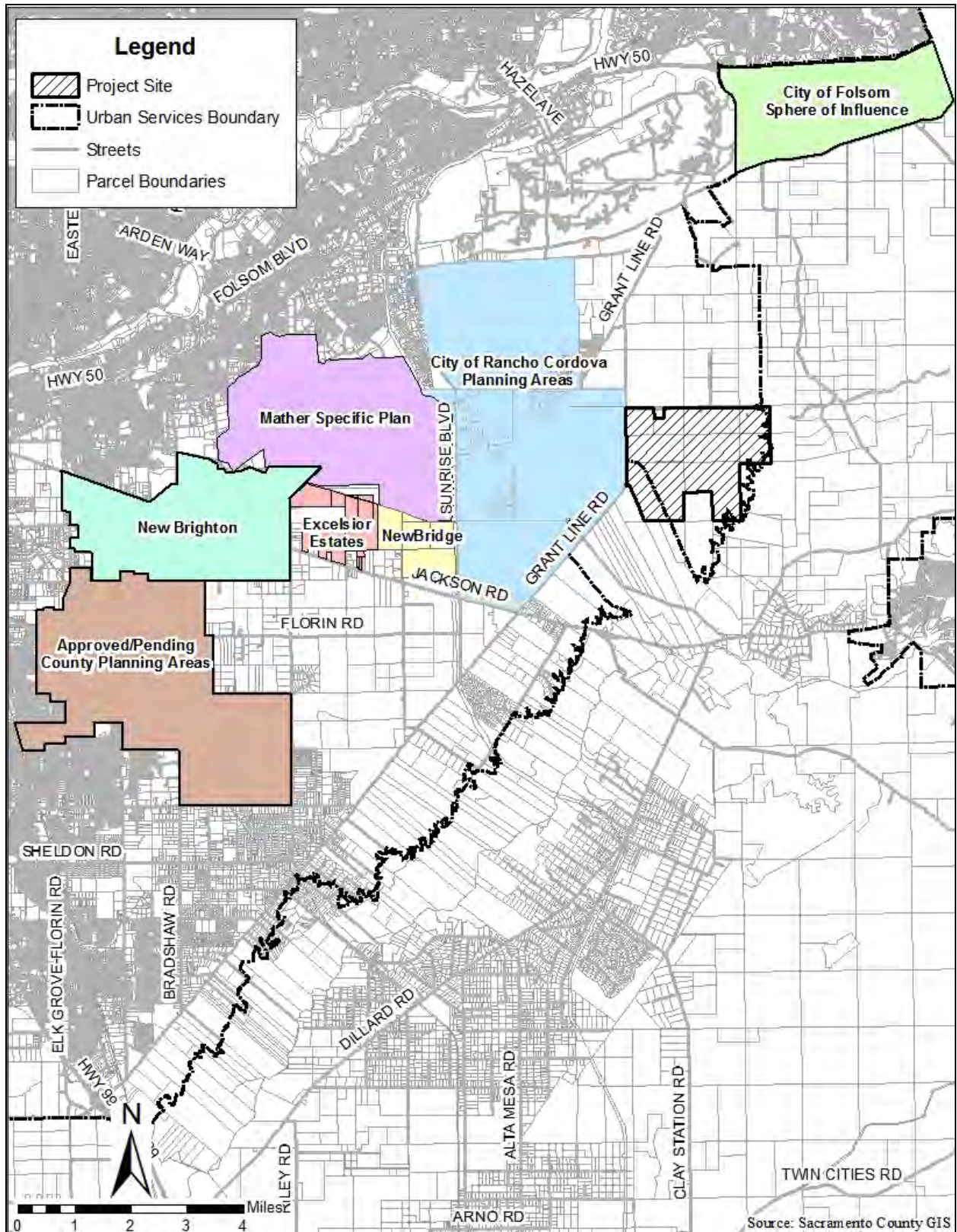
Land which is already in the process of obtaining local land use entitlements for development would be nominally suitable if the proposed mix of uses was similar to that of the Project, but then the Project would be subject to the master planning done for that

area – the SPA could no longer be part of the Project. Since many of the Project objectives relate to the development regulations contained in the SPA, land already subject to master planning proposals was excluded from consideration as both potentially infeasible to acquire and for failure to meet basic Project objectives.

The proposal for a large retail center (the Town Center) requires relative proximity to a major existing or proposed transportation corridor (such as a freeway system or thoroughfare). Alternative locations which are too far from such a corridor would make the retail component too inconvenient to reach, and would likely result in trips continuing to other retail centers which were more proximate or more accessible. To remain economically viable, the Town Center needs to be near a major transportation corridor. The following transportation corridors were identified as suitable: Highway 50, Jackson Highway (State Route 16), Sunrise Boulevard, Folsom Boulevard, White Rock Road, Prairie City Road, and Grant Line Road. Other locations were considered infeasible.

Plate ALT-2 depicts areas which may contain sufficient land area but are already the subject of existing proposed or approved master planning. New Brighton, Excelsior Estates, and NewBridge are master plan proposals that are within pre-application processing with the County of Sacramento. The City of Folsom Sphere of Influence is outside of the Urban Services Boundary, but was included because it is existing, and the negative physical consequences of the expansion would not be due to the Project. The City of Rancho Cordova Planning Areas (the depicted boundaries are approximate, not exact) include the approved Sunridge Specific Plan, the pending Rio Del Oro land plan, the pending Suncreek Specific Plan, and the pending Arboretum Specific Plan. The Sacramento County planning areas include the approved Florin Vineyard Gap Community Plan, Vineyard Springs Comprehensive Plan, and the Vineyard Station Specific Plan. The areas on the exhibit all encumber large portions of land, and all but the Mather Specific Plan are infeasible due to problems with acquisition and the inability to meet Project objectives (as described previously). The Mather Specific Plan area is further discussed below because it is a County-initiated project, and thus is within the ability of the County to amend to fit the Project, if possible.

Plate ALT-2: Locations With Existing Master Planning Proposals/Approvals



Remaining lands that could be considered include properties north of the Project site, properties between Grant Line Road and the various existing planning areas, and properties south of the City of Elk Grove (Plate ALT-3); these areas are further discussed below. Note that most of the large area north of the City of Rancho Cordova planning areas is part of a Federal Superfund site owned by Aerojet, a propulsion manufacturer, and is unavailable for development at this time.

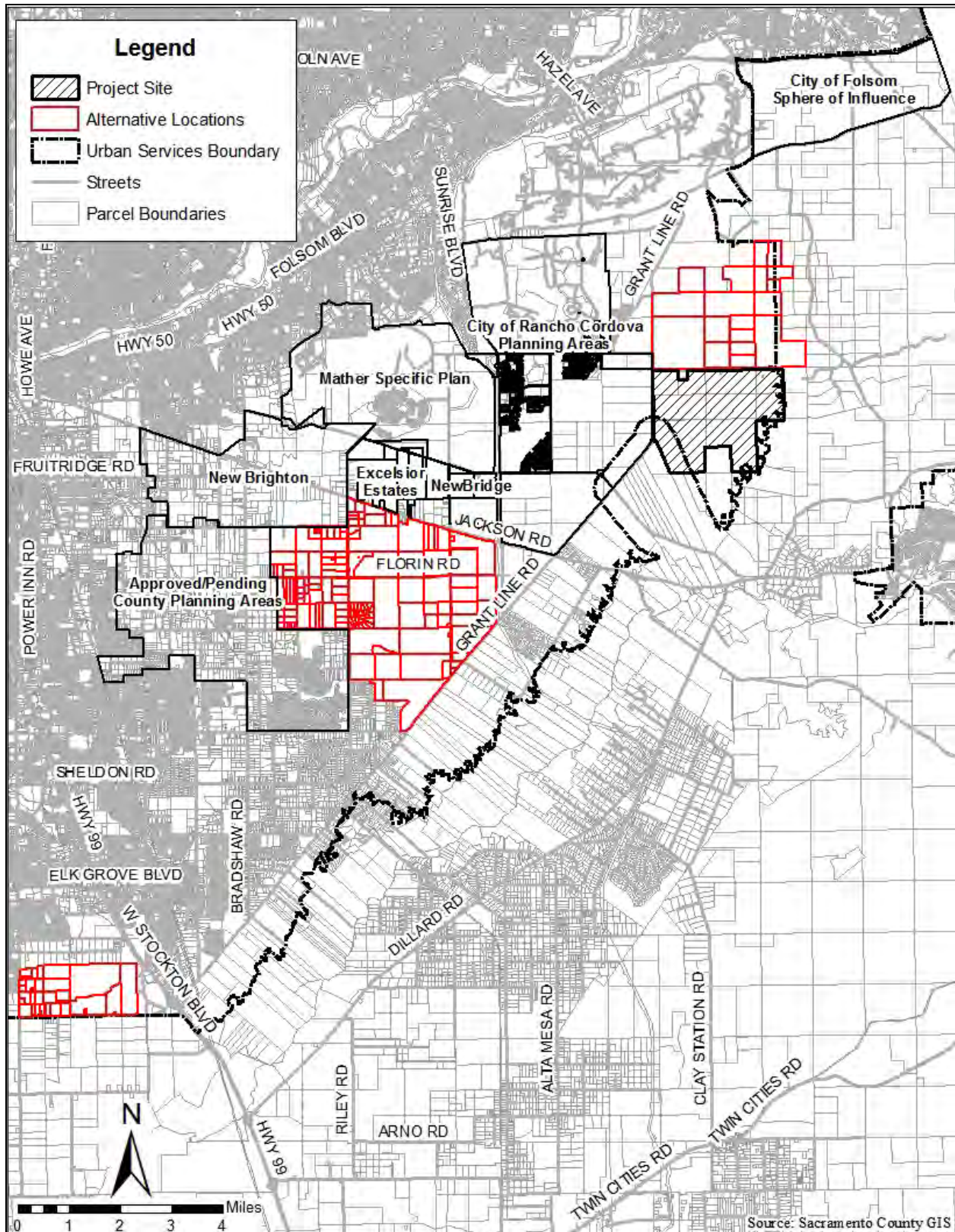
MATHER FIELD SPECIFIC PLAN

A university has been proposed within the Mather Field area – the proposed Mather Field Specific Plan (County Control Number 2006-0151) includes a 272-acre area labeled “Sports Complex” and a 593-acre area labeled “University and Village/Residential”. The Mather Field Specific Plan area contains approximately 5,700 acres of land, but a significant portion of this property is within the direct influence of Mather Airport and would be unsuitable for residential uses. A review of the proposed Specific Plan indicates that unless the proposed Specific Plan were modified, only approximately 1,000 acres would be suitable for Project uses. This figure is obtained by excluding the airport; existing development; approximately 220 acres of the land designated as Sports Complex; and areas designated as a preserve or riparian buffer, as a golf course, as Airport Commercial, as Economic Development, and as Commerce Center.

The Mather Field Specific Plan Sports Complex is approximately 270 acres, and so could accommodate the 50-acre sports park concept of the Project, but the remaining 220 acres would still be used for other sports facilities; it could not be used for other Project uses. The land designated Economic Development is excluded because it is a small “island” of uses over 2 miles away from the other available urban uses designated in the Specific Plan. The Commerce Center lands are excluded because the Specific Plan includes approximately 550 acres of commercially-designated lands, but the Project only requires approximately 230 acres. Without amending the proposed Mather Field Specific Plan, the residential development envisioned by the Project would need to be reduced by approximately 550 acres – which is more than half of the Project residential land.

In addition to a substantial reduction in the proposed residential uses of the Project, pursuing this alternative would place the commercial uses of the Town Center a minimum of one mile away from the University and residential lands. The Specific Plan locates the Sports Complex, Mather Lake, and a golf course in between the University and Village/Residential area and the Commercial Development area. As a result, the direct connectivity between the Town Center and University envisioned by the Project would not be possible. This connection was considered integral to the Town Center, as the student body represents an important spending base.

Plate ALT-3: Potential Alternative Locations



The Mather Field Specific Plan was reviewed to determine whether changes could be made to the Specific Plan uses so that the Project could be accommodated – since the Specific Plan is a County-initiated project – but it was determined to be infeasible. The Specific Plan land uses have been located in areas that are compatible with the noise and safety zones that exist around Mather Airport. Commercial uses are proposed in areas where residential land uses are incompatible, and thus the conversion of some of the commercial land to residential uses is infeasible. Likewise, the Sports Complex, golf course, and commercial uses are located in areas where those uses are compatible, and cannot be switched to bring the commercial uses closer to the residential and University area.

This alternative was considered but rejected during the scoping process due to the following factors: inability to accommodate the residential uses of the Project, inability to maintain connectivity between the retail component and the spending base, and inability to provide multimodal connections supporting non-automotive travel between important project components. On the latter point, placing the commercial and residential/university components of the Project one mile apart would result in failure to achieve objectives 1, 3, and 5 of the Project.

PROPERTY SOUTH OF ELK GROVE

This area includes approximately 1,400 acres of contiguous land, which falls below the approximately 1,800 acres needed to accommodate the Project uses. This location is also adjacent to the approved Elk Grove Promenade Mall project, which was under construction when the recession caused all work to halt. It is unlikely to be economically feasible to include the intensive retail of a large mall and the retail uses of the Town Center. Given that the mall is already approved and is partially constructed, the Town Center would need to be removed from the Project. The mall cannot be considered a replacement for the Town Center, because while the Elk Grove Promenade Mall is designed to be a more standard retail-only development, the Town Center is designed to be a mixed use development consisting of retail, office, and residential. Given that this location does not include sufficient land area and would require the removal of a major component of the Project, this site was eliminated from detailed consideration.

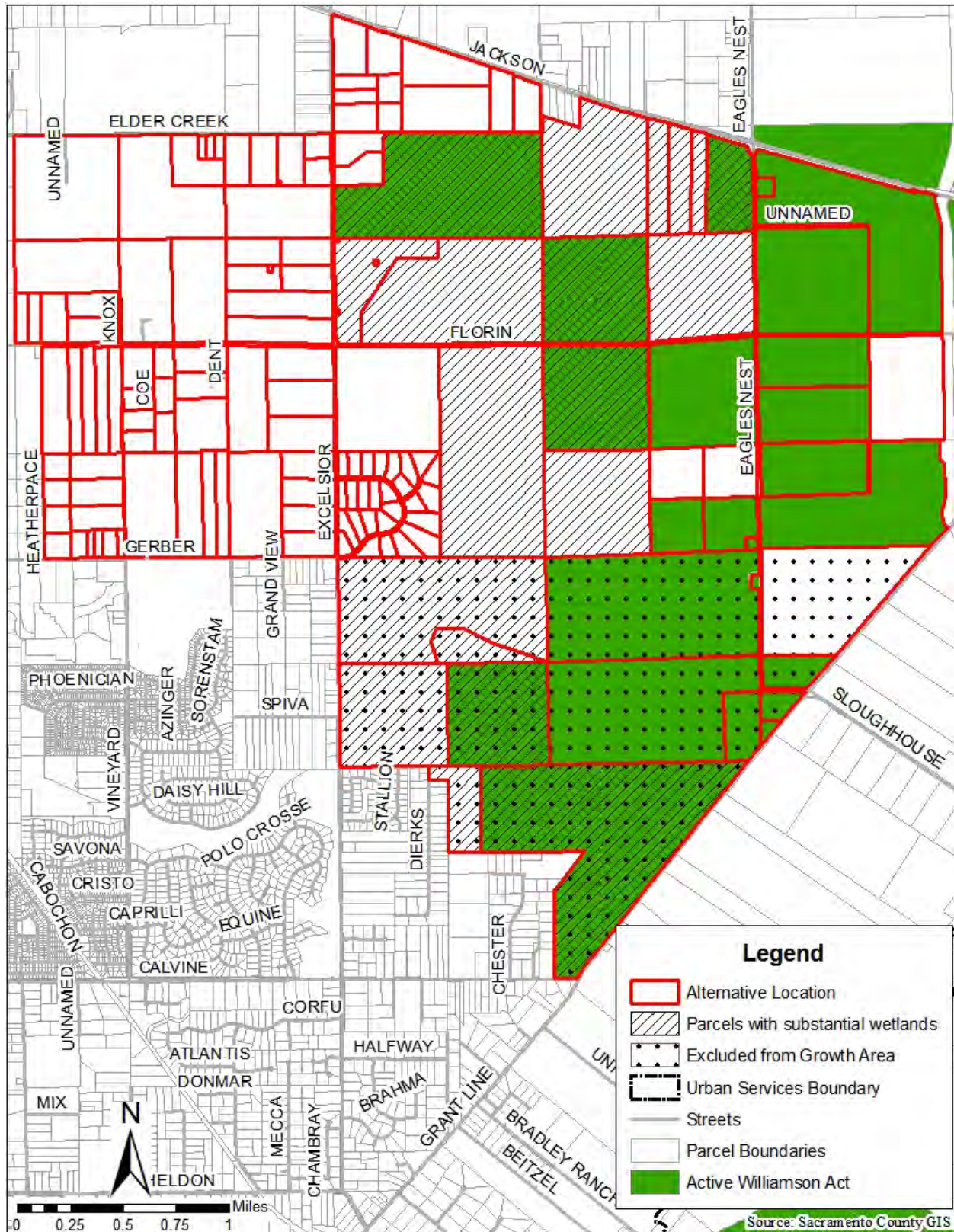
PROPERTY BETWEEN GRANT LINE ROAD AND OTHER PLANNING AREAS

This area includes approximately 7,500 acres, 153 different parcels, and over 100 different owners (Plate ALT-4). Not all of this land would be needed, so an analysis was done to identify a more specific area to consider. Review of aerial photography indicates that significant land area includes wetland complexes; some of this property is already owned by organizations such as the Sacramento Valley Conservancy and some is being considered for inclusion in the anticipated Draft South Sacramento Habitat Conservation Plan as preserve area or protected area. Plate ALT-4 shows the land areas with the densest concentrations of wetlands. Other areas also include wetlands, but they do not appear to be as densely concentrated or as intact. In addition, the land

south of Florin Road has been the subject of discussion before the Sacramento County Board of Supervisors, for potential inclusion in the Draft 2030 General Plan as a new growth area, and was ultimately excluded from consideration. Notwithstanding the change in growth management strategy which was approved subsequent to this decision-making, it remains questionable whether this decision would be reversed for a Project alternative. The final major constraint is the presence of substantial amounts of land under active Williamson Act contract. These various constraints exclude most of the property from consideration on the dual basis that development here would not reduce impacts to wetlands and may be infeasible to develop due to the presence of multiple Williamson Act contracts and other land use restrictions.

Excluding the existing subdivision at the corner of Excelsior and Gerber Roads, the remaining land area that is not encumbered by significant wetlands or Williamson Act contracts encompasses approximately 2,300 acres and 80 parcels. Various parcels are being used for the operation of businesses, such as a plant nursery and an equestrian facility, but most are agricultural or agricultural-residential parcels with single-family homes. The significant number of parcels and the fact that many of them have single-family homes would make acquisition of the land infeasible both due to logistical and financial reasons. The other option would be to enter into a development agreement with the property owners, which would be similar to the model used to develop the Florin Vineyard Gap Community Plan. This is also logistically challenging, and in order to work would require that the entire SPA be revisited in consultation with the many different property owners. It is unlikely that the SPA and the Project objectives would remain intact as a result of this process. Furthermore, each owner would be operating under separate financial constraints and under separate timeframes, and thus it would be infeasible to develop large, coherent pieces at the same time. This alternative was ultimately rejected due to failure to meet Project objectives and due to logistical infeasibility.

Plate ALT-4: Constraints on Property West of Grant Line Road



PROPERTY NORTH OF THE PROJECT

This area includes parcels which are north of the Project site, but excludes land operated as an aggregate mine by Teichert. There are eighteen parcels in this area, for a total of approximately 3,200 acres. Approximately 862 acres of this land is currently owned by the Project proponents. Five of the eighteen parcels include some land outside of the Urban Services Boundary, which would not be available for urban development; removing this area, which is approximately 370 acres, leaves 2,830 acres for development. This is sufficient land to accommodate the Project uses, and is located along the same major transportation corridor as the Project. Aside from the Project proponents, there are eight property owners of this land. It may be difficult to acquire the remaining land or otherwise enter into development agreements with the owners.

Aside from some difficulty with acquisition, the primary issue with this site is that development of this site would not result in lesser environmental impacts than development of the Project site. This alternative site is adjacent to the Project site, and as such shares most of the same constraints and issues described for the Project. Review of aerial photography clearly indicates that the property north of the Project site also includes plateau areas with dense aggregations of vernal pools, as well as intermittent drainages, seasonal wetlands, and other features. In addition, the only two parcels adjacent to Grant Line Road (totaling 960 acres) are within active Williamson Act. There are no existing public water or sewer lines proximate to the site. Though the site is farther from the Kiefer Landfill, it is adjacent to an active mining area. Ultimately, it was clear that this alternative would not result in a reduction in significant impacts, and so was eliminated from more detailed consideration.

Note that although relocating the entire Project to these northern properties has been rejected, a detailed analysis has been included for an alternative that would include a portion of the property to the north (Expanded Footprint Alternative).

DESCRIPTION OF ALTERNATIVES

NO PROJECT

The No Project alternative may either be considered to be maintenance of the existing condition, development to the degree that would be allowed without any further discretionary review or entitlements, or an in-between version. In the case of the Project site, there is little difference between these versions of the No Project. The site is zoned AG-80 (Agricultural properties of a minimum of 80 acres in size), and encompasses ten parcels. In the No Project Alternative, each of these parcels could be developed with one single-family home. Given the rural nature of the area, it is assumed that urban services such as public water and sewage disposal would not be used, and that homes would rely on individual wells and septic systems. Though analyzed as though up to ten homes would be constructed, it is probable that if homes

were built there would be fewer than this number. Many of the parcels do not have access to existing roadways, and it would be costly to build roads to provide that access. It is more typical in Sacramento County to see a few of the parcels containing homes for the primary property owner(s) and relatives, while the “back” areas without frontage remain undeveloped agriculture. Thus, grazing of the majority of the land would be presumed to continue.

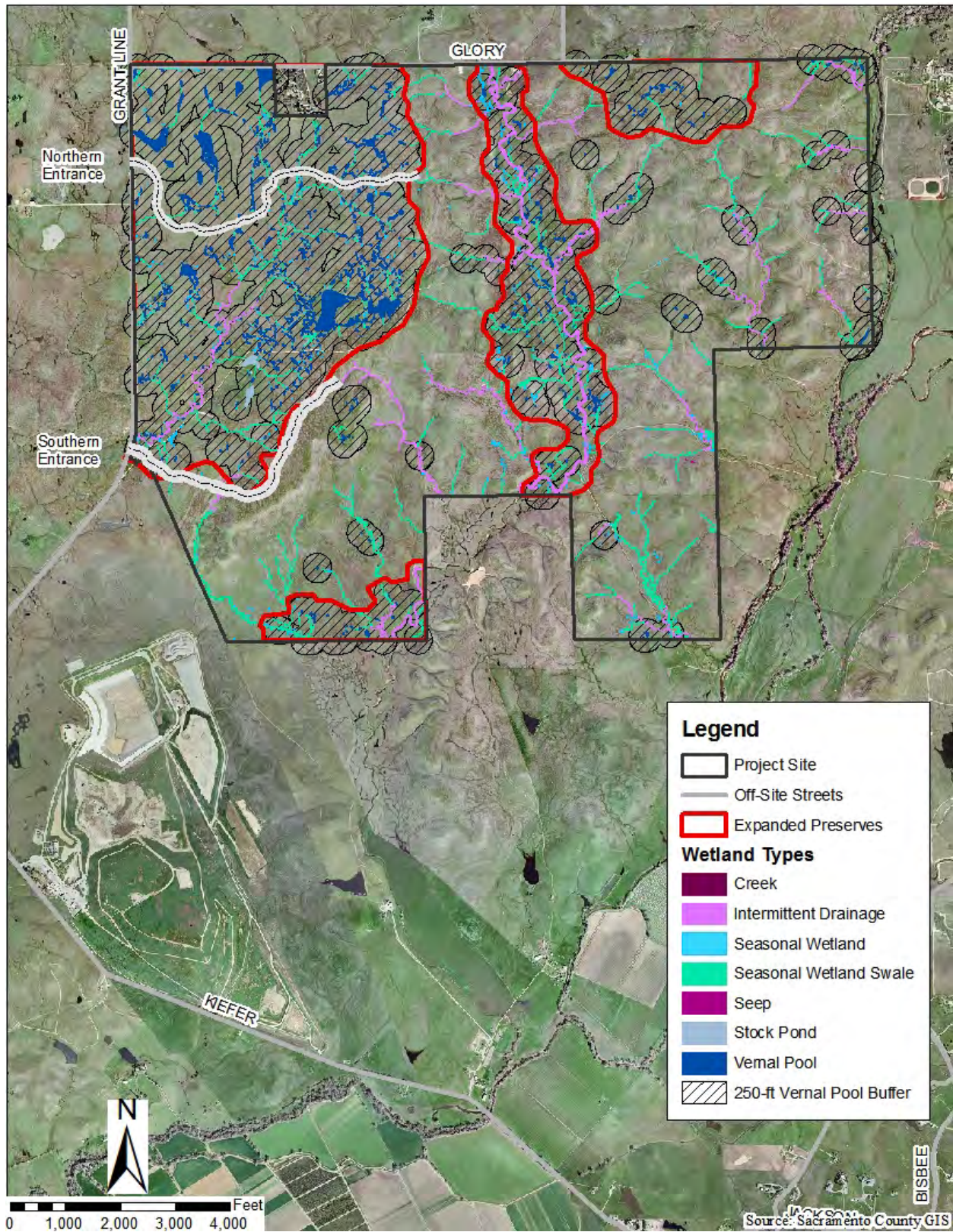
It is conservatively assumed that each home could involve up to one acre of land being taken out of agricultural use; this assumption includes access roads, the homes and appurtenant improvements, landscaped area, and areas fenced in for gardens and/or family pets. In the worst case, this could result in a total of ten acres of land being encumbered.

ALTERNATIVE 1: EXPANDED PRESERVES

This Alternative would place approximately 1,142 acres into preserves primarily by increasing the size of the western preserve area, while simultaneously reducing the developable area to 1,527 acres. The proposed preserve boundaries and Alternative’s revised access points are shown in Plate ALT-5. The preserve boundaries are defined by the standard 250-foot buffer typically requested around vernal pools in order to avoid both direct and indirect impacts (refer to the Biological Resources chapter). Note that in this alternative these areas are preserves, not avoided areas, as the Alternative includes the placement of the areas into permanent preservation/conservation easements.

The westernmost preserve is approximately 748 acres (108 acres is outside the USB), the preserve around the central site waterway is approximately 246 acres, the preserve in the northeastern area is approximately 88 acres, and the preserve in the southwestern portion of the site is approximately 60 acres. Just as with the proposed project, there would be an opportunity to create small linear preserves around some of the seasonal wetland swales and intermittent drainages to create a connected mixed-use trail system. Access into the Project site from Grant Line Road would be reduced from three locations to two locations; the central access would be removed, leaving a northern and southern entrance. As shown on Plate ALT-5, access to the site must cross the westernmost vernal pool preserve, but the two conceptual locations were chosen in order to minimize vernal pool disturbance.

Plate ALT-5: Expanded Preserves – Wetland Preserves and Access Points



Enlarging the westernmost preserve will require the removal of the proposed Town Center, resulting in the removal of 966,779 square feet of commercial/retail uses. Relocation of the Town Center elsewhere was considered, but this poses two difficulties. Firstly, this area was located along Grant Line Road because its regional retail and commercial mixed uses and densities can only be supported if it is located in a very “visible” area – i.e. along a high-capacity transportation corridor. A regional mixed use retail and commercial center is not likely to be viable if it is not highly visible and accessible. It is conceivable that the uses could be amended and rescaled to serve as a more local destination shopping area, which would attract users less through visibility than through local reputation; however, relocating the entire town center interior to the Project would require the loss of 200 acres of residentially-designated lands. The relocation would remove all 156 acres of the Ridgeline Village as well as another 50 or so acres of the University Village component. The result would be a project with a significantly unbalanced ratio of commercial to residential product. For these reasons the Alternative assumes that the Town Center is removed without replacement elsewhere.

Though this Alternative does represent a fundamental Project change, and would result in the failure of the Alternative to meet one of the primary and basic objectives of the Project, it is the only design which would avoid nearly all impacts to vernal pools (some impacts may occur as part of construction of the access road across the preserve). Project impacts to wetland resources are significant and unavoidable, and also result in significant and unavoidable impacts to special status species such as vernal pool branchiopods. For this reason, the Expanded Preserves Alternative has been included for detailed analysis, despite conflict with Project objectives.

The expansion of the various preserve areas will also require the removal of other portions of the Project, including approximately: 23 acres of the Academic Zone of the University/College Campus Center, 20 acres of the Sports Park, 9 acres of medium density residential land within the Ridgeline Village, 10 acres of high density residential land within the Ridgeline Village, 3 acres of low density residential land within the Ridgeline Village, 29 acres of medium density residential land within the University Village, 31 acres of low density residential land within the East Valley Village, and 39 acres of Public/Quasi-Public within the East Valley Village. This is conceptually shown on Plate ALT-6. These boundaries are intended to be conceptual, not exact, so the figures described in this paragraph, above, are approximate and represent the major changes.

The proposed Land Use Plan describes the densities and units assumed within each of the proposed large lots of the Project. Using this information, it can be calculated that Expanded Preserves will result in the removal of all 1,750 units from the Town Center, approximately 300 units from the Ridgeline Village, 250 units from the University Village, and 125 units from the East Valley Village. It will also reduce the proposed High School site to 39 acres, eliminate an elementary school site (which is in the Town Center), reduce the Athletic Zone of the University/College Campus Center to 38 acres, and reduce the Academic Zone of the University/College Campus Center to 45 acres. Though the Sports Park is reduced to 25 acres by the preserve expansion, it is

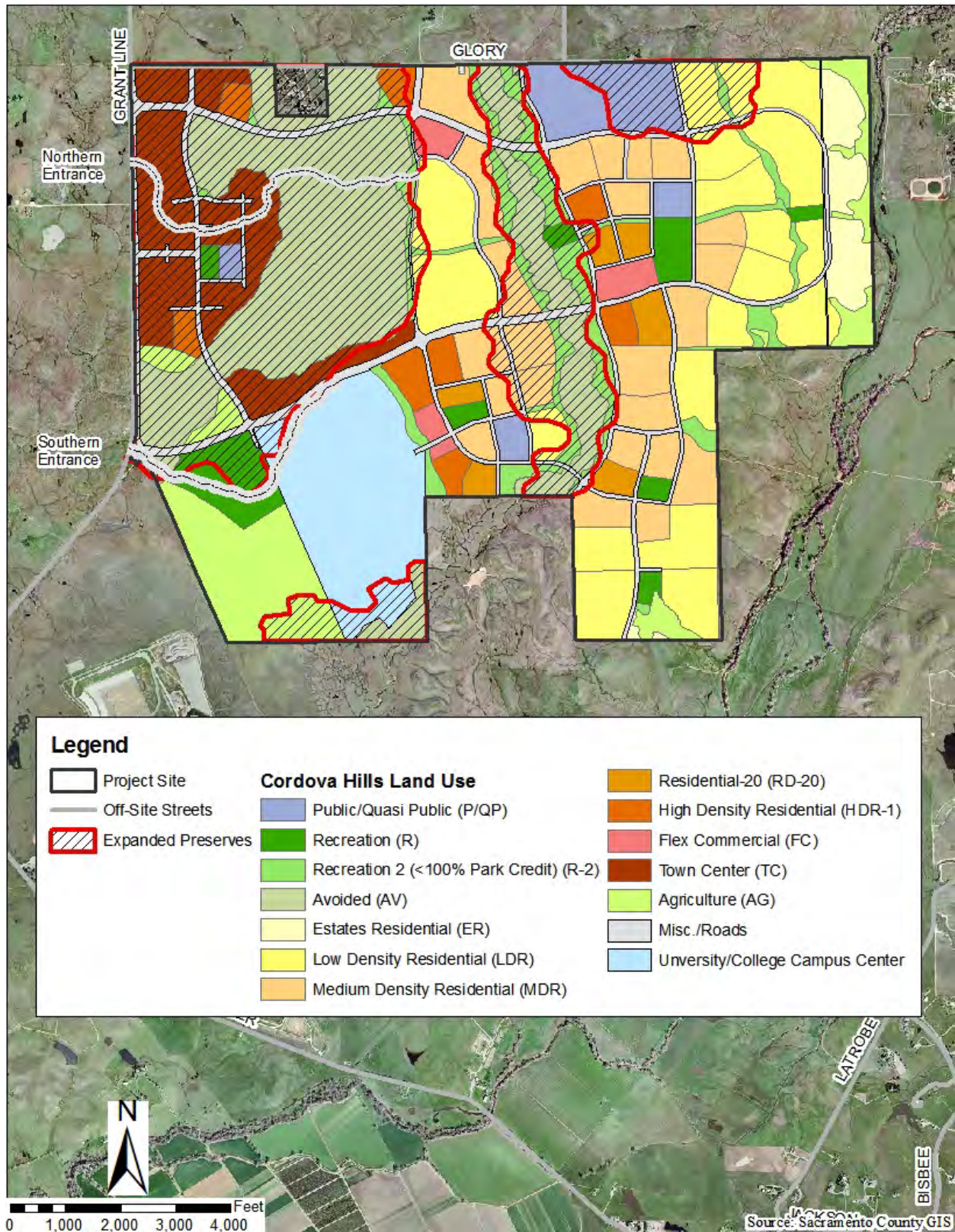
assumed that the park will simply be moved farther south and that the full 50-acre park will be developed.

One of the core objectives of the Project is to achieve high on-site residency rates for future college students. To offset the loss of 29 acres of medium density residential lands in the University Village (which is potential student housing), this Alternative assumes that approximately 29 acres of the Ridgeline Village low density residential lands will be medium density residential. The table below (Table ALT-2) provides the residential densities expected as part of Expanded Preserves.

Table ALT-2: Expanded Preserves Residential Unit Totals

Village	Approximate Number of Units	Approximate Net Residential Acres	Approximate Net Density
Ridgeline Village	945	90	11
University Village	1,235	70	18
Estates Village	500	125.8	4
East Valley Village	1,615	165	10
Creekside Village	1,540	192.4	8
University/College Campus Center	1,010	55.5	18
<i>Project Total</i>	<i>6,845</i>	<i>698.7</i>	<i>10</i>

Plate ALT-6: Expanded Preserves – Preserve Areas and Project Land Uses



ALTERNATIVE 2: EXPANDED FOOTPRINT

Alternative 2 includes the enlarged preserves of the Expanded Preserves Alternative but also expands the total Project footprint to include an 862-acre northern property referred to as Grant Line Pilatus (Plate ALT-7); again, these areas are placed within a permanent preservation/conservation easement. Portions of the Project site and the northern property are owned by separate limited liability companies, some of which share a common ownership. This Grant Line Pilatus property was a part of the original project application submitted to the Sacramento County Planning and Community Development Department. It was subsequently removed from the proposal prior to the Sacramento County Board of Supervisors decision to accept the application. Before that decision was made, the applicants had already submitted an application for a Clean Water Act Section 404 permit to the United States Army Corps of Engineers. That application included the Grant Line Pilatus property. As a result, during the Notice of Preparation Agency Scoping Meeting the United States Army Corps of Engineers and the United States Environmental Protection Agency specifically requested that the impacts of including this northern property be assessed in an Alternative.

CEQA Guidelines section 15126.6 states that the dual purpose of an Alternative is to “substantially lessen any of the significant effects of the project” and to “consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation”. Despite the fact that inclusion of the Grant Line Pilatus property increases the physical footprint of the site and thereby expands the area of impact, this Alternative has been included in order to achieve the goal of fostering informed decision making and at the request of the federal agencies.

The total area of this Alternative is 3,531 acres, with 2,016 acres designated as developable area and 1,515 acres within preserves. With this design, it becomes possible to relocate a modified Town Center into the Ridgeline Village area, while the housing from Ridgeline Village can be moved into the Grant Line Pilatus property. This still creates a problem with visibility, as the Town Center will not be immediately accessible from Grant Line Road, but the commercial and residential lands will remain balanced, and the Town Center will still be supported by the university population. The Town Center of this Alternative is also smaller, recognizing that the traffic to the retail will be lower.

The Grant Line Pilatus property also includes wetlands and linear waterways; as part of this Alternative, a system of preserves was identified for the Grant Line Pilatus property which relies on the 250-foot buffer typically requested around vernal pools in order to avoid both direct and indirect impacts (refer to the Biological Resources chapter). Approximately 373 acres of the 862-acre Grant Line Pilatus property would be within preserves, while the remaining 489 would be potential development area.

Plate ALT-8 shows the conceptual locations of the Alternative 2 Town center, the preserve areas, and the area within the Grant Line Pilatus property potentially available for development. A conceptual layout of uses on the northern parcel is not shown, but the approximate uses within these areas are described herein.

Plate ALT-7: Expanded Footprint – Wetland Preserves and Access Points

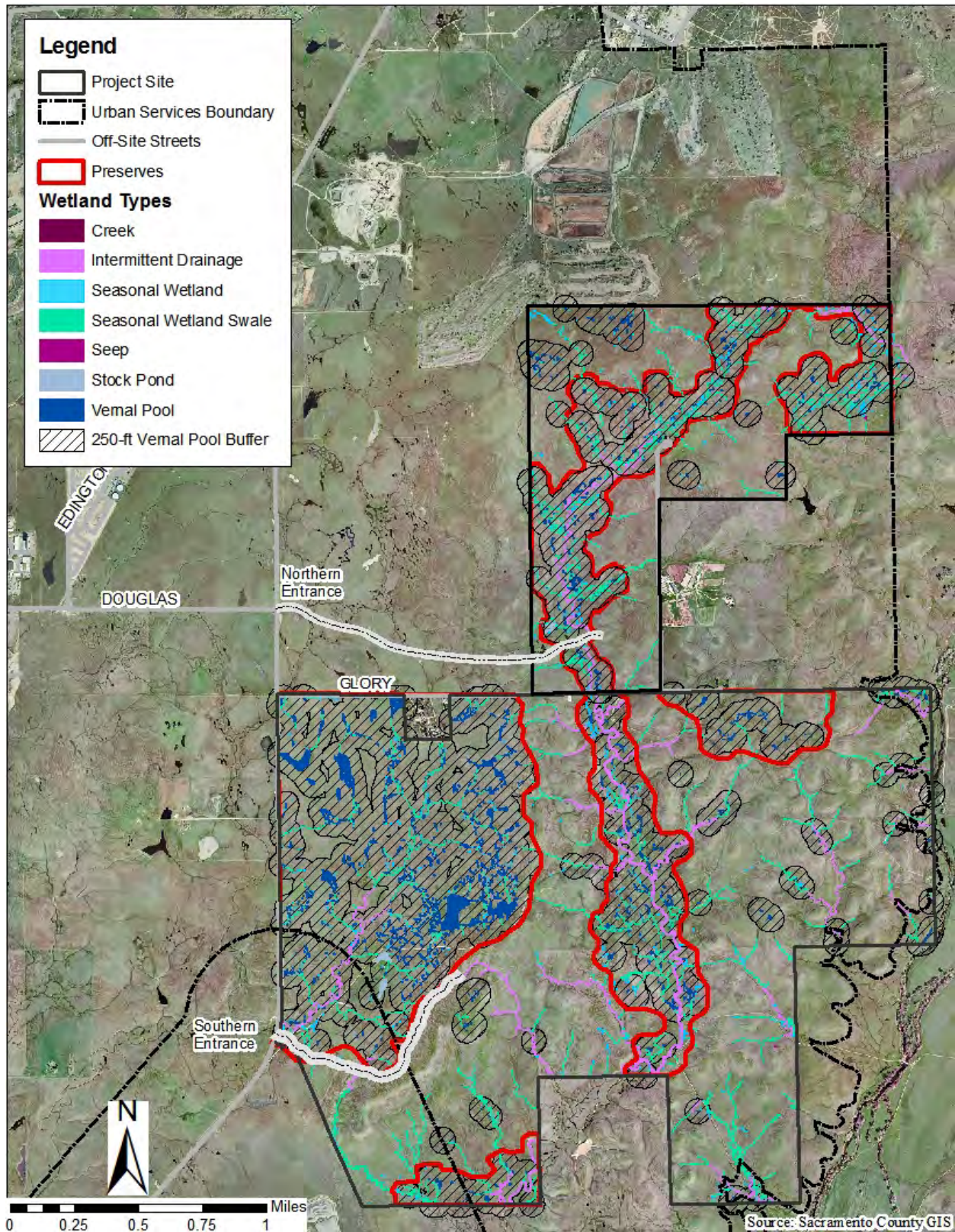
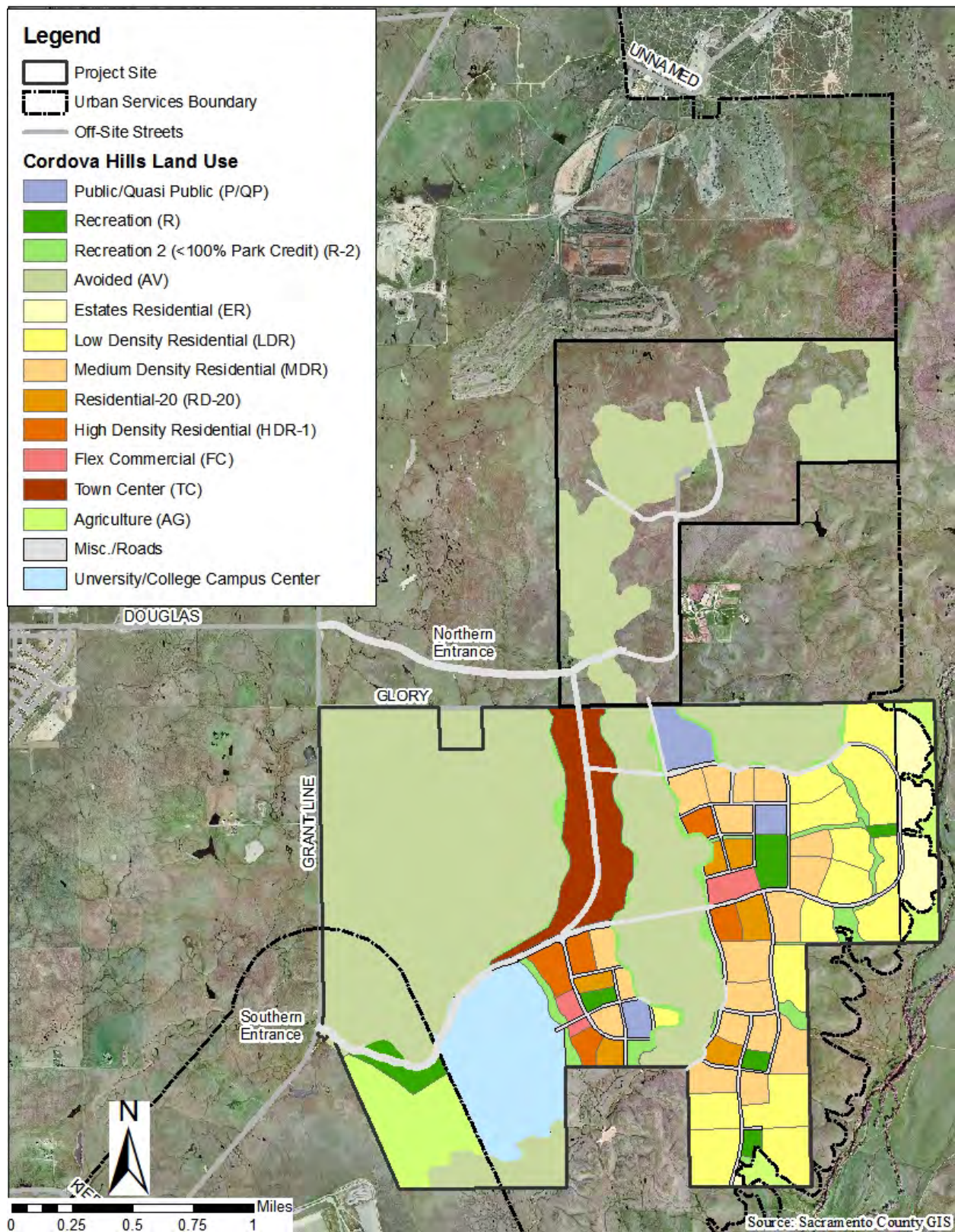


Plate ALT-8: Expanded Footprint – Conceptual Development Areas



The modified Town Center encompasses approximately 150 acres, as compared to the more than 200 acres encompassed by the Project Town Center. As with the Project Town Center, the Alternative 2 Town Center will include retail, entertainment, employment, and residential uses but the ultimate mix will depend on what is delivered by market forces and development interests. While the Project Town Center is envisioned as a regional center, the Alternative 2 Town Center will not be on a major transportation corridor and thus will only serve the Project area and some portion of adjacent future development (such as areas of Rancho Cordova to the west of the Project). The Alternative 2 Town Center cannot support the same total commercial square footage or density as the Project. At the maximum, it is assumed that the Town Center buildout will include 650,000 square feet of commercial and office uses and approximately 1,200 residential units (all HDR-1 or MDR, high or medium density residential), which is approximately 2/3 of the amount assumed for the Project (which is 1,750 units).

Relocating the Town Center would displace all 995 units of residential development within the Ridgeline Village; these units will be accommodated in the northern parcel. It is assumed that the northern parcel design would follow roughly the same design as the overall community, with some Estate Residential located at the parcel margins or within areas surrounded on three sides by preserves, Medium Density Residential located on the southern end where it is closer to the Town Center and proposed high school site, and Low Density Residential within the intervening areas.

Alternative 2 assumes that of the 995 units, approximately 100 would be Estate Residential (± 50 acres), approximately 350 would be Low Density Residential (± 120 acres), and approximately 545 units would be Medium Density Residential (± 120 acres). It is also assumed that at least one additional school and two parks will be located in the northern parcel, to replace the school (± 15 acres) and two parks (± 20 acres) removed by the preserve expansion. The proposed high school site would be expanded into the northern parcel by approximately 40 acres to replace the area removed as part of the preserve expansion. These developments leave 124 acres for roads, public spaces, open space corridors, linear parks, multi-use trail corridors, and buffer areas.

In addition to the above land use changes, the northern site access has also been shifted to an off-site location as part of this Alternative, to extend from the intersection of Grant Line Road and Douglas Road. This would be a logical roadway extension of Douglas Boulevard to the east and would be more consistent with the spacing and configurations that would be needed if Grant Line Road were to become an expressway as part of the Connector project (refer to the Transportation and Circulation chapter). The new northern entrance would require gaining access over off-site property that is not owned by the Project proponents. Review of aerial photography clearly indicates that the area through which the roadway will pass contains a vernal pool area of similar density to the Project site. Thus, whether the access is located on the site as proposed through the Project or off-site as proposed through Alternative 2, wetland impacts due to construction of this road are likely to be similar.

SUMMARY COMPARISON OF ALTERNATIVES

The Expanded Preserves Alternative includes approximately 77% of the Project population while the Expanded Footprint Alternative includes approximately 90% of the Project population. While the Project includes 18% of the land within avoided areas, the Expanded Preserves Alternative includes 43% of the land within avoided areas and the Expanded Footprint includes 57% of the land within avoided areas. The general differences between the Project and the Alternatives are included below in Table ALT-3.

Table ALT-3: Summary of Alternative Development Assumptions

	Number of Dwelling Units	Population	Non-Residential Square Footage	Acreage Designated for Urban Uses	Acres Avoided
No Project	10	27	--	0	2,659
Expanded Preserves	6,845	19,690	382,640	1,527	1,142
Expanded Footprint	8,045	22,850	1,032,640	2,016	1,515
Project	9,010	25,419	1,349,419	2,175	493

IMPACT ANALYSIS

AESTHETICS

No PROJECT

IMPACT: DEGRADATION OF EXISTING VIEWS AND VISUAL QUALITY

The existing viewshed is described in the Aesthetics chapter of this EIR. Three of the ten parcels on the site have frontage on Grant Line Road and include the plateau area. Houses constructed on these parcels would be visible to the Grant Line Road and Douglas Road/Rancho Cordova viewer groups. Adding three homes to this view would reduce the intactness of the site, but given that most of the land area would remain unaffected these encroachments would have minimal impact. More land area is visible from the residences to the north, but again, most of the viewshed would remain unencumbered by encroachments. It is likely that homes would not be visible at all from either Kiefer Road or Latrobe Road. No Project impacts to the existing visual character and quality of the site would be *less than significant*.

IMPACT: NEW SOURCES OF LIGHT OR GLARE

The existing site does not include any structures, and thus there are no sources of light or glare. Either this condition would be maintained, or up to ten homes could be constructed (one on each of the ten parcels). In the latter case, each home would be surrounded by large areas of open land, consistent with a rural landscape. Such

minimal development would not generate significant light or glare, and impacts would be *less than significant*.

EXPANDED PRESERVES

IMPACT: DEGRADATION OF EXISTING VIEWS AND VISUAL QUALITY

In this alternative, none of the proposed development would occur on the plateau area adjacent to Grant Line Road, but would instead occur on the portions of the property which are not currently visible by either Grant Line Road or the Douglas Road/Rancho Cordova viewer groups. Views of the Sierra Nevada would remain largely unimpeded, and the plateau area, which extends nearly a mile into the site, would remain intact. This would maintain most of the continuity of the existing views. It is probable that the tops of the larger structures would be visible in the distance, but this would be similar to the Project impacts described for the Latrobe Road viewer group. In the existing condition, vividness is rated 2 (low), while unity and intactness is rated 6 (high), for an average rating of 5 (moderately high). After the Alternative, unity and vividness would remain unchanged, while intactness would be reduced to a rating of 4 (moderate), for an average rating of 4 (moderate). This reduction is not considered substantial; the impacts to the Douglas Road/Rancho Cordova and Grant Line Road viewer groups would be *less than significant*.

The Expanded Preserves Alternative impacts related to the Kiefer Road and Latrobe Road viewer groups would remain very similar to Project impacts. Though larger preserves are included, the Alternative would still involve substantial urban development on the eastern and southern areas of site; these are the areas that would be most visible from Kiefer Road and Latrobe Road. As concluded for the Project, due to distance from the site, intervening landforms blocking views of the site, and lack of viewer sensitivity (for viewers at the Kiefer landfill), impacts are *less than significant*.

The residential area to the north of the Project would not be as close to other residential uses due to the inclusion of an avoided area adjacent to the proposed high school. Though this preserve would lessen the impact of the development to a certain degree, the majority of the viewshed would be altered to accommodate urban development. Though slightly improved, the improvement would not be substantial enough to change the quantification already provided for Project impacts (visual quality would be reduced from a rating of moderately high to a rating of moderately low). Impacts to this viewer group would be significant, and given that no mitigation exists that would substantially reduce impacts, impacts would be *significant and unavoidable*.

IMPACT: NEW SOURCES OF LIGHT OR GLARE

The new source of nighttime lighting would be farther from many existing residential areas, and the avoided areas would be much larger, which would make the impact less substantial than Project impacts. Nonetheless, placing more than 6,000 new homes and nearly 400,000 square feet of commercial uses in a rural area will introduce a

substantial new source of nighttime lighting. For the same reasons articulated for the Project, impacts would be significant. Mitigation Measure AE-1 included for the Project would also apply to this alternative, but impacts would remain *significant and unavoidable*.

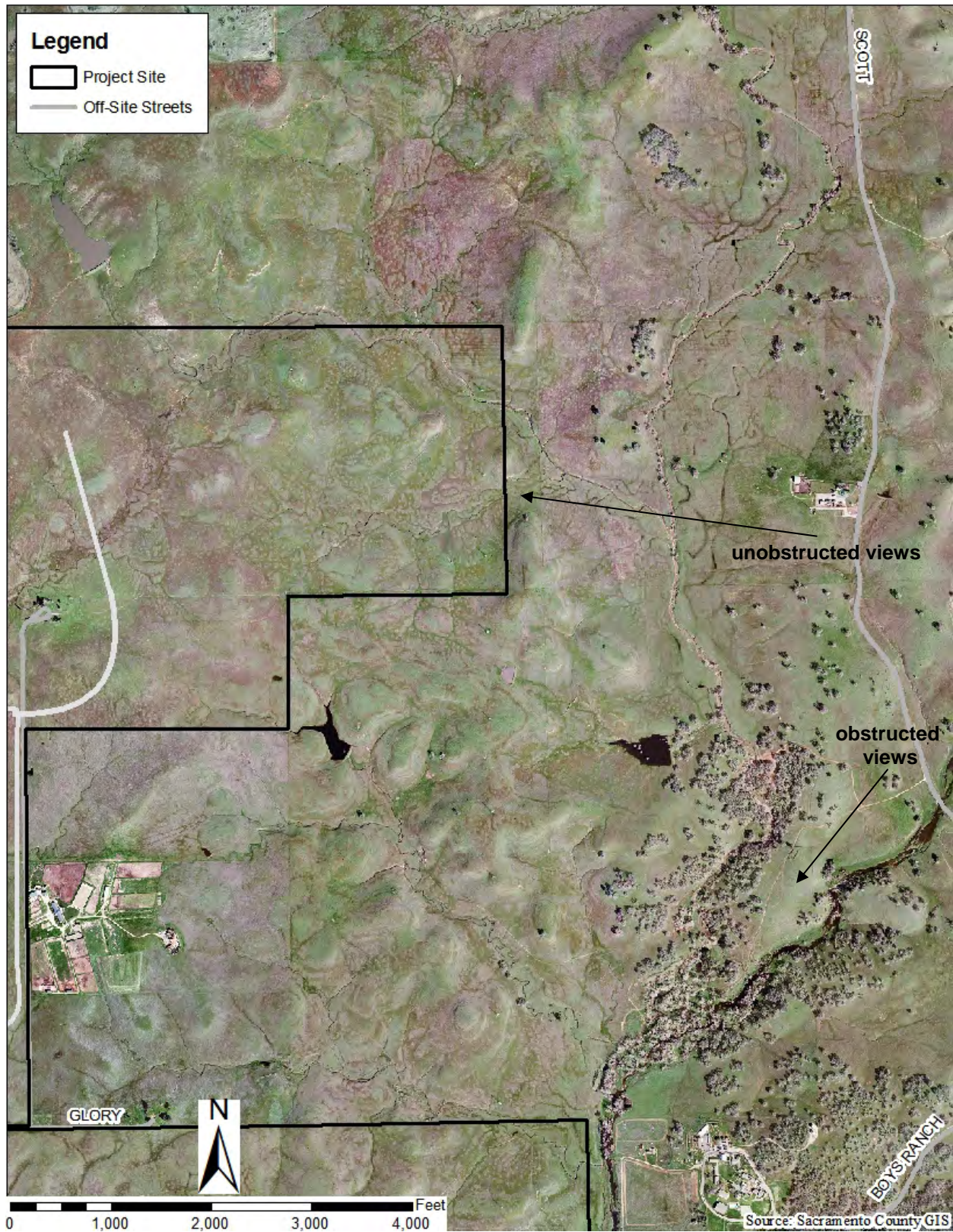
EXPANDED FOOTPRINT

IMPACT: DEGRADATION OF EXISTING VIEWS AND VISUAL QUALITY

From the Douglas Road/Rancho Cordova and Grant Line Road viewer groups, the impacts of the Expanded Footprint Alternative would be very similar to the impacts of the Expanded Preserves Alternative; impacts would be *less than significant*. Though additional development would occur to the north, this would also be at a lower elevation than the viewer groups, taking place in lower areas east of the plateau edge along Grant Line Road. Impacts to the Kiefer Road and Latrobe Road would also be the same as those described for the Expanded Preserves Alternative; impacts would be *less than significant*. There would be no impacts to residents to the north, because these residences exist on the property that would be developed, and would no longer be present. There would be a new viewer group affected, however, and this would be drivers along Scott Road plus one residence on Scott Road.

The Project and other alternatives do not impact Scott Road viewers, because there are landforms and trees which block views of the main site. Extending development to the north would change this circumstance, bringing development closer to Scott Road in an area where the topography rises up from the roadway toward the Alternative site. (Plate ALT-9). Views from this location are very similar to those from Kiefer Road and Latrobe Road. Where the site is visible the foreground is composed of rolling, grassy hills dotted with trees. The variations in topography and the mature oak trees in the landscape increase the diversity of the views by introducing additional colors, varying the lines and angles of the horizon, and introducing multiple textures (smooth grass, rough trees). Though the vividness of this view is higher than from either Douglas or Grant Line Road, it is still moderate-to-low; the view is not highly distinctive or memorable. From most perspectives there are few negative encroachments in the view; only some fencelines and other minor structures. Vividness is rated 2, intactness is rated 6 (high), and unity is rated 6, for an average of 5 (moderately high).

Plate ALT-9: Location of Alternative Relative to Scott Road



Though site development would be visible to drivers and the residence along Scott Road, the nearest development edge would be approximately 4,300 feet from the viewpoint. Photosimulations were not development for the Alternative, but given the similarities in topography and distance, impacts would be similar to those described for viewers along Latrobe Road. Where it was visible, the development would give a rough edge to the horizon, but would not be particularly obtrusive or distinctive; vividness would not increase. Observers passing by along the road may perceive the Alternative mainly as a rough, multi-hued edge to the horizon, which means that unity will not appreciably decrease. People who stop to observe and the residents of the single affected home may take more notice of the individual buildings and other Project components, but will still be at too great a distance to make out clear details. Intactness will decrease slightly, since it will be recognizable that the new feature in the landscape is of human construction. Ratings for vividness and unity will remain the same as existing condition ratings, but intactness will decrease to 5 (moderately high), for an average rating of 4 (average). Though the Project will decrease visual quality from moderately high to average, this is not a large drop in quality; visual impacts to this viewing location are *less than significant*.

IMPACT: NEW SOURCES OF LIGHT OR GLARE

Impacts would be similar to the Expanded Preserve Alternative. Though the new sources of lighting would be farther from residential areas, placing more than 8,000 new homes and approximately 650,000 square feet of commercial uses in a rural area will introduce a substantial new source of nighttime lighting. For the same reasons articulated for the Project, impacts would be significant. Mitigation Measure AE-1 included for the Project would also apply to this alternative, but impacts would remain *significant and unavoidable*.

AGRICULTURAL RESOURCES

No PROJECT

Either the existing condition would be maintained, or single-family homes would be constructed on each parcel. In either case, the parcels would remain in their present sizes and existing agricultural activities could be maintained. The placement of individual homes on large parcels is consistent with agricultural areas, which often include residences associated with the farms, and would not conflict with adjacent agricultural activities. It is permissible to build a home on land under Williamson Act contract, as long as the home is part of the agricultural use of the land. The No Project would not conflict with existing agricultural designations or use, conflict with a Williamson Act contract, or convert agricultural lands to non-agricultural uses.

*EXPANDED PRESERVES***IMPACT: CONFLICT WITH EXISTING AGRICULTURAL USE AND ZONING**

The Expanded Preserves Alternative would result in less urbanization of the existing grazing land than the Project, and otherwise the impacts would be similar to that of the Project. None of the land is designated as Prime Farmland, and although some soils are prime when irrigated none of the site is irrigated. In this alternative, most of these potential prime soils would be retained within a preserve, though could not be farmed. The land does not support intensive agricultural investment. The Alternative would have slightly less potential for conflicts with existing off-site agricultural uses, given that some of the proposed residential uses would be removed, but impacts are not significant regardless. Project mitigation measure AG-1 is nonetheless recommended to apply to this Alternative, requiring deed notices of the Right-To-Farm Ordinance. For the foregoing reasons, impacts are *less than significant*.

IMPACT: CONFLICT WITH WILLIAMSON ACT CONTRACT

Impacts related to the Williamson Act would be identical to those described for the Project. In order to approve the subdivision map, the approval action would either need to be deferred until February 2013 (within three years of nonrenewal) or the Board of Supervisors would need to make findings that the parcels can maintain agricultural use. In order to approve the rezoning, the approval action would need to stipulate that the zoning agreement will not become effective until 2016, and Mitigation Measure AG-2 would be included to ensure continuance of agricultural use on the site until 2016. Provided these actions take place, the Project would be consistent with the provisions of the Williamson Act; impacts are *less than significant*.

IMPACT: CONVERT PROTECTED FARMLAND TO NON-AGRICULTURAL USES

The 8.6-acre Unique Farmland area would be located within the expanded preserve area, as would some of the Grazing Land located outside of the USB. Though this designated farmland area inside the preserves would not be disturbed by construction, its location within the preserved area would preclude unrestricted farming activities. As described for the Project, it should be assumed that all 255.6 acres affected will require mitigation pursuant to Mitigation Measure AG-3. With mitigation, impacts related to the conversion of farmland are *less than significant*.

*EXPANDED FOOTPRINT***IMPACT: CONFLICT WITH EXISTING AGRICULTURAL USE AND ZONING**

The added northern properties are zoned and designated for the same use designations as the Project area: Agricultural 80 (AG-80) by the Sacramento County Zoning Code and General Agriculture by the General Plan. The Alternative would rezone the land to SPA and redesignate the land for a variety of urban General Plan uses (Low Density Residential, Commercial and Offices, etc). The Alternative would have a higher

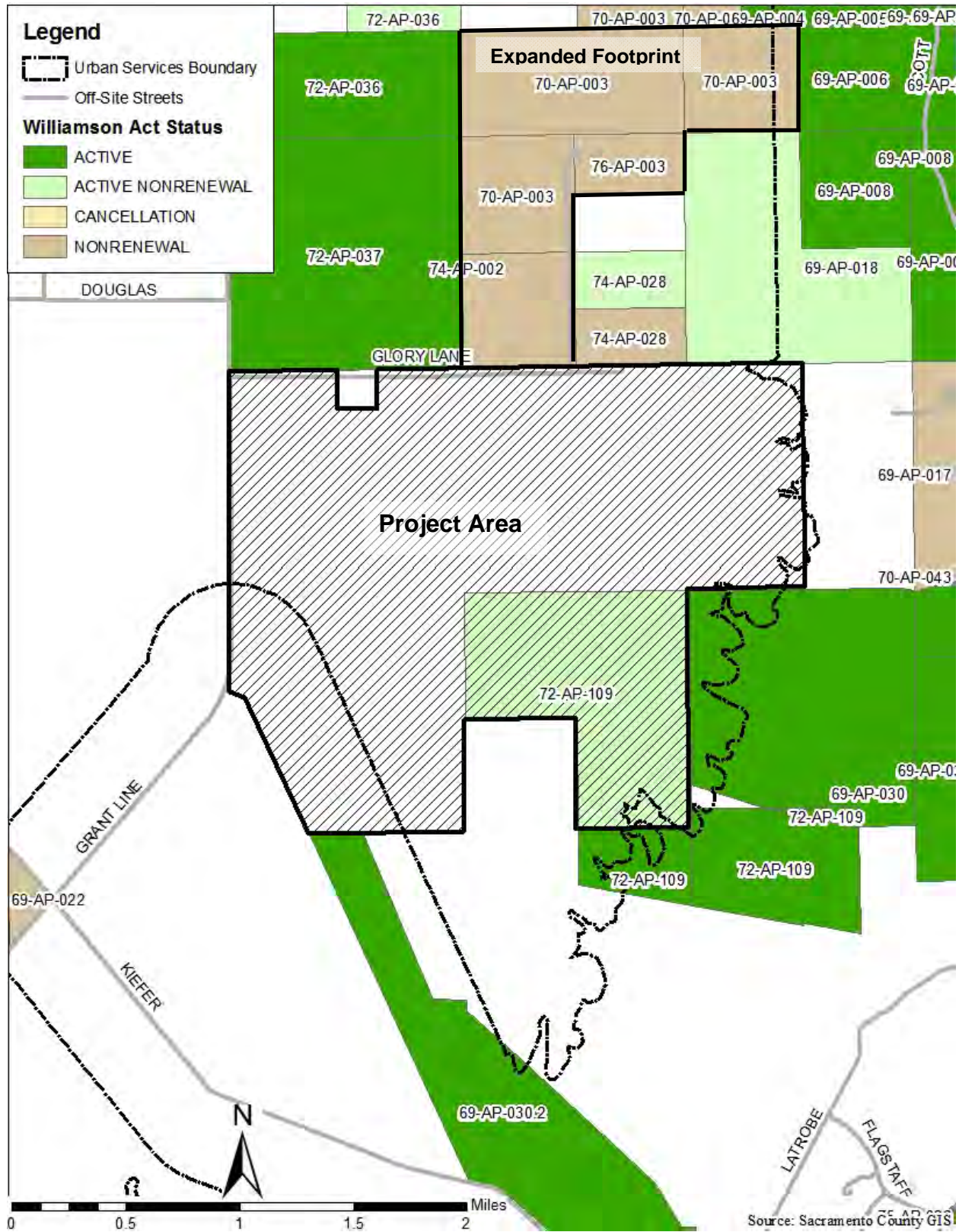
potential for conflicts with existing off-site agricultural uses, given that it would include more area interfacing with grazing land and would include a northern access road crossing grazing land which is not included as part of a development proposal. The road would have the potential to isolate the agricultural land between the roadway and the project development to the south; this area which would be isolated is approximately 100 acres of land designated as Grazing Land. Though 100 acres is of sufficient size to support grazing operations, its relative isolation may result in cessation of grazing. This is dependent on how easily the grazing stock could be moved across the roadway, and on factors such as whether there is a water source on the isolated acreage. Conservatively assuming that the land falls out of agricultural use, and assuming the land to the north has similar productivity as the Project land, the loss of 100 acres would reduce the productivity of the total contracted area by only seven animals. This potential conflict is not considered substantial. Project mitigation measure AG-1 is recommended to apply to this Alternative, requiring deed notices of the Right-To-Farm Ordinance. For the foregoing reasons, impacts are *less than significant*.

IMPACT: CONFLICT WITH WILLIAMSON ACT CONTRACT

Though historically all of the parcels in the added northern area were the subject of Williamson Act contracts (70-AP-003, 74-AP-002, and 76-AP-003) nonrenewal was filed for all of the contracts, and became effective on December 6, 1991; August 12, 1991; and May 5, 1993, respectively (refer to Plate ALT-10). Alternative impacts related to the Williamson Act lands within the Alternative boundaries would be identical to those of the Project. In order to approve the subdivision map, the approval action would either need to be deferred until February 2013 (within three years of nonrenewal) or the Board of Supervisors would need to make findings that the parcels can maintain agricultural use. In order to approve the rezoning, the approval action would need to stipulate that the zoning agreement will not become effective until 2016, and Mitigation Measure AG-2 would be included to ensure continuance of agricultural use on the site until 2016. Provided these actions take place, the Project would be consistent with the provisions of the Williamson Act.

The inclusion of the northern access must also be considered, because the parcel north of the site (over which the road would travel) is within an active Williamson Act contract (72-AP-37). This contract specifically lists “roads, streets, highways, railways and other surface vehicle transportation” as a compatible uses, so on its face the construction of a roadway is compatible with the contract; however, as described above, the roadway could result in the cessation of farming on approximately 100 acres of the contracted land. Though allowing the land to remain unused is not contrary to the terms of the contract, it is contrary to the purpose of a Williamson Act contract, which is intended to support the maintenance of agricultural activities. From this perspective, the Alternative could negatively impact 100 acres of contracted grazing land. As noted above, this would not be considered a substantial conflict. Given that the Alternative is consistent with the requirements of the Williamson Act contract, and that it would not result in substantial losses to agricultural productivity within contracted lands, impacts are *less than significant*.

Plate ALT-10: Expanded Footprint Alternative Williamson Act Contracts



IMPACT: CONVERT PROTECTED FARMLAND TO NON-AGRICULTURAL USES

The added northern properties are designated as Grazing Land as are the lands through which the northern access would be constructed; impacts are identical to those described for the Expanded Preserves alternative. As described for the Project, it should be assumed that all 255.6 acres affected will require mitigation pursuant to Mitigation Measure AG-3. With mitigation, impacts related to the conversion of farmland are *less than significant*.

AIR QUALITY

*No PROJECT***IMPACT: CONSTRUCTION ACTIVITIES WOULD INCREASE NO_x EMISSIONS**

Under the No Project Alternative, there could be construction emissions associated with the potential development of one single-family residence on each of ten agricultural properties. The SMAQMD Guide provides screening tables for construction emissions which can be used to determine whether modeling is required to determine significance.

According to these screening tables, single-family residential construction would need to involve 180 units before modeling would be required. Projects involving fewer units can be presumed to have less than significant impacts. Since the No Project would involve no more than 10 homes, and furthermore it is unlikely that these homes would be constructed concurrently, construction NO_x emissions would be *less than significant*.

IMPACT: OPERATIONAL EMISSIONS OF OZONE PRECURSORS (NO_x OR ROG)

The SMAQMD Guide includes screening tables for operational emissions of NO_x, just as it does for construction. According to the screening tables a project would need to involve 375 homes before modeling would be required. Projects involving fewer units can be presumed to have less than significant impacts. Since the No Project would involve no more than 10 homes, operational NO_x emissions would be *less than significant*.

IMPACT: CONSTRUCTION ACTIVITIES WOULD INCREASE PARTICULATE MATTER EMISSIONS

As discussed in the Air Quality chapter, a project will result in less than significant impacts with the implementation of the Basic Construction Emission Control Practices if no more than 15 acres of active site disturbance occurs at any given time. Even if all ten potential homes were constructed at the same time, which is unlikely, on average each homesite would need to involve more than 1.5 acres in order to exceed this screening threshold. Even on agricultural properties where home sizes could be larger, construction of a single home would not involve such a substantial disturbance footprint.

The No Project condition would not exceed the screening threshold for particulate matter emissions, and impacts would be *less than significant*.

IMPACT: IMPLEMENTATION COULD CONFLICT WITH OR OBSTRUCT IMPLEMENTATION OF AIR QUALITY PLANS

According to the SMAQMD, development projects that exceed emissions of 85 lbs/day of NO_x during construction activities or 65 lbs/day of NO_x or ROG during operational activities would have the potential to obstruct the success of the regional ozone attainment plans and, therefore, would be considered significant and require mitigation. The No Project would not result in significant construction or operational emissions, and thus impacts would be *less than significant*.

IMPACT: PROJECT OPERATION WOULD GENERATE CO EMISSIONS

This alternative could increase the cumulative traffic in the area, but by a maximum of 70 daily trips. Since localized CO concentrations near major vehicular access routes associated with the proposed project were not found to exceed ambient standards, CO impacts associated with the less traffic intensive No Project Alternative would also be *less than significant*.

IMPACT: OPERATION WOULD RESULT IN TAC EMISSIONS EXPOSURE

Single-family homes are not considered by the Air Resources Board to be sources of toxic air contaminants (TAC). As described in the Air Quality chapter, there are no significant sources of TAC within proximity of the site. The No Project will not expose existing sensitive receptors to substantial risk related to TAC exposure; impacts are *less than significant*.

IMPACT: OPERATION MAY RESULT IN EXPOSURE TO OBJECTIONABLE ODORS

Three of the parcels are within one mile of Kiefer Landfill, and one parcel is proximate to Boy's Ranch. The significance criteria asks whether "a substantial number of people" would be impacted by odor. The No Project Alternative would not involve a substantial number of people, and impacts are *less than significant*.

EXPANDED PRESERVES

IMPACT: CONSTRUCTION ACTIVITIES WOULD INCREASE NO_x EMISSIONS

The changes made for the Expanded Preserves Alternative would be unlikely to impact the worst-case amount of daily construction that could be expected, as these are driven by market conditions combined with decisions about the most effective way to phase construction over a large site. A substantial land area would be involved in construction activities regardless of total master plan size. It is reasonable to assume that the Expanded Preserves Alternative will result in construction activities which exceed significance thresholds. Mitigation Measure AQ-1 applied to the Project would also apply to this alternative, and would render impacts *less than significant*.

IMPACT: OPERATIONAL EMISSIONS OF OZONE PRECURSORS (NO_x OR ROG)

The Expanded Preserves Alternative includes 77% of the population of the Project, and for the purposes of this analysis it was assumed that emissions would be 77% of Project emissions. As shown in Table ALT-4, emissions would exceed the threshold.

Table ALT-4: Expanded Preserves NO_x and ROG Operational Emissions

	Emissions in lbs/day
NO_x	319.72 ¹
ROG	660.20 ²
1 – Winter emissions. Summer emissions are 223.44 lbs/day.	
2 – Summer emissions. Winter emissions are 565.99 lbs/day.	

An Air Quality Mitigation Plan (AQMP) would be required for this Alternative just as it is for the Project. The exact same AQMP could not be used, as some changes would need to be made to reflect the changes incorporated into the Alternative, but it would be required to achieve the same 35% reduction in emissions. Reducing emissions by 35% would result in worst-case emissions of 207.82 lbs/day of NO_x and 429.13 lbs/day of ROG, which would still exceed significance thresholds. Mitigation Measure AQ-2 would need to be modified for this Alternative, to reflect the fact that an AQMP does not currently exist for the Alternative, though one would be required prior to Project approval. The amended language is below; this language could be replaced to refer to a specific AQMP date prior to approval of the Alternative. Despite application of feasible mitigation, impacts would remain *significant and unavoidable*.

MITIGATION MEASURES:

ALT-1. Prepare an Air Quality Mitigation Plan (AQMP) which achieves a minimum 35% reduction of ozone precursor emissions, to the satisfaction of the Environmental Coordinator and in consultation with the Sacramento Metropolitan Air Quality Management District. Measures included within the AQMP shall be selected from SMAQMD's "Guidance for Land Use Emission Reductions" (most current version). The AQMP Measures shall be incorporated as requirements within the SPA.

IMPACT: CONSTRUCTION ACTIVITIES WOULD INCREASE PARTICULATE MATTER EMISSIONS

The discussion included for the Project applies to this Alternative. It is reasonable to assume that construction within the site will result in disturbance of more than 15 acres at any given time, which will result in significant emissions of particulate matter. Despite the application of feasible measures though existing rules and regulations, the Expanded Preserves Alternative will result in a *significant and unavoidable* impact related to PM₁₀ and PM_{2.5} emissions generated by construction.

IMPACT: IMPLEMENTATION COULD CONFLICT WITH OR OBSTRUCT IMPLEMENTATION OF AIR QUALITY PLANS

According to the SMAQMD, development projects that exceed emissions of 85 lbs/day of NO_x during construction activities or 65 lbs/day of NO_x or ROG during operational activities would have the potential to obstruct the success of the regional ozone attainment plans and, therefore, would be considered significant and require mitigation.

The Expanded Preserves Alternative would result in significant operational emissions of NO_x and ROG. Therefore, the Alternative has the potential to obstruct the success of regional ozone attainment and would result in a *significant and unavoidable* impact.

IMPACT: PROJECT OPERATION WOULD GENERATE CO EMISSIONS

This Alternative would increase the cumulative traffic in the area, but to a lesser degree than the Project. Since localized CO concentrations near major vehicular access routes associated with the proposed project were not found to exceed ambient standards, Expanded Preserves Alternative CO impacts would also be *less than significant*.

IMPACT: OPERATION WOULD RESULT IN TAC EMISSIONS EXPOSURE

There are no existing sources of TAC in proximity to the site. The Alternative will include some uses which have the potential to generate TAC, such as gasoline stations.

The same mitigation applied to the Project would apply to this Alternative. Alternative impacts related to TAC emissions would be essentially the same as those described for the Project. The Alternative will not expose existing sensitive receptors to substantial risk related to stationary-source TAC exposure, and will not expose proposed sensitive receptors to substantial risk related to mobile-source TAC exposure. Mitigation Measure AQ-3 would apply to ensure that the siting of new uses conforms to California Air Resources Board recommendations. Project impacts related to TAC exposure are *less than significant*.

IMPACT: OPERATION MAY RESULT IN EXPOSURE TO OBJECTIONABLE ODORS

The Expanded Preserves Alternative will still result in the placement of sensitive uses in proximity to both the Kiefer Landfill and Boy's Ranch. The same discussion and mitigation provided for the Project applies to this Alternative; impacts are *less than significant*.

*EXPANDED FOOTPRINT***IMPACT: CONSTRUCTION ACTIVITIES WOULD INCREASE NO_x EMISSIONS**

The same discussion included for the Expanded Preserves Alternative would apply here. Though the amount of units constructed is reduced compared to the Project, it is reasonable to assume that the Expanded Footprint Alternative will result in construction activities which exceed significance thresholds. Mitigation Measure AQ-1 applied to the

Project would also apply to this alternative, and would render impacts *less than significant*.

IMPACT: OPERATIONAL EMISSIONS OF OZONE PRECURSORS (NO_x OR ROG)

The Expanded Footprint Alternative includes 90% of the population of the Project, and for the purposes of this analysis it was assumed that emissions would be 90% of Project emissions. As shown in Table ALT-5, emissions would exceed the threshold.

Table ALT-5: Expanded Footprint NO_x and ROG Operational Emissions

	Emissions in lbs/day
NO_x	373.70 ¹
ROG	771.66 ²
1 – Winter emissions. Summer emissions are 261.16 lbs/day. 2 – Summer emissions. Winter emissions are 661.55 lbs/day.	

An Air Quality Mitigation Plan (AQMP) would be required for this Alternative just as it is for the Project. The exact same AQMP could not be used, as some changes would need to be made to reflect the changes incorporated into the Alternative, but it would be required to achieve the same 35% reduction in emissions. Reducing emissions by 35% would result in worst-case emissions of 207.82 lbs/day of NO_x and 429.13 lbs/day of ROG, which would still exceed significance thresholds. Mitigation Measure AQ-2 would need to be modified for this Alternative, to reflect the fact that an AQMP does not exist for the Alternative, though one would be required prior to Project approval. The amended language would be the same as described for the Expanded Preserves Alternative (Measure ALT-1); this language could be replaced to refer to a specific AQMP date prior to approval of the Alternative. Despite application of feasible mitigation, impacts would remain *significant and unavoidable*.

IMPACT: EXPOSURE TO OFFSITE EMISSIONS OF PARTICULATE MATTER

The Grant Line Pilatus portion of the Alternative is adjacent to a mine and approximately ½-mile from a processing plant area operated by Teichert Aggregates. The mine is associated with alluvial deposits rather than hardrock. Mining primarily involves the use of heavy equipment to excavate deposits; blasting activities and the creation of substantial open pits does not occur in alluvial mining. Thus, the impacts associated with proximity to this facility are exposure to dust, diesel particulates, and noise associated with the use of large earthmoving equipment.

The mining activities on the adjacent properties were approved in 1997, but have been suspended for the last several years due to decreased demand resulting from a poor economy. Though currently inactive, the Use Permit was recently extended (County Control Number 2008-00171) a further twelve years, which would result in a 2021 expiration year. According to the Use Permit, mining activities are permitted from the hours of 6 a.m. to 10 p.m. Monday through Friday, and from 6:00 a.m. until dusk during weekends and holidays. The maximum depth of mining is 45 feet. The site plans

included as part of the Use Permit also indicate that the areas nearest the Alternative boundary were part of Phase I and Phase II, while the later phases are more than ½-mile from the boundary.

The Environmental Impact Report prepared for the original Use Permit application (County Control Number 1995-0658; available for review at 827 7th Street, Room 220, Sacramento) indicated that approximately 16 pounds per day of particulate matter would be generated. Mitigation measures were included to help control particulate matter emissions. Note that particulate matter in the context of impacts to the Alternative is a function of pollutant concentration. Thus, exposure to substantial particulate matter can be avoided simply by an adequate buffer distance, to ensure that the particulates disperse before reaching sensitive receptors. Dispersion modeling usually requires that the study area extend approximately twice the width of the disturbance area (from the SMAQMD CEQA Guide). For the mining area, this would be approximately 2,500 feet from the mining boundary. Particulate matter concentrations were not measured in the EIR due to a difference in standards at the time, and lack of nearby sensitive receptors. Though modeling has not been completed, it is reasonable to assume that if homes were constructed within 2,500 feet of active mining activities, residents could be exposed to substantial particulate matter concentrations.

Though no further emission controls can be enacted for the mining activities as part of this Alternative, further controls are not necessary to avoid the impact. The Alternative areas nearest to the mining areas would be among those properties developed last, based on the need to phase infrastructure into the site. As already noted, the mining area nearest to the Alternative is part of the first two phases, and mining activities are likely to be completed in this area by the time the Alternative develops. Provided the mining activities occur on land designated as Phase III or later, the mining activities would be a minimum of ½-mile from the Alternative boundary. If this Alternative were approved, mitigation (below) would specify that development within 2,500 feet of active mining would be prohibited. Mitigation would ensure that impacts are *less than significant*.

MITIGATION MEASURES:

ALT-2. Add the following condition to the SPA: Development is prohibited within 2,500 feet of active or approved and planned mining operations.

IMPACT: CONSTRUCTION ACTIVITIES WOULD INCREASE PARTICULATE MATTER EMISSIONS

The discussion included for the Project applies to this Alternative. It is reasonable to assume that construction within the site will result in disturbance of more than 15 acres at any given time, which will result in significant emissions of particulate matter. Despite the application of feasible measures though existing rules and regulations, the Expanded Footprint Alternative will result in a *significant and unavoidable* impact related to PM₁₀ and PM_{2.5} emissions generated by construction.

IMPACT: IMPLEMENTATION COULD CONFLICT WITH OR OBSTRUCT IMPLEMENTATION OF AIR QUALITY PLANS

According to the SMAQMD, development projects that exceed emissions of 85 lbs/day of NO_x during construction activities or 65 lbs/day of NO_x or ROG during operational activities would have the potential to obstruct the success of the regional ozone attainment plans and, therefore, would be considered significant and require mitigation. The Expanded Footprint Alternative would result in significant operational emissions of NO_x and ROG. Therefore, the Alternative has the potential to obstruct the success of regional ozone attainment and would result in a *significant and unavoidable* impact.

IMPACT: PROJECT OPERATION WOULD GENERATE CO EMISSIONS

This Alternative would increase the cumulative traffic in the area, but to a lesser degree than the Project. Since localized CO concentrations near major vehicular access routes associated with the proposed project were not found to exceed ambient standards, Expanded Preserves Alternative CO impacts would also be *less than significant*.

IMPACT: OPERATION WOULD RESULT IN TAC EMISSIONS EXPOSURE

There are no existing sources of TAC in proximity to the site. The Alternative will include some uses which have the potential to generate TAC, such as gasoline stations. The same mitigation applied to the Project would apply to this Alternative. Alternative impacts related to TAC emissions would be essentially the same as those described for the Project. The Alternative will not expose existing sensitive receptors to substantial risk related to stationary-source TAC exposure, and will not expose proposed sensitive receptors to substantial risk related to mobile-source TAC exposure. Mitigation Measure AQ-3 would apply to ensure that the siting of new uses conforms to California Air Resources Board recommendations. Project impacts related to TAC exposure are *less than significant*.

IMPACT: OPERATION MAY RESULT IN EXPOSURE TO OBJECTIONABLE ODORS

The Expanded Footprint Alternative will still result in the placement of sensitive uses in proximity to both the Kiefer Landfill and Boy's Ranch. The same discussion and mitigation provided for the Project applies to this Alternative; impacts are *less than significant*.

BIOLOGICAL RESOURCES

No PROJECT

The No Project Alternative could result in some minimal losses of habitat associated with construction of single-family homes and access roads. For the purposes of this analysis, it is conservatively assumed that each home would result in the loss of one acre of habitat. This is based not just on the physical footprint of construction, but also assumes that some portion of land would be landscaped and/or fenced in for gardens or

household pets, rendering is unavailable as habitat. The loss of up to 10 acres of predominantly grassland habitat encompasses less than 1% of the total land area, and would not result in significant habitat losses. Existing regulations for the protection of wetlands and special status species prohibit direct impacts without obtaining appropriate permits (and through that means satisfying mitigation requirements). Thus, it is assumed that some wetland impacts may occur, but that these would be minimal; most of the approximately 89 acres of wetlands would be retained. It is also assumed that no take of special status species would occur. No Project Alternative impacts to biological resources would be *less than significant*.

EXPANDED PRESERVES

WETLANDS AND SURFACE WATERS

Approximately 1,142 acres of the site would be within preserves as part of this Alternative, including approximately 72 acres of wetlands, with a further 37.3 acres within areas designated Agriculture which would be within a conservation easement. Some amount of this area would be impacted by construction of roads across the preserves, but the Alternative assumes that direct impacts to all vernal pools or seasonal wetlands would be avoided by roadways, and that impacts would be to linear features. Examining the sizes of the features present in the potential impacted areas and assuming an 85-foot right-of-way for the major roads, it is estimated that less than two acres of linear wetlands would be directly impacted by roadways crossing the preserves. This Alternative would place approximately 81% of the wetlands on the site into preserves, and would preserve all of the vernal pools on the eastern plateau – where the most dense vernal pool complexes are located. Of the 47.51 vernal pool acres on the site, a total of 46.39 would be within preserves as part of this Alternative. Mitigation Measure BR-1 for the Project would also apply to this Alternative. An estimated 17 acres of wetlands would require mitigation. It is concluded that mitigation would reduce impacts to *less than significant* levels, given that 81% of the total wetlands on the site would be preserved and that 98% of the vernal pools would be preserved.

SPECIAL STATUS SPECIES

The Expanded Preserves Alternative would retain 1,142 acres within preserves while impacting a total of 1,527 acres of mixed grassland and wetland habitat. As with the Project, the areas designated as Agriculture on the eastern and southeastern side of the site would be placed within an easement which would preclude developed uses, and thus would also be retained as habitat. This increases the area where impacts are avoided to 1,179 acres, while impacted areas drop to 1,490 acres. As discussed in the Biological Resources chapter, there are many species which are reliant on grassland and wetland habitats for foraging, nesting, aestivation, and/or breeding. The Expanded Preserves Alternative does not avoid the impacts described for the Project, but does reduce the severity of those impacts. All of the mitigation described in the Biological Resources chapter would apply to the Expanded Preserves Alternative, but the total

amounts of resources requiring mitigation would be altered. The sections below briefly discuss these differences.

BIRDS

Though the Expanded Preserves Alternative will retain 1,179 acres within preserves and other protected areas, whether foraging habitat is maintained for landscape-level predators such as raptors depends on the size and structure of the preserve. On this basis, the central linear preserve of the Expanded Preserves Alternative will not be counted as preserved foraging habitat for most raptors. Including this area in the total impact (which is 1,490 acres developed with urban uses), the Expanded Preserves Alternative will result in the loss of 1,736 acres of foraging habitat for the Swainson's hawk, ferruginous hawk, golden eagle, northern harrier and white-tailed kite. Each of the preserves will be large enough to support habitat for the grasshopper sparrow, tricolored blackbird, and burrowing owl, and thus the total impacted acreage for these species is 1,490 acres. Mitigation Measures BR-3, BR-5, and BR-6 for the Project would apply, unchanged, to this Alternative. Mitigation Measure BR-4 would also apply, but the total acreage requiring mitigation would be 1,736 acres. As described for the Project, mitigation would reduce impacts to *less than significant* levels.

AMPHIBIANS

The Expanded Preserves Alternative retains more wetlands and more upland area for the western spadefoot toad than the Project. Project impacts to the western spadefoot were determined to be less than significant, and the conclusion remains the same for the Alternative; impacts are *less than significant*.

INVERTEBRATES

The Expanded Preserves Alternative would result in the loss of 17 acres of wetlands which could provide suitable habitat for listed invertebrates. Individual permit requirements are varied, depending upon the quality of the habitat lost, the nature of the impact, and the quality of the mitigation land offered – among other factors. This variation can be observed through review of the BOs in Appendix BR-4. Ultimately, mitigation requirements will be defined through the individual permitting process, but consistent with Sacramento County General Plan policy the mitigation below stipulates a minimum of 1:1 mitigation for wetland habitat lost. It is probable that the individual permit requirements will require a larger amount of mitigation.

The Expanded Preserves Alternative will place 81% of the wetlands on the site into preserves. For this reason, it is concluded that this preservation in combination with the mitigation will reduce impacts to *less than significant* levels.

PLANTS

Most of the same discussion provided for the Project also applies to this Alternative. All development will remain a minimum of 250 feet from vernal pools, which includes those

pools containing legumere and Sacramento orcutt grass. For this reason, Mitigation Measure BR-9 would not apply to this Alternative. Mitigation Measure BR-10 would still apply, because although the vernal pools containing Sacramento orcutt grass will be in a much larger preserve, developed uses will still be within 300 feet of development areas, and could still be impacted by invasive species. As described for the Project, avoidance of direct impacts coupled within mitigation for potential indirect impacts will ensure that impacts to Sacramento orcutt grass resulting from this Alternative are *less than significant*.

EXPANDED FOOTPRINT

In addition to the 1,142 acres of preserves noted in the Expanded Preserves Alternative, this Alternative includes an additional 373 acres of preserves in the Grant Line Pilatus property. A wetland delineation for this property was prepared by ECORP Consulting, Inc. Environmental Consultants (dated July 9, 2008; Appendix ALT-1) and catalogues a total of 20.7 acres of wetlands. For this Alternative, a total of 1,515 acres would be in preserves while 2,016 acres would be designated for developable uses. Again, the areas designated as Agriculture on the eastern and southeastern side of the site would be placed within an easement which would preclude developed uses, and thus would also be retained as habitat. This increases the area where impacts are avoided to 1,552 acres, while impacted areas drop to 1,979 acres. Of the approximately 21 acres of wetlands in the Alternative, approximately 17 acres would be located within preserves (Table ALT-6), making the impact only four acres. Adding the wetland acreage from the Grant Line Pilatus property to the main Cordova Hills property, the Expanded Footprint Alternative includes approximately 110 acres of wetlands, approximately 89 acres of which would within preserves. The Expanded Footprint Alternative places approximately 81% of the wetland acres within preserves. Of the 54.09 acres of vernal pools on the site, a total of 51.44 acres would be preserved; this is 95% of the vernal pool acreage on the site.

Analysis showed that roadways through the preserves of the Expanded Preserves Alternative would involve less than two acres of additional impacts. This is likely to be increased by the Expanded Footprint Preserve, which would involve three crossings of the central preserve on the Grant Line Pilatus property. The Alternative would also include shifting the northern access road off-site, farther to the north. There are dense wetlands in this area which would be impacted by roadway construction, but given that the property is not owned by the applicants or their affiliates, there is no wetland delineation on this property. It is probable that whether the northern access crosses on the site or off-site, the wetland impacts of the roadway would be similar.

Wetland impacts due to the Expanded Footprint Alternative are *less than significant*, for the same reasons described for the Expanded Preserves Alternative.

Table ALT-6: Wetlands and Impacts on the 862-Acre Northern Property

Wetland Type	Acreage Impacted	Acreage Preserved	Total Acreage
Intermittent Drainage	0.19	3.18	3.37
Seasonal wetland	1.09	2.96	4.05
Seasonal wetland swale	1.29	5.05	6.34
Seep	--	0.02	0.02
Stock Pond	--	0.34	0.34
Vernal Pool	1.53	5.05	6.58
<i>TOTAL</i>	<i>4.10</i>	<i>16.6</i>	<i>20.7</i>

SPECIAL STATUS SPECIES

The Expanded Footprint Alternative would retain 1,552 acres within preserves and other protected areas while impacting a total of 1,979 acres of mixed grassland and wetland habitat. As discussed in the Biological Resources chapter, there are many species which are reliant on grassland and wetland habitats for foraging, nesting, aestivation, and/or breeding. The Expanded Footprint Alternative does not avoid the impacts described for the Project, but does reduce the severity of those impacts. All of the mitigation described in the Biological Resources chapter would apply to the Expanded Footprint Alternative, but the total amounts of resources requiring mitigation would be altered. The sections below briefly discuss these differences.

BIRDS

While the linear preserve within the main Cordova Hills area is still considered impacted, the preserve within the Grant Line Pilatus Property is wider in many locations, and is also connected at multiple points to off-site areas which will remain in open space. The preserve within the Grant Line Pilatus property is considered retained habitat for landscape-level raptors such as the Swainson's hawk. Adding the 489 acres of urban development land on the Grant Line Pilatus property to the 1,736 acres impacted in the main Cordova Hills portion results in a total impacted area of 2,225 acres of foraging habitat for Swainson's hawk, ferruginous hawk, golden eagle, northern harrier and white-tailed kite. Each of the preserves will be large enough to support habitat for the grasshopper sparrow, tricolored blackbird, and burrowing owl, and thus the total impacted acreage for these species is 1,979 acres. Mitigation Measures BR-3, BR-5, and BR-6 for the Project would apply, unchanged, to this Alternative. Mitigation Measure BR-4 would also apply, but the total acreage requiring mitigation would be 2,225 acres. As described for the Project, mitigation would reduce impacts to *less than significant* levels.

AMPHIBIANS

The Expanded Footprint Alternative retains more wetlands and more upland area for the western spadefoot toad than the Project. Project impacts to the western spadefoot

were determined to be less than significant, and the conclusion remains the same for the Alternative.

INVERTEBRATES

VERNAL POOL CRUSTACEANS

The Expanded Footprint Alternative would result in the loss of 17 acres of wetlands on the Cordova Hills portion and four acres of wetlands on the Grant Line Pilatus portion of the site, all of which could provide suitable habitat for listed invertebrates. Individual permit requirements are varied, depending upon the quality of the habitat lost, the nature of the impact, and the quality of the mitigation land offered – among other factors. This variation can be observed through review of the BOs in Appendix BR-4. Ultimately, mitigation requirements will be defined through the individual permitting process, but consistent with Sacramento County General Plan policy the mitigation below stipulates a minimum of 1:1 mitigation for wetland habitat lost. It is probable that the individual permit requirements will require a larger amount of mitigation.

The Expanded Footprint Alternative will place 81% of the wetlands on the site into preserves. For this reason, it is concluded that this preservation in combination with the mitigation will reduce impacts to *less than significant* levels.

VALLEY ELDERBERRY LONGHORN BEETLE

Though the main Project area does not contain any habitat for this species, the Grant Line Pilatus property contains a single elderberry plant which could provide habitat for the valley elderberry longhorn beetle (refer to Table BR-3 of the Biological Resources chapter for a species description). This plant would be located within the preserve area, and would not be subject to direct or indirect impacts; thus, impacts are *less than significant*.

PLANTS

For the Cordova Hills portion of the site, the same discussion provided in the Expanded Preserves Alternative applies to this Alternative. Rare plant surveys were not completed on the Grant Line Pilatus property, so the following discussions are based on probability of occurrence. The Grant Line Pilatus property contains surface waters which provide suitable habitat for the following species (for descriptions, refer to Table BR-3 of the Biological Resources chapter): Dwarf downingia, Boggs lake hedge-hyssop, Ahart's dwarf rush, legenere, pincushion navarretia, slender orcutt grass, Sacramento orcutt grass, and Sanford's arrowhead. These species are recorded in the California Natural Diversity Database as being within five miles of the site.

Determinate surveys for wetland-associated rare plants would be required as mitigation for this Alternative. Surveys would be required for all vernal pools, seasonal wetlands, and seasonal wetland swales within 250 feet of construction activities. Mitigation would be required for any species encountered, dependent upon the rarity of the species. For

pincushion navarretia, dwarf downingia, Boggs lake hedge-hyssop, or legenere, mitigation would be in-kind replacement at restoration or creation mitigation sites. The upper layer of soil from the pools can be removed and used as a seed bank to populate the mitigation area. Mitigation prohibits loss of wetlands containing Ahart's dwarf rush, Sacramento orcutt grass, and slender orcutt grass, because these species are extremely rare. Mitigation will ensure that impacts would be *less than significant*.

ALT-1. Rare plant surveys will be required in vernal pool, seasonal wetland, and seasonal wetland swale habitats prior to any grading, grubbing, or excavation within 250 feet of a vernal pool or other suitable habitat. Species surveys shall include Dwarf downingia, Boggs lake hedge-hyssop, Ahart's dwarf rush, legenere, pincushion navarretia, slender orcutt grass, Sacramento orcutt grass, and Sanford's arrowhead. Surveys must be conducted in accordance with Fish and Game "Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered plants and Natural Communities" or a newer protocol that is accepted by CDFG and/or USFWS. The rare plant surveyor shall have experience as a botanical field investigator and familiarity with the local flora and potential rare plants in the habitats to be surveyed. The surveys shall be conducted when the rare plants at the construction site will be easiest to identify (i.e. flowering stage), and when the plants reach that stage of maturity. A minimum of three construction site visit shall be required, during the plants flowering period in order to determine absence. Each construction site visit must be no less than 7 days apart.

Submit a written report to the Environmental Coordinator. The survey report should include a brief description of the vegetation, survey results, photographs, time spent surveying, date of surveys, a map showing the location of the survey route and any rare plant populations and copies of any rare plant occurrence forms. If no rare plants are found, no further action is required. If rare plants are encountered then the following applies (these measures may be superseded by a mitigation plan approved by Fish and Wildlife):

- A. Wherever pincushion navarretia, dwarf downingia, Boggs lake hedge-hyssop, or legenere is found during protocol-level surveys and the habitat is proposed for development, the upper layer of the habitat will be scraped and used as inoculum for restoration or creation sites. The material will be gathered late in the dry season (early fall) and spread over the new or restored substrates, which will be raked to provide a loose subsoil cover to which the vernal pool inoculum will be added before or immediately after the wet season begins (mid to late fall). Surveys will be conducted after the first year and every five years thereafter to monitor success. If after the first year, or any five-year interval thereafter, the restored habitat is not meeting restoration criteria standards of 60 percent survivorship, the efforts will be deemed to have failed. The survivorship percentage shall be based upon the population which had been present in the parent pool(s). The expected population which is used to determine survivorship shall be adjusted annually

based on fluctuations in reference pool populations, in order to account for variations in climate which may result in higher or lower populations in any given year. For example, if 80 individuals were present in the parent pool and 100 in the reference pool, and if in a later year there are 70 individuals in the reference pool, then 100% survivorship would be 56 individuals in the mitigation pool. Remediation of failed restoration efforts must occur within one year after efforts are deemed unsuccessful.

- B. Wherever Ahart's dwarf rush, Sacramento orcutt grass, or slender orcutt grass are found, the wetlands in which they occur shall be preserved. The minimum buffer shall be 250 feet from the edge of the wetland.

CLIMATE CHANGE

Note that the climate change impacts to the study area would be very similar regardless of the Alternative, so the discussions below only describe the greenhouse gas emissions (GHG) of the Alternatives. For impacts to the site from climate change, refer to the Climate Change chapter.

No PROJECT

GREENHOUSE GAS EMISSIONS

Either existing greenhouse gas emissions from the site would remain unchanged, or emissions could increase due to the presence of up to ten homes on the site. Using the Business As Usual calculations of the Cordova Hills GHG Plan, ten homes could emit approximately 1.5 metric tons (MT) per capita (Table 23 of the GHG Plan). Assuming residency figures of 2.71 people per home, this would be approximately 41 MT due to energy usage. The Business As Usual figures for the transportation sector is 8.01 MT per capita, or 217 MT annually. No Project total emissions are calculated as 258 MT annually, or 9.51 MT per capita. This is well above the significance thresholds, but any action exempt from CEQA is likewise exempted from the thresholds. Even if the No Project were discretionary, given that the total emissions are only a tiny fraction of total County emissions (0.005%, based on unincorporated County emissions of 5.2 million MT annually), the total emissions are insignificant; No Project impacts to climate change are *less than significant*.

EXPANDED PRESERVES

GREENHOUSE GAS EMISSIONS

Although the Expanded Preserves Alternative involves fewer homes and businesses, it is assumed that the per capita and per square-foot energy sector emissions would be essentially unchanged from the Project totals (from page 33 of the GHG Plan), which is 1.18 MT (residential) and 5.75 MT per 1,000 square feet (commercial). With 6,845

homes and 382,640 square feet of commercial space, total emissions from energy usage would be 8,460 MT annually.

Table 17 of the GHG Plan shows the methodology and data used to calculate transportation-related GHG emissions. The traffic study also provided data for the Alternatives (Table ALT-7). Using the same methodology shown in Table 17 of the GHG Plan, the transportation emissions of the Expanded Preserves Alternative is 88,283 MT per day, or 4.48 MT per capita annually. The anticipated further reductions from the GHG Plan (Table 19 of the GHG Plan) would reduce these emissions by 15.9%, resulting in per capita emissions of 3.77 MT per capita.

Compared to the thresholds in effect at the time of the NOP, the Expanded Preserves Alternative would be below all three sector thresholds. Compared to the current thresholds, the Alternative would be above the transportation sector threshold. Converting the commercial and industrial sector threshold to per capita (0.62 MT according to page 33 of the GHG Plan) and then combining all sectors, total emissions would be 5.57 MT per capita or 96,743 MT annually. Converting the commercial and industrial threshold to per capita and combining all sectors, the aggregate threshold is 4.97 MT per capita. Aggregating the sectors to account for “overachievement” in the energy usage sectors still does not result in emissions which are below the threshold. The same conclusion applied to the Project applies to this Alternative, and impacts remain *significant and unavoidable*.

EXPANDED FOOTPRINT

GREENHOUSE GAS EMISSIONS

Although the Expanded Preserves Alternative involves fewer homes and businesses, it is assumed that the per capita and per square-foot energy emissions would be essentially unchanged, which is 1.18 MT (residential) and 5.75 MT per 1,000 square feet (commercial), based on page 33 of the GHG Plan. With 8,045 homes and 1,032,640 square feet of commercial space, total emissions from energy usage would be 10,526 MT annually.

Table 17 of the GHG Plan shows the methodology and data used to calculate transportation-related GHG emissions. The traffic study also provided data for the Alternatives (Table ALT-7). Using the same methodology shown in Table 17 of the GHG Plan, the transportation emissions of the Expanded Preserves Alternative is 102,814 MT per day, or 4.50 MT per capita annually. The anticipated further reductions from the GHG Plan (Table 19 of the GHG Plan) would reduce these emissions by 15.9%, resulting in per capita emissions of 3.78 MT per capita.

Compared to the thresholds in effect at the time of the NOP, the Expanded Footprint Alternative is below all three sector thresholds. Compared to the current thresholds the Expanded Footprint Alternative is above the transportation sector threshold. Aggregating all emissions, the Expanded Footprint Alternative results in emissions of 5.61 MT per capita or 113,3403 MT annually, which is also above the aggregated

threshold. Aggregating the sectors to account for “overachievement” in the energy usage sectors still does not result in emissions which are below the threshold. The same conclusion applied to the Project applies to this Alternative, and impacts remain *significant and unavoidable*.

Table ALT-7: Traffic Data Used in the GHG Analysis for Alternative 1 and 2

Speed Bin Value	2008 VMT		2035 VMT		2020 VMT		2020 EMFAC Estimated CO ₂ (MT)	
	Expanded Preserves	Expanded Footprint	Expanded Preserves	Expanded Footprint	Expanded Preserves	Expanded Footprint	Expanded Preserves	Expanded Footprint
1 – 5	23,422	23,105	77,295	77,039	47,366	47,076	57	56
6 – 10	168,549	168,160	255,255	268,442	207,085	212,730	189	194
11 – 15	357,035	354,651	676,891	660,575	499,193	490,617	361	354
16 – 20	6,901,734	6,936,713	10,870,692	10,927,294	8,665,715	8,710,305	5,147	5,174
21 – 25	2,529,689	2,562,932	3,671,446	3,646,607	3,037,137	3,044,565	1,550	1,554
26 – 30	3,152,033	3,136,946	5,540,285	5,586,293	4,213,478	4,225,545	1,913	1,919
31 – 35	6,248,995	6,337,800	10,421,357	10,350,792	8,103,378	8,121,352	3,385	3,393
36 – 40	6,805,180	6,798,779	13,149,576	13,220,764	9,624,912	9,652,995	3,822	3,833
41 – 45	6,054,529	6,024,164	8,402,320	8,420,393	7,097,992	7,089,155	2,766	2,762
46 – 50	3,528,656	3,562,400	6,183,706	6,197,469	4,708,678	4,733,542	1,859	1,869
51 – 55	5,932,720	5,870,514	7,753,676	7,785,832	6,742,034	6,721,766	2,786	2,778
56 – 60	10,991,990	11,069,422	13,800,924	13,737,391	12,240,405	12,255,186	5,475	5,481
61 – 65	2,225,808	2,182,160	1,795,900	1,796,089	2,034,738	2,010,573	1,019	1,007
66 – 70	1,765,153	1,765,114	2,135,295	2,134,842	1,929,661	1,929,438	982	982
<i>Total Daily</i>	<i>56,685,493</i>	<i>56,792,860</i>	<i>84,734,618</i>	<i>84,809,822</i>	<i>47,366</i>	<i>47,076</i>	<i>31,311</i>	<i>31,356</i>
<i>Total Daily CO₂ No Project</i>							<i>31,035</i>	<i>31,035</i>
<i>Total Daily CO₂: Alternatives – No Project</i>							<i>276</i>	<i>321</i>
<i>Total Annual CO₂</i>							<i>88,283</i>	<i>102,814</i>
<i>Mitigated Total¹</i>							<i>74,246</i>	<i>86,467</i>

NOTES

VMT: vehicle miles traveled

1. Including the 15.9% Reduction from Table 19 of the GHG Plan

CULTURAL RESOURCES

NO PROJECT

The discussions found in the Cultural Resources chapter apply to this Alternative. There are no known historical resources on the site, as defined by CEQA. The No Project Alternative involves a much smaller potential construction footprint, and thus there is a much lower probability of encountering undiscovered subsurface resources. Though mitigation cannot be applied to a No Project Alternative, it is expected to be unnecessary for such minor potential changes; since there are no significant resources on the site, impacts of the No Project Alternative are *less than significant*.

EXPANDED PRESERVES

The discussions found in the Cultural Resources chapter apply to this Alternative. There are no known historical resources on the site, as defined by CEQA. The impacts of this Alternative would essentially be the same as the Project, though with a slightly reduced likelihood of encountering undiscovered subsurface resources, because the Expanded Preserves Alternative involves a smaller construction footprint. Mitigation Measure CR-1 would reduce potential impacts to *less than significant* levels.

EXPANDED FOOTPRINT

For the main Cordova Hills portion of this Alternative, impacts to cultural resources are the same as those discussed above in the Expanded Preserves discussion. A cultural resources survey has not been conducted on the Grant Line Pilatus property, but a record search was performed at the North Central Information Center in this area as part of the Draft 2030 Sacramento County General Plan EIR. According to the record search, there are six historical isolates recorded within or adjacent to the Grant Line Pilatus property. The isolates consist of miscellaneous farming equipment, such as a tractor, and an oil can. Isolates lack historical context and data potential, thus are not considered significant resources. Thus, there are no known significant cultural resources within the Grant Line Pilatus area.

The area was historically utilized for intensive mining and, later, ranching and farming activities. The intensive use of the this growth area for placer mining purposes, resulted in substantial topographic changes that are very prevalent today, which act as artificial monuments of the historic land use in this area. Such activities have resulted in massive changes to stratigraphy, which likely obliterated many prehistoric cultural resources sites within the area. Though no known significant sites exist, and it is likely that any sites that were present have been damaged by use of the property over time, the presence of the isolates does indicate some sensitivity for the presence of undiscovered historical resources. Furthermore, as is the case with all development, there is the potential to discover previously undocumented archeological resources. A cultural resources field survey must be conducted on the site prior to development, to ensure that all reasonable steps have been taken to identify significant resources;

mitigation to that effect has been included, along with a requirement to preserve any significant sites. This mitigation (ALT-2), in combination with Project measure CR-1, would reduce potential impacts to *less than significant* levels.

MITIGATION MEASURES:

ALT-2. Prior to issuance of building permits or recordation of the final map, whichever occurs first, a cultural resources survey prepared by a qualified professional shall be provided to the Environmental Coordinator. Any significant resources (as defined by the National Historic Preservation Act, the California Environmental Quality Act Guidelines, and the California Public Resources Code) shall be preserved, to the satisfaction of the Environmental Coordinator.

GEOLOGY AND SOILS

NO PROJECT

The discussions found in the Geology and Soils chapter apply to this Alternative. As described, there are existing regulations in place to ensure that construction on the site does not cause substantial soil erosion, and will avoid substantial risk to life and property associated with expansive soils or geological hazards (such as seismicity). The site is not considered likely to include asbestos-containing soils, and soil testing found no evidence of naturally occurring asbestos. There are no mapped mineral resources on the site which would be obstructed by the Alternative, and moreover, the construction of up to ten homes would not preclude future mining of the site. Impacts related to this topical area are *less than significant* for the same reasons described for the Project.

EXPANDED PRESERVES

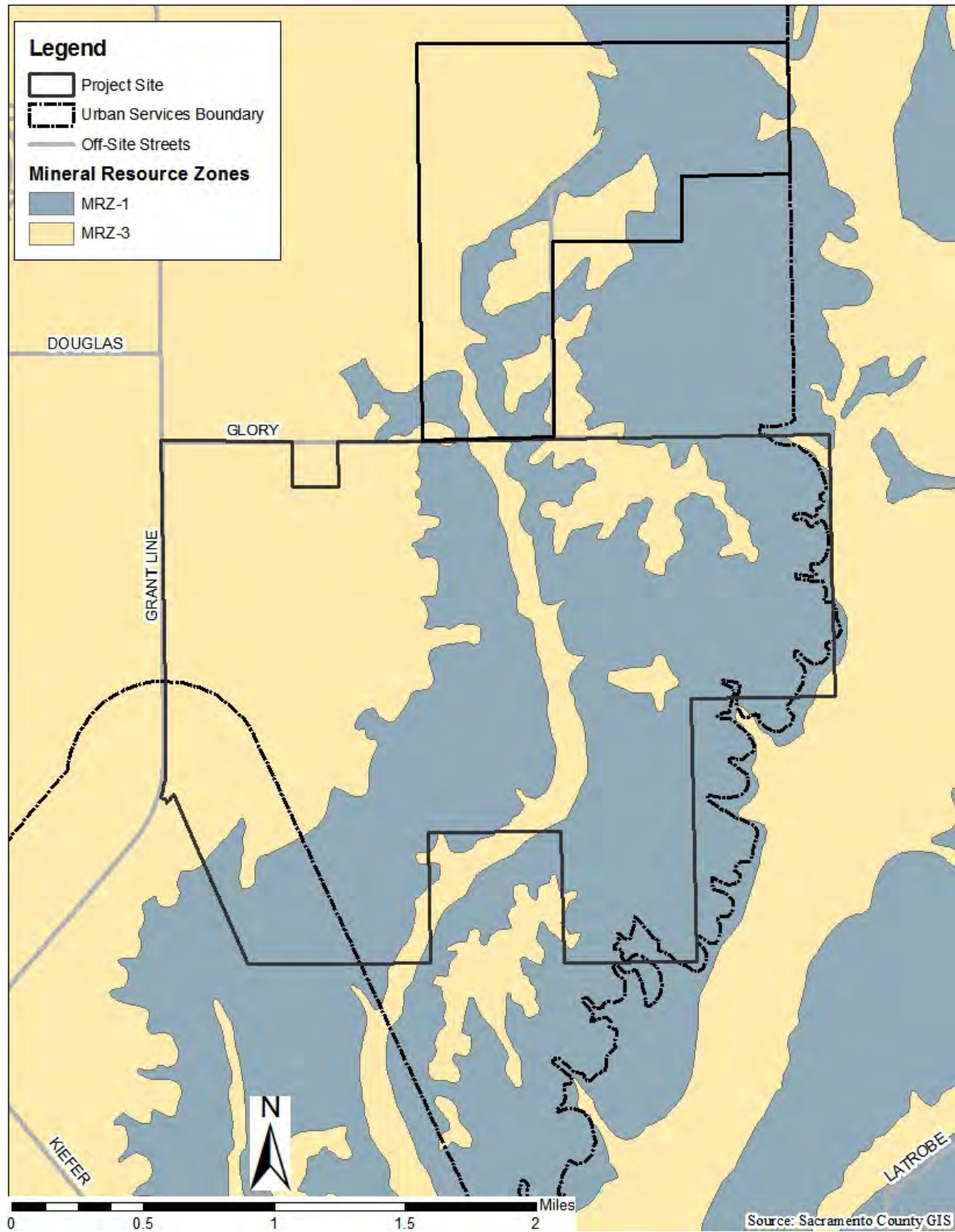
The discussions found in the Geology and Soils chapter apply to this Alternative. As described, there are existing regulations in place to ensure that construction on the site does not cause substantial soil erosion, and will avoid substantial risk to life and property associated with expansive soils or geological hazards (such as seismicity). The site is not considered likely to include asbestos-containing soils, and soil testing found no evidence of naturally occurring asbestos. There are no mapped mineral resources on the site which would be obstructed by the Alternative, and moreover, this Alternative would include the same aggregate-recovery plan as the Project. Impacts related to this topical area are *less than significant* for the same reasons described for the Project.

EXPANDED FOOTPRINT

The discussion for this Alternative is the same as the one provided for Expanded Preserves, above, except that some additional discussion is necessary to address the additional land area. The Grant Line Pilatus area is designated MRZ-1 and MRZ-3, and

it contains the same soil types as the Project area (refer to Plate ALT-11 and Plate ALT-12; on the latter exhibit, prime soils are hatchmarked). The expansion of the site brings the existing MRZ-2 areas to within 1.5 miles of the Alternative, but still does not make the Alternative likely to obstruct access to mineral resources. Like the rest of the site, the Grant Line Pilatus area is not mapped as likely to include asbestos-containing soils. Ultimately, since the additional property has the same geologic characteristics as the primary Project area, the discussions and conclusions for the Project apply to the Expanded Footprint Alternative. Impacts related to this topical area are *less than significant* for the same reasons described for the Project.

Plate ALT-11: Expanded Footprint and Sacramento County MRZ Zones



The map displays the Project Site, outlined in black, situated within a larger area defined by the Urban Services Boundary, indicated by a dashed line. The map is overlaid with a grid of soil type designations, each represented by a unique color and pattern. The Project Site is primarily composed of 125 - Corning Complex (light blue) and 126 - Corning-Redding Complex (light green) soils. The Urban Services Boundary area includes a variety of soil types, including 101 - Amador-Gillender Complex (light yellow), 125 - Corning Complex (light blue), 126 - Corning-Redding Complex (light green), 132 - Creviscreek Sandy Loam (light orange), 156 - Hadselville-Pentz Complex (light purple), 158 - Hicksville Loam (light pink), 160 - Hicksville Sandy Clay Loam (light brown), 163 - Keyes Sandy Loam (light yellow), 187 - Pardee Ranchoseco Complex (light green), 188 - Pentz-Lithic Xerorthents Complex (light blue), 189 - Peters Clay (light orange), 192 - Red Bluff Loam (light pink), 193 - Red Bluff-Redding Complex (light yellow), 198 - Redding Gravelly Loam (light green), 215 - San Joaquin Silt Loam (light blue), and 242 - Xerofluvents (light orange). The map also shows off-site streets, including Solsberry, Raymer, Nike, Edington, Douglas, Glory, and Ant Line. A north arrow and a scale bar (0 to 2 miles) are located in the bottom left corner. The source is cited as Sacramento County GIS.

Legend

- Project Site
- Urban Services Boundary
- Off-Site Streets

On-Site Soil Types

- 101 - Amador-Gillender Complex
- 125 - Corning Complex
- 126 - Corning-Redding Complex
- 132 - Creviscreek Sandy Loam
- 156 - Hadselville-Pentz Complex
- 158 - Hicksville Loam
- 160 - Hicksville Sandy Clay Loam
- 163 - Keyes Sandy Loam
- 187 - Pardee Ranchoseco Complex
- 188 - Pentz-Lithic Xerorthents Complex
- 189 - Peters Clay
- 192 - Red Bluff Loam
- 193 - Red Bluff-Redding Complex
- 198 - Redding Gravelly Loam
- 215 - San Joaquin Silt Loam
- 242 - Xerofluvents

Source: Sacramento County GIS

HAZARDS AND HAZARDOUS MATERIALS

No PROJECT

The impacts discussed in the Hazards and Hazardous Materials chapter are largely related to the proximity of known hazards or hazardous materials to the Project site, and are typically unrelated to the specific uses proposed within the site. For this reason, the impact discussions for the Project apply to the No Project Alternative. Known existing or historic hazardous conditions near the site include the Boy's Ranch, Aerojet (soil and groundwater contamination), and Kiefer Landfill (groundwater contamination). The Boy's Ranch was remediated and is a closed case, and does not have the potential to impact homes developed on the site. The No Project Alternative would involve the use of wells to supply both potable and non-potable water supply, but since groundwater contamination stemming from the Aerojet and Kiefer Landfill properties are migrating away from the site, the wells would not be negatively impacted by contamination. Only one of the parcels is affected by the buffer of the Kiefer Landfill, and it is highly unlikely that a home would be constructed within the relatively narrow area where the buffer exists – it is more probable that a home would be constructed at a point farther from the landfill, and thus would not be impacted by gas migration. Impacts related to this topical area are *less than significant*, as described for the Project.

EXPANDED PRESERVES

The same discussions provided for the Project apply to this Alternative; also refer to the No Project discussion above for a summary. Impacts related to this topical area are *less than significant*, as described for the Project. Mitigation Measure HM-1 would apply.

EXPANDED FOOTPRINT

The Project search radius for hazardous sites was one mile – an area which includes the Grant Line Pilatus area. Though this Alternative includes additional land area, it does not change the conclusions of the analysis. Impacts related to this topical area are *less than significant*, as described for the Project. Mitigation Measure HM-1 would apply.

HYDROLOGY AND WATER QUALITY

No PROJECT

The No Project Alternative would impact less than one percent of the watershed area on the site, and thus would not result in substantial hydrologic changes on the site. Existing County ordinances and regulations described in the Hydrology and Water Quality chapter would ensure that any homes constructed would not be placed within a 100-year floodplain and would not impede or redirect flood flows.

Water quality impacts could occur during construction from increased soil erosion and sedimentation due to clearing of vegetation, alteration of drainages, and grading, though on a much smaller scale than for the Project. Depending on the size of the construction area and the amount of soil moved, construction of homes may require the State's General Construction Permit, which requires preparation of an erosion control plan. Developments which do not meet permit requirements are exempted because they are considered to be too small to generate substantial construction-related pollution. Either the No Project Alternative will require appropriate erosion controls, through permitting requirements, or will not have the potential to generate substantial polluted runoff.

The No Project Alternative would not be subject to the design requirements of the *Stormwater Quality Design Manual for the Sacramento and South Placer Regions*; the area for each home is too small. Like construction water quality, the No Project Alternative is considered too small to have substantial impacts. It should also be noted that ample undisturbed grasslands would remain after construction to filter and treat runoff from the home sites.

For the foregoing reasons, No Project impacts to hydrology and water quality are *less than significant*.

EXPANDED PRESERVES

The Drainage Master Plan would require amendment for this Alternative. Given that the Alternative converts less land area to urbanized uses than the Project, it can be concluded that fewer detention and water quality basins would be needed for this Alternative. The basin locations would also need to change, given that many of the basins for the Project are shown in areas which would be within Avoided Areas in the Alternative condition. Though moved, it is assumed that the new basin locations would all be within the site boundaries in areas already analyzed for impacts related to urbanization, and thus would not result in additional unstudied physical impacts. Ultimately, though specific Drainage Master Plan designs would require change, the conclusions of the Project analysis with respect to avoidance of floodplain impacts, hydromodification, and impacts to stormwater infrastructure still applies to this Alternative; impacts are *less than significant*.

Construction-related and operational water quality impacts of the Expanded Preserves Alternative would be the same as those described for the Project. Existing regulations are sufficient to ensure that the Alternative will not contribute substantial sources of polluted runoff; impacts are *less than significant*.

EXPANDED FOOTPRINT

The Expanded Footprint Alternative includes more overall land area, but nonetheless includes less conversion of land to urban uses than the Project. The Expanded Footprint Alternative also includes the same watersheds as the Project area, though the Drainage Master Plan would need to be expanded to include the added portions of the

Carson Creek watershed associated with the Grant Line Pilatus area. A similar number of basins may be required, though in different locations within the portions designated for urban uses. For these reasons, though the Drainage Master Plan would require amendment for this Alternative, it is presumed that the same conclusions reached for the Project would ultimately be reached for this Alternative; as described for the Project, impacts would be *less than significant*.

Construction-related and operational water quality impacts of the Expanded Footprint Alternative would be the same as those described for the Project. Existing regulations are sufficient to ensure that the Alternative will not contribute substantial sources of polluted runoff; impacts are *less than significant*.

LAND USE

NO PROJECT

The No Project Alternative would involve very little change in conditions, in terms of land use impacts. The Alternative would retain the same site zoning and other land use designations, and would develop consistent with those designations. As such, the No Project Alternative would not result in significant conflicts with existing land use plans or existing land use policies intended to avoid significant environmental effects. The No Project Alternative would be consistent with the SACOG Blueprint, inasmuch as urbanization of the site is not identified in the Blueprint until the cumulative planning horizon. The No Project Alternative would not disrupt an existing community or displace housing elsewhere, given that the site does not contain existing housing. Land use impacts related to the No Project Alternative are *less than significant*.

EXPANDED PRESERVES

CONFLICT WITH LAND USE PLANS

The impact of the Expanded Preserves Alternative is essentially the same as the Project impact. The Alternative would involve less urbanization across from the City of Rancho Cordova, but this would not conflict with uses across Grant Line Road. For the same reasons discussed for the Project, the Expanded Preserves Alternative would not result in substantial conflicts with a land use plan which avoids environmental impacts; impacts are *less than significant*.

CONFLICT WITH LAND USE POLICIES AND REGULATIONS

SACOG BLUEPRINT, LU-23, LU-26, AND LU-113

The Alternative includes the same basic internal designs as the Project, so in this respect the conclusions for the Project related to provision of a variety of transportation choices, compact building and community design, and a range of housing, as well as fostering a sense of place apply to this Alternative. The discussion related to directing

development toward existing communities also applies to this Alternative. Where the Alternative differs from the Project is in the preservation of open space. Where the Project preserves 18% of the total site area, the Expanded Preserves Alternative places 43% of the land area into preserves. This is substantial land area, and furthermore results in the preservation of 81% of the wetland resources on the site. For these reasons, the Expanded Preserves Alternative is considered consistent with the “preservation of open space” Blueprint principle. Though consistent with most of the Blueprint principles, the Alternative is nonetheless inconsistent with the major underpinning principle of the Blueprint, which is to grow outward from the existing urban core. For this reason, impacts are still considered *significant and unavoidable*, as they are for the Project.

GENERAL PLAN POLICIES RELATED TO GROWTH INDUCEMENT

The Expanded Preserves Alternative would include a General Plan Amendment to allow the use of public water for the sports park and other uses and would extend infrastructure through Rancho Cordova to reach the site. The impacts of the Alternative are the same as those described for the Project; impacts are *less than significant*.

GENERAL PLAN POLICIES RELATED TO PUBLIC SERVICES AND UTILITIES

Compliance with General Plan Policies LU-13, LU-66, LU-110, and LU-123 is intended to ensure that minimum service standards for public services and utilities are met. The Alternative would include a facilities financing plan, just like the Project which would be submitted to all of the applicable service entities for review and approval. Long-term funding sources would be identified for the maintenance of public services. Impacts are *less than significant*, just as they are for the Project.

GENERAL PLAN POLICIES RELATED TO TRANSPORTATION AND AIR QUALITY

The Expanded Preserves Alternative would result in substantial impacts related to air quality and transportation, but like the Project this would not be due to conflict with General Plan policies. In terms of Policy LU-25, the Alternative use mix would be approximately 23% public, 74% residential, and 3% commercial. The commercial category is below the minimum 10% included in the policy for developments with a residential emphasis, though this is partly due to the limitations described in the Land Use chapter: the acreage designated for commercial uses does not reflect the actual amount of commercial area, since there are land use categories which are residential but allow a certain proportion of commercial uses.

Though an acreage analysis indicates that the Expanded Preserves Alternative is inconsistent with LU-25, the Alternative nonetheless involves lower per-person travel and thus lower per-person emissions (refer to the Climate Change discussion for the Alternative) than the Project, which is consistent with the policy. Thus it is concluded that Expanded Preserves inconsistency with the policy is not resulting in significant transportation or air quality impacts; impacts are *less than significant*.

GENERAL PLAN POLICIES: LAND USE COMPATIBILITY

Policy LU-19 states that appropriate buffers should be placed between incompatible uses, and Policy LU-94 states that new development should be compatible with existing development, which in the vicinity of the site includes the Boy's Ranch and Kiefer Landfill. The impacts of the Alternative are the same as those described for the Project; impacts are *less than significant*.

DIVISION OR DISRUPTION OF ESTABLISHED COMMUNITY

The impacts of the Alternative are the same as those described for the Project; impacts are *less than significant*.

DISPLACEMENT OF HOUSING

The impacts of the Alternative are the same as those described for the Project; impacts are *less than significant*.

EXPANDED FOOTPRINT

CONFLICT WITH LAND USE PLANS

The impact of the Expanded Footprint Alternative is essentially the same as the Project impact. The Alternative would involve less urbanization across from the City of Rancho Cordova, but this would not conflict with uses across Grant Line Road. Where the Grant Line Pilatus area is added, there are no nearby land use plans. For the same reasons discussed for the Project, the Expanded Footprint Alternative would not result in substantial conflicts with a land use plan which avoids environmental impacts; impacts are *less than significant*.

CONFLICT WITH LAND USE POLICIES AND REGULATIONS

SACOG BLUEPRINT

The Alternative includes the same basic internal designs as the Project, so in this respect the conclusions for the Project related to provision of a variety of transportation choices, compact building and community design, and a range of housing, as well as fostering a sense of place apply to this Alternative. The discussion related to directing development toward existing communities also applies to this Alternative. Where the Alternative differs from the Project is in the preservation of open space. Where the Project preserves 18% of the total site area, the Expanded Footprint Alternative places 57% of the land area into preserves. Note, however, that this is because the overall Project area has been expanded. Although the Expanded Footprint Alternative results in a far greater percentage of preserved land, the Alternative only reduces the amount of urbanized land by approximately 159 acres.

The conclusion for the Project as it relates to open space preservation was based largely on the fact that the open space in question contains vernal pools and other wetland resources which have been identified as vital to the recovery of vernal pool species. Though the Expanded Footprint Alternative reduces the amount of urbanized land by only a small amount, it does result in the preservation of 81% of the wetland habitat on the site. For this reason, the Expanded Footprint Alternative is considered consistent with the Blueprint principle related to preservation of open space.

Though consistent with most of the Blueprint principles, the Alternative is nonetheless inconsistent with the major underpinning principle of the Blueprint, which is to grow outward from the existing urban core. For this reason, impacts are still considered *significant and unavoidable*, as they are for the Project.

GENERAL PLAN POLICIES RELATED TO GROWTH INDUCEMENT

The Expanded Footprint Alternative would include a General Plan Amendment to allow the use of public water for the sports park and other uses and would extend infrastructure through Rancho Cordova to reach the site. As it related to these policies, the impacts of the Alternative are the same as those described for the Project; impacts are *less than significant*.

GENERAL PLAN POLICIES RELATED TO PUBLIC SERVICES AND UTILITIES

Compliance with General Plan Policies LU-13, LU-66, LU-110, and LU-123 is intended to ensure that minimum service standards for public services and utilities are met. The Alternative would include a facilities financing plan, just like the Project which would be submitted to all of the applicable service entities for review and approval. Long-term funding sources would be identified for the maintenance of public services. Impacts are *less than significant*, just as they are for the Project.

GENERAL PLAN POLICIES RELATED TO TRANSPORTATION AND AIR QUALITY

The Expanded Footprint Alternative would result in substantial impacts related to air quality and transportation, but like the Project this would not be due to conflict with General Plan policies. In terms of Policy LU-25, the Alternative use mix would be approximately 24% public, 64% residential, and 12% commercial. This is within the general parameters described by LU-25. Impacts are *less than significant*, just as they are for the Project.

GENERAL PLAN POLICIES: LAND USE COMPATIBILITY

Policy LU-19 states that appropriate buffers should be placed between incompatible uses, and Policy LU-94 states that new development should be compatible with existing development, which in the vicinity of the site includes the Boy's Ranch, Kiefer Landfill, and Teichert Aggregates Grantline processing facility and appurtenant mining areas. As it relates to the Boy's Ranch and Kiefer Landfill, impacts of the Alternative are the same as those described for the Project. With regard to the Teichert properties, the

edge of the Expanded Footprint Alternative is adjacent to a mining area and approximately ½-mile from the processing plant area. The mine is associated with alluvial deposits rather than hardrock. Mining primarily involves the use of heavy equipment to excavate surface deposits; blasting activities do not occur in alluvial mining. Thus, the impacts associated with proximity to this facility are exposure to dust, diesel particulates, and noise associated with the use of large earthmoving equipment. These issues are discussed in the air quality and noise analysis sections, but are summarized here.

The Environmental Impact Report prepared for the original Use Permit application (County Control Number 1995-0658; available for review at 827 7th Street, Room 220, Sacramento) indicated that approximately 16 pounds per day of particulate matter would be generated. The analysis also indicated that noise levels could reach volumes of 70 dB at distances of 225 feet from the equipment. To avoid impacts related to particulate matter emissions, mitigation has been included restricting development to areas at least 2,500 feet from active mining operations. This restriction also prevents noise impacts, and thus impacts are *less than significant*.

DIVISION OR DISRUPTION OF ESTABLISHED COMMUNITY

The impacts of the Alternative are the same as those described for the Project; impacts are *less than significant*.

DISPLACEMENT OF HOUSING

The impacts of the Alternative are the same as those described for the Project; impacts are *less than significant*.

NOISE

NO PROJECT

The construction of up to ten single-family homes would not result in substantial construction noise, nor would those homes generate sufficient traffic to make an appreciable change in roadway noise. Single-family homes are also not significant sources of stationary noise. The Project discussion of noise related to Mather Airport and Kiefer Landfill would apply to the No Project Alternative. The No Project Alternative would not result in exposure of people to a substantial noise source, or exceed a noise standard; impacts are *less than significant*.

EXPANDED PRESERVES

CONSTRUCTION WOULD TEMPORARILY INCREASE NOISE LEVELS

The same discussion provided for the Project is applicable to the Alternative; impacts are *less than significant*.

ON-SITE TRAFFIC NOISE

Using the same assumptions of roadway width as used for the Project analysis and the average daily traffic (ADT) calculated for the Expanded Preserves Alternative, the FHWA modeling indicates that cumulative on-site roadway noise volumes would be the same or less than the Project noise volumes (Table ALT-8). Though on-site volumes are in many cases lower, they are still above the 65 dB standard for exterior residential noise environments. There are no residential or commercial areas which would be subject to exterior noise environments which exceed 70 dB, which means that with standard exterior-to-interior noise reduction of 25 dB, all interior noise would be a maximum of 45 dB. While Mitigation Measure NO-1 and NO-3 of the Project would apply, Mitigation Measure NO-2 and NO-4 would not be necessary. As discussed for the Project, mitigation would reduce noise volumes to within General Plan standards; impacts are *less than significant*.

ON-SITE COMMUNITY AND STATIONARY NOISE

The same discussion provided for the Project is applicable to the Alternative; impacts are *less than significant*.

NOISE DUE TO ACTIVITIES AT KIEFER LANDFILL

The same discussion provided for the Project is applicable to the Alternative; impacts are *less than significant*.

SUBSTANTIAL INCREASE IN THE AMBIENT NOISE LEVEL

Table ALT-9 displays the change in existing ambient noise volumes which would be caused by the Expanded Preserves Alternative. Table ALT-10 is also included to disclose probable future conditions, but note that the threshold only applies to development subject to substantial increases in *existing* ambient noise. In any case, the table shows that in the majority of cases the Alternative contribution to cumulative noise is negligible. Most of the same roadway segments impacted by the Project would be impacted by the Alternative. The same discussion provided for the Project applies to this Alternative, and impacts are *significant and unavoidable*.

MATHER AIRPORT

The same discussion and mitigation provided for the Project is applicable to the Alternative; impacts are *less than significant*.

Table ALT-8: Cumulative Plus Expanded Preserves On-Site Roadway Noise

Roadway	Segment		Adjacent Land Uses ²	dB at property line ³	70 dB contour (ft)	65 dB contour (ft)
	From	To				
North Loop Rd	Grant Line Rd	Town Center Dr	AV	70	70	151
North Loop Rd	Town Center Dr	Street A	AV, R-2	71	70	151
North Loop Rd	Street A	Street D	FC, MDR, R-2, AV	69	68	147
North Loop Rd	Street D	Street F	School, MDR	68	38	82
North Loop Rd	Street F	University Blvd	LDR, R-2, ER	64	18	38
University Blvd	Grant Line Rd	Town Center Dr	AV, AG, R	70	72	155
University Blvd	Town Center Dr	Street A	AV, University, R-2, HDR	68	54	116
University Blvd	Street A	Street C	HDR, MDR, LDR	65	36	78
University Blvd	Street C	Street D	MDR, R-2, AV	65	37	80
University Blvd	Street D	Street E	FC, HDR, RD-20	67	32	69
University Blvd	Street E	North Loop Rd	MDR, R, LDR, R-2, ER	66	22	47
Street A	North Loop Rd	University Blvd	R-2, AV, LDR	65	13	28
Street A	University Blvd	Street B	HDR, FC, R, MDR, RD-20	69	40	85
Street A	Street B	Street D	FC, MDR, School, LDR, R-2, AV	67	31	67
Street D	North Loop Rd	University Blvd	MDR, HDR, FC, RD-20, R, R-2	69	41	88
Street D	University Blvd	Street A	HDR, MDR, RD-20, R-2	67	31	66
Street E	University Blvd	Street A	MDR, LDR, RD-20, R, R-2	64	19	41
TC = Town Center, FC = Flex Commercial, AG = Agriculture, R = Recreation, R-2 = Recreation 2 (parks), AV = Avoided, ER = Residential Estates, LDR = Low Density Residential, MDR = Medium Density Residential, RD-20 = Residential 20, HDR = High Density Residential						

Table ALT-9: Existing and Existing Plus Expanded Preserves Off-Site Road Noise

Roadway Segment	Noise Level (dB) At Modeled Location ¹		
	Existing	Existing Plus Alt	Change
Grant Line Rd - Sheldon Rd to Calvin Rd	70	70	0
Grant Line Rd - Calvin Rd to Sunrise Blvd	70	71	1
Grant Line Rd - Sunrise Blvd to Jackson Rd (SR-16)	68	70	2
Grant Line Rd - Jackson Rd (SR-16) to Kiefer Blvd	68	72	4
Grant Line Rd - Kiefer Blvd to University Blvd	67	72	5
Grant Line Rd - University Blvd to Chrysanthus Blvd	67	70	3
Grant Line Rd - Chrysanthus Blvd to North Loop	67	70	3
Grant Line Rd - North Loop to Douglas Rd	67	74	7
Grant Line Rd - Douglas Rd to White Rock Rd	68	71	3
White Rock Rd - Kilgore Rd to Sunrise Blvd	71	72	1
White Rock Rd - Sunrise Blvd to Fitzgerald Rd	66	67	1
White Rock Rd - Fitzgerald Rd to Grant Line Rd	64	65	1
White Rock Rd - Grant Line Rd to Prairie City Rd	69	71	1
White Rock Rd - Prairie City Rd to Scott Rd (West)	68	69	1
White Rock Rd - Scott Rd (West) to Scott Rd (East)	68	69	1
White Rock Rd - Scott Rd (East) to County Line	67	67	0
Jackson Rd (SR-16) - Watt Ave to Bradshaw Rd	70	71	1
Jackson Rd (SR-16) - Bradshaw Rd to Excelsior Rd	69	71	2
Jackson Rd (SR-16) - Excelsior Rd to Eagles Nest Rd	69	70	1
Jackson Rd (SR-16) - Eagles Nest Rd to Sunrise Blvd	69	70	1
Jackson Rd (SR-16) - Sunrise Blvd to Grant Line Rd	70	72	2
Douglas Rd - Mather Blvd to Eagles Nest Rd	64	65	1
Douglas Rd - Eagles Nest Rd to Sunrise Blvd	64	65	1
Douglas Rd - Sunrise Blvd to Rancho Cordova Pkwy	63	69	6
Douglas Rd - Rancho Cordova Pkwy to Grant Line Rd	60	69	9
Kiefer Blvd - Grant Line Rd to Jackson Rd (SR-16)	61	62	1
Sunrise Blvd - US 50 to Folsom Blvd	74	74	0
Sunrise Blvd - Folsom Blvd to White Rock Rd	73	74	1
Sunrise Blvd - White Rock Rd to Douglas Rd	71	73	2
Sunrise Blvd - Jackson Rd (SR-16) to Florin Rd	67	67	0
Mather Blvd - Douglas Rd to Femoyer St	64	65	1

Roadway Segment	Noise Level (dB) At Modeled Location ¹		
	Existing	Existing Plus Alt	Change
Zinfandel Dr - US-50 to White Rock Rd	73	73	0
Prairie City Rd - US-50 to White Rock Rd	67	69	2
Scott Rd - US-50 to White Rock Rd	67	67	0
<p>NOTES:</p> <p>1. Modeling location was 70 ft from the centerline with exception of Douglas Road, which was 73 feet from the centerline based on the nearest edge of existing residential areas.</p> <p>Bold indicates volume which exceeds standard</p> <p>Shading indicates Alternative causes significant impacts.</p>			

**Table ALT-10: Cumulative and Cumulative Plus Expanded Preserves
Off-Site Road Noise**

Roadway Segment	Noise Level (dB) At Modeled Location ¹		
	Cumulative	Cumulative Plus Project	Change
Grant Line Rd - Sheldon Rd to Calvin Rd	73	73	0
Grant Line Rd - Calvin Rd to Sunrise Blvd	74	74	0
Grant Line Rd - Sunrise Blvd to Jackson Rd (SR-16)	72	73	1
Grant Line Rd - Jackson Rd (SR-16) to Rancho Cordova Pkwy	73	74	1
Grant Line Rd - Rancho Cordova Pkwy to Kiefer Blvd	73	74	1
Grant Line Rd - Kiefer Blvd to University Blvd	73	74	1
Grant Line Rd - University Blvd to Chrysanthus Blvd	73	74	1
Grant Line Rd - Chrysanthus Blvd to North Loop	73	74	1
Grant Line Rd - North Loop to Douglas Rd	74	76	2
Grant Line Rd - Douglas Rd to White Rock Rd	75	75	0
White Rock Rd - Kilgore Rd to Sunrise Blvd	70	70	0
White Rock Rd - Sunrise Blvd to Rancho Cordova Pkwy	71	71	0
White Rock Rd - Rancho Cordova Pkwy to Americanos Blvd	69	69	0
White Rock Rd - Americanos Blvd to Grant Line Rd	69	70	1
White Rock Rd - Grant Line Rd to Prairie City Rd	76	77	1
White Rock Rd - Prairie City Rd to Scott Rd (South)	75	76	1
White Rock Rd - Scott Rd (South) to Scott Rd (North)	75	76	1
White Rock Rd - Scott Rd (North) to County Line	72	72	0
Jackson Rd (SR-16) - Watt Ave to Bradshaw Rd	77	77	0
Jackson Rd (SR-16) - Bradshaw Rd to Vineyard Rd	76	76	0
Jackson Rd (SR-16) - Vineyard Rd to Excelsior Rd	74	75	1
Jackson Rd (SR-16) - Excelsior Rd to Eagles Nest Rd	71	71	0
Jackson Rd (SR-16) - Eagles Nest Rd to Sunrise Blvd	71	71	0
Jackson Rd (SR-16) - Sunrise Blvd to Grant Line Rd	72	72	0
Douglas Rd - Excelsior Rd to Eagles Nest Rd	69	69	0
Douglas Rd - Eagles Nest Rd to Sunrise Blvd	71	71	0
Douglas Rd - Sunrise Blvd to Rancho Cordova Pkwy	72	72	0

Roadway Segment	Noise Level (dB) At Modeled Location ¹		
	Cumulative	Cumulative Plus Project	Change
Douglas Rd - Rancho Cordova Pkwy to Americanos Blvd	69	71	2
Douglas Rd - Americanos Blvd to Grant Line Rd	66	70	4
Kiefer Blvd - Bradshaw Rd to Vineyard Rd	71	71	0
Kiefer Blvd - Vineyard Rd to Excelsior Rd	70	70	0
Kiefer Blvd - Excelsior Rd to Eagles Nest Rd	67	68	1
Kiefer Blvd - Eagles Nest Rd to Sunrise Blvd	68	69	1
Kiefer Blvd - Sunrise Blvd to Rancho Cordova Pkwy	69	70	1
Kiefer Blvd - Rancho Cordova Pkwy to Grant Line Rd	65	66	1
Kiefer Blvd - Grant Line Rd to Jackson Rd (SR-16)	65	65	0
Sunrise Blvd - US 50 to Folsom Blvd	74	74	0
Sunrise Blvd - Folsom Blvd to White Rock Rd	73	73	0
Sunrise Blvd - White Rock Rd to Douglas Rd	73	73	0
Sunrise Blvd - Jackson Rd (SR-16) to Florin Rd	70	70	0
Mather Blvd - Douglas Rd to Femoyer St	64	64	0
Zinfandel Dr - US-50 to White Rock Rd	75	75	0
Zinfandel Dr - White Rock Rd to International Dr	74	74	0
Zinfandel Dr - International Dr to Douglas Rd	71	72	1
Prairie City Rd - US-50 to Easton Valley Pkwy	74	74	0
Prairie City Rd - Easton Valley Pkwy to White Rock Rd	73	73	0
Scott Rd - US-50 to Easton Valley Pkwy	76	76	0
Scott Rd - Easton Valley Pkwy to White Rock Rd	73	73	0
Chrysanthy Blvd - Sunrise Blvd to Rancho Cordova Pkwy	67	67	0
Chrysanthy Blvd - Rancho Cordova Pkwy to Americanos Blvd	69	70	1
Chrysanthy Blvd - Americanos Blvd to Grant Line Rd	64	68	4
Rancho Cordova Pkwy - White Rock Rd to Douglas Rd	72	72	0
Rancho Cordova Pkwy - Douglas Rd to Chrysanthy Blvd	71	71	0
Rancho Cordova Pkwy - Chrysanthy Blvd to Kiefer Blvd	69	69	0
Rancho Cordova Pkwy - Kiefer Blvd to Grant Line Rd	65	66	1

Roadway Segment	Noise Level (dB) At Modeled Location ¹		
	Cumulative	Cumulative Plus Project	Change
Americanos Blvd - White Rock Rd to Douglas Rd	67	68	1
Americanos Blvd - Douglas Rd to Chrysanthy Blvd	65	66	1
Americanos Blvd - Chrysanthy Blvd to Kiefer Blvd	66	66	0
Oak Ave - US-50 to Easton Valley Pkwy	69	69	0
Oak Ave - Easton Valley Pkwy to White Rock Rd	61	61	0
NOTES: 1. Modeling location was 70 ft from the centerline with exception of Douglas Road, which was 73 feet from the centerline based on the nearest edge of existing residential areas. Bold indicates volume which exceeds standard.			

EXPANDED FOOTPRINT

CONSTRUCTION WOULD TEMPORARILY INCREASE NOISE LEVELS

The same discussion provided for the Project is applicable to the Alternative; impacts are *less than significant*.

ON-SITE TRAFFIC NOISE

Using the same assumptions of roadway width as used for the Project analysis and the average daily traffic (ADT) calculated for the Expanded Footprint Alternative, the FHWA modeling indicates that cumulative on-site roadway noise volumes would be the same or less than the Project noise volumes (Table ALT-8). Though on-site volumes are in some cases lower, they are still above the 65 dB standard for exterior residential noise environments. There are no residential or commercial areas which would be subject to exterior noise environments which exceed 70 dB, which means that with standard exterior-to-interior noise reduction of 25 dB, all interior noise would be a maximum of 45 dB. While Mitigation Measure NO-1 and NO-3 of the Project would apply, Mitigation Measure NO-2 and NO-4 would not be necessary. As discussed for the Project, mitigation would reduce noise volumes to within General Plan standards; impacts are *less than significant*.

ON-SITE COMMUNITY AND STATIONARY NOISE

The same discussion provided for the Project is applicable to the Alternative; impacts are *less than significant*.

NOISE DUE TO ACTIVITIES AT KIEFER LANDFILL

The same discussion provided for the Project is applicable to the Alternative; impacts are *less than significant*.

SUBSTANTIAL INCREASE IN THE AMBIENT NOISE LEVEL

Table ALT-13 displays the change in existing ambient noise volumes which would be caused by the Expanded Preserves Alternative. Table ALT-14 is also included to disclose probable future conditions, but note that the threshold only applies to development subject to substantial increases in *existing* ambient noise. In any case, the table shows that in the majority of cases the Alternative contribution to cumulative noise is negligible. Most of the same roadway segments impacted by the Project would be impacted by the Alternative. The same discussion provided for the Project applies to this Alternative, and impacts are *significant and unavoidable*.

MATHER AIRPORT

The same discussion and mitigation provided for the Project is applicable to the Alternative; impacts are *less than significant*.

Table ALT-11: Cumulative Plus Expanded Footprint On-Site Roadway Noise

Roadway	Segment		Adjacent Land Uses ²	dB at property line ³	70 dB contour (ft)	65 dB contour (ft)
	From	To				
North Loop Rd	Grant Line Rd	Town Center Dr	AV	70	80	173
North Loop Rd	Town Center Dr	Street A	AV, R-2	71	80	173
North Loop Rd	Street A	Street D	FC, MDR, R-2, AV	66	42	91
North Loop Rd	Street D	Street F	School, MDR	67	31	67
North Loop Rd	Street F	University Blvd	LDR, R-2, ER	65	20	43
University Blvd	Grant Line Rd	Town Center Dr	AV, AG, R	70	79	171
University Blvd	Town Center Dr	Street A	AV, University, R-2, HDR	69	65	140
University Blvd	Street A	Street C	HDR, MDR, LDR	67	44	95
University Blvd	Street C	Street D	MDR, R-2, AV	66	42	90
University Blvd	Street D	Street E	FC, HDR, RD-20	66	31	66
University Blvd	Street E	North Loop Rd	MDR, R, LDR, R-2, ER	65	20	43
Street A	North Loop Rd	University Blvd	R-2, AV, LDR	65	14	31
Street A	University Blvd	Street B	HDR, FC, R, MDR, RD-20	69	40	87
Street A	Street B	Street D	FC, MDR, School, LDR, R-2, AV	66	27	58
Street D	North Loop Rd	University Blvd	MDR, HDR, FC, RD-20, R, R-2	70	48	103
Street D	University Blvd	Street A	HDR, MDR, RD-20, R-2	68	36	77
Street E	University Blvd	Street A	MDR, LDR, RD-20, R, R-2	64	20	43
TC = Town Center, FC = Flex Commercial, AG = Agriculture, R = Recreation, R-2 = Recreation 2 (parks), AV = Avoided, ER = Residential Estates, LDR = Low Density Residential, MDR = Medium Density Residential, RD-20 = Residential 20, HDR = High Density Residential						

Table ALT-12: Existing and Existing Plus Expanded Footprint Off-Site Road Noise

Roadway Segment	Noise Level (dB) At Modeled Location ¹		
	Existing	Existing Plus Alt 2	Change
Grant Line Rd - Sheldon Rd to Calvin Rd	70	70	0
Grant Line Rd - Calvin Rd to Sunrise Blvd	70	71	1
Grant Line Rd - Sunrise Blvd to Jackson Rd (SR-16)	68	70	2
Grant Line Rd - Jackson Rd (SR-16) to Kiefer Blvd	68	72	4
Grant Line Rd - Kiefer Blvd to University Blvd	67	72	5
Grant Line Rd - University Blvd to Chrysanthus Blvd	67	70	3
Grant Line Rd - Chrysanthus Blvd to North Loop	67	70	3
Grant Line Rd - North Loop to Douglas Rd	67	70	3
Grant Line Rd - Douglas Rd to White Rock Rd	68	72	4
White Rock Rd - Kilgore Rd to Sunrise Blvd	71	72	1
White Rock Rd - Sunrise Blvd to Fitzgerald Rd	66	67	1
White Rock Rd - Fitzgerald Rd to Grant Line Rd	64	66	2
White Rock Rd - Grant Line Rd to Prairie City Rd	69	71	2
White Rock Rd - Prairie City Rd to Scott Rd (West)	68	69	1
White Rock Rd - Scott Rd (West) to Scott Rd (East)	68	69	1
White Rock Rd - Scott Rd (East) to County Line	67	67	0
Jackson Rd (SR-16) - Watt Ave to Bradshaw Rd	70	71	1
Jackson Rd (SR-16) - Bradshaw Rd to Excelsior Rd	69	71	2
Jackson Rd (SR-16) - Excelsior Rd to Eagles Nest Rd	69	71	2
Jackson Rd (SR-16) - Eagles Nest Rd to Sunrise Blvd	69	71	2
Jackson Rd (SR-16) - Sunrise Blvd to Grant Line Rd	70	72	2
Douglas Rd - Mather Blvd to Eagles Nest Rd	64	65	1
Douglas Rd - Eagles Nest Rd to Sunrise Blvd	64	65	1
Douglas Rd - Sunrise Blvd to Rancho Cordova Pkwy	63	70	7
Douglas Rd - Rancho Cordova Pkwy to Grant Line Rd	60	70	10
Kiefer Blvd - Grant Line Rd to Jackson Rd (SR-16)	61	63	2
Sunrise Blvd - US 50 to Folsom Blvd	74	74	0
Sunrise Blvd - Folsom Blvd to White Rock Rd	73	74	1
Sunrise Blvd - White Rock Rd to Douglas Rd	71	73	2
Sunrise Blvd - Jackson Rd (SR-16) to Florin Rd	67	67	0
Mather Blvd - Douglas Rd to Femoyer St	64	66	2

Roadway Segment	Noise Level (dB) At Modeled Location ¹		
	Existing	Existing Plus Alt 2	Change
Zinfandel Dr - US-50 to White Rock Rd	73	73	0
Prairie City Rd - US-50 to White Rock Rd	67	70	3
Scott Rd - US-50 to White Rock Rd	67	68	1
<p>NOTES:</p> <p>1. Modeling location was 70 ft from the centerline with exception of Douglas Road, which was 73 feet from the centerline based on the nearest edge of existing residential areas.</p> <p>Bold indicates volume which exceeds standard</p> <p>Shading indicates Alternative causes significant impact.</p>			

**Table ALT-13: Cumulative and Cumulative Plus Expanded Footprint
Off-Site Road Noise**

Roadway Segment	Noise Level (dB) At Modeled Location ¹		
	Cumulative	Cumulative Plus Alt 2	Change
Grant Line Rd - Sheldon Rd to Calvin Rd	73	73	0
Grant Line Rd - Calvin Rd to Sunrise Blvd	74	74	0
Grant Line Rd - Sunrise Blvd to Jackson Rd (SR-16)	72	73	1
Grant Line Rd - Jackson Rd (SR-16) to Rancho Cordova Pkwy	73	74	1
Grant Line Rd - Rancho Cordova Pkwy to Kiefer Blvd	73	75	2
Grant Line Rd - Kiefer Blvd to University Blvd	73	75	2
Grant Line Rd - University Blvd to Chrysanthus Blvd	73	74	1
Grant Line Rd - Chrysanthus Blvd to North Loop	73	74	1
Grant Line Rd - North Loop to Douglas Rd	74	74	0
Grant Line Rd - Douglas Rd to White Rock Rd	75	76	1
White Rock Rd - Kilgore Rd to Sunrise Blvd	70	70	0
White Rock Rd - Sunrise Blvd to Rancho Cordova Pkwy	71	71	0
White Rock Rd - Rancho Cordova Pkwy to Americanos Blvd	69	69	0
White Rock Rd - Americanos Blvd to Grant Line Rd	69	70	1
White Rock Rd - Grant Line Rd to Prairie City Rd	76	77	1
White Rock Rd - Prairie City Rd to Scott Rd (South)	75	76	1
White Rock Rd - Scott Rd (South) to Scott Rd (North)	75	76	1
White Rock Rd - Scott Rd (North) to County Line	72	72	0
Jackson Rd (SR-16) - Watt Ave to Bradshaw Rd	77	77	0
Jackson Rd (SR-16) - Bradshaw Rd to Vineyard Rd	76	76	0
Jackson Rd (SR-16) - Vineyard Rd to Excelsior Rd	74	75	1
Jackson Rd (SR-16) - Excelsior Rd to Eagles Nest Rd	71	71	0
Jackson Rd (SR-16) - Eagles Nest Rd to Sunrise Blvd	71	71	0
Jackson Rd (SR-16) - Sunrise Blvd to Grant Line Rd	72	72	0
Douglas Rd - Excelsior Rd to Eagles Nest Rd	69	69	0
Douglas Rd - Eagles Nest Rd to Sunrise Blvd	71	72	1
Douglas Rd - Sunrise Blvd to Rancho Cordova Pkwy	72	73	1

Roadway Segment	Noise Level (dB) At Modeled Location ¹		
	Cumulative	Cumulative Plus Alt 2	Change
Douglas Rd - Rancho Cordova Pkwy to Americanos Blvd	69	71	2
Douglas Rd - Americanos Blvd to Grant Line Rd	66	71	5
Kiefer Blvd - Bradshaw Rd to Vineyard Rd	71	71	0
Kiefer Blvd - Vineyard Rd to Excelsior Rd	70	70	0
Kiefer Blvd - Excelsior Rd to Eagles Nest Rd	67	68	1
Kiefer Blvd - Eagles Nest Rd to Sunrise Blvd	68	69	1
Kiefer Blvd - Sunrise Blvd to Rancho Cordova Pkwy	69	69	0
Kiefer Blvd - Rancho Cordova Pkwy to Grant Line Rd	65	66	1
Kiefer Blvd - Grant Line Rd to Jackson Rd (SR-16)	65	65	0
Sunrise Blvd - US 50 to Folsom Blvd	74	74	0
Sunrise Blvd - Folsom Blvd to White Rock Rd	73	73	0
Sunrise Blvd - White Rock Rd to Douglas Rd	73	73	0
Sunrise Blvd - Jackson Rd (SR-16) to Florin Rd	70	70	0
Mather Blvd - Douglas Rd to Femoyer St	64	64	0
Zinfandel Dr - US-50 to White Rock Rd	75	76	1
Zinfandel Dr - White Rock Rd to International Dr	74	74	0
Zinfandel Dr - International Dr to Douglas Rd	71	72	1
Prairie City Rd - US-50 to Easton Valley Pkwy	74	74	0
Prairie City Rd - Easton Valley Pkwy to White Rock Rd	73	73	0
Scott Rd - US-50 to Easton Valley Pkwy	76	76	0
Scott Rd - Easton Valley Pkwy to White Rock Rd	73	73	0
Chrysanthy Blvd - Sunrise Blvd to Rancho Cordova Pkwy	67	67	0
Chrysanthy Blvd - Rancho Cordova Pkwy to Americanos Blvd	69	69	0
Chrysanthy Blvd - Americanos Blvd to Grant Line Rd	64	67	3
Rancho Cordova Pkwy - White Rock Rd to Douglas Rd	72	72	0
Rancho Cordova Pkwy - Douglas Rd to Chrysanthy Blvd	71	71	0
Rancho Cordova Pkwy - Chrysanthy Blvd to Kiefer Blvd	69	69	0
Rancho Cordova Pkwy - Kiefer Blvd to Grant Line Rd	65	66	1
Americanos Blvd - White Rock Rd to Douglas Rd	67	68	1

Roadway Segment	Noise Level (dB) At Modeled Location ¹		
	Cumulative	Cumulative Plus Alt 2	Change
Americanos Blvd - Douglas Rd to Chrysanthy Blvd	65	65	0
Americanos Blvd - Chrysanthy Blvd to Kiefer Blvd	66	66	0
Oak Ave - US-50 to Easton Valley Pkwy	69	69	0
Oak Ave - Easton Valley Pkwy to White Rock Rd	61	61	0
<p>NOTES:</p> <p>1. Modeling location was 70 ft from the centerline with exception of Douglas Road, which was 73 feet from the centerline based on the nearest edge of existing residential areas.</p> <p>Bold indicates volume which exceeds standard</p>			

PUBLIC SERVICES

No PROJECT

The addition of up to ten new homes would marginally increase demands on public services, but the demand would not be substantial enough to trigger the need for increased staffing or facilities. Impacts are *less than significant*.

EXPANDED PRESERVES

The Expanded Preserves Alternative would result in a population of 19,690 residents including the university/college campus center, and a population of 15,650 residents excluding the university/college campus center. This is approximately 77% of the residents expected for the Project, and thus would reduce service demands when compared to the Project. Service demand changes were estimated as follows:

- Fire station assumptions remain unchanged.
- 13 additional Sacramento County Sheriff's Department staff members (77% of the Project total).
- 14,292 tons of annual waste generation and 19,436 tons of construction waste (which is 77% of the Project totals).
- Total school needs remain unchanged, but the proportion of students generated by the Alternative changes. A total of 1,837 elementary school students, 540 middle school students, and 999 high school students (based on student generation rates in the Draft Financing Plan multiplied by the unit totals of the Alternative).

- 79 acres of parkland, based on a population of 15,650 residents and dedication requirements of 5 acres per 1,000 people.
- Library assumptions remain unchanged.

Existing regulations, ordinances, codes, and fee mechanisms will ensure that the above facilities are constructed and adequately funded; impacts are *less than significant* for the same reasons as described for the Project.

EXPANDED FOOTPRINT

The Expanded Preserves Alternative would result in a population of 22,850 residents including the university/college campus center, and a population of 18,810 residents excluding the university/college campus center. This is approximately 90% of the residents expected for the Project, and thus would reduce service demands when compared to the Project. Service demand changes were estimated as follows:

- Fire station assumptions remain unchanged.
- 15 additional Sacramento County Sheriff's Department staff members (90% of the Project total).
- 16,733 tons of annual waste generation and 22,717 tons of construction waste (which is 90% of the Project totals).
- Total school needs remain unchanged, but the proportion of students generated by the Alternative changes. A total of 2,406 elementary school students, 705 middle school students, and 1,306 high school students (based on student generation rates in the Draft Financing Plan multiplied by the unit totals of the Alternative).
- 94 acres of parkland, based on a population of 18,810 residents and dedication requirements of 5 acres per 1,000 people.
- Library assumptions remain unchanged.

Existing regulations, ordinances, codes, and fee mechanisms will ensure that the above facilities are constructed and adequately funded; impacts are *less than significant* for the same reasons as described for the Project.

PUBLIC UTILITIES

No PROJECT

The No Project Alternative would not involve the use of public water or sewer supply, but would instead rely on private wells and septic systems. Any septic systems that are installed on the site must be installed pursuant to Sacramento County Code Chapter 6.32, which is enforced by the Sacramento County Environmental Management

Department. Sacramento County has established restricted areas for septic tank installation based on soil types and other factors. The project site lies within the area that requires percolation tests and/or soil boring. Any septic system installed in accordance with County standards will not result in significant public health impacts, and will provide adequate service.

Sacramento County Code Section 6.28 governs the installation and operation of private wells, which includes minimum setbacks from other facilities. The setbacks include a minimum distance of 100 feet from any septic tank or septic leach line, and 150 feet from a septic leaching pit. These regulations prevent contamination of well water. Any well installed in accordance with County standards will not result in significant public health impacts, and will provide adequate service. Serving up to ten new homes will marginally increase groundwater consumption, but not by a substantial degree.

Electrical lines would need to be extended to each new home constructed, and it is reasonable to assume that these lines would follow the pathway of the access road to the home. No additional physical impacts are likely due to utility line construction, and given that SMUD and PG&E have indicated that adequate energy services are available to the Project, it is reasonable to assume that there would likewise be sufficient service for the No Project Alternative.

The No Project Alternative would not result in substantial physical impacts as a result of utility construction and would not exceed the sustainable groundwater yield; impacts are *less than significant*.

EXPANDED PRESERVES

CONSTRUCTION OF INFRASTRUCTURE

The Non-Potable Water Supply Master Plan, the Water Master Plan, and the Sewer Master Plan would all require amendment for this Alternative, as fewer on-site lines would be needed for the smaller development footprint and less total demand would be incurred. Though these changes would need to be made, ultimately the same regional and off-site improvements would be required, and the conclusions described for the Project apply to this Alternative. Impacts are *significant and unavoidable*.

ENERGY EFFICIENCY

Like the Project, the Alternative will include exceedance of Title 24 standards, installation of Energy Star rated appliances, and the usage of renewable energy to supply 20% of residential energy. The Alternative will likewise result in more efficient usage of non-residential electricity, and of both residential and non-residential natural gas. The Alternative will not result in the wasteful, inefficient, and unnecessary consumption of energy, and impacts are *less than significant*.

RESULT IN A PROJECT WATER DEMAND THAT CANNOT BE MET BY SUPPLY

Water demands in the Water Supply Assessment were based on the acreage of the uses proposed by the Project, and the demand assumptions for those use types. The Water Supply Assessment is quite detailed in the assignment of water demands and the breakdown of uses. The analysis of this Alternative does not attempt to replicate this level of detail, as it is not necessary in order to compare the Project to the Alternative. Using the data in Table PU-3 of the Public Utilities chapter, the reduction in water demand associated with the Expanded Preserves Alternative was calculated by removing the additional acreage included in the Medium Density Residential category (due to removal of the Town Center), aggregating the remaining residential demand, and reducing the total based on the overall change in acreage. The Expanded Preserves includes 90% of the acreage designated for residential uses – the bulk of the population and housing reductions associated with the Alternative are due to removal of the Town Center.

The Project residential water demand is 3,803.5 acre-feet per year (AFY). Excluding the Medium Density Residential added for the Town Center reduces demand to 3,042.6 AFY, and 90% of this is approximately 2,738 AFY. This would result in an approximated total Expanded Preserves water demand of 5,484 AFY. It was determined that Zone 40 has sufficient water supply to provide water service to the Project, and thus it can be concluded that the smaller demands of the Expanded Preserves Alternative could also be met; impacts are *less than significant*.

RESULT IN A SEWER DISPOSAL DEMAND THAT CANNOT BE MET BY DISPOSAL OR CONVEYANCE CAPACITY

The sewage disposal demand in the Sewer Master Plan was, like water demand, calculated based on the acreage of uses proposed by the Project, and the demand assumptions for those use types. Residential sewage disposal demand for the Alternative was calculated by assuming 90% of the residential demand totals, and the demands were further adjusted by removing the equivalent single-family dwellings (ESDs) associated with the Town Center. This results in a total demand of 12,484 ESD.

It was concluded that the Project would not exceed existing or planned disposal and conveyance capacity, and it can likewise be concluded for the lower demands of the Expanded Preserves Alternative; impacts are *less than significant*.

RESULT IN AN ENERGY DEMAND THAT CANNOT BE MET BY ENERGY SERVICE PROVIDERS

Energy demand was calculated by adjusting the data used for the Project analysis in the Public Services chapter. The Expanded Preserves Alternative includes 6,849 units, which is 76% of the Project total, and thus would consume roughly 59,258 MWh (59,258,000 kilowatt hours (kWh)) of electricity for residential uses. The Expanded Preserves Alternative includes 382,640 square feet of commercial area, which is 28% of the Project total, and would thus consume roughly 12,745 MWh (12,745,000 kWh) of electricity for commercial uses. Natural gas usage was calculated using the same factors from the Project analysis (144 therms per capita and 401.03 therms per 1,000

square feet), which results in Expanded Preserves natural gas consumption of 2,835,360 therms for residential uses and 153,450 therms for commercial usage. As stated in the Project analysis, these usage totals represent a small fraction of total energy consumption in the County, and will not exceed available supply; impacts are *less than significant*.

EXCEED THE SUSTAINABLE GROUNDWATER YIELD

The Alternative results in less water consumption than the Project, and it was already concluded that the Project would not exceed the sustainable groundwater yield; impacts are *less than significant*.

ADVERSELY AFFECT GROUNDWATER RECHARGE

The same discussion included for the Project applies to this Alternative; impacts are *less than significant*.

EXPANDED FOOTPRINT

CONSTRUCTION OF INFRASTRUCTURE

The Non-Potable Water Supply Master Plan, the Water Master Plan, and the Sewer Master Plan would all require amendment for this Alternative, as fewer on-site lines would be needed on the main Cordova Hills portion while additional lines would be needed extending into the Grant Line Pilatus property. As with the rest of the development area, these additional on-site lines would extend underneath roadways and through other development areas, and would not result in utility-specific impacts. Though these changes would need to be made, ultimately the same regional and off-site improvements would be required, and the conclusions described for the Project apply to this Alternative. Impacts are *significant and unavoidable*.

ENERGY EFFICIENCY

Like the Project, the Alternative will include exceedance of Title 24 standards, installation of Energy Star rated appliances, and the usage of renewable energy to supply 20% of residential energy. The Alternative will likewise result in more efficient usage of non-residential electricity, and of both residential and non-residential natural gas. The Alternative will not result in the wasteful, inefficient, and unnecessary consumption of energy, and impacts are *less than significant*.

RESULT IN A PROJECT WATER DEMAND THAT CANNOT BE MET BY SUPPLY

The Expanded Footprint Alternative includes only a slightly smaller total urbanization footprint than the Project, and this is largely due to changes in the Town Center, not due to changes in residential acreage. The Expanded Footprint Alternative also changes the amount of acreage in each of the residential use types, but an analysis at this level

of detail is not necessary or included. The Town Center will be approximately 73% of the size of the Project Town Center. To calculate changes in water demand, the Medium Density Residential acreage reported in Table PU-3 of the Public Utilities chapter was changed to 460 acres, with a resultant demand of 1,704 AFY. Using this number in place of the 1,909.9 AFY calculated for the Project results in a total demand of 6,344 AFY. It was determined that Zone 40 has sufficient water supply to provide water service to the Project, and thus it can be concluded that the smaller demands of the Expanded Footprint Alternative could also be met; impacts are *less than significant*.

RESULT IN A SEWER DISPOSAL DEMAND THAT CANNOT BE MET BY DISPOSAL OR CONVEYANCE CAPACITY

The sewage disposal demand in the Sewer Master Plan was, like water demand, calculated based on the acreage of uses proposed by the Project, and the demand assumptions for those use types. The equivalent single-family dwellings (ESD) associated with the Town Center were adjusted by assuming 73% of the demand was equivalent to the Expanded Footprint Alternative. This results in a total demand of 15,346 ESD. It was concluded that the Project would not exceed existing or planned disposal and conveyance capacity, and it can likewise be concluded for the lower demands of the Expanded Preserves Alternative; impacts are *less than significant*.

RESULT IN AN ENERGY DEMAND THAT CANNOT BE MET BY ENERGY SERVICE PROVIDERS

Energy demand was calculated by adjusting the data used for the Project analysis in the Public Services chapter. The Expanded Footprint Alternative includes 8,045 units, which is 89% of the Project total, and thus would consume roughly 69,606 MWh (69,606,000 kWh) of electricity for residential uses. The Expanded Footprint Alternative includes 1,032,640 square feet of commercial area, which is 77% of the Project total, and would thus consume roughly 34,396 MWh (34,396,000 kWh) of electricity for commercial uses. Natural gas usage was calculated using the same factors from the Project analysis (144 therms per capita and 401.03 therms per 1,000 square feet), which results in Expanded Footprint natural gas consumption of 3,290,400 therms for residential uses and 414,264 therms for commercial usage. As stated in the Project analysis, these usage totals represent a small fraction of total energy consumption in the County, and will not exceed available supply; impacts are *less than significant*.

EXCEED THE SUSTAINABLE GROUNDWATER YIELD

The Alternative results in less water consumption than the Project, and it was already concluded that the Project would not exceed the sustainable groundwater yield; impacts are *less than significant*.

ADVERSELY AFFECT GROUNDWATER RECHARGE

The same discussion included for the Project applies to this Alternative; impacts are *less than significant*.

TRAFFIC AND CIRCULATION

No PROJECT

The traffic impact study refers to the existing condition without the Project and the cumulative condition without the Project as the “no Project”, but note that this is not the No Project Alternative. The existing condition analysis and cumulative condition “no Project” analyses include present site conditions, which is no development. It does not analyze the potential for a limited number of homes to be built on the site, though it accurately describes the conditions which would exist if the present site conditions were maintained throughout the cumulative timeframe.

The traffic volumes generated by ten single-family homes is too low to meet the screening thresholds which would typically require a traffic impact analysis. In Sacramento County, screening thresholds require the addition of 1,000 daily trips or 100 peak hour trips before a traffic study is required. Exceptions are made at the discretion of the Sacramento County Department of Transportation in cases where there is a known localized hazard or other deficiency to which the traffic engineer decides a project may contribute.

Using standard trip rates from the Institute of Transportation Engineers (8th ed.), each home could be expected to contribute 9.57 vehicle trips per day, and 1.01 trips during the peak hour. This is equivalent to approximately 96 trips per day and 10 trips during the peak travel hours. Even assuming that all of this traffic was distributed along the studied roadway segment with the smallest existing volumes (Scott Road, with a volume of 2,300 vehicles per day), the No Project would only increase traffic volumes by 4%. These are the maximum probable impacts which could result from the No Project Alternative, as it is possible that fewer homes – or even no homes – will have been constructed on the site by the year 2035. The No Project Alternative would not cause any level of service standard to be exceeded, nor would the small volumes generated cause significant impacts to the current pedestrian and bicycle facility deficiencies on Grant Line Road and Douglas Road. Just as for the Project, the No Project would not obstruct or conflict with any adopted transit plan or other non-automotive facility master plan. Impacts in both the existing and cumulative condition would be *less than significant*.

EXPANDED PRESERVES

The Expanded Preserves Alternative reduces the number of access locations on Grant Line Road from three locations to two locations, and the inclusion of larger preserves also eliminates several internal roadways. Other than these internal site changes, the vehicle network studied for this Alternative is the same as the network studied for the Project. Assumptions for non-automotive networks are also the same as the Project. Note that all tables referenced are found at the conclusion of the discussion.

EXISTING PLUS EXPANDED PRESERVES CONDITIONS

Table ALT-14 describes the trip generation assumptions for the Alternative in the existing condition. Existing conditions and existing plus Expanded Preserves conditions for all studied facilities are included in Table ALT-16, Table ALT-18, Table ALT-20, and Table ALT-21.

INTERSECTION ANALYSIS

SACRAMENTO COUNTY

The Expanded Preserves Alternative causes significant impacts to six intersections, which are listed below. The list includes both the facility impact, as well as the operating conditions that would result after the implementation of mitigation (for more detailed data on mitigation, refer to Table 22 of Appendix TR-1). Recommended facility improvements are the same as those listed for the Project in Mitigation Measure TR-1 A – F. Mitigation would improve all operating conditions from unacceptable to acceptable levels, and impacts would be *less than significant*.

- *Bradshaw Road and Jackson Road* – Operating conditions deteriorate from an acceptable LOS E to LOS F in the a.m. peak hour. Mitigation would improve operating conditions to LOS E.
- *Mather Boulevard and Douglas Road* – Operating conditions deteriorate from an acceptable LOS E to LOS F in the a.m. peak hour. This intersection meets peak hour traffic signal warrants with the addition of Expanded Preserve traffic. Mitigation would improve operating conditions to LOS D.
- *Eagles Nest Road and Jackson Road* – Operating conditions deteriorate from an acceptable LOS C to LOS F in the p.m. peak hour. This intersection meets peak hour traffic signal warrants with the addition of Expanded Preserve traffic. Mitigation would improve operating conditions to LOS B.
- *Grant Line Road and Sunrise Boulevard* – Operating conditions deteriorate from an acceptable LOS D to LOS F in the a.m. peak hour. Mitigation would improve operating conditions to LOS E.
- *Grant Line Road and White Rock Road* – Operating conditions deteriorate from an acceptable LOS C to LOS F in the a.m. peak hour. Operating conditions remain at LOS F in the p.m. peak hour, with an increase in delay of more than five seconds. This intersection meets peak hour signal warrants without and with the addition of Expanded Preserve traffic. Mitigation would improve operating conditions to LOS A.
- *Prairie City Road and White Rock Road* – Operations conditions already at an unacceptable LOS E degrade to LOS F in the a.m. peak hour, with an increase in delay of more than five seconds. Operating conditions remain at LOS F in the p.m. peak hour, with an increase in delay of more than five seconds. This

intersection meets peak hour signal warrants without and with the addition of Expanded Preserve traffic. Mitigation would improve operating conditions to LOS D.

CITY OF ELK GROVE

The intersection of Grant Line Road and Calvine Road will operate at an acceptable LOS B in the a.m. and p.m. peak hours with the Expanded Preserves traffic. Impacts are *less than significant*.

CITY OF RANCHO CORDOVA

The Expanded Preserves Alternative causes significant impacts to eight intersections, which are listed below. The list includes both the facility impact, as well as the operating conditions that would result after the implementation of mitigation (for more detailed data on mitigation, refer to Table 22 of Appendix TR-1). The facility improvements listed in Mitigation Measure ALT-3 would improve all but one operating condition (the condition at Grant Line Road and Jackson Road) from unacceptable to acceptable levels. Though operating conditions would remain unacceptable at Grant Line Road and Jackson Road, the mitigation would offset the Alternative's contribution to that unacceptable condition. As with the Project, the implementation of some of the below measures cannot be guaranteed because the facility lies wholly outside of the jurisdiction of Sacramento County. While the mitigation identified would reduce those facility impacts to less than significant levels, Sacramento County does not have the land use authority to ensure that facilities outside of its jurisdiction are constructed. Thus, although adequate mitigation is included, the impact is considered potentially *significant and unavoidable*. Note that some of the facilities below are within both the City of Rancho Cordova and Sacramento County, and they have been included in this section simply to reflect the fact that they have been analyzed using the more conservative City of Rancho Cordova LOS standards.

- *Sunrise Boulevard and White Rock Road* – Operating conditions deteriorate from an acceptable LOS C to LOS E in the a.m. peak hour. Operating conditions deteriorate from an acceptable LOS D to LOS F in the p.m. peak hour. Mitigation would improve operating conditions to LOS D.
- *Sunrise Boulevard and Douglas Road* – Operating conditions deteriorate from an acceptable LOS A to LOS F in the a.m. peak hour. Mitigation would improve operating conditions to LOS D.
- *Sunrise Boulevard and Jackson Road* – Operating conditions deteriorate from an unacceptable LOS E to LOS F in the a.m. peak hour, with an increase in V/C ratio of more than 0.05. Operating conditions deteriorate from an acceptable LOS D to LOS E in the p.m. peak hour. Mitigation would improve operating conditions to LOS D.

- *Grant Line Road and Jackson Road* – During the a.m. and p.m. peak hours, operating conditions remain at an unacceptable LOS F, with an increase in V/C ratio of more than 0.05. After mitigation the operating conditions would remain at LOS F, but the change in v/c ratio would be less than 0.05, which renders the impact less than significant.
- *Grant Line Road and Kiefer Boulevard* – During the a.m. and p.m. peak hours, operation conditions deteriorate from an acceptable LOS B to LOS F. This intersection meets peak hour signal warrants without and with the addition of Expanded Preserves traffic. Mitigation would improve operating conditions to LOS A.
- *Grant Line Road and Douglas Road* – Operating conditions deteriorate from an acceptable LOS C to LOS F in the a.m. peak hour. Operating conditions deteriorate from an acceptable LOS B to LOS F in the p.m. peak hour. This intersection meets peak hour signal warrants with the addition of Expanded Preserves traffic. Mitigation would improve operating conditions to LOS A.
- *Grant Line Road and North Loop Road* – This new intersection operates at LOS F during the a.m. and p.m. peak hours. This intersection meets peak hour signal warrants with the addition of Expanded Preserves traffic. Mitigation would improve operating conditions to LOS A.
- *Grant Line Road and University Boulevard* – This new intersection operates at LOS F during the a.m. and p.m. peak hours. This intersection meets peak hour signal warrants with the addition of Expanded Preserves traffic. Mitigation would improve operating conditions to LOS D.

CALTRANS

None of the Caltrans State Highway intersection impacts exceed the significance criteria. Impacts are *less than significant*.

ROADWAY SEGMENT ANALYSIS

SACRAMENTO COUNTY ROADWAY SEGMENTS

None of the Sacramento County roadway segment impacts exceed the significance criteria. Impacts are *less than significant*.

CITY OF ELK GROVE ROADWAY SEGMENT

The Expanded Preserves Alternative will increase the v/c ratio by more than 0.05 along the Grant Line Road segment from Sheldon Road to Calvine Road; this segment is already operating at LOS E, which is unacceptable. Mitigation Measure TR-4, for the Project, would improve operating conditions to LOS A; impacts are *less than significant*.

CITY OF RANCHO CORDOVA ROADWAY SEGMENTS

The Expanded Preserves Alternative causes significant impacts to ten roadway segments, which are listed below. The list includes both the facility impact, as well as the operating conditions that would result after the implementation of mitigation (for more detailed data on mitigation, refer to Table 23 of Appendix TR-1). The facility improvements listed in Mitigation Measure TR-5, for the Project, would improve all but one operating condition from unacceptable to acceptable levels.

- *Grant Line Road from Jackson Road to Kiefer Boulevard* – Operations deteriorate from an acceptable LOS D to LOS F. Mitigation improves operating conditions to LOS A.
- *Grant Line Road from Kiefer Boulevard to University Boulevard* – Operations deteriorate from an acceptable LOS C to LOS E. Mitigation improves operating conditions to LOS A.
- *Grant Line Road from University Boulevard to Chrysanthy Boulevard* – Operations deteriorate from an acceptable LOS C to LOS E. Mitigation improves operating conditions to LOS A.
- *Grant Line Road from Chrysanthy Boulevard to North Loop* – Operations deteriorate from an acceptable LOS C to LOS E. Mitigation improves operating conditions to LOS A.
- *Grant Line Road from North Loop to Douglas Road* – Operations deteriorate from an acceptable LOS C to LOS F. Mitigation improves operating conditions to LOS B.
- *Grant Line Road from Douglas Road to White Rock Road* – Operations deteriorate from an acceptable LOS D to LOS E. Mitigation improves operating conditions to LOS A.
- *Jackson Road from Sunrise Boulevard to Grant Line Road* – Operations deteriorate from an acceptable LOS D to LOS E. Mitigation improves operating conditions to LOS A.
- *Douglas Road from Sunrise Boulevard to Rancho Cordova Parkway* – Operations deteriorate from an acceptable LOS A to LOS F. Mitigation improves operating conditions to LOS A.
- *Douglas Road from Rancho Cordova Parkway to Grant Line Road* – Operations deteriorate from an acceptable LOS A to LOS F. Mitigation improves operating conditions to LOS A.
- *Sunrise Boulevard from Folsom Boulevard to White Rock Road* – Operations remain at an unacceptable LOS E, with an increase in V/C ratio of more than 0.05. No mitigation is available (see below discussion).

The same discussion provided for the intersection analysis applies here. While the mitigation identified would reduce those facility impacts to less than significant levels, Sacramento County does not have the land use authority to ensure that facilities outside of its jurisdiction are constructed. Thus, although adequate mitigation is included for most facilities, the impact is considered potentially *significant and unavoidable*. In addition, the only mitigation available for Sunrise Boulevard would be to widen the roadway, but this roadway is at full build-out according to the City of Rancho Cordova General Plan. Widening would require a General Plan Amendment, as well as significant acquisition of right-of-way which would involve property losses and the loss of improvements on what is currently private property. This being the case, the mitigation is considered infeasible, and impacts to this facility are *significant and unavoidable*.

CALTRANS FREEWAYS

MAINLINE

The Expanded Preserves Alternative causes significant impacts to two freeway segments, which are listed below. The list includes both the facility impact, as well as the operating conditions that would result after the implementation of mitigation. The facility improvements listed in Mitigation Measure TR-6 would improve all operating conditions from unacceptable to acceptable levels, but Sacramento County does not have the land use authority to ensure that facilities outside of its jurisdiction are constructed. Thus, although adequate mitigation is included for the affected facilities, the impact is considered potentially *significant and unavoidable*.

- *Westbound US 50 from Hazel Avenue to Sunrise Boulevard* – There is an increase in traffic volume on this freeway segment already operating at LOS F in the a.m. peak hour. Mitigation would improve operating conditions to LOS E.
- *Eastbound US 50 from Sunrise Boulevard to Hazel Avenue* – There is an increase in traffic volume on this freeway segment already operating at LOS F. Mitigation would improve operating conditions to LOS D.

RAMP JUNCTIONS

Expanded Preserves Alternative traffic does not cause a level of service standard to be exceeded, nor does it significantly contribute to an existing unacceptable operating condition; impacts are *less than significant*.

BICYCLE AND PEDESTRIAN ANALYSIS

The impacts of the Alternative are nearly identical to those described for the Project. Though involving somewhat less traffic, the Alternative nonetheless contributes substantial additional volume to Grant Line Road and Douglas Road, which are deficient for bicycle and pedestrian facilities. The same mitigation included for the Project (Mitigation Measure TR-7) would apply to this Alternative; mitigation will reduce impacts to *less than significant* levels.

TRANSIT ANALYSIS

The impacts of the Alternative are nearly identical to those described for the Project. The Alternative assumes that an internal transit system will still be provided, and this system would be sufficient to serve the needs of residents. Development within the site will not conflict with the implementation of any adopted transit plan. Impacts are *less than significant*.

MITIGATION MEASURES:

ALT-3. The applicant shall comply with Mitigation Measure TR-2 C, D, G, and J, and shall modify TR-2 B, E, F and H to the following:

Sunrise Boulevard and White Rock Road – Provide overlap phasing on the eastbound approach.

Grant Line Road and Jackson Road – Provide a left turn lane and a through-right shared turn lane on the eastbound, westbound, and northbound approaches. Provide a separate left turn lane, a through lane and a separate right turn lane on the southbound approach.

Grant Line Road and Kiefer Boulevard – Construct a new traffic signal. Provide a left turn lane, a through lane and a through-right turn shared lane on the northbound approach; provide a left turn lane and a through-right turn shared lane on the eastbound, westbound, and southbound approaches. To be consistent with the segment mitigations a second southbound through lane is included.

Grant Line Road and North Loop Road – Construct a new traffic signal. Provide a through lane and a separate right turn lane on the northbound approach, dual left turn lanes and one through on the southbound approach, and one left turn lane and one free-right turn lane on the westbound approach. Also an extra northbound departure lane is needed for the westbound free-right movement. To be consistent with the segment mitigations a second northbound and southbound through lane is included.

CUMULATIVE PLUS EXPANDED PRESERVES CONDITIONS

Expanded Preserves trip generation for the cumulative scenario are provided in Table ALT-15. Cumulative conditions and cumulative plus Expanded Preserves conditions for all studied facilities are included in Table ALT-17, Table ALT-19, Table ALT-20, and Table ALT-21.

INTERSECTION ANALYSIS**SACRAMENTO COUNTY**

The Expanded Preserves Alternative does not cause a level of service standard to be exceeded, nor does it contribute substantially to any existing deficiency; impacts are *less than significant*.

CITY OF FOLSOM

The Expanded Preserves Alternative does not cause a level of service standard to be exceeded, nor does it contribute substantially to any existing deficiency; impacts are *less than significant*.

CITY OF ELK GROVE

The Expanded Preserves Alternative does not cause a level of service standard to be exceeded, nor does it contribute substantially to any existing deficiency; impacts are *less than significant*.

CITY OF RANCHO CORDOVA

The Expanded Preserves Alternative causes significant impacts to four intersections, which are listed below. The list includes both the facility impact, as well as the operating conditions that would result after the implementation of mitigation (for more detailed data on mitigation, refer to Table 31 of Appendix TR-1). The facility improvements listed in Mitigation Measure ALT-4 would improve all but one operating condition from unacceptable to acceptable levels. Note that the facility improvement for Sunrise Boulevard and Douglas Road is identical to Project improvements, but that the improvements for the Grant Line Road facilities are not the same as the Project improvements.

- *Sunrise Boulevard and Douglas Road* – Operating conditions deteriorate from an unacceptable LOS E to LOS F in the a.m. peak hour, with an increase in V/C ratio of greater than 0.05. Operating conditions deteriorate from an acceptable LOS D to LOS E in the p.m. peak hour. Mitigation would improve operating conditions to LOS E, which remains unacceptable, but the Alternative would no longer result in a change of v/c ratio of more than 0.05.
- *Grant Line Road and Douglas Road* – Operating conditions deteriorate from an acceptable LOS A to LOS E in the a.m. and p.m. peak hours. Mitigation would improve operating conditions to LOS C.
- *Grant Line Road and North Loop Road* – This new intersection operates at LOS F during the a.m. and p.m. peak hours. Mitigation would improve operating conditions to LOS C.
- *Sunrise Boulevard and International Drive* – Operating conditions deteriorate from an acceptable LOS D to LOS E in the a.m. peak hour. No feasible mitigation is available (see below discussion).

Sacramento County does not have the land use authority to ensure that facilities outside of its jurisdiction are constructed. Thus, although adequate mitigation is included for the Grant Line Road and Douglas Road intersection, the impact is considered potentially *significant and unavoidable*. Sunrise Boulevard and International Drive was already modeled at maximum capacity, and a General Plan Amendment would be required to further increase capacity. Since neither right-of-way nor funding for this further expansion have been identified or acquired, the mitigation is considered infeasible. Impacts to the Sunrise Boulevard and International Drive intersection would remain *significant and unavoidable*.

CALTRANS

The Expanded Preserves Alternative does not cause a level of service standard to be exceeded, nor does it contribute substantially to any existing deficiency; impacts are *less than significant*.

ROADWAY SEGMENT ANALYSIS

SACRAMENTO COUNTY

The Expanded Preserves Alternative does not cause a level of service standard to be exceeded, nor does it contribute substantially to any existing deficiency; impacts are *less than significant*.

CITY OF ELK GROVE

The Elk Grove Roadway Segment does not exceed the impact significance criteria. Impacts are less than significant.

CITY OF RANCHO CORDOVA

The Expanded Preserves Alternative causes significant impacts to two roadway segments, which are listed below. The list includes both the facility impact, as well as the operating conditions that would result after the implementation of mitigation (for more detailed data on mitigation, refer to Table 32 of Appendix TR-1). The facility improvements listed in Mitigation Measure TR-10.C and TR-10.D, for the Project, would improve all operating conditions from unacceptable to acceptable levels, and impacts would be *less than significant*.

- *Grant Line Road from North Loop to Douglas Road* – Operations deteriorate from an acceptable LOS B to LOS F. Mitigation would improve operating conditions to LOS D.
- *Grant Line Road from Douglas Road to White Rock Road* – Operations deteriorate from an unacceptable LOS E to LOS F, with an increase in V/C ratio of greater than 0.05. Mitigation would improve operating conditions to LOS C.

CALTRANS FREEWAYS

MAINLINE

The Expanded Preserves Alternative causes significant impacts to five freeway segments, which are listed below. Further widening of these freeway segments would be required in order to reduce impacts, but Caltrans currently has no plans to expand the segments beyond the build-out capacities assumed in this analysis, nor are any funding mechanisms established to collect money to fund such improvements. No feasible mitigation exists to offset impacts to freeway segments; impacts are *significant and unavoidable*.

- *Eastbound US 50 from Watt Avenue to Bradshaw Road – LOS F in a.m. and p.m. peak hours.*
- *Eastbound US 50 from Rancho Cordova Parkway to Hazel Avenue – LOS F in a.m. and p.m. peak hours.*
- *Westbound US 50 from Hazel Avenue to Rancho Cordova Parkway – LOS F in the a.m. peak hour.*
- *Westbound US 50 from Bradshaw Road to Watt Avenue – LOS F in a.m. and p.m. peak hours.*
- *Westbound US 50 from Watt Avenue to Power Inn/Howe Avenue – LOS F in a.m. peak hour.*

RAMP JUNCTIONS

The Expanded Preserves Alternative causes significant impacts to three freeway ramps, which are listed below. Caltrans currently has no plans to expand the following ramp junctions beyond the build-out capacities assumed in this analysis, nor are any funding mechanisms established to collect monies to fund such improvements. No feasible mitigation exists to offset impacts to freeway ramps; impacts are *significant and unavoidable*.

- *Eastbound US 50 Slip Ramp Entrance from Watt Avenue – LOS F in a.m. and p.m. peak hours.*
- *Westbound US 50 Exit Ramp to Watt Avenue – LOS F in a.m. peak hour.*
- *Westbound US 50 Slip Ramp Entrance from Watt Avenue – LOS F in a.m. peak hour.*

BICYCLE AND PEDESTRIAN ANALYSIS

The impacts of the Alternative are nearly identical to those described for the Project. By the cumulative time horizon, improvements will have been installed on Grant Line Road

and Douglas Road as part of buildout within Rancho Cordova, and as part of other improvements to Grant Line Road consistent with the Sacramento County General Plan, the Sacramento County Bicycle Master Plan, and the City of Rancho Cordova General Plan. The Alternative will not eliminate or adversely affect bicycle or pedestrian facilities, result in unsafe conditions, or interfere with implementation of planned bicycle or pedestrian facilities; impacts are *less than significant*.

TRANSIT ANALYSIS

The impacts of the Alternative are nearly identical to those described for the Project. The Alternative assumes that an internal transit system will still be provided, and this system would be sufficient to serve the needs of residents. Development within the site will not conflict with the implementation of any adopted transit plan. Impacts are *less than significant*.

MITIGATION MEASURES:

ALT-4. The applicant shall be responsible for a fair share of the below mitigation measures. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation, in consultation with the City of Rancho Cordova, and may be up to 100% of the cost of the improvements.

- A. *Sunrise Boulevard and Douglas Road* – Provide overlap phasing on the eastbound and westbound right turns.
- B. *Grant Line Road and Douglas Road* – Provide an eastbound free-right turn lane. Also a third southbound departure lane is needed for the eastbound free-right movement.
- C. *Grant Line Road and North Loop Road* – Provide a free-right turn lane on the westbound approach. Also a third northbound departure lane is needed for the westbound free-right movement.

Table ALT-14: Existing Plus Expanded Preserves Trip Generation

Land Use	Units	Vehicle Trip End Rates ¹			Daily Vehicle Trip Rates ^{1,2}			Vehicle Trips Ends			Vehicle Trips		
		AM	PM	Daily	AM	PM	Daily	AM	PM	Daily	AM	PM	Daily
Single Family DU	4,076	0.8	0.9	9.8	0.6	0.7	7.6	3,061	3,478	39,758	2,389	2,710	30,934
Multi Family DU	1,760	0.5	0.5	6.2	0.4	0.4	4.7	798	954	10,915	617	731	8,323
Retail Employee	584	1.0	1.7	17.2	0.7	1.2	12.2	564	964	10,035	415	680	7,131
Other Employee	866	0.3	0.3	3.5	0.2	0.3	2.9	218	269	3,002	178	220	2,494
K12 Students	5,209	0.4	0.2	1.8	0.3	0.1	1.3	1,966	865	9,147	1,476	639	6,722
<i>SubTotal</i>								<i>6,607</i>	<i>6,530</i>	<i>72,858</i>	<i>5,074</i>	<i>4,980</i>	<i>55,604</i>
University Students	6,000	0.1	0.2	1.8	0.1	0.1	1.6	765	1,006	10,975	685	900	9,772
<i>Total</i>								<i>7,372</i>	<i>7,536</i>	<i>83,833</i>	<i>5,758</i>	<i>5,880</i>	<i>65,376</i>
<i>External Trips³</i>											<i>4,144</i>	<i>4,224</i>	<i>46,919</i>
NOTES: 1. Rates in the table may not compute exactly due to rounding. 2. Vehicle trip rates reflect internalization reduction. For trips internal to the Cordova Hills Project, half the trip is attributed to the origin and half to the destination. 3. Approximate of vehicle trips traveling outside the Cordova Hills specific plan Vehicle trip summary based on modified version of the SACMET travel demand forecasting (TDF) model. Source: DKS Associates, 2011													

Table ALT-15: Cumulative Plus Expanded Preserves Trip Generation

Land Use	Units	Vehicle Trip End Rates ¹			Daily Vehicle Trip Rates ^{1, 2}			Vehicle Trips Ends			Vehicle Trips		
		AM	PM	Daily	AM	PM	Daily	AM	PM	Daily	AM	PM	Daily
Single Family DU	4,076	0.7	0.8	9.5	0.6	0.6	7.3	2,972	3,380	38,741	2,298	2,610	29,881
Multi Family DU	1,760	0.5	0.5	6.2	0.3	0.4	4.7	793	950	10,918	613	728	8,342
Retail Employee	584	1.0	1.7	18.0	0.8	1.3	13.2	597	1,010	10,540	453	734	7,721
Other Employee	866	0.3	0.3	3.6	0.2	0.3	3.2	236	279	3,119	202	241	2,733
K12 Students	5,209	0.4	0.2	1.8	0.3	0.1	1.3	1,990	879	9,337	1,500	652	6,911
<i>SubTotal</i>								6,588	6,498	72,656	5,067	4,965	55,588
University Students	6,000	0.1	0.2	1.8	0.1	0.1	1.6	769	1,010	11,020	690	905	9,841
<i>Total</i>								7,357	7,508	83,675	5,757	5,870	65,429
<i>External Trips³</i>											4,157	4,232	47,183
NOTES: 1. Rates in the table may not compute exactly due to rounding. 2. Vehicle trip rates reflect internalization reduction. For trips internal to the Cordova Hills Project, half the trip is attributed to the origin and half to the destination. 3. Approximate of vehicle trips traveling outside the Cordova Hills specific plan Vehicle trip summary based on modified version of the SACMET travel demand forecasting (TDF) model. Source: DKS Associates, 2011													

Table ALT-16: Existing Conditions Expanded Preserves Intersection Operating Conditions

Intersection			Level of Service Methodology		AM Peak Hour						PM Peak Hour					
					Existing			Existing Plus Expanded Preserves			Existing			Existing Plus Expanded Preserves		
ID #	North-South Street	East-West Street	Analysis Methodology	Policy	Meets Signal Warrant	V/C or Delay ¹	LOS	Meets Signal Warrant	V/C or Delay ¹	LOS	Meets Signal Warrant	V/C or Delay ¹	LOS	Meets Signal Warrant	V/C or Delay ¹	LOS
Sacramento County																
1	S Watt Ave	Jackson Rd(SR-16)	Circular 212 Planning	E	--	0.80	C	--	0.90	D	--	0.90	D	--	0.94	E
2	Bradshaw Rd	Jackson Rd(SR-16)	Circular 212 Planning	E	--	0.96	E	--	1.07	F	--	0.87	D	--	0.97	E
3	Mather Blvd	Douglas Rd	2000 HCM 4-Way Stop	E	No	47.5	E	Yes	82.2	F	No	12.9	B	Yes	16.5	C
4	Excelsior Rd	Jackson Rd(SR-16)	Circular 212 Planning	E	--	0.57	A	--	0.65	B	--	0.55	A	--	0.63	B
5	Eagles Nest Rd	Jackson Rd(SR-16)	2000 HCM Unsignalized	E	No	12.5	B	No	21.8	C	No	21.3	C	Yes	113.5	F
6	Grant Line Rd	Sunrise Blvd	Circular 212 Planning	E	--	0.81	D	--	1.07	F	--	0.93	E	--	0.85	D
7	Grant Line Rd	White Rock Rd	2000 HCM Unsignalized	E	No	17.5	C	No	200.8	F	Yes	80.8	F	Yes	274.3	F
8	Prairie City Rd	White Rock Rd	2000 HCM 4-Way Stop	D	Yes	35.3	E	Yes	91.1	F	Yes	71.2	F	Yes	122.9	F
9	Scott Rd (W)	White Rock Rd	2000 HCM Unsignalized	D	No	14.2	B	Yes	17.9	C	No	17.1	C	No	18.5	C
10	Scott Rd (E)	White Rock Rd	2000 HCM 4-Way Stop	D	Yes	13.2	B	Yes	15.0	B	Yes	20.4	C	Yes	19.7	C
34	Town Center Dr	North Loop Rd	Circular 212 Planning	E	--	--	--	--	--	--	--	--	--	--	--	--
35	Town Center Dr	Chrysanthy Blvd	Circular 212 Planning	E	--	--	--	--	--	--	--	--	--	--	--	--
36	Town Center Dr	University Blvd	Circular 212 Planning	E	--	--	--	--	0.36	A	--	--	--	--	0.52	A
37	Street "A"	North Loop Rd	FHWA Roundabout	E	--	--	--		--	--	--	--	--		--	--
38	Street "A"	University Blvd	FHWA Roundabout	E	--	--	--		6.3	A	--	--	--		8.5	A
39	Street "A"	Street "B"	Circular 212 Planning	E	--	--	--	--	0.24	A	--	--	--	--	0.31	A
40	Street "C"	University Blvd	FHWA Roundabout	E		--	--		5.4	A		--	--		5.1	A
41	Street "D"	North Loop Rd	Circular 212 Planning	E	--	--	--	--	0.67	B	--	--	--	--	0.60	B
42	Street "D"	University Blvd	FHWA Roundabout	E	--	--	--		6.2	A	--	--	--		6.7	A
43	Street "D"	Street "A"	FHWA Roundabout	E	--	--	--		3.3	A	--	--	--		3.3	A
44	School Access	North Loop Rd	Circular 212 Planning	E	--	--	--	--	0.81	D	--	--	--	--	0.36	A
45	Street "F"	North Loop Rd	Circular 212 Planning	E	--	--	--	--	0.23	A	--	--	--	--	0.14	A
City of Elk Grove																
11	Grant Line Rd	Calvine Rd	2000 HCM Operations	D	--	16.3	B	--	16.1	B	--	13.1	B	--	14.9	B
City of Rancho Cordova																
12	Zinfandel Dr	White Rock Rd	Circular 212 Planning	D	--	0.61	B	--	0.64	B	--	0.94	E	--	0.99	E
13	Sunrise Blvd	Folsom Blvd	Circular 212 Planning	D	--	0.76	C	--	0.82	D	--	0.64	B	--	0.65	B

Intersection			Level of Service Methodology		AM Peak Hour						PM Peak Hour					
					Existing			Existing Plus Expanded Preserves			Existing			Existing Plus Expanded Preserves		
ID #	North-South Street	East-West Street	Analysis Methodology	Policy	Meets Signal Warrant	V/C or Delay ¹	LOS	Meets Signal Warrant	V/C or Delay ¹	LOS	Meets Signal Warrant	V/C or Delay ¹	LOS	Meets Signal Warrant	V/C or Delay ¹	LOS
14	Sunrise Blvd	White Rock Rd	Circular 212 Planning	D	--	0.74	C	--	1.00	E	--	0.82	D	--	1.09	F
15	Sunrise Blvd	Douglas Rd	Circular 212 Planning	D	--	0.52	A	--	1.04	F	--	0.45	A	--	0.75	C
16	Sunrise Blvd	Jackson Rd(SR-16)	Circular 212 Planning	D	--	0.95	E	--	1.13	F	--	0.84	D	--	0.99	E
17	Grant Line Rd	Jackson Rd(SR-16)	Circular 212 Planning	D	--	1.04	F	--	1.60	F	--	1.13	F	--	1.47	F
18	Grant Line Rd	Kiefer Blvd	2000 HCM 4-Way Stop	D	Yes	13.6	B	Yes	224.6	F	No	14.4	B	Yes	173.0	F
19	Grant Line Rd	Douglas Rd	2000 HCM Unsignalized	D	No	21.6	C	Yes	[xxxxx]	F	No	12.0	B	Yes	[xxxxx]	F
30	Grant Line Rd	North Loop Rd	2000 HCM Unsignalized	D		--	--	Yes	[xxxxx]	F		--	--	Yes	[xxxxx]	F
31	Grant Line Rd	Chrysanthy Blvd	2000 HCM Unsignalized	D		--	--	--	--	--		--	--	--	--	--
32	Grant Line Rd	University Blvd	2000 HCM Unsignalized	D		--	--	Yes	[xxxxx]	F		--	--	Yes	[xxxxx]	F
Caltrans State Highways																
20	Mather Field Rd	US-50 WB Ramps	2000 HCM Operations	E	--	20.6	C	--	20.5	C	--	16.3	B	--	16.7	B
21	Mather Field Rd	US-50 EB Ramps	2000 HCM Operations	E	--	21.7	C	--	21.5	C	--	17.3	B	--	17.1	B
22	Zinfandel Dr	US-50 WB Ramps	2000 HCM Operations	E	--	17.3	B	--	17.6	B	--	14.3	B	--	14.2	B
23	Zinfandel Dr	US-50 EB Ramps	2000 HCM Operations	E	--	28.6	C	--	31.0	C	--	134.6	F	--	130.1	F
24	Sunrise Blvd	US-50 WB Ramps	2000 HCM Operations	E	--	14.2	B	--	13.4	B	--	13.0	B	--	12.6	B
25	Sunrise Blvd	US-50 EB Ramps	2000 HCM Operations	E	--	19.2	B	--	18.8	B	--	17.6	B	--	17.3	B
26	Prairie City Rd	US-50 WB Ramps	2000 HCM Operations	E	--	20.2	C	--	20.1	C	--	23.0	C	--	23.3	C
27	Prairie City Rd	US-50 EB Ramps	2000 HCM Operations	E	--	17.0	B	--	17.1	B	--	16.7	B	--	17.3	B
28	Scott Rd	US-50 WB Ramps	2000 HCM Operations	E	--	19.7	B	--	20.0	B	--	12.5	B	--	11.9	B
29	Scott Rd	US-50 EB Ramps	2000 HCM Operations	E	--	16.3	B	--	16.4	B	--	15.1	B	--	15.4	B
<p>NOTES:</p> <p>¹ V/C = Volume-to-Capacity ratio, [xxxxx] indicates that the delay exceeds 500 seconds</p> <p>Delay: At 4-Way Stop intersections (based on the 2000 HCM 4-Way Stop methodology) the reported delay is the average intersection delay.</p> <p>At unsignalized, 2-Way Stop intersections (based on the 2000 HCM Unsignalized methodology), the reported delay is for the worst approach.</p> <p>At signalized intersections (based on the 2000 HCM Operations), the reported delay is the intersection delay.</p> <p>Bold indicates deficiency. Shaded areas indicate impact.</p> <p>Source: DKS Associates, 2011</p>																

Table ALT-17: Cumulative Conditions Expanded Preserves Intersection Operating Conditions

Intersection			Level of Service Methodology		AM Peak Hour				PM Peak Hour			
					Cumulative		Cumulative Plus Expanded Preserves		Cumulative		Cumulative Plus Expanded Preserves	
ID #	North-South Street	East-West Street	Analysis Methodology	Policy	v/c or Delay ¹	LOS	v/c or Delay ¹	LOS	v/c or Delay ¹	LOS	v/c or Delay ¹	LOS
Sacramento County												
1	S Watt Ave	Jackson Rd(SR-16)	Circular 212 Planning	E	1.27	F	1.27	F	1.11	F	1.12	F
2	Bradshaw Rd	Jackson Rd(SR-16)	Circular 212 Planning	E	0.95	E	0.98	E	1.18	F	1.17	F
3	Zinfandel Dr ²	Mather Blvd ²	Circular 212 Planning	E	0.42	A	0.45	A	0.61	B	0.68	B
4	Excelsior Rd	Jackson Rd(SR-16)	Circular 212 Planning	E	0.72	C	0.76	C	1.14	F	1.15	F
5	Eagles Nest Rd	Jackson Rd(SR-16)	Circular 212 Planning	E	0.39	A	0.39	A	0.60	A	0.62	B
6	Grant Line Rd	Sunrise Blvd	Circular 212 Planning	E	0.89	D	0.93	E	1.11	F	1.10	F
7	Grant Line Rd	White Rock Rd	Circular 212 Planning	E	0.77	C	0.84	D	0.85	D	0.90	E
9	Scott Rd (W)	White Rock Rd	Circular 212 Planning	D	0.54	A	0.60	B	0.53	A	0.56	A
34	Town Center Dr	North Loop Rd	Circular 212 Planning	E	--	--	--	--	--	--	--	--
35	Town Center Dr	Chrysanthy Blvd	Circular 212 Planning	E	--	--	--	--	--	--	--	--
36	Town Center Dr	University Blvd	Circular 212 Planning	E	--	--	0.35	A	--	--	0.53	A
37	Street "A"	North Loop Rd	FHWA Roundabout	E	--	--	--	--	--	--	--	--
38	Street "A"	University Blvd	FHWA Roundabout	E	--	--	6.4	A	--	--	8.8	A
39	Street "A"	Street "B"	Circular 212 Planning	E	--	--	0.25	A	--	--	0.32	A
40	Street "C"	University Blvd	FHWA Roundabout	E	--	--	5.0	A	--	--	4.8	A
41	Street "D"	North Loop Rd	Circular 212 Planning	E	--	--	0.63	B	--	--	0.53	A
42	Street "D"	University Blvd	FHWA Roundabout	E	--	--	5.7	A	--	--	5.9	A
43	Street "D"	Street "A"	FHWA Roundabout	E	--	--	3.3	A	--	--	3.4	A
44	School Access	North Loop Rd	Circular 212 Planning	E	--	--	0.85	D	--	--	0.39	A
45	Street "F"	North Loop Rd	Circular 212 Planning	E	--	--	0.23	A	--	--	0.15	A
46	Vineyard Rd	Kiefer Blvd	Circular 212 Planning	E	0.90	D	0.94	E	0.90	D	0.93	E
47	Vineyard Rd	Jackson Rd(SR-16)	Circular 212 Planning	E	0.76	C	0.77	C	0.96	E	0.95	E
48	Excelsior Rd	Kiefer Blvd	Circular 212 Planning	E	0.71	C	0.76	C	0.59	A	0.55	A
50	Zinfandel Dr	Douglas Rd	Circular 212 Planning	E	0.53	A	0.57	A	0.72	C	0.76	C
51	Eagles Nest Rd	Kiefer Blvd	Circular 212 Planning	E	0.64	B	0.69	B	0.62	B	0.68	B
City of Folsom												
8	Prairie City Rd	White Rock Rd	2000 HCM Operations	C	16.9	B	18.8	B	19.4	B	20.6	C
10	Scott Rd (E)	White Rock Rd	2000 HCM Operations	C	33.2	C	34.3	C	15.5	B	15.4	B

Intersection			Level of Service Methodology		AM Peak Hour				PM Peak Hour			
					Cumulative		Cumulative Plus Expanded Preserves		Cumulative		Cumulative Plus Expanded Preserves	
ID #	North-South Street	East-West Street	Analysis Methodology	Policy	v/c or Delay ¹	LOS	v/c or Delay ¹	LOS	v/c or Delay ¹	LOS	v/c or Delay ¹	LOS
City of Elk Grove												
11	Grant Line Rd	Calvine Rd	2000 HCM Operations	D	11.5	B	11.5	B	8.5	A	8.9	A
City of Rancho Cordova												
12	Zinfandel Dr	White Rock Rd	Circular 212 Planning	D	0.80	D	0.80	C	1.28	F	1.27	F
13	Sunrise Blvd	Folsom Blvd	Circular 212 Planning	D	1.01	F	0.97	E	0.80	D	0.79	C
14	Sunrise Blvd	White Rock Rd	Circular 212 Planning	D	0.60	B	0.63	B	0.72	C	0.72	C
15	Sunrise Blvd	Douglas Rd	Circular 212 Planning	D	0.90	E	1.00	F	0.88	D	0.90	E
16	Sunrise Blvd	Jackson Rd(SR-16)	Circular 212 Planning	D	0.91	E	0.93	E	0.79	C	0.80	D
17	Grant Line Rd	Jackson Rd(SR-16)	Circular 212 Planning	D	0.63	B	0.69	B	0.63	B	0.63	B
18	Grant Line Rd	Kiefer Blvd	Circular 212 Planning	D	0.61	B	0.73	C	0.72	C	0.78	C
19	Grant Line Rd	Douglas Rd	Circular 212 Planning	D	0.58	A	0.88	D	0.56	A	1.00	E
30	Grant Line Rd	North Loop Rd	Circular 212 Planning	D	--	--	1.26	F	--	--	1.03	F
31	Grant Line Rd	Chrysanthy Blvd	Circular 212 Planning	D	0.48	A	0.60	B	0.39	A	0.69	B
32	Grant Line Rd	University Blvd	Circular 212 Planning	D	--	--	0.75	C	--	--	0.86	D
49	Zinfandel Dr	International Rd	Circular 212 Planning	D	0.90	E	0.92	E	1.23	F	1.24	F
52	Sunrise Blvd	International Dr	Circular 212 Planning	D	0.87	D	0.91	E	0.79	C	0.81	D
53	Sunrise Blvd	Chrysanthy Blvd	Circular 212 Planning	D	0.67	B	0.75	C	0.54	A	0.53	A
54	Sunrise Blvd	Kiefer Blvd	Circular 212 Planning	D	0.59	A	0.62	B	0.58	A	0.64	B
55	Rancho Cordova Pkwy	White Rock Rd	Circular 212 Planning	D	0.69	B	0.73	C	0.73	C	0.74	C
56	Rancho Cordova Pkwy	Douglas Rd	Circular 212 Planning	D	0.73	C	0.69	B	1.08	F	1.01	F
57	Rancho Cordova Pkwy	Chrysanthy Blvd	Circular 212 Planning	D	0.61	B	0.65	B	0.59	A	0.64	B
58	Rancho Cordova Pkwy	Kiefer Blvd	Circular 212 Planning	D	0.54	A	0.58	A	0.53	A	0.54	A
59	Rancho Cordova Pkwy	Grant Line Rd	Circular 212 Planning	D	0.46	A	0.54	A	0.45	A	0.49	A
60	International Dr	White Rock Rd	Circular 212 Planning	D	0.36	A	0.36	A	0.44	A	0.45	A
61	Americanos Blvd	Douglas Rd	Circular 212 Planning	D	0.45	A	0.49	A	0.68	B	0.73	C
62	Americanos Blvd	Chrysanthy Blvd	Circular 212 Planning	D	0.27	A	0.40	A	0.36	A	0.45	A
Caltrans State Highways												
20	Mather Field Rd	US-50 WB Ramps	2000 HCM Operations	E	23.7	C	22.8	C	22.5	C	22.3	C
21	Mather Field Rd	US-50 EB Ramps	2000 HCM Operations	E	36.5	D	35.3	D	19.7	B	19.7	B
22	Zinfandel Dr	US-50 WB Ramps	2000 HCM Operations	E	15.9	B	15.8	B	20.2	C	20.2	C
23	Zinfandel Dr	US-50 EB Ramps	2000 HCM Operations	E	57.4	E	58.1	E	122.4	F	121.4	F

Intersection			Level of Service Methodology		AM Peak Hour				PM Peak Hour			
					Cumulative		Cumulative Plus Expanded Preserves		Cumulative		Cumulative Plus Expanded Preserves	
ID #	North-South Street	East-West Street	Analysis Methodology	Policy	v/c or Delay ¹	LOS	v/c or Delay ¹	LOS	v/c or Delay ¹	LOS	v/c or Delay ¹	LOS
24	Sunrise Blvd	US-50 WB Ramps	2000 HCM Operations	E	23.4	C	23.8	C	31.1	C	30.0	C
25	Sunrise Blvd	US-50 EB Ramps	2000 HCM Operations	E	21.6	C	21.3	C	19.8	B	20.0	B
26	Prairie City Rd	US-50 WB Ramps	2000 HCM Operations	E	20.1	C	20.3	C	34.5	C	35.5	D
27	Prairie City Rd	US-50 EB Ramps	2000 HCM Operations	E	12.1	B	12.0	B	14.7	B	14.7	B
28	Scott Rd	US-50 WB Ramps	2000 HCM Operations	E	15.3	B	15.4	B	13.7	B	13.8	B
29	Scott Rd	US-50 EB Ramps	2000 HCM Operations	E	19.4	B	19.5	B	16.1	B	16.0	B
63	Rancho Cordova Pkwy	US-50 WB Ramps	2000 HCM Operations	E	20.2	C	20.3	C	25.1	C	25.6	C
64	Rancho Cordova Pkwy	US-50 EB Ramps	2000 HCM Operations	E	12.2	B	12.5	B	21.1	C	21.4	C
65	Oak Ave Pkwy	US-50 WB Ramps	2000 HCM Operations	E	14.1	B	14.4	B	9.0	A	8.9	A
66	Oak Ave Pkwy	US-50 EB Ramps	2000 HCM Operations	E	19.2	B	19.2	B	21.5	C	21.4	C
<p>NOTES:</p> <p>¹ V/C = Volume-to-Capacity ratio, Delay: At 4-Way Stop intersections (based on the 2000 HCM 4-Way Stop methodology) the reported delay is the average intersection delay.</p> <p>² The Zinfandel Drive extension project includes realigning Mather Boulevard to connect at Zinfandel Drive (see Figure 16)</p> <p>At unsignalized, 2-Way Stop intersections (based on the 2000 HCM Unsignalized methodology), the reported delay is for the worst approach.</p> <p>At signalized intersections (based on the 2000 HCM Operations), the reported delay is the intersection delay.</p> <p>Bold indicates deficiency. Shaded areas indicate impact.</p> <p>Source: DKS Associates, 2011</p>												

Table ALT-18: Existing and Existing Plus Expanded Preserves Roadway Operating Conditions

ID #	Roadway Segment	Facility	Lanes	Policy	Existing			Expanded Preserves		
					Volume	V/C	LOS	Volume	V/C	LOS
1	Grant Line Rd - Sheldon Rd to Calvine Rd	Rural S	2	D	12,800	0.64	E	14,000	0.70	E
2	Grant Line Rd - Calvine Rd to Sunrise Blvd	Rural S	2	E	14,200	0.71	E	16,300	0.82	E
3	Grant Line Rd - Sunrise Blvd to Jackson Rd (SR-16)	Rural S	2	E	7,900	0.40	D	12,400	0.62	E
4	Grant Line Rd - Jackson Rd (SR-16) to Kiefer Blvd	Rural S	2	D	7,800	0.39	D	20,100	1.01	F
5	Grant Line Rd - Kiefer Blvd to University Blvd	Rural S	2	D	6,500	0.33	C	19,800	0.99	E
6	Grant Line Rd - University Blvd to Chrysanthy Blvd	Rural S	2	D	6,500	0.33	C	12,700	0.64	E
7	Grant Line Rd - Chrysanthy Blvd to North Loop	Rural S	2	D	6,500	0.33	C	12,700	0.64	E
8	Grant Line Rd - North Loop to Douglas Rd	Rural S	2	D	6,500	0.33	C	32,600	1.63	F
9	Grant Line Rd - Douglas Rd to White Rock Rd	Rural NS	2	D	9,600	0.56	D	16,800	0.99	E
10	White Rock Rd - Kilgore Rd to Sunrise Blvd	Arterial M	6	E	27,000	0.50	A	35,200	0.65	B
11	White Rock Rd - Sunrise Blvd to Fitzgerald Rd	Arterial M	4	E	9,800	0.27	A	11,000	0.31	A
12	White Rock Rd - Fitzgerald Rd to Grant Line Rd	Rural NS	2	E	3,400	0.20	B	4,700	0.28	C
13	White Rock Rd - Grant Line Rd to Prairie City Rd	Rural NS	2	E	9,900	0.58	D	14,500	0.85	E
14	White Rock Rd - Prairie City Rd to Scott Rd (South)	Rural NS	2	D	7,000	0.41	D	8,500	0.50	D
15	White Rock Rd - Scott Rd (South) to Scott Rd (North)	Rural NS	2	D	7,000	0.41	D	8,400	0.49	D

ID #	Roadway Segment	Facility	Lanes	Policy	Existing			Expanded Preserves		
					Volume	V/C	LOS	Volume	V/C	LOS
16	White Rock Rd - Scott Rd (North) to County Line	Rural NS	2	D	7,500	0.44	D	7,800	0.46	D
17	Jackson Rd (SR-16) - Watt Ave to Bradshaw Rd	Arterial M	2	E	12,800	0.71	C	14,900	0.83	D
18	Jackson Rd (SR-16) - Bradshaw Rd to Excelsior Rd	Rural Hwy	2	E	10,800	0.47	D	14,500	0.63	E
19	Jackson Rd (SR-16) - Excelsior Rd to Eagles Nest Rd	Rural Hwy	2	E	9,200	0.40	D	14,300	0.62	E
20	Jackson Rd (SR-16) - Eagles Nest Rd to Sunrise Blvd	Rural Hwy	2	E	9,200	0.40	D	14,300	0.62	E
21	Jackson Rd (SR-16) - Sunrise Blvd to Grant Line Rd	Rural Hwy	2	D	13,000	0.57	D	19,100	0.83	E
22	Douglas Rd - Mather Blvd to Eagles Nest Rd	Arterial M	2	E	6,500	0.36	A	7,900	0.44	A
23	Douglas Rd - Eagles Nest Rd to Sunrise Blvd	Arterial M	2	D	6,300	0.35	A	7,700	0.43	A
24	Douglas Rd - Sunrise Blvd to Rancho Cordova Pkwy	Arterial M	2	D	4,400	0.24	A	20,800	1.16	F
25	Douglas Rd - Rancho Cordova Pkwy to Grant Line Rd	Arterial M	2	D	2,300	0.13	A	20,200	1.12	F
26	Kiefer Blvd - Grant Line Rd to Jackson Rd (SR-16)	Rural NS	2	D	2,900	0.17	B	4,000	0.24	C
27	Sunrise Blvd - US 50 to Folsom Blvd	Arterial M	6	D	54,500	1.01	F	57,100	1.06	F
28	Sunrise Blvd - Folsom Blvd to White Rock Rd	Arterial M	6	D	49,500	0.92	E	52,700	0.98	E
29	Sunrise Blvd - White Rock Rd to Douglas Rd	Arterial M	6	D	28,200	0.52	A	43,100	0.80	C
30	Sunrise Blvd - Jackson Rd (SR-16) to Florin Rd	Rural S	2	E	11,100	0.56	D	11,200	0.56	D
31	Mather Blvd - Douglas Rd to Femoyer St	Arterial M	2	D	6,500	0.36	A	8,100	0.45	A

ID #	Roadway Segment	Facility	Lanes	Policy	Existing			Expanded Preserves		
					Volume	V/C	LOS	Volume	V/C	LOS
32	Zinfandel Dr - US-50 to White Rock Rd	Arterial M	6	D	43,300	0.80	D	46,700	0.86	D
33	Prairie City Rd - US-50 to White Rock Rd	Rural NS	2	D	5,900	0.35	C	9,700	0.57	D
34	Scott Rd - US-50 to White Rock Rd	Rural NS	2	D	4,800	0.28	C	5,900	0.35	C
35	North Loop Rd - Grant Line Rd to Town Center Dr	Arterial M	4	E	--	--	--	25,200	0.70	C
36	North Loop Rd - Town Center Dr to Street A	Arterial M	4	E	--	--	--	25,200	0.70	C
37	North Loop Rd - Street A to Street D	Arterial M	4	E	--	--	--	24,100	0.67	B
38	North Loop Rd - Street D to Street F	Arterial L	4	E	--	--	--	8,000	0.27	A
39	North Loop Rd - Street F to University Blvd	Residential NF	2	E	--	--	--	3,100	0.31	A
40	Chrysanthy Blvd - Grant Line Rd to Town Center Dr	Arterial M	4	E	--	--	--	--	--	--
41	University Blvd - Grant Line Rd to Town Center Dr	Arterial M	4	E	--	--	--	21,700	0.60	B
42	University Blvd - Town Center Dr to Street A	Arterial M	4	E	--	--	--	13,300	0.37	A
43	University Blvd - Street A to Street C	Arterial M	2	E	--	--	--	8,200	0.46	A
44	University Blvd - Street C to Street D	Arterial M	2	E	--	--	--	9,200	0.51	A
45	University Blvd - Street D to Street E	Residential NF	2	E	--	--	--	7,300	0.73	C
46	University Blvd - Street E to North Loop Rd	Residential NF	2	E	--	--	--	4,100	0.41	A
47	Town Center Dr - North Loop Rd to Chrysanthy Blvd	Arterial L	2	E	--	--	--	--	--	--
48	Town Center Dr - Chrysanthy Blvd to University Blvd	Arterial L	2	E	--	--	--	--	--	--
49	Street A - North Loop Rd to University Blvd	Residential NF	2	E	--	--	--	1,900	0.19	A
50	Street A - University Blvd to Street B	Residential NF	2	E	--	--	--	8,600	0.86	D
51	Street A - Street B to Street D	Residential NF	2	E	--	--	--	5,900	0.59	A

ID #	Roadway Segment	Facility	Lanes	Policy	Existing			Expanded Preserves		
					Volume	V/C	LOS	Volume	V/C	LOS
52	Street D - North Loop Rd to University Blvd	Arterial L	2	E	--	--	--	11,800	0.79	C
53	Street D - University Blvd to Street A	Residential NF	2	E	--	--	--	7,600	0.76	C
54	Street E - University Blvd to Street A	Residential F	2	E	--	--	--	3,500	0.44	C
<p>NOTES:</p> <p>LOS = level of service; SR = State Route; U.S. 50 = U.S. Highway 50; V/C = volume-to-capacity; Arterial M = medium access control arterial; Arterial L = low access control arterial; Rural Hwy = rural highway; Rural NS = rural road with no shoulders; Rural NS = rural road with shoulders; Residential NF = residential collector without frontage; Residential F = residential collector with frontage.</p> <p>Bold indicates deficiency. Shaded areas indicate impact.</p> <p>Source: DKS Associates, 2011</p>										

Table ALT-19: Cumulative Plus Expanded Preserves Roadway Operating Conditions

ID #	Roadway Segment	Facility	Lanes	Policy	Cumulative			Cumulative Plus Expanded Preserves		
					Volume	V/C	LOS	Volume	V/C	LOS
1	Grant Line Rd - Sheldon Rd to Calvine Rd	Arterial M	4	D	25,700	0.71	C	26,700	0.74	C
2	Grant Line Rd - Calvine Rd to Sunrise Blvd	Arterial M	4	E	29,500	0.82	D	31,000	0.86	D
3	Grant Line Rd - Sunrise Blvd to Jackson Rd (SR-16)	Arterial M	4	E	21,400	0.59	A	23,000	0.64	B
4	Grant Line Rd - Jackson Rd (SR-16) to Rancho Cordova Pkwy	Arterial M	4	D	24,000	0.67	B	28,700	0.80	C
5	Grant Line Rd - Rancho Cordova Pkwy to Kiefer Blvd	Arterial M	4	D	25,900	0.72	C	32,100	0.89	D
6	Grant Line Rd - Kiefer Blvd to University Blvd	Arterial M	4	D	20,400	0.57	A	31,400	0.87	D
7	Grant Line Rd - University Blvd to Chrysanthy Blvd	Arterial M	4	D	20,400	0.57	A	29,400	0.82	D
8	Grant Line Rd - Chrysanthy Blvd to North Loop	Arterial M	4	D	24,600	0.68	B	30,900	0.86	D
9	Grant Line Rd - North Loop to Douglas Rd	Arterial M	4	D	24,600	0.68	B	43,200	1.20	F
10	Grant Line Rd - Douglas Rd to White Rock Rd	Arterial M	4	D	34,700	0.96	E	39,700	1.10	F
11	White Rock Rd - Kilgore Rd to Sunrise Blvd	Arterial M	6	E	24,200	0.45	A	24,500	0.45	A
12	White Rock Rd - Sunrise Blvd to Rancho Cordova Pkwy	Arterial M	6	E	16,600	0.31	A	16,800	0.31	A
13	White Rock Rd - Rancho Cordova Pkwy to Americanos Blvd	Arterial M	6	E	11,700	0.22	A	12,200	0.23	A
14	White Rock Rd - Americanos Blvd to Grant Line Rd	Arterial M	6	D	12,300	0.23	A	13,400	0.25	A
15	White Rock Rd - Grant Line Rd to Prairie City Rd	Arterial M	6	E	44,000	0.81	D	49,900	0.92	E

ID #	Roadway Segment	Facility	Lanes	Policy	Cumulative			Cumulative Plus Expanded Preserves		
					Volume	V/C	LOS	Volume	V/C	LOS
16	White Rock Rd - Prairie City Rd to Scott Rd (South)	Arterial M	6	D	31,400	0.58	A	34,300	0.64	B
17	White Rock Rd - Scott Rd (South) to Scott Rd (North)	Arterial M	6	D	31,700	0.59	A	34,200	0.63	B
18	White Rock Rd - Scott Rd (North) to County Line	Arterial M	4	D	21,200	0.59	A	22,400	0.62	B
19	Jackson Rd (SR-16) - Watt Ave to Bradshaw Rd	Arterial M	6	E	66,900	1.24	F	67,300	1.25	F
20	Jackson Rd (SR-16) - Bradshaw Rd to Vineyard Rd	Arterial M	6	E	55,300	1.02	F	56,300	1.04	F
21	Jackson Rd (SR-16) - Vineyard Rd to Excelsior Rd	Arterial M	6	E	35,200	0.65	B	37,000	0.69	B
22	Jackson Rd (SR-16) - Excelsior Rd to Eagles Nest Rd	Arterial M	4	E	22,500	0.63	B	24,400	0.68	B
23	Jackson Rd (SR-16) - Eagles Nest Rd to Sunrise Blvd	Arterial M	4	E	24,600	0.68	B	26,300	0.73	C
24	Jackson Rd (SR-16) - Sunrise Blvd to Grant Line Rd	Arterial M	4	D	29,100	0.81	D	31,300	0.87	D
25	Douglas Rd - Excelsior Rd to Eagles Nest Rd	Arterial M	4	E	19,800	0.55	A	17,600	0.49	A
26	Douglas Rd - Eagles Nest Rd to Sunrise Blvd	Arterial M	6	D	31,100	0.58	A	33,800	0.63	B
27	Douglas Rd - Sunrise Blvd to Rancho Cordova Pkwy	Arterial M	6	D	36,100	0.67	B	42,400	0.79	C
28	Douglas Rd - Rancho Cordova Pkwy to Americanos Blvd	Arterial M	6	D	17,100	0.32	A	28,000	0.52	A
29	Douglas Rd - Americanos Blvd to Grant Line Rd	Arterial M	6	D	10,300	0.19	A	22,900	0.42	A
30	Kiefer Blvd - Bradshaw Rd to Vineyard Rd	Arterial M	4	D	28,400	0.79	C	30,400	0.84	D

ID #	Roadway Segment	Facility	Lanes	Policy	Cumulative			Cumulative Plus Expanded Preserves		
					Volume	V/C	LOS	Volume	V/C	LOS
31	Kiefer Blvd - Vineyard Rd to Excelsior Rd	Arterial M	4	D	23,000	0.64	B	25,700	0.71	C
32	Kiefer Blvd - Excelsior Rd to Eagles Nest Rd	Arterial M	4	D	11,500	0.32	A	14,100	0.39	A
33	Kiefer Blvd - Eagles Nest Rd to Sunrise Blvd	Arterial M	4	D	16,300	0.45	A	18,500	0.51	A
34	Kiefer Blvd - Sunrise Blvd to Rancho Cordova Pkwy	Arterial M	4	D	18,400	0.51	A	20,800	0.58	A
35	Kiefer Blvd - Rancho Cordova Pkwy to Grant Line Rd	Arterial M	4	D	6,800	0.19	A	9,600	0.27	A
36	Kiefer Blvd - Grant Line Rd to Jackson Rd (SR-16)	Rural NS	2	D	7,000	0.41	D	7,400	0.44	D
37	Sunrise Blvd - US 50 to Folsom Blvd	Arterial M	6	D	62,300	1.15	F	62,900	1.16	F
38	Sunrise Blvd - Folsom Blvd to White Rock Rd	Arterial M	6	D	54,800	1.01	F	56,800	1.05	F
39	Sunrise Blvd - White Rock Rd to Douglas Rd	Arterial M	6	D	41,200	0.76	C	44,300	0.82	D
40	Sunrise Blvd - Jackson Rd (SR-16) to Florin Rd	Arterial M	4	E	22,400	0.62	B	23,100	0.64	B
41	Mather Blvd - Douglas Rd to Femoyer St	Arterial M	2	D	5,900	0.33	A	6,300	0.35	A
42	Zinfandel Dr - US-50 to White Rock Rd	Arterial M	6	D	80,600	1.49	F	81,300	1.51	F
43	Zinfandel Dr - White Rock Rd to International Dr	Arterial M	6	D	55,000	1.02	F	56,200	1.04	F
44	Zinfandel Dr - International Dr to Douglas Rd	Arterial M	6	D	30,600	0.57	A	33,900	0.63	B
45	Prairie City Rd - US-50 to Easton Valley Pkwy	Arterial M	6	D	27,600	0.51	A	28,800	0.53	A
46	Prairie City Rd - Easton Valley Pkwy to White Rock Rd	Arterial M	4	D	19,100	0.53	A	20,900	0.58	A
47	Scott Rd - US-50 to Easton Valley Pkwy	Arterial M	6	D	43,100	0.80	C	44,200	0.82	D
48	Scott Rd - Easton Valley Pkwy to White Rock	Arterial M	4	D	19,800	0.55	A	21,100	0.59	A

ID #	Roadway Segment	Facility	Lanes	Policy	Cumulative			Cumulative Plus Expanded Preserves		
					Volume	V/C	LOS	Volume	V/C	LOS
	Rd									
49	Chrysanthy Blvd - Sunrise Blvd to Rancho Cordova Pkwy	Arterial M	4	D	10,800	0.30	A	11,800	0.33	A
50	Chrysanthy Blvd - Rancho Cordova Pkwy to Americanos Blvd	Arterial M	4	D	19,400	0.54	A	20,600	0.57	A
51	Chrysanthy Blvd - Americanos Blvd to Grant Line Rd	Arterial M	4	D	6,100	0.17	A	14,200	0.39	A
52	Rancho Cordova Pkwy - White Rock Rd to Douglas Rd	Arterial M	6	D	33,600	0.62	B	35,200	0.65	B
53	Rancho Cordova Pkwy - Douglas Rd to Chrysanthy Blvd	Arterial M	6	D	29,400	0.54	A	29,700	0.55	A
54	Rancho Cordova Pkwy - Chrysanthy Blvd to Kiefer Blvd	Arterial M	4	D	20,300	0.56	A	19,900	0.55	A
55	Rancho Cordova Pkwy - Kiefer Blvd to Grant Line Rd	Arterial M	4	D	6,800	0.19	A	8,400	0.23	A
56	Americanos Blvd - White Rock Rd to Douglas Rd	Arterial M	4	D	12,200	0.34	A	14,500	0.40	A
57	Americanos Blvd - Douglas Rd to Chrysanthy Blvd	Arterial M	4	D	7,600	0.21	A	9,700	0.27	A
58	Americanos Blvd - Chrysanthy Blvd to Kiefer Blvd	Arterial M	4	D	9,600	0.27	A	9,800	0.27	A
59	Oak Ave - US-50 to Easton Valley Pkwy	Arterial M	4	D	17,900	0.50	A	18,700	0.52	A
60	Oak Ave - Easton Valley Pkwy to White Rock Rd	Arterial M	4	D	3,100	0.09	A	3,200	0.09	A
61	North Loop Rd - Grant Line Rd to Town Center Dr	Arterial M	4	E	--	--	--	23,200	0.64	B
62	North Loop Rd - Town Center Dr to Street A	Arterial M	4	E	--	--	--	23,200	0.64	B

ID #	Roadway Segment	Facility	Lanes	Policy	Cumulative			Cumulative Plus Expanded Preserves		
					Volume	V/C	LOS	Volume	V/C	LOS
63	North Loop Rd - Street A to Street D	Arterial M	4	E	--	--	--	22,200	0.62	B
64	North Loop Rd - Street D to Street F	Arterial L	4	E	--	--	--	9,300	0.31	A
65	North Loop Rd - Street F to University Blvd	Residential NF	2	E	--	--	--	2,900	0.29	A
66	Chrysanthy Blvd - Grant Line Rd to Town Center Dr	Arterial M	4	E	--	--	--			
67	University Blvd - Grant Line Rd to Town Center Dr	Arterial M	4	E	--	--	--	24,000	0.67	B
68	University Blvd - Town Center Dr to Street A	Arterial M	4	E	--	--	--	15,600	0.43	A
69	University Blvd - Street A to Street C	Arterial M	2	E	--	--	--	8,600	0.48	A
70	University Blvd - Street C to Street D	Arterial M	2	E	--	--	--	8,900	0.49	A
71	University Blvd - Street D to Street E	Residential NF	2	E	--	--	--	7,200	0.72	C
72	University Blvd - Street E to North Loop Rd	Residential NF	2	E	--	--	--	4,000	0.40	A
73	Town Center Dr - North Loop Rd to Chrysanthy Blvd	Arterial L	2	E	--	--	--			
74	Town Center Dr - Chrysanthy Blvd to University Blvd	Arterial L	2	E	--	--	--			
75	Street A - North Loop Rd to University Blvd	Residential NF	2	E	--	--	--	1,800	0.18	A
76	Street A - University Blvd to Street B	Residential NF	2	E	--	--	--	9,800	0.98	E
77	Street A - Street B to Street D	Residential NF	2	E	--	--	--	6,800	0.68	B
78	Street D - North Loop Rd to University Blvd	Arterial L	2	E	--	--	--	10,300	0.69	B

ID #	Roadway Segment	Facility	Lanes	Policy	Cumulative			Cumulative Plus Expanded Preserves		
					Volume	V/C	LOS	Volume	V/C	LOS
79	Street D - University Blvd to Street A	Residential NF	2	E	--	--	--	6,700	0.67	B
80	Street E - University Blvd to Street A	Residential F	2	E	--	--	--	3,300	0.41	C
<p>NOTES:</p> <p>LOS = level of service; SR = State Route; U.S. 50 = U.S. Highway 50; V/C = volume-to-capacity; Arterial M = medium access control arterial; Arterial L = low access control arterial; Rural Hwy = rural highway; Rural NS = rural road with no shoulders; Rural NS = rural road with shoulders; Residential NF = residential collector without frontage; Residential F = residential collector with frontage.</p> <p>Bold indicates deficiency. Shaded areas indicate impact.</p> <p>Source: DKS Associates, 2011</p>										

Table ALT-20: Expanded Preserves Freeway Segment Operating Conditions

Roadway Segment	Lanes ml/hov/aux	Existing			Existing Plus Expanded Preserves			Cumulative			Cumulative Plus Expanded Preserves		
		Total Volume	Density	LOS	Total Volume	Density	LOS	Total Volume	Density	LOS	Total Volume	Density	LOS
AM Peak Hour													
US-50 EB Power Inn/Howe Ave to Watt Ave	4/1/0	7,230	34	D	7,340	35	D	8,950	42	E	9,040	43	E
US-50 EB Watt Ave to Bradshaw Rd	4/1/0	7,720	38	E	7,810	39	E	9,340	49	F	9,460	51	F
US-50 EB Bradshaw Rd to Mather Field Rd	4/1/0	7,200	34	D	7,280	34	D	8,680	40	E	8,720	41	E
US-50 EB Mather Field Rd to Zinfandel Dr	4/1/1	6,420	24	C	6,510	25	C	8,300	31	D	8,380	31	D
US-50 EB Rancho Cordova Pkwy to Hazel Ave	3/1/1	4,750	27	D	4,980	28	D	7,470	47	F	7,670	51	F
US-50 WB Hazel Ave to Rancho Cordova Pkwy	3/1/1	7,100	56	F	7,170	59	F	8,960	67	F	9,050	71	F
US-50 WB Zinfandel Dr to Mather Field Rd	4/1/1	7,420	29	D	7,550	30	D	9,550	34	D	9,590	34	D
US-50 WB Mather Field Rd to Bradshaw Rd	4/1/0	7,290	35	D	7,480	36	E	9,030	43	E	9,140	45	E
US-50 WB Bradshaw Rd to Watt Ave	4/1/0	7,870	40	E	8,070	42	E	10,010	55	F	10,130	58	F
US-50 WB Watt Ave to Power Inn/Howe Ave	4/1/1	8,350	34	D	8,550	36	E	10,670	44	E	10,810	46	F
PM Peak Hour													
US-50 EB Power Inn/Howe Ave to Watt Ave	4/1/0	7,550	37	E	7,660	38	E	9,590	43	E	9,620	43	E
US-50 EB Watt Ave to Bradshaw Rd	4/1/0	7,630	38	E	7,770	39	E	9,780	48	F	9,870	49	F
US-50 EB Bradshaw Rd to Mather Field Rd	4/1/0	6,920	32	D	7,040	33	D	8,670	36	E	8,710	36	E
US-50 EB Mather Field Rd to Zinfandel Dr	4/1/1	7,190	28	D	7,270	28	D	9,450	35	E	9,480	36	E
US-50 EB Rancho Cordova Pkwy to Hazel Ave	3/1/1	7,060	52	F	7,170	55	F	8,940	90	F	8,970	92	F
US-50 WB Hazel Ave to Rancho Cordova Pkwy	3/1/1	4,480	24	C	4,670	25	C	6,070	27	D	6,190	28	D
US-50 WB Zinfandel Dr to Mather Field Rd	4/1/1	6,370	28	D	6,430	29	D	8,210	26	D	8,220	26	D
US-50 WB Mather Field Rd to Bradshaw Rd	4/1/0	6,770	31	D	6,830	31	D	8,220	33	D	8,250	33	D
US-50 WB Bradshaw Rd to Watt Ave	4/1/0	7,590	37	E	7,670	38	E	9,660	48	F	9,670	48	F
US-50 WB Watt Ave to Power Inn/Howe Ave	4/1/1	7,130	27	D	7,660	38	E	9,170	31	D	9,180	31	D
NOTES: ml = main line; hov = high occupancy vehicle; aux = auxiliary lane; LOS = level of service; U.S. 50 = U.S. Highway 50 flow calculation assumes: free flow speed=65 mph; capacity of 2350 pc/h/ln; peak hour factor=0.9; heavy vehicle factor=0.976; population factor=1.0; and excludes hov volume and capacity auxiliary lane capacity is based on the Highway Capacity Manual volume-ratio (VR) methodology Bold indicates deficiency. Shaded areas indicate impact. Source: DKS Associates, 2011													

Table ALT-21: Expanded Preserves Freeway Ramp Operating Conditions

Roadway Segment	Lanes	Existing			Existing Plus Expanded Preserves			Cumulative			Cumulative Plus Expanded Preserves		
		Total Volume	Density	LOS	Total Volume	Density	LOS	Total Volume	Density	LOS	Total Volume	Density	LOS
AM Peak Hour													
US-50 EB Watt Ave Double Off	2	1,186	10.6	B	1,207	11.0	B	1,463	14.7	B	1,438	14.6	B
US-50 EB Watt Ave Loop On	1	1,484	36.0	E	1,466	36.1	E	1,524	38.0	E	1,517	38.2	E
US-50 EB Watt Ave Slip-On	1	619	31.7	D	642	31.7	D	772	33.5	F	775	33.6	F
US-50 WB Watt Ave Double Off	2	1,598	14.4	B	1,600	15.0	B	1,628	16.6	F	1,692	17.2	F
US-50 WB Watt Ave Loop On	1	708	36.5	E	700	37.5	E	872	39.9	E	933	39.8	E
US-50 WB Watt Ave Slip-On to Auxiliary	1	1,484	0.8	E	1,492	0.8	E	1,782	1.0	F	1,805	1.0	F
PM Peak Hour													
US-50 EB Watt Ave Double Off	2	1,570	14.2	B	1,592	14.6	B	1,835	18.3	F	1,796	18.1	F
US-50 EB Watt Ave Loop On	1	1,041	35.4	E	1,047	35.6	E	1,124	37.9	E	1,124	38.2	E
US-50 EB Watt Ave Slip-On	1	475	29.9	D	517	30.1	D	761	32.0	F	773	32.3	F
US-50 WB Watt Ave Double Off	2	2,146	17.7	B	2,132	17.8	B	2,248	21.0	F	2,227	20.8	F
US-50 WB Watt Ave Loop On	1	566	32.4	D	560	32.8	D	723	36.8	E	709	36.8	E
US-50 WB Watt Ave Slip-On to Auxiliary	1	1,041	0.6	C	1,051	0.6	C	1,261	0.7	D	1,249	0.7	D
NOTES: U.S. Highway 50; aux = auxiliary lane; LOS = level of service; Bold indicates deficiency. Shaded areas indicate impact. Source: DKS Associates, 2011													

EXPANDED FOOTPRINT

The Expanded Footprint Alternative reduces the number of access locations on Grant Line Road from three locations to two locations, and the inclusion of larger preserves also eliminates several internal roadways. The northern access location has been moved to align with Douglas Road. Other than these internal site changes, the vehicle network studied for this Alternative is the same as the network studied for the Project. Assumptions for non-automotive networks are also the same as the Project. Note that all tables referenced are found at the conclusion of the discussion.

EXISTING PLUS EXPANDED FOOTPRINT CONDITIONS

Table ALT-22 describes the trip generation assumptions for the Alternative in the existing condition. Existing conditions and existing plus Expanded Footprint conditions for all studied facilities are included in Table ALT-24, Table ALT-26, Table ALT-28, and Table ALT-29.

INTERSECTION ANALYSIS

SACRAMENTO COUNTY

The Expanded Footprint Alternative causes significant impacts to six intersections, which are listed below. The list includes both the facility impact, as well as the operating conditions that would result after the implementation of mitigation (for more detailed data on mitigation, refer to Table 22 of Appendix TR-1). The facility improvements listed in Mitigation Measure ALT-5 would improve all operating conditions from unacceptable to acceptable levels, and impacts would be *less than significant*.

- *Mather Boulevard and Douglas Road* – Operating conditions deteriorate from an acceptable LOS E to LOS F in the a.m. peak hour. This intersection meets peak hour traffic signal warrants with the addition of Expanded Footprint traffic. Mitigation would improve operating conditions to LOS E.
- *Eagles Nest Road and Jackson Road* – Operating conditions deteriorate from an acceptable LOS C to LOS F in the p.m. peak hour. This intersection meets peak hour traffic signal warrants with the addition of Expanded Footprint traffic. Mitigation would improve operating conditions to LOS B.
- *Grant Line Road and Sunrise Boulevard* – Operating conditions deteriorate from an acceptable LOS D to LOS F in the a.m. peak hour. Mitigation would improve operating conditions to LOS D.
- *Grant Line Road and White Rock Road* – Operating conditions deteriorate from an acceptable LOS C to LOS F in the a.m. peak hour. Operating conditions remain at LOS F in the p.m. peak hour, with an increase in delay of more than five seconds. This intersection meets peak hour signal warrants without and with

the addition of Expanded Footprint traffic. Mitigation would improve operating conditions to LOS B.

- *Prairie City Road and White Rock Road* – Operations conditions already at an unacceptable LOS E degrade to LOS F in the a.m. peak hour, with an increase in delay of more than five seconds. Operating conditions remain at LOS F in the p.m. peak hour, with an increase in delay of more than five seconds. This intersection meets peak hour signal warrants without and with the addition of Expanded Footprint traffic. Mitigation would improve operating conditions to LOS D.
- *Street D and North Loop Road* – This new intersection operates at LOS F during the a.m. peak hour. Mitigation would improve operating conditions to LOS E.

CITY OF ELK GROVE

The intersection of Grant Line Road and Calvine Road will operate at an acceptable LOS B in the a.m. and p.m. peak hours with the Expanded Footprint traffic. Impacts are *less than significant*.

CITY OF RANCHO CORDOVA

The Expanded Preserves Alternative causes significant impacts to eight intersections, which are listed below. The list includes both the facility impact, as well as the operating conditions that would result after the implementation of mitigation (for more detailed data on mitigation, refer to Table 22 of Appendix TR-1). The facility improvements necessary for this Alternative differ in many ways from those needed for the Project, and thus a new measure (Mitigation Measure ALT-6) is included, which would improve all but two operating conditions (see below) from unacceptable to acceptable levels. Though operating conditions would remain unacceptable at two facilities, the mitigation would offset the Alternative's contribution to that unacceptable condition. Sacramento County does not have the land use authority to ensure that facilities outside of its jurisdiction are constructed, and thus despite mitigation it must be assumed that impacts are potentially *significant and unavoidable*.

- Zinfandel Drive and White Rock Road - Operations conditions remain at an unacceptable LOS E in the p.m. peak hour, with an increase in V/C ratio of more than 0.05. After mitigation operating conditions would remain LOS E, but Alternative traffic would result in a change in v/c ratio of less than 0.05.
- Sunrise Boulevard and White Rock Road - Operating conditions deteriorate from an acceptable LOS C to LOS F in the a.m. peak hour. Operating conditions deteriorate from an acceptable LOS D to LOS F in the p.m. peak hour. Mitigation would improve operating conditions to LOS D.

- Sunrise Boulevard and Douglas Road - Operating conditions deteriorate from an acceptable LOS A to LOS F in the a.m. peak hour. Mitigation would improve operating conditions to LOS D.
- Sunrise Boulevard and Jackson Road - Operating conditions deteriorate from an unacceptable LOS E to LOS F in the a.m. peak hour, with an increase in V/C ratio of more than 0.05. Operating conditions deteriorate from an acceptable LOS D to LOS E in the p.m. peak hour. Mitigation would improve operating conditions to LOS D.
- Grant Line Road and Jackson Road - During the a.m. and p.m. peak hours, operating conditions remain at an unacceptable LOS F, with an increase in V/C ratio of more than 0.05. After mitigation operating conditions would remain LOS F, but Alternative traffic would result in a change in v/c ratio of less than 0.05.
- Grant Line Road and Kiefer Boulevard - During the a.m. and p.m. peak hours, operation conditions deteriorate from an acceptable LOS B to LOS F. This intersection meets peak hour signal warrants without and with the addition of alternative 2 traffic. Mitigation would improve operating conditions to LOS B.
- Grant Line Road and Douglas Road - Operating conditions deteriorate from an acceptable LOS C to LOS F in the a.m. peak hour. Operating conditions deteriorate from an acceptable LOS B to LOS F in the p.m. peak hour. This intersection meets peak hour signal warrants with the addition of alternative 2 traffic. Mitigation would improve operating conditions to LOS B.
- Grant Line Road and University Boulevard - This new intersection operates at LOS F during the a.m. and p.m. peak hours. This intersection meets peak hour signal warrants with the addition of alternative 2 traffic. Mitigation would improve operating conditions to LOS D.

CALTRANS

None of the Caltrans State Highway intersection impacts exceed the significance criteria. Impacts are *less than significant*.

ROADWAY SEGMENT ANALYSIS

SACRAMENTO COUNTY ROADWAY SEGMENTS

The Expanded Footprint Alternative would degrade operating conditions on the segment of Prairie City Road from US 50 to White Rock Road from an acceptable LOS C to an unacceptable LOS E. Mitigation included in measure TR-3.A, for the Project, would improve operating conditions to LOS D; with mitigation impacts are *less than significant*.

CITY OF ELK GROVE ROADWAY SEGMENT

The segment of Grant Line Road from Sheldon Road to Calvine Road operates at an unacceptable LOS E, and the Expanded Footprint Alternative will result in a change of v/c ratio of more than 0.05. Mitigation Measure TR-4 would improve operating conditions to LOS A; with mitigation, impacts are *less than significant*.

CITY OF RANCHO CORDOVA ROADWAY SEGMENTS

The Expanded Footprint Alternative causes significant impacts to eight roadway segments, which are listed below. The list includes both the facility impact, as well as the operating conditions that would result after the implementation of mitigation (for more detailed data on mitigation, refer to Table 23 of Appendix TR-1). The facility improvements listed in Mitigation Measure TR-5 (excluding items C – E), for the Project, would improve all but two operating conditions from unacceptable to acceptable levels.

- *Grant Line Road from Jackson Road to Kiefer Boulevard* – Operations deteriorate from an acceptable LOS D to LOS F. Mitigation improves operating conditions to LOS B.
- *Grant Line Road from Kiefer Boulevard to University Boulevard* – Operations deteriorate from an acceptable LOS C to LOS F. Mitigation improves operating conditions to LOS B.
- *Grant Line Road from Douglas Road to White Rock Road* – Operations deteriorate from an acceptable LOS D to LOS F. Mitigation improves operating conditions to LOS A.
- *Jackson Road from Sunrise Boulevard to Grant Line Road* – Operations deteriorate from an acceptable LOS D to LOS E. Mitigation improves operating conditions to LOS A.
- *Douglas Road from Sunrise Boulevard to Rancho Cordova Parkway* – Operations deteriorate from an acceptable LOS A to LOS F. Mitigation improves operating conditions to LOS B.
- *Douglas Road from Rancho Cordova Parkway to Grant Line Road* – Operations deteriorate from an acceptable LOS A to LOS F. Mitigation improves operating conditions to LOS B.
- *Sunrise Boulevard from US 50 to Folsom Boulevard* – Operations remain at an unacceptable LOS F, with an increase in V/C ratio of more than 0.05. No mitigation is available (see below discussion).
- *Sunrise Boulevard from Folsom Boulevard to White Rock Road* – Operations remain at an unacceptable LOS E, with an increase in V/C ratio of more than 0.05. No mitigation is available (see below discussion).

Sacramento County does not have the land use authority to ensure that facilities outside of its jurisdiction are constructed, and thus despite mitigation impacts must be considered potentially *significant and unavoidable*. Furthermore, the only mitigation available for Sunrise Boulevard would be to widen the roadway, but this roadway is at full build-out according to the City of Rancho Cordova General Plan. Widening would require a General Plan Amendment, as well as significant acquisition of right-of-way which would involve property losses and the loss of improvements on what is currently private property. This being the case, the mitigation is considered infeasible, and impacts to these two facilities are *significant and unavoidable*.

CALTRANS FREEWAYS

MAINLINE

The Expanded Footprint Alternative causes significant impacts to two freeway segments, which are listed below. The list includes both the facility impact, as well as the operating conditions that would result after the implementation of mitigation. The facility improvements listed in Mitigation Measure TR-6 would improve all operating conditions from unacceptable to acceptable levels. Sacramento County does not have the land use authority to ensure that facilities outside of its jurisdiction are constructed, and thus despite mitigation impacts must be considered potentially *significant and unavoidable*.

- *Westbound US 50 from Hazel Avenue to Sunrise Boulevard* – There is an increase in traffic volume on this freeway segment already operating at LOS F in the a.m. peak hour. Mitigation would improve operating conditions to LOS E.
- *Eastbound US 50 from Sunrise Boulevard to Hazel Avenue* – There is an increase in traffic volume on this freeway segment already operating at LOS F. Mitigation would improve operating conditions to LOS D.

RAMP JUNCTIONS

Expanded Footprint Alternative traffic does not cause a level of service standard to be exceeded, nor does it significantly contribute to an existing unacceptable operating condition; impacts are *less than significant*.

BICYCLE AND PEDESTRIAN ANALYSIS

The impacts of the Alternative are nearly identical to those described for the Project. Though involving somewhat less traffic, the Alternative nonetheless contributes substantial additional volume to Grant Line Road and Douglas Road, which are deficient for bicycle and pedestrian facilities. The same mitigation included for the Project (Mitigation Measure TR-7) would apply to this Alternative; mitigation will reduce impacts to *less than significant* levels.

TRANSIT ANALYSIS

The impacts of the Alternative are nearly identical to those described for the Project. The Alternative assumes that an internal transit system will still be provided, and this system would be sufficient to serve the needs of residents. Development within the site will not conflict with the implementation of any adopted transit plan. Impacts are *less than significant*.

MITIGATION MEASURES:

ALT-5. The applicant shall comply with Mitigation Measure TR-1 items B through F, and shall construct the below improvement.

- A. *Street D and North Loop Road* – Provide a separate through lane and a separate right turn lane on the northbound approach.

ALT-6. The applicant shall fund the implementation of the mitigation measures below by means of a phasing and financing plan, to the satisfaction of the Sacramento County Department of Transportation and in consultation with the City of Rancho Cordova. The phasing and financing plan shall ensure construction of traffic improvements prior to degradation of LOS below standards. This mitigation recognizes that should any of the measures below benefit other projects, a reimbursement agreement may be considered.

- A. *Zinfandel Drive and White Rock Road* – Provide separate dual right turns on the westbound approach so the westbound approach has two left turn lanes, two through lanes and two right turn lanes.
- B. *Sunrise Boulevard and White Rock Road* – Provide overlap phasing on the eastbound approaches.
- C. *Sunrise Boulevard and Douglas Road* – Provide overlap phasing on the westbound approach.
- D. *Sunrise Boulevard and Jackson Road* – Provide dual through lanes on the eastbound and westbound approaches.
- E. *Grant Line Road and Jackson Road* – Provide a left turn lane and a through-right shared turn lane on the eastbound westbound, and northbound approaches. Provide a separate left turn lane, a through lane and a separate right turn lane on the southbound approach.
- F. *Grant Line Road and Kiefer Boulevard* – Construct a new traffic signal. Provide a left turn lane and a through-right shared lane on the northbound approach; and dual left turn lanes and a through-right shared lane on the southbound approach. Provide a left turn lane, dual through lanes, and a separate right turn lane on the eastbound approach; and a left turn lane, dual through lanes, and a separate free-right turn lane on the westbound

approach. Also an extra northbound departure lane is needed for the westbound free-right movement.

- G. *Grant Line Road and Douglas Road* – Construct a new traffic signal. Provide dual left turn lanes and a separate through lane on the northbound and dual left turn lanes and a through-right shared lane on the southbound approach. Provide a left turn lane, dual through lanes, and a separate right turn lane on the eastbound approach; and a left turn lane, dual through lanes, and a separate free-right turn lane on the westbound approach. Also an extra northbound departure lane is needed for the westbound free-right movement.
- H. *Grant Line Road and University Boulevard* – Construct a new traffic signal. Provide a through lane and a separate free-right turn lane on the northbound approach, dual left turn lanes and one through lanes on the southbound approach, and dual left turn lanes and a right turn lane on the westbound approach. Also an extra eastbound departure lane is needed for the northbound free-right movement.

CUMULATIVE PLUS EXPANDED FOOTPRINT CONDITIONS

Cumulative condition trip generation for the Expanded Footprint Alternative is provided in Table ALT-23. Cumulative conditions and cumulative plus Expanded Footprint conditions for all studied facilities are included in Table ALT-25, Table ALT-27, Table ALT-28, and Table ALT-29.

INTERSECTION ANALYSIS

SACRAMENTO COUNTY

The Expanded Footprint Alternative intersection at Street D and North Loop Road would operate at LOS F during the a.m. peak hour. Mitigation Measure ALT-7 would improve operating conditions to LOS E; impacts would be *less than significant*.

CITY OF FOLSOM

The Expanded Footprint Alternative does not cause a level of service standard to be exceeded, nor does it contribute substantially to any existing deficiency; impacts are *less than significant*.

CITY OF ELK GROVE

The Expanded Footprint Alternative does not cause a level of service standard to be exceeded, nor does it contribute substantially to any existing deficiency; impacts are *less than significant*.

CITY OF RANCHO CORDOVA

The Expanded Footprint Alternative causes significant impacts to four intersections, which are listed below. The list includes both the facility impact, as well as the operating conditions that would result after the implementation of mitigation (for more detailed data on mitigation, refer to Table 31 of Appendix TR-1). The facility improvements listed for the Project are different from those needed for this Alternative, so a list of measures specific to this Alternative is included in Mitigation Measure ALT-8. These measures would improve all but one operating condition from unacceptable to acceptable levels.

- *Sunrise Boulevard and Douglas Road* – Operating conditions deteriorate from an unacceptable LOS E to LOS F in the a.m. peak hour, with an increase in V/C ratio of greater than 0.05. Mitigation would improve operating conditions to LOS E, which remains unacceptable, but the Alternative would no longer result in a change of v/c ratio of more than 0.05.
- *Grant Line Road and Douglas Road* – Operating conditions deteriorate from an acceptable LOS A to LOS F in the a.m. peak hour. Mitigation would improve operating conditions to LOS D.
- *Grant Line Road and University Boulevard* – This new intersection operates at an unacceptable LOS E during the a.m. peak hour and LOS F during the p.m. peak hour. Mitigation would improve operating conditions to LOS C.
- *Sunrise Boulevard and International Drive* – Operating conditions deteriorate from an acceptable LOS D to LOS E in the a.m. peak hour. No feasible mitigation exists (see below).

Sacramento County does not have the land use authority to ensure that facilities outside of its jurisdiction are constructed, and thus despite mitigation impacts must be considered potentially *significant and unavoidable*. Furthermore, Sunrise Boulevard and International Drive was already modeled at maximum capacity, and a General Plan Amendment would be required to further increase capacity. Since neither right-of-way nor funding for this further expansion have been identified or acquired, the mitigation is considered infeasible. Impacts to the Sunrise Boulevard and International Drive intersection would remain *significant and unavoidable*.

CALTRANS

The Expanded Footprint Alternative does not cause a level of service standard to be exceeded, nor does it contribute substantially to any existing deficiency; impacts are *less than significant*.

ROADWAY SEGMENT ANALYSIS

SACRAMENTO COUNTY

The Expanded Footprint Alternative internal roadway Street A (from University Boulevard to Street B) would operate at LOS F. Mitigation Measure ALT-9 would improve conditions to LOS A; impacts are *less than significant*.

CITY OF ELK GROVE

The Elk Grove Roadway Segment does not exceed the impact significance criteria. Impacts are less than significant.

CITY OF RANCHO CORDOVA

The Expanded Preserves Alternative causes significant impacts to three roadway segments, which are listed below. The list includes both the facility impact, as well as the operating conditions that would result after the implementation of mitigation (for more detailed data on mitigation, refer to Table 32 of Appendix TR-1). The facility improvements listed in Mitigation Measure TR-10 (excluding item C), for the Project, would improve all operating conditions from unacceptable to acceptable levels. Sacramento County does not have the land use authority to ensure that facilities outside of its jurisdiction are constructed, and thus despite mitigation impacts must be considered potentially *significant and unavoidable*.

- *Grant Line Road from Rancho Cordova Parkway to Kiefer Boulevard* – Operations deteriorate from an acceptable LOS C to LOS E. Mitigation would improve operating conditions to LOS B.
- *Grant Line Road from Kiefer Boulevard to University Boulevard* – Operations deteriorate from an acceptable LOS A to LOS E. Mitigation would improve operating conditions to LOS B.
- *Grant Line Road from Douglas Road to White Rock Road* – Operations deteriorate from an unacceptable LOS E to LOS F, with an increase in V/C ratio of greater than 0.05. Mitigation would improve operating conditions to LOS C.

CALTRANS FREEWAYS

MAINLINE

The Expanded Footprint Alternative causes significant impacts to six freeway segments, which are listed below. Further widening of these freeway segments would be required in order to reduce impacts, but Caltrans currently has no plans to expand the segments beyond the build-out capacities assumed in this analysis, nor are any funding mechanisms established to collect money to fund such improvements. No feasible

mitigation exists to offset impacts to freeway segments; impacts are *significant and unavoidable*.

- *Eastbound US 50 from Watt Avenue to Bradshaw Road* – LOS F in a.m. and p.m. peak hours.
- *Eastbound US 50 from Rancho Cordova Parkway to Hazel Avenue* – LOS F in a.m. and p.m. peak hours.
- *Westbound US 50 from Hazel Avenue to Rancho Cordova Parkway* – LOS F in the a.m. peak hour.
- *Westbound US 50 from Mather Field Road to Bradshaw Road* – LOS F in a.m. peak hour.
- *Westbound US 50 from Bradshaw Road to Watt Avenue* – LOS F in a.m. and p.m. peak hours.
- *Westbound US 50 from Watt Avenue to Power Inn/Howe Avenue* – LOS F in a.m. peak hour.

RAMP JUNCTIONS

The Expanded Footprint Alternative causes significant impacts to four freeway ramps, which are listed below. Caltrans currently has no plans to expand the following ramp junctions beyond the build-out capacities assumed in this analysis, nor are any funding mechanisms established to collect monies to fund such improvements. No feasible mitigation exists to offset impacts to freeway ramps; impacts are *significant and unavoidable*.

- *Eastbound US 50 Exit Ramp to Watt Avenue* – LOS F in p.m. peak hour.
- *Eastbound US 50 Slip Ramp Entrance from Watt Avenue* – LOS F in a.m. and p.m. peak hours.
- *Westbound US 50 Exit Ramp to Watt Avenue* – LOS F in a.m. and p.m. peak hours.
- *Westbound US 50 Slip Ramp Entrance from Watt Avenue* – LOS F in a.m. peak hour.

BICYCLE AND PEDESTRIAN ANALYSIS

The impacts of the Alternative are nearly identical to those described for the Project. By the cumulative time horizon, improvements will have been installed on Grant Line Road and Douglas Road as part of buildout within Rancho Cordova, and as part of other improvements to Grant Line Road consistent with the Sacramento County General

Plan, the Sacramento County Bicycle Master Plan, and the City of Rancho Cordova General Plan. The Alternative will not eliminate or adversely affect bicycle or pedestrian facilities, result in unsafe conditions, or interfere with implementation of planned bicycle or pedestrian facilities; impacts are *less than significant*.

TRANSIT ANALYSIS

The impacts of the Alternative are nearly identical to those described for the Project. The Alternative assumes that an internal transit system will still be provided, and this system would be sufficient to serve the needs of residents. Development within the site will not conflict with the implementation of any adopted transit plan. Impacts are *less than significant*.

MITIGATION MEASURES:

ALT-7. The applicant shall be responsible for a fair share of the below mitigation measures. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation and may be up to 100% of the cost of the improvements.

- A. *Street D and North Loop Road* – Provide dual left turn lanes on the eastbound approach.

ALT-8. The applicant shall be responsible for a fair share of the below mitigation measures. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation, in consultation with the City of Rancho Cordova, and may be up to 100% of the cost of the improvements.

- A. *Sunrise Boulevard and Douglas Road* – Provide overlap phasing on the westbound right turns.
- B. *Grant Line Road and Douglas Road* – Provide three through lanes on the northbound approach and three through lanes on the westbound approach.
- C. *Grant Line Road and University Boulevard* – Provide a free-right turn lane on the northbound approach. Also an extra eastbound departure lane is needed for the northbound free-right movement.

ALT-9. The applicant shall be responsible for a fair share of the below mitigation measures. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation and may be up to 100% of the cost of the improvements.

- A. *Street A from University Boulevard to Street B* – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with low access control.

Table ALT-22: Existing Plus Expanded Footprint Trip Generation

Land Use	Units	Vehicle Trip End Rates ¹			Daily Vehicle Trip Rates ^{1,2}			Vehicle Trips Ends			Vehicle Trips		
		AM	PM	Daily	AM	PM	Daily	AM	PM	Daily	AM	PM	Daily
Single Family DU	4,797	0.7	0.8	9.6	0.6	0.6	7.2	3,532	4,029	46,020	2,670	3,006	34,390
Multi Family DU	2,239	0.5	0.6	6.3	0.4	0.4	4.7	1,039	1,234	14,145	784	909	10,436
Retail Employee	1,470	1.0	1.6	17.0	0.7	1.1	11.9	1,410	2,393	25,026	1,021	1,656	17,483
Other Employee	1,719	0.3	0.3	3.7	0.2	0.3	2.9	485	574	6,331	381	446	4,979
K12 Students	6,280	0.4	0.2	1.8	0.3	0.1	1.3	2,380	1,049	11,110	1,776	765	8,073
<i>SubTotal</i>								<i>8,846</i>	<i>9,279</i>	<i>102,632</i>	<i>6,633</i>	<i>6,782</i>	<i>75,362</i>
University Students	6,000	0.1	0.2	1.8	0.1	0.1	1.5	762	987	10,863	656	837	9,199
<i>Total</i>								<i>9,608</i>	<i>10,266</i>	<i>113,495</i>	<i>7,289</i>	<i>7,620</i>	<i>84,561</i>
<i>External Trips³</i>											<i>4,970</i>	<i>4,974</i>	<i>55,627</i>
NOTES: 1. Rates in the table may not compute exactly due to rounding. 2. Vehicle trip rates reflect internalization reduction. For trips internal to the Cordova Hills Project, half the trip is attributed to the origin and half to the destination. 3. Approximate of vehicle trips traveling outside the Cordova Hills specific plan Vehicle trip summary based on modified version of the SACMET travel demand forecasting (TDF) model. Source: DKS Associates, 2011													

Table ALT-23: Cumulative Plus Expanded Footprint Trip Generation

Land Use	Units	Vehicle Trip End Rates ¹			Daily Vehicle Trip Rates ^{1,2}			Vehicle Trips Ends			Vehicle Trips		
		AM	PM	Daily	AM	PM	Daily	AM	PM	Daily	AM	PM	Daily
Single Family DU	4,797	0.7	0.8	9.3	0.5	0.6	6.9	3,427	3,899	44,719	2,568	2,881	33,141
Multi Family DU	2,239	0.5	0.5	6.2	0.3	0.4	4.6	1,020	1,210	13,922	769	891	10,288
Retail Employee	1,470	1.0	1.7	17.7	0.7	1.2	12.6	1,471	2,485	25,994	1,089	1,759	18,579
Other Employee	1,719	0.3	0.4	3.9	0.2	0.3	3.1	517	604	6,658	418	479	5,350
K12 Students	6,280	0.4	0.2	1.8	0.3	0.1	1.3	2,386	1,053	11,189	1,784	769	8,161
<i>SubTotal</i>								<i>8,820</i>	<i>9,250</i>	<i>102,481</i>	<i>6,627</i>	<i>6,779</i>	<i>75,519</i>
University Students	6,000	0.1	0.2	1.8	0.1	0.1	1.6	763	986	10,853	660	841	9,240
<i>Total</i>								<i>9,583</i>	<i>10,236</i>	<i>113,335</i>	<i>7,287</i>	<i>7,620</i>	<i>84,759</i>
<i>External Trips³</i>											<i>4,991</i>	<i>5,004</i>	<i>56,183</i>
NOTES: 1. Rates in the table may not compute exactly due to rounding. 2. Vehicle trip rates reflect internalization reduction. For trips internal to the Cordova Hills Project, half the trip is attributed to the origin and half to the destination. 3. Approximate of vehicle trips traveling outside the Cordova Hills specific plan Vehicle trip summary based on modified version of the SACMET travel demand forecasting (TDF) model. Source: DKS Associates, 2011													

Table ALT-24: Existing Conditions Expanded Footprint Intersection Operating Conditions

Intersection			Level of Service Methodology		AM Peak Hour						PM Peak Hour					
					Existing			Existing Plus Expanded Footprint			Existing			Existing Plus Expanded Footprint		
ID #	North-South Street	East-West Street	Analysis Methodology	Policy	Meets Signal Warrant	v/c or Delay ¹	LOS	Meets Signal Warrant	v/c or Delay ¹	LOS	Meets Signal Warrant	v/c or Delay ¹	LOS	Meets Signal Warrant	v/c or Delay ¹	LOS
Sacramento County																
1	S Watt Ave	Jackson Rd(SR-16)	Circular 212 Planning	E	--	0.80	C	--	0.90	D	--	0.90	D	--	0.94	E
2	Bradshaw Rd	Jackson Rd(SR-16)	Circular 212 Planning	E	--	0.96	E	--	0.99	E	--	0.87	D	--	0.96	E
3	Mather Blvd	Douglas Rd	2000 HCM 4-Way Stop	E	No	47.5	E	Yes	88.9	F	No	12.9	B	Yes	17.8	C
4	Excelsior Rd	Jackson Rd(SR-16)	Circular 212 Planning	E	--	0.57	A	--	0.65	B	--	0.55	A	--	0.62	B
5	Eagles Nest Rd	Jackson Rd(SR-16)	2000 HCM Unsignalized	E	No	12.5	B	No	20.7	C	No	21.3	C	Yes	95.4	F
6	Grant Line Rd	Sunrise Blvd	Circular 212 Planning	E	--	0.81	D	--	1.08	F	--	0.93	E	--	0.86	D
7	Grant Line Rd	White Rock Rd	2000 HCM Unsignalized	E	No	17.5	C	No	[xxxxx]	F	Yes	80.8	F	Yes	516.1	F
8	Prairie City Rd	White Rock Rd	2000 HCM 4-Way Stop	D	Yes	35.3	E	Yes	115.7	F	Yes	71.2	F	Yes	138.2	F
9	Scott Rd (W)	White Rock Rd	2000 HCM Unsignalized	D	No	14.2	B	Yes	17.9	C	No	17.1	C	No	18.7	C
10	Scott Rd (E)	White Rock Rd	2000 HCM 4-Way Stop	D	Yes	13.2	B	Yes	15.4	C	Yes	20.4	C	Yes	23.9	C
34	Town Center Dr	North Loop Rd	Circular 212 Planning	E	--	--	--	--	--	--	--	--	--	--	--	--
35	Town Center Dr	Chrysanthy Blvd	Circular 212 Planning	E	--	--	--	--	--	--	--	--	--	--	--	--
36	Town Center Dr	University Blvd	Circular 212 Planning	E	--	--	--	--	0.43	A	--	--	--	--	0.56	A
37	Street "A"	North Loop Rd	FHWA Roundabout	E	--	--	--	--	--	--	--	--	--	--	--	--
38	Street "A"	University Blvd	FHWA Roundabout	E	--	--	--	--	14.4	B	--	--	--	--	21.0	C
39	Street "A"	Street "B"	Circular 212 Planning	E	--	--	--	--	0.22	A	--	--	--	--	0.35	A
40	Street "C"	University Blvd	FHWA Roundabout	E	--	--	--	--	6.7	A	--	--	--	--	6.8	A
41	Street "D"	North Loop Rd	Circular 212 Planning	E	--	--	--	--	1.03	F	--	--	--	--	0.93	E
42	Street "D"	University Blvd	FHWA Roundabout	E	--	--	--	--	7.2	A	--	--	--	--	8.0	A
43	Street "D"	Street "A"	FHWA Roundabout	E	--	--	--	--	3.1	A	--	--	--	--	3.1	A
44	School Access	North Loop Rd	Circular 212 Planning	E	--	--	--	--	0.95	E	--	--	--	--	0.40	A
45	Street "F"	North Loop Rd	Circular 212 Planning	E	--	--	--	--	0.35	A	--	--	--	--	0.26	A
City of Elk Grove																
11	Grant Line Rd	Calvine Rd	2000 HCM Operations	D	--	16.3	B	--	16.5	B	--	13.1	B	--	15.3	B
City of Rancho Cordova																
12	Zinfandel Dr	White Rock Rd	Circular 212 Planning	D	--	0.61	B	--	0.68	B	--	0.94	E	--	1.00	E

Intersection			Level of Service Methodology		AM Peak Hour						PM Peak Hour					
					Existing			Existing Plus Expanded Footprint			Existing			Existing Plus Expanded Footprint		
ID #	North-South Street	East-West Street	Analysis Methodology	Policy	Meets Signal Warrant	v/c or Delay ¹	LOS	Meets Signal Warrant	v/c or Delay ¹	LOS	Meets Signal Warrant	v/c or Delay ¹	LOS	Meets Signal Warrant	v/c or Delay ¹	LOS
13	Sunrise Blvd	Folsom Blvd	Circular 212 Planning	D	--	0.76	C	--	0.82	D	--	0.64	B	--	0.66	B
14	Sunrise Blvd	White Rock Rd	Circular 212 Planning	D	--	0.74	C	--	1.05	F	--	0.82	D	--	1.09	F
15	Sunrise Blvd	Douglas Rd	Circular 212 Planning	D	--	0.52	A	--	1.10	F	--	0.45	A	--	0.74	C
16	Sunrise Blvd	Jackson Rd(SR-16)	Circular 212 Planning	D	--	0.95	E	--	1.13	F	--	0.84	D	--	0.99	E
17	Grant Line Rd	Jackson Rd(SR-16)	Circular 212 Planning	D	--	1.04	F	--	1.67	F	--	1.13	F	--	1.54	F
18	Grant Line Rd	Kiefer Blvd	2000 HCM 4-Way Stop	D	Yes	13.6	B	Yes	276.6	F	No	14.4	B	Yes	217.8	F
19	Grant Line Rd	Douglas Rd	2000 HCM Unsignalized	D	No	21.6	C	Yes	[xxxxx]	F	No	12.0	B	Yes	[xxxxx]	F
30	Grant Line Rd	North Loop Rd	2000 HCM Unsignalized	D		--	--	--	--	--		--	--	--	--	--
31	Grant Line Rd	Chrysanthy Blvd	2000 HCM Unsignalized	D		--	--	--	--	--		--	--	--	--	--
32	Grant Line Rd	University Blvd	2000 HCM Unsignalized	D		--	--	Yes	[xxxxx]	F		--	--	Yes	[xxxxx]	F
Caltrans State Highways																
20	Mather Field Rd	US-50 WB Ramps	2000 HCM Operations	E	--	20.6	C	--	20.4	C	--	16.3	B	--	16.7	B
21	Mather Field Rd	US-50 EB Ramps	2000 HCM Operations	E	--	21.7	C	--	21.4	C	--	17.3	B	--	17.3	B
22	Zinfandel Dr	US-50 WB Ramps	2000 HCM Operations	E	--	17.3	B	--	18.0	B	--	14.3	B	--	14.3	B
23	Zinfandel Dr	US-50 EB Ramps	2000 HCM Operations	E	--	28.6	C	--	32.3	C	--	134.6	F	--	132.9	F
24	Sunrise Blvd	US-50 WB Ramps	2000 HCM Operations	E	--	14.2	B	--	13.4	B	--	13.0	B	--	12.7	B
25	Sunrise Blvd	US-50 EB Ramps	2000 HCM Operations	E	--	19.2	B	--	18.7	B	--	17.6	B	--	17.1	B
26	Prairie City Rd	US-50 WB Ramps	2000 HCM Operations	E	--	20.2	C	--	20.2	C	--	23.0	C	--	23.2	C
27	Prairie City Rd	US-50 EB Ramps	2000 HCM Operations	E	--	17.0	B	--	17.1	B	--	16.7	B	--	17.4	B
28	Scott Rd	US-50 WB Ramps	2000 HCM Operations	E	--	19.7	B	--	20.0	B	--	12.5	B	--	11.8	B
29	Scott Rd	US-50 EB Ramps	2000 HCM Operations	E	--	16.3	B	--	16.5	B	--	15.1	B	--	15.2	B
<p>NOTES:</p> <p>¹ v/c = Volume-to-Capacity ratio, [xxxxx] indicates that the delay exceeds 500 seconds.</p> <p>Delay: At 4-Way Stop intersections (based on the 2000 HCM 4-Way Stop methodology) the reported delay is the average intersection delay.</p> <p>At unsignalized, 2-Way Stop intersections (based on the 2000 HCM Unsignalized methodology), the reported delay is for the worst approach.</p> <p>At signalized intersections (based on the 2000 HCM Operations), the reported delay is the intersection delay.</p> <p>Bold indicates deficiency. Shaded areas indicate impact.</p> <p>Source: DKS Associates, 2011</p>																

Table ALT-25: Cumulative Conditions Expanded Footprint Intersection Operating Conditions

Intersection			Level of Service Methodology		AM Peak Hour				PM Peak Hour			
					Cumulative		Cumulative Plus Expanded Footprint		Cumulative		Cumulative Plus Expanded Footprint	
ID #	North-South Street	East-West Street	Analysis Methodology	Policy	v/c or Delay ¹	LOS	v/c or Delay ¹	LOS	v/c or Delay ¹	LOS	v/c or Delay ¹	LOS
Sacramento County												
1	S Watt Ave	Jackson Rd(SR-16)	Circular 212 Planning	E	1.27	F	1.27	F	1.11	F	1.13	F
2	Bradshaw Rd	Jackson Rd(SR-16)	Circular 212 Planning	E	0.95	E	0.99	E	1.18	F	1.14	F
3	Zinfandel Dr ²	Mather Blvd ²	Circular 212 Planning	E	0.42	A	0.46	A	0.61	B	0.71	C
4	Excelsior Rd	Jackson Rd(SR-16)	Circular 212 Planning	E	0.72	C	0.76	C	1.14	F	1.14	F
5	Eagles Nest Rd	Jackson Rd(SR-16)	Circular 212 Planning	E	0.39	A	0.39	A	0.60	A	0.62	B
6	Grant Line Rd	Sunrise Blvd	Circular 212 Planning	E	0.89	D	0.93	E	1.11	F	1.11	F
7	Grant Line Rd	White Rock Rd	Circular 212 Planning	E	0.77	C	0.83	D	0.85	D	0.93	E
9	Scott Rd (W)	White Rock Rd	Circular 212 Planning	D	0.54	A	0.60	B	0.53	A	0.57	A
34	Town Center Dr	North Loop Rd	Circular 212 Planning	E	--	--	--	--	--	--	--	--
35	Town Center Dr	Chrysanthy Blvd	Circular 212 Planning	E	--	--	--	--	--	--	--	--
36	Town Center Dr	University Blvd	Circular 212 Planning	E	--	--	0.46	A	--	--	0.54	A
37	Street "A"	North Loop Rd	FHWA Roundabout	E	--	--	--	--	--	--	--	--
38	Street "A"	University Blvd	FHWA Roundabout	E	--	--	12.4	B	--	--	16.2	C
39	Street "A"	Street "B"	Circular 212 Planning	E	--	--	0.24	A	--	--	0.34	A
40	Street "C"	University Blvd	FHWA Roundabout	E	--	--	5.8	A	--	--	5.7	A
41	Street "D"	North Loop Rd	Circular 212 Planning	E	--	--	1.07	F	--	--	0.96	E
42	Street "D"	University Blvd	FHWA Roundabout	E	--	--	6.5	A	--	--	7.3	A
43	Street "D"	Street "A"	FHWA Roundabout	E	--	--	3.2	A	--	--	3.0	A
44	School Access	North Loop Rd	Circular 212 Planning	E	--	--	0.97	E	--	--	0.42	A
45	Street "F"	North Loop Rd	Circular 212 Planning	E	--	--	0.35	A	--	--	0.25	A
46	Vineyard Rd	Kiefer Blvd	Circular 212 Planning	E	0.90	D	0.96	E	0.90	D	0.94	E
47	Vineyard Rd	Jackson Rd(SR-16)	Circular 212 Planning	E	0.76	C	0.77	C	0.96	E	0.95	E
48	Excelsior Rd	Kiefer Blvd	Circular 212 Planning	E	0.71	C	0.76	C	0.59	A	0.58	A
50	Zinfandel Dr	Douglas Rd	Circular 212 Planning	E	0.53	A	0.57	A	0.72	C	0.80	C
51	Eagles Nest Rd	Kiefer Blvd	Circular 212 Planning	E	0.64	B	0.67	B	0.62	B	0.67	B
City of Folsom												
8	Prairie City Rd	White Rock Rd	2000 HCM Operations	C	16.9	B	19.6	B	19.4	B	20.8	C
10	Scott Rd (E)	White Rock Rd	2000 HCM Operations	C	33.2	C	34.7	C	15.5	B	15.5	B

Intersection			Level of Service Methodology		AM Peak Hour				PM Peak Hour			
					Cumulative		Cumulative Plus Expanded Footprint		Cumulative		Cumulative Plus Expanded Footprint	
ID #	North-South Street	East-West Street	Analysis Methodology	Policy	v/c or Delay ¹	LOS	v/c or Delay ¹	LOS	v/c or Delay ¹	LOS	v/c or Delay ¹	LOS
City of Elk Grove												
11	Grant Line Rd	Calvine Rd	2000 HCM Operations	D	11.5	B	11.7	B	8.5	A	9.0	A
City of Rancho Cordova												
12	Zinfandel Dr	White Rock Rd	Circular 212 Planning	D	0.80	D	0.81	D	1.28	F	1.28	F
13	Sunrise Blvd	Folsom Blvd	Circular 212 Planning	D	1.01	F	0.97	E	0.80	D	0.79	C
14	Sunrise Blvd	White Rock Rd	Circular 212 Planning	D	0.60	B	0.62	B	0.72	C	0.72	C
15	Sunrise Blvd	Douglas Rd	Circular 212 Planning	D	0.90	E	1.03	F	0.88	D	0.87	D
16	Sunrise Blvd	Jackson Rd(SR-16)	Circular 212 Planning	D	0.91	E	0.92	E	0.79	C	0.81	D
17	Grant Line Rd	Jackson Rd(SR-16)	Circular 212 Planning	D	0.63	B	0.72	C	0.63	B	0.63	B
18	Grant Line Rd	Kiefer Blvd	Circular 212 Planning	D	0.61	B	0.75	C	0.72	C	0.78	C
19	Grant Line Rd	Douglas Rd	Circular 212 Planning	D	0.58	A	1.02	F	0.56	A	0.80	D
30	Grant Line Rd	North Loop Rd	Circular 212 Planning	D	--	--	--	--	--	--	--	--
31	Grant Line Rd	Chrysanthy Blvd	Circular 212 Planning	D	0.48	A	0.57	A	0.39	A	0.61	B
32	Grant Line Rd	University Blvd	Circular 212 Planning	D	--	--	0.92	E	--	--	1.01	F
49	Zinfandel Dr	International Rd	Circular 212 Planning	D	0.90	E	0.92	E	1.23	F	1.27	F
52	Sunrise Blvd	International Dr	Circular 212 Planning	D	0.87	D	0.92	E	0.79	C	0.82	D
53	Sunrise Blvd	Chrysanthy Blvd	Circular 212 Planning	D	0.67	B	0.74	C	0.54	A	0.51	A
54	Sunrise Blvd	Kiefer Blvd	Circular 212 Planning	D	0.59	A	0.61	B	0.58	A	0.63	B
55	Rancho Cordova Pkwy	White Rock Rd	Circular 212 Planning	D	0.69	B	0.74	C	0.73	C	0.74	C
56	Rancho Cordova Pkwy	Douglas Rd	Circular 212 Planning	D	0.73	C	0.72	C	1.08	F	0.97	E
57	Rancho Cordova Pkwy	Chrysanthy Blvd	Circular 212 Planning	D	0.61	B	0.61	B	0.59	A	0.57	A
58	Rancho Cordova Pkwy	Kiefer Blvd	Circular 212 Planning	D	0.54	A	0.58	A	0.53	A	0.54	A
59	Rancho Cordova Pkwy	Grant Line Rd	Circular 212 Planning	D	0.46	A	0.57	A	0.45	A	0.51	A
60	International Dr	White Rock Rd	Circular 212 Planning	D	0.36	A	0.35	A	0.44	A	0.45	A
61	Americanos Blvd	Douglas Rd	Circular 212 Planning	D	0.45	A	0.50	A	0.68	B	0.62	B
62	Americanos Blvd	Chrysanthy Blvd	Circular 212 Planning	D	0.27	A	0.32	A	0.36	A	0.36	A
Caltrans State Highways												
20	Mather Field Rd	US-50 WB Ramps	2000 HCM Operations	E	23.7	C	23.0	C	22.5	C	22.4	C
21	Mather Field Rd	US-50 EB Ramps	2000 HCM Operations	E	36.5	D	36.9	D	19.7	B	20.9	C
22	Zinfandel Dr	US-50 WB Ramps	2000 HCM Operations	E	15.9	B	15.4	B	20.2	C	20.1	C
23	Zinfandel Dr	US-50 EB Ramps	2000 HCM Operations	E	57.4	E	56.6	E	122.4	F	119.2	F

Intersection			Level of Service Methodology		AM Peak Hour				PM Peak Hour			
					Cumulative		Cumulative Plus Expanded Footprint		Cumulative		Cumulative Plus Expanded Footprint	
ID #	North-South Street	East-West Street	Analysis Methodology	Policy	v/c or Delay ¹	LOS	v/c or Delay ¹	LOS	v/c or Delay ¹	LOS	v/c or Delay ¹	LOS
24	Sunrise Blvd	US-50 WB Ramps	2000 HCM Operations	E	23.4	C	23.1	C	31.1	C	31.4	C
25	Sunrise Blvd	US-50 EB Ramps	2000 HCM Operations	E	21.6	C	21.5	C	19.8	B	20.0	C
26	Prairie City Rd	US-50 WB Ramps	2000 HCM Operations	E	20.1	C	20.1	C	34.5	C	34.9	C
27	Prairie City Rd	US-50 EB Ramps	2000 HCM Operations	E	12.1	B	11.8	B	14.7	B	14.3	B
28	Scott Rd	US-50 WB Ramps	2000 HCM Operations	E	15.3	B	15.4	B	13.7	B	14.0	B
29	Scott Rd	US-50 EB Ramps	2000 HCM Operations	E	19.4	B	19.4	B	16.1	B	16.1	B
63	Rancho Cordova Pkwy	US-50 WB Ramps	2000 HCM Operations	E	20.2	C	20.4	C	25.1	C	25.7	C
64	Rancho Cordova Pkwy	US-50 EB Ramps	2000 HCM Operations	E	12.2	B	13.1	B	21.1	C	21.2	C
65	Oak Ave Pkwy	US-50 WB Ramps	2000 HCM Operations	E	14.1	B	14.2	B	9.0	A	8.5	A
66	Oak Ave Pkwy	US-50 EB Ramps	2000 HCM Operations	E	19.2	B	19.1	B	21.5	C	21.5	C
<p>NOTES:</p> <p>¹ v/c = Volume-to-Capacity ratio, Delay: At 4-Way Stop intersections (based on the 2000 HCM 4-Way Stop methodology) the reported delay is the average intersection delay.</p> <p>² The Zinfandel Drive extension project includes realigning Mather Boulevard to connect at Zinfandel Drive (see Figure 16)</p> <p>At unsignalized, 2-Way Stop intersections (based on the 2000 HCM Unsignalized methodology), the reported delay is for the worst approach.</p> <p>At signalized intersections (based on the 2000 HCM Operations), the reported delay is the intersection delay.</p> <p>Bold indicates deficiency. Shaded areas indicate impact.</p> <p>Source: DKS Associates, 2011</p>												

Table ALT-26: Existing and Existing Plus Expanded Footprint Roadway Operating Conditions

ID #	Roadway Segment	Facility	Lanes	Policy	Existing			Cumulative Plus Expanded Footprint		
					Volume	V/C	LOS	Volume	V/C	LOS
1	Grant Line Rd - Sheldon Rd to Calvin Rd	Rural S	2	D	12,800	0.64	E	14,300	0.72	E
2	Grant Line Rd - Calvin Rd to Sunrise Blvd	Rural S	2	E	14,200	0.71	E	17,000	0.85	E
3	Grant Line Rd - Sunrise Blvd to Jackson Rd (SR-16)	Rural S	2	E	7,900	0.40	D	13,500	0.68	E
4	Grant Line Rd - Jackson Rd (SR-16) to Kiefer Blvd	Rural S	2	D	7,800	0.39	D	21,900	1.10	F
5	Grant Line Rd - Kiefer Blvd to University Blvd	Rural S	2	D	6,500	0.33	C	22,000	1.10	F
6	Grant Line Rd - University Blvd to Chrysanthus Blvd	Rural S	2	D	6,500	0.33	C	11,500	0.58	D
7	Grant Line Rd - Chrysanthus Blvd to North Loop	Rural S	2	D	6,500	0.33	C	11,500	0.58	D
8	Grant Line Rd - North Loop to Douglas Rd	Rural S	2	D	6,500	0.33	C	11,500	0.58	D
9	Grant Line Rd - Douglas Rd to White Rock Rd	Rural NS	2	D	9,600	0.56	D	19,500	1.15	F
10	White Rock Rd - Kilgore Rd to Sunrise Blvd	Arterial M	6	E	27,000	0.50	A	36,400	0.67	B
11	White Rock Rd - Sunrise Blvd to Fitzgerald Rd	Arterial M	4	E	9,800	0.27	A	11,800	0.33	A
12	White Rock Rd - Fitzgerald Rd to Grant Line Rd	Rural NS	2	E	3,400	0.20	B	5,500	0.32	C
13	White Rock Rd - Grant Line Rd to Prairie City Rd	Rural NS	2	E	9,900	0.58	D	16,000	0.94	E
14	White Rock Rd - Prairie City Rd to Scott Rd (South)	Rural NS	2	D	7,000	0.41	D	8,900	0.52	D

ID #	Roadway Segment	Facility	Lanes	Policy	Existing			Cumulative Plus Expanded Footprint		
					Volume	V/C	LOS	Volume	V/C	LOS
15	White Rock Rd - Scott Rd (South) to Scott Rd (North)	Rural NS	2	D	7,000	0.41	D	8,900	0.52	D
16	White Rock Rd - Scott Rd (North) to County Line	Rural NS	2	D	7,500	0.44	D	8,000	0.47	D
17	Jackson Rd (SR-16) - Watt Ave to Bradshaw Rd	Arterial M	2	E	12,800	0.71	C	14,800	0.82	D
18	Jackson Rd (SR-16) - Bradshaw Rd to Excelsior Rd	Rural Hwy	2	E	10,800	0.47	D	14,500	0.63	E
19	Jackson Rd (SR-16) - Excelsior Rd to Eagles Nest Rd	Rural Hwy	2	E	9,200	0.40	D	14,500	0.63	E
20	Jackson Rd (SR-16) - Eagles Nest Rd to Sunrise Blvd	Rural Hwy	2	E	9,200	0.40	D	14,500	0.63	E
21	Jackson Rd (SR-16) - Sunrise Blvd to Grant Line Rd	Rural Hwy	2	D	13,000	0.57	D	19,500	0.85	E
22	Douglas Rd - Mather Blvd to Eagles Nest Rd	Arterial M	2	E	6,500	0.36	A	8,400	0.47	A
23	Douglas Rd - Eagles Nest Rd to Sunrise Blvd	Arterial M	2	D	6,300	0.35	A	8,200	0.46	A
24	Douglas Rd - Sunrise Blvd to Rancho Cordova Pkwy	Arterial M	2	D	4,400	0.24	A	22,500	1.25	F
25	Douglas Rd - Rancho Cordova Pkwy to Grant Line Rd	Arterial M	2	D	2,300	0.13	A	22,900	1.27	F
26	Kiefer Blvd - Grant Line Rd to Jackson Rd (SR-16)	Rural NS	2	D	2,900	0.17	B	4,400	0.26	C
27	Sunrise Blvd - US 50 to Folsom Blvd	Arterial M	6	D	54,500	1.01	F	57,600	1.07	F
28	Sunrise Blvd - Folsom Blvd to White Rock Rd	Arterial M	6	D	49,500	0.92	E	53,700	0.99	E
29	Sunrise Blvd - White Rock Rd to Douglas Rd	Arterial M	6	D	28,200	0.52	A	44,700	0.83	D

ID #	Roadway Segment	Facility	Lanes	Policy	Existing			Cumulative Plus Expanded Footprint		
					Volume	V/C	LOS	Volume	V/C	LOS
30	Sunrise Blvd - Jackson Rd (SR-16) to Florin Rd	Rural S	2	E	11,100	0.56	D	11,100	0.56	D
31	Mather Blvd - Douglas Rd to Femoyer St	Arterial M	2	D	6,500	0.36	A	8,500	0.47	A
32	Zinfandel Dr - US-50 to White Rock Rd	Arterial M	6	D	43,300	0.80	D	47,500	0.88	D
33	Prairie City Rd - US-50 to White Rock Rd	Rural NS	2	D	5,900	0.35	C	10,600	0.62	E
34	Scott Rd - US-50 to White Rock Rd	Rural NS	2	D	4,800	0.28	C	6,600	0.39	D
35	North Loop Rd - Grant Line Rd to Town Center Dr	Arterial M	4	E	--	--	--	29,800	0.83	D
36	North Loop Rd - Town Center Dr to Street A	Arterial M	4	E	--	--	--	29,800	0.83	D
37	North Loop Rd - Street A to Street D	Arterial M	4	E	--	--	--	11,100	0.31	A
38	North Loop Rd - Street D to Street F	Arterial L	4	E	--	--	--	6,000	0.20	A
39	North Loop Rd - Street F to University Blvd	Residential NF	2	E	--	--	--	3,700	0.37	A
40	Chrysanthy Blvd - Grant Line Rd to Town Center Dr	Arterial M	4	E	--	--	--			
41	University Blvd - Grant Line Rd to Town Center Dr	Arterial M	4	E	--	--	--	25,800	0.72	C
42	University Blvd - Town Center Dr to Street A	Arterial M	4	E	--	--	--	18,600	0.52	A
43	University Blvd - Street A to Street C	Arterial M	2	E	--	--	--	11,800	0.66	B
44	University Blvd - Street C to Street D	Arterial M	2	E	--	--	--	11,300	0.63	B
45	University Blvd - Street D to Street E	Residential NF	2	E	--	--	--	6,900	0.69	B
46	University Blvd - Street E to North Loop Rd	Residential NF	2	E	--	--	--	3,600	0.36	A
47	Town Center Dr - North Loop Rd to Chrysanthy Blvd	Arterial L	2	E	--	--	--			
48	Town Center Dr - Chrysanthy Blvd to University Blvd	Arterial L	2	E	--	--	--			

ID #	Roadway Segment	Facility	Lanes	Policy	Existing			Cumulative Plus Expanded Footprint		
					Volume	V/C	LOS	Volume	V/C	LOS
49	Street A - North Loop Rd to University Blvd	Residential NF	2	E	--	--	--	1,700	0.17	A
50	Street A - University Blvd to Street B	Residential NF	2	E	--	--	--	9,600	0.96	E
51	Street A - Street B to Street D	Residential NF	2	E	--	--	--	5,100	0.51	A
52	Street D - North Loop Rd to University Blvd	Arterial L	2	E	--	--	--	13,200	0.88	D
53	Street D - University Blvd to Street A	Residential NF	2	E	--	--	--	8,800	0.88	D
54	Street E - University Blvd to Street A	Residential F	2	E	--	--	--	3,700	0.46	C
<p>NOTES:</p> <p>LOS = level of service; SR = State Route; U.S. 50 = U.S. Highway 50; V/C = volume-to-capacity; Arterial M = medium access control arterial; Arterial L = low access control arterial; Rural Hwy = rural highway; Rural NS = rural road with no shoulders; Rural NS = rural road with shoulders; Residential NF = residential collector without frontage; Residential F = residential collector with frontage.</p> <p>Bold indicates deficiency. Shaded areas indicate impact.</p> <p>Source: DKS Associates, 2011</p>										

Table ALT-27: Cumulative and Cumulative Plus Expanded Footprint Roadway Operating Conditions

ID #	Roadway Segment	Facility	Lanes	Policy	Cumulative			Cumulative Plus Expanded Footprint		
					Volume	V/C	LOS	Volume	V/C	LOS
1	Grant Line Rd - Sheldon Rd to Calvine Rd	Arterial M	4	D	25,700	0.71	C	26,900	0.75	C
2	Grant Line Rd - Calvine Rd to Sunrise Blvd	Arterial M	4	E	29,500	0.82	D	31,400	0.87	D
3	Grant Line Rd - Sunrise Blvd to Jackson Rd (SR-16)	Arterial M	4	E	21,400	0.59	A	23,500	0.65	B
4	Grant Line Rd - Jackson Rd (SR-16) to Rancho Cordova Pkwy	Arterial M	4	D	24,000	0.67	B	29,800	0.83	D
5	Grant Line Rd - Rancho Cordova Pkwy to Kiefer Blvd	Arterial M	4	D	25,900	0.72	C	33,600	0.93	E
6	Grant Line Rd - Kiefer Blvd to University Blvd	Arterial M	4	D	20,400	0.57	A	33,900	0.94	E
7	Grant Line Rd - University Blvd to Chrysanthy Blvd	Arterial M	4	D	20,400	0.57	A	29,000	0.81	D
8	Grant Line Rd - Chrysanthy Blvd to North Loop	Arterial M	4	D	24,600	0.68	B	28,300	0.79	C
9	Grant Line Rd - North Loop to Douglas Rd	Arterial M	4	D	24,600	0.68	B	28,300	0.79	C
10	Grant Line Rd - Douglas Rd to White Rock Rd	Arterial M	4	D	34,700	0.96	E	41,200	1.14	F
11	White Rock Rd - Kilgore Rd to Sunrise Blvd	Arterial M	6	E	24,200	0.45	A	24,400	0.45	A
12	White Rock Rd - Sunrise Blvd to Rancho Cordova Pkwy	Arterial M	6	E	16,600	0.31	A	16,600	0.31	A
13	White Rock Rd - Rancho Cordova Pkwy to Americanos Blvd	Arterial M	6	E	11,700	0.22	A	12,100	0.22	A
14	White Rock Rd - Americanos Blvd to Grant Line Rd	Arterial M	6	D	12,300	0.23	A	13,300	0.25	A
15	White Rock Rd - Grant Line Rd to Prairie City Rd	Arterial M	6	E	44,000	0.81	D	51,300	0.95	E

ID #	Roadway Segment	Facility	Lanes	Policy	Cumulative			Cumulative Plus Expanded Footprint		
					Volume	V/C	LOS	Volume	V/C	LOS
16	White Rock Rd - Prairie City Rd to Scott Rd (South)	Arterial M	6	D	31,400	0.58	A	35,000	0.65	B
17	White Rock Rd - Scott Rd (South) to Scott Rd (North)	Arterial M	6	D	31,700	0.59	A	35,000	0.65	B
18	White Rock Rd - Scott Rd (North) to County Line	Arterial M	4	D	21,200	0.59	A	22,700	0.63	B
19	Jackson Rd (SR-16) - Watt Ave to Bradshaw Rd	Arterial M	6	E	66,900	1.24	F	67,200	1.24	F
20	Jackson Rd (SR-16) - Bradshaw Rd to Vineyard Rd	Arterial M	6	E	55,300	1.02	F	56,000	1.04	F
21	Jackson Rd (SR-16) - Vineyard Rd to Excelsior Rd	Arterial M	6	E	35,200	0.65	B	36,700	0.68	B
22	Jackson Rd (SR-16) - Excelsior Rd to Eagles Nest Rd	Arterial M	4	E	22,500	0.63	B	24,500	0.68	B
23	Jackson Rd (SR-16) - Eagles Nest Rd to Sunrise Blvd	Arterial M	4	E	24,600	0.68	B	26,200	0.73	C
24	Jackson Rd (SR-16) - Sunrise Blvd to Grant Line Rd	Arterial M	4	D	29,100	0.81	D	31,600	0.88	D
25	Douglas Rd - Excelsior Rd to Eagles Nest Rd	Arterial M	4	E	19,800	0.55	A	17,700	0.49	A
26	Douglas Rd - Eagles Nest Rd to Sunrise Blvd	Arterial M	6	D	31,100	0.58	A	35,300	0.65	B
27	Douglas Rd - Sunrise Blvd to Rancho Cordova Pkwy	Arterial M	6	D	36,100	0.67	B	44,500	0.82	D
28	Douglas Rd - Rancho Cordova Pkwy to Americanos Blvd	Arterial M	6	D	17,100	0.32	A	31,300	0.58	A
29	Douglas Rd - Americanos Blvd to Grant Line Rd	Arterial M	6	D	10,300	0.19	A	29,900	0.55	A
30	Kiefer Blvd - Bradshaw Rd to Vineyard Rd	Arterial M	4	D	28,400	0.79	C	30,500	0.85	D

ID #	Roadway Segment	Facility	Lanes	Policy	Cumulative			Cumulative Plus Expanded Footprint		
					Volume	V/C	LOS	Volume	V/C	LOS
31	Kiefer Blvd - Vineyard Rd to Excelsior Rd	Arterial M	4	D	23,000	0.64	B	25,700	0.71	C
32	Kiefer Blvd - Excelsior Rd to Eagles Nest Rd	Arterial M	4	D	11,500	0.32	A	13,800	0.38	A
33	Kiefer Blvd - Eagles Nest Rd to Sunrise Blvd	Arterial M	4	D	16,300	0.45	A	18,200	0.51	A
34	Kiefer Blvd - Sunrise Blvd to Rancho Cordova Pkwy	Arterial M	4	D	18,400	0.51	A	20,400	0.57	A
35	Kiefer Blvd - Rancho Cordova Pkwy to Grant Line Rd	Arterial M	4	D	6,800	0.19	A	9,300	0.26	A
36	Kiefer Blvd - Grant Line Rd to Jackson Rd (SR-16)	Rural NS	2	D	7,000	0.41	D	7,700	0.45	D
37	Sunrise Blvd - US 50 to Folsom Blvd	Arterial M	6	D	62,300	1.15	F	63,300	1.17	F
38	Sunrise Blvd - Folsom Blvd to White Rock Rd	Arterial M	6	D	54,800	1.01	F	56,900	1.05	F
39	Sunrise Blvd - White Rock Rd to Douglas Rd	Arterial M	6	D	41,200	0.76	C	44,700	0.83	D
40	Sunrise Blvd - Jackson Rd (SR-16) to Florin Rd	Arterial M	4	E	22,400	0.62	B	23,300	0.65	B
41	Mather Blvd - Douglas Rd to Femoyer St	Arterial M	2	D	5,900	0.33	A	6,400	0.36	A
42	Zinfandel Dr - US-50 to White Rock Rd	Arterial M	6	D	80,600	1.49	F	81,900	1.52	F
43	Zinfandel Dr - White Rock Rd to International Dr	Arterial M	6	D	55,000	1.02	F	56,800	1.05	F
44	Zinfandel Dr - International Dr to Douglas Rd	Arterial M	6	D	30,600	0.57	A	34,900	0.65	B
45	Prairie City Rd - US-50 to Easton Valley Pkwy	Arterial M	6	D	27,600	0.51	A	29,100	0.54	A
46	Prairie City Rd - Easton Valley Pkwy to White Rock Rd	Arterial M	4	D	19,100	0.53	A	21,200	0.59	A
47	Scott Rd - US-50 to Easton Valley Pkwy	Arterial M	6	D	43,100	0.80	C	44,500	0.82	D

ID #	Roadway Segment	Facility	Lanes	Policy	Cumulative			Cumulative Plus Expanded Footprint		
					Volume	V/C	LOS	Volume	V/C	LOS
48	Scott Rd - Easton Valley Pkwy to White Rock Rd	Arterial M	4	D	19,800	0.55	A	21,500	0.60	A
49	Chrysanthy Blvd - Sunrise Blvd to Rancho Cordova Pkwy	Arterial M	4	D	10,800	0.30	A	11,500	0.32	A
50	Chrysanthy Blvd - Rancho Cordova Pkwy to Americanos Blvd	Arterial M	4	D	19,400	0.54	A	20,100	0.56	A
51	Chrysanthy Blvd - Americanos Blvd to Grant Line Rd	Arterial M	4	D	6,100	0.17	A	11,800	0.33	A
52	Rancho Cordova Pkwy - White Rock Rd to Douglas Rd	Arterial M	6	D	33,600	0.62	B	35,300	0.65	B
53	Rancho Cordova Pkwy - Douglas Rd to Chrysanthy Blvd	Arterial M	6	D	29,400	0.54	A	28,800	0.53	A
54	Rancho Cordova Pkwy - Chrysanthy Blvd to Kiefer Blvd	Arterial M	4	D	20,300	0.56	A	19,600	0.54	A
55	Rancho Cordova Pkwy - Kiefer Blvd to Grant Line Rd	Arterial M	4	D	6,800	0.19	A	8,700	0.24	A
56	Americanos Blvd - White Rock Rd to Douglas Rd	Arterial M	4	D	12,200	0.34	A	15,000	0.42	A
57	Americanos Blvd - Douglas Rd to Chrysanthy Blvd	Arterial M	4	D	7,600	0.21	A	7,600	0.21	A
58	Americanos Blvd - Chrysanthy Blvd to Kiefer Blvd	Arterial M	4	D	9,600	0.27	A	9,400	0.26	A
59	Oak Ave - US-50 to Easton Valley Pkwy	Arterial M	4	D	17,900	0.50	A	18,700	0.52	A
60	Oak Ave - Easton Valley Pkwy to White Rock Rd	Arterial M	4	D	3,100	0.09	A	3,200	0.09	A
61	North Loop Rd - Grant Line Rd to Town Center Dr	Arterial M	4	E	--	--	--	28,300	0.79	C

ID #	Roadway Segment	Facility	Lanes	Policy	Cumulative			Cumulative Plus Expanded Footprint		
					Volume	V/C	LOS	Volume	V/C	LOS
62	North Loop Rd - Town Center Dr to Street A	Arterial M	4	E	--	--	--	28,300	0.79	C
63	North Loop Rd - Street A to Street D	Arterial M	4	E	--	--	--	10,800	0.30	A
64	North Loop Rd - Street D to Street F	Arterial L	4	E	--	--	--	6,900	0.23	A
65	North Loop Rd - Street F to University Blvd	Residential NF	2	E	--	--	--	3,500	0.35	A
66	Chrysanthy Blvd - Grant Line Rd to Town Center Dr	Arterial M	4	E	--	--	--			
67	University Blvd - Grant Line Rd to Town Center Dr	Arterial M	4	E	--	--	--	27,900	0.78	C
68	University Blvd - Town Center Dr to Street A	Arterial M	4	E	--	--	--	20,600	0.57	A
69	University Blvd - Street A to Street C	Arterial M	2	E	--	--	--	11,500	0.64	B
70	University Blvd - Street C to Street D	Arterial M	2	E	--	--	--	10,700	0.59	A
71	University Blvd - Street D to Street E	Residential NF	2	E	--	--	--	6,700	0.67	B
72	University Blvd - Street E to North Loop Rd	Residential NF	2	E	--	--	--	3,500	0.35	A
73	Town Center Dr - North Loop Rd to Chrysanthy Blvd	Arterial L	2	E	--	--	--			
74	Town Center Dr - Chrysanthy Blvd to University Blvd	Arterial L	2	E	--	--	--			
75	Street A - North Loop Rd to University Blvd	Residential NF	2	E	--	--	--	2,100	0.21	A
76	Street A - University Blvd to Street B	Residential NF	2	E	--	--	--	10,100	1.01	F
77	Street A - Street B to Street D	Residential NF	2	E	--	--	--	5,500	0.55	A

ID #	Roadway Segment	Facility	Lanes	Policy	Cumulative			Cumulative Plus Expanded Footprint		
					Volume	V/C	LOS	Volume	V/C	LOS
78	Street D - North Loop Rd to University Blvd	Arterial L	2	E	--	--	--	13,000	0.87	D
79	Street D - University Blvd to Street A	Residential NF	2	E	--	--	--	8,400	0.84	D
80	Street E - University Blvd to Street A	Residential F	2	E	--	--	--	3,500	0.44	C
<p>NOTES:</p> <p>LOS = level of service; SR = State Route; U.S. 50 = U.S. Highway 50; V/C = volume-to-capacity; Arterial M = medium access control arterial; Arterial L = low access control arterial; Rural Hwy = rural highway; Rural NS = rural road with no shoulders; Rural NS = rural road with shoulders; Residential NF = residential collector without frontage; Residential F = residential collector with frontage.</p> <p>Bold indicates deficiency. Shaded areas indicate impact.</p> <p>Source: DKS Associates, 2011</p>										

Table ALT-28: Expanded Footprint Freeway Segment Operating Conditions

Roadway Segment	Lanes ml/hov/aux	Existing			Existing Plus Expanded Footprint			Cumulative			Cumulative Plus Expanded Footprint		
		Total Volume	Density	LOS	Total Volume	Density	LOS	Total Volume	Density	LOS	Total Volume	Density	LOS
AM Peak Hour													
US-50 EB Power Inn/Howe Ave to Watt Ave	4/1/0	7,230	34	D	7,350	35	E	8,950	42	E	9,060	43	E
US-50 EB Watt Ave to Bradshaw Rd	4/1/0	7,720	38	E	7,810	39	E	9,340	49	F	9,480	52	F
US-50 EB Bradshaw Rd to Mather Field Rd	4/1/0	7,200	34	D	7,270	34	D	8,680	40	E	8,770	41	E
US-50 EB Mather Field Rd to Zinfandel Dr	4/1/1	6,420	24	C	6,510	25	C	8,300	31	D	8,410	31	D
US-50 EB Rancho Cordova Pkwy to Hazel Ave	3/1/1	4,750	27	D	5,000	28	D	7,470	47	F	7,650	51	F
US-50 WB Hazel Ave to Rancho Cordova Pkwy	3/1/1	7,100	56	F	7,220	60	F	8,960	67	F	9,040	71	F
US-50 WB Zinfandel Dr to Mather Field Rd	4/1/1	7,420	29	D	7,550	30	D	9,550	34	D	9,700	35	D
US-50 WB Mather Field Rd to Bradshaw Rd	4/1/0	7,290	35	D	7,460	36	E	9,030	43	E	9,180	45	F
US-50 WB Bradshaw Rd to Watt Ave	4/1/0	7,870	40	E	8,070	42	E	10,010	55	F	10,210	60	F
US-50 WB Watt Ave to Power Inn/Howe Ave	4/1/1	8,350	34	D	8,560	36	E	10,670	44	E	10,870	47	F
PM Peak Hour													
US-50 EB Power Inn/Howe Ave to Watt Ave	4/1/0	7,550	37	E	7,690	38	E	9,590	43	E	9,710	44	E
US-50 EB Watt Ave to Bradshaw Rd	4/1/0	7,630	38	E	7,780	39	E	9,780	48	F	9,870	49	F
US-50 EB Bradshaw Rd to Mather Field Rd	4/1/0	6,920	32	D	7,030	33	D	8,670	36	E	8,730	36	E
US-50 EB Mather Field Rd to Zinfandel Dr	4/1/1	7,190	28	D	7,280	28	D	9,450	35	E	9,410	35	E
US-50 EB Rancho Cordova Pkwy to Hazel Ave	3/1/1	7,060	52	F	7,220	57	F	8,940	90	F	8,990	94	F
US-50 WB Hazel Ave to Rancho Cordova Pkwy	3/1/1	4,480	24	C	4,710	26	C	6,070	27	D	6,180	28	D
US-50 WB Zinfandel Dr to Mather Field Rd	4/1/1	6,370	28	D	6,450	29	D	8,210	26	D	8,220	26	D
US-50 WB Mather Field Rd to Bradshaw Rd	4/1/0	6,770	31	D	6,830	31	D	8,220	33	D	8,250	33	D
US-50 WB Bradshaw Rd to Watt Ave	4/1/0	7,590	37	E	7,680	38	E	9,660	48	F	9,680	48	F
US-50 WB Watt Ave to Power Inn/Howe Ave	4/1/1	7,130	27	D	7,240	28	D	9,170	31	D	9,180	31	D
NOTES: ml = main line; hov = high occupancy vehicle; aux = auxiliary lane; LOS = level of service; U.S. 50 = U.S. Highway 50 flow calculation assumes: free flow speed=65 mph; capacity of 2350 pc/h/ln; peak hour factor=0.9; heavy vehicle factor=0.976; population factor=1.0; and excludes hov volume and capacity auxiliary lane capacity is based on the Highway Capacity Manual volume-ratio (VR) methodology Bold indicates deficiency. Shaded areas indicate impact. Source: DKS Associates, 2011													

Table ALT-29: Expanded Footprint Freeway Ramp Operating Conditions

Roadway Segment	Lanes	Existing			Existing Plus Expanded Footprint			Cumulative			Cumulative Plus Expanded Footprint		
		Total Volume	Density	LOS	Total Volume	Density	LOS	Total Volume	Density	LOS	Total Volume	Density	LOS
AM Peak Hour													
US-50 EB Watt Ave Double Off	2	1,186	10.6	B	1,232	11.2	B	1,463	14.7	B	1,454	14.8	B
US-50 EB Watt Ave Loop On	1	1,484	36.0	E	1,488	36.2	E	1,524	38.0	E	1,521	38.2	E
US-50 EB Watt Ave Slip-On	1	619	31.7	D	643	31.9	D	772	33.5	F	779	33.7	F
US-50 WB Watt Ave Double Off	2	1,598	14.4	B	1,604	15.0	B	1,628	16.6	F	1,666	17.2	F
US-50 WB Watt Ave Loop On	1	708	36.5	E	716	37.4	E	872	39.9	E	893	40.2	E
US-50 WB Watt Ave Slip-On to Auxiliary	1	1,484	0.8	E	1,485	0.8	E	1,782	1.0	F	1,794	1.0	F
PM Peak Hour													
US-50 EB Watt Ave Double Off	2	1,570	14.2	B	1,598	14.8	B	1,835	18.3	F	1,884	18.8	F
US-50 EB Watt Ave Loop On	1	1,041	35.4	E	1,037	35.8	E	1,124	37.9	E	1,157	37.9	E
US-50 EB Watt Ave Slip-On	1	475	29.9	D	515	30.3	D	761	32.0	F	754	32.2	F
US-50 WB Watt Ave Double Off	2	2,146	17.7	B	2,137	18.0	B	2,248	21.0	F	2,257	21.1	F
US-50 WB Watt Ave Loop On	1	566	32.4	D	566	33.1	D	723	36.8	E	729	36.8	E
US-50 WB Watt Ave Slip-On to Auxiliary	1	1,041	0.6	C	1,046	0.6	C	1,261	0.7	D	1,255	0.7	D
NOTES: U.S. Highway 50; aux = auxiliary lane; LOS = level of service; Bold indicates deficiency. Shaded areas indicate impact. Source: DKS Associates, 2011													

ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The No Project Alternative is environmentally superior to the Project and other Alternatives, as the No Project Alternative will result in less than significant impacts to all impact categories. CEQA Guidelines Section 15126.6(e)(2) states that if the No Project Alternative is the environmentally superior Alternative, then a superior Alternative shall be identified from among the other Alternatives. Table ALT-30 and Table ALT-31 provide comparisons between the Project and the Alternatives. Table ALT-30 includes many of the quantifiable differences between the Project and Alternatives as it relates to impacts and utility demands. The table does not include impacts such as noise or transportation, because these impacts span multiple facilities and cannot be summarized in a single number. Table ALT-31 includes a list of the impact topics and notes whether the Project and Alternatives resulted in less than significant, significant but mitigable, or significant and unavoidable impacts.

Examining the comparison of significance conclusions included in Table ALT-31, the significance conclusions for the Expanded Preserves and the Expanded Footprint Alternatives are identical except for aesthetics, in which the conclusion for the Expanded Footprint Alternative was less than significant. This was due to the fact that the off-site homes north of the site would no longer be present, and thus would not be affected by the change in views. Though the Expanded Footprint Alternative results in one fewer significant impact, examining Table ALT-30 clearly shows that the Expanded Preserves Alternative results in the least amount of land being urbanized, of pollutants such as ozone precursors and ROG, of wetlands and other habitat loss, of greenhouse gas emissions, and of utility demand. For these reasons, the Expanded Preserves Alternative is considered the environmentally superior alternative.

Table ALT-30: Summary Comparison Of Quantified Impacts

Impact Topic	Project	No Project	Expanded Preserves	Expanded Footprint
Total Area	2,669 acres	2,669 acres	2,669 acres	3,531 acres
Total Urban Area	2,120 acres	10 acres	1,490 acres	1,979 acres
Total Avoided Area¹	549 acres (18%)	2,659 acres (96%)	1,179 acres (43%)	1,552 acres (57%)
Air Quality NO_x and ROG (lbs/day)	415.22 and 857.40	Not calculated	319.72 and 660.20	373.70 and 771.66
Biological Resources				
Wetland Loss	46% or 41 acres	0% or 0 acres	19% or 17 acres	19% or 21 acres
Grassland Loss	79% or 2,120 acres	<1% or 10 acres	56% or 1,490 acres	56% or 1,979 acres
Swainson's Hawk Habitat ¹ Loss	84% or 2,231 acres	<1% or 10 acres	65% or 1,736 acres	63% or 2,225 acres
Climate Change				
Greenhouse gas emissions per capita	5.80 MT	9.51 MT	5.57 MT	5.61 MT
Total greenhouse gas emissions	147,386 MT	258 MT	82,706 MT	96,993 MT
Water Demand	6,550 AFY	No public water	5,484 AFY	6,344 AFY
Sewage Disposal	16,094 ESD	No public sewer	12,484 ESD	15,346 ESD
Electricity Demand	122,903,000 kWh	Not calculated	72,003,000 kWh	104,002,000 kWh
Natural Gas Demand	4,201,494 therms	Not calculated	2,988,810 therms	3,704,664 therms

1. This total includes some areas designated Agriculture, which are to be placed in a conservation easement.

2. For landscape-level raptors, the central linear preserve is, conservatively, not considered viable foraging habitat.

Table ALT-31: Summary Comparison Of Alternatives and Project Conclusions

Impact Topic	Significance Conclusion		
	Less Than Significant	Less Than Significant With Mitigation	Significant and Unavoidable
Aesthetics	NP, Alt 2		Project, Alt 1 ^a
Agricultural	NP, Alt 1 & 2		
Air Quality			
Construction NO _x	NP	Project, Alt 1 & 2	
Operation NO _x	NP		Project, Alt 1 & 2
Construction PM	NP		Project, Alt 1 & 2
Air Quality Plans	NP		Project, Alt 1 & 2
Operational CO	NP, Project, Alt 1 & 2		
Toxic Air Contaminants	NP	Project, Alt 1 & 2	
Odors	NP	Project, Alt 1 & 2	
Biological Resources			
Wetland Loss	NP	Alt 1 & 2	Project
Bird Species	NP	Project, Alt 1 & 2	
Amphibian Species	NP	Project, Alt 1 & 2	
Invertebrate Species	NP	Alt 1 & 2	Project
Plant Species	NP	Project, Alt 1 & 2	
Climate Change	NP		Project, Alt 1 & 2
Cultural Resources	NP	Project, Alt 1 & 2	
Geology and Soils	NP, Project, Alt 1 & 2		
Hazardous Materials	NP, Project, Alt 1 & 2		
Hydrology and Water Quality	NP, Project, Alt 1 & 2		
Land Use	NP		Project, Alt 1 & 2
Noise	NP		Project, Alt 1 & 2
Public Services	NP, Project, Alt 1 & 2		
Public Utilities	NP		Project, Alt 1 & 2
Traffic and Circulation	NP		Project, Alt 1 & 2
NOTES; NP – No Project, Alt 1 – Expanded Preserves, Alt 2 – Expanded Footprint a. Only one viewer group so affected; all others are less than significant.			

3 AESTHETICS

INTRODUCTION

The quality of the visual experience associated with a project is not only dependent on the character of the project site, but also the individual perspective and values of the viewer. Typically, residents and recreational viewer groups are especially concerned about the appearance of their visual environment because their viewing experience is more than merely transitory. Perceived adverse visual impacts associated with a project can be the source of concerned opposition, even to projects that may otherwise be well-received.

It should be emphasized that when a viewer group perceives a negative change in the viewshed, this is not necessarily because the new development is unattractive. If a viewer had never seen pre-project conditions, their perception of the visual quality of a given project might be quite high. Thus, the impact typically occurs not because of the quality of the project in question, but rather because of the substantial change in the nature of the view. Many viewers value undisturbed open space views much more highly than views of urbanized or developed property, however well-designed and visually balanced the development may be.

Aesthetic impacts are subjective, and therefore are often treated as an impact topic where thorough objective analysis is not possible. Although visual impacts are subjective and may be viewed differently by various individuals, it is also true that residents of the United States agree on the high visual quality of many landscapes. These areas are often designated as national parks and scenic spots. These agreed-upon factors and concepts of natural beauty can be used to assess the visual impacts of a project.

This chapter addresses aesthetics and visual quality issues related to the development of the proposed Project and its alternatives. Existing aesthetic and visual resources of the Project area are documented. Standards to judge visual sensitivity are presented and relevant scenic resource issues are addressed.

EXISTING SETTING

VISUAL CHARACTER OF REGION

Sacramento County lies near the center of California's Central Valley, at the southern end of the Sacramento Valley. Open space views within the valley region are generally characterized by broad sweeping panoramas of flat agricultural lands and open space

dotted with trees, divided by numerous rivers and creeks. To the east, the Sierra Nevada and their foothills form a background, and the Coast Range provides a backdrop on the western horizon.

VISUAL CHARACTER OF PROJECT AREA

From the perspective of travelers on Grant Line Road, the Project site appears to have the flat topography typical of Sacramento County. This flat area is actually a plateau, after which the site elevations drop sharply into the first of three large intermittent drainages present on the site. All of the property to the east of the plateau – the bulk of the property – exhibits highly variable topography with many small rises and lower valleys. The eastern edge of the property is at a significantly higher elevation than the lands to the east of the site, providing expansive off-site views of rolling and oak-studded terrain, as well as views of the more-distant Sierra Nevada. The Project site is dominated by grassland and wetland areas. Property to the north is similar in character, while the property to the south is visually dominated by the presence of the Kiefer landfill. Land to the west is typical of Sacramento County – flat open fields, and some residential and commercial development within the City of Rancho Cordova, currently about one mile to the west.

SCENIC VIEWS AND RESOURCES

Visual resources are classified in two categories: scenic views and scenic resources. Scenic resources are described in the CEQA Environmental Checklist as specific features of a viewing area (or viewshed) such as trees, rock outcroppings, and historic buildings. They are specific features that act as the focal point of a viewshed and are usually foreground elements. Scenic views are elements of the broader viewshed such as mountain ranges, valleys, and ridgelines. They are usually middle ground or background elements of a viewshed that can be seen from a range of viewpoints, often along a roadway or other corridor. The Sierra Nevada mountain range, which is visible from various viewing locations (though haze can block views), is an important scenic view in the area. Scott Road and Latrobe Road, which lie to the east and south of the site, are designated by the Sacramento County General Plan Scenic Highways Element as “scenic corridors”.

LIGHT AND GLARE SOURCES

The unincorporated urban areas of the County include existing sources of daytime glare and nighttime lighting and illumination. Sources of daytime glare include direct beam sunlight and reflections from windows, architectural coatings, glass and other shiny reflective surfaces. Such glare usually only impacts the immediate environment, except in cases where buildings are high-rise and can be seen from greater distances. Nighttime light illumination and associated glare can be divided into stationary and mobile sources. Stationary sources of nighttime light include structure illumination, decorative landscape lighting, and lighted parking lots. Mobile sources are the vehicles traveling on roadways. The unincorporated rural and agricultural areas of the County,

which includes the site, are sparsely developed and used for agriculture. These rural land uses typically do not generate substantial amounts of glare, lighting, or illumination, and the ambient nighttime lighting and illumination levels are very low.

REGULATORY SETTING

TITLE 24 OUTDOOR LIGHTING

The 2008 Building Efficiency Standards of Title 24 include regulations for outdoor lighting characteristics such as maximum power and brightness, shielding, and sensor controls to turn lighting on and off. Different lighting standards are set by classifying areas by lighting zone, which are zones LZ1 through LZ4. The ambient illumination for LZ1 is “dark”, for LZ2 is “low”, for LZ3 is “medium”, and for LZ4 is “high” (see Table 10-114-A of the Building Efficiency Standards). Lighting regulations for areas of lower ambient lighting are more strict – providing lower wattage allowances – in order to protect those areas from new sources of light pollution and light trespass. The Project is within zone LZ2.

2030 SACRAMENTO COUNTY GENERAL PLAN

The General Plan policies applicable to the Project are:

- CI-53. Roadway improvements along established scenic corridors shall be designed and constructed so as to minimize impacts to the scenic qualities of the corridor.
- CI-58. Continue to provide scenic corridor protection for Scott Road from White Rock Road south to Latrobe Road, Michigan Bar Road, and Twin Cities Road from Highway 160 east to Highway 99.
- CI-61. Study additional roads which would appropriately be designated as County Scenic Corridors. Roads to be considered are Jackson Highway in the foothills, Stonehouse Road, approach roads to the City of Folsom, the balance of Twin Cities Road, Lone Road, Meiss Road, and all roads running through the Permanent Agricultural lands.
- CO-117. Public roads, parking, and associated fill slopes shall be located outside of the stream corridor, except at stream crossings and for purposes of extending or setting back levees. The construction of public roads and parking should utilize structural materials to facilitate permeability. Crossings shall be minimized and be aesthetically compatible with naturalistic values of the stream channel.
- LU-18. Encourage development that complements the aesthetic style and character of existing development nearby to help build a cohesive identity for the area.

LU-31. Strive to achieve a natural nighttime environment and an uncompromised public view of the night sky by reducing light pollution.

In addition to the policies from the Land Use Element above, the Conservation element states its primary goal as: “Natural resources managed and protected for the use and **enjoyment** of present and future generations while maintaining the long-term ecological health and balance of the environment.” [emphasis added] The concept of enjoyment includes appreciation of scenic resources and visual beauty.

SACRAMENTO COUNTY ZONING CODE

Title 1 (General Provisions) of the Zoning Code contains standards requiring that illumination of buildings, landscaping, signs, and parking and loading areas be shielded and directed so that no light trespasses onto adjacent properties. Title III (Use Regulations and Development Standards) requires that lighting shall be directed away from residential areas and public streets so that glare is not produced that could impact the general safety of vehicular traffic and the privacy and well-being of residents.

SIGNIFICANCE CRITERIA

The degree of impact of a project, either negative or beneficial, to the visual character of the area is largely subjective. Few objective or quantitative standards are available to analyze visual quality, and individual viewers respond differently to changes in the physical environment. Based on the CEQA Guidelines Appendix G, a project would have a significant impact on aesthetics if it would:

1. Have a substantial adverse effect on a scenic vista;
2. Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway;
3. Substantially degrade the existing visual character or quality of the site and its surroundings; and/or
4. Create a new substantial source of light and glare, which would adversely affect day or nighttime views in the area.

METHODOLOGY

The United States Department of Transportation, Federal Highway Administration (FHWA) developed a manual to aid in the preparation of visual assessments for highway projects. Although the proposed Project is not for a highway or other roadway, the key concepts established by FHWA apply to all visual settings and were used to

help evaluate the visual character and quality of the region and the Project site. Many of these same key concepts are used to evaluate aesthetics in many contexts, including artistic compositions, architecture, and residential landscaping design. For the purposes of landscapes, the concepts of vividness, intactness, and unity define visual quality. Definitions of key terms and the Project impacts to visual quality and character are described below.

- *Vividness* is a measure of the visual impression that remains in the memory of the viewer (e.g. Niagra Falls). Vivid visual experiences are striking and distinctive.
- *Intactness* is the visual integrity of the natural and built landscape. Intact landscapes are unobstructed visual experiences.
- *Unity* is the coherent inter-compatibility of connected landscape elements. A high degree of unity creates a harmonious visual pattern.

Visual character is derived from visual pattern elements and their dominance, scale (apparent size relationship), diversity, and/or continuity (uninterrupted flow of patterns). Visual pattern elements include form (visual mass or shape), line (silhouette), color, and texture (apparent coarseness). Although visual character and quality can be described objectively, there is no established official process that will identify all areas of high visual quality. Therefore in part visual quality is often defined by viewer sensitivity. Viewer sensitivity is defined using the following criteria:

- Visibility of resources in the landscape
- Proximity of viewers to the visual resource
- Elevation of viewers relative to the visual resource
- Frequency and duration of views
- Number of viewers
- Types and expectations of individuals and viewer groups

Plate AE-1 and Plate AE-2, below, are examples of high and low visual quality in Sacramento County. In the first image there are no encroachments (highly intact), the site is unified, and the clouds and landscape combine to provide diversity in the view. In the second image, the view is diverse, but the entire view is taken up by encroachments and the site contains multiple elements that are not cohesive.

Plate AE-1: Example of High Visual Quality



Deer Creek Hills Preserve, photo from the Sacramento Valley Open Space Conservancy

Plate AE-2: Example of Low Visual Quality



VIEWER GROUPS

The visual experience is a combination of visual resources and viewer response. Different viewer groups respond differently to visual environments. The opinions or preferences of different groups depend on viewer activity and awareness, local values and the cultural significance of the visual resources. Viewer activity affects the viewers' ability to perceive the landscape. Depending on the activity, a viewer may be attracted or distracted from the landscape. For example, a person reclining in a backyard or sitting on a bench will be encouraged to view the landscape, whereas a person driving along a road on an errand will be distracted from the landscape and concentrate more on the road itself.

Viewer awareness also affects the viewer's receptivity to the landscape. Viewer awareness is affected by position, preconceptions, and recent visual experience. If viewer sensitivity is very high, any visible change in the area may be discouraged. The following groups are likely to have views of the Project: people passing by on Douglas Road and/or living in Rancho Cordova near Douglas Road, people passing by on Grant Line Road, people passing by on Kiefer Road, people in the vicinity of Latrobe Road, and existing residents to the north. To aid in the analysis, the firm Post, Buckley, Schuh, & Jernigan, Inc (hereinafter called PBS&J, though the company is now called Atkins) conducted a site visit and took photographs from different vantage points in and around the community. Representative photos have been included in this document, as have photosimulations of the Project. Views from Scott Road were not considered because after examining the views it was determined that the presence of trees and hills in between the site and the roadway would largely prevent the site from being viewed.

The visual character and availability of site views varies considerably depending on the viewing location. For this reason, the analyses to follow are separated by viewing location/viewer group. Photo exhibits accompany each of the viewing location/group discussions: a photograph of the existing viewing condition and a photosimulation of the Project from that viewing location. An exhibit of these photo locations and the viewing direction is included as Plate AE-3.

IMPACT QUANTIFICATION METHODOLOGY

The FHWA guidance manual contains a numeric formula to quantify the change in visual quality. Each of the three primary characteristics (vividness, intactness, and unity) is given a numeric rating between 1 and 7 (from very low to very high). The following formula is then applied: $(\text{Vividness} + \text{Intactness} + \text{Unity})/3$. The numeric difference between the existing visual quality and the proposed visual quality is a representation of the impact to the Project site. Table VA-1 provides a basic explanation of some (not all) factors to take into account when applying the scale.

The perceived impact to the quality of a view is not a strict linear function. If a project resulted in a decrease of 2 points of visual quality, the degree to which viewers would be affected by that decrease would depend on the initial quality of the site. When a site

is considered of high visual quality, even small decreases in the quality are much more noticeable and remarked on. However, when a site is only of moderate or low visual quality, observers do not tend to be as affected by the change. The significance of a decrease in visual quality will also depend on how often and for how long the site will be viewed.

Table AE-1: Evaluation Scale

Scale	Vividness	Human-made development	Encroachments or Eyesores	Unity/Intactness
7	Very High	None	None	Very High
6	High	Little	Few	High
5	Moderately High	Some	Some	Moderately High
4	Average	Average	Average	Average
3	Moderately Low	Moderately High	Several	Moderately Low
2	Low	High	Many	Low
1	Very Low	Very High	Very Many	Very Low

Plate AE-3: Viewpoint Map



IMPACTS AND ANALYSIS

IMPACT: DEGRADATION OF EXISTING VIEWS AND VISUAL QUALITY

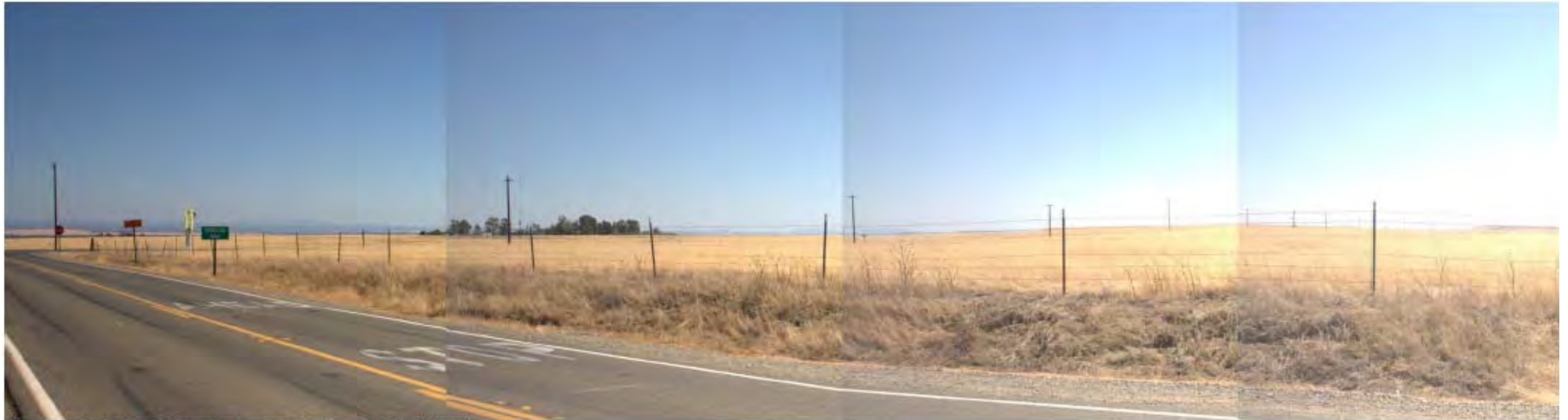
DOUGLAS ROAD/RANCHO CORDOVA VIEWER GROUP (VIEWPOINT 1)

In the existing condition, the views from Douglas Road include the relatively flat grassland plateau of the site against the backdrop of the distant Sierra Nevada mountains (refer to Plate AE-4). There is a series of radio transmission towers on property north of the site, but these do not dominate the viewshed because though they are tall and striped with red, they are also quite thin. The towers are visible in Plate AE-4 rising above the trees.

The primary visual break in this view is a grouping of trees at the northern end of the Project site. Most of these trees are part of an olive orchard that surrounds a home and other appurtenant structures that are just off-site (none of the structures are apparent). This collection of trees is particularly dominant in the landscape during the late summer, because while the majority of the viewshed is taken up by smooth-textured, low-profile, and wheat-colored grasslands, the trees are tall, dark green, and rough-textured. During the winter the contrast is not as high, and thus the trees are not as dominant. The grasses and trees are both green as the winter rains begin, and then in the spring there are areas of various colors (including white, yellow, and purple) where flowers are blooming. In late spring and early summer, the site becomes two-toned, as upland grasses begin to dry to shades of brown but the wetland areas remain green.

The grouping of trees actually detracts from the visual quality of the view, because they are so unique and dominant in the landscape that they are not unified with the rest of the view. The trees draw the eye of the viewer somewhat away from the whole. Nonetheless, the overall impression is still one of openness and continuity; the views are highly intact – meaning that there are few unattractive or negative encroachments in the view. The only encroachments are the line of telephone poles, some fencing, and the road itself. Though the terrain off-site to the east of the Project actually drops off and the landscape alters significantly to become rolling and tree studded, this is not perceptible from Douglas Road. The grasslands appear to continue unbroken all the way up to the foot of the Sierra Nevada visible in the distance. Though unified and intact, the uniformity of the view means that it is not particularly vivid. One cannot distinguish the Project site from the surrounding grasslands – there is nothing particularly memorable or striking. Existing condition vividness is rated 2 (low), while unity and intactness is rated 6 (high), for an average rating of 5 (moderately high).

Plate AE-4: View from Douglas Road



Viewpoint 1 – Before Project Implementation (Existing Conditions)



Viewpoint 1 – After Project Implementation

As shown on Plate AE-4, the Project will remove the illusion of continuity – that is, the illusion that the grasslands continue unbroken up to the foothills – both due to the introduction of the structures themselves, and because of the substantial changes in the color and texture of the viewshed. The Project will introduce hard, angled shapes into an area that previously appeared smooth, and will introduce a wider array of color into an area that was previously quite uniform. Though this will increase the diversity of the view, the loss of continuity and the partial obstruction of views of the Sierra Nevada has the potential to significantly and negatively impact the quality of the views. Project condition vividness is rated 5, intactness is rated 1 (very low), and unity is rated 2 (low), for an average rating of 3 (moderately low). Reducing visual quality from moderately high to moderately low is a *significant* impact.

GRANT LINE ROAD VIEWER GROUP (VIEWPOINT 2)

The views from Grant Line Road are very similar to those from Douglas Road, except that viewers passing along the road will see the Project from multiple perspectives as they approach and then pass the site. The example photograph and photosimulation are shown from the perspective of a northbound driver to the south of the site (Plate AE-5). The grouping of trees that is so dominant in the Douglas Road views is either absent or more distant in the majority of views from Grant Line Road. Because of this, there is little to distract from the flat line and smooth texture of the grasslands that stretch away from the road. The visual “end” of the site is the Sierra Nevada mountain range in the distance – provided that regional haze does not obscure it. As with the view from Douglas Road, the unity and intactness of the views is high, but the vividness is low. Existing condition vividness is rated 2 (low), while unity and intactness is rated 6 (high), for an average rating of 5 (moderately high).

As shown on Plate AE-5 and very much like impacts to the Douglas Road Viewer Group, the Project will remove the illusion of continuity, both due to the introduction of the structures themselves, and because of the substantial changes in the color and texture of the viewshed. The Project will introduce hard, angled shapes into an area that previously appeared smooth, and will introduce a wider array of color into an area that was previously quite uniform. Viewers at the south end of Grant Line Road will be at a high enough elevation to see beyond the Project in some areas, so that portions of the backdrop Sierra Nevada will still be visible. Though this will increase the diversity of the view, the loss of continuity has the potential to significantly and negatively impact the quality of the views. Project condition vividness is rated 5, intactness is rated 1 (very low), and unity is rated 2 (low), for an average rating of 3 (moderately low). Reducing visual quality from moderately high to moderately low is a *significant* impact.

Plate AE-5: View from Grant Line Road



Viewpoint 2 –Before Project Implementation (Existing Conditions)



Viewpoint 2 – After Project Implementation

KIEFER ROAD VIEWER GROUPS (VIEWPOINT 3)

From some perspectives along Kiefer Road the site is not visible, because it is blocked from view by Kiefer Landfill. Where the site is visible the color and the continuity of the views are similar to those previously described (see Plate AE-6). Viewers see a sweep of grassland backed by the Sierra Nevada. The primary difference is that the topographical changes on the east side of the site are visible, as well as some of the tree-lined drainages located off of the site. Viewers on Kiefer Road can also see the rolling and tree-dotted terrain to the east of the site, as well as a few rural agricultural residences and buildings (note the far right of Plate AE-6).

The differences noted above increase the diversity of site views by introducing additional colors, varying the lines and angles of the horizon, and introducing multiple textures (smooth grass, rough trees). Though the diversity of the view is increased, these elements remain visually unified; the transition from one visual element to another is smooth. This is unlike the grouping of trees in the viewshed of Douglas Road, which is so unique in the view that it stands out as a distinct object rather than as a unified part of the whole. Though the vividness of this view is higher than from either Douglas or Grant Line Road, it is still moderate-to-low; the view is not highly distinctive or memorable.

From most perspectives there are few negative encroachments in the view. This is not the case for people viewing the site from the actual Kiefer Landfill, in which case the view includes a significant amount of negative visual encroachments as part of the foreground of the view. Viewers from the landfill are expected to have low sensitivity to any change in the view, as it is not typical to expect an attractive view when depositing trash at a landfill. Employees may have more appreciation for the existing views, but nonetheless are engaged in their work and in many cases may not even be able to see the site for large parts of the day. From the actual landfill area, vividness is rated 2 (low), intactness 1 (very low), and unity 1, for an average of 1. From other areas along the road vividness is rated 2, intactness is rated 6 (high), and unity is rated 6, for an average of 5 (moderately high).

The Project will have very little impact on the views from Kiefer Road. Kiefer Road is much lower in elevation than the areas of the Project site that will be developed, and the development on the eastern part of the site is planned to be both low density and set back from the edge of the plateau. The result is that only the very tops of some of the structures and landscape trees may be visible edging over the horizon. Project condition views from non-landfill areas of Kiefer Road are essentially unchanged, and retain their existing condition ratings. Impacts to visual quality from this viewpoint are *less than significant*.

Plate AE-6: View From Kiefer Road



Viewpoint 3 – Before Project Implementation (Existing Conditions)



Viewpoint 3 – After Project Implementation

LATROBE ROAD VIEWER GROUP (VIEWPOINT 4)

One large difference between the views from Latrobe Road and all other viewpoints is that the viewer of the Project will have their back to the Sierra Nevada – the Sierra Nevada are not part of the viewshed. Also, from this perspective viewers cannot see beyond the Project site. The Latrobe Road viewshed contains a major encroachment in the form of a line of transmission towers. Otherwise, the form, line and color are very similar to the view from Kiefer Road and receive the same ratings (average of 5, or moderately high).

The Project will be more visible from Latrobe Road than from Kiefer Road, because the relative elevations and topography between the site and Latrobe Road allow viewers to see up onto the site plateau. Though visible, the large distance between the viewer and the development on the site will mute many of the details of the development, and thus will not appreciably increase vividness. Observers passing by along the road may perceive the Project mainly as a rough, multi-hued edge to the horizon, which means that unity will not appreciably decrease. People who stop to observe may take more notice of the individual buildings and other Project components, but will still be at too great a distance to make out clear details. Intactness will decrease slightly, since it will be recognizable that the new feature in the landscape is of human construction. Since viewers could not see beyond the Project site in pre-Project conditions, the Project will alter but not block existing views. Project condition ratings for vividness and unity will remain the same as existing condition ratings, but intactness will decrease to 5 (moderately high), for an average rating of 4 (average). Though the Project will decrease visual quality from moderately high to average, this is not a large drop in quality. Furthermore, views from this area are largely transitory and are thus not as sensitive to change. For the foregoing reasons, visual impacts to this viewing location are *less than significant*.

Plate AE-7: View from Latrobe Road



Viewpoint 4 –Before Project Implementation (Existing Conditions)



Viewpoint 4 – After Project Implementation

NORTHERN RESIDENTS VIEWER GROUP (VIEWPOINT 5)

Viewers to the north of the site have the most unique view, because the land to the north is at a higher elevation than most of the site. While all other viewpoints can only see portions of the site, the northern viewer group can see the entire Project area as well as the land to the east of the site where the terrain becomes more wooded. The views from the north are therefore the most expansive and the most diverse when compared with the other viewpoints. Plate AE-8 is an example of this view, though the camera lens is aimed south-southwest so the foothills and the Sierra Nevada are not visible in this photograph.

Depending on the location of the viewer, there are some encroachments in the view, such as fencelines or telephone poles, but the view is largely intact. The view also has high unity, consisting mainly of grasslands that are ultimately backed by a more wooded landscape in the distance. The diversity of the view is influenced by these two vegetation cover types, but also by the topography. From the north, the changes in topography are visible to the viewer; the site begins on a plateau, then drops steeply off into more rolling terrain, and ultimately drops off again down to Carson Creek. Vividness is rated as 3 (moderately low), and unity and intactness are rated 6 (high), for an average existing condition rating of 5 (moderately high).

The viewing locations are high enough in elevation that viewers will be able to see beyond the Project after it is completed. Nonetheless, the Project will remove the illusion of continuity, both due to the introduction of the structures themselves, and because of the substantial changes in the color and texture of the viewshed. The Project will introduce hard, angled shapes into an area that previously appeared smooth, and will introduce a wider array of color into an area that was previously quite uniform. Though this will increase the diversity of the view, the loss of continuity and the introduction of major encroachments will substantially reduce the quality of the current views. Project condition vividness is rated 5, and intactness and unity is rated 2 (low), for an average rating of 3 (moderately low). Reducing visual quality from moderately high to moderately low is a *significant* impact.

This viewer group will be most sensitive to any changes the Project will make to the viewshed. There are three reasons for this sensitivity: in the existing condition the entire site is visible, the viewers are relatively close to the site, and the viewpoints are from residences. Residents usually consider the surrounding views to be part of their property, and are thus more protective of existing scenic views. Residents also observe views for much longer periods of time, and during times of relaxation and enjoyment when scenic resources are typically more appreciated.

Plate AE-8: View from North of Glory Lane



Viewpoint 5 –Before Project Implementation (Existing Conditions)



Viewpoint 5 – After Project Implementation

SUMMARY OF VIEWSHED IMPACTS

Views from Kiefer Road and Latrobe Road will not be significantly impacted. From Kiefer Road only the very tops of some of the structures and landscape trees may be visible edging over the horizon. Project condition views from non-landfill areas of Kiefer Road are essentially unchanged, and retain their existing condition ratings. The Project will be more visible from Latrobe Road than from Kiefer Road, because the relative elevations and topography between the site and Latrobe Road allow viewers to see up onto the site plateau. Though visible, the large distance between the viewer and the development on the site will mute many of the details of the development.

Project impacts to the views from Douglas Road/Rancho Cordova, Grant Line Road, and residents to the north will be *significant*. The Project will remove the illusion of continuity – that is, the illusion that the grasslands continue unbroken up to the foothills – both due to the introduction of the structures themselves, and because of the substantial changes in the color and texture of the viewshed. The Project will introduce hard, angled shapes into an area that previously appeared smooth, and will introduce a wider array of color into an area that was previously quite uniform. Though this will increase the diversity of the view, the loss of continuity and the partial obstruction of views of the Sierra Nevada significantly and negatively impacts the quality of the views. These impacts are due to the placement of a large urban development in an area currently dominated by open space; the impact is not due to any particular feature or features that could be changed. The Project will substantially degrade the existing visual character and quality of the site; impacts are *significant and unavoidable*.

MITIGATION MEASURES:

No mitigation is available.

IMPACT: NEW SOURCES OF LIGHT OR GLARE

The Project does not involve any elements with particularly reflective surfaces, and thus will not introduce a significant new source of glare. The Project will, on the other hand, involve a substantial amount of new residential and commercial development that will include lighting sources such as street lights and security lights. Nighttime lighting has been associated with negative human health impacts and ecological impacts. Birds may collide with lighted transmission towers at night¹ and animals that rely on the darkness to hide them will be visible to predators and prey. In humans, the primary effect is sleep disruption. Nighttime lighting is necessary for safety, for work productivity, and for recreation, but Title 24 and County Ordinances were instituted in recognition that excess lighting should be avoided.

¹ Poot, H., B. J. Ens, H. de Vries, M. A. H. Donners, M. R. Wernand, and J. M. Marquenie. [Green light for nocturnally migrating birds](#). *Ecology and Society* 13(2): 47, 2008.

The Project site is within a rural area that has minimal lighting, and is designated as an LZ2 zone (low levels of ambient nighttime light). The nearby Kiefer landfill includes nighttime lighting sources, but the distance of the landfill from the Project site ensures that its impact is diffused and insignificant. Because the Project is in an LZ2 zone, the lighting restrictions will be more robust than if the Project were in a more urban environment. For instance, Table 147-B of the 2008 Building Efficiency standards indicates that building entrances in an LZ2 zone are limited to 75 watts, while in an LZ4 (urbanized) zone the allowance is 120 watts. The SPA also includes narrative requirements for exterior Project lighting, beginning in Section 4.15.5.

Most of the Project will result in standard urban lighting systems with average light output, such as porch lights, parking lot lights, and similar. The exceptions are the sports fields at the University/College Campus Center and the sports park. Both areas will include facilities for organized sporting events such as baseball, soccer, and football, and this will require stadium lighting for after-sunset games. Stadium lighting has a much higher light output than other lighting sources, and is generated from a greater height than the average lighting source. This allows the light output to be spilled over a larger area, and for the lights to be directly visible even from large distances. Moreover, lighting for athletic fields is exempt from the lighting limitations of the 2008 Building Efficiency Standards.

Both stadium lighting areas are located adjacent to commercial uses, university buildings, or open space. The nearest existing residential areas to the proposed athletic fields are more than a mile away. The nearest Project residential areas will be approximately 2,000 feet from the athletic fields. These distances are sufficient to ensure that nighttime sleep will not be disrupted by the light source.

Though there are existing restrictions that will help to minimize the impacts of new lighting sources on existing nighttime conditions, the Project will still result in a substantial new source of light. This will not result in substantial nighttime sleep disruption for existing residential areas, because those areas are more than a mile from the site. There will be some disruption for wildlife which use the habitats surrounding the site because sky glow will increase ambient lighting conditions in the area, and direct light spill will impact areas directly adjacent to the Project. Many wildlife species in the area can adapt to these conditions, as they have to other urbanizing areas. There are no special status species in the area known to be particularly susceptible to disruption resulting from nighttime lighting.

Though the Project lighting will not result in sleep disruption or significant wildlife impacts, the significance question asked is whether the Project introduces a substantial new source of light that adversely impacts views; it does. There are existing regulations which will minimize lighting impacts, but the Project will nonetheless result in a *significant* impact related to new lighting sources. This impact is not due to any individual feature or features, but due to the result of introducing a large urban development within a rural landscape. Though the impact cannot be made less than significant, there are means available to further reduce the level of light pollution produced by the Project.

The International Dark-Sky Association (IDA) is a world-recognized authority on nighttime lighting and light pollution. IDA operates a program which reviews and rates outdoor lighting fixtures, giving IDA-approved status to fixtures that minimize glare and light trespass. The IDA maintains a list of fixtures that have been approved; mitigation recommends that the SPA section on outdoor lighting be revised to include a requirement to use IDA-approved fixtures. Though feasible mitigation is applied, the Project will generate a substantial new source of light; impacts are *significant and unavoidable*.

MITIGATION MEASURES:

AE-1. The SPA shall be amended to require all lighting applications subject to the 2008 Building Efficiency Standards Section 147 to use fixtures approved by the International Dark Sky Association.

4 AGRICULTURAL RESOURCES

INTRODUCTION

This chapter describes the existing agricultural resources within the Project area and analyzes possible impacts to agricultural uses and agricultural lands from implementation of the Project. The chapter focuses on the impact of converting the designated farmland on the site to non-agricultural uses, and on impacts related to the Williamson Act contract on the site.

ENVIRONMENTAL SETTING

The Project site is located in the eastern portion of Sacramento County, within the Cosumnes community, on approximately 2,669 acres. The Project is bounded by the City of Rancho Cordova to the west, Carson Creek to the east, and Glory Lane to the north. The Keifer Landfill is located south of the Project site. Most of the Project is within the Urban Services Boundary (USB); however, none of the Project site is within the Urban Policy Area (UPA).

The Project site is designated by the Sacramento County General Plan as General Agriculture (80 acres) and is zoned for AG-80 agricultural uses (Plate AR-1). The site is also predominantly grassland which is used for cattle grazing; there are no structures on the site. There was a small eucalyptus grove in the southwest quadrant of the site, which had not been used for agricultural purposes for many years and was cut down by the property owner several years ago. The land underlying the historic grove is designated Unique Farmland due to the historic potential use of the eucalyptus as a crop. There are no intensive agricultural uses on the site (Plate AR-2 and Plate AR-3).

Properties to the north, east, and south of the site are zoned for agriculture uses (AG-80 and AG-20). To the north the landscape is similar to that of the site – predominantly grassland suitable for grazing. The lands east of the site lie across Carson Creek, and are also grazed, though the grassland begins to transition into oak woodland. South of the site is the Kiefer landfill and southeast there are areas within the Deer Creek floodplain that are used for row crops.

There are approximately 480 acres in the southeastern quadrant of the site that are under a Williamson Act contract. The contract is in non-renewal and is expected to expire in 2016 (Plate AR-4). There are two off-site active contracts adjacent to this contract on the east and south. These contracts encompass approximately 1,100 acres.

Plate AR-1: Existing Zoning

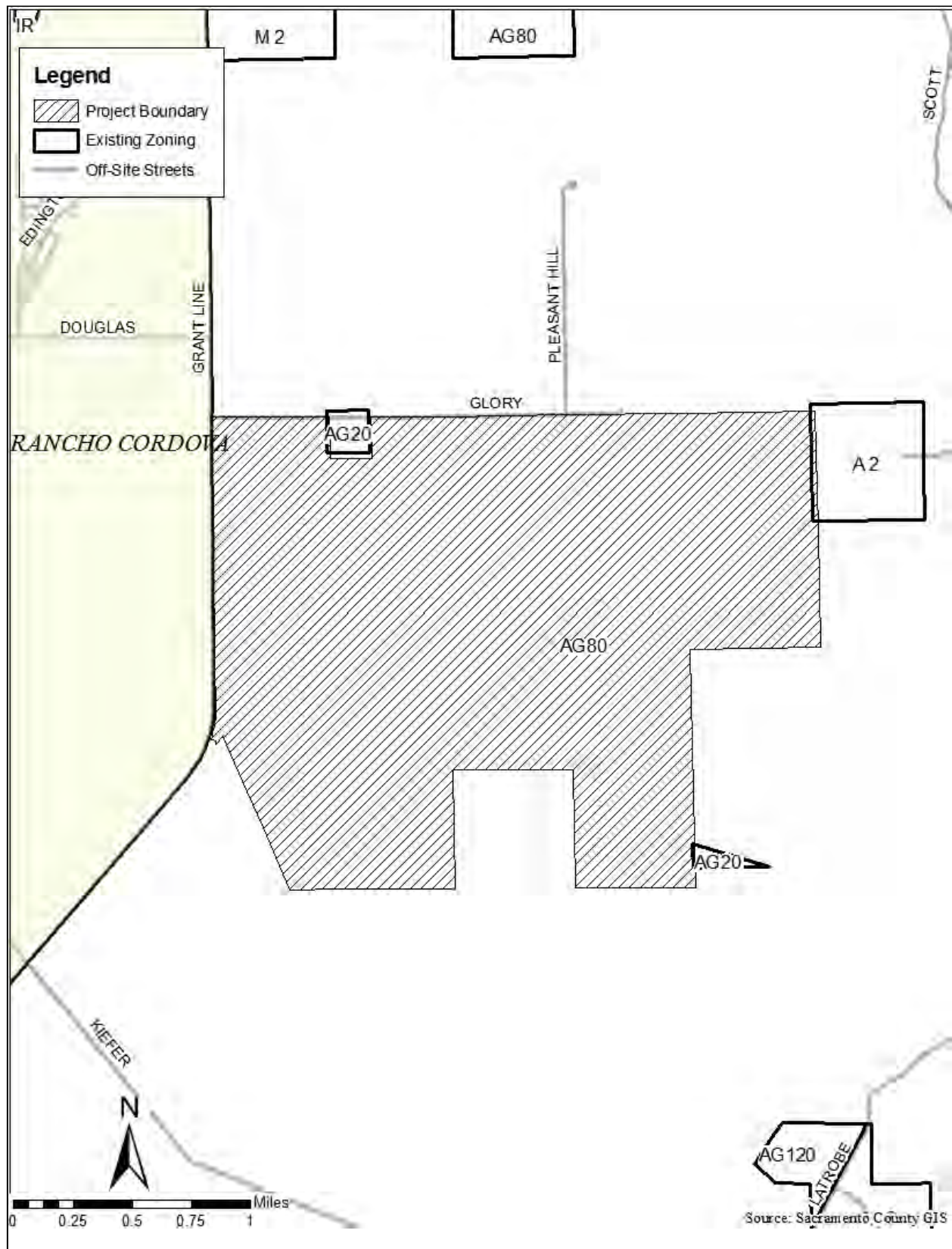


Plate AR-2: Farmland Classifications

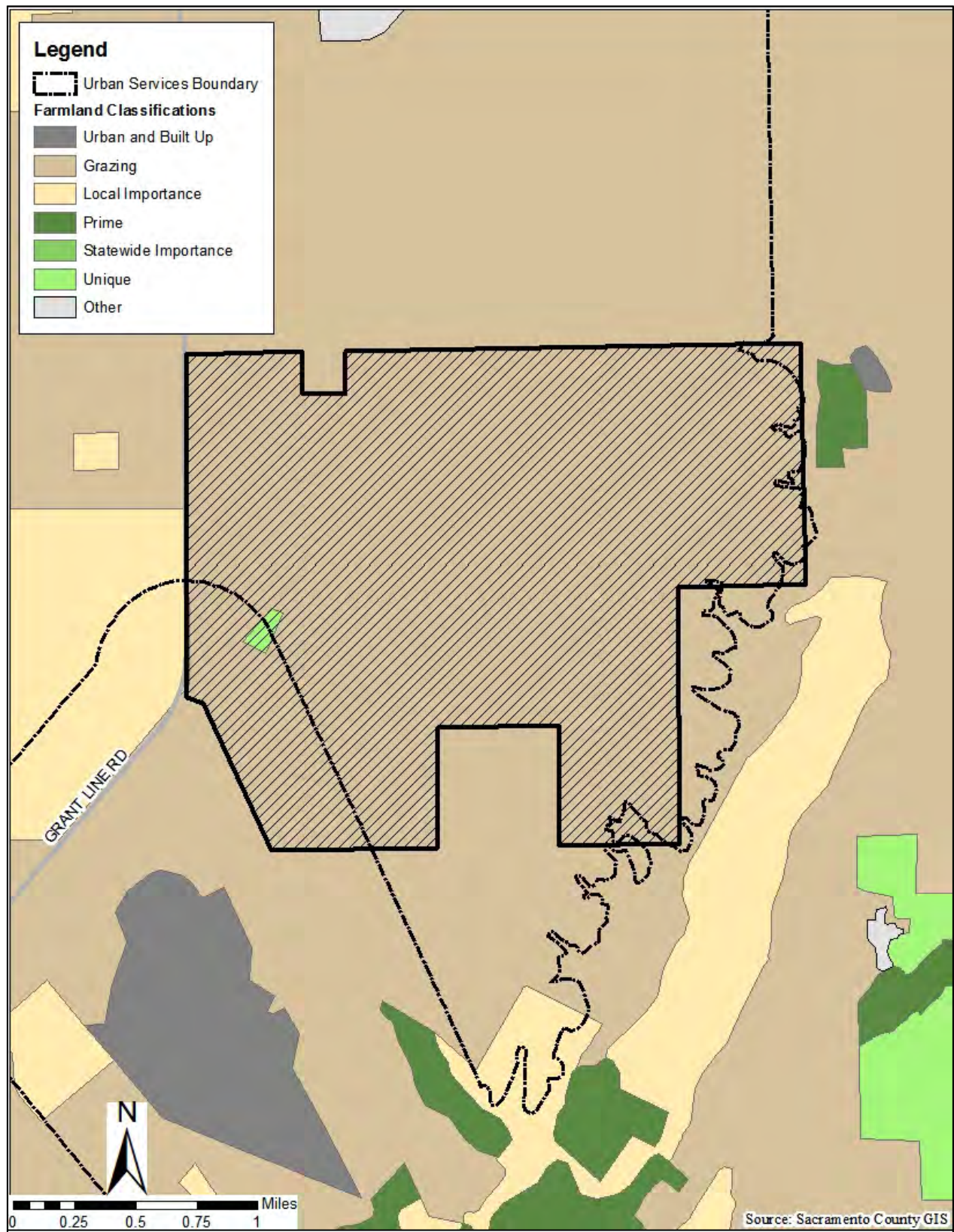


Plate AR-3: Unique Farmland and Proposed Land Uses

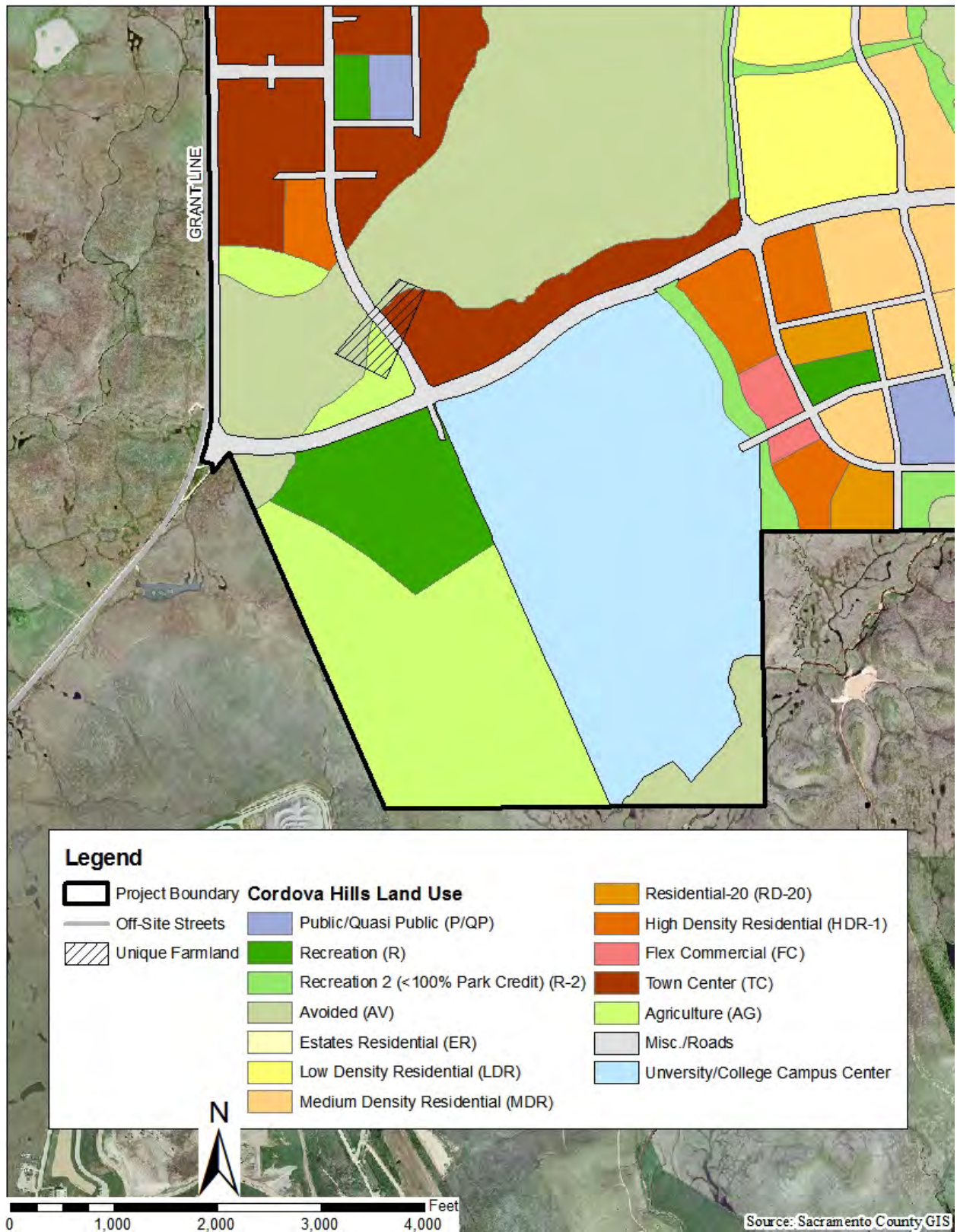
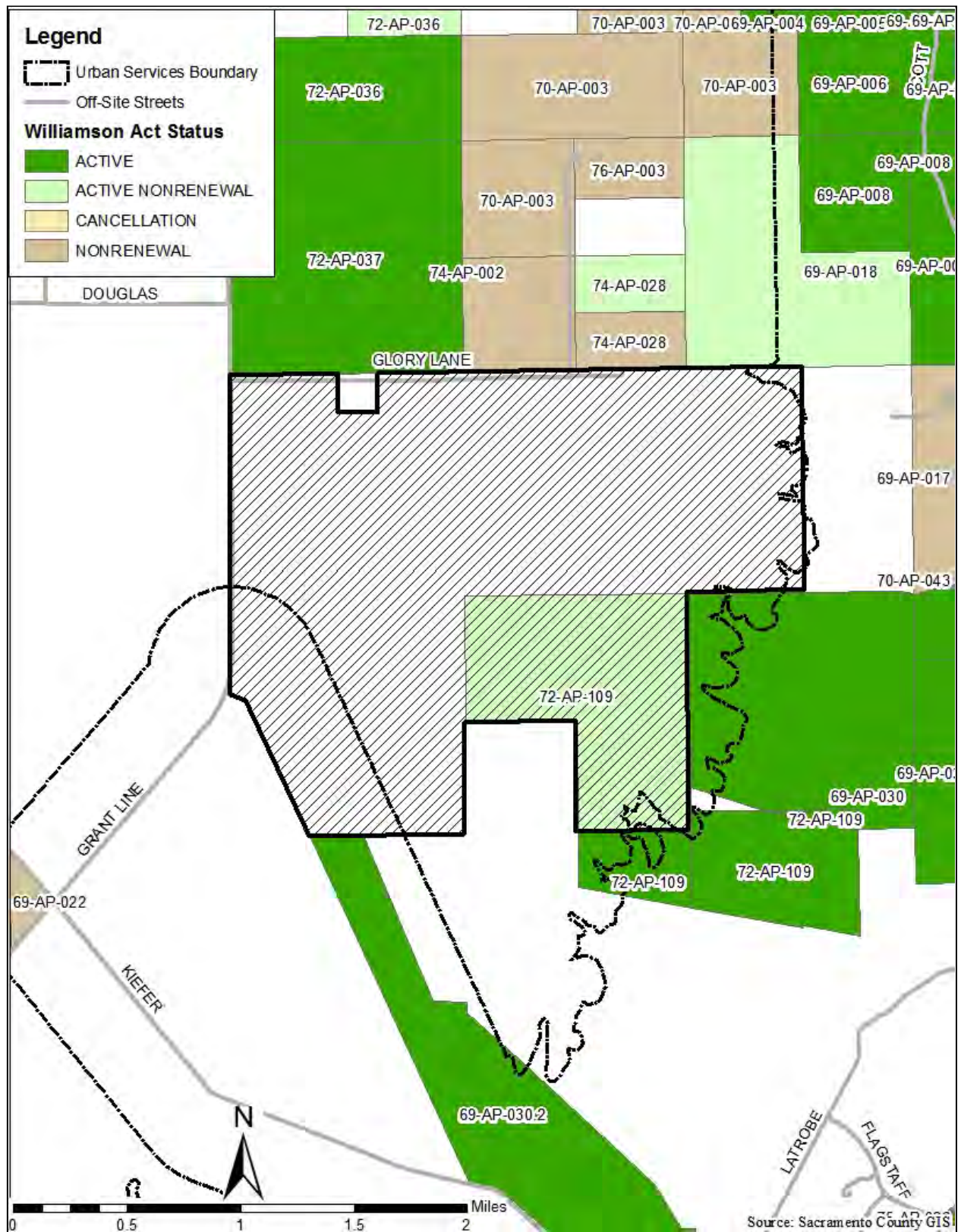


Plate AR-4: Williamson Act Contracts in Vicinity



REGULATORY SETTING

FARMLAND MAPPING AND MONITORING PROGRAM

The California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP) was established in 1984 to document the location, quality, and quantity of agricultural lands and conversion of those lands over time. The program provides impartial analysis of agricultural land use changes throughout California.

The FMMP is tasked with mapping and monitoring important farmlands for most of the State's agricultural areas. The maps are prepared on the basis of soil survey information and land inventory and monitoring criteria developed by the US Department of Agriculture (USDA), Natural Resources Conservation Service. The minimum mapping unit used for all agricultural land categories except grazing land is 10 acres. The minimum unit for grazing land is 40 acres. Though the FMMP typically updates its farmland maps every two years based on information from local agencies and recent aerial photography, the most recent Sacramento County Important Farmland Map is dated 2008. For inventory purposes, the following categories were developed to describe the qualities of land in terms of its suitability for agricultural production.

- *Prime Farmland* is defined by the state as "land with the best combination of physical and chemical features able to sustain long-term production of agricultural crops." Prime Farmland has the soil, quality, growing season, and moisture supply needed to produce sustained high yields. To be designated as Prime Farmland, the land must have been used for production of irrigated crops at some time during the four years prior to the mapping date.
- *Farmland of Statewide Importance* is defined by the state as "land similar to Prime Farmland that has a good combination of physical and chemical characteristics for the production of agricultural crops." This land has less ability to store moisture than Prime Farmland. In order for land to be designated as Farmland of Statewide Importance, it must have been used for production of irrigated crops at some time during the four years prior to the mapping date.
- *Unique Farmland* consists of lower-quality soils but is nonetheless used for production of the state's leading agricultural crops. Unique Farmland is usually irrigated, but may include nonirrigated orchards or vineyards in some climatic zones in California. To qualify for this designation, land must have been used for crops at some time during the four years prior to the mapping date.
- *Farmland of Local Importance* is determined by each county's board of supervisors and a local advisory committee. For Sacramento County, this classification refers to lands which do not qualify as Prime, Statewide, or Unique designation but are currently irrigated crops or pasture or nonirrigated crops; lands that would be Prime or Statewide designation and have been improved for

irrigation but are now idle; and lands which currently support confined livestock, poultry operations, and aquaculture.

- *Grazing Land* is land which is suitable for grazing of livestock. The minimum mapping unit for this category is 40 acres.

WILLIAMSON ACT

The Williamson Act, also known as the California Land Conservation Act of 1965, enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space uses. When the County enters into a contract with the landowners under the Williamson Act, the landowner agrees to limit the use of the land to agriculture and compatible uses for a period of at least ten years and the County agrees to tax the land at a rate based on the agricultural production of the land, rather than its real estate market value. The County has designated areas as agricultural preserves within which the County will enter into contracts for the preservation of the land in agriculture.

2030 SACRAMENTO COUNTY GENERAL PLAN

The following policies of the 2030 General Plan are applicable to the Project:

- AG-1. The County shall protect prime, statewide importance, unique, and local importance farmlands located outside of the USB from urban encroachment.
- AG-2. The County shall not accept applications for General Plan amendments outside the Urban Services Boundary (USB) redesignating prime, statewide importance, unique and local importance farmlands or lands with intensive agricultural investments to agricultural/residential or urban use (i.e., residential, commercial, industrial) unless the applicant demonstrates that the request is consistent with the General Plan Agriculture-Residential expansion policies (please refer to Land Use Element Policies regarding Agriculture-Residential uses).
- AG-3. The County shall permit agricultural uses on buffers, provided such uses are conducted in a manner compatible with urban uses. Buffers shall be used to separate farming practices incompatible with adjacent urban uses. Any homeowners' association or similar entity within the development shall assist in determining compatible use. Buffers shall not adversely conflict with agricultural uses on adjoining property.
- AG-4. Prospective buyers of property adjacent to agricultural land shall be notified through the title report that they could be subject to inconvenience or discomfort resulting from accepted farming activities as per provisions of the County's right-to-farm ordinance.
- AG-5. Projects resulting in the conversion of more than fifty (50) acres of farmland shall be mitigated within Sacramento County, except as specified in the paragraph

below, based on a 1:1 ratio, for the loss of the following farmland categories through the specific planning process or individual project entitlement requests to provide in-kind or similar resource value protection (such as easements for agricultural purposes):

- prime, statewide importance, unique, local importance, and grazing farmlands located outside the USB;
- prime, statewide importance, unique, and local importance farmlands located inside the USB.

The Board of Supervisors retains the authority to override impacts to Unique, Local, and Grazing farmlands, but not with respect to Prime and Statewide farmlands. However, if that land is also required to provide mitigation pursuant to a Sacramento County endorsed or approved Habitat Conservation Plan (HCP), then the Board of Supervisors may consider the mitigation land provided in accordance with the HCP as meeting the requirements of this section including land outside of Sacramento County.

Note: This policy is not tied to any maps contained in the Agricultural Element. Instead, the most current Important Farmland map from the Department of Conservation should be used to calculate mitigation.

AG-6. If a property owner is required to mitigate for the loss of farmland under Policy AG-5, and the approved master plan or community plan includes land permanently set aside for an urban farm, a 1:1 farmland credit will be given to projects that incorporate urban farming within the project that permanently preserves farmland. Urban farms may qualify for credit for the proposed master plan or community plan and will be considered as part of the master plan or community plan process subject to the following criteria:

- The required minimum urban farm size to qualify for the credit shall be at least 5 acres.
- Only land that is fully available for farming shall count towards the credit. Ancillary facilities such as education buildings, farmer's markets, and parking areas shall not be included in the acreage calculation.
- Community gardens shall not count toward the credit.
- The zoning shall be a permanent agricultural zone, or similar zone, that ensures the permanency of the agricultural use.
- An appropriate source of water shall be identified and provided.

- A permanent agricultural easement shall be recorded over the site. The agricultural easement shall be dedicated to the County of Sacramento or an organization approved by the County to preserve the farmland.
- If there is a separate farm management entity, a recorded farming management agreement shall be required between the landowner and the farm manager.

Any reversion to a non-farming use on an urban farm site that received farmland credit shall trigger farmland mitigation regardless of the size. The mitigation shall be equivalent to the mitigation required at the time of the original project approval. In addition, the mitigation shall be based on the farmland category at the time of original project approval; however, in the event the farmland category has been upgraded to a higher category as shown on the latest Important Farmland Map from the Department of Conservation, that farmland category shall be used as the basis in determining equivalent mitigation.

AG-9. Agricultural land divisions shall not adversely affect the integrity of agricultural pursuits. Agricultural land divisions may be denied if the reviewing authority finds that the division of land is likely to create circumstances inconsistent with this policy.

CO-51. Direct development away from prime or statewide importance farmlands or otherwise provide for mitigation as required by AG-5 slowing the loss of additional farmland conversion to other uses.

CO-52. Recreational uses shall not be constructed on prime, statewide importance, unique or local farmland outside of the Urban Services Boundary where the use would impede agricultural practices.

SACRAMENTO COUNTY ZONING CODE

The Agricultural Land Use Zone is designed to promote and protect the public health, safety, and general welfare within Sacramento County. As stated in the General Plan:

Farmland is the fundamental agricultural resource. Urban development, wildlife preserves, and outdoor recreation facilities are encroaching upon farmlands. With rare exceptions, conversions of farmland to nonfarm uses are irreversible. Farmland conversions affect agricultural productivity directly by reducing the farmland base, and indirectly by increasing production costs or reducing yields on neighboring farmlands. Farmland losses reduce the ability of the county to supply food to local and export markets. The cumulative effects of individual farmland conversions include urban growth inducement, unstable rural real estate markets, world competition for existing markets, low commodity prices, and reduced viability of the local agricultural economy.

The converse relationship is also true: lack of viable agricultural productivity tends to lead to conversions of land to other, often conflicting uses. The real or perceived lack of viability may be caused by many factors including: growth pressures, unstable or reduced real estate values, cost of water or energy, government regulation, low commodity prices, and world competition for existing markets.

In general the agricultural land use zone is designed to:

- Eliminate encroachment of incompatible land uses on agricultural lands;
- Preserve the supply of agricultural land in order to conserve the County's economic resources;
- Discourage premature and unnecessary conversion of agricultural land to urban uses;
- Preserve agricultural lands as open space and for production of agricultural products so as to preserve an important physical, social, esthetic and economic asset of the residents of the County ; and
- Encourage retention of large agricultural lots to assure viable agricultural units.

SIGNIFICANCE CRITERIA

The CEQA Guidelines define “significant” as “a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the Project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. Based on the CEQA Guidelines, an impact to agricultural resources is significant if the Project results in any of the following:

1. Substantial conflict with existing zoning for agricultural use, or a Williamson Act contract.
2. Conversion of a substantial amount of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use.
3. Substantial conflict with existing, adjacent agricultural uses.

In addition to the CEQA Guidelines criteria for significance of farmland loss, General Plan Policy AG-5 defines a substantial farmland loss as 50 acres. The CEQA Guidelines indicate that that Prime, Statewide Importance, and Unique Farmland loss may be a significant impact, but the General Plan further includes Farmland of Local Importance and Grazing Land – though in the case of Grazing Land, the threshold specifically applies only to such lands which occur outside of the Urban Services Boundary.

METHODOLOGY

An evaluation of potential impacts associated with agricultural resources was based on a review of planning documents, including policies of the Sacramento County General Plan, and field reviews. The Project was analyzed in terms of its consistency with Sacramento County General Plan policies and other state regulations as presented above.

IMPACTS AND ANALYSIS

IMPACT: CONFLICT WITH EXISTING AGRICULTURAL USE AND ZONING

The Project site is currently designated as Agricultural 80 (AG-80) by the Sacramento County Zoning Code. The Project requests a Zoning Ordinance Amendment to adopt the Cordova Hills Special Planning Area (SPA). Upon adoption of the SPA 223.5 acres will be allotted for the University/College Campus Center, 493.2 acres will be designated Avoided Area, 194 acres will be designated Agriculture, 249.7 acres will be designated for recreation uses, and the remaining 1,508.1 acres will be designated for a variety of urban developments (roads, commercial uses, residential areas, and public/quasi-public).

The Sacramento County General Plan land use designation for the site is General Agriculture. The Project requests a General Plan Amendment to change the Land Use Designation from General Agriculture to Low Density Residential, Medium Density Residential, Commercial and Office, Recreation, Natural Preserve, and Public/Quasi Public for approximately 2,366.3 acres.

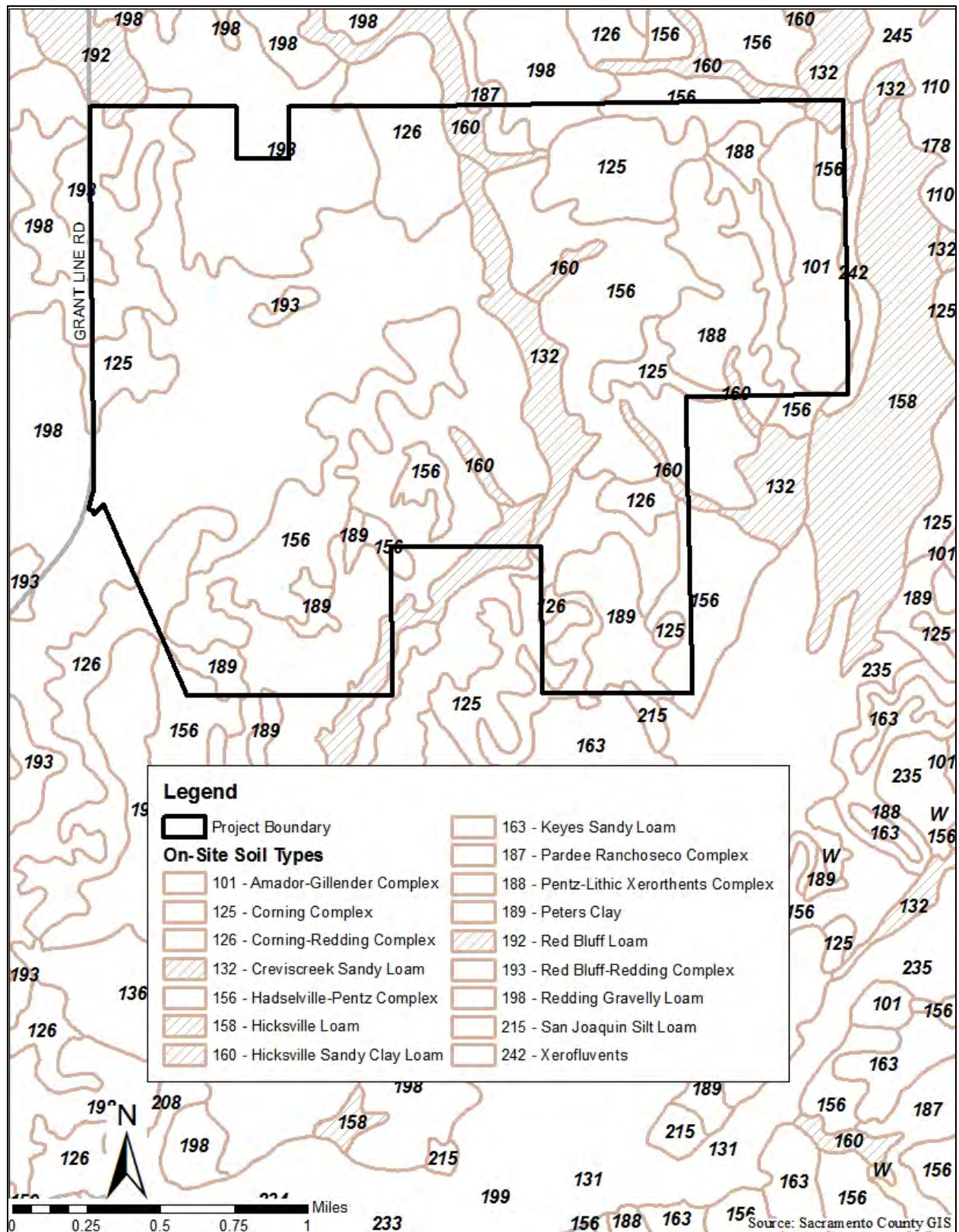
Policies AG-1 and AG-2 protect farmlands outside of the USB from urban encroachment (farmlands are defined as Prime, Statewide Importance, Unique, and Local Importance farmlands). Further, one of the objectives presented in the Agricultural Element of the General Plan is: "Protect prime, statewide importance, unique, and local importance farmlands and lands with intensive agricultural investments (such as orchards, vineyards, dairies, and other concentrated livestock or poultry operations) from urban encroachment."

According to the Sacramento County Important Farmland Map published by the California Department of Conservation, the Project site contains a small patch of Unique Farmland that straddles the USB in the southwestern portion of the site (see Plate AR-3 above), and is otherwise designated as Grazing Land. The patch of Unique Farmland is so designated because of a small eucalyptus grove that was planted many years ago as a crop for firewood. The trees were removed several years ago by the property owner and the grove no longer exists. For this reason, this area may be redesignated to another farmland classification by the Department of Conservation during the next farmland mapping update.

According to the Department of Conservation “Soil Survey of Sacramento County, California”, there are sixteen different soil types within the Project boundaries (Plate AR-5). While the Important Farmland Map reflects the actual use of the land, the soil survey reflects the capability of the underlying soils. Four of the soils on the site are listed as prime soils, if irrigated; these are identification numbers 132, 158, 160, and 192, and are hatchmarked on Plate AR-5. The Storie Index ratings for these soils are 66, 61, 46, and 51. The Storie Index expresses the relative suitability of soil for general intensive agricultural or rangeland uses on a scale of zero to 100, with 100 being best.

The land use capability class of soil 132 is IIIs, the class of soils 158 and 160 are is IIIw, and the class of soil 192 is IIle. The land use capability classes are listed Roman numerals I thru VIII, with the first four representing land suitable for crops and the last four representing land suitable for pasture or rangeland uses. The limitations on use increase as the Roman numeral increases. The letter “e” indicates that the soils are subject to erosion, the letter “s” indicates that soils are shallow and/or rocky, and the letter “w” indicates excess wetness.

Plate AR-5: On-Site Soil Types



The four soil classes described are only prime if they are irrigated. Though there are wells on the site to provide water for cattle, the site has not been irrigated. The topography of the site is highly varied (there are slopes of 30% – 50%), which would make installation of an irrigation system expensive and difficult to operate. Moreover, as shown on the exhibit, the area of prime soils is small relative to the site as a whole; approximately 170 acres out of 2,669, or 6%. The largest area is a mix of soil type 132 and 160, and follows the main north-south ephemeral drainage that passes through the site (located within a proposed preserve on the Project land plan).

Much of the site is currently being used for cattle grazing. The applicant has indicated that the site currently supports one head of cattle for every 15 acres. Grazing cattle is not considered an intensive agricultural investment because the cattle are not densely concentrated and they require minimal infrastructure.

Policy AG-2 defines “urban” uses as residential, commercial, or industrial. The portion of the Unique Farmland area outside of the USB will be designated as Avoided Area and Agriculture by the Project. The SPA definition of Agriculture does include some more developed uses, such as a corporation yard and solar farms, but these uses are conditionally allowable within the County agricultural zoning as well. Thus, the Project is consistent with current policy AG-1 and AG-2, because the Unique Farmland outside of the USB will not be designated for urban uses.

There are no agricultural uses taking place on any of the lands adjacent to the Project site that would be incompatible with the proposed Project. Agricultural uses and residential uses typically come into conflict due to dust generation from tilling, the application of pesticides and fertilizers, and noise from equipment. The nearest row-cropped farmland that would generate these conflicts is over ½-mile to the southeast of the site, in an area of the Deer Creek floodplain. Cattle grazing usually involves a lesser degree of conflict, because the intensity of the activity is reduced when compared to row crops, but may nonetheless result in complaints related to noise, dust, or odors generated by cattle at times when the herd moves closer to residences. Though the Project will not result in significant conflicts between an agricultural and non-agricultural use, buyers of properties adjacent to the northern property boundary should receive notice through the title report that they could be subject to inconvenience or discomfort resulting from accepted farming activities as per provisions of the County Right-To-Farm Ordinance; this notification would be consistent with General Plan Policy AG-4.

The proposed uses are permitted with approval of the Zoning Ordinance Amendment to adopt the Cordova Hills SPA, will not convert Unique farmland outside of the USB to urban uses, and the land does not support intensive agricultural investment. Though there are soils that are considered prime when irrigated, the site is not irrigated. The Project will not result in substantial conflicts with existing agricultural use of adjacent lands, though mitigation requiring deed notices is recommended. For the foregoing reasons, impacts are *less than significant*.

MITIGATION MEASURES:

AG-1. The applicant shall disclose to all All prospective buyers of properties within 500 feet of the northern property boundary ~~shall receive a recorded notice that would appear in the Title report that they could be subject to inconvenience or discomfort resulting from accepted farming practices as per provisions of the County Right-To-Farm Ordinance~~ **and shall include a Note on all final maps disclosing the Right-To-Farm Ordinance.**

IMPACT: CONFLICT WITH WILLIAMSON ACT CONTRACT

There is one existing Williamson Act Contract (72-AP-109) within the Project limits (see Plate AR-4 above). The contract was initiated on February 23, 1972 and encompasses approximately 480 acres on APN 073-0040-024. The landowner initiated the non-renewal process for this contract in February 2007. Under the nonrenewal process the contract will expire in the year 2016, and the land will no longer be subject to Williamson Act contract restrictions.

The Project proposal includes a large-lot subdivision map which would create parcels that range from less than an acre in size to approximately 35 acres. Pursuant to the Subdivision Map Act, subdivision maps involving parcels less than 40 acres in size cannot be approved on contracted lands except in two cases: the contract is three years from nonrenewal or if findings are made. As to the former, the on-site contract will expire in 2016, which would allow approval of subdivision maps within the contracted area beginning in 2013. In the case of findings, Section 66474.4 of the Subdivision Map Act states that the Board of Supervisors must find either that:

- (1) The parcels can nevertheless sustain an agricultural use permitted under the contract, or are subject to a written agreement for joint management pursuant to Section 51230.1, provided that the parcels which are jointly managed total at least 10 acres in size in the case of prime agricultural land or 40 acres in size in the case of land which is not prime agricultural land.
- (2) One of the parcels contains a residence and is subject to Section 428 of the Revenue and Taxation Code; the residence has existed on the property for at least five years; the landowner has owned the parcels for at least 10 years; and the remaining parcels shown on the map are at least 10 acres in size if the land is prime agricultural land, or at least 40 acres in size if the land is not prime agricultural land.

The Project proposal includes changing the General Plan land use designation of the contracted land from General Agriculture to non-agricultural uses (Low Density Residential, Medium Density Residential, Commercial and Offices, Recreation, and Natural Preserve). The Project also includes a rezone from AG-80 to SPA. This rezone is also required in order to subdivide the property as proposed. While the Williamson Act states that a contract cannot be initiated unless the land is located within an area designated as an "agricultural preserve", it does not address whether the zoning or other land use designations of contracted land can be amended during the contract life. Though not addressed by the Williamson Act, the text of contract 72-AP-109 states "It

is the intent of this Board that all land within this Preserve be zoned to the AG-80 Exclusive Agricultural Zone.” On this basis, it would appear that rezoning the land prior to 2016 would conflict with the Williamson Act contract. The applicant has proposed that the Board of Supervisors approve the rezone, but stipulate that the zoning agreement will not become effective until 2016.

Though the zoning agreement would be in abeyance until 2016, the approval of this agreement could result in the discontinuation of grazing activities during the interim period. To prevent this circumstance, mitigation has been included which requires that grazing be continued on the contracted land until the contract expires.

The Agricultural Commissioner’s office was contacted for comment. The Agricultural Commissioner (F. Carl) provided the following comment:

“The proposed site is not prime agricultural land and has been used for grazing. Proposed development on less than prime agriculture land that is contiguous with existing urban development is preferred over other possible alternatives. To my knowledge there are no intensive agricultural uses adjacent to the project that will be significantly impacted. Cancellation of the contracts is preferred since the properties are clearly being planned for development; therefore the tax benefit of an agricultural conservation easement should not be continued.”

Though the Agricultural Commissioner has indicated a preference for contract cancellation, this is not required in order to be consistent with the Williamson Act. According to the Department of Conservation:

“A Williamson Act contract is an enforceable restriction pursuant to Article 13, section 8 of the California Constitution and §51252. Williamson Act contracts are not intended to be cancelled and in fact, cancellation is reserved for unusual, "emergency" situations. Therefore, the nine-year nonrenewal process has been identified as the legally preferred method for terminating a Williamson Act contract.”

If the Board of Supervisors makes appropriate findings pertinent to the subdivision proposal and defers the effective date of the rezone until contract expiration, and grazing is continued until contract expiration, the Project will not result in significant conflicts with the Williamson Act. Following the outlined procedures is consistent with the Williamson Act provisions; impacts are *less than significant*.

MITIGATION MEASURES:

AG-2. The applicant shall enter into an agreement with an agricultural operator to maintain grazing use, or other more intensive use, on the land which is subject to Williamson Act contract 72-AP-109. Agricultural use shall be maintained until Williamson Act contract expiration. Documentation of this agreement shall be

submitted to the Environmental Coordinator prior to approval of the zoning agreement for the Williamson Act contracted property.

IMPACT: CONVERT PROTECTED FARMLAND TO NON-AGRICULTURAL USES

According to the Sacramento County Important Farmland Map published by the California Department of Conservation, the Project site is mostly Grazing Land with a small patch of Unique Farmland in the southwest quadrant of the site (see Plate AR-2 and Plate AR-3 above). Based on Policy AG-5, the Project will result in impacts to the farmland located outside of the USB in the southwestern corner of the site (which is Grazing Land and Unique Farmland), and to the remaining portion of the Unique Farmland which is within the USB. The area outside of the USB is 251 acres, approximately 247 acres of which is Grazing Land, and the remainder of which is Unique Farmland. The total size of the Unique Farmland, both inside and outside of the USB, is 8.6 acres, which brings the total mitigation requirement to 255.6 acres. Aerial and field investigations revealed that the Unique Farmland area historically consisted of a eucalyptus grove, though it is no longer present and the land may be reclassified as a different farmland category during the next mapping cycle. With mitigation, impacts related to the conversion of farmland are *less than significant*.

MITIGATION MEASURE:

- AG-3.** Prior to the approval of improvement plans, building permits, or recordation of the final map, whichever occurs first, the applicant shall offset the loss of 8.6 acres of Unique Farmland and 247 acres of Grazing Land through 1:1 preservation of farmland within a permanent conservation easement. Preservation land must be in-kind or of similar resource value.

5 AIR QUALITY

INTRODUCTION

This section assesses the potential air quality effects caused by stationary, mobile, and area sources related to construction and operation of the Project. This section also describes the climate in the Project area; existing air quality conditions in the Project area for criteria air pollutants and toxic air contaminants; odors; and applicable federal, state, and regional air quality standards.

SETTING

LOCATION, CLIMATE AND ATMOSPHERIC CONDITIONS

The Cordova Hills Project site consists of approximately 2,669 acres located immediately east of Grant Line Road and south of Glory Lane in the southeastern portion of Sacramento County, at the southern end of the Sacramento Valley Air Basin. The Sacramento Valley Air Basin is bound by the North Coast Ranges to the west and the Sierra Nevada Mountains to the east. Hot, dry summers and mild, rainy winters characterize the Mediterranean climate of the Sacramento Valley. Throughout the year, the temperature may range from a low of 20 degrees Fahrenheit to a high of 110 degrees, with summer highs usually in the 90s and winter lows occasionally below freezing. Average annual rainfall is about 20 inches, with very rare snowfall. The prevailing winds are moderate in strength and vary from moist breezes from the south to dry land flows from the north. Winds within the Project area are predominantly from the south.

The mountains surrounding the Sacramento Valley create a barrier to airflow, which can trap air pollutants in the valley when meteorological conditions are right and a temperature inversion exists. The situation of having warm air on top of cooler air is referred to as a temperature inversion, because the temperature profile of the atmosphere is "inverted" from its usual state.¹ The highest frequency of air stagnation occurs in the autumn and early winter, when large high-pressure cells lie over the valley. The lack of surface wind during these periods and the reduced vertical flow caused by less surface heating reduces the influx of outside air and allows air pollutants to become concentrated in the air. The surface concentrations of pollutants are highest

¹ National Oceanic and Atmospheric Administration
<http://www.wrh.noaa.gov/slc/climate/TemperatureInversions.php>. Accessed November 8, 2010

when these conditions are combined with smoke from agricultural burning or when temperature inversions trap cool air, fog, and pollutants near the ground.

The ozone (O₃) season (May through October) in the Sacramento Valley is characterized by stagnant air or light winds, with the delta sea breeze arriving in the afternoon out of the southwest. Usually, the evening breeze transports the airborne pollutants to the north, out of the Valley. During about half of the days from July to September, however, a phenomenon called the “Schultz Eddy” prevents this from occurring. Instead of allowing for the prevailing wind patterns to move north, carrying the pollutants out of the Valley, the Schultz Eddy causes the wind pattern to circle back south. This phenomenon’s effect exacerbates the pollution levels in the area and increases the likelihood of violating federal or state standards.² The Schultz Eddy normally dissipates around noon, when the delta sea breeze arrives.

AIR POLLUTANTS AND AMBIENT AIR QUALITY STANDARDS

The Clean Air Act, which was last amended in 1990, requires the Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment. The Clean Air Act established two types of national air quality standards: primary and secondary standards. Primary standards set limits to protect public health, including the health of “sensitive” populations, such as asthmatics, children, and the elderly. Typically, primary pollutants are substances directly emitted from a process, such as ash from a volcanic eruption or carbon monoxide gas emitted from a motor vehicle exhaust. Secondary standards set limits to protect public welfare, including protection against decreased visibility, damage to animals, crops, vegetation, and buildings. Secondary pollutants are not emitted directly; they form in the air when primary pollutants react or interact to create substances, such as ground-level ozone, which is a component of photochemical smog.

The EPA Office of Air Quality Planning and Standards (OAQPS) has set NAAQS for six principal pollutants, which are called “criteria” pollutants. Criteria air pollutants are a group of pollutants for which federal or state regulatory agencies have adopted ambient air quality standards. Federal criteria pollutants include ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, particulate matter less than 10 and 2.5 microns in diameter, and lead. State-designated criteria pollutants also include visibility-reducing particles, sulfates, and hydrogen sulfide.³ Criteria air pollutants are classified in each air basin, county, or, in some cases, within a specific urbanized area. The classification is determined by comparing actual monitoring data with state and federal standards. If a pollutant concentration is lower than the standard, the area is classified as in “attainment” for that pollutant. If an area exceeds the standard, the area is classified as in “non-attainment” for that pollutant. If there are not enough data available to

² SMAQMD Air Guide to Air quality assessment in Sacramento County, December 2009.
<http://www.airquality.org/ceqa/cequguideupdate/Ch1IntroAQFINAL.pdf>. Accessed November 8, 2010

³EPA; <http://www.epa.gov/air/criteria.html>. Accessed November 9, 2010

determine whether the standard is exceeded in an area, the area is designated “unclassified.” Sacramento County is designated as nonattainment areas for national and state ambient air quality standards (AAQS) for ozone, PM₁₀ and PM_{2.5}. The County was designated in attainment or unclassified for all remaining pollutants.⁴ The main criteria pollutants are described below.

Ozone (O₃) is not usually emitted directly into the air, but is created at ground level by a chemical reaction between oxides of nitrogen (NO_x) and volatile organic compounds (VOC) in the presence of sunlight. **The United States Environmental Protection Agency formerly called VOC reactive organic gases, or ROG – the latter term is still in use in most modeling programs and by the Sacramento Metropolitan Air Quality Management District. The term ROG is used throughout this document.** Ozone has the same chemical structure whether it occurs miles above the earth or at ground level. In the earth's lower atmosphere, ground-level ozone is a respiratory irritant and an oxidant that increases susceptibility to respiratory infections and can cause substantial damage to vegetation and other materials. Motor vehicle exhaust and industrial emissions, gasoline vapors, and chemical solvents, as well as natural sources, emit NO_x and VOC **ROG** that help form ozone. Ground-level ozone is the primary constituent of smog. Sunlight and hot weather cause a chemical reaction between ozone precursors and increase the levels of ozone to potentially harmful concentrations. As a result, it is known as a summertime air pollutant. Many urban areas tend to have high levels of ground-level ozone, but even rural areas are subject to increased ozone levels because wind carries ozone and the pollutants that form it hundreds of miles away from their original sources.

Carbon Monoxide (CO) is a colorless, odorless gas that is formed when carbon in fuel is not burned completely. It is a component of motor vehicle exhaust, which contributes about 56 percent of all CO emissions nationwide. Other sources of CO emissions include industrial processes such as metals processing and chemical manufacturing, residential wood burning, and natural sources such as forest fires. The highest levels of CO in the outside air typically occur during the colder months of the year when inversion conditions are more frequent. The air pollution becomes trapped near the ground beneath a layer of warm air.

Particulate Matter (PM₁₀ and PM_{2.5}) is a complex mixture of extremely small particles and liquid droplets. Particle pollution is made up of a number of components, including acids (such as nitrates and sulfates), organic chemicals, metals, and soil or dust particles. The size of particles is directly linked to their potential for causing health problems. EPA is concerned about particles that are 10 micrometers in diameter or smaller because those are the particles that generally pass through the throat and nose and enter the lungs. EPA groups particle pollution into two categories:

⁴ Sacramento Metropolitan Air Quality Management District.
<http://www.airquality.org/aqdata/attainmentstat.shtml> Accessed: June 27, 2011.

"Inhalable coarse particles," such as those found near roadways and dusty industries, are larger than 2.5 micrometers and smaller than 10 micrometers in diameter.

"Fine particles," such as those found in smoke and haze, are 2.5 micrometers in diameter and smaller. These particles can be directly emitted from sources such as forest fires, or they can form when gases emitted from power plants, industries, and automobiles react in the air.

Nitrogen Dioxide (NO₂) is one in a group of highly reactive gasses known as nitrogen oxides (NO_x). Other nitrogen oxides include nitrous acid and nitric acid. While EPA's NAAQS covers this entire group of NO_x, NO₂ is the component of greatest interest and the indicator for the larger group of nitrogen oxides. NO₂ forms quickly from emissions from cars, trucks and buses, power plants, and off-road equipment. In addition to contributing to the formation of ground-level ozone and fine-particle pollution, NO₂ is linked to a number of adverse effects on the respiratory system.

Sulfur Dioxide (SO₂) is one of a group of highly reactive gasses known as oxides of sulfur. The largest sources of SO₂ emissions are from fossil fuel combustion at power plants (73%) and other industrial facilities (20%). Smaller sources of SO₂ emissions include industrial processes such as extracting metal from ore, and the burning of high sulfur-containing fuels by locomotives, large ships, and non-road equipment.

Lead (Pb) is a metal found naturally in the environment as well as in manufactured products. The major sources of lead emissions have historically been motor vehicles (such as cars and trucks) and industrial sources. As a result of EPA's regulatory efforts to remove lead from gasoline, emissions of lead from the transportation sector declined by 95 percent between 1980 and 1999, and levels of lead in the air decreased by 94 percent during the same time period. Today, the highest levels of lead in air are usually found near lead smelters. Other stationary sources are waste incinerators, utilities, and lead-acid battery manufacturers.⁵

Exposure to these pollutants is associated with numerous effects on human health, including increased respiratory symptoms, hospitalization for heart or lung diseases, and even premature death. Health effects of the main criteria pollutants are shown below in Table AQ-1.

⁵ <http://www.epa.gov/airquality/urbanair/>. Accessed November 9, 2010

Table AQ-1: Health Effects of Main Criteria Pollutants

Pollutant	Adverse Effects
Ozone	<ul style="list-style-type: none"> ▪ Ozone can irritate lung airways and cause inflammation. Other symptoms include wheezing, coughing, and breathing difficulties during exercise or outdoor activities. People with respiratory problems are most vulnerable, but even healthy people that are active outdoors can be affected when ozone levels are high. ▪ Repeated exposure to ozone pollution for several months may cause permanent lung damage. ▪ Even at very low levels, ground-level ozone triggers a variety of health problems including aggravated asthma, reduced lung capacity, and increased susceptibility to respiratory illnesses like pneumonia and bronchitis. ▪ Ground-level ozone interferes with the ability of plants to produce and store food, which makes them more susceptible to disease, insects, other pollutants, and harsh weather. ▪ Ozone reduces crop and forest yields and increases plant vulnerability to disease, pests, and weather.
Carbon Monoxide	<ul style="list-style-type: none"> ▪ The health threat from lower levels of CO is most serious for those who suffer from heart disease. For a person with heart disease, a single exposure to CO at low levels may cause chest pain and reduce that person's ability to exercise; repeated exposures may contribute to other cardiovascular effects. ▪ Healthy people can be affected by high levels of CO as well. People who breathe high levels of CO can develop vision problems, reduced ability to work or learn, reduced manual dexterity, and difficulty performing complex tasks. At extremely high levels, CO is poisonous and can cause death. ▪ CO contributes to the formation of ground-level ozone, which can trigger serious respiratory problems.
Particulate Matter	<ul style="list-style-type: none"> ▪ Particle pollution, especially fine particles, contains microscopic solids or liquid droplets that are so small that they can get deep into the lungs and cause serious health problems. Numerous scientific studies have linked particle pollution exposure to a variety of problems, including: increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; decreased lung function, aggravated asthma, development of chronic bronchitis; irregular heartbeat, nonfatal heart attacks; and premature death. ▪ Particles can be carried over long distances by wind and then settle on ground or water. The effects of this settling include: making lakes and streams acidic; changing the nutrient balance in coastal waters and large river basins; depleting the nutrients in soil; damaging sensitive forests and farm crops; and affecting the diversity of ecosystems.
Nitrogen Dioxide	<ul style="list-style-type: none"> ▪ One of the main ingredients involved in the formation of ground-level ozone, which can trigger serious respiratory problems. ▪ Reacts to form nitrate particles, acid aerosols, as well as NO₂, which also cause respiratory problems. ▪ Contributes to formation of acid rain; to nutrient overload that deteriorates water quality; and to atmospheric particles that cause visibility impairment. ▪ Reacts to form toxic chemicals.
Sulfur Dioxide	<ul style="list-style-type: none"> ▪ SO₂ causes a wide variety of health and environmental impacts because of the way it reacts with other substances in the air. ▪ Peak levels of gaseous SO₂ can cause temporary breathing difficulty for people with asthma who are active outdoors. Longer-term exposures to high levels of SO₂ gas and particles cause respiratory illness and aggravate existing heart disease. ▪ SO₂ reacts with other chemicals in the air to form tiny sulfate particles. When these are breathed, they gather in the lungs and are associated with increased respiratory symptoms and disease, difficulty in breathing, and premature death.
Lead	<ul style="list-style-type: none"> ▪ People, animals, and fish are mainly exposed to lead by breathing and ingesting it in food, water, soil, or dust. Lead accumulates in the blood, bones, muscles, and fat. Infants and young children are especially sensitive to even low levels of lead.

Pollutant	Adverse Effects
	<ul style="list-style-type: none"> ▪ Excessive exposure to lead causes seizures, mental retardation, behavioral disorders, memory problems, and mood changes. Low levels of lead damage the brain and nerves in fetuses and young children, resulting in learning deficits and lowered IQ. ▪ Lead exposure causes high blood pressure and increases heart disease, especially in men. Lead exposure may also lead to anemia.
Source: U.S. Environmental Protection Agency, Six Common Air Pollutants, www.epa.gov/air/urbanair/6poll.html , accessed November 12, 2010.	

Toxic Air Contaminants (TACs) are airborne pollutants that may be expected to result in an increase in mortality or serious illness or which may pose a present or potential hazard to human health. TACs are also referred to as toxic air pollutants or hazardous air pollutants. A wide range of sources, from industrial plants, gasoline stations, dry cleaners, automobiles (diesel exhaust), to households emits TACs. Because it is not practical to eliminate all TACs, these compounds are regulated through risk management programs. These programs are designed to eliminate, avoid, or minimize the risk of adverse health effects from exposures to TACs. TACs are known to be highly hazardous to health, even in small quantities.⁶

Both the federal and state governments have established ambient air quality standards for outdoor concentrations of various pollutants in order to protect public health. The federal and state ambient air quality standards have been set at levels where concentrations could be generally harmful to human health and welfare and to protect the most sensitive persons from experiencing health impacts with a margin of safety. Table AQ-2 identifies the federal and state ambient air quality standards that are applicable in California.

⁶ <http://www.airquality.org/ceqa/cequguideupdate/Ch5TACFinal.pdf>. Accessed 11/11/10

Table AQ-2: State and Federal Ambient Air Quality Standards

Pollutant	Symbol	Average Time	Standard, as <u>parts per million</u>		Standard, as <u>micrograms per cubic meter</u>		<u>Violation Criteria</u>	
			California	National	California	National	California	National
Ozone	O ₃	1 hour	0.09		180	--	If exceeded	If exceeded more than 3 days in 3 years
		8 hours	0.070	0.075	137	147	If exceeded	If exceeded more than 3 days in 3 years
Carbon monoxide	CO	8 hours	9.0	9	10,000	10,000	If exceeded	If exceeded more than 1 day per year
		1 hour	20	35	23,000	40,000	If exceeded	If exceeded more than 1 day per year
Nitrogen dioxide	NO ₂	Annual arithmetic mean	0.030	0.053	57	100	If exceeded	If exceeded
		1 hour	0.18	0.1	339	188	If exceeded	
Sulfur dioxide	SO ₂	24 hours	0.04		105		If exceeded	If exceeded more than 1 day per year
		1 hour	0.25	0.075	655	196	If exceeded	N/A
Hydrogen sulfide	H ₂ S	1 hour	0.03	--	42	--	If ≥	N/A
Vinyl chloride	C ₂ H ₃ Cl	24 hours	0.01	--	26	--	If ≥	N/A
Inhalable particulate matter	PM ₁₀	Annual arithmetic mean	--	--	20	--	If exceeded	N/A
		24 hours	--	--	50	150	If exceeded	If exceeded more than 1 day per year
Fine particulate matter	PM _{2.5}	Annual arithmetic mean	--	--	12	15	See National	If exceeded over 3-year average
		24 hours	--	--	--	35	See National	If exceeded over 3-year average
Sulfate particles	SO ₄	24 hours	--	--	25	--	If ≥	N/A
Lead particles	Pb	Quarterly average	--	--	--	1.5	N/A	If exceeded more than 1 day per year
		Rolling 3-month average	--	--	--	0.15	If ≥	N/A
		30-day average	--	--	1.5	--	If ≥	

Source: ARB 2011 <http://www.arb.ca.gov/research/aaqs/aaqs2.pdf>. Accessed January 2011. NOTES: 1) All standards are based on measurements at 25 C and 1 atmosphere pressure. 2) National standards shown are the primary (health effects) standards. 3) N/A = not applicable.

EXISTING AIR QUALITY CONDITIONS

The California Air Resources Board (ARB) collects ambient air quality data through a network of air monitoring stations throughout the state. Many of the monitoring stations are part of the state and local air monitoring plans, which collect data on ambient levels of gaseous and particular air pollutants used to determine attainment status.

EMISSION SOURCES

Stationary sources of air pollution near the Project site include A. Teichert & Son Aggregate, Aerojet, Puente Wood Products, Sacramento Rendering Company, Teledyne MEC, Granite Construction, and concrete recycling. There are also hard-rock quarries to the north and east of the site which have either been approved (Teichert Quarry) or are proposed and have a published Draft Environmental Impact Report (Stoneridge Quarry). Mobile sources of air pollution include cars, trucks, buses, motorcycles, off-road equipment, construction activities, and consumer products, as well as gas-powered lawn tools and mowers, farm and construction equipment, recreational vehicles, planes, and trains. Sources of toxic air contaminants include manufacturing facilities, the Kiefer Landfill, and emissions from auto body shops, auto machine shops, dry cleaners, and gas stations. Indirect sources of air pollution, including diesel exhaust, are predominantly from vehicle trips along major thoroughfares in the vicinity of the Project area. There are some existing agriculture uses in the vicinity of the Project site and Mather Airport is located approximately 4.4 miles to the west.

Some individuals are considered to be more sensitive than others to air pollution. Reasons for greater sensitivity can include existing health problems, duration of exposure to air pollutants, or certain peoples' increased susceptibility to pollution-related health problems due to factors such as age.

The ARB issued a guidance document on air quality and land use called *Air Quality and Land Use Handbook: A Community Health Perspective*, which recommends that sensitive land uses not be located within 500 feet of a freeway or other high traffic roadway and that a site-specific health risk assessment be performed as a way to more accurately evaluate the risk for sensitive uses planned within 500 feet of such roads.⁷

MONITORING DATA

The Sacramento Metropolitan Air Quality Management District (SMAQMD) and ARB maintain several air quality monitoring sites in the Sacramento area; however, none are located in Cordova Hills and not all monitoring sites measure all air pollutants. The nearest monitoring site for ozone is at Sloughhouse, and the nearest monitoring site for carbon monoxide, PM_{2.5}, nitrogen dioxide, and sulfur dioxide is at Del Paso Manor at

⁷ <http://www.arb.ca.gov/ch/landuse.htm>. Accessed November 12, 2010

2701 Avalon Dr. in Sacramento. The nearest monitoring site for PM₁₀ is the Sacramento Branch Center Road site, located near Bradshaw Road south of U.S. 50. Based on these monitoring sites, all federal ambient air quality standards have been met in the County, with the exception of ozone, which exceeded the eight-hour average on 24 occasions in 2009. Also, California standards for PM₁₀ and ozone were exceeded in the County in 2007, 2008, and 2009 as shown in Table AQ-3.

Table AQ-3: Exceedance of National and State Air Pollution Standards in the Sacramento Area

Pollutant	2007	2008	2009
OZONE (1-hour)¹			
Highest 1-hour (ppm)	0.097	0.148	0.122
Days>0.09 ppm (State)	2	16	11
OZONE (8-hour)			
Highest 8-hour (ppm)	0.089	0.108	0.099
Days>0.08 (National) ²	10	19	24
Days>0.07 (State) ¹	17	37	34
CARBON MONOXIDE			
Highest 8-hour (ppm)	2.90	2.49	2.77
Days>=9.0 ppm (National and State)	0	0	0
PARTICULATE MATTER (PM₁₀)³			
Highest 24-hour Concentration (ug/m ³)	75	72	48
Days>150 ug/m ³ (National)	0	0	0
Days>50 ug/m ³ (State)	30.2	68.7	12.2
NITROGEN DIOXIDE			
Highest 1-hour (ppm)	0.051	0.058	0.049
Days>.25 ppm (State)	0	0	0
Annual Mean (National) > 0.053 ppm	0	0	0
¹ Data derived from Sloughouse monitoring station. Sloughouse monitoring station only collects data for ozone levels. ² Based on 2008 8-Hour Standard. ³ Data Derived from Branch Center Road Monitoring station. Branch Center Road is the nearest station that collects PM ₁₀ data. Source: California Air Resources Board, http://www.arb.ca.gov/adam , accessed November 11, 2010.			

ADDITIONAL SITE-SPECIFIC AIR QUALITY ISSUES

TOXIC AIR POLLUTANTS

The ARB has identified approximately 200 toxic substances, including those identified by EPA on the California Air Toxic's Program TAC List. Toxic air contaminants are different from the criteria pollutants, in that ambient air quality standards have not been established for toxic air contaminants, largely because there are hundreds of air toxics and their effects on health tend to be local rather than regional. The dose of a TAC to which receptors are exposed is the primary factor used to determine health risk. Duration of exposure, concentration of TAC exposure, and breathing rate in relationship to body size are important factors used in determining health risks. Health effects associated with TACs include cancer, birth defects, neurological damage, genetic damage; or short-term acute effects such as eye watering, respiratory irritation, running nose, throat pain, and headaches. As mentioned above, TACs can be emitted from various common sources such as industrial plants, gasoline stations, dry cleaners, automobiles, and trucks (in the form of diesel exhaust).

ODORS

The issue of odor as a health concern is still a relatively new idea. Merely identifying the hundreds of sources that cause offensive odors poses a big challenge. Odors can potentially affect human health in several ways. First, odorant compounds can irritate the eye, nose, and throat, which can cause respiratory complications. Second, the chemicals that cause odors can stimulate sensory nerves to cause neurochemical changes that might influence health, for instance, by compromising the immune system. Finally, unpleasant odors can trigger memories or attitudes linked to unpleasant odors, causing cognitive and emotional effects such as stress.

SENSITIVE RECEPTORS

Sensitive receptors are populations that are more susceptible to the effects of air pollution than is the population at large. While the ambient air quality standards are designed to protect public health and are generally regarded as conservative for healthy adults, there is greater concern to protect adults who are ill or have long-term respiratory problems and young children whose lungs are not fully developed. According to ARB, sensitive receptors include children less than 14 years of age, the elderly over 65 years of age, athletes, and people with cardiovascular and chronic respiratory diseases.

Land uses such as day care centers, primary and secondary schools, hospitals, and convalescent homes are considered to be sensitive receptors to poor air quality because the very young, the old, and the infirm are more susceptible to respiratory infections and other air quality related health problems than the general public. Residential uses are considered sensitive because people in residential areas are often at home for extended periods of time, so they can be exposed to pollutants for extended

periods. Recreational areas are considered moderately sensitive to poor air quality because vigorous exercise associated with recreation places a high demand on human respiratory function.

REGULATORY SETTING

FEDERAL

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

The EPA is the federal agency responsible for setting and enforcing the federal ambient air quality standards for atmospheric pollutants. The EPA regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain locomotives. The EPA also has jurisdiction over emission sources outside state waters (outer continental shelf), and establishes various emissions standards for vehicles sold in states other than California.

As part of its enforcement responsibilities, the EPA requires each state with non-attainment areas to prepare and submit a State Implementation Plan (SIP) that demonstrates the means to attain the federal standards. The SIP must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution in non-attainment areas, using a combination of performance standards and market-based programs.

FEDERAL CLEAN AIR ACT

The Clean Air Act (CAA) of 1970 and the CAA Amendments of 1971 required the EPA to establish NAAQS with states retaining the option to adopt more stringent standards or to include other specific pollutants. These standards are the levels of air quality considered, with an adequate margin of safety, to protect the public health and welfare. They are designed to protect those “sensitive receptors” most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

Current NAAQS and area attainment status is discussed under Regional and Local Air Quality above. The CAA and its subsequent amendments require each state to prepare a SIP. The CAA Amendments dictate that states containing areas violating the NAAQS revise their SIPs to include extra control measures to reduce air pollution. The SIP includes strategies and control measures to attain the NAAQS by deadlines established by the CAA. The SIP is periodically modified to reflect the latest emissions inventories, plans, and rules and regulations of air basins as reported by the agencies with

jurisdiction over them. The EPA has the responsibility to review all SIPs to determine if they conform to the requirements of the CAA.

STATE

CALIFORNIA AIR RESOURCES BOARD

ARB, a part of the California EPA (CalEPA), is responsible for the coordination and administration of both federal and state air pollution control programs within California. In this capacity, the ARB conducts research, sets California Ambient Air Quality Standards (CAAQS), compiles emission inventories, develops suggested control measures, and provides oversight of local programs. The ARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. The ARB has primary responsibility for the development of California's SIP, for which it works closely with the federal government and the local air districts.

In addition to standards set for the six criteria pollutants, the state has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety. Further, the state has established a set of episode criteria for ozone, carbon monoxide, sulfur dioxide, nitrogen dioxide, and particulate matter. These criteria refer to episode levels representing periods of short-term exposure to air pollutants that actually threaten public health. The attainment status of the CAAQS for the Project area is discussed under Air Pollutants and Ambient Air Quality Standards, above.

CALIFORNIA CLEAN AIR ACT

The CCAA of 1988 requires non-attainment areas to achieve and maintain the CAAQS by the earliest practicable date and local air districts to develop plans for attaining the state ozone, carbon monoxide, sulfur dioxide, and nitrogen dioxide standards. The CCAA also requires that by the end of 1994 and once every three years thereafter, the air districts are to assess their progress toward attaining the air quality standards. The triennial assessment is to report the extent of air quality improvement and the amounts of emission reductions achieved from control measures for the preceding three-year period.

THE AIR TOXICS HOT SPOTS INFORMATION AND ASSESSMENT ACT

California Health and Safety Code Section 44300 et seq., provides for the regulation of over 200 air toxics and contain the primary air contaminant legislation in the state. Under the Act, local air districts may request that a facility account for its TAC emissions. Local air districts then prioritize facilities on the basis of emissions, and high-priority designated facilities are required to submit a health risk assessment and

communicate the results to the affected public. The TAC control strategy involves reviewing new sources to ensure compliance with required emission controls and limits, maintaining an inventory of existing sources of TACs, and developing new rules and regulations to reduce TAC emissions. The purpose of AB 2588 is to identify and inventory toxic air emissions and to communicate the potential for adverse health effects to the public.

On November 16, 2006, the Air Resources Board adopted amendments to the AB 2588 Air Toxics "Hot Spots" Emission Inventory Criteria and Guidelines Regulation (Title 17, California Code of Regulations, Section 93300.5) that will accommodate stationary diesel engines in the "Hot Spots" Program.

ASSEMBLY BILL 1807

AB 1807, enacted in September 1983, sets forth a procedure for the identification and control of TACs in California. AB 1807 defines a TAC as an air pollutant that may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health. The ARB prepares identification reports on candidate substances under consideration for listing as TACs. The reports and summaries describe the use of and the extent of emissions in California resulting in public exposure, together with their potential health effects.

In 1998, the ARB identified diesel particulate matter (DPM) as a toxic air contaminant under the AB 1807 program. DPM is emitted into the air via heavy-duty diesel trucks, construction equipment, and passenger cars. In October 2000, the ARB released a report entitled Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles. This plan identifies DPM as the predominant TAC in California and proposes methods for reducing diesel emissions.

LOCAL

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT.

The SMAQMD was created by state law to enforce local, state, and federal air pollution regulations within the Sacramento Valley Air Basin. The SMAQMD's overall mission is to achieve clean air goals by leading the Sacramento region in protecting public health and the environment through effective programs, community involvement, and public education. The SMAQMD interacts with local, state, and federal government agencies, the business community, environmental groups, and private citizens to achieve these goals. The SMAQMD regulates air pollutant emissions from stationary sources through permit limitations and inspection programs and oversees compliance with state and federal mandates by adopting rules and regulations as necessary.

Because the Sacramento Valley Air Basin is in nonattainment for ozone, PM₁₀, and PM_{2.5}, the SMAQMD requires the implementation of the following Basic Construction Emission Control Practices (BCECPs), regardless of the project's significance determination under CEQA.

- Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to, soil piles, graded areas, unpaved parking areas, staging areas, and access roads;
- Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered;
- Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited;
- Limit vehicle speeds on unpaved roads to 15 miles per hour (mph);
- All roadways, driveways, sidewalks, and parking lots to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used;
- Minimize idling time by either shutting equipment off when not in use or reducing time of idling to 5 minutes. Provide clear signage that posts this requirement for workers at the entrances to the site; and
- Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determine to be running in proper condition before it is operated.

If implementation of BCECPs does not reduce construction emissions to below the regulatory thresholds, the following Enhanced Construction Emission Control Practices (ECECPs) should be included to further reduce project NO_x, PM₁₀, and PM_{2.5} emissions.

- The project shall provide a plan for approval by the District demonstrating that the heavy-duty (50 horsepower or more) off-road vehicles to be used in the construction project, including owned, leased, and subcontractor vehicles, will achieve a project wide fleet-average 20% NO_x reduction and a 45% particulate reduction compared to the most recent ARB fleet average. Acceptable options for reducing emissions may include use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as they become available;
- The project shall ensure that emissions from all off-road, diesel-powered equipment used on the project site do not exceed 40% opacity for more than three minutes in any one hour. Any equipment found to exceed 40 percent opacity shall be repaired immediately, and the lead agency and District shall be notified within 48 hours of identification of non-compliant equipment. A visual survey of all in-operation equipment shall be made at least weekly, and a monthly summary shall include the quantity and type of vehicles surveyed, as well as the dates of each survey;
- If, at the time of construction, the District has adopted a regulation applicable to construction emissions, compliance with the regulation may completely or

partially replace this regulation. Consultation with the District prior to construction will be necessary to make this determination;

- Water exposed soil with adequate frequency for continued moist soil. However, do not overwater to the extent that sediment flows off the site;
- Suspend excavation, grading, and/or demolition activities when wind speeds exceed 20 mph;
- Install wind breaks (e.g., plant trees, solid fencing) on windward sides of construction areas;
- Plant vegetative ground cover (fast-germinating native grass seed) in disturbed areas as soon as possible. Water appropriately until vegetation is established;
- Install wheel washers for all exiting trucks, or wash off all trucks and equipment leaving the site;
- Treat site access to a distance of 100 feet from the paved road with a 6- to 12-inch layer of wood chips, mulch, or gravel to reduce generation of road dust and road dust carryout onto public roads; and
- Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The phone number of the District shall also be visible to ensure compliance.

The SMAQMD issued its *2009 Triennial Report* in December of 2009, which identifies “all feasible measures” the SMAQMD would study or adopt over the ensuing three years to make progress toward attainment of state ozone standards. The measures include additional control programs for mobile and stationary sources, land use and transportation programs, community education programs, and ozone transport mitigation in order to reduce NO_x and ROG emissions in order to achieve the state ozone standard. The SMAQMD anticipates an additional reduction in NO_x and ROG emissions of 1.68 tons per day and 1.32 tons per day, respectively, with the implementation of the *2009 Triennial Report and Plan Revision*. In addition to the Triennial Report, ARB requires the SMAQMD to prepare an annual progress report. The *2007 Annual Progress Report*, the most recent, adopted in October 2008, provides updates for all the proposed SMAQMD control programs, the schedule for adopting control measure commitments, and the evaluation of further study measures.

2030 SACRAMENTO COUNTY GENERAL PLAN

The General Plan includes the following policies that pertain to air quality:

AQ-1. New development shall be designed to promote pedestrian/bicycle access and circulation to encourage community residents to use alternative modes of transportation to conserve air quality and minimize direct and indirect emission of air contaminants.

- AQ-2. Support Regional Transit's efforts to secure adequate funding so that transit is a viable transportation alternative. Development shall pay its fair share of the cost of transit facilities required to serve the project.
- AQ-3. Buffers and/or other appropriate mitigation shall be established on a project-by-project basis and incorporated during review to provide for protection of sensitive receptors from sources of air pollution or odor. The California Air Resources Board's "Air Quality and Land Use Handbook: A Community Health Perspective", and the AQMD's approved Protocol (Protocol for Evaluating the Location of Sensitive Land uses Adjacent to Major Roadways) shall be utilized when establishing these buffers.
- AQ-4. Developments which meet or exceed thresholds of significance for ozone precursor pollutants as adopted by the Sacramento Metropolitan Air Quality Management District (SMAQMD), shall be deemed to have a significant environmental impact. An Air Quality Mitigation Plan shall be submitted to the County of Sacramento prior to project approval, subject to review and recommendation as to technical adequacy by the Sacramento Metropolitan Air Quality Management District.
- AQ-5. Reduce emissions associated with vehicle miles travelled and evaporation by reducing the surface area dedicated to parking facilities; reduce vehicle emissions associated with "hunting" for on-street parking by implementing innovative parking solutions including shared parking, elimination of minimum parking requirements, creation of maximum parking requirements, and utilize performance pricing for publicly owned parking spaces both on- and off-street, as well as creating parking benefit districts.
- AQ-8. Promote mixed-use development and provide for increased development intensity along existing and proposed transit corridors to reduce the length and frequency of vehicle trips.
- AQ-10. Encourage vehicle trip reduction and improved air quality by requiring development projects that exceed the SMAQMD's significance thresholds for operational emissions to provide on-going, cost-effective mechanisms for transportation services that help reduce the demand for existing roadway infrastructure.
- AQ-16. Prohibit the idling of on-and off-road engines when the vehicle is not moving or when the off-road equipment is not performing work for a period of time greater than five minutes in any one-hour period.
- AQ-17. Promote optimal air quality benefits through energy conservation measures in new development.
- AQ-19. Require all feasible reductions in emissions for the operation of construction vehicles and equipment on major land development and roadway construction projects.

- AQ-20. Promote Cool Community strategies to cool the urban heat island, reduce energy use and ozone formation, and maximize air quality benefits by encouraging four main strategies including, but not limited to: plant trees, selective use of vegetation for landscaping, install cool roofing, and install cool pavements.
- AQ-21. Support SMAQMD's particulate matter control measures for residential wood burning and fugitive dust.
- EN-5. Reduce travel distances and reliance on the automobile and facilitate increased use of public transit through appropriate land use plans and regulations.
- CI-40. Whenever possible, the applicant/developer of new and infill development projects shall be conditioned to fund, implement, operate and/or participate in TSM programs to manage travel demand associated with the project.
- CI-41. Consider TSM programs that increase the average occupancy of vehicles and divert automobile commute trips to transit, walking, and bicycling.
- CI-43. The County shall promote transit-supportive programs in new development, including employer-based trip-reduction programs (employer incentives to use transit or non-motorized modes), "guaranteed ride home" for commute trips, and car-share or bike-share programs.
- CI-67. When feasible, incorporate lighter colored (higher albedo) materials and surfaces, such as lighter-colored pavements, and encourage the creation of tree canopy to reduce the built environment's absorption of heat to reduce the urban "heat island" effect.
- HM-12. Continue the effort through the Sacramento Metropolitan Air Quality Management District (AQMD) to inventory and reduce toxic air contaminants as emission standards are developed.
- LU-27. Provide safe, interesting and convenient environments for pedestrians and bicyclists, including inviting and adequately-lit streetscapes, networks of trails, paths and parks and open spaces located near residences, to encourage regular exercise and reduce vehicular emissions.
- LU-37. Provide and support development of pedestrian and bicycle connections between transit stations and nearby residential, commercial, employment or civic uses by eliminating physical barriers and providing linking facilities, such as pedestrian overcrossings, trails, wide sidewalks and safe street crossings.
- LU-39. Support implementation of the ADA Transitional Plan and the Pedestrian Master Plan to create a network of safe, accessible and appealing pedestrian facilities and environments.

- LU-40. Employ appropriate traffic calming measures in areas where pedestrian travel is desirable but made unsafe by a high volume or excessive speed of automobile traffic. Preference shall be given to measures that slow traffic and improve pedestrian safety while creating the least amount of conflict with emergency responders.
- LU-42. Master planning efforts for new growth areas shall provide for separated sidewalks along all arterials and thoroughfares to make walking a safer and more attractive transportation option.
- PF-21. Property buffering the County landfill shall remain in agricultural, recreational or other open space uses and extend at least 2,000 feet in all directions, measured from the landfill's permitted boundary, unless the Department of Waste Management and Recycling determines that the use is compatible with landfill operations and the Board of Supervisors makes the finding that the uses are compatible with the existing or future operations of the landfill.

SIGNIFICANCE CRITERIA

A project may be deemed to have a significant effect on the environment if it will violate any ambient air quality standard, contribute substantially to an existing or projected air quality violation, conflict or obstruct the implementation of applicable air quality plans, or expose sensitive receptors to substantial pollutant concentrations. SMAQMD has adopted significance thresholds for CEQA projects within the District, as published in the SMAQMD's *Guide to Air Quality Assessment in Sacramento County* (SMAQMD Guide). The adopted significance thresholds for criteria pollutants of the greatest concern in the Sacramento area (those for which the region is in non-attainment) include the following:

- Short-term (construction) emissions of NO_x above 85 pounds per day;
- Long-term (operational) emissions of NO_x or ROG above 65 pounds per day;
- PM₁₀ concentrations equal to or greater than five percent of the state ambient air quality standard (i.e., 50 micrograms/cubic meter (µg/m³) for 24 hours) at off-site receptors. The SMAQMD holds that if project emissions of NO_x and ROG are below 65 pounds per day then the project would not threaten violations of the PM₁₀ AAQS;
- CO concentrations that exceed the 1-hour state ambient air quality standard (i.e., 20.0 ppm) or the 8-hour state ambient standard (i.e., 9.0 ppm);
- TAC exposures that create a risk of 10 in 1 million for stationary sources;
- A substantial increase to the risk of exposure to TACs from mobile sources;

The CEQA Guidelines Appendix G indicates that a Project should be analyzed to determine whether objectionable odors would be created which would affect a substantial number of people. Numeric thresholds for odor impacts have not been established by the SMAQMD; however, the air district recommends that several factors be taken into account when determining the significance of a potential odor impact. For the purposes of this report, the following were considered when making a determination as to whether a substantial number of people would be affected by objectionable odors:

- The nature of the odor source is typically considered objectionable and offensive to most individuals;
- The buffer zone, in conjunction with meteorology, is insufficient to mitigate for source odors;
- Area meteorology increases the potential for odor impacts; and/or
- There are a substantial number of odor complaints for an existing odor source.

The SMAQMD states that a project's contribution to impacts would be considered to be cumulatively considerable if:

- There is a net increase of any criteria pollutant for which the project area is in non-attainment under an applicable federal or state ambient air quality standard (including the release of emissions that exceed quantitative thresholds for ozone precursors).

METHODOLOGY

CONSTRUCTION IMPACT METHODOLOGY

DETERMINATION OF CONSTRUCTION NO_x IMPACTS

Emissions of NO_x from construction activities are generated from the operation of heavy equipment. Proposed Project-generated construction emissions of NO_x were calculated through URBEMIS 2007 version 9.2.4 (URBEMIS), using the construction phasing plan provided by MacKay & Soms⁸ and follows the methodologies included in the SMAQMD's Guide to Air Quality Assessment in Sacramento County. For projects that exceed NO_x thresholds with the inclusion of the BCECP, the SMAQMD recommends the implementation of EECs (a full account of these measures is included in Appendix AQ-1); these are considered to be the feasible available measures.

⁸ MacKay & Soms Phasing Plan, November 2010.

DETERMINATION OF CONSTRUCTION PM_{10} AND $PM_{2.5}$ IMPACTS

The SMAQMD recommends that construction emissions of PM_{10} be addressed as a localized pollutant. Further, because $PM_{2.5}$ is a subset of PM_{10} , the District assumes that construction projects not exceeding thresholds for PM_{10} would also not exceed thresholds for $PM_{2.5}$. Dispersion modeling by the SMAQMD indicates that if projects implement all of the Basic Construction Emission Control Practices (BCECP) and do not exceed 15 acres of active grading at any one time, that particulate matter emissions will be less than significant. Any project which exceeds this amount of grading is assumed to exceed the significance threshold of $50 \mu\text{g}/\text{m}^3$. The Project was evaluated using the above screening criteria and the Project-specific construction phasing provided by MacKay and Soms.

OPERATIONAL IMPACT METHODOLOGY

DETERMINATION OF OPERATIONAL NO_x AND ROG EMISSIONS

Most of the ozone precursor emissions from the Project result from mobile and area sources. Mobile sources include motor vehicle traffic, while area sources include pollutants generated from furnaces, water heaters/boilers, facility maintenance equipment, and consumer products. Project-generated NO_x and ROG emissions were calculated through URBEMIS, with the model estimates adjusted to reflect the trip rates defined by the Project-specific traffic study. Emissions reductions ~~were accomplished~~ **were calculated** through the production of an Air Quality Management Plan⁹ (AQMP), which ~~was~~ **is** designed to achieve a minimum 35% emissions reduction **at full build-out of the Project** (per guidance from SMAQMD, indicating that this represents the feasible mitigation that should be applied). The AQMP is included as Appendix AQ-2.

DETERMINATION OF OPERATIONAL CO EMISSIONS

Emissions and ambient concentrations of CO have decreased dramatically with the increase in vehicle efficiencies and emission-control feature effectiveness. Although the Basin is designated as an attainment area by both ARB and the EPA, elevated localized concentrations of CO still warrant consideration with respect to environmental analysis. Occurrences of localized “hot spots” are typically associated with heavy traffic congestion occurring at signalized intersections of high-volume roadways. The SMAQMD recommends two methods for analyzing CO concentrations: a screening level analysis and dispersion modeling. The Project was evaluated using the below screening criteria and the traffic and Level of Service (LOS) information from the Project traffic study.

⁹ William Hezmalhalch Architects, Inc., Cordova Hills Operational Air Quality Management Plan, January 24, 2011.

SCREENING CRITERIA FOR CARBON MONOXIDE HOTSPOTS

The SMAQMD screening criteria are divided into two tiers, developed to help lead agencies analyze potential CO impacts when site-specific CO dispersion modeling may not be warranted. This two-tiered approach provides a conservative indication of the potential for project-generated vehicle trips to result in the exceedance of significance thresholds. According to the First Tier of the SMAQMD Screening Criteria, a project would be less than significant for local CO emissions if:

- Traffic generated by the Project would not result in deterioration of intersection LOS to LOS E or F; or
- The project would not contribute additional traffic to an intersection that already operates at LOS E or F.

If the first screening level tier is not met, the Project would be considered less than significant if it meets all of the following:

- The project would not result in an affected intersection experiencing more than 31,600 vehicles per hour;
- The project would not contribute traffic to a tunnel, parking garage, bridge underpass, urban street canyon, or below-grade roadway, or other locations where horizontal or vertical mixing of air would be substantially limited; and
- The mix of vehicle types at the intersection is not anticipated to be substantially different from the County average.

TOXIC AIR CONTAMINANTS

The ARB indicates that one of the highest public health priorities is the reduction of diesel particulate matter (DPM) generated by vehicles on California's highways, as it is one of the primary TACs. Other potential TAC generators within the County of Sacramento are associated with specific types of facilities, such as dry cleaners, gas stations, and chrome plating facilities, and are the focus of ARB's control efforts. ARB has made specific recommendations with respect to considering existing sensitive uses when siting new TAC-emitting facilities or with respect to TAC-emitting sources when siting sensitive receptors. ARB¹⁰ recommends that following buffer distances be observed when locating TAC emitters or sensitive land uses:

- Freeways or major roadways – 500 feet;
- Dry cleaners using perchloroethylene – 500 feet;
- Auto body repair services – 500 feet;

¹⁰ ARB *Air Quality and Land Use Handbook—A Community Health Perspective* April 2005.

- Gasoline dispensing stations with an annual throughput of less than 3.6 million gallons – 50 feet;
- Gasoline dispensing stations with an annual throughput at or above 3.6 million gallons – 300 feet;
- Other TAC sources including furniture manufacturing and repair services that use methylene chloride or other solvents identified as a TAC – 300 feet;
- Distribution centers with more than 100 trucks per day; more than 40 trucks with operating transport refrigeration units per day; or where transport refrigeration unit operations exceed 300 hours per week – 1,000 feet;
- Rail yards for major service and maintenance operations – 1,000 feet;
- Chrome platers – 1,000 feet;
- Port developments should not site the heavily impacted areas immediately upwind of sensitive land uses; and
- Petroleum refineries should not site the heavily impacted areas immediately upwind of sensitive land uses.

Several of the uses in the list above are industrial in nature and would not be permissible in the Project area based on the Project land uses allowed in the SPA. These include chrome platers, rail yards, major distribution centers, and refineries. California regulations prohibit the installation of new perchloroethylene dry cleaning equipment; since there are no existing dry cleaners in the Project area, that item is not relevant. The SMAQMD recommends that site-specific health risk assessments be performed to accurately document potential cancer risk when siting sensitive land uses within the above buffer zones.

For the assessment of significant impacts from exposure to TACs from mobile sources, the SMAQMD has issued the Recommended Protocol for Evaluating the Location of Sensitive Land Uses Adjacent to Major Roadways. The Protocol does not establish a threshold of significance for mobile sources, but indicates an evaluation criterion of that level of increased individual risk corresponding to a 70 percent reduction from the highest risk calculated at 50 feet (currently of 276 cases of cancer per million, Sacramento Metropolitan Air Quality Management District 2011). At this level, a Health Risk Assessment is recommended, the results of which should be disclosed in an environmental document.

ODOR IMPACTS

Odiferous compounds can be generated from a variety of sources, including both construction and operational activities and from specific land uses. Land uses that typically generate significant odor impacts include, but are not limited to: wastewater treatment plants, sanitary landfills, composting/green waste facilities; recycling facilities; petroleum refineries, chemical manufacturing plants, painting/coating operations, and food packaging plants.

Thresholds for odor impacts have not been established by the SMAQMD; however, the air district recommends that several factors be taken into account when determining the significance of a potential odor impact. Those parameters include:

- **Nature of the Odor Source:** Odors generated by source types such as wastewater treatment plants, landfills, or rendering plants are typically considered objectionable and offensive to most individuals. Evaluations of the nature of odor sources should include the intensity of the source's operation as well as the time of day and duration of odor emissions.
- **Buffer Zone:** The SMAQMD considers the inclusion of a sufficient buffer zone to be one of the most effective methods to ensure land use compatibility with respect to odors. Distance alone can allow odor emissions to disperse to lower, undetectable levels before reaching receptors. The SMAQMD uses a screening distance of one mile for landfills.

Because the Project site is within one mile of the Kiefer landfill, it is considered to have an increased potential to be impacted by odors from the landfill. A buffer zone that includes dense vegetative cover from trees and shrubs could further reduce the level of the impact by acting as a filter and enabling more vertical or mechanical mixing to occur.

All odor impact discussions should provide the buffer distance and a description of the land features and topography in the buffer zone that separates receptors and the odor source.

- **Meteorology:** Meteorological conditions affect the dispersion of odor emissions, thereby affecting the significance of the impact. The analysis should determine predominant wind direction and the frequency of temperature inversions in the project area and evaluate whether receptors would be upwind or downwind of the odor source.
- **Odor Complaint History:** Projects that would locate receptors near a potential odor source should consider the odor complaint history for the past three years of the source's operations. In reviewing the complaint history, lead agencies should consider the distance of the receptors making the complaint and the upwind/downwind orientation with respect to the source. The SMAQMD considers odor sources to have a substantial number of odor complaints if they have had one confirmed complaint per year averaged over a three-year period or three unconfirmed complaints per year averaged over a three-year period. In general, when a source has a substantial number of odor complaints, that source would be considered to have a potentially significant odor impact.

IMPACTS AND ANALYSIS

The analysis in this section focuses on the nature and magnitude of the change in the air quality environment due to implementation of the Project. The Project would allow for development of 8,000 residential units, 1,350,000 square feet (sf) of commercial-retail development, a 240-acre university for 6,000 students (with 1,010 dorms), and approximately 700 acres of open space to be used as recreation areas, parks, natural preserves, and open space corridors. Air quality impacts are estimated with respect to regional air quality standards and localized sensitive receptors such as schools and residential land uses. The health of people on these properties (including residents of the Project) may be adversely impacted if air emissions exceed a level deemed significant by federal or state agencies. The net increase in site emissions generated by the Project was qualitatively and quantitatively evaluated and compared to thresholds of significance established by the SMAQMD.

IMPACT: CONSTRUCTION ACTIVITIES WOULD INCREASE NO_x EMISSIONS

Construction activities require the use of various combinations and types of construction equipment. Much of this equipment is likely to be diesel-fueled and would emit NO_x as part of the fuel combustion process. Because of the low regulatory threshold (85 pounds per day within the SMAQMD), total daily emissions of NO_x from standard development projects within the Cordova Hills Master Plan Area could exceed the threshold on most days.

During construction of the Project, emissions of NO_x would occur from the operation of equipment necessary to complete the development. These emissions were estimated through the URBEMIS model using the three-phase construction schedule detailing an approximate level of construction per year and default URBEMIS equipment lists. Buildout of the Project will occur over a span of decades, and will be driven by prevailing market conditions in any given year. Based on historical trends within Sacramento County, it can be expected that there will be periods of intense construction in which multiple large areas are subject to concurrent construction, and periods of minimal activity in which the demand for construction abates. This makes it infeasible and speculative to provide an accurate forecast of year-to-year emissions. An example URBEMIS modeling scenario was created to estimate the potential of the Project for impacts, but these results should not be construed as predictive.

For the example modeling scenario, Project buildout could span approximately 30 years with various levels of construction anticipated per year, depending on market demands. The modeling assumes that within each year, each type of residential development and each non-residential land use type is an individual project. Further, it assumes that, as a worst-case scenario, grading phases and construction phases overlap and each project would disturb the total phase acreage daily. In terms of the pounds of emissions per day, the Project impacts could ultimately be greater or less than those reported below depending upon how actual buildout of the Project progresses. Table AQ-4 summarizes the NO_x emissions from the modeled yearly construction activities up to the

year 2035, prior to and after implementation of the BCECP and ECECP measures. It is reasonable to expect that as the planning area nears buildout annual construction activities will decline, as construction occurs on small areas which still remain after the bulk of construction has been completed.

As shown in the table, the Project does have the potential to result in significant impacts throughout most of the life of the Project, even after implementation of the BCECPs and ECECPs. Construction specifications and URBEMIS output are included in Appendix AQ-3. Mitigation is included to ensure that all subsequent projects which occur within the Project area conform to the SMAQMD mitigation and abatement requirements which are in effect at the time. Currently, these requirements include reduction of NO_x pollutants by 20%, and the payment of a fee for projects with NO_x emissions that remain significant even after the 20% reduction. SMAQMD uses the mitigation fees to help fund regional air quality programs, such as the replacement of older construction equipment with newer models and the retrofitting of older equipment with pollution-reducing components. Since NO_x is a precursor to regional ozone formation, mitigation fees are used on projects anywhere within the ozone non-attainment area that meet the cost-effectiveness criteria used to determine the fee. Compliance with SMAQMD regulations and recommended mitigation will ensure that impacts are *less than significant*.

MITIGATION MEASURES:

- AQ-1.** The following language shall be added to the SPA: All individual development projects shall implement Sacramento Metropolitan Air Quality Management District rules and mitigation pertinent to construction-related ozone precursor emissions, as defined by the most current version of the Sacramento Metropolitan Air Quality Management District Guide to Air Quality Assessment.

Table AQ-4: Project NO_x Emissions During Construction (lbs/day)

Year	SMAQMD Threshold	Construction emissions without control measures		Construction emissions with BCECP and ECECP measures	
		NO _x	Significant ?	NO _x	Significant?
2014	85	171.31	Yes	143.51	Yes
2015	85	190.69	Yes	161.44	Yes
2016	85	272.32	Yes	232.34	Yes
2017	85	220.79	Yes	189.02	Yes
2018	85	345.15	Yes	296.19	Yes
2019	85	318.96	Yes	273.64	Yes
2020	85	405.27	Yes	346.38	Yes
2021	85	401.01	Yes	337.91	Yes
2022	85	394.68	Yes	331.58	Yes
2023	85	251.13	Yes	207.39	Yes
2024	85	363.25	Yes	300.55	Yes
2025	85	283.14	Yes	231.45	Yes
2026	85	110.85	Yes	89.00	Yes
2027	85	129.43	Yes	106.38	Yes
2028	85	17.18	No	14.18	No
2029	85	34.40	No	28.39	No
2030	85	34.40	No	28.39	No
2031	85	17.18	No	14.18	No
2032	85	34.40	No	28.39	No
2033	85	17.18	No	14.18	No
2034	85	17.21	No	14.21	No
2035	85	17.21	No	14.21	No

Source: URBEMIS2007 version 9.2.4 modeled by PBSJ January 2011.

IMPACT: OPERATIONAL EMISSIONS OF OZONE PRECURSORS (NO_x OR ROG)

Sacramento County is currently in nonattainment for the federal and state ozone standards. The completed Project would result in emissions of NO_x and ROG generated from area and mobile sources. Emissions from the Project at full buildout in the year 2035 were calculated using the URBEMIS model, with worst-case results provided in Table AQ-5. The URBEMIS defaults were changed to reflect Project-specific data derived from the traffic study performed for the Project (trip rates and lengths). These data already reflect many of the Project features which reduce trip generation, such as the provision of a transit system. The URBEMIS data sheets are included in Appendix AQ-4.

As shown in Table AQ-5, emissions will substantially exceed the threshold of 65 lbs/day. General Plan policy AQ-4 requires that projects with substantial ozone precursor emissions develop a plan to reduce those emissions, and the SMAQMD typically recommends likewise. The typical reduction amount required is 15%; however, SMAQMD indicated that the Project was not included in the land use assumptions of the State Implementation Plan (SIP) for the regional reduction of ozone precursors emissions, and recommended a greater reduction of 35%. Note that these required reductions are reductions from a Business As Usual scenario which was developed by SMAQMD, not from the Project as-designed. The purpose of the Business As Usual scenario is to provide a level playing field, so that projects which already incorporate many emissions-reducing features are not penalized.

Table AQ-5: Project NO_x and ROG Operational Emissions at Buildout

	Emissions in lbs/day ¹
NO_x	415.22 ²
ROG	857.40 ³
1 – PBS&J URBEMIS analysis 2011. 2 – Winter emissions. Summer emissions are 290.18 lbs/day. 3 – Summer emissions. Winter emissions are 735.05 lbs/day.	

In conformance with General Plan policy and SMAQMD recommendations, an AQMP was prepared for the Project to define the processes by which emissions of NO_x and ROG would be reduced; the Business As Usual scenario is described in the AQMP. The full text of the AQMP is included as Appendix AQ-2 and is summarized herein. SMAQMD's "Guidance for Land Use Emission Reductions" v 2.5 (January 2010) provides a description of the most current feasible mitigation measures and their corresponding NO_x and ROG reduction potential; this was the source for most of the reduction measures used in the AQMP. Through design features detailed in the AQMP, the Project would implement the following measures to actively reduce NO_x and ROG emissions, which would result in a 35.32 percent reduction from Business As Usual emissions:

- SMAQMD 28 – Onsite Renewable Energy
- SMAQMD 29 – Exceed Title 24
- SMAQMD 33 – TMA Membership
- SMAQMD 99B – Roundabouts
- SMAQMD 99A – VMT Reduction

The final three items in the AQMP were part of the development of the traffic study, because they reflect the Project as it is designed, and so those reductions are already reflected in the emissions described in Table AQ-5. Giving additional consideration to the first two measures, onsite renewable energy and exceeding Title 24, the AQMP indicates that these measures will further reduce emissions by 4%. Thus, the total mitigated Project emissions will be 398.61 lbs/day of NO_x and 823.10 lbs/day of ROG.

The proposed Project will result in approximately 35% less ozone precursor emissions than a Business As Usual project design. However, even with the reduction afforded by implementation of the AQMP the Project would still exceed the daily emissions thresholds of 65 lbs/day for long-term NO_x and ROG emissions. Therefore, the Project would result in a *significant and unavoidable* impact with respect to operational emissions of NO_x and ROG.

MITIGATION MEASURES:

AQ-2. Comply with the provisions of the Air Quality Management Plan dated June 1, 2011, and incorporate the requirements of this plan into the Cordova Hills Special Planning Area conditions. **Also, the following text shall be added to the Cordova Hills SPA: “All amendments to the Cordova Hills SPA with the potential to result in a change in ozone precursor emissions shall include an analysis which quantifies, to the extent practicable, the effect of the proposed SPA amendment on ozone precursor emissions. The amendment shall not increase total ozone precursor emissions above what was considered in the AQMP for the entire Cordova Hills project and shall achieve the original 35% reduction in total overall project emissions. If the amendment would require a change in the AQMP to meet that requirement, then the proponent of the SPA amendment shall consult with SMAQMD on the revised analysis and shall prepare a revised AQMP for approval by the County, in consultation with SMAQMD.”**

IMPACT: CONSTRUCTION ACTIVITIES WOULD INCREASE PARTICULATE MATTER EMISSIONS

The Project would disturb up to approximately 2,669 acres during a three-phase development schedule estimated to span thirty years. As discussed in the Construction Impact Methodology section, a project will result in less than significant impacts with the implementation of the Basic Construction Emission Control Practices if no more than 15 acres of active site disturbance occurs at any given time. Because the specific construction schedule is unknown and the development of individual projects may overlap, it is likely that construction activities will not be limited to 15 acres. In fact standard SMAQMD guidance indicates that it should be assumed that 25% of a total site will be actively graded at any one time, which means that any site of greater than 60 acres will involve more than 15 acres of active grading. It is reasonable to expect that there will be many projects within the Project area which will involve grading that exceeds the SMAQMD screening threshold, and should be presumed to have significant impacts.

Dust abatement practices are required pursuant to SMAQMD Rule 403 and California Code of Regulations, Title 13, sections 2449(d)(3) and 2485; the SMAQMD Guide simply lays out the basic practices needed to comply. Since these are already required by existing rules and regulations, it is not necessary to include them as mitigation. These practices also constitute all feasible measures available to reduce the impact.

Limiting future projects to no more than 15 acres of active grading has been considered, but is infeasible for a variety of reasons. Firstly, subsequent development under the SPA will be constructed by separate developers, each with their own schedules, so such a measure would require coordinating among all these developers to set schedules which would not result in cumulative exceedance of the 15-acre limitation. The likely result of this would be to prevent certain development projects from progressing until a later construction season. In addition, it would require constant on-site monitoring by County staff to ensure that the measure was being carried out. The measure is impracticable, and is furthermore not recommended by SMAQMD. Despite the application of feasible measures through existing rules and regulations, the Project will result in a *significant and unavoidable* impact related to PM₁₀ and PM_{2.5} emissions generated by construction.

MITIGATION MEASURES:

None available.

IMPACT: IMPLEMENTATION OF THE PROJECT COULD CONFLICT WITH OR OBSTRUCT IMPLEMENTATION OF AIR QUALITY PLANS

In 1994, the SMAQMD established a Clean Air Plan, or State Implementation Plan (SIP), for attaining the federal 1-hour ozone standard in the Sacramento Air Basin (SMAQMD 1994). This plan includes assumptions and allowances for growth and development in the region and details the control measures and Best Management Practices that must be used for the region to make progress toward attainment. The 1994 Clean Air Plan has been updated numerous times since its promulgation. The most recent update to the Clean Air Plan is the *State of Progress Plan* and *2011 Reasonable Further Progress Plan*, both of which address attainment of the federal 8-hour ozone standard. The *2008 Triennial Report* and the *2007 Annual Progress Report* address the attainment of the state ozone standard. The current SIP and the current 2035 Metropolitan Transportation Plan (MTP) published by the Sacramento Area Council of Governments both used the same growth assumptions. A draft update to the MTP has been published, but has not been adopted at this time. The project area is shown in the draft MTP as being “not identified for development during the MTP/SCS [Sustainable Communities Strategy] planning period”.

The Project would develop a residential/mixed-use community, including a potential university or college, on approximately 2,669 acres. The Cordova Hills Master Plan area is within the jurisdiction of the SMAQMD and, therefore, would be required to comply with the regulatory plans of the district with respect to air quality. According to the SMAQMD, development projects that exceed emissions of 85 lbs/day of NO_x during construction activities or 65 lbs/day of NO_x or ROG during operational activities would have the potential to obstruct the success of the regional ozone attainment plans and, therefore, would be considered significant and require mitigation.

The existing standards and mitigation have been established based on the underlying targets and assumptions of the SIP; however, the SIP is tied to a “motor vehicle emissions budget”, and growth east of Grant Line Road was not included as part of the growth assumptions when developing the budget. As a result, SMAQMD has indicated that even if the Project included standard mitigation and met the current operational significance thresholds, a significant impact would still occur. It is for this reason that an increased requirement for operational ozone precursor emissions reductions – from 15% to 35% – was recommended by SMAQMD.

Emissions of NO_x and ROG from construction and operational activities are discussed in detail in the previous impacts. NO_x emissions during construction are anticipated to exceed the 85 lbs/day threshold; therefore, the Project’s construction impact would be considered significant. Mitigation measures AQ-2 and AQ-3 would reduce ozone precursors either directly through the use of low ROG emitting paints, or indirectly, through the reduction of fuel combustion which emits NO_x and ROGs. However, even with the incorporation of Project design features and Mitigation Measures AQ-2 and AQ-3, the operation of the Project is anticipated to emit NO_x and ROG at levels above the 65 lbs/day threshold. Even if the Project fell below the thresholds, emissions would still be significant because the Project was not assumed in the SIP. Therefore, the Project has the potential to obstruct the success of regional ozone attainment and would result in a *significant and unavoidable* impact.

MITIGATION MEASURES:

Implement Mitigation Measure AQ-2, which represents all feasible mitigation.

IMPACT: PROJECT OPERATION WOULD GENERATE CO EMISSIONS

Motor vehicle usage is the primary source of CO, a primary air pollutant that concentrates near congested intersections. The Project would result in a net increase in traffic within Sacramento County. According to the traffic study prepared for the Project, eighteen intersections would either be subject to degradation of LOS to a level of service E or worse, or add vehicles to an intersection already operating at an LOS of E or worse (refer to Table AQ-6). These identified intersections do not meet the First Tier SMAQMD screening criteria for CO and must be further examined.

None of the affected intersections would result in an hourly traffic volume of more than 31,000 vehicles. A review of area topography indicates that these intersections are located in open areas, not in locations where vertical or horizontal mixing would be limited. The background data from the traffic study further indicate that the implementation of the Project would not substantially change the mix of vehicle fleets typical to Sacramento County at these intersections. Therefore, based on SMAQMD screening methodology as described in the Methodology section, the Project would result in a *less than significant* impact with respect to local CO emissions. The screening level analysis is included in Appendix AQ-5.

MITIGATION MEASURES:

None required.

Table AQ-6: Intersection LOS and Peak Hourly Volumes

Int#	Int North-South Street	Int East-West Street	Existing No Project			Existing W/ Project	
			AM/PM	LOS	Total Vehicle	LOS	Total Vehicle
1	S Watt Ave	Jackson Rd(SR-16)	PM	D	3,470	E	3,629
2	Bradshaw Rd	Jackson Rd(SR-16)	AM	E	3,444	F	3,831
3	Mather Blvd	Douglas Rd	AM	E	1,289	F	1,569
5	Eagles Nest Rd	Jackson Rd(SR-16)	PM	C	1,042	F	1,647
6	Grant Line Rd	Sunrise Blvd	AM	D	1,674	F	2,123
7	Grant Line Rd	White Rock Rd	AM	C	1,188	F	1,966
8	Prairie City Rd	White Rock Rd	AM	E	1,465	F	1,756
12	Zinfandel Dr	White Rock Rd	PM	E	3,982	F	4,242
14	Sunrise Blvd	White Rock Rd	AM	C	4,771	F	6,101
15	Sunrise Blvd	Douglas Rd	AM	A	2,747	F	4,122
16	Sunrise Blvd	Jackson Rd(SR-16)	AM	E	2,161	F	2,655
17	Grant Line Rd	Jackson Rd(SR-16)	PM	F	2,119	F	3,390
18	Grant Line Rd	Kiefer Blvd	PM	B	952	F	2,648
19	Grant Line Rd	Douglas Rd	PM	B	928	F	3,726
23	Zinfandel Dr	US-50 EB Ramps	PM	F	6,094	F	6,330
30	Grant Line Rd	North Loop Rd	PM	-	-	F	3,772
31	Grant Line Rd	Chrysanthy Blvd	PM	-	-	F	1,860
32	Grant Line Rd	University Blvd	PM	-	-	F	3,046
Source: DKS Associates, March 2011.							

IMPACT: PROJECT OPERATION WOULD RESULT IN TAC EMISSIONS

Though Project-level details are unavailable at the master planning stage, based on the land uses of the Project, it is reasonable to assume that some TAC-generating uses (such as gasoline stations and dry cleaners) would be constructed within the Project in areas designated for non-residential uses. The most stringent applicable ARB buffer for uses that generate TACs is 500 feet; the nearest existing receptor location is a single-family home on Glory Lane that is well over 700 feet from the nearest potential TAC-generating Project area. The nearest existing daycares, hospitals, and other more sensitive receptors are located more than a mile from the nearest non-residential Project land uses. Because of the distance between the Project site and the nearest sensitive receptors, the Project would not expose existing sensitive receptors to substantial risk related to stationary-source TAC.

Within the Project there is the potential for the future construction of new sensitive receptors in proximity to new stationary TAC sources. Because the exact location of the potential new stationary TAC sources relative to new proposed sensitive receptors will be determined as part of later individual development proposals, it is not possible to conduct a proximity analysis at this time. Though General Plan policy AQ-3 states that buffers between sensitive land uses and sources of air pollution or odor should be provided, some of these future projects may only require building permits, and would not be subject to any review for TAC impacts unless conditions are imposed as part of the SPA. Mitigation is included below to stipulate that a condition be added to the SPA requiring that all uses conform to the siting recommendations outlined by ARB.

Aside from the stationary sources described above, an additional potential TAC source in the Project area is Grant Line Road. According to SMAQMD's Protocol for Evaluating the Location of Sensitive Land Uses Adjacent to Major Roadways, a high traffic volume roadway is defined as a freeway, urban roadway with greater than 100,000 vehicles per day, or rural roadway with 50,000 vehicles per day. The current project area is rural, but by the time the Project is completed the area will be urban. In the existing plus project scenario, Grant Line Road carries less than 50,000 trips (42,400 in the worst case) and is thus not a high traffic volume roadway. In the cumulative plus project scenario, Grant Line Road carries less than 100,000 trips (50,200 in the worst case) and is still not a high traffic volume roadway¹¹. A review of the Draft Environmental Impact Report for the Capitol Southeast Connector Project indicates that the highest anticipated traffic volumes would be 66,900 trips in the worst case. Therefore, the Project uses will not be subject to significant TAC sources due to high traffic volume roadways.

As analyzed, the Project will not expose existing sensitive receptors to substantial risk related to stationary-source TAC exposure, and will not expose proposed sensitive

¹¹ Traffic volumes in the existing and cumulative scenarios are from the Cordova Hills Traffic Analysis prepared by DKS Associates Transportation Solutions.

receptors to substantial risk related to mobile-source TAC exposure. The Project could result in exposure of proposed future uses to proposed future stationary source TAC, but mitigation is included to ensure that the siting of new uses conforms to ARB recommendations. Project impacts related to TAC exposure are *less than significant*.

MITIGATION MEASURES:

AQ-3. *The following language shall be added to the SPA:* Buffers shall be established on a project-by-project basis and incorporated during permit or project review to provide for buffer separations between sensitive land uses and sources of air pollution or odor. The California Air Resources Board's "Air Quality and Land Use Handbook: A Community Health Perspective", or more current document, shall be utilized when establishing these buffers. Sensitive uses include schools, daycare facilities, congregate care facilities, hospitals, or other places of long-term residency for people (this includes both single- and multiple-family). The buffers shall be applied to the source of air pollution or odor, and shall be established based either on proximity to existing sensitive uses or proximity to the property boundary of land designated for sensitive uses. Buffers current at the time of the establishment of this SPA indicate that sensitive uses should be:

- A. A least 500 feet from auto body repair services.
- B. At least 50 feet from existing gasoline dispensing stations with an annual throughput of less than 3.6 million gallons and 300 feet from existing gasoline dispensing stations with an annual throughput at or above 3.6 million gallons.
- C. At least 300 feet from existing land uses that use methylene chloride or other solvents identified as a TAC, including furniture manufacturing and repair services.

IMPACT: PROJECT OPERATION MAY RESULT IN EXPOSURE TO OBJECTIONABLE ODORS

Odiferous compounds can be generated from a variety of sources. The ARB's Air Quality and Land Use Handbook includes a list of the most common sources of odor complaints received by local air districts. Typical sources of odor complaints include facilities such as sewage treatment plants, landfills, recycling facilities, petroleum refineries, and livestock operations, which typically occur within areas designated for industrial or intensive agriculture uses. The Project proposes the designation of commercial and residential land uses, along with a university. These land uses do not typically result in a source of nuisance odors associated with operation. Though some areas will remain designated for agriculture, intensive agricultural uses (such as feed lots) would not be permitted. Therefore, substantial objectionable odors would not be generated as a result of the Project's construction and operation.

KIEFER LANDFILL

The Kiefer Landfill is located at 12701 Kiefer Boulevard and Grant Line Road in Sloughhouse, California. There are several landfill boundaries to consider: the boundary of County-owned landfill property, which abuts the Project boundary; the ultimate planned boundary of the active landfill, which is approximately 50 feet from the Project boundary; and the 2,000-foot buffer established around the ultimate planned landfill boundary, which is within the Project site (refer to Plate AQ-1). SMAQMD recommends a one mile buffer from landfills, which is also shown on the exhibit based on the proposed ultimate active landfill boundary. Though one mile is not meant to be a hard-line buffer for determining significance, it is a useful screening tool. The land in between the Project and the landfill contains landforms similar to the site: rolling grassland of varying elevations. The site is at a higher elevation than the land to the south.

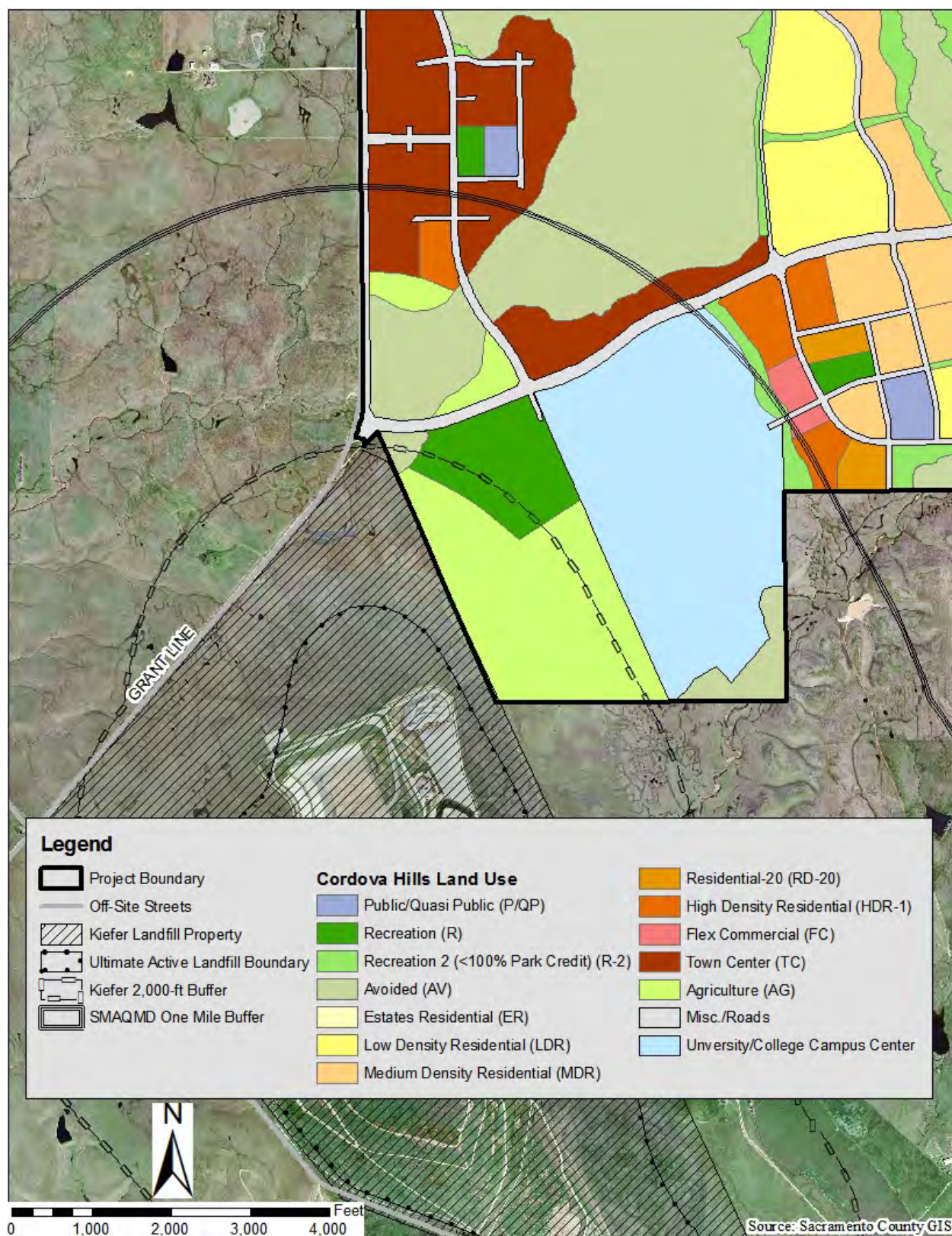
The Project area which directly abuts the landfill property, and is within the 2,000-foot buffer area, is the area of the Project outside the Urban Services Boundary: the sports park and the large area designated agriculture. These uses are acceptable within the 2,000-foot buffer, according to General Plan Policy PF-21. With the exception of the park, most of the uses proposed or permitted in the agriculture area involve uses such as solar arrays and corporation yards, which are relatively passive and do not involve large numbers of sensitive receptors. The areas within one mile of the ultimate landfill boundary include the potential university, a small portion of the uses east of the potential university, and the southern half of the Town Center District.

Meteorological conditions for the Project site were collected at Mather Air Force Base.¹² The six years of data show that winds blow predominantly from the south, with winds blowing from the south-southwest approximately 18% of the time, winds blowing from the south approximately 12% of the time, and winds blowing from the southeast 27% of the time. Thus, approximately 57% of the time prevailing winds would blow across Kiefer landfill and toward some portion of the site. The Project's location downwind of the landfill has the potential to expose Project receptors to landfill odors. Also, the area in between the landfill boundary and the Project is currently covered in low-growing grassland, with little tall vegetation to enhance vertical and mechanical mixing of the air which could help to disperse odor¹³.

¹² California Air Resources Board. 2009. Meteorological data for Mather Air Force Base and Sacramento Executive Airport downloaded from the following website: <http://www.arb.ca.gov/toxics/harp/metfiles.htm>.

¹³ SMAQMD *CEQA Guide* December 2009.

Plate AQ-1: Kiefer Landfill Boundaries in Relation to the Project



The generation of odors when most people are inside would have a decreased probability of negative effects¹⁴. On this basis, uses which involve larger amounts of extended outdoor use would be more susceptible to nuisance; within one mile of the landfill, this includes the sports park and potentially the playing fields and outdoor areas which could be constructed on the University/College Campus Center. The dorms, classrooms, businesses, and the multiple-family residential site that are within one mile of the landfill will primarily be associated with indoor activity, and will be less sensitive to odor impacts. The SMAQMD Guide indicates that the presence of dense vegetative cover in the form of trees and shrubs can filter, mix, and diffuse odors. This would be of particular importance for the sports park, because it is the most proximate use to the landfill. A landscaping requirement is already included in the SPA for the potential solar farm, corporation yard, and district energy plant, but mitigation recommends that a similar requirement be established in the SPA for the sports park and the University/College Campus Center.

According to the SMAQMD, the landfill would be considered to have a significant odor complaint history if it had more than one confirmed or three unconfirmed complaints per year over the past three years. The SMAQMD does not have any odor complaints on record for the Kiefer Landfill for the past three years. Though there are no odor complaints on record, it is difficult to conclude that this is evidence of minimal odor; there are no existing receptors within one mile of the landfill in the direction of prevailing winds, and very few within one mile in any direction. During multiple site visits of several hours duration, County staff members did not detect any objectionable odors, but this is also not absolute evidence.

Only considering the meteorological conditions and the proximity of the Project to the landfill, it would be likely that some significant odor impacts to the Project could occur; however, the SMAQMD Guide does provide further information regarding factors that can reduce odor impacts, if present. Kiefer Landfill has established an active gas-to-energy system that employs active gas extraction from the landfill for use in electrical generation. As landfill gas is a major source of odor from a landfill, the active extraction of gases for use in generating electricity is an effective form of limiting odors.^{15,16} Given all of the foregoing – with particular emphasis on the ability of the gas extraction system to reduce the potency and density of landfill odor – and the mitigation incorporated below, odor impacts are not expected to be substantial, and impacts are *less than significant*. Note that an additional measure is recommended in the Land Use section related to Kiefer Landfill, to reduce potential nuisance impacts.

¹⁴ SMAQMD CEQA Guide December 2009.

¹⁵ County of Sacramento Waste Management and Recycling.
<http://www.msa2.sacounty.net/wmr/Pages/KieferLandfillGas-to-EnergyPlant.aspx>, accessed March 2011.

¹⁶ Wasteage "What's that Smell?" published December 1, 2006.
http://wasteage.com/mag/waste_whats_smell/#, accessed March 2011.

BOY'S RANCH

The Boy's Ranch, a juvenile correction facility which has been operated by the Sacramento County Probation Department, is adjacent to the northeastern Project boundary. Though budget cuts have resulted in the closure of the facility, there is the potential for the facility to reopen in the future. This facility includes a wastewater treatment system consisting of a gravity collection system, a 9,000 gallon temporary storage/holding tank, a sewage distribution box, and two unlined percolation/evaporations ponds. The two ponds cover an area of approximately 2.9 acres and would be the source of any nuisance odors. The wastewater treatment facility is regulated by the Central Valley Regional Water Quality Control Board through adopted Waste Discharge Requirements (Order NO. R5-2004-0003); the Waste Discharge Requirements are the source of data for this discussion.

Wastewater ponds which are properly aerated and managed do not result in significant nuisance odors. Odors are generated when oxygen concentrations in ponds drop too low to maintain an aerobic treatment environment; the Waste Discharge Requirements for the facility indicate that these conditions generally result when dissolved oxygen drops to concentrations below 1.0 milligrams per liter. Historic monitoring reports related to the facility do indicate that concentrations have dropped below this level occasionally, but that they have generally been well above this level (as high as 18.2 milligrams per liter). Furthermore, discharge specification number four states: "objectionable odors originating at this facility shall not be perceivable beyond the limits of the wastewater treatment and disposal areas". The facility is specifically prohibited from causing a nuisance odor condition, and nuisance odor is fully controllable through maintenance of aerated conditions in the ponds. Though based on historic operation of wastewater facilities in general and of this facility in specific it can be expected that there will be events when aeration fails (a pump malfunctions, for instance), it can also be expected that these will be infrequent events of short duration. Therefore, nuisance odor impacts are expected to be *less than significant*.

MITIGATION MEASURES:

- AQ-4.** Include in the SPA a requirement that the western perimeter of the Sports Park and University/College Campus Center (where these are within 2,000 feet of the Kiefer landfill) include a minimum 25-foot-wide landscaping area. This landscaping area shall include a dense mix of trees and shrubs, to screen the uses from the landfill. Acceptable tree species include those expected to reach minimum heights of 40 feet.

6 BIOLOGICAL RESOURCES

INTRODUCTION

This chapter identifies and analyzes impacts to biological resources based on the proposed Project. The analysis focuses on impacts to the grassland and wetland habitats which predominate the site and the special status species which rely on these habitats. Species covered include a variety of special status birds, insects, plants, and amphibians such as Swainson's hawk, vernal pool fairy shrimp, legenere, Sacramento Orcutt grass, and western spadefoot toad.

ENVIRONMENTAL SETTING

The Project site is located in eastern Sacramento County east of Grant Line Road and west of Carson Creek. The Project site is approximately 2,669 acres and is located on varying topography ranging in elevation from 130 to 270 feet above mean sea level. The dominant vegetation type is non-native grassland comprised of ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), wild oats (*Avena fatua*), barley (*Hordeum* species), and ryegrass (*Lolium multiflorum*). **Other herbaceous species include sticky tarplant (*Holocarpha virgata*), common tarweed (*Hemizonia pungens*), cut-leaved geranium (*Geranium dissectum*), hairy hawkbit (*Leontodon taraxacoides*), common vetch (*Vicia sativa*), and filaree (*Erodium botrys*).** Interspersed through the grassland community are wetland complexes consisting of vernal pools, seasonal wetlands, swales, and ponds. Both the wetland and grassland communities provide habitat for several special status species. Examples of the **special status** species located on or near the Project site include: Swainson's hawk, Sacramento Orcutt grass, vernal pool branchiopods, and the western spadefoot toad. There are no trees within the Project area.

Currently, land surrounding the Project site is mostly undeveloped. To the south is the Sacramento County owned and operated Kiefer landfill. A 2,000-foot buffer was established around the landfill to preclude urban development from encroaching on landfill activities. Portions of the County-owned land within this buffer area are protected under a conservation easement to mitigate for loss of both wetland habitat and Swainson's hawk foraging habitat that was impacted by landfill activities. A portion of the Project site is within the 2,000-foot buffer; however, the land in question is not protected by conservation easements. To the east is the Sacramento County Boys Ranch facility (a juvenile correction facility, currently closed) and agricultural farmlands. To the north is agricultural farmland (primarily nonirrigated grazing land). In the City of Rancho Cordova to the west is land that is largely undeveloped, but includes an

approved and partially constructed planning area called the Sunridge Specific Plan (a mix of commercial and residential development of approximately 2,606 acres).

WETLANDS

The County of Sacramento contains a number of wetland habitats, most of which are naturally occurring, although some were artificially created as mitigation for prior impacts. Federal regulation (Clean Water Act Section 404) has defined the term wetland to mean “those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions”. The term “wetlands” includes a diverse assortment of habitats such as perennial and seasonal freshwater marshes, vernal pools, and wetted swales. These wetland features share a number of physical characteristics, including frequent or seasonal inundation by water, soil saturated long enough to exclude organisms intolerant of anaerobic conditions, and plants that are adapted to wetted conditions. A general term for all water habitats is “surface waters”.

SEASONAL WETLANDS

Seasonal wetlands are scattered throughout the County, most in association with the County’s rivers and creeks, many within floodplains. These wetlands typically begin to form after the first winter rains and fill as rain continues through the season. They drain primarily via drainage swales during high runoff, or via combination of ground percolation and evaporation. By mid-summer or early fall these features will typically be dry. Depending on water depth and duration, seasonal wetlands can harbor federally-listed invertebrates and provide habitat for a large number of species, including the listed western spadefoot toad. Seasonal wetlands primarily differ from vernal pools (see below) in their underlying soils. Seasonal wetland soils are typically more permeable than the soils associated with vernal pools.

VERNAL POOLS

Vernal pools are small basins, depressions on the landscape that collect seasonal rains to support a specialized collection of plant and animal species. Typically, semi-impermeable soil underlies most vernal pools and restricts downward percolation of collected rain water. As a result, water slowly evaporates during the spring creating showy displays of tiny flowers blooming in concentric circles as the water recedes. Most plants found in vernal pools are endemic (found only in these habitats) and have adapted to survive partially-submerged conditions. These conditions have kept the non-native grasses that comprise much of the County’s grazing lands from invading or at least dominating the pools. Thus, vernal pools are small pockets of mostly native vegetation surrounded by mostly non-native grass species.

SEASONAL SWALES

Depending on the underlying soils, swales share similar characteristics with either seasonal wetlands or vernal pools. Typically, swales are shallow, linear features that may serve as drainage features into or out of a seasonal wetland or vernal pool. Although common throughout much of the County's wetland landscapes, the wetland functions of a swale are less pronounced than either of the aforementioned wetlands. Shallowness and topography of swales limit the duration of ponded water, thus reducing the expression of typical wetland characteristics.

HUMAN-MADE STOCK PONDS

In the County's rural lands ranchers have established water features, or stock ponds, typically by damming small drainages to form relatively deeper ponds which can hold water through much of the summer months. These ponds typically provide a deeper water habitat for some amphibian species.

REGULATORY SETTING

2030 SACRAMENTO COUNTY GENERAL PLAN

The General Plan contains numerous goals, policies, concepts and strategies to protect and/or preserve biological resources. The following provides the goals and policies applicable to the proposed Project:

AG-10. The County shall balance the protection of prime, statewide importance, unique and local importance farmlands and farmlands with intensive agricultural investments with the preservation of natural habitat so that the protection of farmland can also serve to protect habitat.

AG-17 The establishment of conservation easements combining preservation of agricultural uses, habitat values, and open space on the same property should be encouraged where feasible.

CI-60. Encourage maintenance of natural roadside vegetation and landscaping with native plants which usually provide the best habitats for native wildlife.

CO-25. Support the preservation, restoration, and creation of riparian corridors, wetlands and buffer zones.

CO-58. Ensure no net loss of wetlands, riparian woodlands, and oak woodlands.

CO-59. Ensure mitigation occurs for any loss of or modification to the following types of acreage and habitat function:

- vernal pools,

- wetlands,
- riparian,
- native vegetative habitat, and
- special status species habitat.

CO-60. Mitigation should be directed to lands identified on the Open Space Vision Diagram and associated component maps (please refer to the Open Space Element).

CO-61. Mitigation should be consistent with Sacramento County-adopted habitat conservation plans.

CO-62. Permanently protect land required as mitigation.

CO-64. Consistent with overall land use policies, the County shall support and facilitate the creation and biological enhancement of large natural preserves or wildlife refuges by other government entities or by private individuals or organizations.

CO-65. Create a network of preserves linked by wildlife corridors of sufficient size to facilitate the movement of species.

CO-66. Mitigation sites shall have a monitoring and management program including an adaptive management component including an established funding mechanism. The programs shall be consistent with Habitat Conservation Plans that have been adopted or are in draft format.

CO-67. Preserves and conservation areas should have an established funding mechanism, and where needed, an acquisition strategy for its operation and management in perpetuity. This includes existing preserves such as the American River Parkway, Dry Creek Parkway, Cosumnes River Preserve and other plans in progress for riparian areas like Laguna Creek.

CO-68. Preserves shall be planned and managed to the extent feasible so as to avoid conflicts with adjacent agricultural activities (Please also refer to the Agricultural Element).

CO-69. Avoid, to the extent possible, the placement of new major infrastructure through preserves unless located along disturbed areas, such as existing roadways.

CO-70. Community Plans, Specific Plans, Master Plans and development projects shall:

- include the location, extent, proximity and diversity of existing natural habitats and special status species in order to determine potential impacts, necessary mitigation and opportunities for preservation and restoration.
- be reviewed for the potential to identify nondevelopment areas and establish preserves, mitigation banks and restore natural habitats, including those for

special status species, considering effects on vernal pools, groundwater, flooding, and proposed fill or removal of wetland habitat.

- be reviewed for applicability of protection zones identified in this Element, including the Floodplain Protection Zone, Stream Corridor Ordinance, Cosumnes River Protection Combining Zone and the Laguna Creek Combining Zone.

CO-71. Development design shall help protect natural resources by:

- Minimizing total built development in the floodplain, while designing areas of less frequent use that can support inundation to be permitted in the floodplain,
- Ensuring development adjacent to stream corridors and vernal pools provide, where physically reasonable, a public street paralleling at least one side of the corridor with vertical curbs, gutters, foot path, street lighting, and post and cable barriers to prevent vehicular entry.
- Projects adjacent to rivers and streams shall integrate amenities, such as trail connectivity, that will serve as benefits to the community and ecological function.
- Siting of wetlands near residential and commercial areas should consider appropriate measures to minimize potential for mosquito habitation.
- Development adjacent to stream corridors and vernal pools shall be designed in such a manner as to prevent unauthorized vehicular entry into protected areas.

CO-72. If land within river and stream watersheds in existing agricultural areas is developed for non-agricultural purposes, the County should actively pursue easement dedication for recreation trails within such development as a condition of approval.

CO-75. Maintain viable populations of special status species through the protection of habitat in preserves and linked with natural wildlife corridors.

CO-78. Plans for urban development and flood control shall incorporate habitat corridors linking habitat sites for special status species. (Please also refer to the Open Space Element for related policies.)

CO-83. Preserve a representative portion of vernal pool resources across their range by protecting vernal pools on various geologic landforms, vernal pools that vary in depth and size, and vernal pool complexes of varying densities; in order to maintain the ecological integrity of a vernal pool ecosystem.

CO-84. Ensure that vernal pool preserves are large enough to protect vernal pool ecosystems that provide intact watersheds and an adequate buffer, have sufficient number and extent of pools to support adequate species populations and a range of vernal pool types.

CO-85. Utilize proper vernal pool restoration techniques as approved by United States Fish and Wildlife Service (USFWS), California Department of Fish and Game (CDF&G) and the Army Corps of Engineers (CORPS).

CO-86. Limit land uses within established preserves to activities deemed compatible with maintenance of the vernal pool resource, which may include ranching, grazing, scientific study and education.

CO-91. Discourage introductions of invasive non-native aquatic plants and animals.

CO-134. Maintain and establish a diversity of native vegetative species in Sacramento County.

CO-135. Protect the ecological integrity of California Prairie habitat.

CO-147. Increase the number of trees planted within residential lots and within new and existing parking lots.

CO-149. Trees planted within new or existing parking lots should utilize pervious cement and structured soils in a radius from the base of the tree necessary to maximize water infiltration sufficient to sustain the tree at full growth.

LU-15. Planning and development of new growth areas should be consistent with Sacramento County-adopted Habitat Conservation Plans and other efforts to preserve and protect natural resources.

OS-1. Actively plan to protect, as open space, areas of natural resource value, which may include but are not limited to wetlands preserves, riparian corridors, woodlands, and floodplains associated with riparian drainages.

OS-2. Maintain open space and natural areas that are interconnected and of sufficient size to protect biodiversity, accommodate wildlife movement and sustain ecosystems.

OS-9. Open space easements obtained and offered as mitigation shall be dedicated to the County of Sacramento, an open space agency, or an organization designated by the County to protect and manage the open space. Fee title of land may be dedicated to the County, the open space agency, or organization provided it is acceptable to the appropriate department or agency (Please also refer to Section V of the Conservation Element for related policies).

The major goal outlined in the Conservation Element of the General Plan is for the management and protection of natural resources for the use and enjoyment of present and future generations, while maintaining the long-term ecological health and balance of the environment. In addition to the Conservation Element goals and objectives, the Open Space Element further identifies two key concepts that form the basis of the goals, objectives and policies contained in the element: (1) protecting the urban edge and (2) establishing natural area linkages.

The urban edge is defined as the Urban Services Boundary (USB) in the Land Use Element. This boundary is the ultimate boundary of the urban area and is based upon natural and environmental constraints to urban growth. Protection of the urban edge allows accommodation of large scale urban development, while maintaining substantial rural, natural open space areas. Confining urban development within the USB prevents urban sprawl into the rural and open space areas of the County; protecting the urban edge protects the existing open space and rural areas of the County from being lost to development.

Open space linkages increase the ecological value of the open space lands by connecting ecosystems and wildlife habitats. This is beneficial to species higher in the food chain since mammals and birds of prey require considerable supporting territory. When the habitat is reduced to isolated patches, the long term viability of the species is threatened. Furthermore, the establishment of natural habitat corridors facilitates migration of species between breeding populations, thus enlarging the gene pool and helping to ensure genetically diverse and healthy populations of individual species. In the rural areas of the County, contiguous open space already exists, allowing for preservation of larger, high quality natural areas.

SWAINSON'S HAWK IMPACT MITIGATION FEE PROGRAM ORDINANCE

The California Department of Fish and Game requires that mitigation for foraging habitat be provided within the known foraging radius of a nesting Swainson's hawk. In 1997, in response to the need to mitigate for the loss of Swainson's hawk foraging habitat in Sacramento County, the Board of Supervisors adopted an ordinance that established a Swainson's Hawk Impact Mitigation Program (Chapter 16.130 of the Sacramento County Code). The Program has been amended several times; the latest amendment went into effect December 2009. By adopting the Program, the Board of Supervisors found that "the most effective means of mitigation for the loss of suitable Swainson's hawk foraging habitat is the direct preservation, in perpetuity, of equally suitable foraging habitat on an acre-per-acre basis based on the Project's determined acreage impact".

Under the Swainson's Hawk Impact Mitigation Program, only projects which have an impact of less than 40 acres are eligible to pay fees. Projects impacting 40 acres or more of foraging habitat must provide land acceptable to Fish and Game and the County. Land can be provided in fee title or through conservation easement. The Sacramento County Community Planning and Development Department, Planning Division (Planning Division) administers the Swainson's Hawk Impact Mitigation Program and more information on lands likely to be determined as acceptable replacement habitat can be found at their website <http://www.saccounty.net/planning/swainsons-hawk-ordinance/index.html>.

FEDERAL AND STATE REGULATORY AUTHORITY

The two major federal laws regulating impacts to wetlands and wildlife species are the Clean Water Act (Section 404 and 401) and the Endangered Species Act (Section 7, 9,

and 10). The U.S. Army Corps of Engineers (Army Corps) is responsible for administering the Clean Water Act (CWA), Section 404, with the US Environmental Protection Agency serving in an oversight capacity. The US Fish and Wildlife Service (Fish and Wildlife) is responsible for administering the Endangered Species Act, Sections 7, 9, and 10. The state Regional Water Quality Control Board is the regulatory agency that enforces Section 401 of the CWA. The three most important state laws regulating wildlife species, streams, and wetlands are the California Endangered Species Act (Section 2081), Section 1600 of the Fish and Game code, and the Porter-Cologne Water Quality Control Act. The first two are administered by the state Department of Fish and Game (Fish and Game), and the latter is administered by the Regional Water Quality Control Board (Regional Water Board).

CLEAN WATER ACT SECTION 401 AND 404 PERMIT GUIDELINES

The Army Corps regulates discharge of dredged or fill material into waters of the United States under Section 404 of the CWA. Waters of the U.S. are generally defined as “navigable waters,” which are defined as traditional navigable waters that are or were used for commerce, or may be used for interstate commerce; tributaries of navigable waters; and wetlands adjacent to navigable waters. “Discharge of fill material” is defined as the addition of fill material into waters of the U.S., including, but not limited to the following: placement of fill that is necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for its construction; site-development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; fill for intake and outfall pipes and subaqueous utility lines [33 C.F.R. §328.2(f)]. The Solid Waste Agency of Northern Cook County (SWANCC) vs. United States Army Corps of Engineers decision made by the Supreme Court in 2001 altered the types of wetlands that can be regulated by Section 404. Isolated wetlands, that is, wetlands that are not hydrologically connected to other “navigable” surface waters (or their tributaries), are not considered to be subject to Federal jurisdiction. However the SWANCC decision only prohibits Federal jurisdiction over isolated waters; State and local jurisdiction still applies.

The California State Regional Water Quality Control Board (Regional Water Board) regulates wetlands pursuant to Section 401 of the CWA. Section 401 of the CWA (33 U.S.C. 1341) requires any applicant for a federal license or permit to conduct any activity that may result in a discharge of a pollutant into waters of the United States to obtain a certification that the discharge will comply with the applicable effluent limitations and water quality standards.

FEDERAL ENDANGERED SPECIES ACT

Under the Federal Endangered Species Act (FESA) of 1973, the Secretary of the Interior and the Secretary of Commerce jointly have the authority to list a species as endangered or threatened. FESA defines “endangered” species as any species in danger of extinction throughout all or a significant portion of its range. A “threatened” species is any species that is likely to become an “endangered” species within the

foreseeable future throughout all or a significant portion of its range. Additional special-status species include “candidate” species and “species of concern.” “Candidate” species are those for which Fish and Wildlife has enough information on file to propose listing as endangered or threatened. “Species of concern” are those for which listing is possibly appropriate but for which Fish and Wildlife lacks sufficient information to support a listing proposal. A species that has been “delisted” is one whose population has met its recovery goal target and is no longer in jeopardy of extinction. Taking of federally listed species is prohibited under Section 9 of FESA. To “take” is defined by FESA (Section 2[19]) to mean “to harass, harm, pursue, hunt, shoot, would, kill, trap, capture, or collect, or attempt to engage in any such conduct.”

All government agencies must review their actions and determine if a “may affect” situation occurs with respect to a federally listed or proposed species. If the agency makes a “may affect” determination, it is then required to formally consult with National Oceanic and Atmospheric Administration, Fisheries (NOAA Fisheries).

For federal agencies, the consultation is conducted under Section 7 of FESA. The agency submits a Biological Assessment to Fish and Wildlife that evaluates the potential adverse effects to federally listed species. Fish and Wildlife then prepares a Biological Opinion that addresses the requirements that must be followed to avoid, minimize, and compensate for impacts to federally listed species and their habitats.

For non-federal agencies or individuals (i.e. private applicants), the consultation is conducted under Section 10 of FESA. The agency or individual submits an incidental take¹ permit application to Fish and Wildlife accompanied by a habitat conservation plan (HCP). The purpose of the habitat conservation planning process associated with the permit is to ensure there is adequate minimization and mitigation of the effects of the authorized incidental take. The purpose of the permit is to authorize the incidental take of a listed species, not to authorize the activities that result in take (USFWS 2005).

Further explanation is provided in the following notification, which was submitted to the County by Fish and Wildlife for inclusion² into all environmental documents when threatened or endangered species may be adversely affected:

As a requirement of the Department of Interior, U.S. Fish and Wildlife Service, the following notification is provided to proponents of any Project that has the potential to adversely affect threatened or endangered species:

“The applicant is hereby notified of additional conditions as stipulated by the U.S. Fish and Wildlife Service. Features of the applicant’s Project may adversely

¹ Incidental take is take of listed fish or wildlife species that results from, but is not the purpose of, carrying out an otherwise lawful activity conducted by a federal agency or applicant (50 CFR 402.2).

² As a condition of the Fish and Wildlife Biological Opinion for the “Fazio Water” 101-514 water contract, the County of Sacramento has agreed to include Fish and Wildlife notification language in Initial Studies and EIRs when endangered and threatened species may be adversely affected.

affect federally listed threatened or endangered species. An applicant must go through one of two processes to obtain authorization to take federally listed species incidental to completing his or her Project. One of the processes is formal consultation. When the authorization or funding of a Federal agency is an aspect of a Project that may affect federally listed species, Section 7 of the Endangered Species Act requires the Federal agency to formally consult with the Service.

Formal consultation is concluded when the Service issues a biological opinion to the Federal agency. The biological opinion includes terms and conditions to minimize the effect of take on listed species. The Federal agency must make the terms and conditions of the biological opinion into binding conditions of its own authorization to the Project applicant. An example of this process is when the U.S. Army Corps of Engineers consults with the Service prior to issuing a permit to fill jurisdictional waters under Section 404 of the Clean Water Act. The terms and conditions of the biological opinion become binding on the Project applicant through the Corps' 404 authorization. When no Federal funding or authorization is involved in a Project, an applicant must prepare a habitat conservation plan and obtain a permit directly from the Service in accordance with Section 10(a)(1)(B) of the Act. For additional information on these processes please contact the Endangered Species Division of the U.S. Fish and Wildlife Service's Sacramento Fish and Wildlife Office at (916) 414-6600".

CALIFORNIA ENDANGERED SPECIES ACT (CESA)

The California Endangered Species Act (established in Fish and Game Code §2050) generally parallels the main provisions of the FESA and is administered by Fish and Game for most terrestrial species, with assistance from the NOAA Fisheries (formerly known as the National Marine Fisheries Services, or NMFS) for most freshwater fishery species. The CESA prohibits the taking of state listed species except as otherwise provided by state law. Unlike the federal ESA, the CESA extends the take prohibitions to not only listed species but also for species petitioned for listing. "Take" is defined in Section 86 of the Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Section 2081 of the CESA identifies the following criteria that must be met for Fish and Game to authorize the take of endangered, threatened or candidate species:

- The taking of a listed or candidate species can be minimized and fully mitigated.
- The take would not jeopardize the continued existence of the species.
- Authorization for take must be based on the best scientific material that is reasonably available, and that due consideration will be given to the species' ability to survive and reproduce.

*CALIFORNIA FISH AND GAME CODE***ANIMALS AND PLANTS**

Section 3503 makes it unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by the Fish and Game Code or any regulation made pursuant thereto. Section 3503.5 make it unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by the Fish and Game Code or any regulation adopted pursuant thereto. Sections 1908, 3511, 4700, 5050 state that Fully Protected plant and animals or parts thereof may not be taken or possessed at any time.

SURFACE WATERS

Fish and Game Code Section 1602 requires any person, state or local governmental agency, or public utility to notify Fish and Game before beginning any activity that will do one or more of the following: 1) substantially obstruct or divert the natural flow of a river, stream, or lake; 2) substantially change or use any material from the bed, channel, or bank of a river, stream, or lake; or 3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a river, stream, or lake. Fish and Game Code Section 1602 applies to all perennial, intermittent, and ephemeral rivers, streams, and lakes in the state.

Notification is generally required for any project that will take place in the vicinity of a river, stream, or lake. Fish and Game will determine whether a Lake or Streambed Alteration Agreement is required for the activity. An agreement will be required if the activity could substantially adversely affect an existing fish and wildlife resource. If an agreement is required, it will be prepared by Fish and Game in coordination with the applicant. The agreement will include measures, as necessary, to protect fish and wildlife resources while conducting the project.

MIGRATORY BIRD TREATY ACT

The Migratory Bird Treaty Act (MBTA) of 1916 established federal responsibilities for the protection of nearly all species of birds, their eggs, and nests. Section 16 U.S.C. 703–712 of the Act states “unless and except as permitted by regulations, it shall be unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture, or kill” a migratory bird. A migratory bird is any species or family of birds that live, reproduce or migrate within or across international borders at some point during their annual life cycle. Currently, there are 836 migratory birds protected nationwide by the MBTA, of which 58 are legal to hunt.

PORTER-COLOGNE WATER QUALITY CONTROL ACT

This Act (State Water Code Section 13020) mandates that all the waters of the state be protected, that activities and factors affecting water quality be regulated to attain the

highest water quality “within reason”, and that the state be prepared to exercise its power and jurisdiction to protect water quality from degradation. Waters of the state are defined as any surface or groundwater within the boundaries of the state. The Regional Water Board issues permits, with varying conditions, to allow the discharge of dredge or fill material or a waiver of waste discharge into waters of the state **(the Project would not qualify for a waiver). Any “isolated” waters not subject to the Clean Water Act as a result of the SWANCC decision are still subject to the Porter-Cologne Water Quality Control Act, and still require mitigation pursuant to the state’s no net-loss policy. In such a case, fill of isolated wetlands would be permitted through Waste Discharge Requirements rather than a Section 401 Water Quality Certification.**

FEDERAL AVIATION ADMINISTRATION REGULATIONS

The Federal Aviation Administration (FAA) is the federal agency responsible for developing and enforcing air transportation safety regulations. Many of these regulations are codified in the Federal Aviation Regulations (FARs). The FAA also publishes a series of guidelines for airport operators to follow called Advisory Circulars (ACs). Advisory Circulars in the 150 series deal with airport safety issues, including wildlife hazards. In addition to FARs and ACs, the FAA periodically issues Certalerts for internal distribution and to provide recommendations on specific issues for inspectors and airport personnel. All of the above-mentioned regulations, Advisory Circulars, and Certalerts are frequently changed or updated, and their current status should be verified on a regular basis. This may be accomplished by contacting the FAA directly or by visiting their website at www.faa.gov/arp/hazard.htm or www.faa.gov/faadocs.htm for the most current revision.

On August 28, 2007, the Federal Aviation Administration (FAA) released a revised Advisory Circular (AC) for Hazardous Wildlife Attractants on or near Airports (AC 150/5200-33B), which among other things addresses stormwater detention facilities as potential hazardous wildlife attractants. The AC states the following:

New storm water management facilities.

The FAA strongly recommends that off-airport storm water management systems located within the separations identified in Sections 1-2 through 1-4 be designed and operated so as not to create above-ground standing water. Stormwater detention ponds should be designed, engineered, constructed, and maintained for a maximum 48-hour detention period after the design storm and remain completely dry between storms. To facilitate the control of hazardous wildlife, the FAA recommends the use of steep-sided, rip-rap lined, narrow, linearly shaped water detention basins. When it is not possible to place these ponds away from an airport’s AOA, airport operators should use physical barriers, such as bird balls, wire grids, pillows, or netting, to prevent access of hazardous wildlife to open water and minimize aircraft-wildlife interactions. When physical barriers are used, airport operators must evaluate their use and ensure they will not

adversely affect water rescue. Before installing any physical barriers over detention ponds on Part 139 airports, airport operators must get approval from the appropriate FAA Regional Airports Division Office. All vegetation in or around detention basins that provide food or cover for hazardous wildlife should be eliminated. If soil conditions and other requirements allow, the FAA encourages the use of underground storm water infiltration systems, such as French drains or buried rock fields, because they are less attractive to wildlife.

According to the FAA, all stormwater facilities must drain within 48 hours of the design storm if they are located within 10,000 feet of all airports' operations areas. Furthermore, for a five mile radius (nearly 20 square miles) the AC discourages hazardous wildlife attractants and therefore detention basins that do not drain within 48 hours. In a January 17, 2008 comment letter on the Natomas Levee Improvement project, the FAA informed the Army Corps that,

FAA Advisory Circular 150/5200-33 recommends a separation distance of 10,000 feet between aircraft movement areas such as runways and taxiways, aircraft loading ramps, aircraft parking areas, and any wildlife attractant at airports normally serving turbine-powered (jet) aircraft. FAA Advisory Circular 150/5200-33 also recommends a distance of 5 statute miles between approach and departure airspace and any wildlife attractant which may cause wildlife movements into or across the approach or departure airspace. An additional resource providing information regarding aircraft-wildlife strike hazards is *Wildlife Hazard Management at Airports: A Manual for Airport Personnel (2005)* available on-line from the University of Nebraska, Lincoln at http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1127&context=icwdm_usdanwrc, or by searching the World Wide Web.

The 10,000 foot separation is considered a critical area where there should be no hazardous wildlife attractants. Out to five miles, the language is less absolute and, according to the Sacramento County Airport System, focuses on how multiple attractant sources may cause wildlife to move across approach and departure airspace. For example, a corn field may in itself not provide a hazard if located 4.5 miles out and not in line with a runway but if a source of water was located such that it caused wildlife to move from the corn field across an approach departure zone to get to the water, the AC advises against the land use.

The AC differentiates between detention ponds and retention ponds as follows:

Detention ponds. Storm water management ponds that hold storm water for short periods of time, a few hours to a few days.

Retention ponds. Storm water management ponds that hold water for several months.

Within Sacramento County, development is required to comply with the Stormwater Quality Design Manual for the Sacramento and South Placer Regions -

<http://www.sactostormwater.org/SSQP/development.asp>. As part of the development process, developers are commonly required to provide stormwater detention facilities. These facilities serve to collect runoff and provide treatment for water quality purposes and additionally they buffer peak stream flows by holding water and discharging after peak events. This detention of water and temporary storm flow storage can conflict with the AC if water is held over 48 hours and the facility is located within five miles of an airport.

SOUTH SACRAMENTO COUNTY HABITAT CONSERVATION PLAN

The anticipated South Sacramento County Habitat Conservation Plan (SSHCP) is a regional approach to conserving species and addressing issues related to urban development, habitat conservation, open space preservation, and agricultural protection. To develop the SSHCP, the County is partnering with Rancho Cordova, Elk Grove, Galt, the Sacramento Regional County Sanitation District, the Connector Joint Powers Authority and the Sacramento County Water Agency. The intent of the anticipated SSHCP is to minimize regulatory hurdles and streamline the permitting process for projects that engage in development-related activities inside the urban development area or UDA. The UDA corresponds to land within the County's Urban Services Boundary (USB), and to land within the city limits of Rancho Cordova, Elk Grove and Galt, and Galt's adopted sphere of influence. As currently envisioned, the SSHCP would consolidate environmental efforts to protect and enhance vernal pool habitat and other aquatic and upland habitats to provide ecologically viable conservation areas in south Sacramento County for numerous species. The intent of the SSHCP is to provide a mechanism by which the County and its partners could be authorized to issue permits that allow landowners to engage in specific development activities (covered activities) that could result in the incidental take of listed species (covered species). The intent is that the County and its partners would adopt a developer-paid fee based on loss of habitat acreage, habitat type, and long-term management costs. Fees would fund the habitat preservation, restoration and management elements of the anticipated SSHCP.

SIGNIFICANCE CRITERIA

The significance of an environmental impact cannot always be determined through use of a specific quantifiable threshold. CEQA Guidelines Section 15064(b) affirms this by the statement: "An ironclad definition of significant effect is not always possible because the significance of an activity may vary with the setting." Significance of an impact to the biological resources discussed in this chapter rely on the policies, codes, and regulations described in the Regulatory Setting section, as well as the following CEQA Sections:

Section 15065:

- (a) A lead agency shall find that a project may have a significant effect on the environment and thereby require an EIR to be prepared for the project where there

is substantial evidence, in light of the whole record, that any of the following conditions may occur:

- (1) The project has the potential to: substantially degrade the quality of the environment; substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; substantially reduce the number or restrict the range of an endangered, rare or threatened species; or eliminate important examples of the major periods of California history or prehistory.

Section 15382:

"Significant effect on the environment" means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant.

Standards for determining thresholds of significance were established based on the State CEQA Guidelines and professional standards. Impacts to biological resources were considered significant if the project would result in the following:

1. Have a substantial adverse effect, either directly or through habitat modification, on any species identified as a special-status-species in local or regional regulatory guidance, plans, policies, or regulations or by Fish and Game or Fish and Wildlife;
2. Have a substantial adverse effect on protected surface waters, as defined by the Army Corps of Engineers Wetland Delineation Manual (1987 ed.) and/or as defined by Sections 401 and 404 of the Clean Water Act (including, but not limited to, seeps, vernal pools, swales, drainages, and perennial waterways) through direct removal, filling, hydrological interruption, or other means;
3. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
4. Conflict with any local policies or ordinances protecting biological resources; or
5. Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or approved local, regional, or state habitat conservation plan.

Note that there are no approved habitat conservation plans applicable to the Project area, and thus criteria five does not apply.

METHODOLOGY

The methodologies used to determine significance rely on documents published by or endorsed by regulatory agencies. The applicable documents and methods are cited and described in the applicable impact discussions below. In absence of such published documents, the analyses rely on the general definitions of significance.

IMPACTS AND ANALYSIS

OVERALL PROJECT IMPACT AREAS AND AVOIDED AREAS

Out of the 2,669-acre Project site, approximately 493 acres will be within areas designated as Avoided Area (Plate BR-1) while the remaining 2,175 acres will be designated for urban uses (residential, commercial, university/college campus center, etc), recreation, and agriculture (Plate BR-2). Those areas to be avoided contain grasslands with large complexes of vernal pools, wetland swales, and seasonal wetlands.

Of the approximately 493 acres that will be avoided, the largest contiguous portion is located near the western boundary and is approximately 298 acres. Two multi-purpose trails will be constructed through this primary avoided area. The trails will be elevated over swales and other linear drainages. There are two avoidance areas adjacent to the primary area, separated from it by internal roads. Together these areas are approximately 84 acres. In the center of the development is an intermittent drainage extending lineally from north to south totaling approximately 94 acres of avoided land. This area is divided by the roadway and pedestrian trail network. Some of these crossings will be overpasses which avoid wetlands. This area is buffered with low-intensity recreational land (Recreation 2), increasing the distance between the Avoidance Area and residential or commercial development. The final avoidance area is approximately 18 acres located on the southeast corner of the university/college campus center.

Approximately 194 acres of the land outside the USB is proposed to be designated as Agriculture. Approximately 49 acres of this Agriculture land is within a Federal Emergency Management Agency 100-year floodplain. The proposed Cordova Hills Special Planning Area (SPA) includes a list of facilities that would be permissible within the Agriculture designation, including a sports park, corporation yard, community garden, and solar facility. The applicant has assumed that several of the areas designated Agriculture which will be outside of the USB will not be impacted. These are the lands on the eastern Project boundary and the area on the southeastern side of the property. If a conservation easement is placed over these areas, then impacts will be avoided and the total urbanized footprint shrinks to 2,120 acres.

Plate BR-1: Proposed Avoided Areas (Project Roadways Shown)

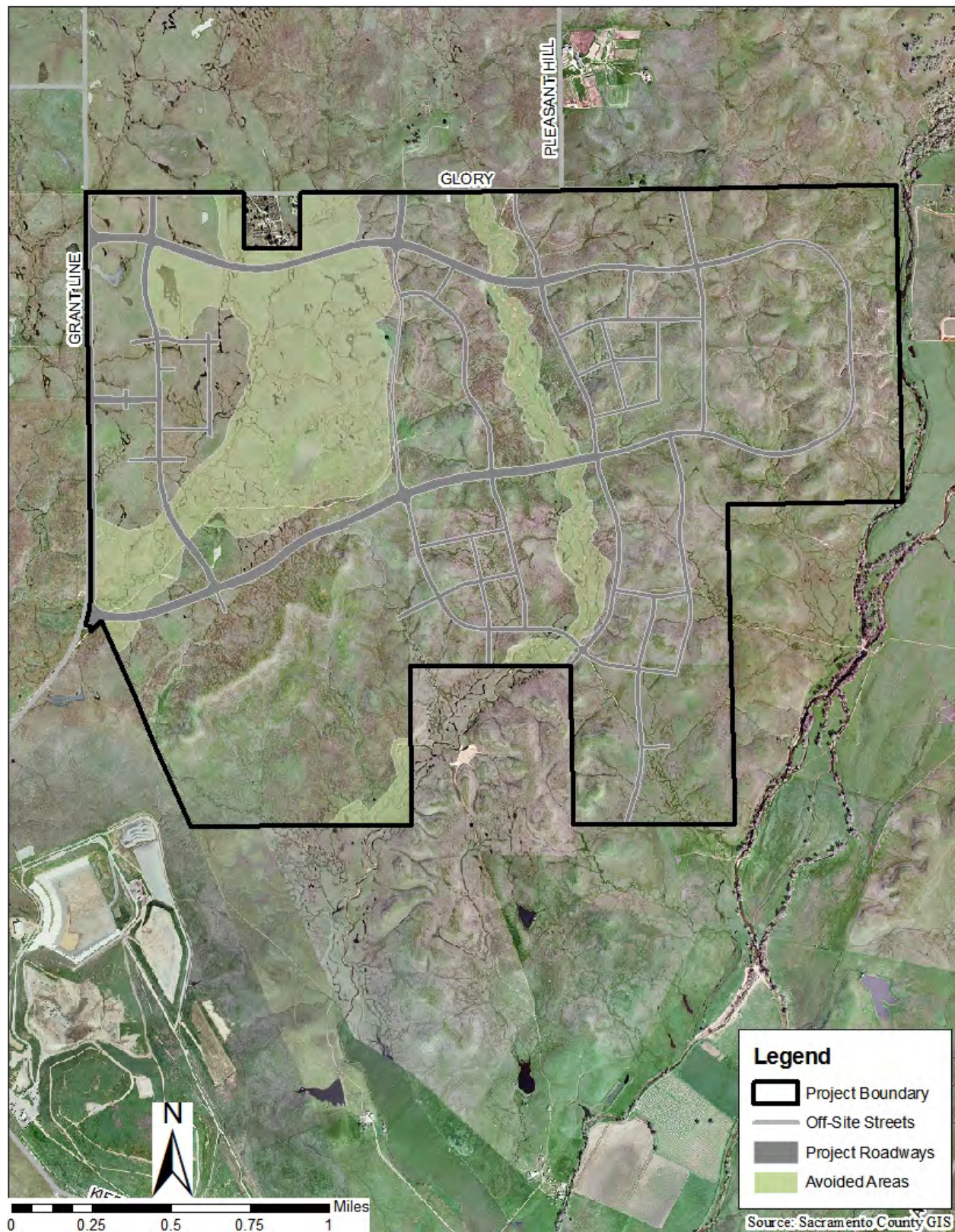
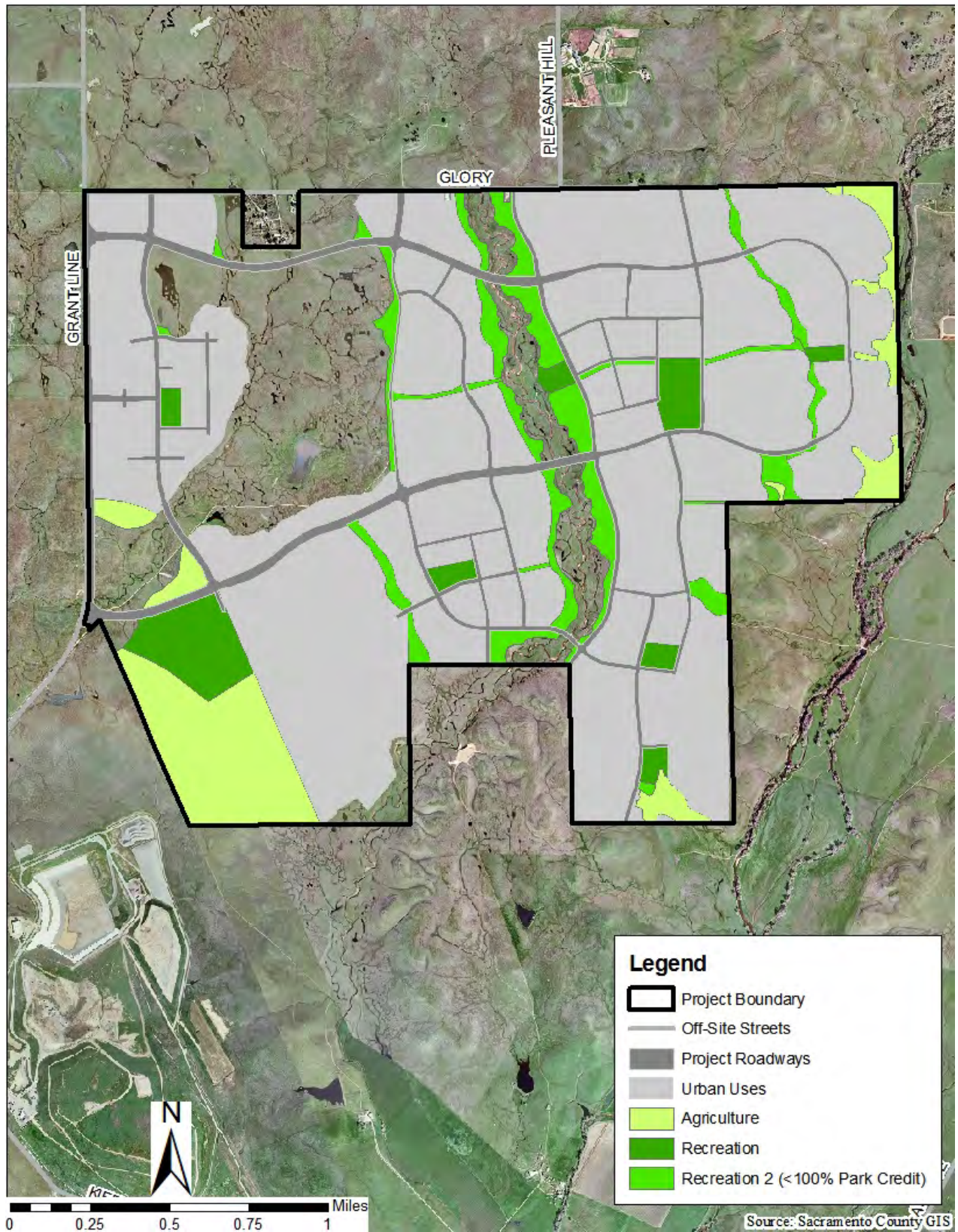


Plate BR-2: Proposed Urban, Recreation, and Agriculture Areas



WETLANDS AND SURFACE WATERS

Wetland delineations were prepared for the proposed Project by ECORP Consulting, Inc (see Appendix BR-1). Due to the changes in the Project boundaries during the planning of the development, there are several delineations that cover different portions of the Project site. **Note that in the case of the Project site, all of the delineated waters are both Waters of the State and Waters of the United States, and are thus subject to both federal and state regulation.** As shown in Plate BR-3, there are three distinct properties: Cordova Hills (Conwy), Grant Line Mesa (bufferlands), and Solitu. The wetland delineation prepared for the Conwy property identified 68.44 acres of jurisdictional wetlands. The delineation was verified by the Army Corps on March 6, 2009. The wetland delineations prepared for the Grant Line Mesa and Solitu properties identified 6.24 and 14.43 acres of jurisdictional wetlands respectively. The delineations were verified by the Army Corps on September 30, 2009. In total, there are approximately 89.1 acres of wetland resources on the Project site (Plate BR-3). Of that, the applicant has estimated that approximately 39.6 acres will be disturbed or removed to accommodate development (Plate BR-4 and Plate BR-5). The wetland resources provide habitat for several endangered or threatened species that are discussed later in this chapter. Wetland resources on the Project site vary from vernal pools to seasonal wetlands, swales, ephemeral drainages, and stock ponds. Table BR-1 identifies the classification and acreage of wetlands present on the Project site and Table BR-2 identifies the impacts.

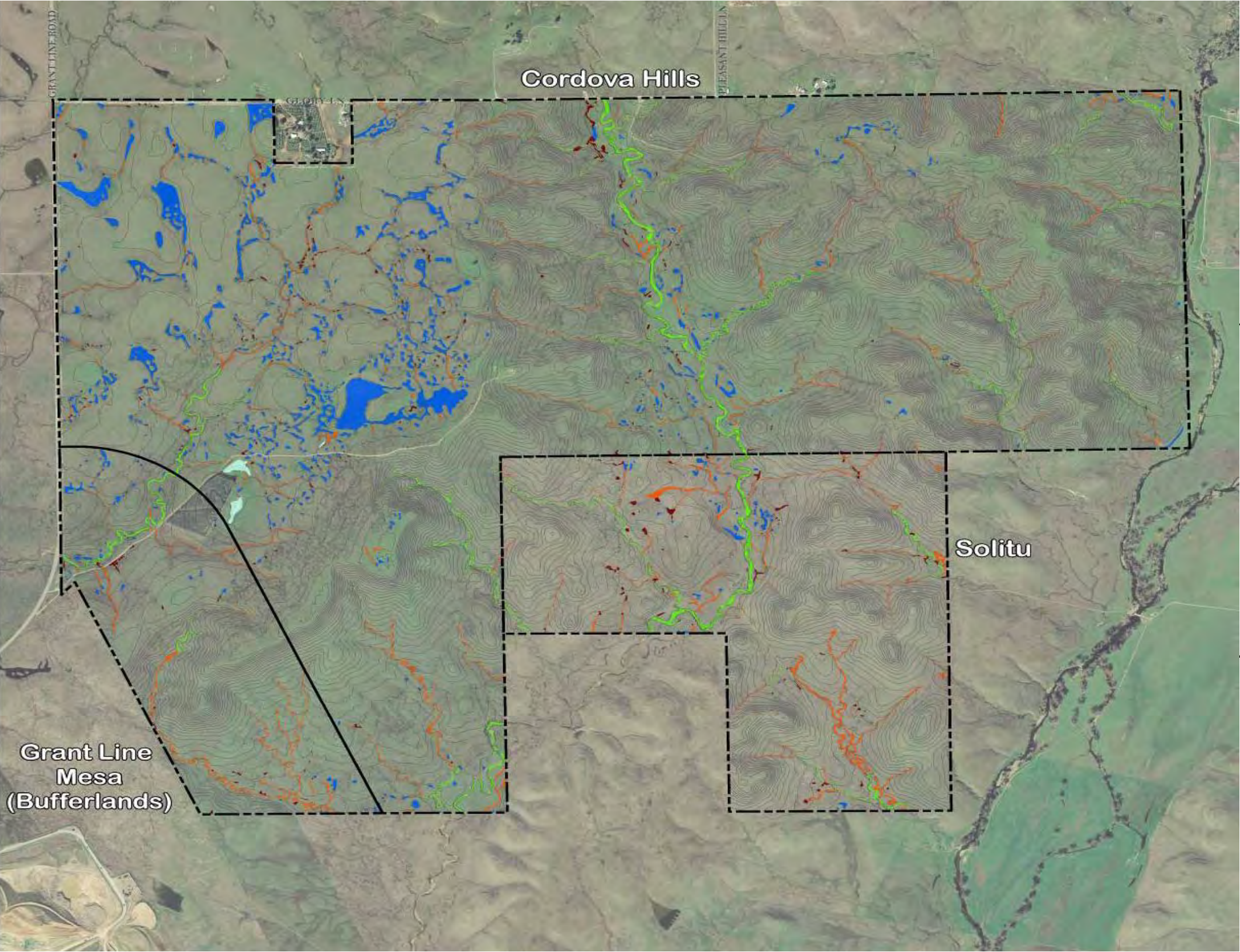
Table BR-1: Wetland Resources

Classification	Acreage
Vernal Pool	47.51
Seasonal Wetland	4.77
Seasonal Wetland Swale	18.22
Intermittent Drainage	16.90
Seep, Stock Pond, Creek	1.71
Total	89.11

Table BR-2: Applicant Estimate of Impacts to Wetland Resources

Classification	Direct Impacts	Temporary Impacts	Total
Vernal Pool	15.644	--	15.644
Seasonal Wetland	3.059	--	3.059
Seasonal Wetland Swale	13.866	--	13.866
Intermittent Drainage	6.361	0.159	6.520
Seep, Stock Pond, Creek	0.700	--	0.700
Total	39.630	0.159	39.646

Plate BR-3: Wetland Delineation



CORDOVA HILLS (CONWY) ³

WATERS OF THE U.S. ACREAGE ¹	
CLASSIFICATION	EXISTING ACREAGE
WETLANDS:	
Vernal Pool	44.499
Seasonal Wetland	2.737
Seasonal Wetland Swale	9.031
OTHER WATERS:	
Intermittent Drainage	10.477
Creek	0.174
Stock Pond	1.522
TOTAL:	68.440

GRANT LINE MESA (BUFFERLANDS) ⁴

WATERS OF THE U.S. ACREAGE ¹	
CLASSIFICATION	EXISTING ACREAGE
WETLANDS:	
Vernal Pool	1.469
Seasonal Wetland	0.477
Seasonal Wetland Swale	3.004
OTHER WATERS:	
Intermittent Drainage	1.286
TOTAL:	6.236

SOLITU ⁵

WATERS OF THE U.S. ACREAGE ¹	
CLASSIFICATION	EXISTING ACREAGE
WETLANDS:	
Vernal Pool	1.541
Seasonal Wetland	1.557
Seasonal Wetland Swale	6.184
Seep	0.012
OTHER WATERS:	
Intermittent Drainage	5.137
TOTAL:	14.431

Plate BR-4: Applicant Estimate of Wetland Avoidance and Impacts

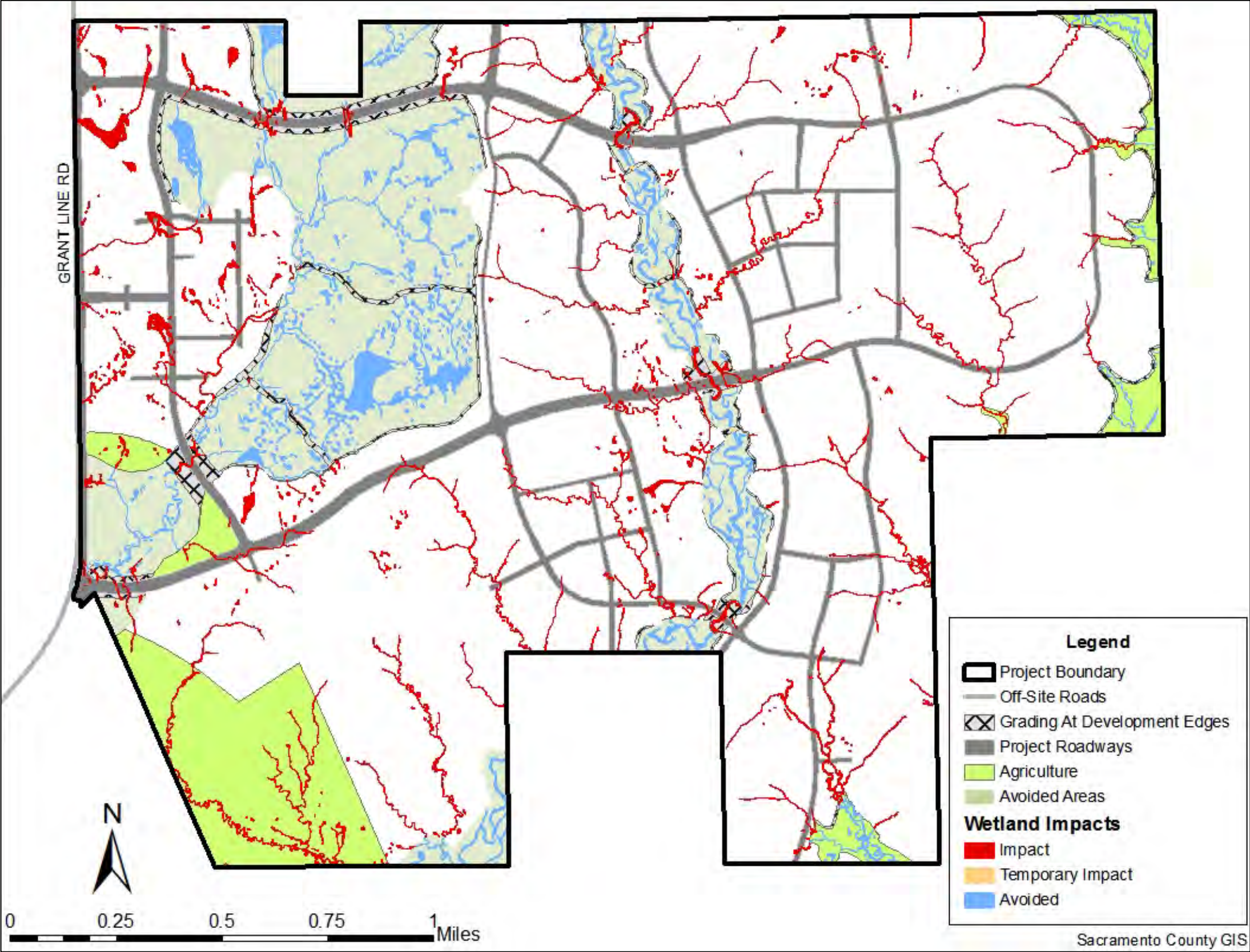
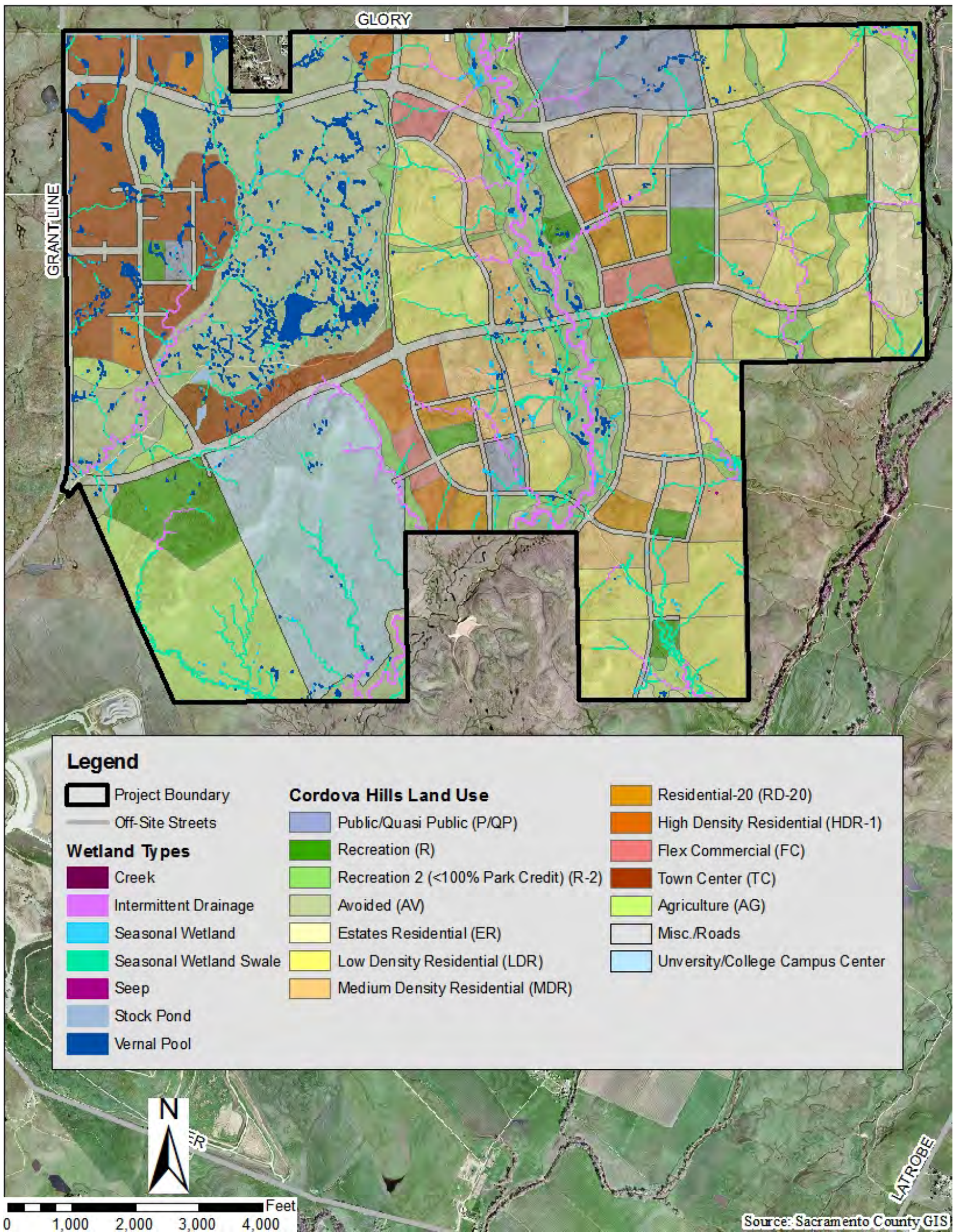


Plate BR-5: Wetlands and Project Land Uses



There are two general types of impact to habitats: direct and indirect. An indirect impact occurs when activities near the wetland cause secondary effects, such as hydrologic changes which reduce the amount of water flowing to the wetland, or drift of pesticides and other pollutants into the wetland. For wetlands which may contain special status species, the rule of thumb for total avoidance of both direct and indirect impacts requires that construction and other activities occur at least 250 feet from the wetland³. For surface waters that do not contain special status species, Environmental Review has established a buffer of 50 feet as a rule of thumb. Note that these rules may be supplanted by site-specific analyses of hydrologic and other conditions. A direct impact occurs when a wetland is destroyed by construction activities within the wetland margin; however, the programmatic consultation for vernal pool resources states that if any part of a vernal pool is destroyed, then the entire pool is directly affected. This statement is applied to all other non-linear wetlands for this analysis. For linear wetlands, this analysis considers all affected areas within 50 feet of the filled area to be directly affected (based on the Environmental Review wetland buffer).

As illustrated by the avoidance plan and land use plan (Plate BR-4 and Plate BR-5), two land use categories are located in areas where on-site wetlands will be avoided. The first is Avoided Area, in which the proposed SPA allows only trails, outdoor classrooms, and interpretive signage. The second land use is agriculturally zoned land, in which the proposed SPA allows a variety of uses such as park and ride lots, detention basins, solar farms, corporation yards, community gardens, and other developed uses. Approximately 2.7 acres of wetlands are shown as avoided within some of the agriculturally designated areas primarily due to the presence of a flood zone. The strategic placement of the Avoided Area encompasses the greatest concentrations of wetland features (including lineal features) on the Project site.

The overarching goals of General Plan Policies CO-64 and -65, OS-1 and -2 are to preserve large, high quality, contiguous pieces of land which support habitat for a large range of plant and animal species. Project design includes large areas of avoided open space that incorporates several types of wetland resources (varying vernal pools, seasonal drainages and associated upland) and species. Project design appears to meet the intent of the General Plan policies.

DIRECT IMPACTS

According to the plan as depicted in Plate BR-4 and as tabulated Table BR-2, the Project will directly impact 39.63 acres of wetland resources, which is 44 percent of the wetlands on the Project site. Conversely, 49.48 acres of wetland resources will be avoided. The wetland delineations have been verified by the Army Corps and an

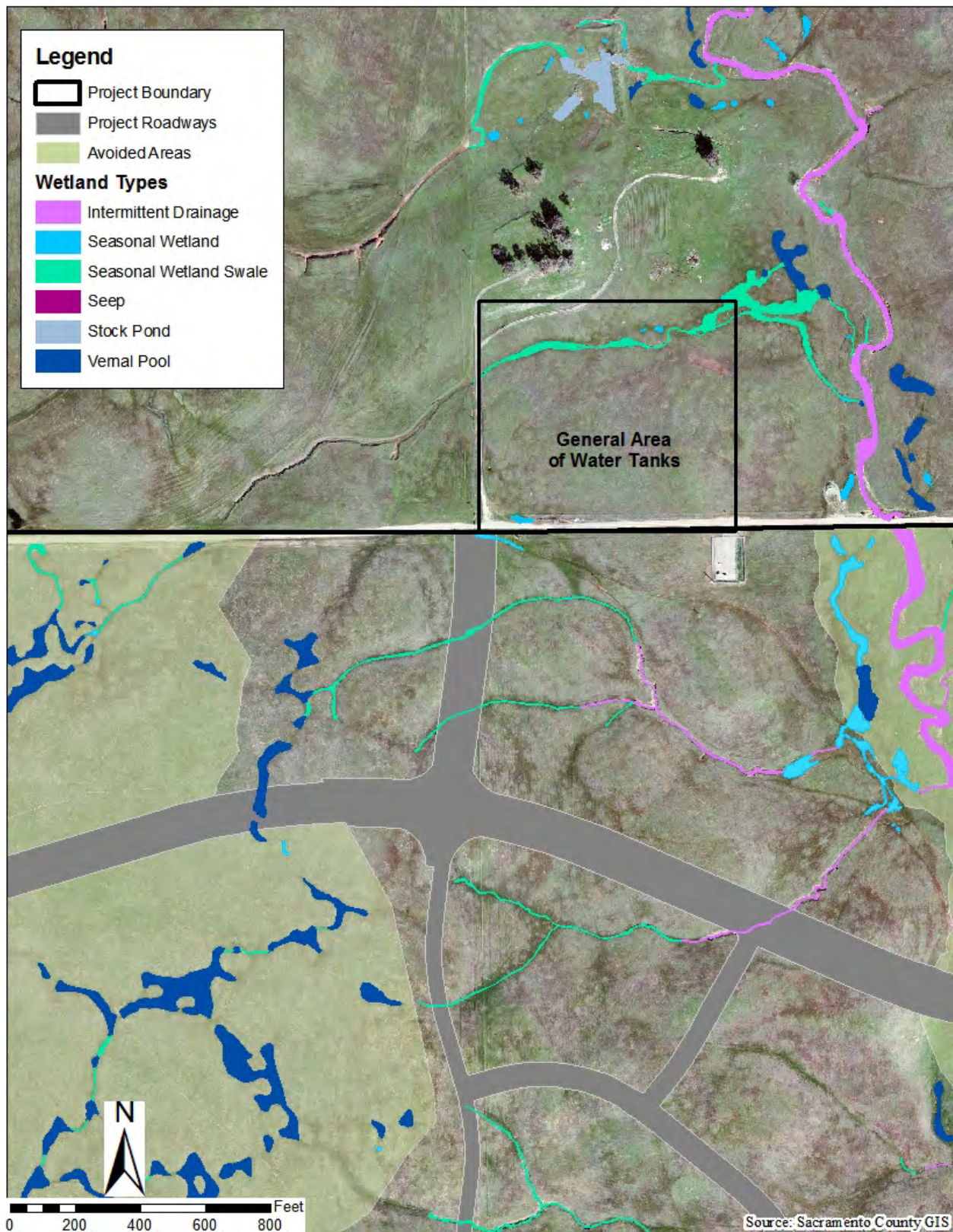
³ Programmatic Formal Endangered Species Act Consultation on Issuance of 404 Permits for Projects with Relatively Small Effects on Listed Vernal Pool Crustaceans Within the Jurisdiction of the Sacramento Field Office, California (February 28, 1996)

application for a Section 404 permit for wetland loss has been submitted, but a permit has not yet been issued. Thus, the amount of wetland area that will require mitigation has not been determined by Army Corps. The applicant has prepared a Wetland Avoidance and Impact Plan exhibit (Impact exhibit), which has been summarized in Plate BR-4. Review of the Impact exhibit indicates that the applicant's analysis properly shows that if any part of a non-linear wetland is destroyed, then the entire pool is directly affected. Linear wetlands, on the other hand, are only shown to be directly impacted where the portion will be destroyed. Further work to supplement the applicant's analysis was performed by Environmental Review, to determine how much additional non-linear wetland would be impacted by applying the 50-foot buffer rule. The analysis found that an additional 0.33 acres of intermittent drainage would be impacted, and an additional 1.11 acres of seasonal wetland swale would be impacted. This brings the total direct impacts to 41.04 acres, and total wetland loss to 46 percent.

In addition to the above, the Project may also involve off-site wetland impacts associated with the construction of water tanks and other utilities. Plate BR-6 depicts the general location of the proposed water tanks, and the wetlands delineated within that area. The area includes three seasonal wetlands of 0.001 acres, 0.006 acres, and 0.019 acres and approximately 0.3 acres of a seasonal wetland swale. The tanks will not be designed until later Project phases, when the infrastructure is needed, so although at this time it is conservatively assumed that all of the wetlands described could be lost, it is likely that this overestimates the impact; the applicant has stated that total avoidance is intended, which is reflected by their current Section 404 permit application. Nonetheless, the conservative estimate brings total impacts to 41.37 acres (46%).

According to Army Corps mitigation guidelines and County mitigation requirements, minimum mitigation requirements are 1:1 (no net loss). Based on the minimum requirements, the Project applicant would have to mitigate for direct impacts to 41.37 acres of wetlands. It should be noted that species habitat mitigation (described later in this chapter) generally requires greater mitigation ratios. If wetland mitigation is pursued through purchasing credits at agency approved mitigation banks or through land dedication outside of the project area, suitable land is first sought within the same watershed that is disturbed, thereby preserving a portion of the micro-ecosystem of the watershed. Some areas to the south of the Project site are already under conservation easements to mitigate landfill activities. However, north of the Project site are extensions of the same drainage swale features and preservation of those features would connect and protect a greater, more contiguous area.

Plate BR-6: Water Tank Wetland Impacts



It should also be noted that Fish and Wildlife has published the “Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon” (Recovery Plan), the purpose of which is to achieve self-sustaining populations of many species which rely on vernal pools. The Recovery Plan identifies “core areas”, which are areas that are vital to achieve the goals of the plan. Core areas are ranked 1, 2, or 3 depending on their overall priority for recovery, with rank 1 being highest priority. The majority of the Project site lies within the Mather core area (Plate BR-7), which is ranked 1. Fish and Wildlife has indicated in comments at the scoping meeting for the Project that preservation of vernal pools in the Mather core area is of high priority, and that any mitigation required for the Project should take place within the core area.

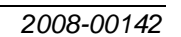
INDIRECT IMPACTS

Avoided areas may not fully protect wetland features if not designed correctly. Among the possible indirect impacts are alterations to existing watersheds that cause a reduction in water flow to the wetland areas. In order to assess potential hydrologic impacts, a watershed analysis for existing wetlands was prepared by ECORP Consulting, Inc in 2011 (incorporated by reference and available for review at the Division of Environmental Review and Assessment, 827 7th Street, Rm. 220, Sacramento, CA). This analysis is helpful to determine if the proposed avoided areas are sufficient to support the wetland features contained within them. Other indirect impacts relate to effects on the species that use the habitat, and thus those impacts are discussed in the Special Status Species section.

The analysis used a LIDAR (light imaging detecting and ranging) based model to develop topographic contours of the Project site. The topographic contours were mapped and the wetland delineation was overlaid. The individual watersheds of the features were then defined and mapped. Seasonal wetlands and their respective watersheds were evaluated to determine the appropriate watershed size to sustain normal hydrologic function. Statistical regression analysis⁴ yielded a linear relationship between the size of a wetland and the corresponding size of the watershed. The modeling concluded that for each acre of seasonal wetland and vernal pool, 1.299 and 1.405 acres, respectively, of upland watershed is required to sustain normal hydrologic function. The impact analysis applied these ratios to wetland features within the avoided areas and determined that two vernal pools would not have the minimum watershed necessary to maintain normal hydrologic function. These two wetlands were included in the assessment of direct impacts. According to the watershed analysis, two vernal pools may be impacted; however, the proposed avoided areas provide adequate watershed area to sustain normal hydrologic functions for the majority of avoided wetland features.

⁴ Regression analysis is used to predict the value of one variable (dependent) based on the value of one or more (independent) variables. For this analysis the size of a wetland (independent variable) is used to predict the size of corresponding micro-watersheds (dependent variable).

6-27



CONCLUSION OF DIRECT AND INDIRECT IMPACTS

Prior to direct impacts to wetland features the Project applicant will be required to obtain all required permits from the Army Corps, Fish and Wildlife, Fish and Game, and the Regional Water Board. Permits may be obtained through individual permits from the agencies, or if the County adopts the SSHCP and the Project is a covered activity, it would be subject to all requirements of that plan. At the time of writing this document, the small portion of the Project outside of the USB is not in the anticipated Urban Development Area of the SSHCP; therefore, even if the SSHCP were adopted, development activities within this area may still require individual permits from the various agencies. Based on the analysis herein, the County will require 1:1 mitigation for up to 41.37 acres of direct wetland impacts.

Future development within the SPA could include amendments to the SPA which would modify the Avoided Area boundaries. This could result in additional incremental losses of needed uplands and/or wetlands, increasing the severity of what is already a significant impact in an area noted as vital to the recovery of vernal pool resources. For this reason, mitigation is also included which would require the establishment of a permanent conservation easement over all areas designated as Avoided.

Impacts to wetland resources are significant without mitigation. While the Project applicant is proposing to avoid a considerable number of vernal pools, swales and seasonal wetlands, the Project nonetheless will result in the loss of a considerable amount of wetlands – 41.37 total wetland acres, which is approximately 46% of the total wetlands on the site, of which 15.6 acres are vernal pools (which is 33% of the vernal pools on the site). Impacted wetlands will be off-set through permitting replacement credits and requirements; however, the loss of 46% of wetlands located on the Project site, especially given that this is in a rank-1 recovery area, is still considered significant after mitigation. Impacts to wetlands are considered *significant and unavoidable*.

MITIGATION MEASURES:

BR-1. To compensate for the permanent loss of wetlands, the applicant shall perform one or a combination of the following prior to issuance of building permits, **and shall also obtain all applicable permits from the Army Corps of Engineers, the U.S. Fish and Wildlife Service, the Central Valley Regional Water Quality Control Board, and the California Department of Fish and Game:**

- A. Where a Section 404 Permit has been issued by the Army Corps of Engineers, or an application has been made to obtain a Section 404 Permit, the Mitigation and Management Plan required by that permit or proposed to satisfy the requirements of the Corps for granting a permit may be submitted for purposes of achieving a no net-loss of wetlands. The required Plan shall be submitted to the Sacramento County Environmental Coordinator, U.S. Army Corps of Engineers, and U.S. Fish and Wildlife Service for approval prior to its implementation.

- B. If regulatory permitting processes result in less than a 1:1 compensation ratio for loss of wetlands, the Project applicant shall demonstrate that the wetlands which went unmitigated/uncompensated as a result of permitting have been mitigated through other means. Acceptable methods include payment into a mitigation bank or protection of off-site wetlands through the establishment of a permanent conservation easement, subject to the approval of the Environmental Coordinator.
- C. The Project applicant may participate in the South Sacramento Habitat Conservation Plan if it is adopted, and if the Project area and activities are covered. The applicant shall prepare Project plans in accordance with that Plan and any and all fees or land dedications shall be completed prior to construction.

BR-2. Prior to issuance of building permits, all areas designated within the SPA as Avoided shall be placed within a permanent conservation easement, which shall be reviewed and approved by the Environmental Coordinator. At a minimum, the permanent conservation easements must cover all areas which are required to be preserved as part of the Section 404 and Section 401 wetland permits.

SPECIAL STATUS SPECIES

A "special status" species is one which has been identified as having relative scarcity and/or declining populations. Special status species include those formally listed as threatened or endangered, those proposed for formal listing, candidates for federal listing, and those classified as species of special concern. Also included are those species considered to be "fully protected" by Fish and Game, those granted "special animal" status for tracking and monitoring purposes, and those plant species considered to be rare, threatened, or endangered in California by the California Native Plant Society (CNPS).

There are multiple status designations applied to animal and plant species; the relevant definitions are provided below⁵:

Endangered Species: Any species which is in danger of extinction throughout all or a significant portion of its range.

Threatened Species: Any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

⁵ Source: California and Federal Endangered Species Acts, <http://www.dfg.ca.gov/wildlife/nongame/ssc/>, http://www.dfg.ca.gov/wildlife/nongame/t_e_spp/fully_pro.html, and <http://www.cnps.org/cnps/rareplants/ranking.php>.

Species of Concern: Any species with declining population levels, limited ranges, and/or other factors that make them vulnerable to extinction and may ultimately qualify the species for threatened or endangered status.

Fully Protected: The classification of Fully Protected was California's initial effort to identify and provide additional protection to those animals that were rare or faced possible extinction. Most have subsequently been defined as endangered or threatened, but there are exceptions.

Special Animals: A general term that refers to all of the taxa that Fish and Game is interested in tracking, regardless of their legal or protection status. Though the species themselves have not declined to the extent that they are listed by one of the classifications noted above (endangered, etc), such species are closely associated with a habitat that is declining in California.

List 1B Plants: Plants that are rare throughout their range, and have declined significantly over the last century. The majority of plants on this list are endemic to California.

List 2 Plants: The same as List 1B plants, except that List 2 plants are common outside of California.

Relevant species for analysis were identified based on species information gathered from the Fish and Wildlife Sacramento office for federally listed species, from Fish and Game, and from CNPS. A Fish and Game California Natural Diversity Database (CNDDDB 2011) search was also conducted. For the initial CNDDDB search the study area was all lands within ten miles of the Project boundary, while the Fish and Wildlife list was based on species present within the Buffalo Creek 7.5-minute United States Geological Survey quadrangle. For plants, the analyses below rely on rare plant surveys performed by ECORP Consulting, Inc (Appendix BR-3).

Table BR-3 reports the species identified in the species searches and rare plant surveys. The table reports the likelihood of occurrence based on habitat presence either on the site or in proximity of the site, survey results (if any), and nearby recorded species occurrences. Habitat proximity is based on published buffers established by a regulatory agency. For instance, guidance for the Swainson's hawk establishes a nesting buffer of ½-mile, and includes mitigation requirements for construction activities in that range. Note that some species are listed for loss of foraging habitat, while others may be listed for loss of breeding habitat. If the species is listed for loss of a particular habitat, it is so reported in Table BR-3 and the likelihood of occurrence will be based specifically on that habitat type. Likelihood of occurrence is rated as Not Present, Low Potential, Moderate Potential, High Potential, or Present, which are defined as:

Not Present: A survey was performed by a qualified biologist, and the species was not found or habitat is absent both on the site and within one mile of the site.

Low Potential: Absence cannot be definitively stated because no surveys were performed, but habitat is near-absent or marginal.

Moderate Potential: Habitat is present, but the species has not been observed within five miles of the site.

High Potential: Habitat is present and the species has been observed within five miles of the site.

Present: The CNDDDB contains a recorded occurrence on the site, or the species was found during site-specific surveys.

Species which are not present or were found to have a low potential of occurrence are not discussed further in subsequent analysis sections.

Table BR-3: Special Status Species Matrix

Species	Status ¹	Habitat ¹	Potential for Occurrence
BIRDS			
Bald Eagle <i>Haliaeetus leucocephalus</i>	FSC	Bald eagles generally nest near coastlines, rivers, large lakes or streams that support an adequate food supply. Bald eagles are opportunistic feeders. Fish comprise much of their diet, but they also eat waterfowl, shorebirds/colonial waterbirds, small mammals, turtles, and carrion.	Low Potential. There are no large trees, cliffs, or other structures for nesting. There are no large impoundments or rivers within the Project site. Carson Creek flows nearby, but the creek is not very large or deep.
Bank Swallow <i>Riparia riparia</i>	ST	Requires vertical banks and cliffs with fine-textured or sandy soils near streams, rivers, ponds, lakes, and the ocean for nesting. Feeds primarily over grassland, shrubland, savannah, and open riparian areas. Primarily listed for destruction of nesting habitat.	Low Potential. There is no nesting habitat on the Project site, nor does Carson Creek provide nesting habitat in the vicinity of the Project.
Burrowing Owl <i>Athene cunicularia hypugea</i>	FSC, CSC	Frequents open grasslands and shrublands with perches and burrows. Nests and roosts in old burrows of small mammals and rubble piles (Zeiner et. al., 1990).	Present. Two recorded occurrences in the CNDDDB in the northwestern portion of the Project site; presence was also noted during a site visit. Suitable nesting and foraging habitat exists over the entire Project site.
Cooper's hawk <i>Accipiter cooperii</i>	SA	Frequents landscapes with wooded patches and groves, along with woodland edge habitats. Nests in riparian areas. Listed for nesting impacts.	Moderate Potential. Foraging habitat is not present on the site, but the site is within 500 feet of suitable nesting trees. Impacts are addressed in the "Nesting Raptors" section.
Double-crested cormorant <i>Phalacrocorax auritus</i>	SA	Associated with estuaries, rivers, and oceans, the species is known to occur along major rivers in the Central Valley. A colonial nester, the species prefers cliffs, rugged slopes, or tall trees beside water. Range is restricted to 5 – 10 miles of the nesting area. Listed for the protection of nesting colonies.	Not Present (nesting). Carson Creek does not provide suitable foraging area, as it is not a large or deep enough open water habitat. The nearest recorded nesting colony is along the American River, over six miles to the north. During the site visit Carson Creek was investigated for the presence of nesting colonies and none were observed. The point of observation was at an elevation that allowed observation of the tree tops.

Species	Status ¹	Habitat ¹	Potential for Occurrence
Ferruginous hawk <i>Buteo regalis</i>	SA	Frequents open grasslands, sagebrush flats, desert scrub, low foothills surrounding valleys, and fringes of pinyon-juniper habitats. Listed for preservation of wintering habitat.	Moderate Potential. The nearest recorded occurrence is just under six miles west of the site. The site contains foraging habitat for the species.
Golden Eagle <i>Aquila chrysaetos</i>	CFP	Found in rolling foothills with open grasslands, scattered trees, and cliff-walled canyons. Nests on cliffs and in large trees in open areas (Zeiner et. al., 1990).	Moderate Potential. Land to the east of the site provides the rolling wooded foothills suitable to the species, and may provide nesting habitat – though the species does prefer cliffs. The species could forage on the grassland of the site. There are no recorded occurrences for this species within ten miles.
Grasshopper sparrow <i>Ammodramus savannarum</i>	SA	Occurs in dry, dense grasslands, especially those with a variety of grasses and tall forbs and scattered shrubs for singing perches. Builds nest of grasses and forbs in a slight depression in ground, hidden at base of an overhanging clump of grasses or forbs. Listed for loss of nesting habitat.	Moderate High Potential. The nearest recorded occurrence is approximately 2.5 miles east of the site. The site contains potential foraging and nesting habitat, although there is a lack of shrubs or other singing perches which may inhibit use of the site.
Great blue heron <i>Ardea herodias</i>	SA	Associated with estuaries, rivers, and oceans, the species is known to occur along major rivers in the Central Valley. A colonial nester, the species prefers tall trees beside water. The range is restricted to within 10 miles of the nesting area. Listed for the protection of nesting colonies.	Not Present (nesting). The species was observed foraging in Carson Creek during a site visit. The point of observation was at an elevation that allowed observation of the tree tops, and no nesting colonies were observed along Carson Creek in the vicinity of the site. The site itself does not contain habitat, and the nearest recorded nesting colonies are over six miles to the north, along the American River.
Great egret <i>Ardea alba</i>	SA	Associated with estuaries, rivers, and oceans, the species is known to occur along major rivers in the Central Valley. A colonial nester, the species prefers cliffs, rugged slopes, or tall trees beside water. Listed for the protection of nesting colonies.	Not Present (nesting). The site itself does not contain habitat, and the nearest recorded nesting colonies are over six miles to the north, along the American River. During the site visit Carson Creek was investigated for the presence of nesting colonies and none were observed. The point of observation was at an elevation that allowed observation of the tree tops.

Species	Status ¹	Habitat ¹	Potential for Occurrence
Loggerhead Shrike <i>Lanius ludovicianus</i>	CSC	Listed for loss of breeding habitat, the species breed mainly in shrublands or open woodlands with a fair amount of grass cover and areas of bare ground.	Low Potential. Though the site contains foraging habitat, there are no shrublands or open woodlands on the site, and thus no breeding habitat. The nearest recorded occurrence is just over three miles to the west.
Northern Harrier <i>Circus cyaneus</i>	FSC, CSC	Frequents meadows, grasslands, open rangelands, desert sinks, and fresh and saltwater emergent wetlands (Zeiner et. al., 1990). Nests on ground in shrubby vegetation, usually at marsh edge.	Moderate High Potential. Foraging habitat is present on the site, and though no occurrences are recorded within ten miles the species was observed foraging during a site visit . The site lacks the shrubby vegetation preferred for nesting, though dense, tall grasses on the site could be used .
Swainson's Hawk <i>Buteo swainsoni</i>	ST	Breeds in stands with few trees in juniper-sage flats, riparian areas, and oak savannah. Requires adjacent suitable foraging areas such as grasslands or grain fields supporting rodent populations (Zeiner et. al., 1990).	High Potential. Species recorded nesting less than ½-mile from the site, along Deer Creek. On this basis, the species is highly likely to forage on the Project site.
Tricolored Blackbird <i>Agelaius tricolor</i>	FSC, CSC	The species is listed for breeding habitat. Known to nest near marshes in large (several hundred to several thousand birds) breeding colonies in habitat made up of blackberry thickets, bulrush (<i>Scirpus</i> sp.) or cattails (<i>Typha</i> sp.) patches.	Moderate Potential. No breeding habitat is present on the site, but portions of the site are within 300 feet of the nearest potential habitat alongside Carson Creek. This places portions of the Project within the typical buffer established to avoid construction disturbance of nesting birds.
White-tailed Kite <i>Elanus leucurus</i>	CFP	Inhabit low-elevation grasslands, wetlands dominated by grasses, oak woodlands, and agricultural and riparian areas (Dunk 1995).	High Potential. Foraging habitat is present on the Project site and nesting habitat is available within ½-mile along Carson and Deer Creeks. The nearest recorded nest site is just over one mile to the southwest.
MAMMALS			
American Badger <i>Taxidea taxus</i>	CSC	Occurs in a variety of habitats, including grasslands and oak woodlands with friable soils for digging (Zeiner et. al., 1990).	Low Potential. The nearest recorded occurrence is approximately 2.5 miles to the west. The only suitable denning habitat is possible along the banks of Carson and Deer Creeks to the east and south of the Project site. There is no proposed development within the floodplain of the creek.

Species	Status ¹	Habitat ¹	Potential for Occurrence
REPTILES			
Northwestern Pond Turtle <i>Clemmys marmorata</i>	FSC, CSC	Occurs in perennial ponds, lakes, rivers, and streams with suitable basking habitat (mud banks, mats of floating vegetation, partially submerged logs) and submerged shelter (Zeiner et. al., 1990). Require some slack- or slow-water aquatic habitat. Nests upland, on unshaded south-facing slopes with friable soils that have a high percentage of clay or silt (Jennings and Hayes, 1994).	Low Potential. There is one recorded observance of the species less than a mile to the east of the Project site, within the Carson Creek floodplain. The Project does not propose any development within the Carson Creek floodplain, and the areas of the site that are upland to the floodplain are on steep eastward-facing slopes. There is no suitable habitat on the Project site. Rathburn et. al. (1992) recommended protecting at least 500 meters (approximately 1,600 feet) from known occupied aquatic habitat. The project is beyond this distance from known habitat.
Giant Garter Snake <i>Thamnophis gigas</i>	FT, ST	Endemic to valley floors of the Sacramento and San Joaquin Valleys. Prefers freshwater marsh and low gradient streams. Has adapted to rice agriculture, drainage channels, and irrigation ditches. Requires permanent water, emergent vegetation, and upland habitat for basking and cover (USFWS, 1999).	Low Potential. The Project site is located north of the Cosumnes River and east of Grant Line Road. Streams north of Jackson Highway and east of Sunrise Boulevard are not considered Giant Garter Snake habitat as noted in the Giant Garter Snake Recovery Plan and in consultation with Fish and Wildlife staff. Further, the snake is not known to travel major rivers due to predatory species, lack of cover and basking habitat. The species would need to travel up the Cosumnes River, a major waterway, in order to reach Carson Creek.
AMPHIBIANS			
California Tiger Salamander <i>Ambystoma californiense</i>	FT, ST	Endemic to annual grasslands and valley-foothill habitats in California. Adults spend most time in subterranean refugia, particularly in ground squirrel burrows (CDFG, 2005). Seasonal ponds or vernal pools are required for breeding.	Moderate Potential. The nearest recorded occurrence is nearly nine miles south of the site. The site contains suitable breeding habitat and upland habitat for the species.
California Red-legged Frog <i>Rana draytonii</i>	FT, CSC	Adults prefer dense, shrubby or emergent riparian vegetation near deep (at least two feet), still, or slow-moving water. The species aestivate in upland burrows and in leaf litter. (Jennings and Hayes 1994)	Low Potential. The nearest confirmed, documented breeding population is located approximately 30 miles northeast of the Project near Pollock Pines in El Dorado County (CNDDDB occurrence 586). There are no occurrences documented in Sacramento County, and the species is considered extirpated in the Central Valley (USFWS 2002).

Species	Status ¹	Habitat ¹	Potential for Occurrence
Western Spadefoot Toad <i>Scaphiopus (Spea) hammondi</i>	FSC, CSC	Occurs primarily in grasslands but occasionally populates valley-foothill hardwood woodlands (Zeiner et. Al., 1990). Almost entirely terrestrial, but requires temporary rain pools that lack predators (fish, bullfrogs, crayfish) for breeding. Also needs burrows for refuge.	Present. Populations of western spadefoot toad have been documented to the west of the Project site. Species was observed on the Project site during rare plant surveys. Appropriate breeding and aestivation habitat is present throughout the Project site.
FISH			
Delta Smelt <i>Hypomesus transpacificus</i>	FT, CE	The delta smelt is a small, slender-bodied fish with a typical adult size of two to three inches that is found only in the Sacramento-San Joaquin Estuary. This species occurs in the Sacramento River as far upstream as the confluence with the American River. Delta smelt may also be found in the Cosumnes River and San Joaquin River.	Low Potential. Carson Creek, which borders the eastern portion of the property, is hydrologically connected to the Sacramento Delta via the Cosumnes River. It is possible that some smelt exist within Carson Creek, but based on their relative scarcity at the confluence with the Cosumnes River, the population's levels would be very low. The Project will not result in any direct impacts to Carson Creek, or hydromodification of Carson Creek, and thus the species does not occur within the Project impact area.
Central Valley Steelhead <i>Oncorhynchus mykiss</i>	FT	Most of Sacramento County is within the distinct population segment area for this species. Critical habitat has been designated within Sacramento County on the Sacramento River, American River, Mokelumne River, and Dry Creek (both north and south creeks). Spawning has been documented on the Cosumnes River. (NMFS 2009)	Low Potential. Some spawning may occur within Carson Creek, which is ultimately connected to the Cosumnes River. The Project will not result in any direct impacts to Carson Creek, or hydromodification of Carson Creek, and thus the species does not occur within the Project impact area.
Central Valley Spring and Winter-run Chinook Salmon <i>Oncorhynchus tshawytscha</i>	FT, FE	Distribution occurs throughout the Sacramento River and through a portion of the American River, but the distribution maps do not include the Cosumnes River as habitat. (NMFS 2009)	Low Potential. Habitat is not present within or adjacent to the Project site.

Species	Status ¹	Habitat ¹	Potential for Occurrence
INVERTEBRATES			
California Linderiella <i>Linderiella occidentalis</i>	FSC	A fairy shrimp which most often occupies pools that are vegetated and contain clear water. Not uncommon to observe the species in mud-bottomed pools with slightly turbid water. (Eriksen and Belk, 1999).	High Potential. The nearest recorded occurrence is approximately 1.5 miles to the southwest. The vernal pools and seasonal wetlands on the Project site provide suitable habitat.
<u>Molestan Blister Beetle</u> <u><i>Lytta molesta</i></u>	<u>None</u>	<u>Flowers and uplands of vernal pools.</u>	<u>Low Potential. Though the species is found within vernal pool areas, there are no recorded occurrences in Sacramento County, San Joaquin, or Placer counties, and thus the site falls outside of the known distribution or range of the species.</u>
Ricksecker's Water Scavenger Beetle <i>Hydrochara rickseckeri</i>	FSC	The Ricksecker's water scavenger beetle is an aquatic beetle that lives in weedy, shallow, open water, associated fresh water seeps, springs, farm ponds, vernal pools, and slow moving stream habitats. The beetle is known to occur with other vernal shrimp species.	High Potential. The nearest recorded occurrence is just over three miles to the west. Vernal pools, seasonal wetlands, seasonal wetland swales within the Project site provide suitable habitat.
Valley Elderberry Longhorn Beetle <i>Desmocerus californicus dimorphus</i>	FT	Associated with mature elderberry (<i>Sambucus</i> spp.) trees found in riparian forests in the Central Valley (USFWS, 2003a).	Not Present. Elderberry host plant not present in the Project site.
Midvalley Fairy Shrimp <i>Branchinecta mesoatlantica</i>	FSC	Inhabit shallow vernal pools, vernal swales, and various artificial ephemeral wetland habitats in the Sacramento, Solano, Contra Costa, San Joaquin, Madera, Merced, and Fresno Counties (USFWS, 2003a).	High Potential. The nearest recorded occurrence is just over three miles to the west. Vernal pools, seasonal wetlands, seasonal wetland swales within the Project site provide suitable habitat.

Species	Status ¹	Habitat ¹	Potential for Occurrence
Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i>	FT	Inhabit alkaline pools, ephemeral drainages, rock outcrop pools, ditches, stream oxbows, stockponds, vernal pools, vernal swales, and other seasonal wetlands. Also found in basalt flow depression pools in unplowed grasslands (Eriksen and Belk, 1999).	High Potential. The nearest recorded occurrence is just over three miles to the west. Vernal pools, seasonal wetlands, seasonal wetland swales within the Project site provide suitable habitat.
Vernal Pool Tadpole Shrimp <i>Lepidurus packardii</i>	FE	Inhabits small to large vernal pools containing clear to highly turbid water (USFWS, 2003a).	High Potential. The nearest recorded occurrence is just over three miles to the west. Vernal pools, seasonal wetlands, seasonal wetland swales within the Project site provide suitable habitat.
PLANTS			
lone Manzanita <i>Arctostaphylos myrtifolia</i>	FE, List 1B	Native to the sandy clay soils of the lone formation in the western Sierra Nevada foothills.	Not Present. This species requires serpentinite, volcanic, or gabbroic soils or soils of the lone formation, none of which are present on-site. Further, species occur within chaparral cismontane woodlands; this habitat is not present on the Project site.
Bandage's Clarkia <i>Clarkia biloba</i> app. <i>Brandegeeae</i>	List 1B	Chaparral and cismontane woodlands; elevation 240 – 3,000ft	Not Present. Habitat type not present within the Project site or vicinity.
lone Buckwheat <i>Eriogonum apricum</i> var. <i>apricum</i>	FE, CE, List 1B	Native to the sandy clay soils of the lone formation in the western Sierra Nevada foothills.	Not Present. This species requires serpentinite, volcanic, or gabbroic soils or soils of the lone formation, none of which are present on-site. Further, species occur within chaparral cismontane woodlands; this habitat is not present on the Project site.
Irish Hill Buckwheat <i>Eriogonum apricum</i> var. <i>prostratum</i>	FE, CE, List 1B	Native to the sandy clay soils of the lone formation in the western Sierra Nevada foothills.	Not Present. This species requires serpentinite, volcanic, or gabbroic soils or soils of the lone formation, none of which are present on-site. Further, species occur within chaparral cismontane woodlands; this habitat is not present on the Project site.
Tuolumne Button-Celery <i>Eryngium pinnatisectum</i>	CE, List 1B	Mesic areas within cismontane woodland and lower montane coniferous forests; elevation 230 – 3,000ft	Not Present. Habitat type not present within the Project site.

Species	Status ¹	Habitat ¹	Potential for Occurrence
Dwarf downingia (<i>Downingia pusilla</i>)	List 2	Vernal pools and mesic areas in valley and foothill grasslands; elevation 3 – 1,460 ft (blooms Mar. – May)	Not present. Suitable habitat present on the Project site. Nearest occurrence is approximately 11.4 miles southwest of the site. Rare plant surveys conducted in 2008 and 2010 did not observe the species.
Boggs Lake Hedge-Hyssop <i>Gratiola heterosepala</i>	SE, List 1B	Marshes and swamps, vernal pools/clay; elevation 30 – 7,790ft (blooms Apr. – Aug.)	Not Present. Suitable habitat present on the Project site. Nearest occurrence is approximately ¼-mile southwest of the Project site. Rare plant surveys conducted in 2008 and 2010 did not observe the species.
Parry's Horkelia <i>Horkelia parryi</i>	List 1B	Native to the sandy clay soils of the lone formation in the western Sierra Nevada foothills.	Not Present. This species requires serpentinite, volcanic, or gabbroic soils or soils of the lone formation, none of which are present on-site. Further, species occur within chaparral cismontane woodlands; this habitat is not present on the Project site.
Northern California Black Walnut <i>Juglans hindsii</i>	List 1B	Riparian scrub, riparian woodland; elevation 0 – 1,320ft (blooms Apr. – May)	Not Present. There are no trees present on the Project site.
Ahart's Dwarf Rush <i>Juncus leiospermus</i> var. <i>ahartii</i>	List 1B	Valley and foothill grassland/mesic; elevation 100 – 330ft (blooms Mar. – May)	Not Present. The vernal pools, seasonal wetlands and seasonal swales on-site provide suitable habitat for this species. The plant surveys in 2008 and 2010 did not observe the species within the Project boundary and the nearest occurrence listed in the CNDDB is approximately 4.5 miles to the west.
Legenere <i>Legenere limosa</i>	List 1B	Vernal pools; elevation 0 – 2,900ft (blooms Apr. – Jun.)	Present. Species were observed in two vernal pools during the plant surveys in 2008 and 2010. The vernal pools, seasonal wetlands, seasonal wetland swales, drainages, ditches, and stock pond represent suitable habitat.
Pincushion Navarretia <i>Navarretia myersii</i>	List 1B	Vernal pools; elevation 65 – 1,100ft (blooms May)	Not Present. The vernal pools, seasonal wetlands and seasonal swales on-site provide suitable habitat for this species. The plant surveys in 2008 and 2010 did not observe the species within the Project boundary and the nearest occurrence is 5.9 miles to the southeast.

Species	Status ¹	Habitat ¹	Potential for Occurrence
Slender Orcutt Grass <i>Orcuttia tenuis</i>	FT, SE List 1B	Vernal pools; elevation 115 – 5,775ft (blooms May – Oct.)	Not Present. The vernal pools, seasonal wetlands and seasonal swales on-site provide suitable habitat for this species. The nearest listed occurrence in the CNDDDB is 2.3 miles west of the Project site. The plant surveys in 2008 and 2010 did not observe the species within the Project boundary.
Sacramento Orcutt Grass <i>Orcuttia viscida</i>	FE, SE, List 1B	Vernal pools; elevation 100 – 330ft (blooms Apr. – Jul.)	Present. Species observed along the northern boundary of the site during plant surveys (ECORP, 2007 and 2008). The vernal pools, seasonal wetlands and seasonal swales on-site provide suitable habitat for this species.
Sanford's Arrowhead <i>Sagittaria sanfordii</i>	List 1B	Marshes and swamps; elevation 0 – 2,000ft (blooms May – Oct.)	Not Present. The vernal pools, seasonal wetlands and seasonal swales on-site provide suitable habitat for this species. The nearest listed occurrence in the CNDDDB is 2.2 miles east of the Project site. The plant surveys in 2008 and 2010 did not observe the species within the Project boundary.

Source: California Dept. of Fish and Game Natural Diversity Data Base (2011) and the U.S. fish and Wildlife Service Species List for the Buffalo Creek U.S.G.S. 7.5-minute quad.

1. Listing status sources and some habitat description sources (life history accounts) are:

California Species: <http://www.dfg.ca.gov/wildlife/nongame/list.html>

Federal Species: http://www.fws.gov/sacramento/ES_Species/Accounts/Home/es_species.htm and http://www.fws.gov/sacramento/y_old_site/es/spp_concern.htm

California Native Plant Society: <http://www.rareplants.cnps.org/>

FE = Federal Endangered; FT = Federal Threatened; FC = Federal Candidate, FSC= Federal Species of Concern

SE = State of California Endangered; ST = State of California Threatened; CSC = State of California Species of Special Concern; CFP = State of California Fully Protected; SA = Special Animal

List 1B = California Native Plant Society Endangered, Threatened, or Rare in California

List 2 = California Native Plant Society Endangered, Threatened, or Rare in California but more common elsewhere

BIRDS

Based on the species table and types of habitat present on or near the Project site, the following special status avian species are identified as having potential to occur on or near the Project site: burrowing owl, Cooper's hawk, ferruginous hawk, golden eagle, grasshopper sparrow, northern harrier, Swainson's hawk, tricolored blackbird, and white-tailed kite. The section also addresses nesting raptors in general, which are afforded minimum protections pursuant to the Fish and Game code regardless of status.

SWAINSON'S HAWK

The Swainson's hawk (*Buteo swainsoni*) is listed as a Threatened species by the State of California and is a candidate for federal listing as threatened or endangered. It is a migratory raptor typically nesting in or near valley floor riparian habitats during spring and summer months. Swainson's hawks were once common throughout the state, but various habitat changes, including the loss of nesting habitat (trees) and the loss of foraging habitat through the conversion of native Central Valley grasslands to certain incompatible agricultural and urban uses has caused an estimated 90% decline in their population.

Swainson's hawks feed primarily upon small mammals, birds, and insects. Their typical foraging habitat includes native grasslands, alfalfa and other hay crops that provide suitable habitat for small mammals. Certain other row crops and open habitats also provide some foraging habitat. The availability of productive foraging habitat near a Swainson's hawk's nest site is a critical requirement for nesting and fledgling success. In central California, about 85% of Swainson's hawk nests are within riparian forest or remnant riparian trees. CEQA analysis of impacts to Swainson's hawks consists of separate analyses of impacts to nesting habitat and foraging habitat.

The CEQA analysis provides a means by which to ascertain impacts to the Swainson's hawk. When the analysis identifies impacts, mitigation measures are established that will reduce impacts to the species to a less than significant level. Project proponents are cautioned that the mitigation measures are designed to reduce impacts and do not constitute an incidental take permit under the California Endangered Species Act (CESA). Anyone who directly or incidentally takes a Swainson's hawk, even when in compliance with mitigation measures established pursuant to CEQA, may violate the California Endangered Species Act.

NESTING HABITAT

For determining impacts to and establishing mitigation for nesting Swainson's hawks in Sacramento County, Fish and Game recommends implementing the measures set forth in the Fish and Game Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (*Buteo swainsoni*) in the Central Valley of California (November 1, 1994). These state that no intensive new disturbances, such as heavy equipment operation associated with construction, should be initiated within ¼ mile of an active Swainson's

hawk nest in an urban setting or within ½ mile in a rural setting between March 1 and September 15.

FORAGING HABITAT

Swainson's hawks are known to forage up to 18 miles from their nest site; however, that is the extreme range of one individual bird's daily movement. It is more common for a Swainson's hawk to forage within 10 miles of its nest-site. Therefore it is generally accepted and Fish and Game recommends evaluating projects for foraging habitat impacts when they are within 10 miles of a known nest site.

Statewide, Fish and Game recommends implementing the measures set forth in the Fish and Game Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (*Buteo swainsoni*) in the Central Valley of California (November 1, 1994) for determining impacts to Swainson's hawk foraging habitat unless local jurisdictions develop an individualized methodology designed specifically for their location. Sacramento County has developed such a methodology and received confirmation from Fish and Game in May of 2006 that the methodology is a better fit for unincorporated Sacramento County and should replace the statewide, generalized methodology for determining impacts to foraging habitat.

Swainson's hawk foraging habitat value is greater in large expansive open space and agricultural areas than in areas which have been fragmented by agricultural-residential or urban development. The methodology for unincorporated Sacramento County is based on the concept that impacts to Swainson's hawk foraging habitat occur as properties develop to increasingly more intensive uses on smaller minimum parcel sizes. Therefore, the methodology relies mainly on the minimum parcel size allowed by zoning to determine habitat value. For the purpose of the methodology, properties with zoning of AG-40 and larger are assumed to maintain 100% of their foraging habitat value and properties with AR-5 zoning and smaller are assumed to have lost all foraging habitat value. Table BR-4 below illustrates the continuum between AG-40 and AR-5 that represents the partial loss of habitat value that occurs with fragmentation of large agricultural land holdings. The large, 50% loss of habitat value between AG-20 and AR-10 is due to the change in land use from general agriculture to agricultural-residential. The methodology does allow case-by-case analysis for projects with unique characteristics.

Table BR-4: Swainson's Hawk Foraging Habitat Value by Zoning Category

Zoning Category	Habitat Value Remaining
AG-40 and above (e.g., AG-80, 160 etc.)	100%
AG-20	75%
AR-10	25%
AR-5 and smaller (e.g., AR-2, 1 or RD-5, 7, 10, 15, 20 etc.)	0%

CONCLUSION

According to the CNDDDB, 2008, the nearest recorded species occurrence for the Swainson's hawk, #660, is approximately ½ mile to the east of the Project site along Deer Creek. According to the information provided in the CNDDDB Rare Find program, a nesting pair was observed in 1993. The Project site provides foraging habitat for the hawk and development of the site would result in a potentially significant loss of that habitat. The entire Project site is zoned AG-80 and therefore retains 100 percent of foraging habitat value. The Project will be rezoning the entire 2,669 acres to urban uses (AG-80 to SPA). According to the impact methodology, the habitat value of all 2,669 acres would be lost, but it is acknowledged that there are areas of the site which are designated as Avoided Areas under the proposed SPA zoning and therefore would not be subject to typical urban development. For this reason, a case-by-case analysis has been used for these areas. The analysis below relies upon the known habitat needs of the species, and compares that to what will be remaining on the site.

The Project includes some Avoided Areas which can be removed from the total impact area, but this depends on the size and structure of the area to be avoided. Reported mean home ranges in the Central Valley range from 6,820 acres (Estep 1989) to 9,978 acres (Babcock 1995). Swainson's hawk forage only incidentally in edge habitats or areas such as orchards which have narrow zones of available forage (Estep 1989), and prefer agricultural fields with row crops and open grassland areas. The need for large areas of open habitat makes the species sensitive to habitat fragmentation (Estep and Teresa 1992). The species must have suitable foraging habitat within three to five miles from the nest tree to successfully fledged young (England et al. 1995).

On the basis of the above research, the 298-acre Avoided Area on the western side of the site, plus two adjacent Avoided Areas to the north and south, will remain suitable habitat; this collective area is 382 acres, which will be connected to thousands of acres of open space to the north and west **in the existing condition. The onsite Avoided Areas will also be connected to the Kiefer Landfill preserves, which provides a permanent linkage to thousands of acres of grassland and cropland south of Kiefer Landfill and the Project – land which all lies outside of the USB.** In this way, it is like and similar to large contiguous properties zoned AG-80. There are also multiple areas on the site which are on the edge of the property bordering the USB, and as such these areas will also be connected to large, agriculturally zoned properties. These areas include an 18.4-acre Avoided Area to the south of the University/College Campus Center which will remain connected to open space and agriculture outside of the USB to the west and south. This drops the total mitigation requirement from 2,669 acres to 2,269 acres. In addition, the areas on the eastern and southeastern side of the site which are designated Agriculture by the SPA are located outside of the USB, and will remain connected to large areas of contiguous habitat. Provided that these areas are not developed with some of the industrial uses unconditionally allowed by the Agriculture designation of the SPA, these areas can also be considered retained. Mitigation has been written such that if the applicant establishes conservation easements over these areas, that the areas – which total 37.3 acres – will not be considered impacted. This would drop the total mitigation requirement to 2,231 acres.

The Avoided Area surrounding the central linear drainage will not maintain full habitat value, because it is narrow (less than 600 feet wide and averages approximately 400 feet wide), is often steeply sloped, and will be surrounded by urban uses. This area will functionally be edge habitat; Swainson's hawk may continue to forage incidentally in this linear Avoided Area, but based on observed habitat preferences will no longer rely on this area. Applying the intent of the methodology leads to the same conclusion. Though this area includes 93.6 acres, it is not configured in the manner of an AG-40 or AG-80 parcel. The minimum width for an AG-80 parcel stipulated in the zoning code is 1,000 feet, and the minimum width for an AG-40 or AG-20 parcel is 500 feet. The central linear Avoided Area is less than 500 feet wide for most of its length. The minimum width in an AR-10 zone is 300 feet, and there are multiple locations where the Avoided Area drops well below this width also. Furthermore, the methodology considers an AR-10 designation as retaining a fractional amount of habitat because the larger AR-10 zoning category tends to occur on urban fringes, where the majority of the land so designated occurs adjacent to larger agricultural properties. In the case of the Project, the linear Avoided Area will be surrounded by dense urban development for approximately 1.5 miles on either side, which is entirely uncharacteristic of an AR-10 property.

Preconstruction surveys will be required to determine if there are nesting Swainson's hawk within ½-mile of the Project site. The purpose of the survey requirement is to ensure that construction activities do not agitate nesting hawks, potentially resulting in nest abandonment or other harm to nesting success. If Swainson's hawk nests are found, the developer is required to contact Fish and Game to determine what measures need to be implemented in order to ensure that nesting hawks remain undisturbed. The measures selected will depend on many variables, including the distance of activities from the nest, the types of activities, and whether the landform between the nest and activities provides any kind of natural screening. According to the Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (*Buteo swainsoni*) in the Central Valley of California (November 1, 1994), the mitigation described above will ensure that impacts to nesting Swainson's hawk will be less than significant.

The Project will require 2,231 acres of mitigation to compensate for the loss of Swainson's hawk foraging habitat. This can be done by utilizing the County's Swainson's Hawk Impact Mitigation Program or by implementing a mitigation plan acceptable to CDFG. Alternatively, if the SSHCP is approved, mitigation as specified in the SSHCP would be available. Mitigation measures that compensate for the loss of Swainson's hawk foraging habitat will reduce singular and cumulative impacts to *less than significant* levels. Note that additional analysis and mitigation requirements are included in the Cumulative and Growth Inducing Impacts chapter.

SWAINSON'S HAWK IMPACT MITIGATION PROGRAM

In 1997, in response to the need to mitigate for the loss of Swainson's hawk foraging habitat in Sacramento County, the Board of Supervisors adopted an ordinance that established a Swainson's Hawk Impact Mitigation Program (Chapter 16.130 of the

Sacramento County Code). The Program has been amended several times; the latest amendment went into effect in December of 2009.

By adopting the Program, the Board of Supervisors found that “the most effective means of mitigation for the loss of suitable Swainson’s hawk foraging habitat is the direct preservation, in perpetuity, of equally suitable foraging habitat on an acre-per-acre basis based on the project’s determined acreage impact”. On an individual basis, the acquisition of lands for habitat conservation may not always be feasible or prudent and many small, disconnected preserves do not benefit the species as well as large, connected preserve systems. Therefore, the ordinance provides for the establishment of impact mitigation fees, which in some circumstances, may be paid in-lieu of providing habitat lands. These fees accumulate and are held in trust by the County until used for the acquisition of foraging habitat of a size large enough to be biologically and economically viable. The current fee is \$12,925 per acre. In addition, there is a one time administrative fee of \$500. These fees may be amended from time to time to ensure they accurately reflect market-rate land prices.

Under the Swainson’s Hawk Impact Mitigation Program, only projects which have an impact of less than 40 acres are eligible to pay fees. Projects impacting 40 acres or more of foraging habitat must provide land acceptable to CDFG and the County. Land can be provided in fee title or through conservation easement. The Sacramento County Planning and Community Development Department (Planning) administers the Swainson’s Hawk Impact Mitigation Program and more information on lands likely to be determined as acceptable replacement habitat can be found at their website <http://www.msa2.saccounty.net/planning/Pages/Swainsons-Hawk-Ordinance.aspx>.

NESTING RAPTORS

Raptors are defined as members of the order Falconiformes (vultures, eagles, hawks, and falcons) and the order Strigiformes (owls). Common species of raptors found locally include Cooper’s hawk (*Accipiter cooperii*) red-tailed hawk (*Buteo jamaicensis*), red-shouldered hawk (*Buteo lineatus*), American kestrel (*Falco sparverius*), barn owl (*Tyto alba*), and great horned owl (*Bubo virginianus*).

Raptors and their active nests are protected by the California Fish and Game Code Sections 3503.5, 3511, and 3513. The Code states the following: “It is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird.” Because most raptors migrate they are also protected by the Federal Migratory Bird Treaty Act of 1918, which states “unless and except as permitted by regulations, it shall be unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture, or kill” a migratory bird. Section 3(18) of the Federal Endangered Species Act defines the term “take” means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Causing a bird to abandon an active nest may cause harm to egg(s) or chick(s) and is therefore considered “take.”

The Project site predominately contains open annual grassland. Mature trees of sufficient size to support tree-nesting raptors are located along the banks of Carson Creek outside of the eastern Project boundary. Some hawk species less susceptible to human disturbance may also use some of the taller trees near the home sites just outside of the northern property boundary. There are no trees within the Project boundary, and thus no tree-nesting habitat on the site. Raptors, in general, build nests in large mature trees, though there are some ground-nesting species such as the northern harrier and the burrowing owl (refer to species-specific discussions, below).

Since the Project is adjacent to suitable tree nesting habitat, construction activities may impact nesting raptors if they occur within 500 feet of suitable nesting trees; 500 feet is the buffer used by Sacramento County and other nearby jurisdictions as a screening tool, and has been accepted by Fish and Game. To avoid impacts to tree-nesting raptors, mitigation is recommended requiring pre-construction nesting surveys. The purpose of the survey requirement is to ensure that construction activities do not agitate nesting raptors, potentially resulting in nest abandonment or other harm to nesting success. If raptor nests are found, the developer is required to contact Fish and Game to determine what measures need to be implemented in order to ensure that nesting raptors remain undisturbed. The measures selected will depend on many variables, including the distance of activities from the nest, the types of activities, whether the landform between the nest and activities provides any kind of natural screening, and other variables.

Prior to construction or land clearing activities which occur during nesting season (generally March through mid-September), all mature trees within 500 feet of Project construction activities shall be surveyed for nesting raptors. If nesting raptors are observed, the Project developer shall consult with Fish and Game and determine the appropriate measures that must be implemented. If no nesting raptors are observed, no further mitigation will be required. With implementation of recommended mitigation, impacts to nesting raptors are *less than significant*.

BURROWING OWL

The burrowing owl (*Athene cunicularia hypugea*) is a California Species of Concern. Burrowing owl habitat can be found in annual and perennial grasslands, deserts, and arid scrublands characterized by low-growing vegetation (Zarn 1974). Suitable owl habitat may also include trees and shrubs if the canopy covers less than 30 percent to the ground surface. Burrows are the essential component of burrowing owl habitat. Both natural and artificial burrows provide protection, shelter, and nesting habitat for burrowing owls (Henny and Blus 1981). Burrowing owls typically use burrows made by fossorial mammals, such as ground squirrels or badgers, but also use man-made structures such as cement culverts; cement, asphalt, or wood debris piles; or openings beneath cement or asphalt pavement.

Burrowing owls may use a site for breeding, wintering, foraging, and/or migration stopovers. Breeding season takes place from February 1 to August 31 and wintering takes place from September 1 to January 31. Occupancy of suitable burrowing owl

habitat can be verified at a site by detecting a burrowing owl, its molted feathers, cast pellets, prey remains, eggshell fragments, or excrement at or near a burrow entrance. Burrowing owls exhibit high site fidelity, reusing burrows year after year (Rich 1984, Feeney 1992).

Burrowing owls have been documented on the Project site and are listed in the CNDDB (occurrence #91). The recorded occurrence was listed in 1989 and identified two active burrows. The owls are located within the northern portion of the 298-acre avoided area, and were observed during a site visit. There is another recorded occurrence, #307 just south of the Project site. This occurrence details the observation of one active burrow in 1994 within the footprint of the ultimate landfill boundaries. During the field visit by Environmental Review staff the presence of rodent burrows that could be suitable for nesting was observed throughout the landscape. ECORPs special status species evaluation also identified burrowing owl within the central linear Avoided Area.

The Fish and Wildlife "Status Assessment and Conservation Plan for the Western Burrowing Owl in the United States, Biological Technical Publication" (BTP-R6001-2003) indicates that the protocols set forth in the "Burrowing Owl Survey Protocol and Mitigation Guidelines" published by The California Burrowing Owl Consortium (April 1993) should be used. Fish and Game published a "Staff Report on Burrowing Owl Mitigation" on October 17, 1995, which is to be used to assess impacts. Though there is some variation, these documents generally mirror one another. To avoid impacts to nesting birds, surveys should be performed for all potential habitat areas within 500 feet of construction activities. The protocols recommend both wintering and breeding season surveys. Avoidance is defined as maintaining a minimum distance of 250 feet from an occupied burrow in addition to preserving a minimum of 6.5 acres of habitat around the occupied burrow for each pair or unpaired resident. If avoidance is not possible, recommended mitigation includes enhancement or creation of burrows in adjacent suitable habitat that is contiguous with the affected habitat. Relocation techniques to move owls out of the affected area are also permitted. If habitat replacement must occur off-site, the mitigation recommendation is increased from 6.5 acres per pair or single resident to between 9.75 and 19.5 acres (depending on the quality and location of the habitat).

The existing documented burrowing owl nest on the site is within an avoided area and will result both in an adequate buffer and adequate retained habitat. It should also be noted that all of the Avoided Areas are large enough to support multiple pairs of burrowing owls, so unlike for the Swainson's hawk, all of the Avoided Area can be considered to be retained habitat. In order to reduce potential impacts to owl nests which may be undiscovered, the applicant shall have a qualified biologist perform a focused survey, prior to the construction of improvements or buildings, for burrowing owls according to the "Burrowing Owl Survey Protocol and Mitigation Guidelines" published by The California Burrowing Owl Consortium (April 1993). If no active burrows are found during the focused survey, no further mitigation will be required. If active burrows are found, mitigation shall be implemented consistent with the Fish and Game staff report recommendations. Both Fish and Game and Environmental Review shall be contacted and provided with an avoidance and mitigation plan. With mitigation,

the development of the Project site would not result in substantial negative effects to the sustainability of the species and thus impacts to burrowing owls are *less than significant*.

FERRUGINOUS HAWK

According to the Fish and Game Life History Account for the ferruginous hawk, the species is an uncommon winter resident and migrant at lower elevations and open grasslands in the Central Valley. The species requires large, open tracts of grasslands, sparse shrub, or desert habitats with elevated structures for nesting. The species is migratory, and generally arrives in California in September and departs by mid-April. The Life History Account also indicates that the species has a tendency to displace red-tailed hawks and Swainson's hawks. There is no published regulatory guidance on mitigation of foraging habitat for this species.

Any species wintering in the general Project area would likely be in competition with the known Swainson's hawk that forage in the vicinity of the site. The fact that Swainson's hawk are successfully occupying the area makes it less likely that ferruginous hawk use the site. Nonetheless, the Project has the potential to remove winter foraging habitat for the species. Mitigation for foraging habitat loss has already been required as part of Swainson's hawk impacts, and since the two species use the same habitats, additional mitigation is unnecessary. The development of the Project site would not result in substantial negative effects to the sustainability of the species and thus impacts to ferruginous hawk habitat are *less than significant*.

GOLDEN EAGLE

According to the Fish and Game Life History Account for the golden eagle, the species is an uncommon permanent resident migrant throughout California, but does not occur in the center of the Central Valley. The species uses rolling foothills and mountain terrain, wide arid plateaus deeply cut by streams and canyons, open mountain slopes, and cliffs and rock outcrops – features that are not present in the center of the Central Valley. The Project is located at the edge of the foothills, where this rolling terrain just begins, and thus may provide some foraging habitat for the species. There is no published regulatory guidance on mitigation of foraging habitat for this species.

The Project has the potential to remove foraging habitat for the species. Mitigation for foraging habitat loss has already been required as part of Swainson's hawk impacts, so additional mitigation for the golden eagle is unnecessary. The development of the Project site would not result in substantial negative effects to the sustainability of the species and thus impacts to golden eagle habitat are *less than significant*.

GRASSHOPPER SPARROW

According to the Fish and Game Life History Account for the grasshopper sparrow, the species is an uncommon and local summer resident and breeder in foothills and lowlands, arriving in California from March to May and migrating south in August or

September. The species occurs in dry, dense grasslands, especially those with a variety of grasses and tall forbs and scattered shrubs for singing perches. Nests are built of grasses and forbs in a slight depression in the ground, hidden at the base of an overhanging clump of grasses or forbs. There is no published regulatory guidance on mitigation of foraging habitat for this species.

The Project has the potential to remove foraging and nesting habitat for the species. Unlike impacts for landscape-level predators such as the Swainson's hawk, all of the Avoided Areas on the site are considered to be retained habitat for more localized foragers such as the grasshopper sparrow. Mitigation for grassland habitat loss has already been required as part of Swainson's hawk impacts, so additional mitigation for the grasshopper sparrow is unnecessary. The development of the Project site would not result in substantial negative effects to the sustainability of the species and thus impacts to grasshopper sparrow habitat are *less than significant*.

NORTHERN HARRIER

According to the Fish and Game Life History Account for the northern harrier the species occurs in a wide range of habitat types and elevations, from grasslands in the Central Valley to alpine meadows as high as 10,000 feet. The species is a widespread winter resident and migrant, though an uncommon nesting season resident in the Central Valley. The population has declined in California, largely due to destruction of breeding habitat. The species is mostly found in flat or hummocky open areas of tall, dense grasses, moist or dry shrubs, with edges for nesting, cover, and feeding. There is no published regulatory guidance on mitigation of foraging habitat for this species.

The Project has the potential to remove foraging habitat for the species. Mitigation for foraging habitat loss has already been required as part of Swainson's hawk impacts, so additional mitigation for the northern harrier is unnecessary. The development of the Project site would not result in substantial negative effects to the sustainability of the species and thus impacts to northern harrier are *less than significant*.

TRICOLORED BLACKBIRD

According to the Fish and Game Life History Account for the tricolored blackbird, the species is mostly a resident in California, and common locally throughout the Central Valley. The species is a colonial nester which breeds near fresh water, preferably in emergent wetland with tall, dense cattails or tules, but also in thickets of willow, blackberry, wild rose, and tall herbs. Nesting colonies usually support a minimum of 50 pairs. The species feeds in grassland and cropland habitats. The usual breeding season is mid-April into late July.

According to the CNDDDB, the nearest CNDDDB recorded species occurrence (#178) is approximately 2.3 miles to the south. This occurrence was documented in 1994 and noted the nesting of approximately 60 pairs in blackberries. The nearest available nesting habitat is located along Carson Creek just outside of the eastern boundary of

the Project site. Due to known occurrences of nesting colonies in the vicinity it is possible that tricolored blackbirds may have nesting colonies near the Project site.

In order to reduce potential impacts to nesting tricolored blackbirds, mitigation measures have been included. Equipment operation and noise associated with construction activities may disturb nesting birds. If construction activities are proposed during the breeding season (March 1 through July 15) pre-construction surveys shall be conducted where suitable nesting habitat is present within 300 feet of the Project site. If tricolored blackbirds are found nesting within 300 feet of the survey area, the California Department of Fish and Game shall be contacted and appropriate avoidance and impact minimization measures shall be implemented. This may include establishing a buffer or postponing construction until fledging of all nestlings (about July 15). Specific measures cannot be outlined at this time, because the extent and type of measures required are highly situational, depending on distance to the nest, the number of nesting individuals, the type of nesting substrate, and other factors. If no tricolored blackbirds are found during the pre-construction survey, no further mitigation would be required.

In addition to potential impacts to nesting birds, the Project site provides suitable foraging habitat. The loss of 2,120 acres of grassland habitat would decrease the availability of foraging habitat. However, to the east of the Project site is open habitat that will continue to provide suitable foraging habitat. In addition, even though foraging habitat mitigation for the tricolor blackbird is not required, the Project does require foraging habitat mitigation for Swainson's hawk impacts. This mitigation will benefit all other species which may forage in this same habitat type. The development of the Project site would not result in substantial negative effects to the sustainability of the species and thus impacts to tricolored blackbirds are *less than significant*.

WHITE-TAILED KITE

According to the Fish and Game Life History Account for the white-tailed kite, the species is a resident in coastal and valley lowlands which is rarely found away from agricultural areas. The species forages in undisturbed grasslands, meadows, farmlands, and emergent wetlands. Substantial groves of dense, broad-leaved deciduous trees are used for nesting and roosting. The species is listed as Fully Protected due to nesting impacts.

The loss of 2,120 acres of grassland habitat would decrease the availability of foraging habitat. Mitigation for foraging habitat loss has already been required as part of Swainson's hawk impacts, so additional mitigation for the white-tailed kite is unnecessary. The development of the Project site would not result in substantial negative effects to the sustainability of the species and thus impacts to white-tailed kite are *less than significant*.

MITIGATION MEASURES:

BR-3. If construction, grading, or Project-related improvements are to occur between March 1 and September 15, a focused tree survey for tree- or ground-nesting

raptors within 500 feet of the construction site (1/2-mile for Swainson's hawk) and for ground-nesting grasshopper sparrow shall be conducted by a qualified biologist within 14 days prior to the start of construction work (including clearing and grubbing). If active nests are found, the California Department of Fish and Game shall be contacted to determine appropriate protective measures. If no active nests are found during the focused survey, no further mitigation will be required.

- BR-4.** Prior to the approval of improvement plans, building permits, or recordation of the final map, whichever occurs first, implement one of the options below to mitigate for the loss of Swainson's hawk foraging habitat on the Project site; based on current Project designs this is 2,267 acres. Based on current designs, this can be reduced to 2,231 acres of mitigation if the applicant establishes a permanent conservation easement over the areas designated Agriculture on the eastern and southeastern sides of the site (these are areas outside of the Urban Services Boundary). Foraging habitat preserved shall consist of grassland or similar habitat open habitat, not cropland, because this mitigation measure also offsets impacts to other species that do not use cropland habitat.
- A. The project proponent shall utilize one or more of the mitigation options (land dedication and/or fee payment) established in Sacramento County's Swainson's Hawk Impact Mitigation Program (Chapter 16.130 of the Sacramento County Code).
 - B. The Project proponent shall, to the satisfaction of the California Department of Fish and Game, prepare and implement a Swainson's hawk mitigation plan that will include preservation of Swainson's hawk foraging habitat.
 - C. Should the County Board of Supervisors adopt a new Swainson's hawk mitigation policy/program (which may include a mitigation fee payable prior to issuance of building permits) prior to the implementation of one of the measures above, the Project proponent may be subject to that program instead.

If the design of the primary avoided area on the western plateau (currently 382 acres in size) is increased in size in response to Section 404 wetland permitting requirements, the total amount of mitigation land required may be adjusted downward to reflect this increased avoidance, at the discretion of the Environmental Coordinator.

- BR-5.** Prior to construction activity (including site improvements, and building construction) focused surveys shall be conducted by a qualified biologist for burrowing owls in the construction area and within 500 feet of the construction area. Surveys shall be conducted no less than 14 days and no more than 30 days prior to commencement of construction activities. Surveys shall be conducted in accordance with "Burrowing Owl Survey Protocol and Mitigation

Guidelines” published by The California Burrowing Owl Consortium (April 1993). The following shall also apply:

- A. If no occupied burrows are found in the survey area, a letter report documenting survey methods and findings shall be submitted to the County and no further mitigation is necessary.
 - B. If an occupied burrow is found the applicant shall contact the Environmental Coordinator and consult with the California Department of Fish (CDFG), prior to construction, to determine if avoidance is possible or if burrow relocation will be required.
 - C. If owls are to remain on-site, a minimum of 6.5 acres of foraging habitat for each occupied burrow needs to be permanently preserved according to California Department of Fish and Game guidelines. In addition, no activity shall take place within 160 feet of an active burrow from September 1 to January 31 (wintering season) or 250 feet from February 1 through August 31 (breeding season). Protective fencing shall be placed, at the distances above, around the active burrows and no activity shall occur within the protected buffer areas. Permanent improvements shall be a minimum of 250 feet from an occupied burrow.
 - D. Any impact to active owl burrows, relocation of owls, or mitigation for habitat loss shall be done in accordance with the Fish and Game “Staff Report on Burrowing Owl Mitigation” (October 17, 1995) or the version current at the time of construction. Written evidence from Fish and Game staff shall be provided to the Environmental Coordinator attesting to the permission to remove burrows, relocate owls, or mitigate for lost habitat, and shall include a plan to monitor mitigation success.
- BR-6.** If construction occurs between March 1 and July 31 pre-construction surveys for nesting tricolored blackbirds shall be performed by a qualified biologist. Surveys shall include the ~~project~~ construction site and areas of appropriate habitat within 300 feet of the construction site. The survey shall occur no longer than 14 days prior to the start of construction work (including clearing, grubbing or grading). The biologist shall supply a brief written report (including date, time of survey, survey method, name of surveyor and survey results) to the Environmental Coordinator prior to ground disturbing activity. If no tricolored blackbird were found during the pre-construction survey, no further mitigation would be required. If an active tricolored blackbird colony is found on-site or within 300 feet of the ~~project~~ construction site the project proponent shall do the following:
- A. Consult with the California Department of Fish and Game to determine if project activity will impact the tricolored blackbird colony(s), and implement appropriate avoidance and impact minimization measures if so directed. Provide the Environmental Coordinator with written evidence of the

consultation or a contact name and number from the California Department of Fish and Game.

- B. The applicant may avoid impacts to tricolored blackbird by establishing a 300-foot temporary setback with fencing that prevents any project activity within 300 feet of the colony. A qualified biologist shall verify that setbacks and fencing are adequate and will determine when the colonies are no longer dependent on the nesting habitat (i.e. nestling have fledged and are no longer using habitat), which will determine when the fencing may be removed. The breeding season typically ends in July.

AMPHIBIANS

As identified on Table BR-3 the Project site supports suitable habitat for two amphibian species: the California tiger salamander (*Ambystoma californiense*) and the western spadefoot toad (*Spea hammondi*).

WESTERN SPADEFOOT TOAD

The western spadefoot (*Scaphiopus (Spea) hammondi*) occurs in shallow, seasonal wetlands in valley and foothill habitats such as grasslands, open chaparral, sage scrubland, short-grass plains, and pine woodlands. Spadefoot occur in both grazed and ungrazed habitat. Adult spadefoot occupy burrows up to three feet in depth in upland habitat during dry periods to avoid desiccation (Zeiner et al., 1990). Individuals may remain in these burrows for eight to nine months. Most surface activity is nocturnal. The spadefoot leave their upland burrows for wetlands during the breeding season, which lasts from January to August, depending on rainfall. It appears that vernal pools and other temporary wetlands may be optimal for breeding due to the absence or reduced abundance of both native and nonnative predators (bullfrogs, fish, and crawfish), many of which require more permanent water sources. Current research on amphibian conservation suggests that average habitat utilization falls within 1,200 feet of aquatic habitats (USFWS 2005).

During the rare plant surveys western spadefoot toad was observed on the Project site. Wetland and vernal pool complexes on the Project site vary in size and depth and some retain water for several months. The surrounding upland area is grassland with many burrows. The Project site provides suitable breeding and non-breeding habitat to support the toad. There is no published regulatory guidance on habitat mitigation for this species.

Project development will remove potential habitat and may involve possible take of the species. According to the Vernal Pool Recovery Plan (USFWS, 2005), the western spadefoot was added as a Species of Concern in 2004. Western spadefoot has been observed in several counties across the state, and a number of sites with suitable habitat for western spadefoot are already being protected through National Wildlife Refuges, National Monuments, State Parks, State Ecological Reserves, private preserves, mitigation banks, and conservation easements. Additionally, 23 vernal pool

species are federally protected; preservation efforts for those species and associated habitats will contribute to the conservation of the western spadefoot.

While a localized population of the toad may be reduced through development of the Project site, the regional population will not be reduced significantly for the reasons stated above. Locally, conservation lands which provide habitat for the western spadefoot toad include the Mather Regional Park, Burke Ranch (1,000 acres), Gill Ranch Conservation bank (1,800 acres) and Sunrise Douglas Preservation Bank (480 acres). Further, Project preservation of 450 acres of vernal pool and associated upland habitat and other preservation/creation requirements included in mitigation for vernal pool invertebrates and wetland habitats will contribute to the local and regional conservation of western spadefoot habitat. Project impacts to the western spadefoot toad are *less than significant*.

CALIFORNIA TIGER SALAMANDER

California tiger salamander (*Ambystoma californiense*) is a Threatened species which breeds within longer-lasting vernal pools, some permanent and semi-permanent ponds, and slow-moving sections of streams. Juveniles and adults migrate from these pools to rodent burrows (ground squirrel, voles, and gopher) where they enter a dormant state during the dry months. However, in very dry years breeding may not take place at all.

California tiger salamander larvae require significantly more time to transform into juvenile adults than other species of amphibians. Ponds that can support California tiger salamander should typically sustain ponding into June, although this can be influenced by the month during which inundation began. If inundation occurs earlier in the season, the wetland need not last through June. The larval stage of the species lasts 3 to 6 months, and the larvae will die if they have not metamorphosed into adults before the pond dries. Therefore, in order to be considered potential habitat, ponding must be maintained for a minimum of approximately 90 days (USFWS, 2004). Water bodies that do not dry during the summer months are typically not considered habitat, because such persistent water bodies support bullfrogs (*Rana catesbeiana*) and other predators. A strong negative association between bullfrogs and California tiger salamanders has been documented.

The Project site contains vernal pools, which is suitable breeding habitat, and the surrounding grasslands are suitable as upland habitat for California tiger salamander. Although suitable habitat is present, the Project site is outside of the current known range of the species; California tiger salamander have only been observed south of the Cosumnes River. ECORPs Consulting Incorporated provided a memorandum discussing the probability of species occurrence on the Project site, which included a review of surveys conducted north of the Cosumnes River and east of the Sacramento River, as well as a review of Fish and Wildlife Biological Opinions (BO) covering projects occurring north of the Cosumnes River. None of the surveys detected the species, and all eight BOs reviewed indicated that the projects were outside of the species' range (the memorandum dated 11-1-11 and BOs are contained in Appendix BR-4). On this

basis, it is concluded that the species does not occur on the site, and that no mitigation is required; impacts are *less than significant*.

INVERTEBRATES

The Project site contains vernal pool complexes and seasonal wetlands that support a variety of species. However, the following invertebrates have either been observed on the site or have a high potential to exist on the Project site: California linderiella, midvalley fairy shrimp, Ricksecker's water scavenger beetle, vernal pool fairy shrimp, and vernal pool tadpole shrimp. All of these species are associated with vernal pool and wetland environments and are not readily observed through casual observation. Thus, lack of recorded sightings is not cause to conclude that the species is not present.

If suitable habitat is present, the species must be assumed to be present unless surveys have found the species to be absent. Discussion of the California linderiella, midvalley fairy shrimp, vernal pool fairy shrimp, and vernal pool tadpole shrimp are grouped under the heading of Vernal Pool Crustaceans, because the survey protocols and mitigation requirements are applied to all four species.

VERNAL POOL CRUSTACEANS

California linderiella, midvalley fairy shrimp, vernal pool fairy shrimp, and vernal pool tadpole shrimp use the same habitat types, though California linderiella tends to prefer deeper pools. The shrimp feed on algae, bacteria, protozoa, rotifers and bits of detritus. The females carry their eggs in a ventral brood sac until they are dropped to the bottom of the pool, or the mother dies and sinks. At the end of the rainy season, as the pool dries up, the eggs remain in a dormant stage in the dried pool until the rains of the next season, or other environmental stimuli cause them to hatch. Cysts will hatch when the pool refills, although not all cysts present will hatch during the following rainy season, and they may remain dormant in the soil for multiple seasons.

Survey requirements and mitigation protocols published by Fish and Wildlife ("Interim Survey Guidelines to Permittees for Recovery Permits under Section 10(a)(1)(A) of the Endangered Species Act for the Listed Vernal Pool Branchiopods" published April 19, 1996 and the Programmatic Formal Endangered Species Act Consultation published on February 28, 1996) are only required by Fish and Wildlife for the two species listed under the ESA: vernal pool fairy shrimp and vernal pool tadpole shrimp. However, the discussions and mitigation below apply them to the two Species of Concern, California linderiella and midvalley fairy shrimp.

All four crustacean species are recorded in the CNDDDB as occurring within 1.5 miles of the site, while the nearest CNDDDB record (#128, vernal pool tadpole shrimp) is adjacent to the southwestern Project boundary (tadpole shrimp were observed in pools within the footprint for the landfill expansion Project in 1994). Based on the proximity of recorded sightings, it is reasonable to assume that the various shrimp species are present on the site as well. Furthermore, protocol surveys have not been performed for the site.

Surveys to determine presence of absence of ESA-listed crustaceans must include either 2 years of wet season surveys completed within a 5-year period or consecutive

wet season and dry season surveys. In the absence of surveys, presence should be assumed.

A Fish and Wildlife programmatic consultation was published for ESA-listed vernal pool crustaceans on February 28, 1996. Programmatic consultation can only be used by Projects involving a maximum impact of one acre, and thus the Project must be individually permitted through the Army Corps and the Fish and Wildlife. Individual permit requirements are varied, depending upon the quality of the habitat lost, the nature of the impact, and the quality of the mitigation land offered – among other factors. This variation can be observed through review of the BOs in Appendix BR-4, which were included as part of the California Tiger Salamander discussion, but which also cover special status branchiopods.

The programmatic consultation indicates that all habitats within 250 feet of proposed development may be subject to indirect impacts, though this buffer distance can be smaller as part of the individual permitting process. In absence of the permit, for complete avoidance vernal pools must be avoided by a minimum of 250 feet. Encroachment within this buffer may only occur if approved by Fish and Wildlife. Based on this guidance all vernal pools within 250 feet of proposed roads, trails, and land development will be indirectly impacted. Further, the watershed analysis described in the wetland impacts section noted that some vernal pools on the fringe of the Avoided Areas may have shorter inundation durations. Shorter inundation durations may mean a change in the pools temperature, depth, and pH. Features that may have been utilized by species that required specific inundation durations for the completion of breeding cycles may no longer provide suitable habitat. While the features will likely retain some function for other special status species and plants, the loss of suitable habitat for other species would constitute an indirect loss for the local biological community. The Project will both remove some wetlands and encroach within the 250-foot buffer of other wetlands not removed.

Ultimately, mitigation requirements will be defined through the individual permitting process, but consistent with Sacramento County General Plan policy the mitigation below stipulates a minimum of 1:1 mitigation for habitat lost. It is probable that the individual permit requirements will require a larger amount of mitigation, and it is also possible that Fish and Wildlife will require that mitigation occurs within the Mather core area. The Project will reduce local populations of California linderella, midvalley fairy shrimp, vernal pool fairy shrimp, and vernal pool tadpole shrimp. Though in-kind mitigation will be required for the loss of habitat on the site, the loss of 46% of the wetlands on the site within an area described as vital to the recovery for vernal pool habitats and their dependent species is significant even with mitigation; impacts are *significant and unavoidable*.

RICKSECKER'S WATER SCAVENGER BEETLE

The Ricksecker's water scavenger beetle is an aquatic beetle that lives in weedy, shallow, open water, associated fresh water seeps, springs, farm ponds, vernal pools, and slow-moving stream habitats. The Fish and Wildlife species profile⁶ only contains listing status and a general map, as little is known about the life history of the species. It is listed primarily due to its association with in-decline habitats, rather than based on known population trends. The beetle is known to co-occur with vernal pool fairy shrimp. There are no recorded occurrences of Ricksecker's water scavenger beetle in the Project vicinity, but they are assumed to be present in the Project area due to the presence of suitable habitat.

Neither survey nor mitigation protocols for this species have been published by Fish and Wildlife. Since population trends have not been well established, it is unclear to what extent the species relies on the rarer vernal pool and seasonal wetland habitats versus more abundant surface water types. For the purposes of this analysis, it is assumed that local populations of the species have at least some dependency on vernal pool and seasonal wetland habitats, since this is the more conservative assumption. Since the Project is within an area described as vital for the conservation of vernal pool habitats, loss of 46% of the wetlands on the site will result in *significant and unavoidable* impacts to the species.

Mitigation below indicates that if protocol surveys indicate absence of all four species of crustacean, as described in the section above, then it may also be assumed that Ricksecker's water scavenger beetle is absent. Since the species occupies the same habitat as listed crustaceans, mitigation for wetland crustaceans will also serve as feasible mitigation for impacts to the Ricksecker's water scavenger beetle.

MITIGATION MEASURE:

BR-7. Presence of California linderiella, midvalley fairy shrimp, vernal pool fairy shrimp and vernal pool tadpole shrimp shall be assumed unless determinate surveys that comply with U.S. Fish and Wildlife protocol conclude that the species are absent. If the protocol surveys are performed and all listed crustacean species are absent, Ricksecker's water scavenger beetle may also be presumed absent, and no further mitigation shall be required for listed vernal pool invertebrates. If species are found, one or a combination of the following shall apply:

- A. *Total Avoidance: Species are present or assumed to be present.* Unless a smaller buffer is approved through formal consultation with the Fish and Wildlife Service, construction fencing shall be installed a minimum of 250 feet from all delineated vernal pool margins. All construction activities are

⁶ <http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=I0FE>

prohibited within this buffer area. For all vernal pools where total avoidance is achieved, no further action is required.

- B. *Compensate for habitat removed.* Obtain all applicable permits from the U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, California Department of Fish and Game, and the Central Valley Regional Water Quality Control Board for any proposed modifications to vernal pools and mitigate for habitat loss in accordance with the Biological Opinion and Section 404 permits obtained for the Project. At a minimum, mitigation ratios shall be consistent with County General Plan Policy, which requires no net loss of wetland resources. Any vernal pool loss not mitigated through the permitting process shall be mitigated for by payment into a mitigation bank or protection of off-site wetlands through the establishment of a permanent conservation easement, subject to the approval of the Environmental Coordinator.

PLANTS

Plant species that have been known to occur within the Project area, based on databases maintained by Fish and Wildlife and Fish and Game, are noted in Table BR-3. The Project site was surveyed for special status plant species in May 2007, April and June 2008, and May and July 2010 by ECORP Consulting Inc. The surveys were conducted in accordance with guidelines developed by Fish and Wildlife (2000), Fish and Game (1983), and the California Native Plant Society (CNPS, 2001). The special status plant surveys revealed two special status species present on the Project site: *Legenere* (*Legenere limosa*) and Sacramento Orcutt grass (*Orcuttia viscida*). Species for which habitat is present but that were not observed on the Project site include: dwarf downingia (*Downingia pusilla*), Boggs Lake hedge-hyssop (*Gratiola heterosepala*), pincushion navarretia (*Navarretia myserii*), slender Orcutt grass (*Orcuttia tenuis*), and Sanford's arrowhead (*Sagittaria sanfordii*).

Sacramento Orcutt grass was previously observed on the Project site in 1995 (described in further detail below). Based on the comparison between location information and population size of the original species observation as detailed in the CNDDB and the recent surveys conducted for the proposed Project, the species has not successfully migrated from this known source pool to colonize other pools in the survey area. Thus, the probability of this species colonizing other pools over the life of the phased Project is low. However, Fish and Wildlife may require new surveys if the original surveys become outdated (defined as more than five years old).

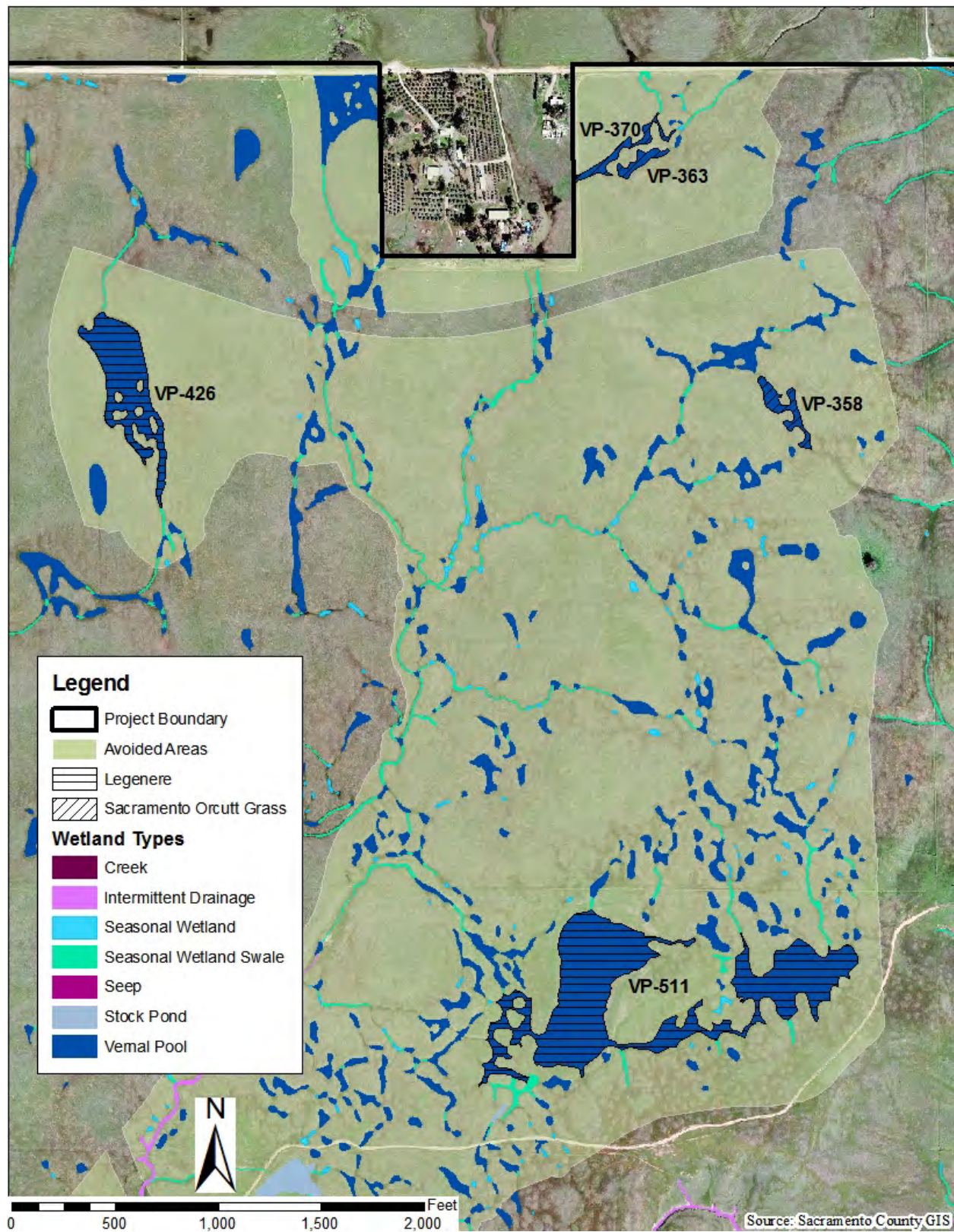
LEGENERE

Legenere is a weakly erect or decumbent annual herb that grows in moist or wet ground. The plant has yellow flowers, which are produced between May and June and extend from the main body of the plant on long, slender pedicels. This species occurs in drying beds of vernal pools in valley grassland ranging from sea level to 1,400 feet in elevation. It has been found throughout the Sacramento Valley.

During the rare plant survey in 2008, legenere was observed on the Project site. The plant was found in two vernal pools (VP-426 and VP-511; Plate BR-8). According to the survey, several hundred individuals were estimated to occur within each vernal pool. Both the avoidance/impact plan and the open space overlay clearly indicate that the pools containing legenere will be avoided. However, based on rough measurements using the aerial photo overlay, ground disturbing activities may occur within the 250 ft avoidance buffer for VP-426. Possible indirect impacts to legenere may include pollution run-off and pesticide drift. Mitigation is recommended to either remain outside of the 250 foot buffer, or if development occurs within the 250 foot buffer to prepare a pesticide and pollution prevention plan to mitigate for any indirect impacts to legenere, subject to Fish and Wildlife approval.

It is recognized that the SPA does indicate that landscaping design requirements will ensure that the Avoided Area interface with urban areas will include landscaping and stormwater treatments that are designed to protect natural resources (SPA Section 4.14.6). Details have not been provided at this time, so a determination of the sufficiency of these measures cannot be made. Mitigation has been added to ensure impacts to legenere are *less than significant*.

Plate BR-8: Location of Legenere and Sacramento Orcutt Grass



SACRAMENTO ORCUTT GRASS

Sacramento Orcutt is a small, densely tufted annual grass. It grows to about one to four inches tall. The plant is covered with small glandular hairs and is sticky. The plant has few to many stems and spike-like inflorescence clustered near the apex (USFWS, 2010). Orcutt grasses are strongly adapted to the more extreme hydrological cycles encountered in the spectrum of vernal pool types, e.g., they are typically associated with larger and/or deeper vernal pools. Orcutt grass plants are able to produce most of their aboveground vegetative growth, as well as flowers and seed as the vernal pools dry down in late spring and early to mid-summer (Crampton 1959). Sacramento Orcutt grass seeds germinate during the later spring months after cessation of winter rains as the shallow water at the pool margins begins to warm and recede (Griggs 1974, Holland 1987, Stone et al. 1988). Sacramento Orcutt grass plants flower and set seed as the margins and basin of the vernal pools dry from April through July.

Several occurrences of Sacramento Orcutt grass have been reported within 10 miles of the site (CDFG 2003) including two CNDDDB recorded occurrences, #19, just south of Glory Lane along the northern boundary of the site and #1, immediately southwest of the Project. Occurrence #1 was originally observed in 1998 with an estimated population of several thousand. Occurrence #19 was originally observed in 1995 with an estimated population of 1.2 million individuals. In 2008, the plant was observed in three vernal pools during Project specific plant surveys. These features coincide with the general area that was previously documented in the CNDDDB.

The vernal pools in which the plant was found are VP-358, VP-363, and VP-370 (Plate BR-8). According to the 2008 report, approximately 200 – 400 individuals were estimated within VP-370 and VP-363, and several thousand individuals were estimated within VP-358. ECORP botanists noted that manna grass (*Glyceria declinata*) appears to be invading VP-370 and that Sacramento Orcutt did not grow where manna grass was present. According to the Fish and Wildlife Five Year Review report prepared as part of the Recovery Plan, this population of Sacramento Orcutt grass is one of eight identified populations within the county. The greatest threats to Sacramento Orcutt are development and invasive species. Both the avoidance/impact plan and the open space overlay clearly indicate that the pools containing Sacramento Orcutt grass will be avoided. However, invasive species, primarily manna grass, are present within pool VP-370. Invasive species may also be introduced from private gardens and landscaping that surround preserved areas. Measures should be taken to reduce the threat of invasive species to existing wetland complexes. Mitigation is recommended to develop an invasive species prevention plan which includes provisions for restoration of vernal pools should preventive measures fail. Avoidance of direct impacts coupled within mitigation for potential indirect impacts will ensure that impacts to Sacramento Orcutt grass are *less than significant*.

MITIGATION MEASURES:

BR-8. If construction activities encroach within the 250-foot buffer for vernal pools 358, 363, 370, 426 or 511 the applicant shall prepare a pesticide and pollution

prevention plan. The plan shall include measures to reduce pollution run-off, pesticide drift, and other similar potential contaminants, to protect surrounding preserve areas from urban contaminants. Measures shall include the implementation of best management practices (e.g. straw wattles, silt fencing, and soil stabilization) for stormwater control. The plan shall be incorporated in the Operations and Management Plan which is a requirement of the Section 404 permit process.

- BR-9.** The project applicant shall prepare an invasive species removal and prevention plan. The plan shall provide methods to remove invasive species from preservation areas and to restore the affected wetland features. The plan shall include methods for the prevention of the introduction of new invasive species from landscapes associated with the development. Minimum components of such a plan shall include: mapping of existing invasive plant populations within the avoided areas, with the map being updated a minimum of every five years; a description of acceptable methods for removing invasive species, examples of which include hand removal or biological controls (e.g. natural parasites); and a prohibition on the use of non-native plants within either the avoided areas or the Recreation-2 areas. The plan shall be incorporated in the Operations and Management Plan which is a requirement of the Section 404 permit process.

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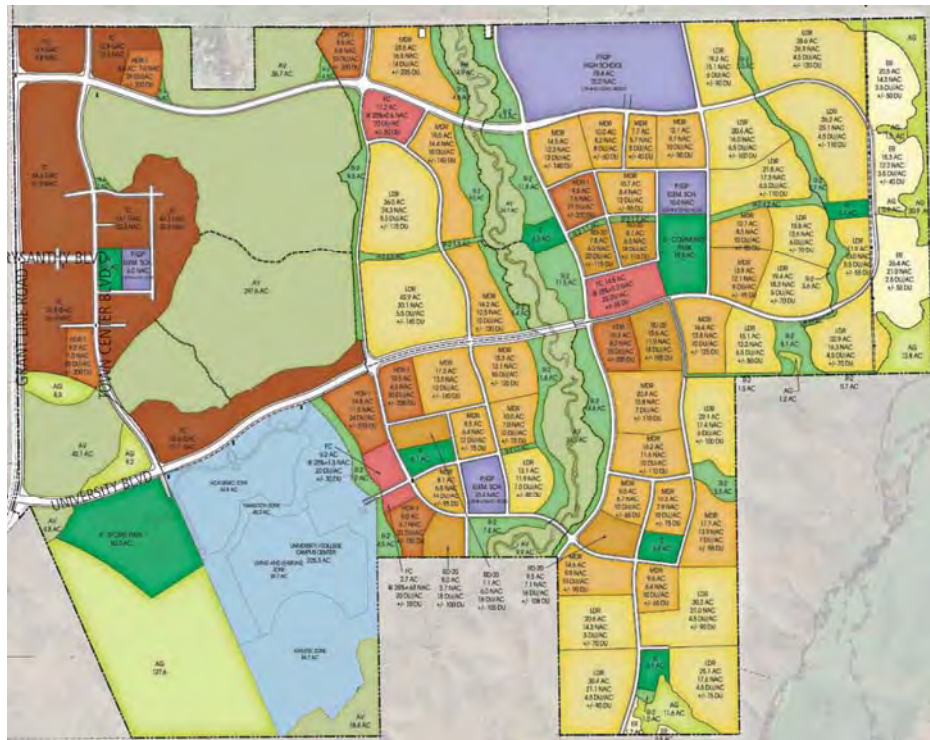
APPLICANT

Cordova Hills Ownership Group

FINAL ENVIRONMENTAL IMPACT REPORT

VOLUME II OF III

CORDOVA HILLS



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COUNTY OF SACRAMENTO
DEPARTMENT OF COMMUNITY DEVELOPMENT
PLANNING AND ENVIRONMENTAL REVIEW
827 7TH STREET, ROOM 220
SACRAMENTO, CALIFORNIA 95814



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DEPARTMENT OF COMMUNITY DEVELOPMENT
PLANNING AND ENVIRONMENTAL REVIEW

WITH ASSISTANCE BY

Sacramento County Department of Transportation
Sacramento County Department of Water Resources
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TABLE OF CONTENTS

7 CLIMATE CHANGE.....	7-1
INTRODUCTION TO CLIMATE CHANGE AND GLOBAL WARMING.....	7-1
WORLDWIDE, NATIONAL, AND STATEWIDE EMISSIONS	7-2
SACRAMENTO COUNTY EMISSIONS	7-3
EMISSIONS THRESHOLDS	7-5
STATE OF CALIFORNIA EMISSION REDUCTION/ADAPTATION STRATEGIES.....	7-10
SACRAMENTO COUNTY REDUCTION STRATEGIES	7-12
SIGNIFICANCE CRITERIA	7-15
METHODOLOGY	7-18
IMPACTS AND ANALYSIS	7-20
8 CULTURAL RESOURCES	8-1
INTRODUCTION.....	8-1
CULTURAL RESOURCES SETTING.....	8-3
CULTURAL RESOURCES REGULATORY SETTING.....	8-9
METHODOLOGY	8-14
SIGNIFICANCE CRITERIA	8-27
IMPACTS AND ANALYSIS	8-28
9 GEOLOGY AND SOILS.....	9-1
INTRODUCTION.....	9-1
ENVIRONMENTAL SETTING.....	9-1
REGULATORY SETTING.....	9-17
SIGNIFICANCE CRITERIA	9-19
METHODOLOGY	9-20
IMPACTS AND ANALYSIS	9-20
10 HAZARDOUS MATERIALS.....	10-1
INTRODUCTION.....	10-1
ENVIRONMENTAL SETTING.....	10-1
REGULATORY SETTING.....	10-7
SIGNIFICANCE CRITERIA	10-9
METHODOLOGY	10-10

IMPACTS AND ANALYSIS	10-11
11 HYDROLOGY AND WATER QUALITY	11-1
INTRODUCTION.....	11-1
HYDROLOGIC AND HYDRAULIC SETTING	11-1
REGULATORY FRAMEWORK.....	11-3
SIGNIFICANCE CRITERIA	11-10
STUDY AREA	11-11
METHODOLOGY	11-11
EXISTING CONDITIONS.....	11-15
IMPACTS AND ANALYSIS	11-20
12 LAND USE.....	12-1
INTRODUCTION.....	12-1
ENVIRONMENTAL SETTING.....	12-1
REGULATORY SETTING.....	12-2
SIGNIFICANCE CRITERIA	12-20
METHODOLOGY	12-21
IMPACTS AND ANALYSIS	12-21
VISION FOR CONNECTION TO OTHER ADJACENT EXISTING AND POTENTIAL FUTURE DEVELOPMENT AREAS.	12-33
13 NOISE	13-1
INTRODUCTION.....	13-1
NOISE FUNDAMENTALS AND TERMINOLOGY	13-1
NOISE SETTING.....	13-3
REGULATORY SETTING.....	13-5
NON-REGULATORY SETTING.....	13-17
METHODOLOGY	13-18
SIGNIFICANCE CRITERIA	13-19
EXISTING NOISE LEVELS	13-20
FUTURE NO PROJECT NOISE LEVELS	13-21
NOISE REDUCING DESIGNS.....	13-21
IMPACTS AND ANALYSIS	13-24

14 PUBLIC SERVICES.....	14-1
SETTING.....	14-1
REGULATORY SETTING.....	14-5
SIGNIFICANCE CRITERIA	14-17
IMPACTS AND ANALYSIS	14-17
15 PUBLIC UTILITIES.....	15-1
INTRODUCTION.....	15-1
ENVIRONMENTAL SETTING.....	15-1
REGULATORY SETTING.....	15-11
SIGNIFICANCE CRITERIA	15-25
IMPACTS AND ANALYSIS	15-25
16 TRAFFIC AND CIRCULATION	16-1
INTRODUCTION.....	16-1
TRANSPORTATION SETTING	16-2
REGULATORY SETTING.....	16-6
METHODOLOGY	16-15
SIGNIFICANCE CRITERIA	16-25
EXISTING CONDITIONS.....	16-27
IMPACTS AND MITIGATION MEASURES	16-35
17 SUMMARY OF IMPACTS AND THEIR DISPOSITION.....	17-1
SIGNIFICANT EFFECTS WHICH CANNOT BE AVOIDED	17-1
SIGNIFICANT EFFECTS WHICH COULD BE AVOIDED WITH IMPLEMENTATION OF MITIGATION MEASURES.....	17-5
EFFECTS FOUND NOT TO BE SIGNIFICANT.....	17-9
IRREVERSIBLE ENVIRONMENTAL CHANGES	17-13
18 CUMULATIVE AND GROWTH INDUCING IMPACTS	18-1
INTRODUCTION.....	18-1
GROWTH INDUCING IMPACTS	18-1
CUMULATIVE ENVIRONMENTAL SETTING.....	18-5
CUMULATIVE IMPACTS AND ANALYSIS	18-5
19 BIBLIOGRAPHY	19-1

LIST OF PLATES

PLATE CC-1: DRAFT SCS LAND USE MAP	7-9
PLATE GS-1: EARTHQUAKE SHAKING POTENTIAL FOR CALIFORNIA.....	9-6
PLATE GS-2: GENERAL SOILS MAP	9-8
PLATE GS-3: RELATIVE LIKELIHOOD FOR THE PRESENCE OF NATURALLY OCCURRING ASBESTOS IN EASTERN SACRAMENTO COUNTY.....	9-12
PLATE GS-4: MINERAL RESOURCES MAP	9-14
PLATE GS-5: PROJECT AREA AND SACRAMENTO COUNTY MRZ ZONES.....	9-15
PLATE GS-6: SOILS WITHIN THE PROJECT AREA	9-23
PLATE GS-7: SIMPLIFIED FAULT ACTIVITY MAP	9-28
PLATE GS-8: SEISMIC SHAKING HAZARDS IN CALIFORNIA	9-29
PLATE HM-1: SOLID WASTE LANDFILL SITES IN SACRAMENTO COUNTY	10-6
PLATE HM-2: PROPERTY WITHIN 1,000 FEET OF THE ULTIMATE LANDFILL BOUNDARY... 	10-18
PLATE HY-1: 100-YEAR FLOODPLAIN IN PROJECT VICINITY	11-2
PLATE HY-2: HYDROLOGIC STUDY AREA.....	11-13
PLATE HY-3: EXISTING DRAINAGE CONDITIONS	11-16
PLATE HY-4: EXISTING CONDITION SUBSHEDS IN THE PROJECT VICINITY.....	11-19
PLATE HY-5: DEVELOPED CONDITION SUBSHEDS AND DETENTION BASINS.....	11-21
PLATE HY-6: DEVELOPED CONDITIONS TOPOGRAPHY, BASIN DESIGN CONCEPTS, TRUNK DRAINAGE LINES, AND SUBSHED IDENTIFICATIONS	11-22
PLATE HY-7: POST-PROJECT 100-YEAR FLOODPLAIN AND PROJECT USES.....	11-23
PLATE LA-1: ZONING IN PROJECT AREA.....	12-22
PLATE LA-2: GENERAL PLAN DESIGNATIONS IN PROJECT AREA.....	12-23
PLATE LA-3: PROJECT USES AND ADJACENT SPECIFIC PLANNING.....	12-25
PLATE LA-4: PREFERRED BLUEPRINT SCENARIO IN PROJECT AREA	12-27

PLATE LA-5: PROXIMITY OF THE PROJECT TO EXISTING COMMUNITIES (YEAR 2009)	12-30
PLATE NO-1: LOCATION MAP	13-4
PLATE NO-2: MATHER CNEL CONTOUR MAP.....	13-14
PLATE NO-3: MATHER AIRPORT PLANNING POLICY AREA	13-15
PLATE NO-4: CIRCULATION DIAGRAM	13-29
PLATE NO-5: KIEFER 2,000-FOOT BUFFER.....	13-40
PLATE NO-6: ARRIVAL FLIGHT TRACKS FOR MATHER AIRPORT	13-49
PLATE NO-7: DEPARTURE FLIGHT TRACKS FOR MATHER AIRPORT	13-50
PLATE NO-8: TOUCH-AND-GO FLIGHT TRACKS FOR MATHER AIRPORT	13-51
PLATE PS-1: URBAN POLICY AREA AND URBAN SERVICES BOUNDARY	14-2
PLATE PS-2: CAL FIRE STATE RESPONSIBILITY AREA MODERATE FIRE HAZARD ZONE FOR EASTERN SACRAMENTO COUNTY	14-19
PLATE PS-3: PARKS PLAN	14-25
PLATE PU-1: SRCSD SERVICE AREA.....	15-5
PLATE PU-2: ULTIMATE NON-POTABLE WATER SYSTEM MAP	15-28
PLATE PU-3: SCWA WATER FACILITY PLAN.....	15-31
PLATE PU-4: NSA PIPELINE ALTERNATIVES.....	15-33
PLATE PU-5: ANATOLIA PIPELINE CONVERSION.....	15-34
PLATE PU-6: CORDOVA HILLS WATER SYSTEM MAP	15-38
PLATE PU-7: ON-SITE SHEDS AND PUMP STATIONS	15-41
PLATE PU-8: SEWER INFRASTRUCTURE PLAN.....	15-42
PLATE PU-9: EXISTING AND PROPOSED DRY UTILITIES.....	15-44
PLATE TC-1: EXISTING CONDITION STUDY AREA INTERSECTIONS.....	16-3
PLATE TC-2: STUDY AREA ROADWAYS	16-4
PLATE TC-3: PROJECT ACCESS AND CIRCULATION	16-36
PLATE TC-4: EXISTING PLUS PROJECT TRIP DISTRIBUTION	16-40

PLATE TC-5: CUMULATIVE STUDY INTERSECTIONS.....	16-62
PLATE TC-6: CUMULATIVE STUDY ROADWAY SEGMENTS	16-63
PLATE TC-7: CUMULATIVE PLUS PROJECT TRIP DISTRIBUTION	16-68

LIST OF TABLES

TABLE CC-1: GREENHOUSE GASES EMISSIONS WORLDWIDE, UNITED STATES, AND CALIFORNIA	7-3
TABLE CC-2: 2005 COMMUNITY EMISSIONS BY SECTOR.....	7-5
TABLE CC-3: GHG SIGNIFICANCE THRESHOLDS IN EFFECT AT NOP, IN METRIC TONS.....	7-17
TABLE CC-4: APRIL 2011 GHG SIGNIFICANCE THRESHOLDS, IN METRIC TONS	7-17
TABLE CC-5: EMISSION FACTORS	7-18
TABLE CC-6: BAU RESIDENTIAL ELECTRICITY GHG EMISSIONS	7-21
TABLE CC-7: PROJECT RESIDENTIAL ELECTRICITY GHG EMISSIONS	7-21
TABLE CC-8: BAU RESIDENTIAL NATURAL GAS GHG EMISSIONS.....	7-22
TABLE CC-9: PROJECT RESIDENTIAL NATURAL GAS GHG EMISSIONS.....	7-22
TABLE CC-10: SUMMARY OF RESIDENTIAL GHG EMISSIONS	7-22
TABLE CC-11: BAU NONRESIDENTIAL ELECTRICITY AND NATURAL GAS GHG EMISSIONS...7-23	
TABLE CC-12: PROJECT NONRESIDENTIAL ELECTRICITY AND NATURAL GAS GHG EMISSIONS	7-23
TABLE CC-13: BAU TRANSPORTATION GHG EMISSIONS.....	7-23
TABLE CC-14: PROJECT TRANSPORTATION GHG EMISSIONS.....	7-24
TABLE CC-15: SUMMARY OF MITIGATED PROJECT EMISSIONS.....	7-26
TABLE CC-16: RELATIVE CO₂ EMISSIONS (IN CO₂ EQUIVALENTS).....	7-26
TABLE CR-1: CATEGORIES OF CULTURAL RESOURCES	8-2
TABLE GS-1: RELATIONSHIPS BETWEEN EARTHQUAKE MAGNITUDE AND INTENSITY	9-4
TABLE HM-1: FEDERAL, STATE, AND LOCAL DATABASES & LISTS FOR HAZARDOUS MATERIALS.....	10-2
TABLE HM-2: STATUS OF LANDFILLS IN THE PROJECT VICINITY	10-7
TABLE LA-1: RESIDENTIAL UNIT TOTALS.....	12-28
TABLE LA-2: CORDOVA HILLS PERFORMANCE CRITERIA DETERMINATION	12-33

TABLE LA-3: CORDOVA HILLS CRITERIA-BASED STANDARDS DETERMINATION.....	12-34
TABLE NO-1: ACOUSTICAL TERMINOLOGY.....	13-2
TABLE NO-2: NOISE ELEMENT TABLE 1 NOISE STANDARDS FOR NEW USES AFFECTED BY TRAFFIC AND RAILROAD NOISE	13-6
TABLE NO-3: NOISE ELEMENT TABLE 2 NON-TRANSPORTATION NOISE STANDARDS MEDIAN (L₅₀)/MAXIMUM (L_{MAX}).....	13-8
TABLE NO-4: SACRAMENTO COUNTY NOISE ORDINANCE	13-11
TABLE NO-5: SUBJECTIVE REACTION TO CHANGES IN NOISE LEVELS.....	13-18
TABLE NO-6: SIGNIFICANCE OF CHANGES IN NOISE EXPOSURE	13-18
TABLE NO-7: EXISTING PLUS PROJECT CONDITION FOR ON-SITE ROADWAYS	13-27
TABLE NO-8: CUMULATIVE PLUS PROJECT CONDITION FOR ON-SITE ROADWAYS	13-34
TABLE NO-9: EXISTING AND EXISTING PLUS PROJECT OFF-SITE ROADWAY NOISE	13-43
TABLE NO-10: CUMULATIVE AND CUMULATIVE PLUS PROJECT OFF-SITE ROADWAY NOISE	13-45
TABLE PU-1: ZONE 40 WATER SUPPLY IN FIVE-YEAR INCREMENTS	15-3
TABLE PU-2: LAND USE CATEGORIES, DESIGN ESD DENSITIES, AND FLOW ESTIMATES ..	15-9
TABLE PU-3: PROPOSED CORDOVA HILLS LAND USE AND PROJECTED WATER DEMANDS .	15-48
TABLE PU-4: CORDOVA HILLS WATER DEMAND GROWTH PROJECTION IN FIVE-YEAR INCREMENTS	15-49
TABLE PU-5: SCWA ZONE 40 WATER DEMANDS IN FIVE-YEAR INCREMENTS.....	15-49
TABLE PU-6: ESTIMATED ELECTRIC DEMAND AT BUILDOUT (MVA).....	15-51
TABLE PU-7: ESTIMATED NATURAL GAS PEAK DEMAND AT BUILDOUT (MCFH)	15-51
TABLE TC-1: LEVEL OF SERVICE (LOS) DEFINITIONS.....	16-16
TABLE TC-2: LEVEL OF SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS.....	16-19
TABLE TC-3: LOS FOR SIGNALIZED INTERSECTIONS – CIRCULAR 212 METHOD.....	16-19
TABLE TC-4: LOS FOR SIGNALIZED INTERSECTIONS – HIGHWAY CAPACITY MANUAL METHOD	16-20

TABLE TC-5: ROADWAY CAPACITY CLASS	16-22
TABLE TC-6: ROADWAY SEGMENT LOS CRITERIA – SACRAMENTO COUNTY AND CITY OF RANCHO CORDOVA	16-23
TABLE TC-7: FREEWAY MAINLINE SEGMENT LEVEL OF SERVICE CRITERIA	16-23
TABLE TC-8: LEVEL OF SERVICE CRITERIA FOR FREEWAY RAMP MERGE/DIVERGE AND WEAVING AREA	16-24
TABLE TC-9: ROADWAY THRESHOLDS OF SIGNIFICANCE	16-26
TABLE TC-10: EXISTING INTERSECTION OPERATING CONDITIONS.....	16-28
TABLE TC-11: EXISTING ROADWAY OPERATING CONDITIONS	16-30
TABLE TC-12: EXISTING FREEWAY SEGMENT OPERATING CONDITIONS	16-32
TABLE TC-13: EXISTING FREEWAY RAMP OPERATING CONDITIONS.....	16-33
TABLE TC-14: TRIP GENERATION	16-38
TABLE TC-15: EXISTING PLUS PROJECT INTERSECTION OPERATING CONDITIONS	16-41
TABLE TC-16: EXISTING PLUS PROJECT ROADWAY SEGMENT OPERATING CONDITIONS.	16-44
TABLE TC-17: EXISTING PLUS PROJECT FREEWAY SEGMENT OPERATING CONDITIONS .	16-47
TABLE TC-18: EXISTING PLUS PROJECT FREEWAY RAMP OPERATING CONDITIONS	16-48
TABLE TC-19: CUMULATIVE TRIP GENERATION.....	16-67
TABLE TC-20: CUMULATIVE AND CUMULATIVE PLUS PROJECT INTERSECTION OPERATING CONDITIONS.....	16-69
TABLE TC-21: CUMULATIVE AND CUMULATIVE PLUS PROJECT ROADWAY OPERATING CONDITIONS.....	16-72
TABLE TC-22: CUMULATIVE AND CUMULATIVE PLUS PROJECT FREEWAY SEGMENT OPERATING CONDITIONS	16-77
TABLE TC-23: CUMULATIVE AND CUMULATIVE PLUS PROJECT FREEWAY RAMP OPERATING CONDITIONS.....	16-79
TABLE CU-1: CUMULATIVE INTERSECTION LOS AND PEAK HOURLY VOLUMES	18-8
TABLE CU-2: ANALYSIS OF DISTANCE BETWEEN PLANNED INTERSECTIONS ALONG GRANT LINE ROAD	18-14

TABLE CU-3: CUMULATIVE PLUS PROJECT ROADWAY OPERATING CONDITIONS WITH CONNECTOR PROJECT.....	18-15
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7 CLIMATE CHANGE

INTRODUCTION TO CLIMATE CHANGE AND GLOBAL WARMING

The average surface temperature of the Earth has risen by about 1 degree Fahrenheit in the past century, with most of that occurring during the past two decades (World Meteorological Organization, 2005). To the layperson, this apparently small amount of warming may appear insignificant. Correspondingly, the probable increases in average temperatures of between 3 to 8 degrees Fahrenheit (Cayan, et al., 2006) may appear noticeable, but still insignificant. The word *average* is of critical importance to understanding climate change and global warming. In July, the average high temperature in Sacramento is 94 degrees Fahrenheit (The Weather Channel website, 2007). Therefore, applying an average increase of 8 degrees in a strictly linear way (omitting forcing effects) would mean that the *average* July temperature in Sacramento would be 102 degrees, and that temperatures could get as hot as 122 degrees in an extreme event (the current record is 114) and could regularly reach 112 degrees. This kind of temperature shift would have significant consequences to citizens and the environment alike.

The principal greenhouse gases (GHGs) that enter the atmosphere because of human activities are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and fluorinated gases. From 1750 to 2004, concentrations of CO₂, CH₄, and N₂O have increased globally by 35, 143, and 18 percent, respectively. Other greenhouse gases, such as fluorinated gases, are created and emitted solely through human activities (EPA 2006). Carbon dioxide is the gas that is most commonly referenced when discussing climate change because it is the most commonly emitted gas. While some of the less common gases do make up less of the total greenhouse gases emitted to the atmosphere, some have a greater climate-forcing effect per molecule and/or are more toxic than carbon dioxide.

CARBON DIOXIDE

Carbon dioxide emissions are mainly associated with combustion of carbon-bearing fossil fuels such as gasoline, diesel, and natural gas used in mobile sources and energy-generation-related activities. The U.S. EPA estimates that CO₂ emissions accounted for 84.6% of greenhouse gas emissions in the United States in 2004 (EPA 2006). The California Energy Commission (CEC) estimates that CO₂ emissions account for 84% of California's anthropogenic (manmade) greenhouse gas emissions, nearly all of which is associated with fossil fuel combustion (CEC 2005). Total CO₂ emissions in the United States increased by 20% from 1990 to 2004 (EPA 2006).

METHANE

CH₄ has both natural and anthropogenic sources. Landfills, natural gas distribution systems, agricultural activities, fireplaces and wood stoves, stationary and mobile fuel combustion, and gas and oil production fields categories are the major sources of these emissions (EPA 2006). The U.S. EPA estimates that CH₄ emissions accounted for 7.9% of total greenhouse gas emissions in the United States in 2004 (EPA 2006). The CEC estimates that CH₄ emissions from various sources represent 6.2% of California's total greenhouse gas emissions (CEC 2005). Total CH₄ emissions in the United States decreased by 10% from 1990 to 2004 (EPA 2006).

NITROUS OXIDE

N₂O is produced by microbial processes in soil and water, including those reactions which occur in fertilizers that contain nitrogen. Global concentration for N₂O in 1998 was 314 ppb, and in addition to agricultural sources for the gas, some industrial processes (fossil fuel fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. (EPA 2006)

The U.S. EPA estimates that N₂O emissions accounted for 5.5% of total greenhouse gas emissions in the United States in 2004 (EPA 2006). The CEC estimates that nitrous oxide emissions from various sources represent 6.6% of California's total greenhouse gas emissions (CEC 2005). Total N₂O emissions in the United States decreased by 2% from 1990 to 2004 (EPA 2006).

FLUORINATED GASES (HFCs, PFCs, AND SF₆)

Fluorinated gases, such as hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulfur hexafluoride (SF₆), are powerful greenhouse gases that are emitted from a variety of industrial processes. The primary sources of fluorinated gas emissions in the United States include the production of HCFC-22, electrical transmission and distribution systems, semiconductor manufacturing, aluminum production, magnesium production and processing, and substitution for ozone-depleting substances. The U.S. EPA estimates that fluorinated gas (HFC, PFC, and SF₆) emissions accounted for 2.0% of total greenhouse gas emissions in the United States in 2004 (EPA 2006). The CEC estimates that fluorinated gas emissions from various sources represent 3.4% of California's total greenhouse gas emissions (CEC 2005). Total fluorinated gas emissions in the United States increased by 58% from 1990 to 2004 (EPA 2006).

WORLDWIDE, NATIONAL, AND STATEWIDE EMISSIONS

Table CC-1 presents estimated GHG emissions from California, the United States, and from worldwide sources. The results are presented in units of million metric tons per year of CO₂ equivalents (MMTCO₂Eq).

**Table CC-1:
Greenhouse Gases Emissions Worldwide, United States, and California**

Geographic Region	CO ₂	CH ₄	N ₂ O
	MMTCO ₂ Eq ^a	MMTCO ₂ Eq ^b	MMTCO ₂ Eq ^c
Worldwide GHG Emissions for calendar year 2000 ¹	38,000	5,434	3,002
United States GHG Emissions for calendar year 2004 ²	5,973.0	639.5	353.7
California GHG Emissions for calendar year 2004 ³	427.4	25.9	15.1

Notes:

^aMMTCO₂Eq means million metric tons per year of CO₂ equivalent, using Global Warming Potential (GWP) values provided by IPCC in its Fourth Assessment Report (TAR) (IPCC 2007a). The GWP for CO₂ is 1.

^bThe GWP from IPCC's TAR for CH₄ is 21.

^cThe GWP from IPCC's TAR for N₂O is 310.

CO₂ = carbon dioxide; N₂O = Nitrous oxide; CH₄ = Methane.

¹ Worldwide GHG emissions taken from Intergovernmental Panel on Climate Change 4th Assessment Report, Climate Change 2007: Synthesis Report, page 36.

² United States GHG emissions taken from *Emissions of Greenhouse Gases in the United States 2004*, Energy Information Administration, U.S. Department of Energy, Washington, DC, December 2005.

³ California GHG emissions taken from *Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004*, California Air Resources Board, November 2007.

SACRAMENTO COUNTY EMISSIONS

The ICLEI (Local Governments for Sustainability) Clean Air and Climate Protection Model (CACP) was used to estimate unincorporated Sacramento County emissions, along with the emissions of all of the incorporated cities in the County. This complete inventory was done to provide a regional picture, but the County does not have control over incorporated city emissions

(<http://www.sustainability.saccounty.net/ReportsPublications/default.htm>), click on the Reports and Publications link to download the full Greenhouse Gas Emissions Inventory for Sacramento County). The baseline year 2005 was chosen based on availability of information. In cases where 2005 data was unavailable, 2006 or other recent-year data was substituted. The software inventories community GHG emissions for all operations, with a separate government analysis tab that determines GHG emissions of local government operations as a subset of the community analysis. The community analysis divides GHG emissions among residential (energy usage), commercial and industrial (energy usage), transportation (exhaust emissions), off-road vehicle use (exhaust emissions), waste (landfill emissions), wastewater treatment (energy usage), agriculture (fertilizers, enteric fermentation, etc), High GWP (high global warming potential, such as refrigerants), and airport (emissions from County buildings and fleets – does not

include fleet owned by airlines) sectors. The government analysis divides emissions among buildings, vehicle fleet, employee commute, streetlights, water/sewage, and waste sectors.

For the community analysis, energy use was obtained for the Sacramento Municipal Utility District (SMUD) and the Pacific Gas and Electric Company (PG&E). Community waste generation for Sacramento County was collected through the California Integrated Waste Management Board (CIWMB) web site and through consultation with staff of Sacramento County Municipal Services Agency. The SMUD reported its 2005 GHG emissions and an emissions factor for all electricity sold to customers that was verified and certified by the California Climate Action Registry. This emissions factor was input into the model as a replacement for the statewide emissions factor for electricity consumption to generate more accurate GHG emissions estimates for Sacramento County electricity consumption. The analysis also uses localized vehicle miles traveled information using the outputs from the Sacramento Regional Travel Demand Model (SACMET) and the emissions factors from the Emission Factors Model 2007 (EMFAC 2007). The software default emissions factors for other GHGs, which is based on statewide averages, were used in all other instances.

As shown in Table CC-2, the County 2005 emission baseline is approximately 5.2 MMT per year, with the transportation sector as the largest contributor at 40% of the total. The emissions per sector drop precipitously from there, with the residential sector emitting only half of the transportation sector total. However, the residential and commercial sectors can be combined to give a more overarching view, because though these sectors operate differently, the source of emissions are the same: private building and interior equipment energy usage. Combining these sectors, transportation accounts for 40% of emissions, and operation of residential, commercial, and industrial buildings accounts for 35% of emissions. The off-road vehicle, waste, wastewater, agriculture, and high global warming potential greenhouse gases (High GWP GHG) sectors combined are responsible for only 21% of the County emissions, with the airport as an additional 4%.

Table CC-2: 2005 Community Emissions by Sector

Sector	CO₂e (metric tons)	Percent
Residential	1,033,142	19.9
Commercial and Industrial	772,129	14.8
Transportation	2,046,617	39.3
Off-Road Vehicle Use	236,466	4.5
Waste	435,348	8.3
Wastewater Treatment	70,662	1.4
Agriculture	197,132	3.8
High GWP GHGs	203,528	3.9
Airport	200,404	3.9
Total	5,201,313	100

EMISSIONS THRESHOLDS

The United Nations Intergovernmental Panel on Climate Change (IPCC) constructed several emission trajectories of carbon dioxide needed to stabilize global temperatures and climate change impacts. It concluded that a stabilization of greenhouse gases at 400 – 450 ppm carbon dioxide-equivalent concentration is required to keep global mean warming below 2°C, which in turn is assumed to be necessary to avoid dangerous climate change (IPCC 2007a). The California Climate Change Center (CCCC) at UC Berkeley has determined that an 11 percent reduction of greenhouse gases from 2005 levels is required by year 2010, a 25 percent reduction is required by 2020, and an 80 reduction by 2050 in order to stabilize greenhouse gases at 400 – 450 ppm carbon dioxide-equivalent concentrations and avoid potentially dangerous climate change impacts (CCCC 2006). The California Legislature required these reduction levels by enacting Assembly Bill 32.

Though reduction rates were established in California law (AB 32), as of the writing of this document there are no established CEQA thresholds for greenhouse gases. AB 32 requires ARB to adopt a statewide greenhouse gas emissions limit equivalent to the statewide greenhouse gas emissions levels in 1990 to be achieved by 2020, as specified.

AB 1493 – GREENHOUSE GAS EMISSION STANDARDS FOR AUTOMOBILES

California Assembly Bill (AB) 1493 in 2002 required the California Air Resources Board (CARB) to develop and adopt the nation's first GHG emission standards for automobiles. The legislature declared in AB 1493 that global warming was a matter of increasing concern for public health and environment in the state. It cited several risks

that California faces from climate change, including reduction in the state's water supply, increased air pollution creation by higher temperatures, harm to agriculture, and increase in wildfires, damage to the coastline, and economic losses caused by higher food, water energy, and insurance prices. Further the legislature stated that technological solutions to reduce GHG emissions would stimulate California economy and provide jobs.

The State of California in 2004 submitted a request for a waiver from federal clean air regulations (as the State is authorized to do under the Clean Air Act) to allow the State to require reduced tailpipe emissions of CO₂. In late 2007, the EPA denied California's waiver request and declined to promulgate adequate federal regulations limiting GHG emissions. In early 2008, the State brought suit against EPA related to this denial.

A recent CARB study (CARB 2008a) showed that in calendar year 2016, AB 1493 (also referred to as the Pavley standard or the Pavley rules) would reduce California's GHG annual emissions by 16.4 million metric tons (MMT) of carbon dioxide equivalents (CO₂e). This is almost 50% more than the 11.1 MMT reduction produced by currently proposed federal fleet average standards for model years 2011 – 2015.

Further, by 2020, California is committed to implement revised, more stringent GHG emission limits, the Pavley Phase 2 rules (See discussion of scoping plan below). California's requirements would reduce California GHG emissions by 31.7 MMTCO₂e in calendar year 2020, 45 percent more than the 21.9 MMTs reductions under the proposed federal rules in that year. Since the California rules are significantly more effective at reducing GHGs than the federal CAFE (fuel economy) program, they also result in better fuel efficiency – roughly 43 miles per gallon (mpg) in 2020 for the California vehicle fleet as compared to the new CAFE standard of 35 mpg.

EXECUTIVE ORDER S-3-05

Executive Order S-3-05 was the precursor to Assembly Bill 32 (AB 32 is described in the next section) and was signed by Governor Schwarzenegger in June 2005. This Executive Order was significant because of its clear declarative statements that climate change poses a threat to the State of California. The Executive Order states that California is "particularly vulnerable" to the impacts of climate change, and that climate change has the potential to reduce Sierra snowpack (a primary source of drinking water), exacerbate existing air quality problems, adversely impact human health, threaten coastal real estate and habitat by causing sea level rise, and impact crop production. The Executive Order also states that "mitigation efforts will be necessary to reduce greenhouse gas emissions".

To address the issues described above, the Executive Order established emission reduction targets for the state: reduce GHG emissions to 2000 levels by 2010, to 1990 levels by 2020 and to 80% below 1990 levels by 2050. The Secretary of the California Environmental Protection Agency was named as coordinator for this effort, and the Executive Order required a progress report by January 2006 and biannually thereafter. As a result, the Climate Act Team was created by the California Environmental

Protection Agency. The first report from the Climate Act Team was released in March of 2006, which proposed to meet the emissions targets through voluntary compliance and state incentive and regulatory programs.

Currently only the 2020 target has been adopted by the state through legislation (see Assembly Bill 32, below). As a result, all of the impact discussions, mitigation, and strategies are based on meeting the 2020 target, not the longer-term 2050 target. If the 2050 target is adopted during the life of the General Plan, amendments to the General Plan strategies outlined in the sections to follow will become necessary.

ASSEMBLY BILL 32

In September 2006, Assembly Bill (AB) 32 was signed by Governor Schwarzenegger of California. AB 32 requires that California GHG emissions be reduced to 1990 levels by the year 2020, just like Executive Order S-3-05. However, AB 32 is a comprehensive bill that requires the California Air Resources Board (ARB) to adopt regulations requiring the reporting and verification of statewide greenhouse gas emissions, and it establishes a schedule of action measures. AB 32 also requires that a list of emission reduction strategies be published to achieve emissions reduction goals.

As of this writing, the first six critical path items have occurred. AB 32 is in effect and the list of early action measures was adopted by the ARB on June 21, 2007 (Resolution 07-25), and many other measures were added at a hearing on October 25, 2007. The Scoping Plan was adopted on December 11, 2008. Regulations to implement various early action measures have been adopted (such as the Low Carbon Fuel Standard).

SENATE BILL 375

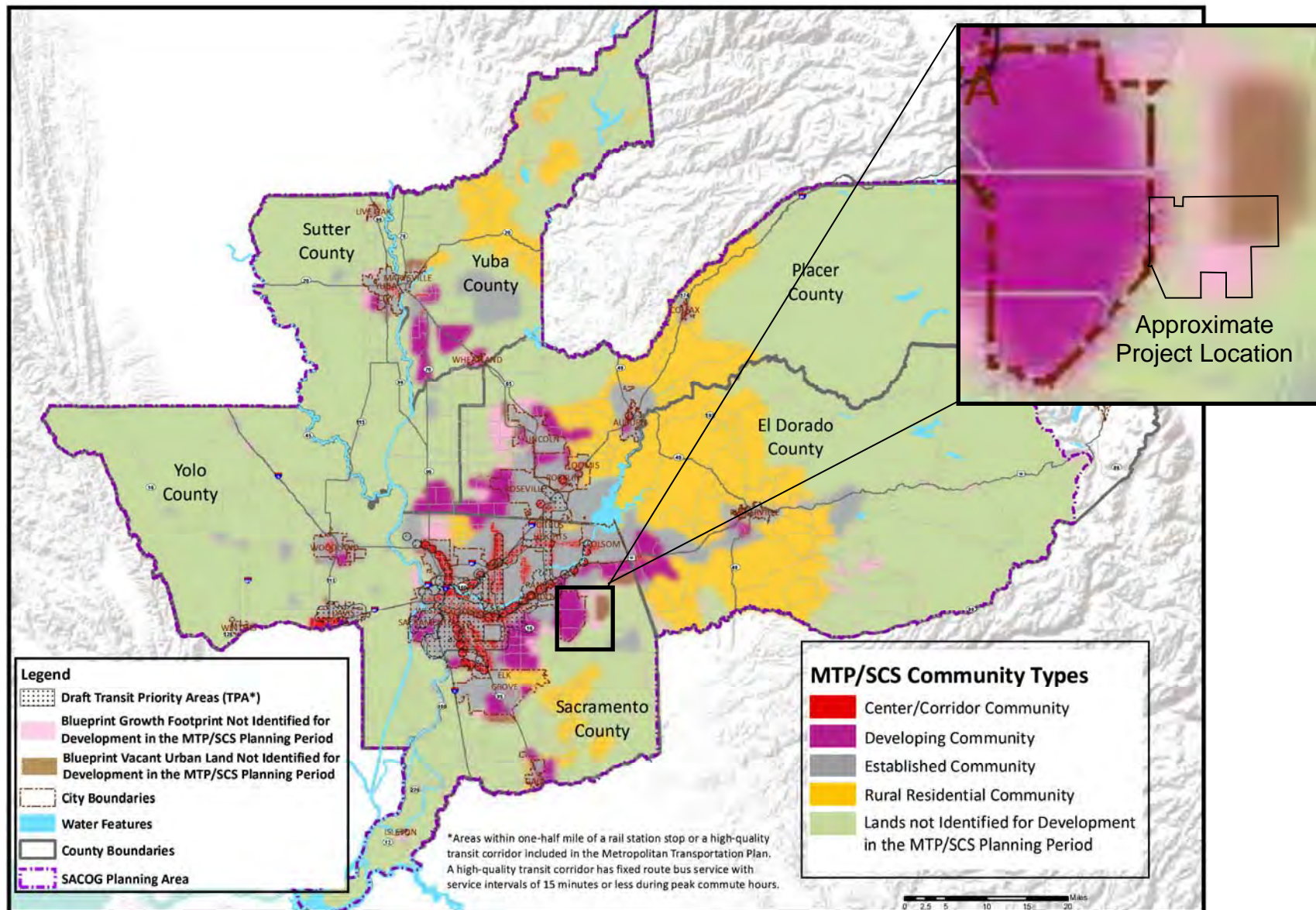
On September 30, 2008, Senate Bill (SB) 375 was signed by Governor Schwarzenegger of California. SB 375 combines regional transportation planning with sustainability strategies in order to reduce greenhouse gas emissions in California's urbanized areas. Existing law requires each regional transportation planning agency, which in Sacramento County's case is the Sacramento Area Council of Governments (SACOG), to adopt a Metropolitan Transportation Plan. SB 375 required the California Air Resources Board (ARB) to set performance targets for reduction of passenger vehicle emissions per capita in each of 16 Metropolitan Planning Organizations (MPOs) in the state for 2020 and 2035. For the SACOG MPO, these targets were set at 7% below 2005 per capita emissions for 2020 and 16% below 2005 per capita emissions for 2035. MPOs are not required to meet the greenhouse gas emission targets established by ARB, but if they conclude it is not feasible to do so, they must prepare an Alternative Planning Scenario to demonstrate what further land use and/or transportation actions would be required to meet the targets. SB 375 also requires that the Metropolitan Transportation Plan for each MPO include a Sustainable Communities Strategy (SCS) that integrates the land use and transportation components, and amends CEQA to provide incentives for housing and mixed use projects that help to implement an MTP/SCS that meets the ARB targets.

SACOG released a draft MTP/SCS and associated Draft Environmental Impact Report in November 2011. Projects which are consistent with the SCS may gain certain CEQA streamlining benefits, among which is the presumption that if consistent with the SCS, passenger vehicle greenhouse gas emissions from the project do not need analysis. The draft SCS land use map is included below (Plate CC-1), and as shown the Project is not identified as a developing community, and thus cannot use draft SCS consistency for streamlining. Even if it were consistent, the SCS is in draft form and is undergoing its own CEQA review, and thus cannot be relied upon for streamlining in any case. Furthermore, the SCS recognizes that there are alternative methods of achieving emissions reductions targets which are available. Once adopted, consistent projects can obtain streamlining benefits, but the MTP/SCS explicitly states that the opposite conclusion – that inconsistent projects have significant emissions – should not automatically be made:

Moreover, the SCS does not establish a threshold of significance under CEQA Guidelines Section 15064.7 or a legal presumption that a project inconsistent with the MTP/SCS does not meet greenhouse gas emissions reduction targets or AB 32 goals. (Draft MTP/SCS 2035, page 1-6)

The MTP/SCS is a recently-released draft which is not adopted, and thus any analysis is somewhat speculative at this time. In addition, SACOG has not issued any guidance on how the SCS relates to projects which are not within an area designated as a developing community, except to note that the SCS does not establish CEQA thresholds, and that the purpose of the SCS is to provide incentives – not to provide disincentives. For these reasons and because the Project is not included as a Developing Community, this EIR includes a detailed analysis of the Project's greenhouse gas emissions, below, and does not rely on any CEQA streamlining benefits or other analysis pertinent under SB 375.

Plate CC-1: Draft SCS Land Use Map



SENATE BILL 97 CHAPTER 185, STATUTES OF 2007

Senate Bill 97 (SB 97) requires the Office of Planning and Research (OPR) to prepare guidelines to submit to the California Resources Agency regarding feasible mitigation of greenhouse gas emissions or the effects of GHG emissions as required by CEQA. The California Resources Agency is required to certify and adopt these revisions to the State CEQA Guidelines by January 1, 2010. The Natural Resources Agency adopted the amendments on December 30, 2009. On February 16, 2010, the Office of Administrative Law approved the Amendments, and filed them with the Secretary of State for inclusion in the California Code of Regulations. The Amendments became effective on March 18, 2010.

ENDANGERMENT FINDING

On December 7, 2009, the U.S. EPA made an Endangerment Finding and a Cause or Contribute Finding related to greenhouse gases. The U.S. EPA Administrator found that the current and projected concentrations of the six key well-mixed greenhouse gases – carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆) – in the atmosphere threaten the public health and welfare of current and future generations (endangerment). The Administrator also found that the combined emissions of these well-mixed greenhouse gases from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution which threatens public health and welfare (Cause or Contribute).

STATE OF CALIFORNIA EMISSION REDUCTION/ADAPTATION STRATEGIES

Several strategies to reduce vehicle emissions have been identified by the California Environmental Protection Agency's Climate Action Team. These include, but are not limited to, the following:

VEHICLE CLIMATE CHANGE STANDARDS

With the passage of AB 1493, Pavley, Chapter 200, Statutes of 2002, California moved to the forefront of reducing vehicle climate change emissions. This bill required the state to develop and adopt regulations that achieve the maximum feasible and cost-effective reduction of climate change emissions emitted by passenger vehicles and light duty trucks. Regulations were adopted by the ARB in September 2004. The ARB analysis of this regulation indicates emissions savings of 1 million tons CO₂ equivalent (MMTCo₂e) by 2010 and 30 million tons CO₂ equivalent by 2020.

DIESEL ANTI-IDLING

Reduced idling times and the electrification of truck stops can reduce diesel use in trucks by about 4 percent, with major air quality benefits. In July 2004 the ARB adopted a measure to limit diesel-fueled commercial motor vehicle idling. AB 32 analysis indicates that anti-idling measures could reduce climate change emissions by 1.2 MMTCO₂e in 2020.

OTHER NEW LIGHT DUTY VEHICLE TECHNOLOGY IMPROVEMENTS

In September 2004 the California Air Resources Board approved regulations to reduce climate change emissions from new motor vehicles. The regulations apply to new passenger vehicles and light duty trucks beginning with the 2009 model year. The standards adopted by the Board phase in during the 2009 through 2016 model years. When fully phased in, the near term (2009 – 2012) standards will result in about a 22 percent reduction as compared to the 2002 fleet, and the mid-term (2013 – 2016) standards will result in about a 30 percent reduction.

New standards would be adopted to phase in beginning in the 2017 model year (following up on the existing mid-term standards that reach maximum stringency in 2016). Assuming that the new standards call for about a 50 percent reduction, phased in beginning in 2017, this measure would achieve about a 4 MMT reduction in 2020. The reduction achieved by this measure would significantly increase in subsequent years as clean new vehicles replace older vehicles in the fleet – staff estimates a 2030 reduction of about 27 MMT.

EXECUTIVE ORDER S-01-07

This Executive Order was signed by Governor Schwarzenegger on January 18, 2007 and directed the Climate Action Team to determine whether the items in the Order could be established as an early action measure pursuant to AB 32 – which the Climate Action Team has now done. The Executive Order states that the State of California relies on petroleum-based fuels for 96% of its transportation needs, there were more than 24 million motor vehicles registered in California, and statewide gasoline consumption was almost 16 billion gallons in 2005. To address the carbon emitted by this use of fuel, the Executive Order states that a statewide goal must be established to reduce the “carbon intensity of California’s transportation fuels” by at least 10% by the year 2020 and that a Low Carbon Fuel Standard for transportation fuels be established. The Low Carbon Fuel Standard applies to all “refiners, blenders, producers or importers of transportation fuels in California”.

CALIFORNIA CLIMATE ADAPTATION STRATEGY

In December 2009, the California Resources Agency, in coordination and partnership with multiple other state agencies, released their California Climate Adaptation Strategy. This document summarizes the best known science on climate change impacts in seven specific sectors, including: public health, biodiversity-habitat, ocean & coastal

resources, water management, agriculture, forestry, and transportation and energy infrastructure. The strategy provides recommendations on how to manage against threats to these sectors. The strategy is in direct response to Gov. Schwarzenegger's November 2008 Executive Order S-13-08 that specifically asked the Natural Resources Agency to identify how state agencies can respond to rising temperatures, changing precipitation patterns, sea level rise, and extreme natural events.

SACRAMENTO COUNTY REDUCTION STRATEGIES

2030 SACRAMENTO COUNTY GENERAL PLAN

Though there are a multitude of policies within the General Plan which support the reduction of greenhouse gas emissions by promotion of transit, mixed use, and other land use designs, there are two policies which specifically address reduction of greenhouse gases:

AQ-22. Reduce greenhouse gas emissions from County operations as well as private development.

LU-115. It is the goal of the County to reduce greenhouse gas emissions to 1990 levels by the year 2020. This shall be achieved through a mix of State and local action.

CLIMATE ACTION PLAN

In May of 2009 Sacramento County published a Phase I Draft Climate Action Plan (Phase I CAP). The Phase I CAP provides a framework and overall policy strategy for reducing greenhouse gas emissions and managing our resources in order to comply with AB 32. It also highlights actions already taken to become more efficient, and targets future mitigation and adaptation strategies. This document is available at <http://www.sustainability.saccounty.net/ClimateActionPlan/default.htm>. The Phase I CAP, which was adopted as part of the 2030 General Plan (November 9, 2011), contains policies/goals related to agriculture, energy, transportation/land use, waste, and water.

Goals in the section on agriculture focus on promoting the consumption of locally-grown produce, protection of local farmlands, educating the community about the intersection of agriculture and climate change, educating the community about the importance of open space, pursuing sequestration opportunities, and promoting water conservation in agriculture. Actions related to these goals cover topics related to urban forest management, water conservation programs, open space planning, and sustainable agriculture programs.

Goals in the section on energy focus on increasing energy efficiency and increasing the usage of renewable sources. Actions include implementing green building ordinances

and programs, community outreach, renewable energy policies, and partnerships with local energy producers.

Goals in the section on transportation/land use cover a wide range of topics but are principally related to reductions in vehicle miles traveled, usage of alternative fuel types, and increases in vehicle efficiency. Actions include programs to increase the efficiency of the County vehicle fleet, and an emphasis on mixed use and higher density development, implementation of technologies and planning strategies that improve non-vehicular mobility.

Goals in the section on waste include reductions in waste generation, maximizing waste diversion, and reducing methane emissions at Kiefer landfill. Actions include solid waste reduction and recycling programs, a regional composting facility, changes in the waste vehicle fleet to use non-petroleum fuels, carbon sequestration at the landfill, and methane capture at the landfill.

Goals in the section on water include reducing water consumption, emphasizing water efficiency, reducing uncertainties in water supply by increasing the flexibility of the water allocation/distribution system, and emphasizing the importance of floodplain and open space protection as a means of providing groundwater recharge. Actions include metering, water recycling programs, water use efficiency policy, water efficiency audits, greywater programs/policies, river-friendly landscape demonstration gardens, participation in the water forum, and many other related measures.

Implementation Measure H of General Plan Policy LU-115 requires preparation of a Phase II CAP within three years of General Plan adoption (adoption occurred on November 9, 2011). This Phase II CAP is intended to flesh out the strategies involved in the Phase I CAP, and will include economic analysis, intensive vetting with all internal departments, community outreach/information sharing, timelines, and detailed performance measures.

CHICAGO CLIMATE EXCHANGE

In February 2007, the County joined the Chicago Climate Exchange. The Chicago Climate Exchange is the world's first and North America's only voluntary, legally binding rules-based greenhouse gas (GHG) emission reduction and trading system. Chicago Climate Exchange Phase I members commit to reduce GHG emissions 1% per year over the years 2003 through 2006 relative to a 1998 through 2001 average baseline. Members agree to reduce GHG emissions by a total of 4% below the baseline by 2006. Chicago Climate Exchange Phase II members commit to reduce GHG emissions from 1¼% to ½% per year through the years 2007 through 2010 for grand total of 6% below the baseline.

ENERGY CONSERVATION/ENERGY EFFICIENCY PROGRAM

The Board of Supervisors approved an Energy Conservation/Energy Efficiency Program in 2001. The essence of the program is to reduce electrical energy usage during peak

periods of the day. The program contains ten measures such as participating in Sacramento Municipal Utility District's Voluntary Emergency Curtailment Program, setting building temperatures to 78° F to decrease cooling demand and dual switching of lights. The preliminary baseline for direct and indirect emissions for the County is 226,700 metric tons of CO₂.

CALIFORNIA CLIMATE ACTION REGISTRY

The County joined the California Climate Action Registry (Registry) in December 2006. The Registry is a non-profit public/private partnership that serves as a voluntary GHG registry to protect, encourage and promote early actions to reduce GHG emissions. Registry participants agree to calculate, certify and publicly report GHG emissions. The Registry provides a reporting tool, standards and protocol for reporting GHG emissions.

AB32 recognizes participation in the Registry in a number of ways. First, AB 32 requires the ARB to incorporate the standards and protocols developed by the Registry in the rulemaking process. Second, AB 32 provides that entities that join the Registry prior to December 31, 2006 and report their emissions according to the Registry protocols will not be required to significantly alter their reporting program.

LOCAL GOVERNMENTS FOR SUSTAINABILITY (ICLEI)

The Local Governments for Sustainability is administered under the International Council for Local Environmental Initiatives (ICLEI), which the County joined in 2007. Cities for Climate Protection™ (CCP) is ICLEI's flagship campaign. The program is designed to educate and empower local governments worldwide to take action on climate change. CCP is a performance-oriented campaign that offers a framework for local governments to reduce greenhouse gas emissions and improve livability within their municipalities. This campaign would give Sacramento County a framework and tools to develop a plan for greenhouse emissions. The basic framework is called the 5 Milestones and consists of the following steps: completion of a baseline emissions inventory and forecast, adoption of an emissions reduction target, development of a Local Action Plan, implementation of policies and measures, and monitoring and verification of results.

The County has completed the emissions inventory and it is available on the Department of Environmental Review and Assessment website at www.dera.saccounty.net (see the home page under special studies).

GREEN FLEETS

The City and County of Sacramento have adopted a heavy-duty low-emission vehicle (LEV) acquisition policy. The policy goal is to reduce oxides of nitrogen (NOx) emissions from heavy-duty fleet vehicles to meet the year 2005 standard for ozone in the Sacramento Federal Ozone Non-attainment area. The efforts will focus on the conversion of the on-road, heavy-duty equipment fleets to certified low-emission vehicles as these vehicles are replaced as part of regular systematic replacement

programs. As of 2004 the County has committed to replace 50% off the fleet to low-emission vehicles.

COOL COUNTIES INITIATIVE

On July 16, 2007 at the National Association of Counties Annual Conference in Richmond, Virginia, 12 pioneering counties representing 17 million people launched “Cool Counties.” The Cool Counties initiative seeks to marshal the resources of all 3,066 counties across the nation to address the challenges climate change poses to our communities. On May 27, 2008 the Sacramento County Board of Supervisors approved a resolution to become a Cool County and participate in the initiative.

Participating counties commit to four smart actions:

1. reducing our own contributions to climate change through our internal operations;
2. demonstrating regional leadership to achieve climate stabilization and protect our communities;
3. helping our community become climate resilient;
4. urging the federal government to support our efforts.

These actions are consistent with the state requirements under Assembly Bill (AB) 32 and Executive Order S-3-05, including:

- Assessing local operations that impact greenhouse gas emissions;
- Working to reduce greenhouse gas emissions 80% below current levels by 2050;
- Identifying local vulnerabilities to climate change and creating a plan to address them;
- Working with counties nationally to urge the federal government to adopt legislation to reduce greenhouse gas emissions 80% below current levels by 2050.

SIGNIFICANCE CRITERIA

CEQA Guidelines section 16064.4 states that an agency should make a “good faith effort . . . to describe, calculate, or estimate the amount of greenhouse gas emissions resulting from a project”. It is left to the lead agency’s discretion to use a quantitative or qualitative approach. Factors that should be considered when determining significance are:

1. The extent to which the project may increase or decrease greenhouse gas emissions compared to the baseline;
2. whether the project exceeds any applicable significance threshold; and
3. the extent to which the project complied with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions.

The guidelines do not include a numeric significance threshold, but instead defer to the lead agency to determine whether there are thresholds which apply to the project. With regard to the third item, statewide plans include AB 32 and SB 375, as described in the Regulatory setting. The underlying strategy and assumptions of the AB 32 Scoping Plan were used to develop County thresholds. AB 32 requires emissions be reduced to 1990 levels by the year 2020, which is estimated in the AB 32 Scoping Plan to be 15% below *existing (2005) emissions*. The text is emphasized to note that the goal is not 15% below what is known as “business-as-usual” conditions or unmitigated project emissions; it is 15% below the emissions which were existing in California in the year 2005.

As previously discussed, Sacramento County prepared a GHG emissions inventory for the County, and as an offshoot of that process has published a Climate Action Plan. Thresholds for GHG emissions were published within the Environmental Impact Report for the 2030 Sacramento County General Plan. These thresholds were most recently amended April 2011, over a year after the Notice of Preparation (NOP) for the Project was published. As part of the April thresholds update, Environmental Review indicated that projects would be required to use the threshold in effect at the time the NOP (or other environmental document) was published. Though not required, after discussions with the applicant it was decided to analyze the Project based on both the April thresholds, and the thresholds in effect at the time the NOP was published; tables with both of these thresholds are included below (Table CC-3 and Table CC-4).

As shown in the tables, separate thresholds have been included for each sector. The purpose of this division is to provide additional information about the source of emissions. When making a final determination of significance, these thresholds can be combined to generate a total emissions threshold; it is this total threshold that will ultimately determine whether impacts are found to be significant. The trucks subsector was added to the April 2011 revised thresholds in order to account for projects whose new trips are almost exclusively heavy-duty vehicles, not passenger vehicles.

Table CC-3: GHG Significance Thresholds in Effect at NOP, in Metric Tons

Sector	2005 Baseline	2020 Target	Thresholds
Residential Energy	1,033,142	877,883	1.30 per capita
Commercial & Industrial Energy	772,129	656,660	8.08 per Kft ²
Transportation	2,046,617	1,740,000	4.56 per capita

Table CC-4: April 2011 GHG Significance Thresholds, in Metric Tons

Sector	2005 Baseline	2020 Target	Thresholds
Residential Energy	1,033,142	877,883	1.33 per capita
Commercial & Industrial Energy	772,129	656,660	7.87 per Kft ²
Transportation	2,046,617	1,740,000	2.64 per capita
<i>Trucks</i>	<i>488,806</i>	<i>415,218</i>	<i>0.10 per 100 VMT</i>

METHODOLOGY

William Hezmalhalch Architects, Inc prepared a technical study for the Project which includes both an analysis of GHG emissions and an analysis of proposed mitigation measures. This plan, called the Cordova Hills Greenhouse Gas Plan (GHG Plan, dated May 2011) was deemed technically adequate by the Sacramento Metropolitan Air Quality Management District on June 2, 2011. The GHG Plan is included as Appendix CC-1. The discussions that follow summarize the GHG Plan.

The GHG analysis adopted the approach of developing and reporting a “Business As Usual” (BAU) scenario, the purpose of which is to determine what the impact would be if the Project was designed according to baseline standards – for example, if the Project resulted in trip generation identical to that established through the Institute of Transportation Engineers trip rates. Energy-related emissions from the Project were then calculated as a reduction from the BAU. Transportation emissions for the Project were calculated independently of the BAU. Refer to the descriptions below. Emissions factors used throughout the analysis are shown in Table CC-5. The BAU analysis is not used to determine the significance of Project emissions, but is included to indicate the efficacy of the reduction measures included in the Project, and to help determine whether all reasonable efforts to provide mitigation have been undertaken.

Table CC-5: Emission Factors

GHG	Electricity	Natural Gas
CO ₂	555.26 pounds per megawatt hour	0.0546 kilograms per cubic feet
CH ₄	0.0302 pounds per megawatt hour	0.005 kilograms per million British thermal units
N ₂ O	0.0081 pounds per megawatt hour	0.0001 kilograms per million British thermal units

BAU ANALYSIS

Public sector data (year 2009) from California Energy Commission (CEC) for both electricity and gas usage was used to determine the annual MT of CO₂e emitted per capita. The protocol for determining BAU emissions was from CAPCOA’s *Quantifying Greenhouse Gas Mitigation Measures*. The annual household electricity use data from the *California Energy Demand 2010 – 2020 Staff Report (CEC)* dated 2009 using 2009 numbers as suggested by SMAQMD’s *CEQA Guide* dated December 2009 was used to determine the Cordova Hills electricity use (4,621 gigawatt hours by 534,072 households). The formulas for converting annual total kilowatt hours (kWh) to MT of CO₂e were provided by CCAR.

The natural gas per capita usage was obtained from the *Greenhouse Gas Emissions Inventory for Sacramento County* dated June 2009. The total natural gas usage for the unincorporated Sacramento County of 80,910,929 therms was divided by the unincorporated Sacramento County population of 561,625 (144 therms per person).

The annual kWh use per square foot for nonresidential uses was determined from CEC's *California Energy Demand 2009 – 2020 Staff Revised Forecast* dated December 2009 using 2009 numbers. All commercial and industrial spaces were assumed to be occupied. The same formulas used for converting annual kWh and million British thermal units (MMBtu) to MT of CO₂e in the Residential Sector were used for the nonresidential calculations.

To determine the nonresidential natural gas emissions, the total gas consumption for Sacramento County was obtained from the CEC Energy Consumption Data Management System website for 2009. The Sacramento Municipal Utility District (SMUD) Planning Area commercial floor space was obtained from the CEC staff demographic assumptions found in the *California Energy Demand 2010 – 2010 Adopted Forecast Staff Form 2.2 SMUD Planning Area* on page 185.

To determine the BAU transportation emissions for the Cordova Hills Project, the Institute of Transportation Engineers (ITE) trip generation rates were input to the Urban Emissions model (URBEMIS 9.2.4). To determine the annual VMT, the total daily VMTs were multiplied by 320 days rather than 365 days. This difference is to allow for the variations in travel behavior associated with weekends and holidays (source: SACOG's DEIR for the Metropolitan Transportation Plan for 2035). The annual VMT were then multiplied by emissions factors from the *California Climate Action Registry General Reporting Protocol* Table C.4 for all vehicle model years (0.0048 g/mile for N₂O and 0.0051 g/mile for CH₄). These numbers were multiplied by the Global Warming Potential (GWP) values provided by IPCC in its Fourth Assessment Report (GWP for CH₄ is 21 and for N₂O is 310).

PROJECT ANALYSIS

Residential BAU emissions were reduced based on the following three factors: all homes within the Project will be 20% more efficient than the 2008 Title 24 standards, an Energy Star dishwasher and ceiling fan will be installed in every home, and at least 20% of the overall residential energy will be provided through renewable energy sources. Nonresidential BAU emissions were reduced based on all buildings being 20% more efficient than the 2008 Title 24 standards. CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures* was used to develop the assumed reductions for each of these measures. This reduced amount represents the Project residential and nonresidential emissions.

Project transportation emissions were calculated based on VMT information extracted from the background data of the traffic study prepared for the Project by DKS Associates Transportation Solutions (DKS Associates). Note that VMT were provided for the baseline traffic modeling year and the cumulative traffic year of 2035. Since the

threshold is based on compliance in the year 2020, a simple regression of the VMT between the modeling years was performed to find the Project VMT in the year 2020. The BAU analysis of transportation emissions was, by necessity, simple since detailed data were not available. The Project VMT data provided by DKS Associates provided detailed breakdowns of VMT by vehicle speed, and thus the Project VMT analysis is more detailed. The Emission Factor Model 2007 (EMFAC) background data on emissions by vehicle speed and type was used to analyze Project vehicle emissions. The calculated emissions do not include additional reductions that can be expected from the adopted Low Carbon Fuel standard because no protocol for estimating the effect of this standard has been established.

CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures* was used to quantify additional reductions related to transportation emissions. The traffic study already included most of the trip-reducing features of the Project in its assumptions. The only measures not accounted for, which were then added to reach the ultimate Project condition, were CAPCOA measures LUT-9 (Improved Design of Development), SDT-2 (Provide Traffic Calming Measures), and TRT-1 (Voluntary Commute Trip Reduction Features).

IMPACTS AND ANALYSIS

The following section discloses the potential impacts of the proposed project on global climate change, and the potential impacts of global climate change on the proposed project. Mitigation measures have been identified where feasible.

IMPACT: GENERATION OF GREENHOUSE GAS EMISSIONS

Table CC-6 through Table CC-14 provide the BAU and Project emissions calculations for the residential energy sector, the commercial/industrial (nonresidential) sector, and the transportation sector. All of the calculations below are based on accepted, quantifiable measurements both of initial emissions and measures to reduce greenhouse gases.

Table CC-6: BAU Residential Electricity GHG Emissions

Use Type	Total No of Units	Total Annual Electricity Use (MWh) ¹	Annual MT of CO ₂ e ²
Single-family	4,299	37,195	8,998
Single-family townhome	1,043	9,024	2,176
Multi-family	1,891	16,361	3,946
Multi-family townhome	767	6,636	1,600
University Dorm	1,010	8,739	2,107
<i>Total</i>	<i>9,010</i>	<i>77,955</i>	<i>18,827</i>
<p>1. 8,652 kWh per household, based on <i>California Energy Demand 2010 – 2020 Staff Revised Forecast December 2009</i> using 2009 numbers (Form 1.1 SMUD Planning Area and Form 2.2 SMUD Planning Area)</p> <p>2. Includes an adjustment consistent with Table D-2 of <i>Quantifying Greenhouse Gas Mitigation Measures</i></p>			

Table CC-7: Project Residential Electricity GHG Emissions

Use Type	% Reduction from BAU for Energy Star and 20% Above Title 24 ¹	MT Reduction for Energy Star and 20% Above Title 24	Reduction in BAU Annual MWh for 20% Renewable Energy	MT Reduction for 20% Renewable Energy	Annual MT of CO ₂ e
Single-family	3.52%	317	9,244 MWh	2,341	8,445
Single-family townhome	3.26%	71			
Multi-family	4.19%	165	4,599 MWh	1,165	4,164
Multi-family townhome	3.26%	52			
University Dorm	4.09%	86	1,748 MWh	443	1,578
<i>Total</i>	--	<i>691</i>	<i>19,518 MWh</i>	<i>3,949</i>	<i>14,187</i>
<p>1. Title 24 and Energy Star reductions based on <i>Quantifying Greenhouse Gas Mitigation Measures</i> Table BE-1.2 and Table BE-4.2, and Formula 1- [(1-A)x(1-B)x(1-C)]¹ from page 57 – 58</p>					

Table CC-8: BAU Residential Natural Gas GHG Emissions

Use Type	Total No of Units	Population ¹	Total Annual Gas Use (therms) ²	Annual MT of CO ₂ e ²
Single-family	4,299	11,650	1,677,600	8,869
Single-family townhome	1,043	2,827	407,088	2,142
Multi-family	1,891	4,803	691,632	3,641
Multi-family townhome	767	1,948	280,512	1,477
University Dorm	1,010	4,040	581,760	3,062
<i>Total</i>	<i>9,010</i>		<i>3,638,592</i>	<i>19,190</i>
1. Based on 2.71 people per single-family home, 2.54 people per multi-family home, and 4,040 students 2. Calculated based on a County-wide average consumption of 144 therms per person 3. Applying natural gas emission factors, emissions are 0.77 MT CO ₂ e per capita 4. Includes an adjustment consistent with Table BE-1.2 of <i>Quantifying Greenhouse Gas Mitigation Measures</i>				

Table CC-9: Project Residential Natural Gas GHG Emissions

Use Type	% Reduction from BAU for 20% Above Title 24 ¹	MT Reduction for 20% Above Title 24	Annual MT of CO ₂ e
Single-family	18.2	1,614	7,314
Single-family townhome	17.8	381	1,785
Multi-family	17.8	648	3,033
Multi-family townhome	17.8	262	1,230
University Dorm	17.8	545	2,551
<i>Total</i>	--	<i>3,451</i>	<i>15,913</i>
1. Title 24 reductions based on <i>Quantifying Greenhouse Gas Mitigation Measures</i> Table BE-1.2, giving 0.91% for single-family detached and 0.89% for all other uses for each 1% improvement over Title 24.			

Table CC-10: Summary of Residential GHG Emissions

	BAU Total Annual MT of CO ₂ e	Project Total Annual MT of CO ₂ e
Electricity	18,827	14,187
Natural Gas	19,190	15,914

<i>Total</i>	<i>38,018 or 1.50 per capita</i>	<i>30,100 or 1.18 per capita</i>
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Table CC-11: BAU Nonresidential Electricity and Natural Gas GHG Emissions

Power Source	Building Area in Square Feet	Total Annual Energy Use	Annual MT of CO ₂ e ²
Electricity	2,719,919	44,948 MWh ¹	11,385
Natural Gas		109,069 MMBtu ²	5,793
Total			17,178
1. Based on <i>California Energy Demand 2010 – 2020 Staff Revised Forecast December 2009</i> using 2009 numbers: 4,280 million kWh and 259 million square feet.			
2. 103,867,442 million therms from Gas Consumption - Sacramento - Nonresidential 2009, CEC website http://ecdms.energy.ca.gov/gasbycounty.aspx . Dividing into 259 million square feet results in 40.10 MBtu per square foot.			

Table CC-12: Project Nonresidential Electricity and Natural Gas GHG Emissions

Power Source	% Reduction from BAU for 20% Above Title 24 ¹	MT Reduction for 20% Above Title 24	Annual MT of CO ₂ e
Electricity	6.2	706	10,679
Natural Gas	14.6	847	4,946
<i>Total</i>	--	<i>1,553</i>	<i>15,625 or 5.75 per KSF</i>
1. Title 24 reductions based on <i>Quantifying Greenhouse Gas Mitigation Measures</i> Table BE-1.1, giving 0.31% for electricity and 0.73% for natural gas for each 1% improvement over Title 24.			

Table CC-13: BAU Transportation GHG Emissions

	ITE Trip Generation Rate ¹	Daily VMT
Single-family (per unit)	9.57	436,922
Multiple-family (per unit)	6.65	151,236
Retail (per employee)	21.47	78,109
Other (per employee)	3.32	79,385
K – 12 School (per student)	1.54	52,999
University (per student)	7.77	300,170
Total Daily VMT ²		1,098,819
Annual VMT ³		351,622,195
Annual MT CO ₂ e		203,551
MT per capita		8.01
1. Provided by DKS Associates Transportation Solutions 2. URBEMIS model output		

3. Multiplied trips by 320 days per year
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Table CC-14: Project Transportation GHG Emissions

Period	Miles Per Hour	Annual Project VMT (1,000 VMT) ¹	EMFAC – 2020 Emissions Factors for CO ₂ (grams/mile)	Annual MT CO ₂
VMT All Day	1 – 5	- 69	1197.284	- 84
	6 – 10	7,070	912.596	6,452
	11 – 15	7,645	722.237	5,522
	16 – 20	29,926	593.965	17,775
	21 – 25	30,469	510.353	15,550
	26 – 30	51,743	454.064	23,494
	31 – 35	39,709	417.746	16,588
	36 – 40	75,427	397.044	29,948
	41 – 45	13,936	389.651	5,430
	46 – 50	24,031	394.833	9,488
	51 – 55	- 17,002	413.281	- 7,027
	56 – 60	4,358	447.252	1,949
	61 – 65	- 8,580	501.044	- 4,299
	66 – 70	545	509.055	277
	Total	259,206	--	121,064 or 4.76 per capita
Source: VMT from DKS Associates Transportation Solutions				
1. Some data is negative because the Project trips were calculated by subtracting the No Project miles from the Project miles. The Project reduces VMT in certain speed categories when compared to the No Project.				

The analysis results indicate that the Project will result in emissions of 1.18 MT per capita for residential energy and 5.75 MT per thousand square feet for nonresidential energy. Each of these numbers essentially reflects mitigated conditions, because the Project incorporates many emissions-reducing features which are established within the Cordova Hills Special Planning Area (SPA). With the measures listed in the GHG Plan and included in the SPA, Project emissions related to residential and commercial energy use will be below the thresholds in effect at the time of the NOP.

The initial quantified analysis for transportation (which used the vehicle miles traveled output of the traffic modeling) results in 4.76 MT per capita for transportation emissions. After this analysis, the GHG Plan then includes measures from CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures*. A wide array of measures from the CAPCOA document apply to the Project, but most were not analyzed because they were already

incorporated into the construction of the traffic modeling. The measures already incorporated into the traffic analysis are:

- Increased density
- Location efficiency
- Increased diversity of urban & suburban developments
- Increased destination accessibility
- Increase transit accessibility
- Orientation of project toward non-auto corridors
- Location of project near bike path/bike lanes
- Neighborhood site enhancements (interconnection of street network, sidewalks and traffic calming)
- NEV network
- Parking reductions
- Expansion of transit network
- Increase in Transit Services Frequency/Speed
- Improvement of traffic flow

In addition to the above measures which were captured in the traffic modeling, the GHG Plan applies three measures from the CAPCOA document: LUT-9, SDT-2, and TRT-1. LUT-9 measures VMT reductions resulting from enhancements to walkability and connectivity, as measured by the number of intersections per square mile. The GHG Plan calculates a possible 21.33% reduction in VMT, but the CAPCOA document allows a maximum credit of 10% for the measure. SDT-2 measures VMT reductions as a function of the number of intersections and streets which will incorporate traffic calming measures (this includes crosswalk countdowns and median islands). The GHG Plan calculates a 0.5% reduction in VMT related to this measure. Lastly, TRT-1 measures VMT reductions as a function of the percent of employees that will be eligible for the program and the percent commute reduction (the latter is from a table in the CAPCOA document). The GHG Plan calculates a 5.4% VMT reduction resulting from application of this measure. These three measures result in additional VMT reductions of 15.9%, resulting in a decrease of emissions from 4.76 MT per capita to 4.02 MT per capita (total annual emissions of 102,182 MT).

At 4.02 MT per capita, transportation emissions are below the threshold in effect at the time of the NOP, but exceed the threshold published in April 2011. In an additional effort to reduce these emissions, the GHG Plan calculates a credit for planting trees (related to sequestration and to cooling and shading effects) found in Table 22 of the CAPCOA document. The calculated offset is relatively small, amounting to a 0.02 MT reduction per capita (531 MT annually). Applied to the transportation sector emissions, this credit further reduces emissions to 4.00 MT per capita, which remains above the April 2011 threshold. A summary of Project emissions is included in Table CC-15 and a

comparison of Project emissions to regional and state-wide emissions is included in Table CC-16.

Table CC-15: Summary of Mitigated Project Emissions

Sector	BAU MT/Capita	BAU Total Annual MT	Project MT/Capita	Project Total Annual MT
Residential Energy	1.50	38,018	1.18	30,100
Commercial/Industrial Energy	0.68	17,187	0.62	15,634
Transportation	8.01	203,551	4.00*	101,651*
<i>All Sectors</i>	<i>10.18</i>	<i>258,756</i>	<i>5.80</i>	<i>147,386</i>
*reflects the 531 MT tree credit				

Table CC-16: Relative CO₂ Emissions (in CO₂ Equivalents)

Source	CO ₂	% of State - 2004	% of State - 1990	% of Entire County	% of Unincorporated County
Project	0.15 MMT/yr	2.9 <u>0.04</u> %	4.3 <u>0.04</u> %	0.04 <u>1.3</u> %	0.04 <u>2.9</u> %
Unincorporated County	5.2 MMT/yr	1.2%	1.3%	43%	
Entire County	12 MMT/yr	2.8%	3.1%		
State – 1990	389 MMT/yr				
State – 2004	427 MMT/yr				

MMT: Million Metric Tons

Though the Project incorporates an array of emissions-reducing features, resulting in Project emissions that are less than half of the BAU emissions, the Project still exceeds the April 2011 thresholds. The source of these emissions is the transportation sector. After thorough analysis and review it was concluded that the Project includes all reasonable and feasible design features which could reduce these emissions, including a robust pedestrian and bicycle network and a community transit system. Ultimately, the transportation sector emissions are not the result of improper or poor design, but due to the Project location. The number and length of trips have been reduced through Project design, but those trips which remain are long.

The applicant has stated that the standard traffic model (Sacramento Regional Travel Demand Model, or SACMET) cannot adequately account for the effects of mixed use and other Project features, because it is a gross-scale model. The argument has also been made that the typical paradigm of most worker trips traveling to downtown Sacramento is shifting, and that many trips will remain within the Project or go to the

much closer job center of Rancho Cordova. There is some merit to these arguments – in particular, the issue with SACMET.

The model aggregates uses in order to build the travel demand scenario. As an example, a retail supercenter (one that includes both retail and groceries) will be treated as simply retail by the model. Thus, the grocery component, even though it could substantially alter travel behavior, would be lost in the SACMET model. Though these are known and acknowledged modeling limitations, it is not clear whether a more refined modeling tool would result in higher or lower Project VMT. It should not be assumed that more precise modeling would demonstrate lower Project impacts. The Project is below all of the thresholds in effect at the time of the NOP, but transportation emissions remain above the April 2011 significance thresholds.

The Project has included all reasonable and feasible measures to reduce impacts. These measures are required to ensure that the Cordova Hills project does not make it difficult for the County and the State to meet reduction targets. A mitigation measure imposing these measures is not required, because they are design features already embedded in the SPA; however, it is possible that a future project could include an SPA amendment that would change some of these critical design features. Mitigation is included requiring that all SPA amendments include an analysis demonstrating that the change to the SPA will not result in an increase in greenhouse gas emissions above 5.80 metric tons per capita. This will ensure that as the master plan builds out, it will remain consistent with this analysis.

In concert with state and federal activities, the design features of the SPA are intended to offset the Project climate change impact. Ideally, this mitigation would reduce the Project emissions and climate change impacts to levels that are not cumulatively significant, but there are many unknown variables and implementation challenges. Refinements to the County baseline modeling has already resulted in a change to the significance thresholds – a change which takes the Project from a conclusion of less than significant to a conclusion of significant. Furthermore, it is possible that the 15% emissions reduction estimated by the state will be revised upward. Aside from changes to the targets, the quantification of Project emissions has used the best available evidence, but there is a lack of research on the accuracy of such modeling compared to the actual emissions which result from the constructed master planning area. Given the substantial emissions which will result from the Project and the uncertainties related to target-setting and the current state of modeling this analysis concludes that Project impacts may remain significant. For these reasons, even though the Project has included a range of feasible design features which reduce emissions below the thresholds in effect at the time of the NOP, it is concluded that impacts are *significant and unavoidable*.

MITIGATION MEASURES

CC-1. The following text shall be added to the Cordova Hills SPA: All amendments to the SPA **with the potential to change SPA-wide GHG emissions** shall include an analysis which quantifies, to the extent practicable, the effect of the

Amendment on **SPA-wide** greenhouse gas emissions. The Amendment shall not increase **SPA-wide** greenhouse gas emissions above an average 5.80 metric tons per capita (including emissions from building energy usage and vehicles). **If the SPA amendment would require a change in the approved GHG Reduction Plan in order to meet the 5.80 MT CO₂e threshold, then the proponent of the SPA amendment shall consult with the Sacramento County Environmental Coordinator on the revised analysis and shall prepare a revised GHG Reduction Plan for approval by the County, who will coordinate with SMAQMD.**

IMPACT: CLIMATE CHANGE EFFECTS ON THE PROJECT

Global climate change is a complex phenomenon that is influenced by many environmental factors. There are also many different climate or hydrologic modeling tools available, each with strengths and weaknesses. While changes to the existing climate landscape can be demonstrated by looking at the historic record, it becomes challenging to predict future trends. The process must be simplified to some extent. Climatologists and others who model climate change must make certain assumptions, such as establishing a fixed rate of temperature change, in order to proceed with modeling. Therefore, scientists involved in these modeling efforts do not try to be absolutely predictive, but instead use different model types with different sets of assumptions to capture a range of possible scenarios. It is also necessary to update the model with the latest available data on a regular basis in order to sync the models with current conditions. There is no single, certain prediction related to the probability of environmental effects. Scenarios are rated as being very likely if many different models come up with very similar results, and as uncertain if many different models report very different results. The sections below rely on information from several different published sources and provide a qualitative analysis of potential impacts as they affect North America, California, Sacramento County, and the project area.

TEMPERATURE

Significant increases in the frequency, intensity, and duration of summertime extreme heat days, defined as the 10% warmest days of summer, are projected due to climate change (Miller et. al., 2007). Temperature change is the driver for climate change, impacting environmental processes that will in turn impact human life. There is strong agreement that many of the most damaging effects of climate change will begin to occur after temperatures increase beyond 2 degrees Celsius into the 3 or 4 degree range. The IPCC Working Group III report determined that reductions of 50 to 80% would be needed by 2050 in order to stabilize temperature rise at no more than 2 degrees Celsius (IPCC, 2007c). The limits set forth in Executive Order S-3-05 and in AB 32 mirror this research.

For California as a whole, the total number of days of extreme heat is projected to *double* relative to historical mean of 12 days per summer, to an average of 23 – 24 days per summer by 2034. By 2064, this is projected to increase to 27 – 39 days. Aside

from this global research, various research papers and technical studies have been produced that look specifically at impacts in California. One of these is a white paper titled “Climate Scenarios for California”, sponsored by the California Energy Commission, which used many of the same assumptions and scenarios as the IPCC reports, but scaled the modeling down to the California level. This paper postulates that the average temperature change from the 1961 – 1990 period to the 2070 – 2099 future will be more marked during the summer months than during the winter months (Cayan et. al., 2006a).

Higher temperatures would have direct effects on the health of many organisms, including humans. It is probable that rising temperatures will cause an increase in the number of humans who die or become ill due to heat waves, may change the range (geographically or seasonally) of various infectious disease vectors (such as mosquitoes), and increase cardio-respiratory disease prevalence and mortality associated with ground-level ozone (IPCC, 2007b). Many individual plants may also die or become damaged during heat waves, as even if there is ample water in the soil, water loss through the leaves will outpace the ability of the plant to draw water from the soil. Warmer winters would bring some benefits to some parts of California, where cold-related deaths and illnesses during the wintertime would be reduced. (Cayan et. al., 2006a) However, the greater Sacramento area does not typically experience extreme cold under current conditions, and in any case the stated negative effects would be expected to outweigh this positive effect.

The most severe human health impacts typically occur to people in distressed circumstances, who do not have access to a cooler home environment. The Project does not include any design features which would expose residents or visitors to any unique risk related to future increases in average temperature. All homes within the Project will be built to modern building codes, which require efficient cooling systems, double-paned windows, and insulation, all of which help to maintain tolerable indoor temperatures. In the exterior environment, the SPA includes a requirement for shade trees distributed throughout the public pathways and building areas. The Project also integrates greenspaces throughout the Project, which can help to reduce the urban heat island effect. These represent feasible and reasonable adaptive measures, which are already incorporated into the Project through the SPA or through California building standards.

WATER SUPPLY AND FLOODING

Although current forecasts vary, the effects of global climate change on precipitation and temperature regimes in California could lead to significant challenges in securing an adequate water supply for a growing population and California’s agricultural industry. An increase in precipitation falling as rain rather than snow could also lead to increased potential for floods because water that would normally be held in the Sierra Nevada until spring could flow into the Central Valley concurrently with winter storm events. This scenario would place more pressure on California’s levee/flood control system. California also relies heavily on gradual snowmelt from the Sierra Nevada to supply water.

According to the Intergovernmental Panel on Climate Change (IPCC) 2007 report, the annual mean warming in North America is likely to exceed the global mean warming in most areas and snow season length and snow depth are very likely to decrease in most of North America (IPCC, 2007a). These trends have already been observed, as the snow pack in the Sierra Nevada and the Cascade Range has been declining over the last few decades of record, and the average temperature in California has increased one degree Fahrenheit over the past 50 years (Cayan et.al., 2006a). Although these general statements are made, it is recognized that although there is high model agreement on warming trends the agreement among precipitation and hydrologic trend models is not nearly so strong.

The Climate Scenarios for California white paper modeled changes in Snow Water Equivalent as of April 1, when the snow season begins to taper off. Snow Water Equivalent is the amount of water contained within the snowpack. It can be thought of as the depth of water that would theoretically result if you melted the entire snowpack instantaneously. The analysis results differ widely depending on which model and emissions scenario is used. As compared to the 1961 – 1990 period of record, the net change in Snow Water Equivalent ranges from +6% to -29% (for the 2005 – 2034 period), from -12% to -42% (for 2035 – 2064), and from -32% to -79% (for the 2070 – 2099 period). These results highlight the lack of agreement found amongst hydrologic models. The ranges of projected change vary widely, and in the near-term some modeling even predicts an *increase* in Snow Water Equivalent. However, in the long-term all of the models do agree that Snow Water Equivalent will be reduced, even though further refinement of the modeling will need to be completed to narrow down the range of reductions. (Cayan et. al., 2006a)

The modeling results indicate that snow losses have greatest impact in relatively warm low-middle and middle elevations between about 3280 feet and 6560 feet (losses of 60% to 93%) and between about 6560 feet and 9840 feet (losses of 25% to 79%). The central and northern portions of the Sierra Nevada contain large portions of this low-middle and middle elevations, and are subject to the heaviest reductions in snow accumulation. (Cayan et. al., 2006a).

The effect of climate change on future demand of water supply remains uncertain (DWR 2006), but changes in water supply are expected. The California Department of Water Resources (DWR) has sponsored or published a number of papers on the interaction between climate change and water supply, and has included a Climate Change Portal on the DWR website (www.climatechange.water.ca.gov). Climate change is also addressed in the 2009 California Water Plan update (public review draft of Volumes 1, 2, and 3 released January 2009). Adaptation is the primary thrust of the strategies outlined in the public review draft, with a focus on reducing water demand, improvements in operational efficiency, and increasing water supply.

The American River and many other major and minor rivers within the County are largely fed by snowmelt within the low-middle and middle elevation range that is expected to suffer the greatest reductions in snowpack. It can be concluded that Sacramento County will see a significant reduction in snowmelt-driven water supply by

the end of this century. In the shorter term, it is less clear whether there will be a significant reduction in snowpack. Modeling results indicate that snowpack may either increase by 6% or decrease by as much as 29% by the year 2034. Given this uncertainty, it would be speculative to attempt to provide a quantified analysis of the effects of climate change on current water sources within Sacramento County.

None of the floodplains affecting the Project site are influenced by snowmelt, because the watersheds on the site are not connected to the Sierra Nevada. Local precipitation patterns will determine whether climate change noticeably impacts the onsite floodplains. In addition, all of the onsite waterways are relatively narrow and steep features which do not contain water year-round; water passes swiftly through these features, and so the floodplains are likewise narrowly confined along the drainages. Because the waterways do not retain water for very long, the surface water elevation does not tend to build cumulatively over a series of storms. The floodplains associated with the on-site drainages are only likely to be affected by an increase in the intensity of individual precipitation events. Those drainages that will remain after the Project is completed will be located within relatively large open space environments, giving the drainages ample room to increase the floodplain edges without infringing on development. Regarding Carson Creek, which is a perennial stream that could be affected by cumulative buildup of water surface elevations, the Project is at a much higher elevation than either the floodplain or the land to the east of the creek. Any floodplain expansion would largely occur away from Project uses.

Project water will be supplied by the Sacramento County Water Agency (SCWA) Zone 40, which is a conjunctive use water system. SCWA has taken climate change into account in its water supply planning, having assumed that surface water supplies could diminish by 25% (according to the Programmatic Water Supply Assessment prepared for the Sacramento County Draft 2030 General Plan Update). In addition, the 2010 California Green Building Standards Code requires the installation of water-efficient fixtures in all new construction, including low-flow showerheads, faucets, and toilets. The SPA also indicates that many of the public landscaped areas within the Project will consist of drought-tolerant species fed by drip irrigation or similar low-water systems. Taken together, the requirements for water efficiencies and the planning for water reduction should ensure that the Project has adequate water supply in the long-term.

SURFACE WATER QUALITY

Water quality is affected by several variables, including the physical characteristics of the watershed, water temperature, and runoff rate and timing. A combination of a reduction in precipitation, and/or shifts in volume and timing of runoff flows, and the increased temperature in lakes and rivers could affect a number of natural processes that eliminate pollutants in water bodies. For example, although there may be more flood events, the overall stream flow decrease from a lack of summer snowpack could potentially concentrate pollutants and prevent the flushing of contaminants from point sources. The increased storm flows could tax urban water systems and cause greater flushing of pollutants to the Sacramento-San Joaquin Delta and coastal regions (Kiparsky and Gleick 2003). Still, considerable work remains to determine the potential

effect of global climate change to water quality. In any case, the Project includes low impact development designs, as discussed in the Hydrology and Water Quality chapter, which represent the feasible adaptive measures the Project can incorporate.

FISHERIES AND AQUATIC RESOURCES

The health of river ecosystems is highly dependent on water temperatures and stream flows. The IPCC Working Group II report recites a litany of temperature and flow effects on fisheries that have already been observed: the sea-run₃ salmon stocks are in steep decline throughout much of North America (Gallagher and Wood, 2003), Pacific salmon have been appearing in Arctic rivers (Babaluk et al., 2000), and salmonid species have been affected by warming in U.S. streams (O'Neal, 2002). It is probable that increases in average temperatures in the state will cause corresponding increases in water temperatures. Rates of fish-egg development and mortality increase with temperature rise within species-specific tolerance ranges (Kamler, 2002). Also, many fish species migrate into Sacramento County waterways during specific seasons to breed, and these fish rely on increased late-fall and early winter flows in order to complete the migration. If increased flows are delayed, possibly as a result of lessened groundwater recharge or shifts in the onset of the rainy season, this would be a barrier to migration. These potential effects could further endanger the sustainability of aquatic populations that are already listed through the Federal or California Endangered Species Acts, or could cause non-listed species to require listing under the Act.

The waterways on the Project site are not habitat for fish, though eventually the on-site waterways do connect to perennial streams. The Project already includes low impact development designs within the SPA, and also included a hydromodification analysis to ensure that the Project does not contribute substantially to the degradation of waterways. These measures represent the reasonable adaptive responses the Project can include so as not to exacerbate any deleterious effects on fisheries which result from climate change.

WILDLAND FIRE RISK

With climate change, the potential for wildland fires may change due to changes in fuel conditions (transitioning forests to chaparral/grasslands for example), precipitation (longer dry seasons, higher extreme temperatures), and wind (affecting potential spread), among other variables.

Westerling and Bryant (2006) estimated future statewide wildfire risk from a statistical model based on temperature, precipitation, and simulated hydrologic variables. These are conservative estimates because they do not include effects of extreme fire weather. Projections made for the probabilities of “large fires” – defined as fires that exceed an arbitrary threshold of 200 hectares (approximately 500 acres) – indicate that the risk of large wildfires statewide would rise almost 35% by mid-century and 55% by the end of the century under a medium-high emissions scenario, almost twice that expected under lower emissions scenarios. Estimates of increased damage costs from the increases in

fire season severity (Westerling and Bryant 2006) are on the order of 30% above current average annual damage costs.

A second study explored, through a case study in Amador and El Dorado Counties, the effects of projected climate change on fire behavior, fire suppression effort, and wildfire outcomes (California Climate Change Center 2006b). Climate and site-specific data were used in California Department of Forestry and Fire Protection (CDF) standard models to predict wildfire behavior attributes such as rate of spread and burning intensity. The study found an increase in the projected area burned (10% – 20%) and number of escaped fires (10% – 40%) by the end of century, under the drier climate scenarios. However, the less dry model showed little change.

The Project site is designated as a State Responsibility Area (SRA) by the California Department of Forestry and Fire Protection, and has been assigned the lowest fire hazard rating applied to SRAs. Fire hazard in the area could increase as a result of climate change, but it is also true that by the time these impacts occur much of the area within the Urban Services Boundary – that is, the areas north and south of the site, will have become urbanized, and will not be subject to wildland fire risks. The area to the east will remain wildland, and fire risks from this area may increase over time. The California Building Code already contains standards that would apply to the Project, because it is within an SRA, and these represent the reasonable and feasible measures to reduce wildland fire risk to the structures.

RAPID CLIMATE CHANGE

Most global climate models project that anthropogenic climate change will be a continuous and fairly gradual process through the end of this century (DWR 2006). California is expected to be able to adapt to the water supply challenges posed by climate change, even at some of the warmer and dryer projections for change. However, sudden and unexpected changes in climate could leave many of the agencies responsible for management of vulnerable sectors (water supply, levees, health, etc) unprepared, and in extreme situations would have significant implications for California and the health and safety of its denizens. For example, there is speculation that some of the recent droughts that occurred in California and the western United States could have been due, at least in part, to oscillating oceanic conditions resulting from climatic changes. The exact causes of these events are, however, unknown, and evidence suggests such events have occurred during at least the past 2000 years (DWR 2006). There are no adaptive responses available to the Project which would be feasible to include as part of the Project. It is unlikely that rapid climate change will occur, and if it did the effects are highly uncertain.

CONCLUSION

The effects of climatic changes on the Sacramento region are potentially significant, and can only be mitigated through both adaptation and reduction strategies.

Sacramento County is requiring that this Project, as well as other projects in the

County, mitigate for their emissions. Adaptation strategies related to climate change may involve new water supply reservoirs or other storage options, changes to dam release schedules, changes to medical and social service programs, and other broad-level actions. Most of these strategies are within the auspices of the State of California, not local government. This is recognized within the AB 32 Scoping Plan that has been adopted by the State, as well as publications by agencies such as the California Department of Water Resources. Therefore, by requiring mitigation of projects that may result in significant greenhouse gas emissions, and by adopting County programs and changes in government operations, the County is implementing all feasible strategies to reduce the effects of climate change on the region. Nonetheless, it is probable that these strategies will not be sufficient to offset all of the impacts of climate change, and that some of these impacts will be significant; despite the application of feasible strategies, impacts remain *significant and unavoidable*.

8 CULTURAL RESOURCES

INTRODUCTION

Under CEQA, lead agencies must consider the effects of their projects on historical resources. This chapter describes the potential impacts to cultural resources that could occur as a result of implementation of the proposed Cordova Hills Project. Cultural resources may include historic buildings and structures, historic districts, historic sites, culturally sacred sites, prehistoric and historic archaeological sites, and other prehistoric and historic objects and artifacts. The Cordova Hills Project area and vicinity is traversed by several creeks and/or tributaries, which were important resources during both prehistoric and historic time periods. The Project area also provides substantial upland areas overlooking creek resources, which according to known land use patterns, were optimal locations for settlement during the prehistoric and historic era. These factors indicate sensitivity for known and unknown cultural resources within the Cordova Hills Project area.

Overall, cultural resources that are known to exist and those that may be present in the Cordova Hills Project area could include the categories described in Table CR-1, identified pursuant to *California Code of Regulations, Title 14, Section 4852*. The following analysis provides an overview of known cultural resources within the Cordova Hills Project area and identifies any potential adverse impacts to them associated with the Project. Potential unknown resources are also addressed. The analysis also recommends mitigation measures to reduce impacts to cultural resources within the Project area. The following cultural resources surveys, testing programs and evaluations of resources for the Cordova Hills Project site were prepared by ECORP Consulting, Inc (ECORP) and submitted to DERA:

1. "Cultural Resources Survey Report: Cordova Hills, Sacramento County, California" January 2007
2. "Cultural Resources Survey Report: Solitu Property, Sacramento County, California" November 2007
3. "Cultural Resources Survey Report: Grant Line Mesa, Sacramento County, California" May 2008
4. "Test Program Results and Evaluation for Cultural Resources In the Conwy and Solitu Projects, Sacramento County, California" August 2008

This chapter is based on and contains portions of the above-listed cultural resources studies. Although the above reports were conducted in a segmented fashion, as properties were added to the Project area, the following analysis aggregates the above listed reports and provides a combined analysis to cultural resources impacts on the Cordova Hills Project area as a whole.

Table CR-1: Categories of Cultural Resources

Category	Description	Example
Building	Structures created principally to shelter or assist in carrying out any form of human activity. May also refer to a historically and functionally related unit (e.g., courthouse and jail).	Houses, barns, churches, factories, and hotels
Site	A site is the location of a significant event, a prehistoric or historic occupation or activity, or a building or structure, whether standing, ruined, or vanished, where the location itself possesses historical, cultural, or archeological value regardless of the value of any existing building, structure, or object. A site need not be marked by physical remains if it is the location of a prehistoric event, and if no buildings, structures, or objects marked it at that time.	Trails, designed landscapes, battlefields, habitation sites, Native American ceremonial areas, petroglyphs, and pictographs
Structure	The term "structure" is used to describe a construction made for a functional purpose rather than creating human shelter.	Mines, bridges, and tunnels
Object	The term "object" is used to describe those constructions that are primarily artistic in nature or are relatively small in scale and simply constructed, as opposed to a building or a structure. Although it may be moveable by nature or design, an object is associated with a specific setting or environment. Objects should be in a setting appropriate to their significant historic use, role, or character. Objects that are relocated to a museum are not eligible for listing in the California Register.	Fountains, monuments, maritime resources, sculptures, and boundary markers
Historic District	Unified geographic entities which contain a concentration of historic buildings, structures, objects, or sites united historically, culturally, or architecturally. Historic districts are defined by precise geographic boundaries. Therefore, districts with unusual boundaries require a description of what lies immediately outside the area, in order to define the edge of the district and to explain the exclusion of adjoining areas.	---

CULTURAL RESOURCES SETTING

LOCATION

Cordova Hills is located in the eastern portion of unincorporated Sacramento County. The Project area is made up of portions of Sections 14, 13, 23, and 24 in Township 8 North, Range 7 East, and the western half of Section 18 in Township 8 North Range 8 East of the Mount Diablo Base and Meridian, USGS Buffalo Creek, CA, 7.5 minute quadrangle. The Project area is topographically diverse and includes large areas of flat fields and corresponding areas of hills and ridges with moderate to steep slopes. The Project area also includes many seasonal pools, small drainages, and creek tributaries (see the Biological Resources Chapter for specific information on wetland and creek features within the Project area). Additionally a segment of Carson Creek occurs just east of the Project area. The wetland resources along with the flora and fauna present in the Project area paired with the range of local relief present, makes the Project area attractive and conducive to settlement by people in both the prehistoric and historic era.

REGIONAL PREHISTORY CONTEXT

PRE-ARCHAIC PERIOD (10,000-8,500 B.C.)

The earliest occupants of California were generally believed to be reliant for their subsistence on the hunting of big game – the Pleistocene megafauna such as mammoths and giant sloths -- a strategy that kept them constantly on the move. Although tools for grinding are occasionally found on sites dating to this period, archaeological evidence indicates that the gathering of plant material may have been only a small part of their subsistence strategy. Evidence for this wide-ranging, highly nomadic occupation has been found all over the West, from sites at what are today deserts, but were then inland lakes with resource-rich marshlands, to the vast expanses of the great Plains, to the high elevations of the Rocky mountains. Few sites from this period have been found in California, suggesting a small, widely dispersed population. A dearth of sites at higher elevations is probably due to climate. The final Ice Age of the Pleistocene (1.8 million to about 10,000 years ago) was just ending, glaciers still existed in the Sierra Nevada, and conditions in general were much cooler and wetter than today, making the mountains an inhospitable habitat for humans. Most of the sites dating to this period have been found in the vicinity of, or on, the ancient shorelines of the large pluvial lakes that were common during this time (Chartkoff and Chartkoff 1984).

EARLY TO MIDDLE ARCHAIC PERIOD (8,500-4,000 B.C.)

With the end of the Pleistocene, the climate began a warming and drying trend that lasted for several thousand years. The great inland lakes that had covered large areas

of the Great Basin began to dry up, and the megafauna – the mainstay of the Pre-Archaic Period subsistence – suffered mass extinction. People adapted to these changes by shifting their foraging emphasis away from hunting and increasing their use of plant resources, as evidenced by a marked increase in the presence of plant processing tools on archaeological sites dated to this time period. More manos and metates suggest that people had begun to rely on grinding hard seeds and grains for food. This, combined with a greater reliance on local tool stone sources suggests that groups largely abandoned the wide-ranging nomadism of the Pre-Archaic and began to concentrate their foraging efforts on smaller territories using a seasonal round, scheduled to coincide with the appearance of various resources as they became available. Though the lakes were shrinking, use of their many resources became an integral part of Early to Middle archaic subsistence strategies. It is also during this time period that people began a more intensive use of the coastal regions, taking advantage of the rich marine resources found there (Chartkoff and Chartkoff 1984).

LATE ARCHAIC PERIOD (4,000-2,000 B.C.)

Another major change in subsistence came in the Late Archaic Period with the discovery of a method to remove the tannins from acorns, allowing this nearly ubiquitous nut to become a staple food for the indigenous people of California. In addition to providing a rich and essentially inexhaustible source of nutrition, it allowed people to gather and store large surpluses of food to last through lean seasons. With this came an increase in group size and population densities. Sedentarism increased, and sophisticated cultures developed comparable to those found in farming areas in other parts of North America. It has been suggested that agriculture never took root in the Pacific region because the richness of the natural environment provided all that the people needed to survive. Trade also increased during this period, bringing in goods – and, presumably, ideas – from afar. The atlatl, or spear-thrower, is an example of technology that was most likely imported from another region. Hunting a variety of large and small game, fishing, and gathering numerous types of wild plants remained important elements of overall subsistence strategies (Chartkoff and Chartkoff 1984).

EARLY AND MIDDLE PACIFIC PERIODS (2,000 B.C.-A.D. 500)

By 2,000 B.C., acorn meal had become the most important food for California Indians, much as corn was for people elsewhere. An increase in the number of archaeological sites dating to this period suggests an increase in population that was probably the result of this reliable and widely available food resource. People moved into environmental zones that had previously been used only marginally, such as the middle and high sierras. In addition, societies began to become more complex, socially and politically (Chartkoff and Chartkoff 1984).

LATE PACIFIC PERIOD (A.D. 500-1400)

With the introduction of the bow and arrow in the Late Pacific Period, prehistoric weapons technology in California took a giant leap forward. Lighter, more accurate, and with a significantly longer range, the bow and arrow changed hunting and warfare

forever. Another major shift in technology at this time is the movement away from portable manos and metates and the increased use of bedrock mortars and milling stations (Moratto 1984). The increasing complexity of societies witnessed at the end of the Middle Pacific Period continues to be seen in archaeological sites dating to this period, as does the widening of trade networks, development of food storage and redistribution systems, the increasing intricacy of ceremonial and funerary patterns, and more marked territoriality. In addition, increased amounts and types of fishing equipment and fish and shellfish remains indicate greater use of riverine resources (Chartkoff and Chartkoff 1984).

FINAL PACIFIC PERIOD (A.D. 1400-1769)

Sedentism intensified during this period, with people becoming ever more reliant on resources, such as acorns and seeds, obtained within their territory and supplemented by resources obtained through trade and exchange. Societies, along with economies and political systems, continued to become more complex. During this period, visits from Europeans began, culminating with the establishment of Spanish mission and presidios along the coast in A.D. 1769 (Chartkoff and Chartkoff 1984).

LOCAL PREHISTORY CONTEXT

The earliest evidence of the prehistoric inhabitants of the region surrounding the Project area comes from a single, deeply buried site in the bank of Arcade Creek, north of Sacramento, containing grinding tools and large, stemmed projectile points. The points and grinding implements suggest an occupation date of some time between 6,000 and 3,000 B.C. (Wallace 1978). However, it was not until after about 3,500 B.C., in the late Archaic Period, that people began to move into the San Joaquin and Sacramento Valleys in any significant numbers (Chartkoff and Chartkoff 1984). This earliest permanent settlement of the Delta region of the Sacramento River is called the Windmill Tradition and is known primarily from burial sites containing relatively elaborate grave goods (Chartkoff and Chartkoff 1984, Ragir 1972, Wallace 1978). The Windmill Tradition reflects the amplification of cultural trends begun in the Middle Archaic, as seen in the proliferation of finished artifacts such as projectile points, shell beads and pendants, and highly polished charmstones. Stone mortars and pestles, milling stones, bone tools such as fishhooks, awls, and pins, are also present. It is probable that people during this time subsisted on deer and other game, salmon, and hard seeds. They also were apparently the first Californians to discover the process for leaching the tannins out of acorns thus making them edible by humans (Chartkoff and Chartkoff 1984). Based on linguistic evidence, it has been suggested that the Windmill culture was ancestral to several historic tribes in the Central Valley, including the Penutian-speaking Nisenan (Chartkoff and Chartkoff 1984, Elsasser 1978). The Windmill Tradition lasted until about 1000 B.C. (Chartkoff and Chartkoff 1984).

Around 1000 B.C., subsistence strategies in the Delta region became noticeably more “focal,” with a clear increase in the reliance on acorns and salmon (Chartkoff and Chartkoff 1984, Elsasser 1978). Culturally, this has been dubbed the Cosumnes Tradition (1700 B.C. to A.D. 500), and appears to be an outgrowth of the Windmill

Tradition (Ragir 1972). People in this time continued to occupy knolls or similar high spots above the floodplain of the Sacramento River and the terraces of tributaries such as the Cosumnes and American Rivers, flowing out of the foothills of the Sierra Nevada mountains located to the east. Populations increased and villages became more numerous than before, with more milling tools and specialized equipment for hunting and fishing. Trade appears to have increased, with burials containing larger amounts of seashell and obsidian. Burial styles, too, became more varied, with the addition of flexed internments along with the extended ones of the Windmill period. Projectile points found embedded in bones of excavated skeletons suggest that warfare was on the rise, possibly as a result of increased competition over available resources and trade (Beardsley 1954, Lillard et al. 1939, Ragir 1972).

The next and final, discrete prehistoric culture is the Hotchkiss Tradition (A.D. 500 to 1769) that persisted until the arrival of European settlers in central California (Beardsley 1954, Ragir 1972). During this period, use of acorns and salmon reached its peak, along with hunting of deer. Diet was supplemented with the addition of waterfowl, hard seeds, and other resources. Large sedentary villages along the lower Sacramento and San Joaquin Rivers, and their tributaries and delta were common. The size and density of these settlements suggest a further increase in population from Cosumnes times. Trade goods were plentiful, and burials exhibit a marked stratification of society with wide differences in the amount and variety of grave goods. Cremation of the dead appears, along with the flexed inhumations of the previous period (Chartkoff and Chartkoff 1984, Ragir 1972). While ornamental or ritual artifacts, such as large, fragile projectile points and trimmed bird bone increase during this period, milling tools are rare or absent. Shell beads are found in large numbers, and there are numerous utilitarian artifacts of bones such as awls, needles, and barbed harpoon points. Polished charmstones are rare during this time, but ground stone pipes become more abundant. In addition, fired and unfired clay objects begin to appear (Chartkoff and Chartkoff 1984).

ETHNOGRAPHIC CONTEXT

Ethnography is the written record of a culture. Archaeology can be combined with ethnography to identify groups more specifically. Ethnographic records (from missions and other documents) show that the groups that inhabited Sacramento County are the Nisenan, or Southern Maidu, and the Plains Miwok, a subgroup of the Eastern Miwok. The Plains Miwok traditional territory included the lower reaches of the Cosumnes and Mokelumne Rivers and extended west to the Sacramento River from Rio Vista north to Freeport (Levy 1978). Ethnographers generally agree that Nisenan territory included the drainages of the Bear, American, Yuba, and southern Feather Rivers and extended from the Sacramento River east to the crest of the Sierra Nevada (Beals 1933, Faye 1923, Gifford 1927, Kroeber 1925, Powers 1976, Wilson and Towne 1978). Thus, the proposed Project is located within the territory commonly attributed to the ethnographic Nisenan.

NISENAN

As shown, ethnographically, the Project area is in the southwestern portion of the territory occupied by the Penutian-speaking Nisenan. As a language, Nisenan (meaning “from among us” or “of our side”) has three main dialects – Northern Hill, Southern Hill, and Valley Nisenan, with three or four subdialects (Kroeber 1976, Shipley 1978, Wilson and Towne, 1978). The Valley Nisenan lived along the Sacramento River, primarily in large villages with populations of several hundred each. Between there and the foothills, the grassy plains were largely unsettled, used mainly as a foraging ground by both valley and hill groups. Individual and extended families “owned” hunting and gathering grounds, and trespassing was discouraged (Kroeber 1976, Wilson and Towne 1978). Residence was generally patrilocal, but couples actually had a choice in the matter (Wilson and Towne 1978).

Politically, the Nisenan were divided into “triblets”, made up of a primary village and a series of outlying hamlets, presided over by a more-or-less hereditary chief (Kroeber 1976, Wilson and Towne 1978). Villages typically included family dwellings, acorn granaries, a sweathouse, and a dance house, owned by the chief. The chief had little authority to act on his own or her own, but with the support of the shaman and the elders, the word of the chief became virtually the law (Wilson and Towne 1978).

Subsistence activities centered on the gathering of acorns (tan bark oak and black oak were preferred), seeds, and other plant resources, the hunting of animals such as deer and rabbits, and fishing. Large predators, such as mountain lions and wildcats were hunted for their meat and skins, and bears were hunted ceremonially. Although acorns were the staple of the Nisenan diet, they also harvested roots like wild onion and “Indian potato”, which were eaten raw, steamed, baked, or dried and processed into flour cakes to be stored for winter use (Wilson and Towne 1978). Wild garlic was used as soap/shampoo, and wild carrots were used medicinally (Littlejohn 1928). Seeds from grasses were parched, steam dried, or ground and made into a mush. Berries were collected, as were other native fruits and nuts. Game was prepared by roasting, baking, or drying. In addition, salt was obtained from a spring near modern-day Rocklin (Wilson and Towne 1978).

Hunting of deer often took the form of communal drives, involving several villages, with killing done by the best marksmen from each village. Snares, deadfalls, and decoys were used as well. Fish were caught by a variety of methods including use of hooks, harpoons, nets, weirs, traps, poisoning, and by hand (Wilson and Towne 1978).

Trade was important with goods traveling from the coast and valleys up into the Sierra Nevada mountains and beyond to the east, and vice versa. Coastal items like shell beads, salmon, salt, and digger pine nuts were traded for resources from the mountains and farther inland, such as bows and arrows, deer skins, and sugar pine nuts. In addition, obsidian was imported from the north (Wilson and Towne 1978).

The Spanish arrived on the central California coast in 1769 and by 1776 the Miwok territory bordering the Nisenan on the south had been explored by Jose Canizares. In 1808, Gabriel Moraga crossed Nisenan territory, and in 1813, a major battle was fought

between the Miwok and the Spaniards near the mouth of the Cosumnes River. Though the Nisenan appear to have escaped being removed to missions by the Spanish, they were not spared the ravages of European diseases. In 1833, an epidemic – probably malaria – raged through the Sacramento valley, killing an estimated 75 percent of the native population. When John Sutter erected his fort at the future site of Sacramento in 1839, he had no problem getting the few Nisenan survivors to settle nearby. The discovery of gold in 1848 at Sutter's Mill, near the Nisenan village of Colluma (now Coloma) on the south fork of the American River, drew thousands of miners to the area, and led to widespread killing and the virtual destruction of traditional Nisenan culture. By the Great Depression, no Nisenan remained who could remember the days before the arrival of the Euro-Americans (Wilson and Towne 1978).

HISTORICAL CONTEXT

Although the Spanish had made forays into the Central Valley since about 1769, it was not until 1808 that captain Gabriel Moraga explored and named the Sacramento area (Lawson 2002). The Spanish took little interest in the areas and did not establish any missions or settlements in the Central Valley. California became part of Mexico in 1821 when Mexico achieved its independence from Spain. In 1827, American trapper Jedediah Smith traveled along the Sacramento River and into the San Joaquin Valley to meet other trappers of his company who were camped there, but no permanent settlements were established by the fur trappers (Thompson & West 1880).

John Sutter, a European immigrant, built a fort at the confluence of the Sacramento and American Rivers in 1839 and petitioned the Mexican governor of Alta (upper) California for a land grant which he received in 1841. Sutter built a flour mill and grew wheat near the fort (Bidwell 1971). Gold was discovered in the flume of Sutter's lumber mill at Coloma on the south Fork of the American River in January 1848 (Marshall 1971). The town of Sacramento was laid out in the fall of 1848 and developed as a supply center for gold miners (Gudde 1969). Alta California was ceded to the United States by Mexico as a result of the Treaty of Guadalupe Hidalgo in 1848. California became a state in 1850 as a result of the major increase in population that resulted from the gold rush of 1849 (Old Sacramento Foundation, Inc. 2001, Lawson 2002).

The Project site is roughly two miles southeast of the Rancho Rio de los Americanos and is adjacent to the Omuchumnes land grant to the south. The Omuchumnes land grant was issued by the Mexican governor of Alta California to Jared (Joaquin) Sheldon in 1844 (Avina 1976). Sheldon built a hotel, stage stop, and grist mill at Sloughhouse on Deer Creek on his land grant in 1850. Sheldon was killed in a dispute with miners in 1851 (Roots Web 2007). The Rio de los Americanos land consisted of about 35,000 acres south of the American River and was issued by the Mexican governor of Alta California to William Leidesdorff in 1844 (Avina 1976). Leidesdorff was a San Francisco merchant who died in 1848. Joseph L. Folsom, a former U.S. Army captain who came to San Francisco during the gold rush, purchased the Rio de los Americanos land grant from Leidesdorff's estate. Folsom founded the town of Granite City on the land grant. It was renamed Folsom after his death in 1855 (Historic Folsom 2006). The Sacramento Valley Railroad (SVR) was completed from Sacramento to Folsom in 1856 (FEDSHRA

2007). It facilitated shipment of goods from Sacramento to the mining areas to the east. The SVR was acquired by the Southern Pacific Railroad which extended the line to Placerville in 1866 (Peal & Associates 1992). From the mid 1800s to the mid 1900s, the area surrounding the Project was used primarily for grazing and mining. Dredge mining by the Natomas Company occurred on about 5,100 acres a few miles north of the Project area in the first half of the 20th century. In the early 1950s the mined land was sold off in pieces to Aerojet General Corporation, a company which produced and tested missile and rocket engines. Aerojet quickly acquired over 18,000 acres of land north and west of the Project (Lindstrom & Wells 1989).

CULTURAL RESOURCES REGULATORY SETTING

FEDERAL REGULATIONS

Cultural resources are considered during federal undertakings chiefly under Section 106 of the National Historic Preservation Act (NHPA) of 1966 (as amended) through one of its implementing regulations, 36 CFR 800 (Protection of Historic Properties), as well as the National Environmental Policy Act (NEPA). Properties of traditional religious and cultural importance to Native Americans are considered under Section 101(d)(6)(A) of NHPA. Other federal laws pertinent to cultural resources include the Archaeological Data Preservation Act of 1974, the American Indian Religious Freedom Act (AIRFA) of 1978, the Archaeological Resources Protection Act (ARPA) of 1979, the Native American Graves Protection and Repatriation Act (NAGPRA) of 1989, among others. Below is a more detailed description of applicable federal regulations.

ANTIQUITIES ACT

The federal Antiquities Act of 1906 was created with the intent to protect cultural resources in the United States. The Act prohibits appropriation, excavation, injury, and destruction of “any historic or prehistoric ruin or monument, or any object of antiquity” located on lands owned or controlled by the federal government, without permission of the secretary of the federal department with jurisdiction. Accordingly, the Act provided early framework to protect cultural resources within the United States.

NATIONAL ENVIRONMENTAL POLICY ACT

NEPA requires that federal agencies assess whether federal actions would result in significant effects on the human environment. The Council on Environmental Quality’s (CEQ’s) NEPA regulations further stipulate that identification of significant effects should incorporate “the degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register for Historic Places or may cause loss or destruction of significant scientific, cultural, or historic resources” (40 CFR 1508.27[b][8]).

NATIONAL HISTORIC PRESERVATION ACT

Section 106 of NHPA (16 USC 470f) requires federal agencies to take into account the effects of their undertakings on any district, site, building, structure or object that is included in or eligible for inclusion in the NRHP and to afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment on such undertakings (36 CFR 800.1). Under Section 106, the significance of any adversely affected cultural resource is assessed and mitigation measures are proposed to reduce any impacts to an acceptable level. Significant cultural resources are those resources that are listed, or are eligible for listing, on the NRHP per the criteria listed at 36 CFR 60.4 (Advisory Council on Historic Preservation 2000) below.

The quality of *significance* in American history, architecture, archaeology, engineering and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling and association and that:

- a. Are associated with events that have made a significant contribution to the broad patterns of our history; or
- b. Are associated with the lives of persons significant in our past; or
- c. Embody the distinctive characteristics of a type, period, or method of installation, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- d. Have yielded, or may be likely to yield, information important in prehistory or history.

STATE OF CALIFORNIA REGULATIONS

CALIFORNIA ENVIRONMENTAL QUALITY ACT

CEQA requires a lead agency to determine whether a project may have a significant effect on historical resources. If it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts to be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that they cannot be left undisturbed, mitigation measures are required (Section 21083.2 (a), (b), and (c)). Section 21083.2(g) describes a *unique archaeological resource* as an archaeological artifact, object, or site about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- (1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.

- (2) Has a special and particular quality such as being the oldest of its type or the best available example of its type.
- (3) Is directly associated with a scientifically recognized important prehistoric or historic event or person.

A *historical resource* is a resource listed, or determined to be eligible for listing, in the California Register of Historical Resources (CRHR) (Section 21084.1); a resource included in a local register of historical resources (Section 15064.5(a)(2)); or any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant (Section 15064.5 (a)(3)). Sacramento County does not currently have a local register.

Public Resources Code (PRC) Section 5024.1, Section 15064.5 of the Guidelines, and Sections 21083.2 and 21084.1 of the Statutes of CEQA were used as the basic guidelines for the cultural resources study. PRC Section 5024.1 requires evaluation of historical resources to determine their eligibility for listing on the CRHR. The purpose of the register is to maintain listings of the State's historical resources and to indicate which properties are to be protected from substantial adverse change. The criteria for listing resources on the California Register were expressly developed to be in accordance with previously established criteria developed for listing on the National Register of Historic Places (NRHP).

NATIVE AMERICAN BURIALS AND ACCIDENTAL DISCOVERIES

California law protects Native American burials, skeletal remains and associated grave goods regardless of their antiquity and provides for the sensitive treatment and disposition of those remains (Section 7050.5 of the Health and Safety Code and Public Resources Code 5097.9).

When human remains are discovered, the protocol to be followed is specified in California Health and Safety Code, which states:

In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of Section 27492 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code.

State CEQA Guidelines Section 15064.5, subdivision (e), requires that excavation activities be stopped whenever human remains are uncovered and that the county coroner be called in to assess the remains. If the county coroner determines that the remains are those of Native Americans, the Native American Heritage Commission (NAHC) must be contacted within 24 hours. At that time, the lead agency must consult with the appropriate Native Americans, if any, as timely identified by the NAHC. Section 15064.5 directs the lead agency (or applicant), under certain circumstances, to develop an agreement with the Native Americans for the treatment and disposition of the remains.

In addition to the mitigation provisions pertaining to accidental discovery of human remains, the State CEQA Guidelines also require that a lead agency make provisions for the accidental discovery of historical or archaeological resources, generally. Pursuant to Section 15064.5, subdivision (f), these provisions should include “an immediate evaluation of the find by a qualified archaeologist. If the find is determined to be an historical or unique archaeological resource, contingency funding and a time allotment sufficient to allow for implementation of avoidance measures or appropriate mitigation should be available. Work could continue on other parts of the building site while historical or unique archaeological resource mitigation takes place.”

LOCAL REGULATIONS

2030 SACRAMENTO COUNTY GENERAL PLAN

The Sacramento County General Plan Conservation Element, states under Section VI, Cultural Resources, the following goal and six objectives:

Promote the inventory, protection and interpretation of the cultural heritage of Sacramento County, including historical and archaeological settings, sites, buildings, features, artifacts and/or areas of ethnic historical, religious or socio-economical importance.

1. Comprehensive knowledge of archeological and historic site locations.
2. Attention and care during project review and construction to ensure that cultural resource sites, either previously known or discovered on the project site, are properly protected with sensitivity to Native American values.
3. Structures with architectural or historical importance preserved to maintain contributing design elements.
4. Known cultural resources protected from vandalism unauthorized excavation, or accidental destruction.
5. Properly stored and classified artifacts for ongoing study.

6. Public awareness and appreciation of both visible and intangible historic and cultural resources.

To implement the primary goal and the objectives, the Conservation Element contains the following policies:

- CO-150. Utilize local, state and national resources, such as the NCIC, to assist in determining the need for a cultural resources survey during project review.
- CO-151. Projects involving an adoption or amendment of a General Plan or Specific Plan or the designation of open space shall be noticed to all appropriate Native American tribes in order to aid in the protection of traditional tribal cultural places.
- CO-153. Refer projects with identified archeological and cultural resources to the Cultural Resources Committee to determine significance of resource and recommend appropriate means of protection and mitigation. The Committee shall coordinate with the Native American Heritage Commission in developing recommendations.
- CO-154. Protection of significant prehistoric, ethnohistoric and historic sites within open space easements to ensure that these resources are preserved in situ for perpetuity.
- CO-155. Native American burial sites encountered during preapproved survey or during construction shall, whenever possible, remain in situ. Excavation and reburial shall occur when in situ preservation is not possible or when the archeological significance of the site merits excavation and recording procedure. On-site reinterment shall have priority. The project developer shall provide the burden of proof that off site reinterment is the only feasible alternative. Reinterment shall be the responsibility of local tribal representatives.
- CO-157. Monitor projects during construction to ensure crews follow proper reporting, safeguards, and procedures.
- CO-158. As a condition of approval of discretionary permits, a procedure shall be included to cover the potential discovery of archaeological resources during development or construction.
- CO-159. Request a Native American Statement as part of the environmental review process on development projects with identified cultural resources.
- CO-161. As a condition of approval for discretionary projects, require appropriate mitigation to reduce potential impacts where development could adversely affect paleontological resources.

- CO-162. Projects located within areas known to be sensitive for paleontological resources, should be monitored to ensure proper treatment of resources and to ensure crews follow proper reporting, safeguards and procedures.
- CO-163. Require that a certified geologist or paleoresources consultant determine appropriate protection measures when resources are discovered during the course of development and land altering activities.
- CO-166. Development surrounding areas of historic significance shall have compatible design in order to protect and enhance the historic quality of the areas.
- CO-169. Restrict the circulation of cultural resource location information to prevent potential site vandalism. This information is exempt from the "Freedom of Information Act".

DISCLOSURE OF CULTURAL RESOURCES INFORMATION

Public disclosure of site specific cultural resources information is expressly exempt from the California Public Records Act, Government Code Sections 6250-6270.

Furthermore, information obtained during Native American consultation or through consultation with the local and state agencies, including the North Central Information Center (NCIC), should remain confidential and is exempt from public disclosure under Senate Bill 922. Additionally Sacramento County staff has signed an "Agreement to Confidentiality" with the NCIC that states that site specific information will not be distributed or released to the public or unauthorized individuals. An authorized individual is a professional archaeologist or historian that qualifies under the Secretary of Interior's standards to view confidential cultural resources materials.

METHODOLOGY

Archival research, Native American consultation, and fieldwork were conducted to establish what cultural resources may be present within the Cordova Hills Project area and, furthermore, may be impacted as a result of implementation of the proposed Project.

PRE-FIELD RESEARCH

INFORMATION CENTER RECORD SEARCH

An extensive search of data maintained by the North Central Information Center (NCIC) of the California Historical Resources Information System (CSU-Sacramento) including State and federal listings of significant cultural resources and associated data bases was conducted by ECORP Consulting, Inc. on multiple occasions (as the Project

description was developed and changed) including June 2005, November 2006, and September 2007. Standard references and lists consulted include the following:

- National Register of Historic Places (United States Department of the Interior [USDI] 1979, and computerized updates);
- California Register of Historic Resources (California Department of Parks and Recreation [DPR] 1998, and computerized updates);
- California Historical Landmarks (California DPR 1996, and computerized updates);
- California Inventory of Historic Resources (California DPR 1976, obsolete);
- Historic Properties Directory (California DPR, and computerized updates);
- California Points of Historical Interest (California DPR 1992, computerized updates through September 2009);
- Archaeological Site Records;
- NCIC, California Historic Resource Information System historic resource records and maps;
- Historic GLO plat maps and historic USGS Buffalo Creek Quadrangle maps;
- Gold Districts of California (1979);
- California Gold Camps (1975);
- California Place Names (1969);
- Survey of Surveys (Historic and Architectural Resources) (1989);
- Caltrans Local Bridge Survey (1989);
- Caltrans State Bridge Survey (1987), and;
- Historic Spots in California (1990).

The record searches at the NCIC identified eight previous cultural resources studies that include portions of the Project area or directly adjacent to the Project area.

As a result of the previous surveys conducted in the area, seven cultural resources have been recorded within the search radius. Only one of the sites was noted as being located within the Project site. The previously recorded site consists of a prehistoric archaeological site. Investigation of historic maps also revealed the presence of two structures that were historically located within the Project area.

NATIVE AMERICAN CONSULTATION

A letter was sent to the Native American Heritage Commission (NAHC) requesting a check of the Sacred Lands File in January 2006 and September 2007. Both checks failed to reveal any properties listed as Sacred Lands. The NAHC did provide a list of

individuals and groups to contact regarding the property. ECORP sent correspondence to all the individuals listed by NAHC requesting any information they may have regarding cultural resources on the Project site in February 2006 and September 2007. This initial consultation occurred prior and during Phase I (pedestrian survey and archival research) of the cultural investigation. During Phase I, follow-up phone calls were also made to ensure each group or individual had adequate opportunity to comment on the proposed Project.

In 2007, ECORP received comments from Randy Yonemura, who advised that there are cultural resources in the area, especially near waterways. Mr. Yonemura requested an additional day to view the Project area maps. On October 8, 2007, at the request of Mr. Yonemura, ECORP conducted a Project area tour with him. He expressed his belief that the wetlands and vernal pools on site constitute cultural resources, although no tangible archaeological data are directly associated with them. He also stated that he would send a letter regarding this issue, but no letter or other form of documentation has been received. He asked for copies of historical maps of the vicinity, and those maps were mailed to Mr. Yonemura on October 9, 2007. Mr. Yonemura also requested further consultation, which should occur directly with the Section 106 (of the National Historic Preservation Act) Lead Agency.

When the Testing and Evaluation program for the recorded cultural resources began, ECORP contacted each of the individuals on the original NAHC correspondence again, by letter and telephone. The consultation occurred in May and June of 2008. The results of this consultation is summarized by ECORP, as follows:

On June 3, 2008, Billie Blue Elliston telephoned ECORP to request that monitors Leland Daniels and Kenneth Counsil be afforded the opportunity to conduct an on-site visit with the lead agency. Ms. Elliston was advised that this request would be related to the USACE via the evaluation report, and that the USACE would direct consultation with these individuals, in accordance with its revised 2007 Guidelines.

On June 5, 2008, the remaining Native American contacts were contacted by telephone to ensure receipt of the letter. Leland Daniels and Jeri Scrambler indicated that they would review the letter and call back if they had any questions or concerns. Glen Villa, Jr. said that he is no longer the contact for the area, and requested that we contact Billie Blue Elliston. John Tayaba of the Shingle Springs Band of Miwok Indians said that Randy Yonemura would be calling ECORP to discuss the Project. On June 13, 2008, Mr. Yonemura contacted ECORP with a request for another copy of the Project information. On June 16, 2008, ECORP mailed him a duplicate copy. No correspondence from Mr. Yonemura has been received as of the date of this report. Cosme Valdez asked that the letter be resent to him, and ECORP faxed it to him on June 5, 2008. Mr. Valdez called back to say he received the faxed letter and that he would like the bedrock mortar sites to be protected. Dwight Dutschke, Jessica Tavares, Ernest Faircloth, Mary Daniels-Tarango, Nicolas Fonseca, and Pamela Baumgartner could not be reached for comment.

FIELD ASSESSMENT

AREA OF POTENTIAL EFFECT

The Area of Potential Effect (APE) for the Project has been tentatively defined as the boundaries of the Cordova Hills Project site. An APE is the area in which a Project could have potential impacts to cultural resources and is the area in which a cultural resources analysis should be undertaken. The APE for Cordova Hills is subject to concurrence by the Federal Lead Agency that will undertake and comply with the provisions of Section 106 of the National Historic Preservation Act.

PEDESTRIAN SURVEY

An intensive pedestrian survey of the Project area was conducted utilizing the transect approach. The pedestrian surveys of the Project area occurred during December 2006, January 2007, September 2007, and October 2007. Transects were walked with 15-meter intervals between each transect. During the transects, the ground surface was carefully inspected for evidence of historical use such as fragments of ceramics, metal, and glass, and for indications of prehistoric use such as chipped stone artifacts and debitage, ground stone artifacts, bone fragments, and soil color changes. Exposures of subsurface soil produced by animal burrowing, cattle grazing, and human disturbance were carefully examined and, where visibility was restricted for a distance of 50 meters along a transect, vegetation was removed with a shovel to expose the surface area. The survey was conducted to the standards set by the Secretary of Interior (National Park Service 1990, 1983).

When prehistoric or historic-era resources were encountered, they were documented on State of California Department of Parks and Recreation (DPR) Series 523 Primary, Archaeological Site, and other DPR forms as necessary. Each site, feature, or isolated artifact was photographed and mapped as a point, line, or polygon as appropriate on appropriate USGS topographic quadrangle maps.

PEDESTRIAN SURVEY RESULTS

The pedestrian survey and prior research resulted in identification of 9 cultural resources in the Cordova Hills APE. The 8 resources consist of the following:

- 4 historic-era resources
- 1 prehistoric resource
- 1 multi-component (historic and prehistoric) site
- 3 isolated artifacts (2 historic and 1 prehistoric)

Recommendations from the pedestrian survey report were to evaluate all recorded resources for eligibility on the National Register of Historic Places, with the exception of

the isolated artifact finds. Isolates (usually three or less resources found together), by definition, lack immediate cultural context and therefore lack the data potential that would be required to be considered eligible for NRHP or CRHR inclusion.

In order to evaluate the recorded resources a subsurface test program and more elaborate historical archival research program was recommended to evaluate significance.

ARCHIVAL RESEARCH

As part of the investigation, additional archival research was conducted by ECORP. Additional sources consulted include:

- Bureau of Land Management, Sacramento
- California Geological Survey Library
- Sacramento Room of the Sacramento Public Library
- Sacramento Archives and Museum Collections
- Sacramento County Recorder's Office

This additional work allowed ECORP to determine property ownership data and associated historical background of each owner. This work was utilized to determine if sites could be associated with individuals or organizations that are important historical figures. Results of the archival research are incorporated into the result of the testing program and evaluation discussed below, to determine resource significance.

TESTING AND EVALUATION PROGRAM

Historic properties or archaeological remains identified within the APE were evaluated according to the criteria of the NRHP and the CRHR. This was accomplished by employing a testing and evaluation program for the resources recorded in the Project area.

During the test program phase an additional 2 historic era isolated artifacts were discovered, bringing the total resource count in the Project APE up to 11 resources. As noted previously, only the sites, not isolates, required additional research and evaluation because isolates lack enough cultural context and data potential to be considered significant resources. Therefore, the testing and evaluation program centered on the 4 historic era resources, 1 prehistoric resource, and 1 multi-component site discovered in the Project area.

For historic/architectural resources, the testing process includes assessment of the historic information available for the structure(s)/resource, recordation employing standard California State Department of Parks and Recreation 523 (DPR 523) forms

and photography to document the structure/resource and significant architectural details. For archaeological resources, test excavations were conducted to sample the site area. The purpose of the test excavations was to acquire data regarding the range of artifacts found in the site and to estimate the physical integrity of the site, including site stratigraphy and spatial organization.

TESTING AND EVALUATION PROGRAM RESULTS

PREHISTORIC RESOURCES

CA SAC-334

CA-SAC-334 was the previously recorded resource located within the Project area. The site consists of a bedrock mortar site. The following results of testing at the site are from ECORP (2008):

Seven STPs [Shovel Test Pits] were excavated within site CA-SAC-334. The STPs were placed around the edge of the outcrop, approximately two to three meters from the outcrop. The soil within all seven STPs can be described as an andesitic soil, or dry volcanic tuff. Depths to 50 and 40 cm below surface were achieved; however, STPs 2, 5, and 6 fell short due to shallow bedrock. All STPs were negative for cultural material. No artifacts were apparent on the surface and none of the previously recorded surface artifacts could be relocated.

As a result of the testing program and archival research, it appears that this site represents acorn processing efforts conducted at one of the only locations of exposed bedrock in the area. The fact that no subsurface or surface artifacts remain suggest that the use of the site was limited to acorn processing. Habitation sites, such as village or camp sites, are located elsewhere. . .

The following evaluation of the site is from ECORP (2008):

Archival information, which could be used to identify any association with any important persons or events in California or National history (CRHR 1, 2; NRHP Criteria A, B), does not exist in the historical record for prehistoric archaeological sites. In addition, bedrock mortars of this type are common features in the region, and are neither unique, nor do they represent the work of a master or possess high artistic values (CRHR Criterion 3; NRHP Criterion C). The lack of artifacts indicates that this site does not have the necessary cultural material with which to address research questions. Unless further information on the intangible significance of this site is revealed through Native American consultation, CA-SAC-334 is evaluated as not eligible under any criteria for the NRHP or the CRHR and is not a Historical Resource as defined by CEQA.

MULTI-COMPONENT RESOURCES

CA-SAC-1033/H

CA-SAC-1033/H is a multi-component site consisting of a bedrock mortar station and historic mining shafts and tailings.

The following results of testing at the site are from ECORP (2008):

Eight STPs were excavated within site CA-SAC-1033/H. Four STPs were excavated in the cardinal directions surrounding the bedrock mortar station. Four additional STPs were excavated in a north/south row along the length of the site.

Soil within the STPs consisted of a light tan volcanic tuff mixed with gravels and small rocks. Hardpan resulted in termination of the STPs at shallow depths. All STPs were negative for cultural material.

The property contain site CA-SAC-1033/H was originally granted to John Hagan in February of 1875. It is believed that Hagan sold the land to James Caples, who owned the land from 1900 to 1912. According to the Sacramento County Assessor's books, the Glide Brothers owned the parcel from 1912 to sometime between 1925 and 1930, when Lizzie H and Sadie Glide became owners of the property. Records show that Lizzie H. and Sadie Glide owned the property to at least 1939. Records of ownership of the land could not be obtained for the years between 1939 and 1969. Records of title change were found at the Sacramento County Assessor's Office, revealing that, in December of 1969, Guadagno PB sold the land to Title Insurance/trust company.

As a result of the testing program and archival research, it appears that the historic component of this site represents lode mining activities during prospecting efforts conducted in one of the only locations of exposed bedrock in the area. The lack of temporally diagnostics artifacts makes dating the historic component very difficult, and, therefore, the site cannot be firmly associated with one of the previous owners. The mine pits, the result of the lode mining activities, are not likely the remnants of Cheska Minka #2, a placer mine. Likewise, the relative lack of bedrock outcrops in the area provided an attractive location for prehistoric inhabitants to utilize the outcrop during processing. The fact that no subsurface or surface artifacts remain for either component suggest that the gold prospecting effort was relatively brief and unsuccessful, and that the prehistoric use was limited to acorn processing. Habitation sites, such as village or camp sites, are located elsewhere...

The following evaluation of the site is from ECORP (2008):

Prehistoric Component

Archival information, which could be used to identify any association with any important persons or events in California or National history (CRHR 1, 2; NRHP

Criteria A, B), does not exist in the historical record for prehistoric archaeological sites. In addition, bedrock mortars of this type are common features in the region, and are neither unique, nor do they represent the work of a master or possess high artistic values (CRHR Criterion 3; NRHP Criterion C). The lack of artifacts indicates that this site does not have the necessary cultural material with which to address research questions. Unless further information on the intangible significance of this site is revealed through Native American consultation, it is evaluated as not eligible under any criteria for the NRHP or the CRHR and is not a Historical Resource as defined by CEQA.

Historic Component

Archival research conducted for the site failed to reveal any association with any important persons or events in California or National history (CRHR 1, 2; NRHP Criteria A, B). In addition, mining sites of this type are neither unique, nor do they represent the work of a master or possess high artistic values (CRHR Criterion 3; NRHP Criterion C). The lack of historic artifacts indicates that this site does not have the necessary cultural material with which to address research questions. As a result, site CA-SAC-1033/H is evaluated as not eligible under any criteria for the NRHP or the CRHR and is not a Historical Resource as defined by CEQA.

HISTORIC-ERA RESOURCES

CA-SAC-1032-H

CA-SAC-1032-H consists of several shallow placer mining features. The following results of testing at the site are from ECORP (2008):

The test program originally called for the placement of six STPs in and around the surface boundaries of site CA-SAC-1032-h. The ground surface, however, was found to be impenetrable, even when shovels and picks were used. As a result, no STPs could be excavated. In addition, because no surface artifacts were observed on site, no data was collected.

In an effort to identify the individuals associated with the site, ECORP consulted property records on file at the Sacramento County assessor's office. The property containing site CA-SAC-1032-H was originally granted to John Hagan in February of 1875. It is believed that Hagan sold the land to James Caples, who owned the land from 1900 to 1912. According to the Sacramento County Assessor's books, the Glide Brothers owned the parcel from 1912 to sometime between 1925 and 1930, when Lizzie H and Sadie Glide became owners of the property. Records show that Lizzie H. and Sadie Glide owned the property to at least 1939. The Sacramento Assessor's Office records show that, in 1973, Sallie Glide Kendell was the owner, and she sold the property to Thornton Elsen Glide and Marion Glide Bunker. After 1973, the land had many changes in ownership.

As a result of the testing program and archival research, it appears that this site represents shallow placer mining activities during prospecting efforts conducted along the creek. The fact that subsurface or surface artifacts or other features remain suggest that this prospecting effort was unsuccessful, and the site represents only a brief period of use by miners. The miners may have been one of the previous property owners; however, a lack of temporally diagnostic artifacts makes dating the site difficult. The tailing piles loosely resemble those of shallow placer mining activities that were common in the 1850s and 1860s, which predates recorded ownership of the land.

The following evaluation of the site is from ECORP (2008):

Archival research conducted for this group of small mine tailings failed to reveal any association with any important persons or events in California or National history (CRHR 1, 2; NRHP Criteria A, B). In addition, mining tailings of this type are common features in the region, and is neither unique, nor do they represent the work of a master or possess high artistic values (CRHR Criterion 3; NRHP Criterion C). The lack of artifacts indicates that this site does not have the necessary cultural material with which to address research questions. As a result, site CA-SAC-1032-H is evaluated as not eligible under any criteria for the NRHP or the CRHR and is not a Historical Resource as defined by CEQA.

CA-SAC-1034-H

CA-SAC-1034-H consists of two loci: Locus 1 includes a concrete windmill foundation, the remaining pump shaft of the windmill and a concrete stem wall directly east of the windmill; Locus 2 includes a stem wall and concrete pad. The following results of testing at the site are from ECORP (2008):

Five trenches were excavated within site CA-SAC-1034-H. Trenches 1 and 2 were excavated north and south, parallel along the entire length of Features 1 and 2 in Locus A, with Trenches 3, 4, and 5 excavated directly east, north, and west of Feature 1 in Locus B. No surface artifacts were observed in the trench locations.

As a result of the testing program and archival research, it appears that this site represents a ranching site used to deliver water to free-range cattle. Locus 1 is the location of the windmill, used to generate electricity needed to pump water from below ground. Locus-2 appears to represent the former cattle trough; although any pipes that link the two loci have either been removed or were not detected by subsurface testing. The fact that little subsurface or surface artifacts remain, and that the artifacts that were recovered were largely structural, indicate that there was no human occupation of this site. The lack of historical residential sites in the vicinity also suggests that the property was used to graze cattle. The site would have likely been visited and maintained by ranch hands, who might have consumed beverages (as evidenced by bottle glass fragments); however, domestic refuse, typical of a residence and necessary to address research

questions, is notably absent from the site. In addition, due to the apparent dating of the site (circa 1954), it does not appear that this site is associated with either the Glide Brothers Ranch or Lizzie Glide of the Glide United Methodist Church in San Francisco. The lack of property ownership information between 1939 and 1969 prevents confirmation of any possible associations.

The following evaluation of the site is from ECORP (2008):

Archival research conducted for this ranching site failed to reveal any association with any important persons or events in California or National history (CRHR 1, 2; NRHP Criteria A, B). In addition, windmills and cattle troughs are common features in the region, and is neither unique, nor do they represent the work of a master or possess high artistic values (CRHR Criterion 3; NRHP Criterion C). Trenching at both loci resulted in an overall lack of substantial subsurface deposits. The artifacts recovered from all five trenches were largely composed of structural materials. There is not sufficient archaeological data to address research questions. Therefore, site CA-SAC-1034-H is evaluated as not eligible under any criteria for the NRHP or the CRHR and is not a Historical Resource as defined by CEQA.

CA-SAC-1045-H

CA-SAC-1045-H consists of a concentrated historic-age refuse scatter situated along an east-west running drainage. The following results of testing at the site are from ECORP (2008):

Six STPs were excavated within site CA-SAC-1045-H. Two STPS were placed northwest and southeast of Locus 1, with four additional STPs placed in the cardinal directions surrounding Locus 2. STPs were excavated to their maximum depth before hitting bedrock or impenetrable soil. The soil among all STPS was a compact silt with a high density of gravels and rocks creating a type of natural cement, common in intermittent drainages and waterways. In addition to subsurface excavations, a surface collection of representative diagnostic artifacts was conducted as well as bottle base sketches of additional artifacts that were not collected. STP 1 was the only STP that yielded subsurface cultural material.

The property containing site CA-SAC-1045-H may have been a portion of one of the parcels granted to Perry H. Morgan in July of 1872. Morgan owned the land to at least 1874, when the ownership was transferred to Mrs. J.E. Van Trees. The 1878 Assessor's Office books show a J.M. Van Trees as the landowner, and in 1882, the landowners were listed as I.H. Van Trees and F.D. Ryan. In 1892, the landowner was G.A. (George) Hanlon, until sometime between 1925 and 1930, when the land was sold to George Hanlon, Jr. Hanlon Jr. was the landowner until at least 1939.

As a result of the testing program and archival research, it appears that this site represents incidental dumping of residential refuse by local residents during the

1930s, 1940s, and 1950s. Such dump sites, which are often located in or along drainages, roads, or property boundaries, are common in the region. Based on the dates of the artifacts recovered during the evaluation, the refuse could be associated with the Hanlon family; however, there is nothing contained within the artifact assemblage that precludes the possibility that other local residents were the source. According to Melton (2003), George Hanlon was a post office employee in Routier, located near Sacramento. Melton also reports that he:

“lives four miles from that place and fifteen miles from Sacramento; was born in Ohio in 1823, and lived there until 1851, engaged in farming; in that year he removed to Iowa; but in 1852 he came to California and to Sacramento County; he subsequently went to El Dorado County, and engaged in mining and teaming there until 1860; since then he has lived on his present location; owns eleven hundred and fifty acres, worth, with improvements, about \$15 per acre. Mr. Hanlon was married in 1844 to Miss Mary Cable, also a native of Ohio; they have one son and three daughters.

The following evaluation of the site is from ECORP (2008):

Archival research conducted for this site failed to reveal any association with any important persons or events in California or National history (CRHR 1, 2; NRHP Criteria A, B). In addition, refuse scatters are neither unique, nor do they represent the work of a master or possess high artistic values (CRHR Criterion 3; NRHP Criterion C). The refuse scatter also lacks sufficient cultural material to address research questions. The site yielded a limited quantity of surface and subsurface material and only a few items were diagnostic. There is no evidence for subsurface deposits that would be sufficient to address research questions. Site CA-SAC-1045-H is evaluated as not eligible under any criteria for the NRHP or the CRHR and is not a Historical Resource as defined by CEQA.

P-34-2195

P-34-2195 consists of a one-mile segment of a PG&E transmission line that extends from Halsey Junction to the Newark Substation. This segment is composed of six metal towers (numbers 257 through 262) along the western side of Deep Creek. Since the towers are purely architectural there was no need to do a testing program for the transmission line. ECORP (2011) provided the following historic context and evaluation statements.

Historic Context:

The foundations of electric transmission go back thousands of years (see Adams 2010), but transmission as we know it today began in 1843, when Congress passed a bill for the construction of a telegraph line between Washington DC and Baltimore. The pole and wire infrastructure of telegraph technology was expanded after the invention of the incandescent light bulb in 1879 created an

even greater demand for electricity. The California Electric Light Company of San Francisco was the first to string long distance electric transmission lines in California, using low-voltage direct current (DC) starting in 1879. It was the development of alternating current (AC) a few years later, however, that led to wide-spread electrification of four California cities in 1890: Santa Barbara, Visalia, Pasadena, and Highgrove. The subsequent invention of the transformer allowed for a reduction in high distribution voltage to a level that was suitable for use in houses with interior wiring. These developments further spurred the construction of additional large voltage lines, primarily in Southern California (Adams 2010).

The first documented transmission line in Northern California was built in 1901 by the Bay Counties Power Company. It was a 142-mile long cedar pole and copper and aluminum wire transmission line built by John Debo Galloway, known as one of the pioneers in the design of electric transmission facilities in California. It stretched from the Colgate Powerhouse in the Sierra Nevada Mountains, through the Sacramento Valley, to Oakland (Adams 2010).

With the development of hydroelectric power around the turn of the century, electricity transmission technology expanded significantly. California's first hydroelectric plant, the Folsom Powerhouse on the American River in Sacramento County, began operating in 1895, and by 1902, the Bay Area, Stockton, Amador City, and Marysville had nearly complete electric coverage. One of the largest and most historic hydroelectric projects in California was the Central Valley Project, which began in the late 1920s. It was one of the largest water conveyance projects ever undertaken, and was initially composed of Shasta Dam, Delta-Mendota Canal, Friant Dam, Firant-Kern Dam, and the Contra Costa Canal. It continues to operate to this day, and produces enough electricity to power over 4 million homes (Adams 2010).

Evaluation of Significance:

Adams (2010) developed a framework for evaluating electric transmission structures for significance under NRHP criteria, arguing that in order for an electronic transmission structure or line to be eligible under NRHP Criterion A, it must be associated with a significant event or pattern of events, such as the first lattice electric transmission structure built in California, or the development of wood pole transmission structure technology over time, or the arrival of electricity to a community that was not previously powered (Adams 2010). For a structure or line to be eligible under NRHP Criterion B, it must be associated with a significant person, who is important for reasons associated with the electric transmission structure or system specifically. If the association is with a master craftsman or engineer, then that significance qualifies under NRHP Criterion C. Other examples of significance under Criterion C include those transmission structures that exemplify the best example of a period or method of construction. For example, a transmission structure must have all of the components that classify it as one of the first of a kind, or be a good representation of the evolution

of steel towers (Adams 2010). Finally, in order for an electric transmission structure to be eligible under NRHP Criterion D, it should possess the ability to provide information. Normally, this is applicable only to archaeological sites, which could include the ruins of historic transmission structures; however, early forms of transmission structures, for which engineering drawings are not available, could yield important information that is not represented in the archival record.

Site P-34-2195, the transmission lines within the Cordova Hills project area, was constructed in the early 1940s, well after electric transmission systems became established in California. It was associated with construction of the Newark Substation in 1942, which post-dates the earliest and most significant transmission systems in Northern California. It was constructed the same year as the death of John Debo Galloway (1869-1943), and there is no evidence to support the notion that he was involved in the design of the transmission lines. The towers are composed of steel lattice and have been modified and remodeled several times since construction, so there is no evidence to suggest that the lines were originally architecturally distinctive. In addition, the towers are in operation currently, being maintained by PG&E. There is no potential for information to be gained from these towers that is not better represented in the archival record.

Therefore, the transmission towers have no potential to yield important information (NRHP Criterion D), are not associated with the early development of electrical power transmission systems in the region (NRHP Criterion A), are not associated with important events or persons in the development of electrical power (NRHP Criterion B), and are not architecturally distinctive (NRHP Criterion C). In addition, the transmission line has been modified at least three times since its construction in the early 1940s – once in conjunction with the construction of the Gold Hill Substation in 1963, and again in 1975 and 1983 as part of system-wide improvements and upgrades. Although the line maintains its original alignment, and accordingly, retains integrity of location, the modifications to the line over the years resulted in a loss of integrity of design, materials, workmanship, and feeling.

Therefore, based on archival and field review of two discontinuous segments of site P-34-2195, the entire alignment is evaluated as not eligible as an individual resource, or as a contributing element to a district, for the NRHP or the CRHR. Accordingly, it is not a Historical Resource as defined by CEQA or an Historic Property defined by 36 CFR Part 800 and Section 106.

ISOLATES

Five isolates were recorded within the Cordova Hills APE. These include one prehistoric isolate (two chert core reduction flakes), and four historic era isolates (one brown glass beverage bottle, one car chassis, two pits, and one water tank). Isolated artifacts have no potential to yield important information (NRHP Criterion D), are not associated with important events or persons (NRHP Criteria A and B) and are not

architecturally distinctive (NRHP Criterion C). Therefore, none of the isolated artifacts discovered on the Project site are eligible for the NRHP or the CRHR and are not considered historical resources as defined by CEQA.

SIGNIFICANCE CRITERIA

In order for a cultural resource to be considered a “historic property” under NRHP criteria (i.e., eligible for inclusion on the NRHP), it must be demonstrated that the resource possesses *integrity* of location, design, setting, materials, workmanship, feeling and association, and must meet at least one of the following four criteria delineated by Section 106 (Advisory Council on Historic Preservation 2000), as listed in 36 CFR 60.4:

- (a) That are associated with events that have made a significant contribution to the broad patterns of our history; or
- (b) That are associated with the lives of persons significant in our past; or
- (c) That embody the distinctive characteristics of a type, period or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- (d) That have yielded, or may be likely to yield, information important in prehistory or history.

The criteria for listing resources on the CRHR were expressly developed to be in accordance with previously established criteria developed for listing on the NRHP, enumerated above, and require similar protection to what NHPA Section 106 mandates for historic properties. According to PRC Section 5024.1(c)(1-4), a resource is considered *historically significant* if it meets at least one of the following criteria:

- (1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- (2) Is associated with the lives of persons important in our past;
- (3) Embodies the distinctive characteristics of a type, period, region or method of installation, or represents the work of an important creative individual, or possesses high artistic values; or
- (4) Has yielded, or may be likely to yield, information important in prehistory or history.

Under CEQA, if an archeological site is not a significant “historical resource” but meets the definition of a “unique archeological resource” as defined in PRC Section 21083.2,

then it should be treated in accordance with the provisions of that section. A unique archaeological resource is defined as follows:

An archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- (1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
- (2) Has a special and particular quality such as being the oldest of its type or the best available example of its type.
- (3) Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Resources that neither meet any of these criteria for listing on the NRHP or CRHR nor qualify as a “unique archaeological resource” under CEQA PRC Section 21083.2 are viewed as not significant. Under CEQA, “A non-unique archaeological resource need be given no further consideration, other than the simple recording of its existence by the lead agency if it so elects” (PRC Section 21083.2(h)).

Impacts to *significant* cultural resources (“historic properties” under NHPA and “historical resources” under CEQA) that affect the characteristics of any resource that qualify it for the NRHP or adversely alter the significance of a resource listed on or eligible for listing on the CRHR are considered a significant effect on the environment (CEQA guidelines 15065(a)(1)). Impacts to *significant* cultural resources from a proposed Project are thus considered significant if a project physically destroys or damages all or part of a resource, changes the character of the use of the resource or physical feature within the setting of the resource which contribute to its significance or introduces visual, atmospheric, or audible elements that diminish the integrity of significant features of the resource.

IMPACTS AND ANALYSIS

IMPACT: HISTORICAL RESOURCES

The Project area contains four historic era sites, and a fifth historical site that is included in a multi-component site. As documented above, none of the historic sites are associated with any important persons or events in California or National history (CRHR 1, 2; NRHP Criteria A, B). They are not considered to be unique and do not represent the work of a master or possess high artistic values (CRHR Criterion 3; NRHP Criterion C). In all cases, the historic sites lack sufficient cultural material to address research questions (CRHR Criterion 4; NRHP Criterion D). All of the historic sites were evaluated

as not eligible under any criteria for the NRHP or the CRHR and are not considered a historical resource or unique archeological resource as defined by CEQA, and thus any impacts to these resources are not significant.

As always, with implementation of the Cordova Hills Project, there remains a potential to encounter buried or as yet undiscovered resources during land clearing and construction work. Buried resources may consist of historic remains such as structural features (foundations, cellars, etc.) or buried trash deposits containing glass, ceramics and metal, or the resources may be of prehistoric origin containing chipped stone, shell, bone and other remains. If such subsurface resources are encountered, work should halt in the vicinity of the discovery until its significance can be evaluated by a professional archaeologist. If during land clearing further surface resources such as additional mining, historic trash scatters, or prehistoric resources are encountered, work should halt in the vicinity of the find until the discovery can be evaluated by a professional archaeologist. Mitigation is recommended below to reduce impacts to *less than significant* levels.

MITIGATION MEASURES

CR-1. If subsurface deposits believed to be cultural or human in origin are discovered during construction, then all work must halt within a 200-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeology, shall be retained at the Applicant's expense to evaluate the significance of the find. If it is determined due to the types of deposits discovered that a Native American monitor is required, the Guidelines for Monitors/Consultants of Native American Cultural, Religious, and Burial Sites as established by the Native American Heritage Commission shall be followed, and the monitor shall be retained at the Applicant's expense.

Work cannot continue within the 200-foot radius of the discovery site until the archaeologist conducts sufficient research and data collection to make a determination that the resource is either 1) not cultural in origin; or 2) not potentially eligible for listing on the National Register of Historic Places or California Register of Historical Resources.

If a potentially-eligible resource is encountered, then the archaeologist, DERA, and project proponent shall arrange for either 1) total avoidance of the resource, if possible; or 2) test excavations or total data recovery as mitigation. The determination shall be formally documented in writing and submitted to DERA as verification that the provisions of CEQA for managing unanticipated discoveries have been met.

In addition, pursuant to Section 5097.97 of the State Public Resources Code and Section 7050.5 of the State Health and Safety Code, in the event of the discovery of human remains, all work is to stop and the County Coroner shall be immediately notified. If the remains are determined to be Native American,

guidelines of the Native American Heritage Commission shall be adhered to in the treatment and disposition of the remains.

IMPACT: PREHISTORIC RESOURCES

One prehistoric bedrock mortar station site and one prehistoric component of a multi-component site were discovered in the Project area. As noted previously, archival information, which could be used to identify any association with any important persons or events in California or National history (CRHR 1, 2; NRHP Criteria A, B), does not exist in the historical record for prehistoric archaeological sites. In addition, bedrock mortars of this type are common features in the region, and are neither unique, nor do they represent the work of a master or possess high artistic values (CRHR Criterion 3; NRHP Criterion C). Both of the prehistoric sites lacked subsurface or surface artifacts, which indicate that they do not possess the necessary cultural material to address relevant research questions (CRHR Criterion 4; NRHP Criterion D). Both sites have been evaluated as not eligible under any criteria for the NRHP or the CRHR and are not considered historical resources or unique archeological resources as defined by CEQA; any impacts to these resources are not significant.

As always, there is the potential for the existence of buried prehistoric archaeological materials or previously undiscovered surface resources within the Project area. CEQA requires that lead agencies protect both known and unknown cultural resources; therefore, mitigation is recommended to ensure that in the event that cultural resources are discovered during implementation phases that all work shall be halted until a qualified archaeologist may evaluate the resource encountered. With mitigation (see Mitigation Measure CR-1, above), environmental impacts to potentially sensitive cultural resources are considered *less than significant*.

IMPACT: HUMAN REMAINS

Section 5097.94 of the Public Resources Code and Section 7050 of the California Health and Safety Code protect Native American burials, skeletal remains and grave goods, regardless of age and provide method and means for the appropriate handling of such remains. If human remains are encountered, work should halt in that vicinity and the County coroner should be notified immediately. At the same time, an archaeologist should be contacted to evaluate the situation. If the human remains are of Native American origin, the coroner must notify the Native American Heritage Commission within 24 hours of such identification. In the event that a burial is discovered during implementation of the Cordova Hills Project, strict adherence to mitigation as outlined in Mitigation Measure CR-1 (see above) would reduce this impact to *less than significant* levels.

9 GEOLOGY AND SOILS

INTRODUCTION

This chapter describes the geologic and soil setting of and around the Project area, including descriptions of potential geologic hazards and the presence of mineral resources. The impacts and analysis section of this chapter evaluates the effects of the proposed Project to geologic and soil resources as well as the effects of geologic and soil hazards to the Project.

ENVIRONMENTAL SETTING

REGIONAL GEOLOGY

The present-day landscape of Sacramento County has been shaped over time by the ongoing processes of erosion and deposition. Material eroded from the ancestral Sierra Nevada, formed over 100 million years ago, was deposited onto the Sacramento Valley floor. Approximately 10 to 15 million years ago tectonic uplifts altered the geomorphology of the Sierra Nevada. Glaciation, volcanism, and erosion followed the uplifting, adding layers of sediment to the valley floor. Under the present geologic conditions, the alteration of the local geomorphology continues through stream erosion of the valley sediments and subsequent deposition in adjacent floodplains.

A "geomorphic province" is comprised of an area of similar geologic origin and erosional/depositional history. Sacramento County is situated in portions of two geomorphic provinces. By far the largest portion of the County, and the Project, lies in the Great Valley province. A small area in the eastern part of the County is in the Sierra Nevada province. The Great Valley province is further divided into four geomorphic subunits, as described below:

The Delta - The Delta, characterized by Holocene deposits, includes the low-Delta is arbitrarily fixed at the zero-elevation contour, which coincides with the contact between the organic and inorganic soils. Prior to human intervention, this region was dominated by tidal marshes that were traversed by meandering sloughs. Over time, however, the sloughs were altered and the marshes drained. Numerous islands have been created by the construction of a system of artificial levees.

River Floodplain - The river floodplain subunit consists of unconsolidated inorganic soils which were formed by the deposition of sediment when flood waters overtopped the natural levees of the County's rivers and major streams.

Alluvial Plain - To the east of the Sacramento River floodplain is an extensive area of former floodplain that has been highly dissected by subsequent stream erosion. This geomorphic subunit is comprised of older, Quaternary, deposits. This area is underlain by soil which is characterized by layers of hardpan or dense, impervious clay.

Low Foothills - The low foothill area, located east of the alluvial plain, is typified by rolling, boulder-strewn topography and is underlain by moderately consolidated silts, sands, and clays of continental origin. The small area in the northeast part of the County within the Sierra Nevada geomorphic province consists of Pliocene and older deposits and is characterized by steep-sided hills and narrow, rocky stream channels. Stream patterns here are well established and are controlled principally by bedrock features

GEOLOGICAL HAZARDS

SEISMIC HAZARDS

Geological literature indicates that active faults are largely considered those which have had movement within the last 11,000 years (within the Holocene or Historic time periods) and indicates that no major active faults transect the County; however, there is one known subsurface inactive fault in northern Sacramento County, and several subsurface faults in the Delta, some of which may have had movement but when that movement occurred is speculative. Also, a number of other fault systems lie to the east and west of Sacramento County which can be considered active and subject to possible seismic events.

California Geological Survey (CGS) (formerly the California Division of Mines and Geology) staff (W. Bryant) was consulted to obtain the most current seismic information in and around the Sacramento County Region. The closest known faults to the Project area are the Willows Fault and the Bear Mountain Fault.

The Willows Fault is located in the vicinity of Citrus Heights near Antelope Road and is presumably inactive. According to CGS staff, generalized geologic maps show the Willows Fault to be concealed by Pleistocene deposits and Harwood and Haley (1987) show this fault as pre-Quaternary (active 1.6 million years ago or longer). To the east of Sacramento County, the Bear Mountain fault zone trends northwest-southeast through Amador and El Dorado Counties. Where the Bear Mountain Fault lies closest to the Project site it is noted as pre-Quaternary. This fault is associated with the Foothills Fault system.

According to CGS staff, faults in the Foothills Fault system are largely characterized by very slow slip rates (generally less than 0.01mm/yr) and have long recurrence intervals. CGS staff further indicated that the Foothills Fault system east of Sacramento County have evidence of late Pleistocene to Holocene displacement and have the potential to produce infrequent, moderate magnitude earthquakes.

The Midland fault, buried under alluvium, extends north of Bethel Island in the Delta to east of Lake Berryessa. Studies by Webber-Band (1998) suggest that the Midland Fault offsets Pleistocene strata (1.6 million to 10,000 years old) and possibly even deforms basal peat deposits thought to be of Holocene age (10,000 to 200 years old); however, according to CGS staff, Holocene activity is unconfirmed. This fault is noted on the C.W. Jennings, Fault Activity Map of 1994 to be a pre-Quaternary fault (active 1.6 million years ago or longer). Although the timeframe of its most recent activity is speculative, this fault is considered capable of generating a near 6.6 (Richter Scale) earthquake. This figure is an assumption based on an 1892 earthquake measuring 6.6 on the Richter Scale with an epicenter possibly in the Midland Fault vicinity or along blind-thrust faults in the Coast Range, although the source of this earthquake is uncertain according to CGS staff.

Another delta fault is located further west of the Midland Fault. This fault is currently unnamed. It is concealed where it passes beneath the westernmost tip of Sacramento County, and may have been active within the past 11,000 years according to the C.W. Jennings Activity Map although, again, exact times of displacement are unknown. Oil and gas companies exploring the Delta area's energy potential have identified several subsurface faults, none of which show any recent surface rupture.

While Sacramento County has experienced relatively little seismic activity, faulting in neighboring regions, especially the San Francisco Bay area and the Sierra Nevada, suggests that the County could be affected by future ground motion originating elsewhere.

The Richter Magnitude Scale is used to quantify the magnitude or strength of the seismic energy released by an earthquake. The Modified Mercalli Intensity Scale (MMI Scale) is used to measure the intensity of groundshaking at a given site in response to an earthquake. The MMI Scale is useful in planning for seismic safety, as it translates the intensity of earthquake shaking into possible damaging effects on structures. Table GS-1 below shows the relationship of an earthquake's magnitude and intensity as well as describes the related intensity.

Table GS-1: Relationships Between Earthquake Magnitude and Intensity

Magnitude	Intensity (MMI)	Description
1.0 – 2.9	I	I. Not felt except by a very few under conditions especially susceptible to seismic events.
3.0 – 3.9	II – III	II. Felt only by a few persons at rest, especially on upper floors of buildings. III. Felt quite noticeably by persons indoors, especially on upper floors of buildings. Many people do not recognize it as an earthquake. Standing motor cars may rock slightly. Vibrations similar to the passing of a truck. Duration estimated.
4.0 – 4.9	IV – V	IV. Felt indoors by many, outdoors by few during the day. At night, some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing motor cars rocked noticeably. V. Felt by nearly everyone; many awakened. Some dishes, windows broken. Unstable objects overturned. Pendulum clocks may stop.
5.0 – 5.9	VI – VII	VI. Felt by all, many frightened. Some heavy furniture moved; a few instances of fallen plaster. Damage slight. VII. Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable damage in poorly built or badly designed structures; some chimneys broken.
6.0 – 6.9	VIII – IX	VIII. Damage slight in specially designed structures; considerable damage in ordinary substantial buildings with partial collapse. Damage great in poorly built structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned. IX. Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb. Damage great in substantial buildings, with partial collapse. Buildings shifted off foundations.
7.0 and higher	X and higher	X. Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations. Rails bent. XI. Few, if any (masonry) structures remain standing. Bridges destroyed. Rails bent greatly. XII. Damage total. Lines of sight and level are distorted. Objects thrown into the air.
Source: California Geological Survey http://earthquake.usgs.gov/learning/topics/mercalli.php .		

The intensity of ground shaking and its potential impact on structures is determined by the physical characteristics of the underlying soil and rock, building materials and workmanship; earthquake magnitude; location of the epicenter; and the character and duration of ground motion. Much of the County is located on alluvium which increases the amplitude of the earthquake wave. Ground motion lasts longer and waves are amplified on loose, water-saturated materials as compared with solid rock. As a result, structures located on alluvium typically suffer greater damage than those located on solid rock.

The CGS has prepared a map of the state which shows the earthquake shaking potential of areas throughout California based primarily on an area's distance from known active faults. The map shows the east and central portions of the County in a relatively low intensity groundshaking zone, while the westernmost portion of the County is in a relatively moderate groundshaking zone (See Plate GS-1). The Project is located in an area which is noted to have some of the lowest groundshaking potential in the State.

LIQUEFACTION

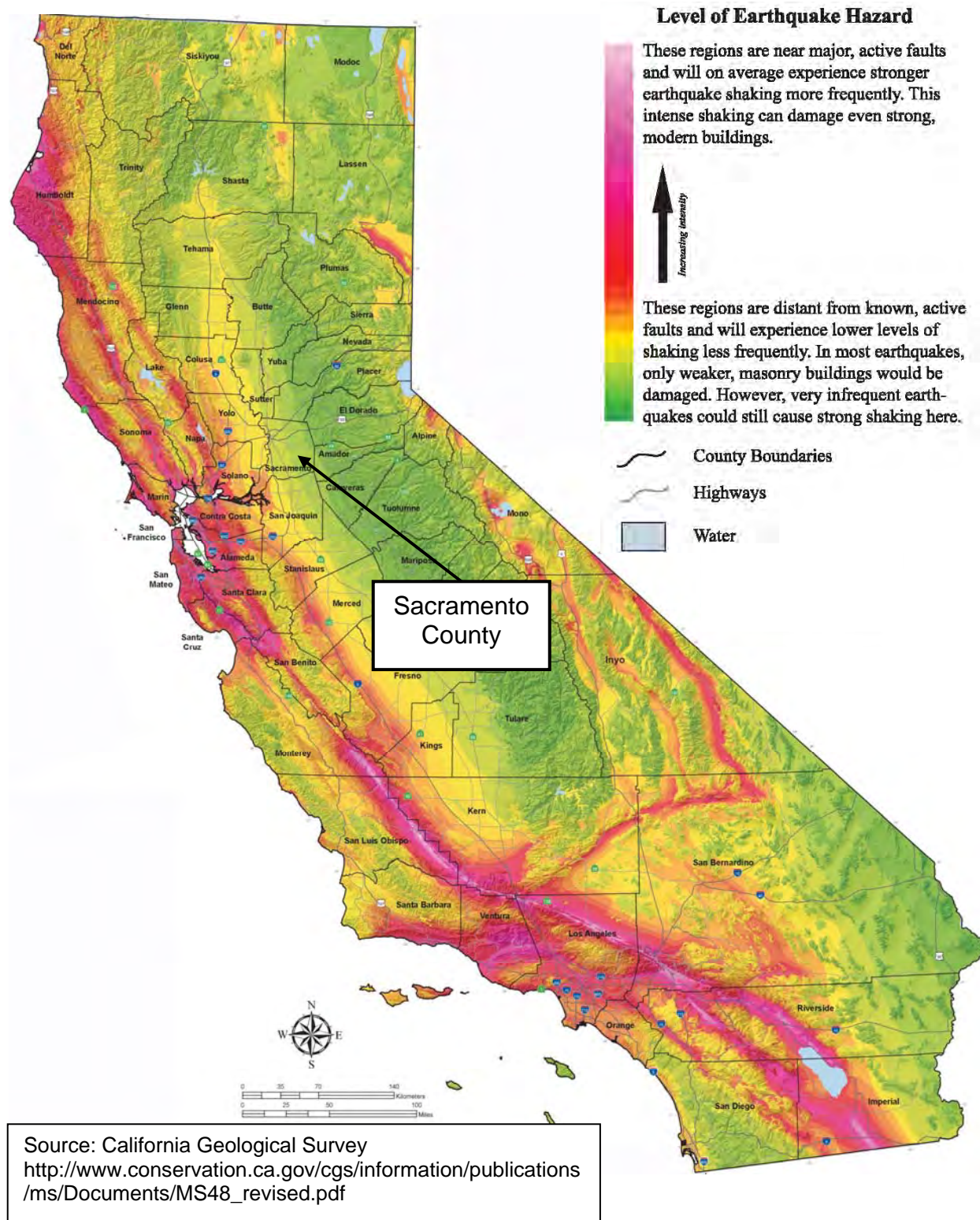
Sacramento County has two areas that have been suggested as posing potential liquefaction problems - the downtown area and the Delta. Liquefaction is a process whereby the strength and stiffness of a soil is reduced by earthquake shaking or rapid cyclic loading. Liquefaction occurs in saturated, typically cohesionless soils.

Earthquake shaking can cause the pore water pressure to increase to a point where the strength of the soil decreases and the ability of a soil deposit to support foundations for buildings and bridges is significantly reduced. A geological and seismological study in 1972 for a downtown building site concluded that potential liquefaction problems may exist throughout the downtown area where loose sands and silts are present below the groundwater table. Liquefaction may also pose a serious threat to levees in the Delta. Levee failure, depending on the extent, could have adverse effects on agriculture, natural gas supply, fisheries, and lead to salt water intrusion from the San Francisco Bay as well as property value declines and safety hazards.

SOILS AND HAZARDS

The soils of Sacramento County can be separated into three general classifications based on geographic factors: Delta soils, flood basin soils, and bench soils. The dark soils of the Delta area are primarily fertile peat comprised of slow-to-decay organic matter. The geologically recent flood basin soils, rich with organic and mineral compounds, are alluvium formed by historic and ancient flood deposits from swollen rivers overflowing into adjacent floodplains. Lastly, the bench soils, elevated above the spreading basins, are river terraces. Due to erosion and leaching, these soils lack the high percentage of organic material found in the Delta and flood basin soils, and are the soils prevalent on the Project site.

Plate GS-1: Earthquake Shaking Potential for California



Soils in Sacramento County can be divided into eight broad landscape classifications, or groups, (see Plate GS-2); the Project soils are within groups six and seven. These groups are further divided into 16 soil associations, which are landscapes that have distinctive patterns of soils, relief, and drainage; the Project soils are within associations 12 and 15. Normally a soil association consists of one or more major soils and at least one minor soil. Groups six and seven are described below.

Group 6: These soils are in the eastern portion of the County. They are very shallow to very deep and are moderately well drained or well drained. They are underlain by weakly consolidated sediments or have a cemented hardpan underlain by consolidated sediments. The moderately deep soils have a surface layer of gravelly loam or fine sandy loam and are underlain by a claypan. The very shallow or shallow soils are sandy loam or fine sandy loam.

Group 7: These soils are in the eastern portion of the County. In some areas they are on the highest terraces in the County. They are moderately deep or very deep and are well drained or moderately well drained. They have a subsoil of sandy clay loam or gravelly clay or have a claypan.

SUBSIDENCE

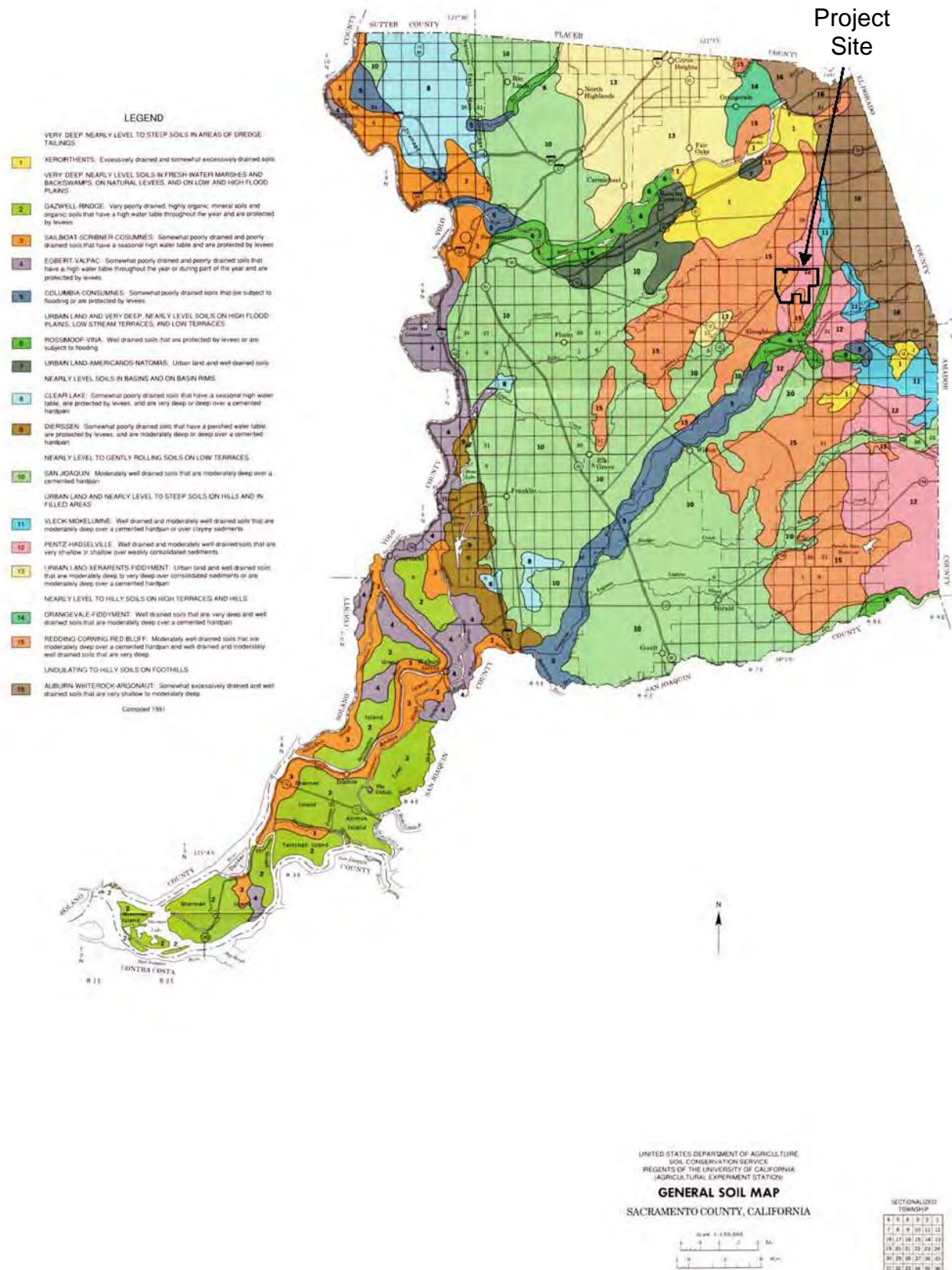
Subsidence is the gradual settling or sinking of the earth's surface with little or no horizontal motion. Sacramento County is affected by five types of subsidence. They are: compaction of unconsolidated soils by earthquake shaking, compaction by heavy structures, the erosion of peat soils, peat oxidation, and fluid withdrawal. The pumping of water for residential, commercial and agricultural uses from subsurface aquifers causes the greatest amount of subsidence in Sacramento County.

Subsidence has created major problems for flood control, particularly in the Delta. As levees sink under their own weight and are weakened by the erosive force of water, expensive periodic rebuilding is necessary. It is estimated that the Sacramento-San Joaquin Delta is subsiding at a rate of just over three inches per year. Many islands in the Delta that, at one time, were at or above sea level are now below sea level.

EXPANSIVE SOILS

Expansive soils represent approximately one third of all soil types in Sacramento County. These soils are largely comprised of clays, which greatly increase in volume when water is absorbed and shrink when dried. Expansive soils are of concern because building foundations may rise during the rainy season and fall during the dry season in response to the clay's action. If movement varies under different parts of the building, the result is that foundations crack, structural portions of the building are distorted, and doors and windows are warped so that they do not function properly.

Plate GS-2: General Soils Map



LANDSLIDES

Landslide is a general term used for a falling mass of soil and rock. The topography of the majority of Sacramento County is relatively flat and not subject to landslide. In Sacramento County, only a narrow strip along the eastern boundary, from the Placer County line to the Cosumnes River, is considered to have landslide potential. However, future slides on these slopes are expected to be minor in nature and do not pose a large scale threat to life or property. The American River Bluffs downstream from Folsom and in Fair Oaks and Carmichael are considered stable and are generally not subject to fracture or landslides.

EROSION

Erosion is a natural geological process by which landforms are worn down or reshaped by wind and water and the eroded material is deposited elsewhere. While natural erosion of undisturbed areas occurs in Sacramento County, it does not appear to pose a significant hazard to property. The principal area of erosion is along portions of the American River bluffs.

Erosion from agriculture seems to pose little problem in most of the County. The central and western portions of the County are fairly level and very little erosion takes place in these areas unless poor farming practices leave large areas of soil exposed and dry and subject to wind erosion.

There is a greater potential for erosion in the eastern foothills of the County, but extensive grass cover protects most of the vulnerable soils. Also, there is little agricultural activity, with the exception of grazing, in this area because the soils are generally of poor quality. The grasses, therefore, remain undisturbed unless a fire or some other event exposes the soil.

Perhaps the highest potential for erosion to occur is as a result of construction activity, where soils may be exposed for some length of time. However, Sacramento County, through Grading and Drainage Ordinances, provides measures to limit or restrict construction practices which might cause erosion, create a nuisance, constitute a hazard, or obstruct waterways. Permits issued under these ordinances ensure that Projects avoid potentially significant erosion hazards.

NATURALLY OCCURRING ASBESTOS

Asbestos is a naturally occurring, fibrous silicate mineral mined for its useful properties, such as thermal insulation, chemical and thermal stability, and high tensile strength (greater resistance to longitudinal stress before rupturing). The most common type of asbestos is chrysotile, but other types such as tremolite and actinolite are also found in California. Serpentine may contain chrysotile asbestos, especially near fault zones. Ultramafic rock, a rock closely related to serpentine, may also contain asbestos minerals. Asbestos can also be associated with other rock types in California, though much less frequently than serpentine and/or ultramafic rock. However, the information

available at this time is insufficient to allow such occurrences to be mapped on a statewide basis.

Asbestos is classified as a known human carcinogen by state, federal, and international agencies and was identified as a toxic air contaminant by the California Air Resources Board (CARB) in 1986. Asbestos poses a health risk only when it becomes friable, such as through disturbance or damage. Once airborne, asbestos fibers may be inhaled into the lungs where they can cause serious health problems (US EPA, 2008). All types of asbestos are hazardous and may cause lung disease and cancer.

Asbestos is commonly used as an acoustic insulator and in thermal insulation (fire proofing and other building materials). Serpentine and ultramafic rocks have been commonly used for unpaved gravel roads, landscaping, fill projects and other improvement projects in some localities.

US EPA issued a final rule banning most asbestos-containing products in July 1989; however, this regulation was overturned in 1991 by the Fifth Circuit Court of Appeals in New Orleans. The Courts ruled that the US EPA ban shall remain for specific asbestos-containing products. These banned products are flooring felt; rollboard; and corrugated, commercial, or specialty paper. The regulation continues to ban the use of asbestos in products that have not historically contained asbestos, otherwise referred to as "new uses" of asbestos.

Asbestos may be released to the atmosphere due to vehicular traffic on unpaved roads, during grading for development projects and at quarry operations (broken or crushed serpentinite and ultramafic rocks). All of these activities may have the effect of releasing potentially harmful asbestos into the air. Natural weathering and erosion processes can act on asbestos bearing rock and make it easier for asbestos fibers to become airborne if such rock is disturbed. At the point of release, the asbestos fibers may become airborne, causing air quality and human health hazards.

The Sacramento Metropolitan Air Quality Management District (SMAQMD) has determined that Naturally Occurring Asbestos (NOA) is present within areas of eastern Sacramento County. SMAQMD commissioned the California Department of Conservation Geologic Survey to test for and map all areas of potential NOA within Sacramento County. The map depicts areas within Sacramento County relative to their potential to contain NOA (see Plate GS-3, which shows the location of the Project site). The map is divided up into the following three classifications:

- **Areas Most Likely to Contain NOA:** These areas include ultramafic rock and serpentinite (serpentine rock), and associated soils, which are most likely to contain NOA. Such areas are not known to be present in eastern Sacramento County at this time, and thus do not appear on this map.
- **Areas Moderately Likely to Contain NOA:** These areas include those metamorphic and igneous rocks that are moderately likely to contain NOA.

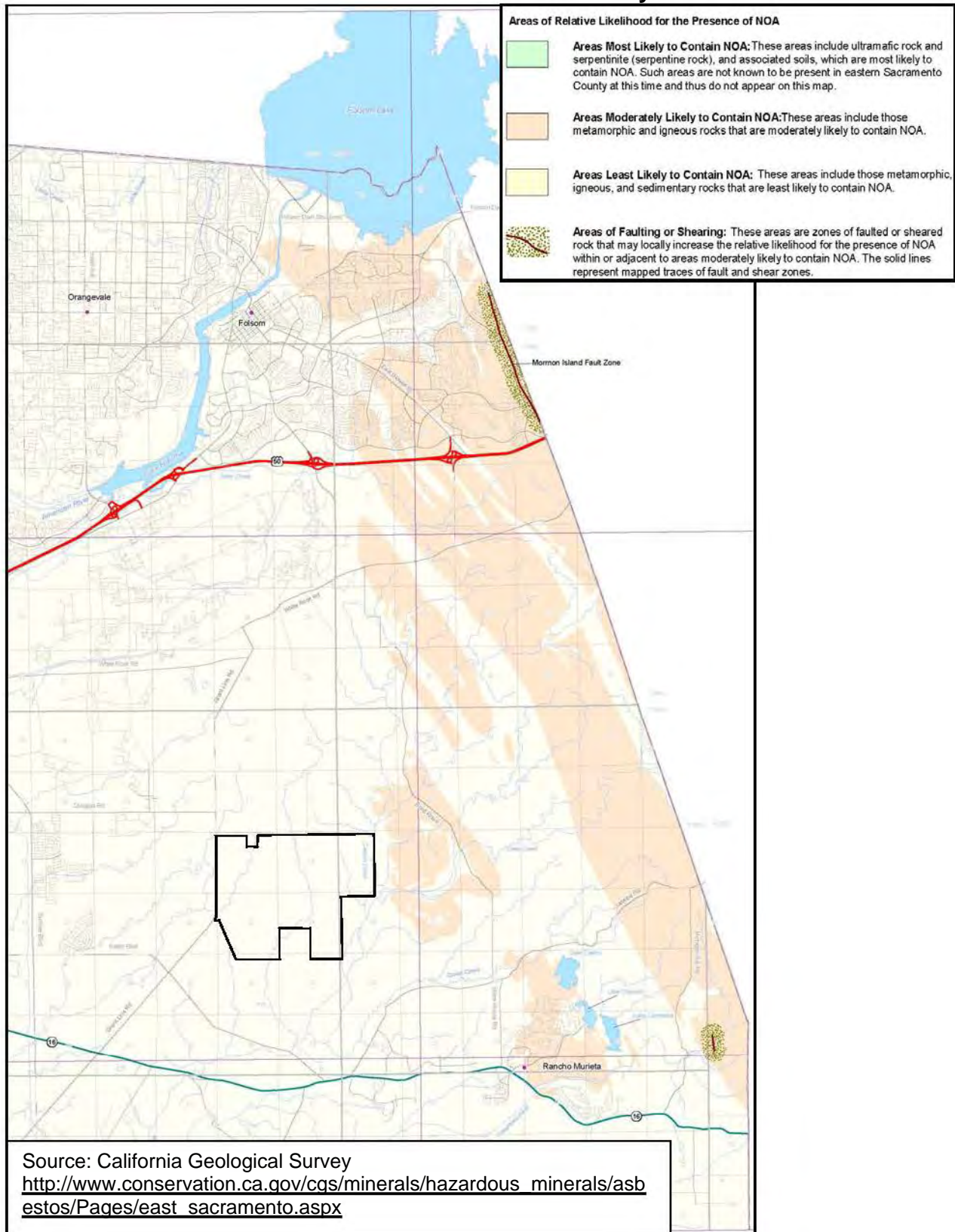
- Areas Least Likely to Contain NOA: These areas include those metamorphic, igneous, and sedimentary rocks that are least likely to contain NOA.

The other area shown on this map is areas of faulting or shearing. These areas are zones of faulted or sheared rock that may locally increase the relative likelihood for the presence of NOA within or adjacent to areas moderately likely to contain NOA. The solid lines represent mapped traces of fault and shear zones. The SMAQMD Air Pollution Control Officer (APCO) has determined that properties located partially or totally within the “Moderately Likely to Contain NOA” are subject to the requirements of Section 93105, *Asbestos Airborne Toxic Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations* of the California Code of regulations (SMAQMD, 2006). Sacramento Air Quality Management District (SMAQMD) has regulatory authority of NOA.

In areas where NOA is located the ATCM establishes particular controls related to testing, engineering and notification prior to construction related activities. Projects located in these areas are required to submit a “Dust Mitigation Plan” which needs to be approved by SMAQMD prior to the start of the Project. A property may be exempt from the requirements of the ATCM if no asbestos is found in concentrations greater than or equal to 0.25% through a geologic evaluation performed by a registered geologist.

The unincorporated areas in eastern Sacramento County with a moderate likelihood for the presence of NOA include portions of Rancho Murieta and areas south of US 50 in the City of Folsom’s Sphere of Influence. The Project site is rated as least likely to contain NOA.

Plate GS-3: Relative Likelihood for the Presence of Naturally Occurring Asbestos in Eastern Sacramento County



MINERAL RESOURCES

Mineral resources in Sacramento County include sand, gravel, clay, gold, silver, peat, topsoil, lignite, natural gas and petroleum (Plate GS-4). The principal resources which are in production are aggregate (sand and gravel) and natural gas. Resource conservation issues associated with natural gas production and the lesser minerals are not currently considered vital within Sacramento County and conservation issues related to mineral resources focus primarily on aggregate production.

The Surface Mining and Reclamation Act (SMARA) of 1975 requires the State Geologist to classify land into Mineral Resource Zones (MRZ's) based on the known or inferred mineral resource potential of that land. The classification process is based solely on geology, without regard to existing land use or land ownership. The purpose is to help ensure that the mineral resource potential of lands is recognized and considered in the land use planning process. Plate GS-5 below depicts the MRZ's on the Project site (MRZ-1 and MRZ-2). SMARA also requires that Sacramento County incorporate that information and develop policies in the General Plan that are related to mineral resource preservation. A 1988 special report ("*Mineral Land Classification: Portland Cement Concrete-Grade Aggregate in the Sacramento-Fairfield Production Consumption Report*", Dupras 1988) was the source of much of the mineral resource information in the current General Plan.

Plate GS-4: Mineral Resources Map

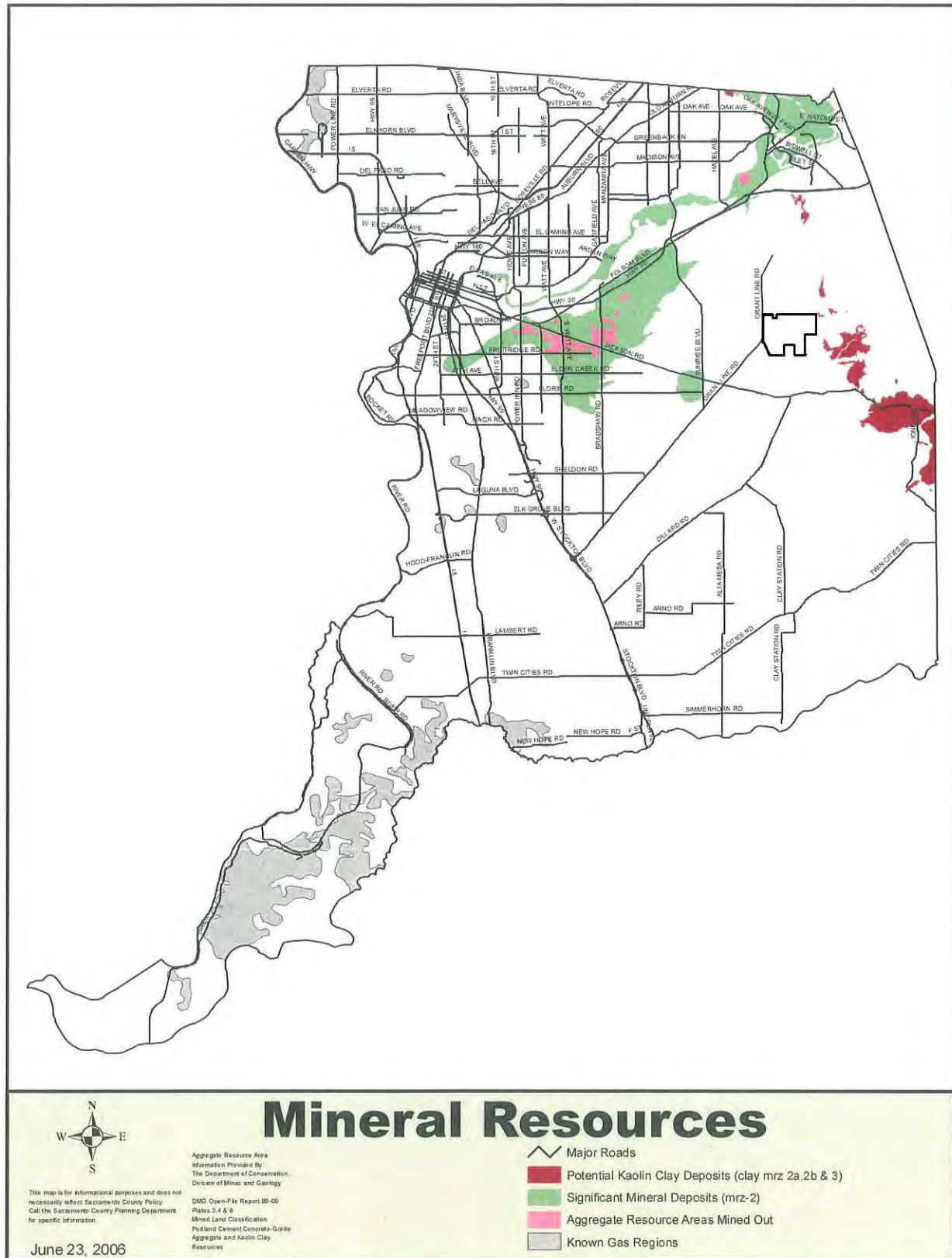
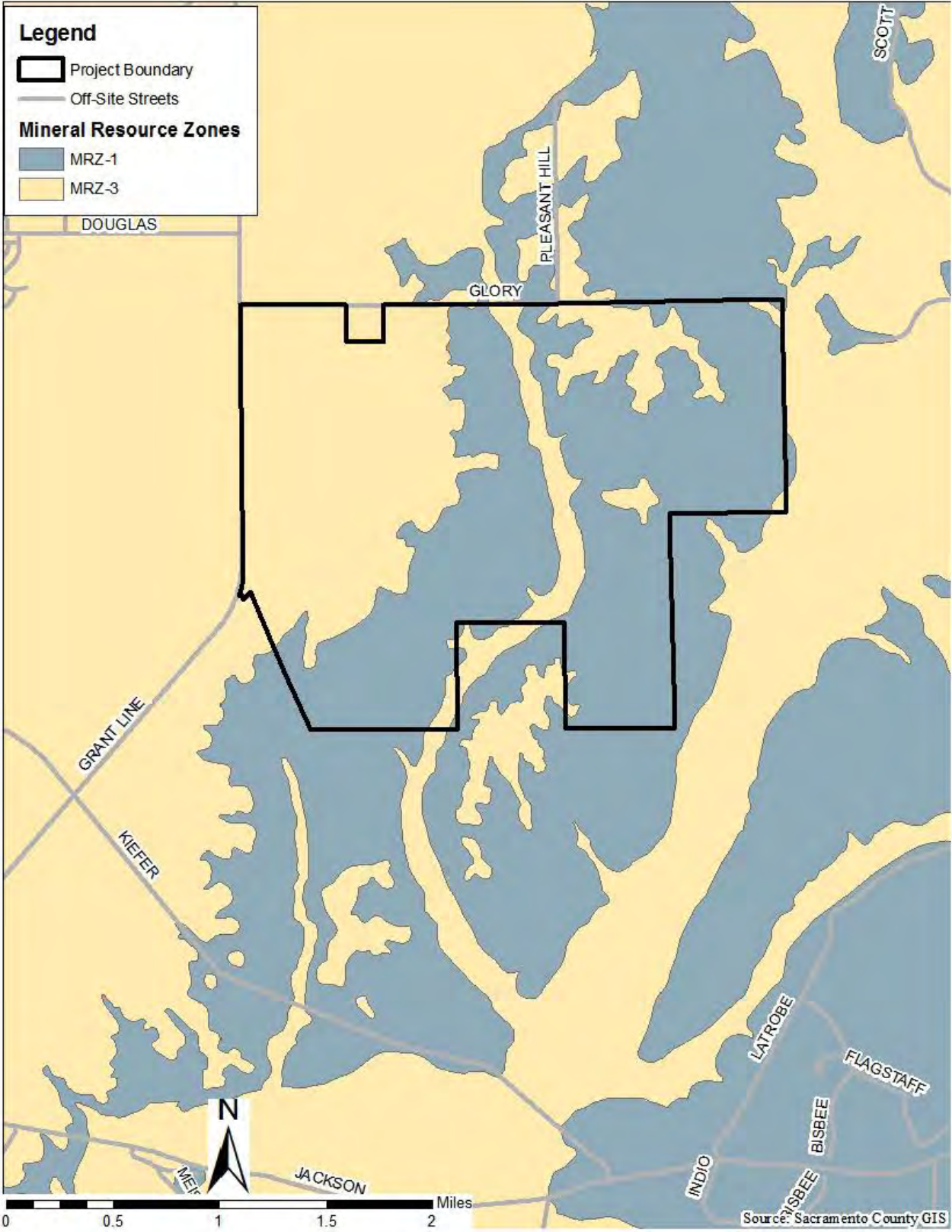


Plate GS-5: Project Area and Sacramento County MRZ Zones



MRZ's are divided into six categories. The categories for establishing MRZ's are as follows:

- MRZ-1: Areas where available geologic information indicates that little likelihood exists for the presence of significant mineral resources.
- MRZ-2a: Areas underlain by mineral deposits where geologic data indicate that significant measured or indicated resources are present. Areas classified MRZ-2a contain discovered mineral deposits that are either measured or indicated reserves as determined by such evidence as drilling records, sample analysis, surface exposure, and mine information. Land included in the MRZ-2a category is of prime importance because it contains known economic mineral deposits.
- MRZ-2b: Areas underlain by mineral deposits where geologic information indicates that significant inferred resources are present. Areas classified MRZ-2b contain discovered mineral deposits that are significant inferred resources as determined by their lateral extension from proven deposits or their similarity to proven deposits. Further exploration work could result in upgrading areas classified MRZ-2b to MRZ-2a.
- MRZ-3a: Areas containing known mineral occurrences of undetermined mineral resource significance. Further exploration work within these areas could result in the reclassification of specific localities into MRZ-2a or MRZ-2b categories. MRZ-3 is divided on the basis of knowledge of economic characteristics of the resource.
- MRZ-3b: Areas containing inferred mineral occurrences of undetermined mineral resource significance. Land classified MRZ-3b represents areas in geologic settings that appear to be favorable environments for the occurrence of specific mineral deposits. Further exploration work could result in the reclassification of all or part of these areas into the MRZ-2a or MRZ-2b categories.
- MRZ-4: Areas of no known mineral occurrences where geologic information does not rule out either the presence or absence of significant mineral resources.

As shown in the MRZ definitions above, MRZ-2a and MRZ-2b are the areas containing substantial aggregate resources. These areas contain geologic evidence which indicate that valuable resources are available and are of primary concern.

In 2001, the California Division of Mines and Geology submitted to the County of Sacramento Open File Report 99-09 titled "*Mineral Land Classification: Portland Cement Concrete-Grade Aggregate and Kaolin Clay Resources in Sacramento County*", which provides updated information on mineral resources in Sacramento County. This report presents updated maps of State-designated Aggregate Resource Areas (ARA) for the County to utilize for land use planning and conservation. In all, 22 ARAs are

designated as available land in Open File Report 99-09, none of which are in the Project area (they lie west of Grant Line Road).

The County subsequently adopted several amendments to the General Plan to incorporate the updated mineral resources information, though some changes were made to the State's ARAs through a County project entitled (*Mineral Resource-Related General Plan Amendments*, Control No. 2002-0104) in order to account for existing local land use conflicts. The County resource areas are known as Mineral Resource Areas (MRAs) which delineate the locations of high quality, available aggregate resources in Sacramento County, when considering land use conflicts. All of the areas are west of Grant Line Road, outside of the Project area.

Other recent changes include two separate petitions submitted to the State Mining and Geology Board for mineral lands reclassification, one by Angelo G. Tsakopoulos and one by Teichert, Inc.. Both petitions were granted, and the relevant lands (414 acres and 380 acres, respectively) were reclassified from MRZ-3 to MRZ-2 and should now be shown as ARA as well. These properties lie approximately 2.5 miles to the northeast of the Project site.

REGULATORY SETTING

FEDERAL

Development within the State of California is required to at least adhere to the provisions of the Uniform Building Code (UBC). The UBC sets forth minimum standards related to development, seismic design, building siting and grading. Local jurisdictions typically adopt standards that are as stringent, if not more stringent than those of the UBC. California has adopted the UBC but has amended it to better meet the need of the specific conditions of California.

STATE GUIDELINES

The 1972 Alquist-Priolo Earthquake Fault Zoning Act regulates development near active faults to mitigate the hazard of surface fault rupture. Under this Act, the State Geologist is required to delineate earthquake fault zones along known active faults in California. Cities and counties affected by these zones must regulate certain developments within these zones, and withhold development permits for sites until geologic investigations demonstrate that they are not threatened by surface displacements from future faulting. For the purposes of this act, an active fault is defined as a fault that has "had surface displacement within Holocene time" (about the last 11,000 years). Sacramento County is not affected by Earthquake Fault Zones.

The Seismic Hazards Mapping Act of 1990 requires the State Geologist to delineate liquefaction and earthquake-induced landslide hazard zones in the state. Cities and counties affected by these hazard zones must regulate certain developments within

these zones, and withhold development permits for sites until geologic investigations demonstrate they are not threatened by liquefaction, earthquake, or induced landsliding during future earthquakes. Sacramento County is located outside of the Seismic Hazard Mapping Zones, although according to the CGS, the county has not yet been evaluated for possible inclusion in a Seismic Hazard Zone.

The California Uniform Building Code (CBC) contains the minimum standards for design and construction in California. All development in California is subject to the regulations of the CBC. Local standards other than the code may be adopted if those standards more strict. Some design considerations associated with seismic hazards need to address the appropriate building codes for a particular site. The code adopts all the standards associated with seismic engineering detailed in the Uniform Building Code of 1997. The 2007 California Building Code is adopted and incorporated into Title 16 of the Sacramento County Code and all construction, alteration, moving, demolition, repair and use of any building or structure within Sacramento County shall be made in conformance with the CBC.

The California Air Resources Board (ARB) has adopted an Asbestos Airborne Toxic Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations (17 CCR 93105). The Sacramento Metropolitan Air Quality Management District (SMAQMD) has mapped areas of serpentine and ultramafic rock in eastern Sacramento County and determined that these areas are subject to the ATCM (SMAQMD 2006b).

LOCAL GUIDELINES

LAND GRADING AND EROSION CONTROL

The Project will be required to comply with the Sacramento County Land Grading and Erosion Control Ordinance (Sacramento County Code Ch. 16.44). The ordinance was established to minimize damage to surrounding properties and public rights-of-way; limit degradation to the water quality of watercourses; and curb the disruption of drainage system flow caused by the activities of clearing, grubbing, grading, filling, and excavating land. The ordinance establishes administrative procedures, minimum standards of review, and implementation and enforcement procedures for the control of erosion and sedimentation that are directly related to land grading activities.

2030 SACRAMENTO COUNTY GENERAL PLAN

The General Plan contains goals and policies related to seismic and geologic hazards, and to conservation of soils. Applicable goals and objectives include maintaining a high level of public health and safety for all residents of Sacramento County while minimizing the loss of life, injury, and property damage due to seismic and geological hazards. The following policies are applicable.

SA-1. The County shall require geotechnical reports and impose the appropriate mitigation measures for new development located in seismic and geologically sensitive areas.

~~AG-28. The County shall actively encourage conservation of soil resources.~~

SIGNIFICANCE CRITERIA

Sacramento County considers impacts to geology, soils, and seismic areas of concern to be significant if a project would:

1. Expose people or structures to potentially substantial adverse effects, including the risk of loss, injury, or death involving:
 - a. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist of the area or based on other substantial evidence of a known fault
 - b. Strong seismic ground shaking
 - c. Seismic-related ground failure, including liquefaction
 - d. Landslides
 - e. Unsafe exposure to naturally occurring asbestos
2. Result in substantial soil erosion or the loss of topsoil.
3. Be located on a geological unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.
4. Be located on expansive soil as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property.
5. Result in obstruction of access to, and removal of, mineral resources. In particular for aggregate resources, removal or disruption of mineral resources delineated on a local general plan, specific plan, or other land use plan.

None of the soils present on the site, as described in *The Soil Survey of Sacramento County, California*, are listed as unstable; significance criteria 3 does not apply. Though there is topographical variation on the site, there are no major bluffs or other features that would make the Project susceptible to damage related to landslides; significance criteria 1d does not apply.

METHODOLOGY

In general, the geotechnical characteristics of the Project area determine the potential for structural and safety hazards as well as mineral resource impacts that could occur with development related to the proposed Project. Existing conditions data was summarized from the previously identified documents and resources as well as geotechnical reports prepared by Wallace Kuhl and Associates Inc. (Wallace Kuhl) which can be found in Appendix GS-1 of this EIR. The Project was analyzed in terms of its consistency with Sacramento County General Plan policies and potential for geologic or soils-related hazards to people and property in the Project area as well as potential for mineral resource impacts. It should be noted that soil resources generally pertain to the agricultural suitability of the soil; Project issues related to the agricultural suitability of the site are addressed in the Agricultural Resources chapter of this EIR.

IMPACTS AND ANALYSIS

The Cordova Hills Project is located on approximately 2,669 acres in southeastern Sacramento County, adjacent to the eastern city limits of Rancho Cordova. The Project includes a mix of residential uses from high density residential along the western edge of the Project to low density residential along the eastern boundary approaching the USB. The Project includes a Town Center commercial area adjacent to Grant Line Road. Just southeast of the Town Center is the proposed location of the University/College Campus Center. The Project includes mixed uses consisting of residential, office, retail, a university/college campus center, schools, parks, and a trail network.

IMPACT: SOIL EROSION

Erosion is a natural process that occurs when wind and water reshape or wear down landforms and the eroded materials are deposited in another location. The erosion of soil can be accelerated when existing groundcover is removed from the surface of the ground such as during grading or clearing activities which expose underlying soil to erosional forces. The most likely potential for erosion to occur is as a result of construction activity where soils may be exposed for some length of time.

According to the NCRS web soil survey, there are 16 different soil units within the Project area (refer to Plate GS-6). *The Soil Survey of Sacramento County, California*, (1993) issued by the USDA Soil Conservation Service indicates these soils range in depth from very deep to very shallow and that the hazard of erosion potential for these soils range from slight to severe. The soil unit noted to be a severe erosion hazard is unit 188 which is located on the eastern portion of the site where low and medium density development is proposed. Implementation of the proposed Project may allow for development that could result in increased soil erosion.

The Project will be required to comply with the Sacramento County Land Grading and Erosion Control Ordinance (Sacramento County Code Ch. 16.44). The ordinance was established to minimize damage to surrounding properties and public rights-of-way; limit degradation to the water quality of watercourses; and curb the disruption of drainage system flow caused by the activities of clearing, grubbing, grading, filling, and excavating land. The ordinance establishes administrative procedures, minimum standards of review, and implementation and enforcement procedures for the control of erosion and sedimentation that are directly related to land grading activities. Also refer to the Hydrology and Water Quality chapter for further discussion.

Because development projects are already subject to the County Land Grading and Erosion Control Ordinance and the State Water Resources Control Board stormwater permitting requirements, any development related to the proposed Project will be subject to erosion and sediment control measures as a matter of course. As such, the Project will not result in substantial soil erosion or the loss of topsoil and impacts to soil resources are considered to be *less than significant*.

MITIGATION MEASURES:

None required.

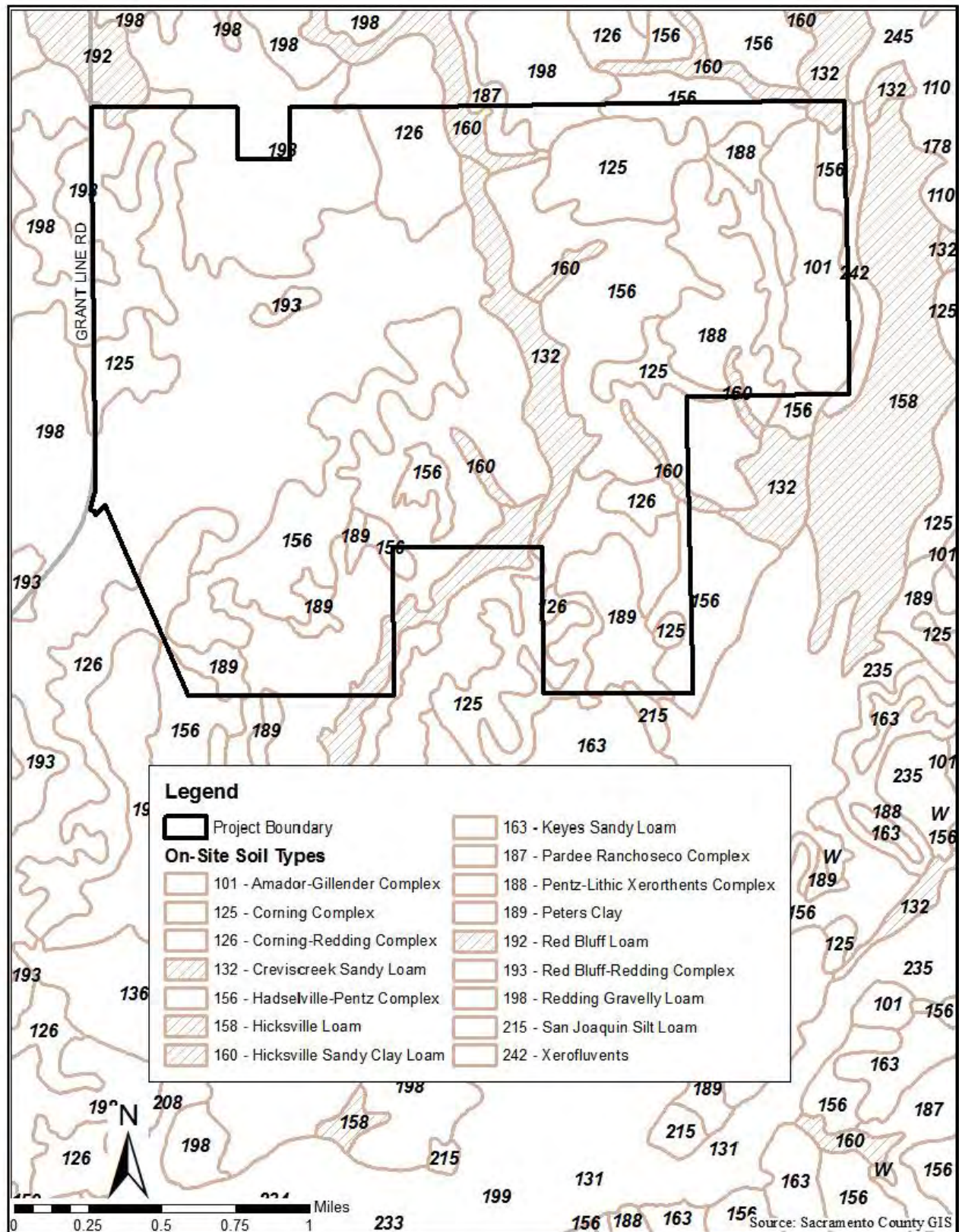
IMPACT: EXPOSURE TO EXPANSIVE SOILS

According to the geotechnical reports prepared by Wallace Kuhl, the Project site contains soils that have a high shrink-swell potential, including the Peters clay profile (unit 189 on Plate GS-6; note that the hatchmarking denotes prime soils). *The Soil Survey of Sacramento County, California* indicates that the majority of the soils in the Project area have either a moderate or high shrink-swell potential at various depths, depending on the soil.

Development related to the proposed Project may result in the addition of new structures and roadways located in areas containing expansive soils that have the ability to cause structural damage to both foundations and roads. To address this, the construction permitting process within Sacramento County requires completed geotechnical reports for development located within areas known to contain expansive soils; the purpose of this is to identify potential hazards that may impact a project as well as measures to eliminate the hazardous soil conditions. Measures related to eliminating potential hazards of expansive soils can include the excavation of silts and clays to a suitable depth, the replacement of these materials with engineered fill and compacted granular fill material, or the mixing of onsite soils to achieve a consistent soil composition. This effectively removes expansive soils from a project area, or ensures that any expansion and contraction under the foundation is evenly distributed. In addition, structural design must conform to the criteria detailed in the UBC and CBC (Chapters 16, 18, 33 and the Appendix to Chapter 33). Consistent with Policy SA-1, a geotechnical report was prepared for the site.. The codes and policies are part of the existing regulatory framework of the County and reliance on them is assumed for any new development related to the proposed Project.

Any Project-related development will need to adhere to the existing UBC and CBC, which will ensure the maximum necessary protection available for development within areas known to contain expansive soils, and will avoid substantial risk to life and property; impacts are *less than significant*.

Plate GS-6: Soils within the Project Area



MITIGATION MEASURES:

None required.

IMPACT: EXPOSURE TO NATURALLY OCCURRING ASBESTOS

The Project area is located approximately 2,000 feet west of locations known as “Areas Moderately Likely to Contain NOA” based on the data provided in Special Report 192- Relative Likelihood for the Presence of Naturally Occurring Asbestos in Sacramento County, published by the California Geologic Survey. According to Wallace Kuhl, soil testing performed for the Project revealed no ultramafic rocks, serpentine, or obvious evidence of NOA. Given that the Project site is not mapped for NOA presence and that soil testing found no obvious evidence of NOA on the site, Project impacts related to unsafe exposure to naturally occurring are *less than significant*.

MITIGATION MEASURES:

None required.

IMPACT: OBSTRUCTION OF ACCESS TO MINERAL RESOURCES

As noted above, mineral resources in Sacramento County have been classified in a number of ways over the years, including as MRZs, ARAs, and MRAs. Although the MRZs (broad categories that take into account only geological factors) indicate that much of the County lies over mineral resources ranging from areas with “known mineral occurrences of undetermined mineral resource significance” to “areas underlain by mineral deposits where geologic data indicate that significant measured resources are present,” only a relatively small portion of the county lies over known high-quality mineral resources that are available for extraction. These areas, which reflect the most recent mineral resource classification for the County, are the ARA’s (MRZ-2z or 2b and available for extraction).

The ARA’s are primarily located south and southwest of Mather Airport, though there are newly designated areas to the northeast as well. The ARA located nearest to the Project site is located northeast of the site, in the newly-designated areas, approximately 2.5 miles from the site. As such, Project related development is unlikely to result in the obstruction of access to mineral resources within the County.

The aggregate resources of primary concern are located outside of the Project area. The subject property is shown to be on land with the MRZ-1 and MRZ-3 State mineral resource categories, which means that the site has either “little likelihood” of resources or resources of “undetermined mineral resource significance”. If suitable rock deposits are found within the proposed development areas, the applicant has indicated that the use of these deposits will be maximized for the production of aggregate for Project construction needs. Section 7.10 of the Cordova Hills SPA states that:

Screening, crushing and sizing of onsite aggregate-grade rock deposits encountered while conducting activities related to onsite excavation, earthmoving, construction of structures, landscaping, compaction, fills, road cuts and embankments shall be performed with the intent of utilizing to the fullest extent feasible the onsite aggregate-grade rock deposits while construction activity is ongoing. The operations of the processing and sorting of grading materials will only take place within the project and no exporting of the materials offsite will be permitted.

On-site rock deposits and the tools and machinery needed for aggregate processing will be utilized in areas already designated for developed uses, and will be incidental to already-planned grading activities. Due to the variable nature of site topography, deep cuts are already planned in order to facilitate construction of the proposed uses. Aggregate extraction that may occur on the site will *not* involve attempts to find resources through significant exploratory digging which goes beyond the grading needed for general Project construction. The relevant topical chapters of this EIR disclose the impacts of full development of the proposed Project, including the earthmoving activities that will take place which may yield rock deposits and the techniques utilized to process aggregate.

The Project will not result in the placement of urban structures over an area of significant known aggregate value, and thus will not result in the obstruction of access to or loss of mineral resources. Furthermore, any small amount of aggregate that is found on the site will be used as part of Project construction. Impacts to mineral resources are *less than significant*.

MITIGATION MEASURES:

None required.

IMPACT: EXPOSURE TO GEOLOGICAL HAZARDS OR UNSTABLE SOILS

SEISMICITY AND GROUND SHAKING

Ground shaking occurs as a result of significant amounts of energy that are released due to seismic events. Sacramento County is less affected by seismic events than other portions of the State of California. Sacramento County does not lie within or adjacent to an Alquist-Priolo Earthquake Fault Zone nor are there any mapped seismic hazard zones within the County. Active faulting has not been mapped as occurring across or immediately adjacent to the County, and surface rupture due to faulting is not expected to occur unless some unknown fault is to rupture.

The majority of Sacramento County and the entire Project site have some of the lowest seismic potential in California. Nevertheless, some property damage has occurred in the County in the past due to seismic activity along faults in nearby counties. The damage that was experienced has largely been the result of major seismic events

occurring in adjacent areas, especially the San Francisco Bay area and, to a lesser extent, the foothills of the Sierra.

Tectonically, the Project area is situated in between faults in Northern California and Nevada. Although the Willows fault is the nearest fault to the Project area, this fault is not considered active or capable of rupturing to the ground surface, nor is it considered in current ground motion estimates. The next closest fault to the Project area is the Bear Mountain Fault Zone, which is located approximately seven miles east of the site. According to Wallace Kuhl, the Bear Mountain Fault Zone is considered a pre-Quaternary fault and has not been active in the last 1.6 million years, except for the "Rescue Lineament," which is located approximately 14 miles from the site and may have been active in late Quaternary time. The nearest known active fault that has been mapped on the C.W Jennings Fault Activity Map (see simplified version in Plate GS-7) is the Dunnigan Hills Fault located approximately 46 miles to the northwest of the site, although according to the CGS staff, evidence of Holocene displacement is questionable.

Although no active faults are known within Sacramento County, the region has undergone numerous instances of ground shaking caused by the surrounding faults. Peak horizontal ground acceleration values associated with characteristic earthquake events of faults can be used to assess probabilistic ground-shaking characteristics of a given region. The amount of shaking is often expressed in terms of "Peak Ground Acceleration," measured in percent of "g," the acceleration of gravity (approximately 9.80 meters per second per second). Although groundshaking may occur, a review of current information provided on the Department of Conservation website indicates that the peak horizontal ground acceleration within the Project area as well as the majority of Sacramento County, is estimated to be 10 to 20 percent of g or 0.10g to 0.20g, making the seismic ground-shaking hazard relatively low within the proposed Project area (see Plate GS-8).

Although seismic ground-shaking hazards are considered relatively low, ground shaking from earthquakes in the Sacramento region, contributed by the relatively close faults located primarily in the bay area, could cause light to moderate damage to structures depending on construction methods.

In Sacramento County, commercial, institutional and large residential buildings as well as all related infrastructure are required, in conformance with Chapter 16, *Structural Design Requirements*, Division IV, *Earthquake Design* of the CBC, to lessen the exposure to potentially damaging vibrations through seismic resistant design. In compliance with Sacramento County General Plan Safety Element policies and the UBC and CBC, all structures in the Project area would be well-built to withstand ground shaking from possible earthquakes in the region. Structures built to the requirements of these codes readily withstand the levels of ground shaking that could occur in the Project region.

Based on the existing regulatory framework that governs new development within Sacramento County which addresses safety issues and requires that development adhere to the CBC and other relevant policies, regulations, and design standards

related to seismic activity, seismically induced groundshaking effects are not expected to be substantial hazards. Therefore, development related to the proposed Project will not expose people or structures to substantial new adverse effects related to a rupture of a known fault or strong seismic ground shaking; impacts are *less than significant*.

LIQUEFACTION

Liquefaction occurs when ground shaking causes a sediment layer saturated with groundwater to lose strength and take on characteristics of fluids, therefore reducing the ability of the soil to support the load of structures. As a result, structures could be shifted off balance or even destroyed under sufficient liquefaction conditions. Two possible liquefaction areas exist within Sacramento County: Sacramento City's Downtown area and the Delta area. Because the known liquefaction areas are not located within the vicinity of the Project site, the proposed Project will not expose people or structures to substantial adverse effects related to liquefaction; impacts are *less than significant*.

MITIGATION MEASURES:

None required.

Plate GS-7: Simplified Fault Activity Map

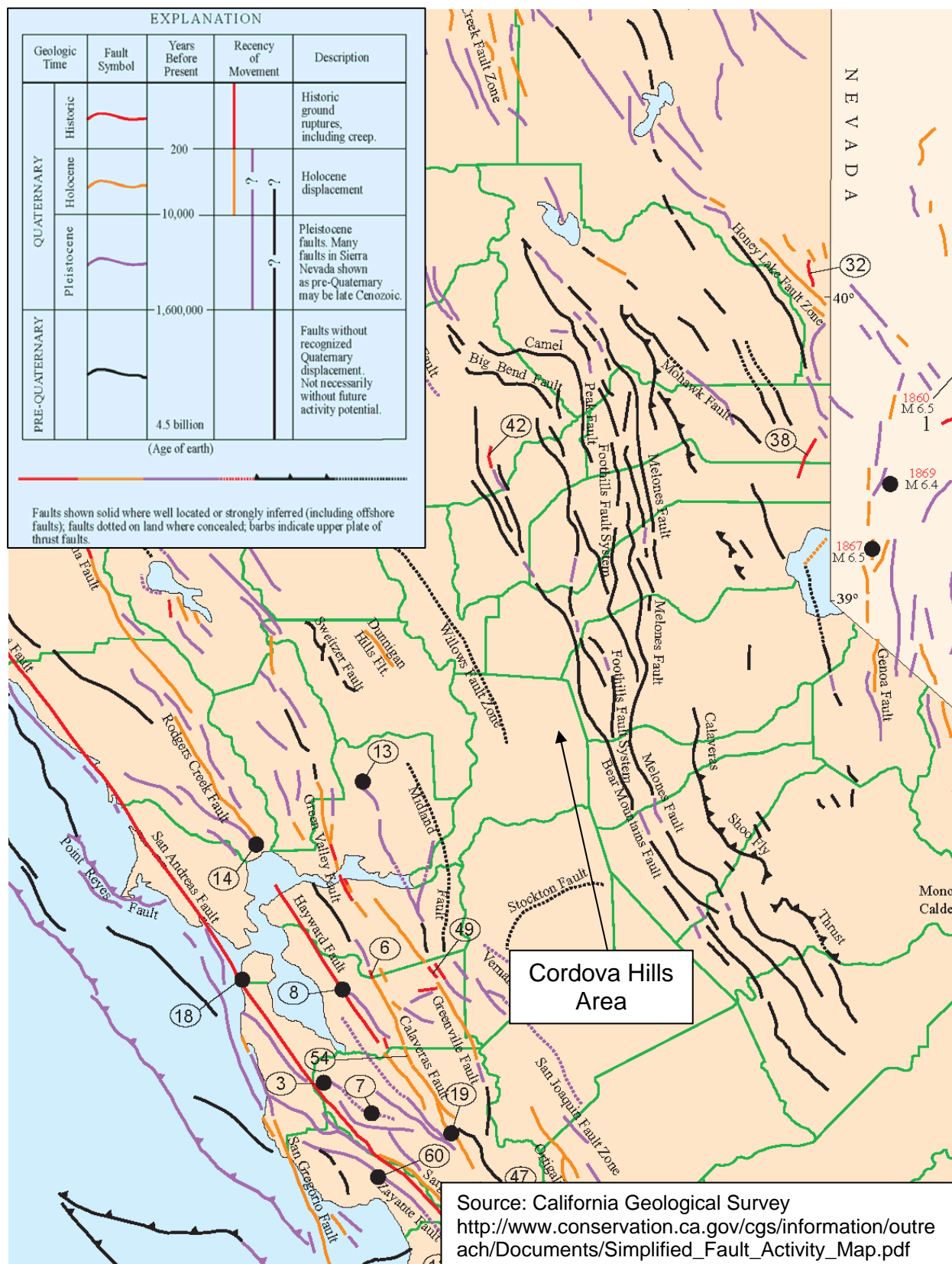
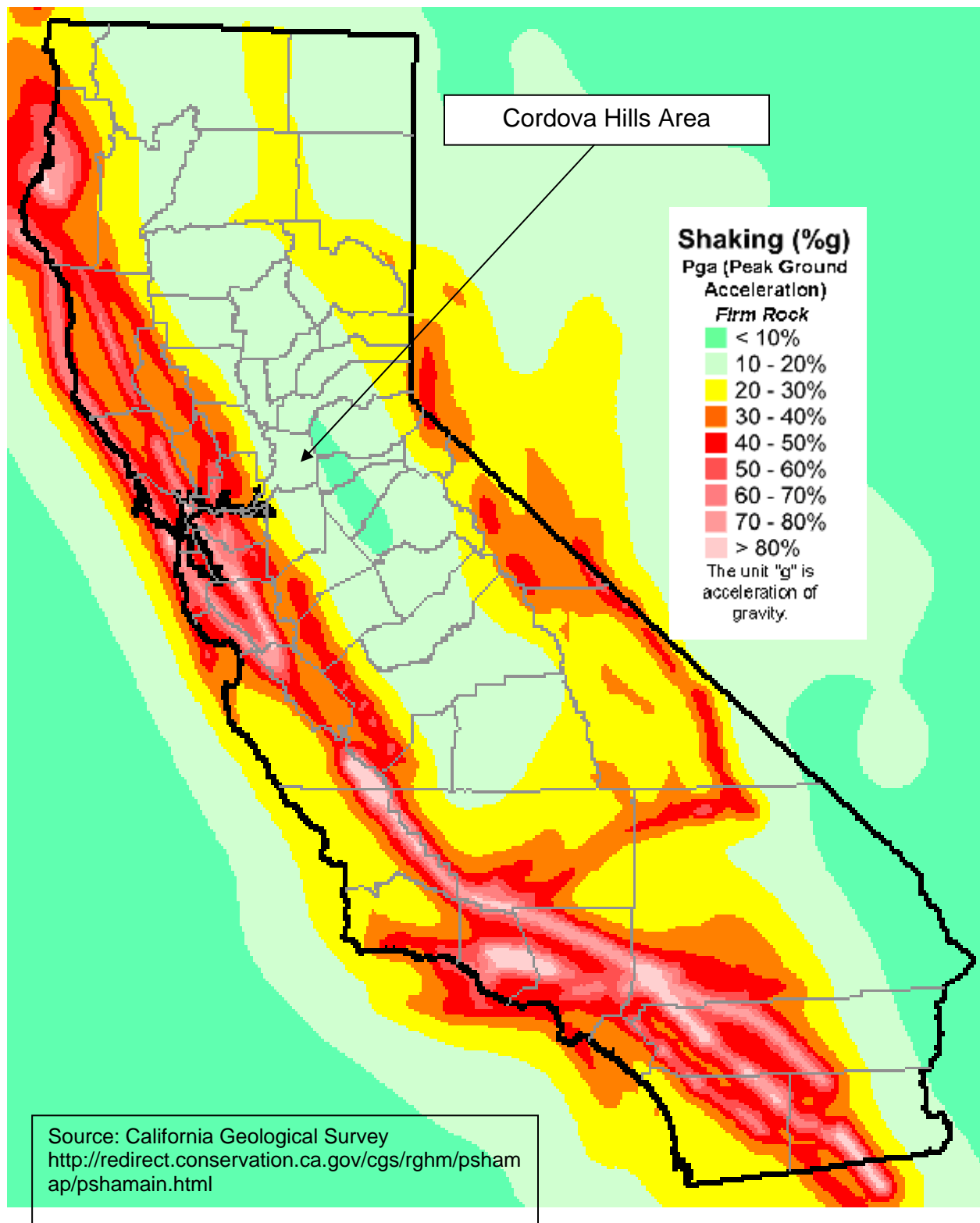


Plate GS-8: Seismic Shaking Hazards in California



10 HAZARDOUS MATERIALS

INTRODUCTION

This chapter addresses the effects of development consistent with the proposed Project related to hazardous substances in Sacramento County and the effectiveness of proposed policies to mitigate identified impacts. The term “hazardous substances” refers to both hazardous materials and hazardous wastes. A material is defined as hazardous if it appears on a list of hazardous materials prepared by a federal, state or local regulatory agency, or if it has characteristics defined as hazardous by such an agency.

Sacramento County uses the definition of “hazardous materials” in the California Health and Safety Code, Division 20, Chapter 6.95, Section 23301, which states:

(a) “Hazardous material” means any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. “Hazardous materials” include, but are not limited to, hazardous substances, hazardous wastes, and any material which a handler or the administering agency has a reasonable basis for believing that would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

This definition is not limited to just those chemicals with long-term detrimental effects. It also includes materials that present a hazard because of their physical nature (explosive, corrosive, flammable).

This chapter will discuss hazardous materials and handlers of hazardous materials. Handlers consist of individuals or firms that manufacture, store, use, ship, recycle, or dispose of hazardous materials. Also, the health impacts that can result from exposure or long-term contact with hazardous materials will be assessed. Policies and mitigation measures to protect from exposure and reduce exposure levels in long-term contact conditions will be identified, as appropriate.

ENVIRONMENTAL SETTING

Sacramento County has a variety of hazardous substances associated with many uses. These include known contaminated properties; businesses that handle (use and/or collect) contaminants; household contaminants; landfills; lead-based paint; asbestos (in buildings predating 1970 – natural soil sources are discussed in the Geology and Soils

chapter); and pesticides, fertilizers, and petrochemicals associated with agriculture. These sources can contaminate soil, ground and/or surface water, and buildings.

Table HM-1 below lists the databases used to determine the presence or absence of known contaminated sites, a description of the information they contain, and the authority charged with maintenance of these databases. The setting sections below describe, in general, the known or potential hazardous materials and/or sites in the vicinity of the Project. The more specific descriptions of these hazards and their potential impacts to the Project are contained in the Impacts and Analysis section.

Table HM-1: Federal, State, and Local Databases & Lists for Hazardous Materials

Database	Description
Federal	
National Priorities List (NPL)	This list is maintained by the Environmental Protection Agency (EPA) and includes the most severe hazardous waste sites as identified by Superfund. Sites are put on the NPL after they have been scored using the Hazard Ranking System, as well as having been subjected to public comment. Any site on the NPL is eligible for cleanup using Superfund Trust money. The NPL is primarily an informational resource that identifies sites that may warrant cleanup.
State	
Geo Tracker	This database is maintained by the State Water Resources Control Board and tracks regulatory information about leaking underground fuel tanks (LUFTs), fuel pipelines, and public drinking water supplies.
Envirostor	This database is maintained by the State Department of Toxic Substances Control (DTSC) and holds information on investigation, cleanup, permitting, and corrective actions that are planned, are being conducted, or have been completed under the DTSCs oversight.
Local	
Master List of Facilities within Sacramento County with Potentially Hazardous Materials (Master List)	This list is maintained by the Sacramento County Environmental Management Department
Toxic Site Clean-Up Site Specific Report	This list is maintained by the Sacramento County Environmental Management Department and lists where unauthorized releases of potentially hazardous materials have occurred.

LEAD

Lead is commonly found in paint, dust, and soil. In 1978 the Federal government banned the use of lead-based paint in housing. Many homes built before 1978 have lead-based paint. If the paint is in good condition it is usually not a hazard. However, if lead-based paint is dry scrapped, dry sanded, or heated, lead dust can form. This lead dust can get on surfaces and objects that people touch and settled lead dust can re-enter the air when people vacuum, sweep, or walk through it. Lead can also settle in soil from flaking or chipped exterior lead-based paint. This can be tracked into a house by children playing in bare soil, causing a possible hazard. Lead poisoning, especially in children, can cause damage to the brain and nervous system, behavior and learning problems, hearing problems and headaches. Adults are also susceptible and can have difficulties during pregnancy, high blood pressure, nerve disorders, muscle and joint pain, and memory and concentration problems, to name a few (US EPA, 2007).

There are no structures on the Project site. Though there is a historic homestead site, none of this structure remains.

ASBESTOS

Asbestos is a naturally occurring, fibrous silicate mineral mined for its useful properties, such as thermal insulation, chemical and thermal stability, and high tensile strength (greater resistance to longitudinal stress before rupturing).

Asbestos is classified as a known human carcinogen by state, federal, and international agencies and was identified as a toxic air contaminant by the California Air Resources Board (ARB) in 1986. Asbestos poses a health risk only when it becomes friable, such as through disturbance or damage. Once airborne, asbestos fibers may be inhaled into the lungs where they can cause serious health problems (United States EPA, 2008). All types of asbestos are hazardous and may cause lung disease and cancer.

Asbestos was commonly used as an acoustic insulator and in thermal insulation (fire proofing and other building materials). The United States EPA issued a final rule banning most asbestos-containing products in July 1989; however, this regulation was overturned in 1991, by the Fifth Circuit Court of Appeals in New Orleans. The Courts ruled that the United States EPA ban shall remain for specific asbestos-containing products. These banned products are flooring felt; rollboard; and corrugated, commercial, or specialty paper. The regulation continues to ban the use of asbestos in products that have not historically contained asbestos, otherwise referred to as "new uses" of asbestos.

In ARB's Final Regulation Order for Asbestos Airborne Toxic Control Measure For Construction, Grading, Quarrying and Surface Mining Operations (California Code of Regulations Title 17, Section 93105), specific mitigation measures were developed for asbestos. ARB's staff has the data and expertise necessary to determine appropriate control measures, and is the regulatory agency responsible for establishing controls.

There are no structures on the Project site. Though there is a historic homestead site, none of this structure remains. As stated previously, discussions of naturally-occurring asbestos are within the Geology and Soils chapter.

KNOWN SMALL CONTAMINATED SITES

There are many types of businesses that handle hazardous wastes or materials, including automotive businesses, gas stations, buildings supplies (concrete, painting, lumber, etc), and dry cleaners. For many of these businesses, the contamination source is an above-ground or underground storage tank that has developed a leak. The contaminants may be contained solely within the surrounding soils, or they may pass into groundwater and cause a migrating contamination plume. The databases noted in Table HM-1 maintain lists of these known contamination sites, the source of contamination, and the status of cleanup efforts. Reviewing all of the lists for known contaminated sites within ½-mile of the Project disclosed only one small site: the Sacramento County Boys Ranch (Boys Ranch).

The Boys Ranch is a juvenile correction facility operated by the County – though as of the time of this writing budget reductions have resulted in the facility's closure. It is located just outside of the northeastern site boundary. The contamination on the site was associated with a leaking underground fuel storage tank.

KNOWN LARGE CONTAMINATED SITES

AEROJET CORPORATION

Aerojet was founded in 1942 with the development of the Jet Assist Take Off (JATO) rocket motor that provided extra boosting power for United States military planes during World War II. Aerojet developed, tested, and produced rocket engines and ordnances in the propulsion industry. The Aerojet headquarters are located near Highway 50 in Sacramento County, approximately five miles from the Project site; this facility is listed on the Sacramento County Environmental Management Department (County EMD) Toxic Site Clean Up list with 21 buildings. Of those buildings, 18 cases have been closed and of those, five received remedial action. Two of the three open cases are under the jurisdiction of the State Department of Toxic Substances Control (DTSC) and the third open case is under the jurisdiction of County EMD.

Of the three open cases, the types of contaminants at the Aerojet sites are petrochemicals (gasoline and diesel). The types of receiving bodies contaminated (case types) are listed as other aquifers (such as non-potable perched groundwater), soil only, and undetermined (which are areas where contamination has not be determined in soil or groundwater). Aerojet is listed as having sites on the Leaking Underground Fuel Tank (LUFT) list and sites listed in the Spills, Leaks, Investigation, and Cleanups (SLIC) list. Two wells (one inactive, the second with an unknown status) and a landfill (land disposal list) are noted on the Geo Tracker database as an open case. Aerojet is also listed on the Envirostor database as an open Federal Superfund site.

Contamination remaining at Aerojet today from past uses, which has generated the Superfund designation, includes petrochemical contamination of aquifers and soil from leaking underground storage tanks, spills (non-permitted discharges), the contamination of wells and groundwater due to volatile organic compounds and solvents (among other contaminants), and contamination from landfills on site. These cases remain open, as does the Federal Superfund listing.

LANDFILLS

Potential hazards to public health and safety can be associated with landfill operations. These hazards include spread of disease, risk of fire or explosion, exposure of humans to air-borne toxics, degradation of water quality, and human exposure to locally-confined hazardous or infectious wastes. Kiefer Landfill and other landfill sites within Sacramento County are fully permitted through California Department of Resources Recycling and Recovery (CalRecycle) and have plans in place to mitigate these dangers. Modern landfill design includes the placement of a several liners separating waste lifts (layers where any waste material having seeped through is pumped to the surface to treatment tanks). Also a flexible membrane liner is laid out beyond a drainage layer below the series of waste lifts (CIWMB, 2001).

There are ten landfills in Sacramento County, though not all of these are active. Plate HM-1 presents a map of the landfills in Sacramento County. Table HM-2 presents a status list of the landfills in closest proximity to the Project area (facilities 10, 11, and 25 on the map). In February 2008, County EMD staff (L. Todd) commented that the Aerojet Lagoon site on the map is gone and the Aerojet Plant 2 sites are part of the larger Aerojet site already mentioned (sites 5 – 7 on the map). The sites listed as “inspected closed site” (facilities 10 and 11 on the map) have been inspected by County EMD, and are no longer active. This leaves site 25, the Kiefer Landfill, as the only active site that warrants discussion. County-owned property associated with the landfill is adjacent to the southern project boundary, though the active landfill is several thousand feet away.

Plate HM-1: Solid Waste Landfill Sites in Sacramento County

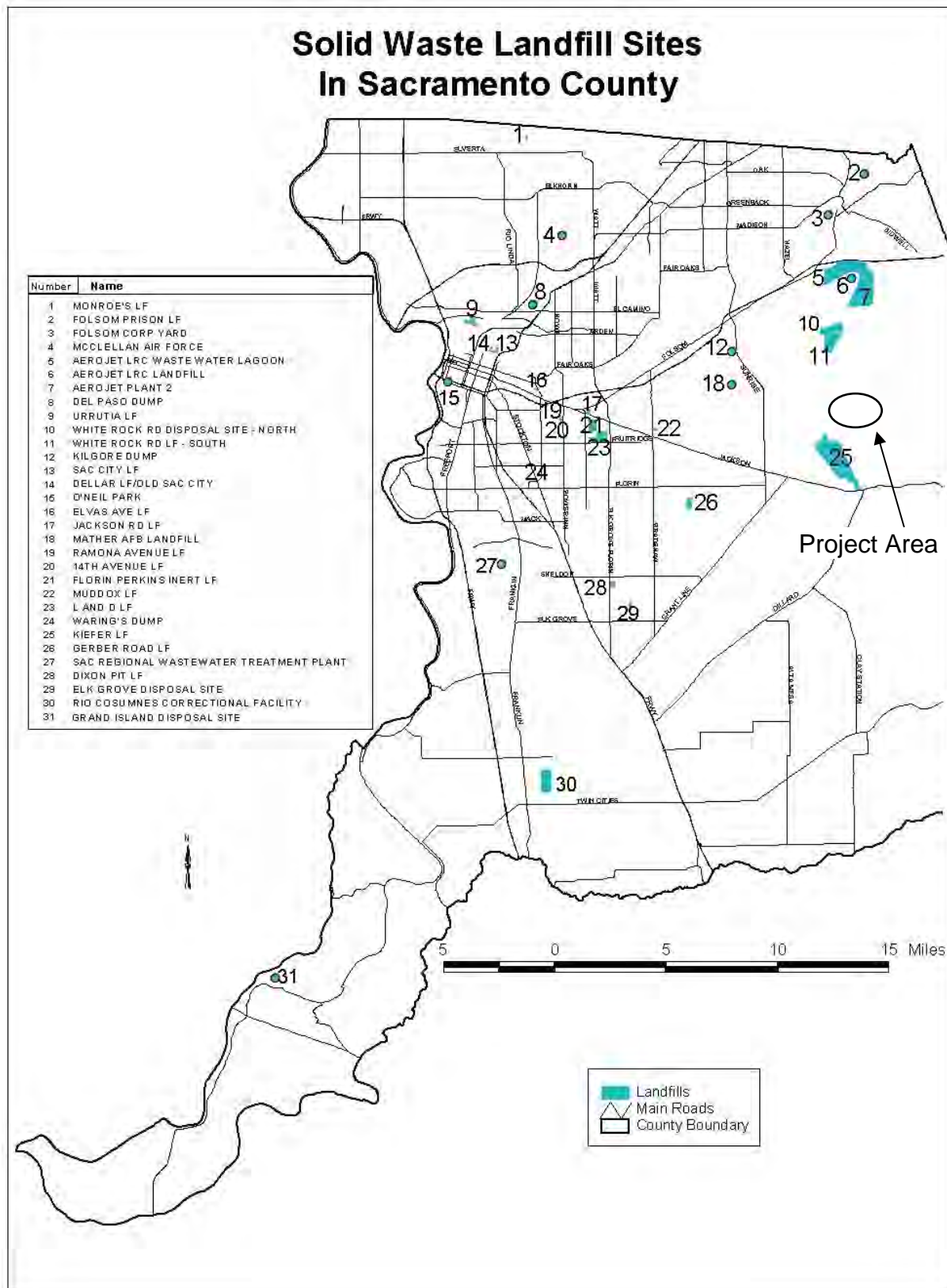


Table HM-2: Status of Landfills in the Project Vicinity

Landfill	Status
Kiefer Landfill	Open
White Rock – North	Inspected closed site
White Rock – South	Inspected closed site

SPILLS AND LEAKS

Spills and leaks can originate from aboveground and underground sources. Aboveground sources include aboveground storage tanks (ASTs) and pipelines. Aboveground spills and leaks are listed on the Regional Water Quality Control Board's (Regional Water Board) Geo Tracker as a SLIC site. As of late 2007, there are 172 SLIC sites listed within Sacramento County. This includes sites in the unincorporated county and cities. There are none listed within one mile of the site.

Spills and leaks originating from underground sources are from underground tanks, such as underground storage tanks (USTs) and underground fuel tanks (UFTs). USTs and UFTs are essentially the same since it is rare that underground tanks store something other than fuel. Geo Tracker groups leaking underground tanks with leaking underground fuel tanks in the Leaking Underground Fuel Tank category. As of late 2007, there are 1,389 LUFT sites listed within Sacramento County. There are none listed within one mile of the site.

REGULATORY SETTING

Throughout the United States including California, hazardous materials are regulated by a number of federal and state laws, most of which are promulgated by the United States Environmental Protection Agency (US EPA) and the California Environmental Protection Agency (Cal EPA). On the federal level, these regulations include the Resource Conservation and Recovery Act (RCRA), Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Clean Air and Clean Water acts, Safe Drinking Water Act, Hazardous Materials Transportation Act, and the Emergency Planning and Community Right-to-Know Act. Together, these regulations serve as guiding principles governing the storage, use, and transportation of hazardous and other regulated materials from their time of origin to their ultimate disposal. The cleanup and remediation of environmental contamination resulting from the accidental or unlawful release of these materials and substances are also governed by these regulations. Solid wastes that are not classifiable as hazardous are regulated under RCRA and pollution prevention is also regulated under the Clean Air, Clean Water, and Safe Drinking Water acts.

On the state level, Cal EPA's DTSC is responsible statewide for matters concerning the use, storage, transport, and disposal of hazardous materials. Cal EPA's Office of

Environmental Health Hazard Assessment (OEHHA) is involved in the evaluation of risks to public health and the environment posed by hazardous materials and environmental contamination. Cal EPA delegates much of the permitting, inspection, and enforcement responsibility for hazardous materials, hazardous waste, ASTs, USTs, and other related state programs to local governments under the Certified Unified Program Agency (CUPA) program.

County EMD is both the local Environmental Health regulatory agency and the County-wide Certified Unified Program Agency. County EMD is also the Local Oversight Program for UST site investigation, cleanup, and closure, and the Local Enforcement Agency (LEA) for landfills. The Central Valley Regional Water Quality Control Board (CVRWQCB) also has jurisdiction over the management of surface and groundwater contamination such as the cleanup of spill sites. Finally, the Sacramento Metropolitan Air Quality Management District (SMAQMD) is involved in the assessment of health and environmental hazards associated with both “criteria” and toxic (or hazardous) air pollutants.

2030 SACRAMENTO COUNTY GENERAL PLAN POLICIES

The Sacramento County General Plan Hazardous Materials Element provides a hazardous materials policy plan to manage hazardous materials and minimize their effects on humans and the environment. The General Plan policies include measures to educate and inform the public about hazardous waste management, implement public health and safety programs, and coordinate with other agencies to enforce hazardous materials regulations. The General Plan also provides details on emergency response plans for responding to hazardous material spills and other emergency actions.

The Sacramento County General Plan policies that are pertinent to Hazardous Materials are policies HM-1 through HM-15. These policies are intended to support the stated objectives of the Hazardous Materials Element of the General Plan. As presented in the element the objectives are as follows:

County-wide public awareness of all available hazardous material informational and disposal programs;

Protect the residents of Sacramento County from the effects of a hazardous material incident via the implementation of various public health and safety programs;

Coordinated efforts by the applicable regulatory agencies, thereby facilitating effective long-term hazardous materials management;

Enforce all federal, state, and local regulations and if necessary prosecute those cases involving the mismanagement of hazardous materials; and

The availability of reliable and solvent funding sources to augment hazardous materials management

The policies in the Hazardous Materials Element most applicable to the Project are as follows:

HM-4. The handling, storage, and transport of hazardous materials shall be conducted in a manner so as not to compromise public health and safety standards.

HM-8. Continue the effort to prevent ground water and soil contamination.

HM-9. Continue the effort to prevent surface water contamination.

SIGNIFICANCE CRITERIA

Pursuant to the CEQA Guidelines, the County of Sacramento considers impacts to hazards and hazardous materials to be significant if a project would:

1. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
2. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Specific conditions include:
 - a. Location within 1,000 feet of a known contamination site
 - b. Location within 2,000 feet of a known "border zone property" (i.e., "Superfund" site) or a hazardous waste property subject to corrective action pursuant to applicable health and safety codes
 - c. Involve excavation at a Department of Toxic Substances Control closed site that could disturb contaminated soils
 - d. Location on or near an active or former landfill
 - e. Properties historically developed with industrial or commercial uses that involve dewatering in association with major excavation in an area of high groundwater
 - f. Emissions of hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste within ¼ mile of an existing or proposed school
 - g. Location on a site that is included on a list of hazardous materials sites compiled pursuant to California Government Code Section 65962.5 and,

as a result, would create a significant hazard to the public or the environment

Significance criteria 1, 2c, 2e, and 2f are not applicable to the Project, because it does not involve the generation, transport, or emission of hazardous substances and was not historically developed with industrial or commercial uses. The analyses to follow focus on the proximity of proposed development areas to known hazardous sites or conditions.

METHODOLOGY

A review of two databases and two lists was conducted to assemble a list of hazardous materials storage and use, and known contaminated sites within the Project vicinity. Envirostor is a database maintained by the State DTSC and holds information on investigation, cleanup, permitting, and corrective actions that are planned, are being conducted, or have been completed under the DTSC's oversight. Envirostor was reviewed and a list of sites was generated. Geo Tracker is a second database that is maintained by the State Water Resources Control Board and tracks regulatory data about underground fuel tanks, fuel pipes, and public drinking water supplies. Toxic Site Clean-Up Site Specific Report (Toxic Site) is a County-generated and maintained list that shows a list of known contaminated sites. Finally, the County's Master List of Business Facilities identifies business in Sacramento County that store and use hazardous materials. Each of these databases lists sites with active, inactive, certified, de-listed, no further action, and refer to other agency statuses. A site that is listed as closed is one at which remediation and cleanup activities are complete.

In addition to the database review, an Environmental Site Assessment report and an All Appropriate Inquiries Report were prepared by Wallace Kuhl & Associates (WKA, dated April 14, 2005 and March 30, 2007, respectively). Between them, these reports cover the entire Project site, and are hereby incorporated by reference. These reports are available for review at

<http://www.dera.saccounty.net/PublicNotices/SQLView/ProjectDetails/tabid/71/Default.aspx?ProjectID=35697>. As part of the WKA report, databases administered by the following agencies were reviewed: United States EPA, California EPA, California Department of Toxic Substances Control, California Office of Environmental Health Hazard Assessment, Central Valley Regional Water Quality Control Board, Department of Resources Recycling and Recovery (formerly Integrated Waste Management Board), California State Water Resources Control Board, California Department of Health Services, California Office of Drinking Water, and Sacramento County Environmental Management Department.

IMPACTS AND ANALYSIS

IMPACT: ACCIDENTAL RELEASE DUE TO TRANSPORT, USE, OR DISPOSAL OF HAZARDOUS MATERIALS

Standard construction activities would require the use of hazardous materials such as fuels, oils, lubricants, glues, paints, paint thinners, soaps, bleach, and solvents. These are common household and commercial materials routinely used by both businesses and average members of the public alike. The materials would only pose a hazard if they are improperly used, stored, or transported either through upset conditions (e.g. an explosion) or mishandling. All persons involved in the handling of these hazardous materials are required to use, store, and transport hazardous materials in compliance with local, state, and federal regulations during project construction.

In addition to hazardous materials used during construction, the operational Project would result in the use, transport, and storage of materials that are considered hazardous. Increased transport would occur in response to commercial demand for the products within the Project development, and both residential and non-residential areas would use and store materials considered to be hazardous. Household hazardous materials include cleaners, pesticides, paints, lubricants, and similar items. Commercial uses would involve greater amounts and types of hazardous materials, including underground storage tanks associated with gas stations and automotive-related businesses. It is presumed that pharmacies and medical offices may also be developed, which would include the use of materials considered hazardous and the generation of medical wastes which are considered hazardous.

Regulations pertaining to transport of hazardous materials are codified in 49 CFR 171 – 180. These regulations provide definitions for hazardous materials, including a “hazard class” that requires the listing of each material type according to its major property (e.g. flammable solid). There are separate requirements for each stage of the transport process, including preparation of shipping paperwork, the appropriate labeling of shipping containers, the requirements specific to the shippers of the material, and the requirements specific to the carriers of the material. There are also categories of materials and packages that are prohibited from being shipped.

Hazardous materials transport regulations are enforced and monitored by the California Department of Transportation and the California Highway Patrol. All carriers and drivers involved in transportation of hazardous materials must apply for and obtain a hazardous materials transportation license from the California Highway Patrol. When transporting explosives and inhalation hazards, safe routing and safe stopping places are required, as described in 26 CCR Section 13 et seq. A route map must be carried in the vehicle. The purpose of these regulations is to reduce the likelihood of exposure to people and the environment.

Specifications for storage on a construction site are contained in various regulations and codes, including the California Code of Regulations, the Uniform Fire Code, and the California Health and Safety Code. Some of the relevant standards are:

- all reserve fuel supplies and hazardous materials must be stored within the confines of a designated construction area,
- equipment refueling and maintenance must take place only within the staging area,
- construction vehicles shall be inspected daily for leaks, and
- a Spill Prevention, Control, and Countermeasure plan shall be prepared and implemented.

In addition to the above regulations pertinent to storage and spill prevention requirements, workplace rules administered by the California Occupational Safety and Health Administration (enacted by the California Code of Regulations) ensure that the hazards of all chemicals are evaluated and that information concerning chemical hazards is transmitted to employees. This is accomplished by:

- container labeling and other warnings,
- Material Safety Data Sheets, and
- employee training.

All regulations and codes must be implemented, as appropriate, and are monitored by the agencies described above. Such compliance would reduce the potential for accidental release of hazardous materials during construction and operation of the proposed Project. As a result, it would lessen the risk of exposure of construction workers and employees to accidental release of hazardous materials, as well as the demand for incident emergency response.

The Environmental Compliance Division of EMD has been designated by the California Environmental Protection Agency as the Certified Unified Program Agency for Sacramento County. The role of the Certified Unified Program Agency is to implement six statewide environmental programs:

- underground storage of hazardous substances
- aboveground storage tanks (spill prevention and countermeasures)
- hazardous materials business plan requirements
- hazardous waste generator requirements
- California accidental release prevention program
- Uniform fire code hazardous materials management plan

Implementing the above includes the permitting and inspection of regulated facilities, providing educational guidance and notice of changing requirements, investigations of complaints regarding spills or unauthorized releases, and administrative enforcement actions levied against facilities that have violated applicable laws and regulations. Compliance with the above requirements, as monitored and enforced by EMD, lessens the risk of exposure of the general public to accidental release of hazardous materials.

Regulations pertinent to compounding, storing, and dispensing medicines and medical equipment such as needles are contained in the following: Title 16 of the California Code of Regulations section 1700 et. seq. and California Uniform Controlled Substances Act (Health and Safety Code 11000 et. seq.). These codes regulate how medicines may be legally supplied, compounded, stored, administered, and prescribed, as well as how to properly dispose of medicines and equipment such as needles.

For household materials use, all products offered for sale are required to be labeled appropriately to ensure safe use, storage, and disposal, and residents are required to use these materials consistent with labeling requirements. Laws regarding the safe disposal of hazardous materials apply to residents, just as they apply to businesses. The Sacramento County Department of Waste Management and Recycling operates multiple household hazardous waste drop-off locations, and also transports garbage collected from bins to the North Area Recovery Station, where household hazardous waste is separated for proper disposal.

Because construction and operation of the Project would implement and comply with federal, state, and local hazardous materials regulations and codes monitored by the state (e.g., California Occupational Safety and Health Administration, Department of Toxic Substances Control, California Highway Patrol, California Department of Transportation) and/or local jurisdictions (e.g., Sacramento Metropolitan Fire District and Sacramento County Environmental Management Department), impacts related to creation of significant hazards for construction workers, employees within the Project area, and the general public through routine transport, use, and disposal of hazardous materials would be unlikely; this impact is *less than significant*.

MITIGATION MEASURES:

None required.

IMPACT: PROXIMITY TO KNOWN CONTAMINATED SITES

There are three agency-listed contaminated sites within approximately one mile of the Project site. These include the Sacramento County Boys Ranch (a juvenile correction facility within 1,000 feet of the eastern Project boundary), Aerojet (located just over a mile to the northwest), and the Kiefer Landfill (located approximately 2,000 feet to the south). Each is discussed separately below.

SACRAMENTO COUNTY BOYS RANCH

The Boys Ranch is located adjacent to the eastern Project boundary. According to the WKA reports and review of the databases, the Boys Ranch experienced a hazardous material release from a leaking underground storage tank, but the tank was removed, the site was remediated, and the Boys Ranch received closure status from the Sacramento County Department of Environmental Management. Since the issue was remediated, Project approval would not result in the creation of a significant hazard to the public or the environment as it relates to the Boys Ranch property; impacts are *less than significant*.

AEROJET

This property is commonly called “Aerojet”, and will be described as such herein, but is also called the Boeing/McDonnell Douglas/Aerojet or the Inactive Rancho Cordova Test Site. The total Aerojet property extends from Highway 50 to a point approximately 1 ½ miles south of White Rock Road. Large portions of this property are no longer actively used as part of the company’s aerospace activities. Thus, although the Project site is just over one mile from the Aerojet property boundary, it is over three miles from the area of active use.

The Aerojet property is associated with potential and known contamination sites or conditions. This includes the former Administration Area near the intersection of Douglas Road and Grant Line Road (which contained a photographic laboratory, liquid oxygen laboratory and evaporation pond, manufacturing building, paint booth, vehicle checkout laboratory for flight simulations, and a drum storage area). The WKA report states that potential contaminants may include volatile organic compounds (VOCs), alcohols, metals, acids, bases, and possibly semi-volatile organic compounds. VOCs, kerosene, Freon-113, and several metals have been detected in the soils and groundwater beneath the Administration Area. Soil contamination is a hazard which is restricted to uses on the soil, so the analysis focuses on groundwater contamination.

The entire Aerojet Superfund site spans approximately 8,500 acres, and as a result spans multiple groundwater sheds which flow in different directions. None of the plumes are migrating in the direction of the Project¹. The WKA report indicates that the contaminated groundwater plumes located beneath the Administration Area have migrated southwesterly, away from the Project site. A Groundwater Extraction and Treatment Program (GET Program) **for the Administration Area** has been in place since 2002. **There are multiple GET wells throughout the Aerojet area, all of which are shown on the exhibit linked to footnote one, at the bottom of this page; the earliest of these became operational in 1982.** The purpose of the GET Program is to prevent further migration of the contaminated groundwater plume. Even if the GET

¹ US EPA Fact Sheet (2006)

[http://yosemite.epa.gov/r9/sfund/r9sfdocw.nsf/3dc283e6c5d6056f88257426007417a2/a87b19cbf8bd29738825784f0005767e/\\$FILE/Aerojet2006-09.pdf](http://yosemite.epa.gov/r9/sfund/r9sfdocw.nsf/3dc283e6c5d6056f88257426007417a2/a87b19cbf8bd29738825784f0005767e/$FILE/Aerojet2006-09.pdf)

Program were to cease functioning, the WKA report indicates that the Project site is not directly in the pathway of the plume **from the Administration Area**. Given that the plume migration path has been to the southwest of the contaminated site, away from the Project site, completion of the Project would not create a significant hazard to the public or the environment as it relates to the Aerojet property; impacts are *less than significant*.

KIEFER LANDFILL

IMPACTS TO THE PROJECT

Sacramento County owns and operates the Kiefer Landfill, which is the primary solid waste disposal facility in the County. Kiefer Landfill is a total of 1,084 acres in size, with a permitted disposal area of 660 acres. Kiefer Landfill is classified as a Class III municipal solid waste landfill facility and is permitted to accept general residential, commercial, and industrial refuse for disposal, including municipal solid waste, construction and demolition debris, green materials, agricultural debris, and other nonhazardous designated debris.

Sacramento County established a 2,000-foot buffer zone intended to prevent the encroachment of incompatible uses on the landfill. The proposed Project sports park is partially within this buffer, but the University/College Campus Center and all of the residential and commercial land uses are outside of the buffer.

The Kiefer landfill is not merely a single excavated pit that is gradually filled; it is operated in phases as a series of pits, or modules, that are each excavated, filled, and closed before moving on to the next module in the overall landfill plan. According to the WKA report, groundwater contamination from Kiefer landfill was first detected in 1987, and the source of this contamination is "Module M-1". Module M-1 is over 45 years old, and is unlined. As a result, the Sacramento County Department of Waste Management and Recycling indicates that Module M-1 has released VOCs into the groundwater and soils.

In 1995, the Sacramento County Department of Waste Management and Recycling installed a groundwater extraction system, including several extraction wells and a pump and treat system. Groundwater is currently extracted from 14 wells at a combined average rate of about 1,000 gallons per minute. The system includes two air stripper towers, a carbon absorption filter, and several extraction wells. Pump and treat remediation began in April 1995, with the objective of containing the spread of the plume and reducing volatile organic compound (VOC) levels in the source area. According to the monitoring reports submitted by the DWMR through 2006, groundwater extraction has removed over 700 pounds of VOCs from the groundwater since 1995, and resulted in an approximate 75 percent reduction in mass of VOCs in the groundwater. Treated groundwater is discharged to Deer Creek under National Pollutant Discharge Elimination System (NPDES) Permit No. CA0083681. (Source: Kiefer Bufferlands Land Use and Feasibility Analysis Final Report, March 2008, Environmental Stewardship and Planning)

Based on the above information, the groundwater contamination is being effectively contained, and even in absence of containment has been migrating in a southwesterly direction, away from the Project site. Furthermore, the potable water needs for the residential and commercial components of the Project will not be met through extraction of local groundwater, but will be served by the Sacramento County Water Agency. Completion of the Project would not expose Project residents or visitors to a significant hazard as it relates to contaminated groundwater; impacts to the Project are *less than significant*.

IMPACT: PROXIMITY TO KNOWN HAZARDOUS CONDITIONS

The Kiefer landfill is associated with known groundwater and soil contamination by VOCs migrating from Module M1. VOCs in soils and groundwater can collect underneath the ground surface and filter upward and become trapped within the airspace of enclosed areas, including buildings; this is also true of methane gas, which is another common byproduct of landfills. These gases are both potentially toxic and explosive, and therefore pose a hazard.

In 1997, the Sacramento County Department of Waste Management and Recycling installed a landfill gas (LFG) control system. The system includes a gas flaring facility and an LFG-to-energy plant with a combined extraction rate capability of 10,500 standard cubic feet per minute. Module M1 is connected to the system via vertical extraction wells. Limited landfill gas extraction is also performed to remediate pockets of gas that still exist in the subsurface outside of the landfill modules. (Source: Kiefer Bufferlands Land Use and Feasibility Analysis Final Report, March 2008, Environmental Stewardship and Planning)

Existing evidence from monitoring wells indicates that landfill gas is not present in the Project area (Erik Vanderbilt, Sacramento County Department of Environmental Management, phone call on September 22, 2010). This finding is supported by the lack of groundwater contamination north of the site. Although future landfill modules will be located to the north of the existing active landfill, which will bring buried waste closer to the Project site, these new modules will be lined to help prevent contaminant and gas migration. Furthermore, with the exception of the open-air sports park all of the Project uses will be outside of the 2,000-foot buffer around the landfill. The purpose of this buffer is to delineate a reasonable protective boundary around the landfill, outside of which appropriate development may occur. Nonetheless, given the existing gas migration Sacramento County Department of Environmental Management staff submitted a comment letter as part of the Notice of Preparation recommending the following:

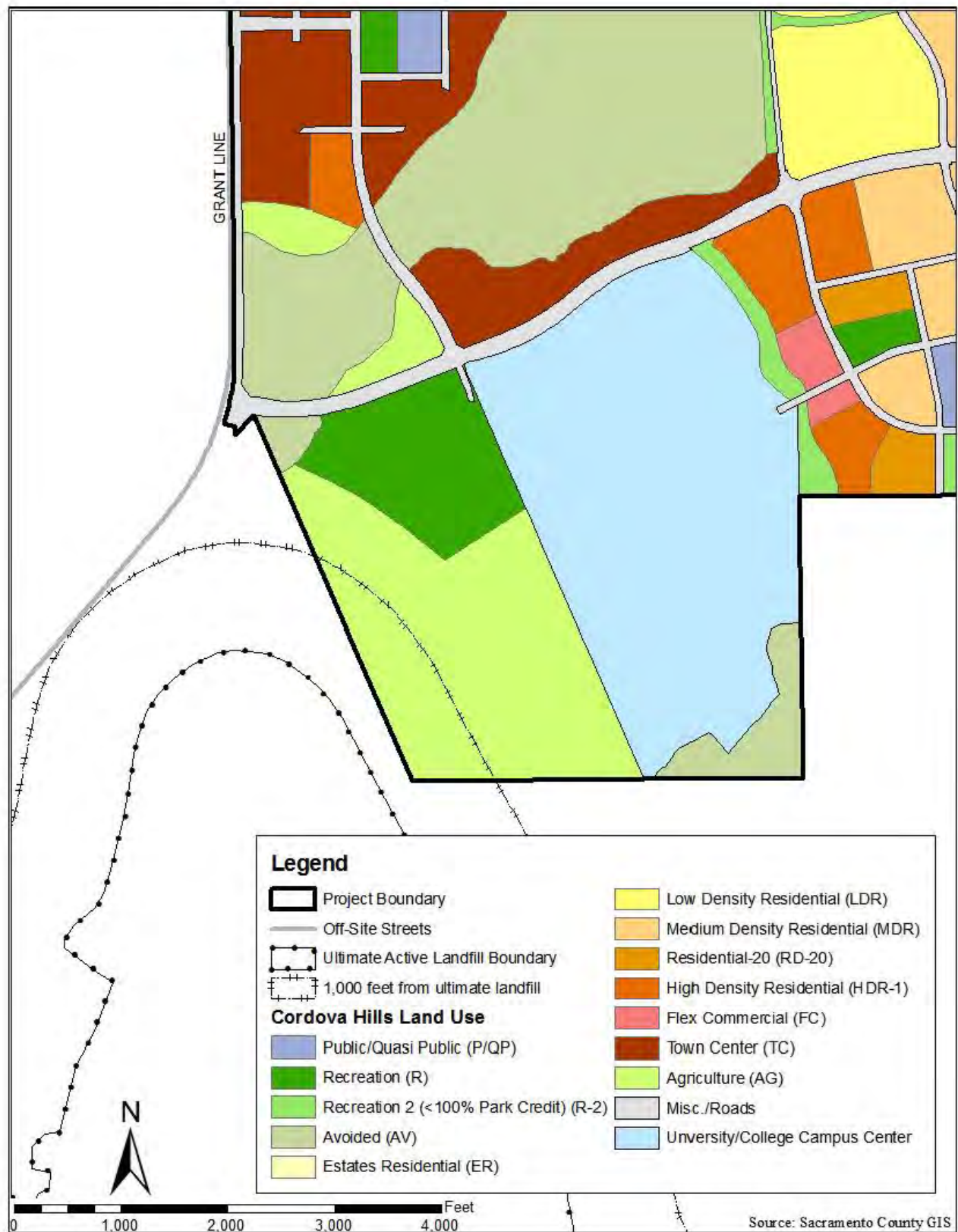
Any structure within the project boundaries (including but not limited to, buildings, subsurface vaults, utilities, or any other areas where potential landfill gas buildup may cause adverse impacts to the public health or safety or the environment) within 1000 feet of buried waste or proposed buried waste should be continuously monitored for landfill gas and adhere

to stricter construction standards to prevent landfill gas accumulation in those structures.

Only a small portion of the Project area is within 1,000 feet of the ultimate active landfill boundary (Plate HM-2), and this area is outside of the Urban Services Boundary and is designated Agriculture by the SPA. No residential structures or commercial structures are permitted within the Agriculture designation, so the Project is not expected to result in hazards affecting a substantial number of people. Nonetheless, the above is included as a recommended mitigation measure to ensure that residents and visitors to the Project site will not be exposed to a significant hazard as it relates to landfill gas migration; with mitigation, impacts are *less than significant*.

MITIGATION MEASURES:

- HM-1.** Any structure within the project boundaries (including but not limited to, buildings, subsurface vaults, utilities, or any other areas where potential landfill gas buildup may cause adverse impacts to the public health or safety or the environment) within 1000 feet of buried waste or proposed buried waste at Kiefer Landfill (refer to Plate HM-2 of the EIR) shall be continuously monitored **by the owner/operator of said structure** for landfill gas and be designed and constructed to prevent landfill gas accumulation in those structures.

Plate HM-2: Property Within 1,000 Feet of the Ultimate Landfill Boundary

IMPACT: PRESENCE OF ONSITE HAZARDOUS MATERIALS OR CONDITIONS

The Project area has historically been used for grazing and has not undergone any significant development. A search of the various contaminated site databases shows that there are no listed toxic sites either within or immediately adjacent to the area. Though the area has been used for agricultural purposes, it has been used as grazing land, not for crops. Unlike croplands, pesticides and fertilizers are not typically used on grazing lands, nor are petrochemicals or other toxic materials stored on the site. The WKA reports included a review of United States Geological Survey topographic maps of the area dating back to 1916. None of these maps show any large manufacturing facilities, industrial ponds, large above-ground storage tanks, airfields, mining-related features, or other features that could indicate potential contaminated conditions. Therefore, the potential for the area to contain undiscovered toxic materials either in the form of buried tanks or soil contamination is low.

According to the WKA report, the Project site contains seven cased water supply wells and possibly one hand-dug well identified as a collapsed circular depression on the central portion of the property. If there is no intent to use these wells, they must be properly destroyed in accordance with Sacramento County Code, Section 6.28.040.B. The property may also contain a private septic system or outhouse pit at the old homestead site, though the WKA report indicates that no such features were directly observed. If a septic system is present, it will need to be properly abandoned in accordance with Section 722 of the Uniform Plumbing Code. Lastly, there are two minor features of unknown origin on the site: two square pits. These could be prospect or mine related, but the features are small, healthy plants are growing over and within the pits, and there is no evidence of stained or odiferous soils. For these reasons, the potential for these features to involve contamination is minimal.

Based on the above analysis, there is no evidence of any recognized hazardous conditions that may have a significant adverse effect on the development of the Project site. Though there are existing wells, potentially a septic system, and two minor features on the site that are likely to require closure prior to development, the application of current laws and regulations will ensure that any of these features are identified and properly addressed prior to development. Existing regulations and programs will ensure that development in the Cordova Hills area does not expose people to a significant hazard associated with proximity to hazardous materials or contaminates sites. Impacts are *less than significant*.

MITIGATION MEASURES:

None recommended.

IMPACT: ASBESTOS OR LEAD EXPOSURE THROUGH RENOVATION OR
DEMOLITION OF EXISTING STRUCTURES

There are no existing buildings within the Project site, so there is no risk related to asbestos or lead exposure from changes to existing structures; impacts are *less than significant*.

MITIGATION MEASURES:

None recommended.

11 HYDROLOGY AND WATER QUALITY

INTRODUCTION

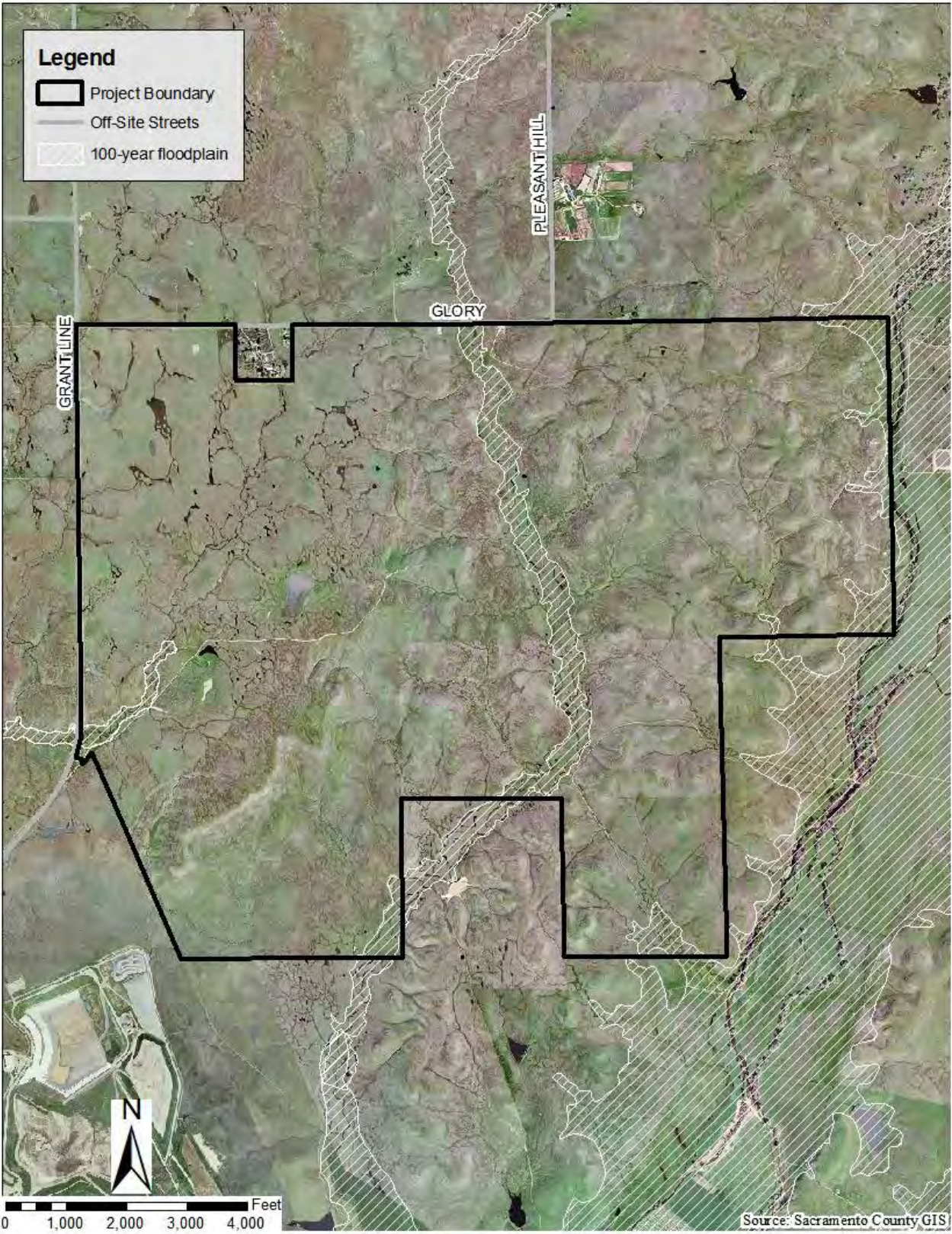
This chapter addresses the effects of development consistent with the Project relative to the hydrologic characteristics of the site and vicinity. There are many design standards, policies, and regulations that protect our water from pollution and our communities from flooding. An overview of pertinent regulations is important to include in this analysis; however, to prepare a concise report, the following documents are hereby incorporated by reference, and are available for review at 827 7th Street, Room 220, Sacramento:

- Stormwater Quality Design Manual for the Sacramento and South Placer Regions, May 2007.
- Sacramento County Improvement Standards
- Sacramento County Volume 2 Hydrology Standards
- Sacramento County Floodplain Management Ordinance
- Sacramento County Code 16.44 (Land Grading and Erosion Control)

HYDROLOGIC AND HYDRAULIC SETTING

The Project site is within the Laguna Creek, Deer Creek, and Carson Creek watersheds. Very little of the site is within mapped 100-year floodplain areas (Plate HY-1). There are three primary ephemeral drainages on the Project site that feed into Laguna Creek, Deer Creek, and Carson Creek. The intermittent drainage on the western side of the site connects to Upper Laguna Creek, which begins approximately 1.5 miles to the north of the site. Carson Creek lies along the eastern property boundary, and flows into Deer Creek approximately 1.5 miles south of the site. Deer Creek flows into the Cosumnes River, approximately 2.5 miles south of the site. There is an ephemeral drainage that extends through the approximate center of the site which flows into Deer Creek, and another ephemeral drainage on the eastern side of the site that flows into Carson Creek.

Plate HY-1: 100-Year Floodplain in Project Vicinity



REGULATORY FRAMEWORK

2030 SACRAMENTO COUNTY GENERAL PLAN

The General Plan includes multiple Elements containing policies relevant to flooding and water quality: the Agriculture Element, Circulation Element, Conservation Element, and Safety Element. There are many policies within each Element, but the policies of greatest relevance to the Project are included below.

AG-29. The County shall minimize flood risks to agricultural lands resulting from new urban developments by:

- Requiring that such developments incorporate adequate runoff control structures and/or
- Assisting implementing comprehensive drainage management plans to mitigate increased risks of farmland flooding resulting from such developments.

CI-65. Incorporate Low Impact Design (LID) techniques to the greatest extent feasible to improve water quality runoff and erosion control, infiltration, groundwater recharge, visual aesthetics, etc. LID techniques may include but are not limited to:

- Bioretention techniques, such as filtration strips, swales, and tree box filters
- Permeable Hardscape
- Green roofs
- Erosion and sediment controls
- Reduced street and lane widths where appropriate

CO-24. Comply with the Sacramento Areawide National Pollutant Discharge Elimination System Municipal Stormwater Permit (NPDES Municipal Permit) or subsequent permits, issued by the Central Valley Regional Water Quality Control Board (Regional Board) to the County, and the Cities of Sacramento, Elk Grove, Citrus Heights, Folsom, Rancho Cordova, and Galt (collectively known as the Sacramento Stormwater Quality Partnership [SSQP]).

CO-26. Protect areas susceptible to erosion, natural water bodies, and natural drainage systems.

CO-28. Comply with other water quality regulations and NPDES permits as they apply to County projects or activities, such as the State's Construction General Permit and Aquatic Pesticides Permit.

CO-30. Require development projects to comply with the County's stormwater development/design standards, including hydromodification management and low impact development standards, established pursuant to the NPDES Municipal Permit.

CO-31. Require property owners to maintain all required stormwater measures to ensure proper performance for the life of the project.

CO-93. Discourage fill in the 100-year floodplain (Please also refer to CO-117).

CO-94. Development within the 100-year floodplain and designated floodway of Sacramento streams, sloughs, creeks or rivers shall be:

- Consistent with policies to protect wetlands and riparian areas; and
- Limited to land uses that can support seasonal inundation.

CO-107. Maintain and protect natural function of channels in developed, newly developing, and rural areas.

CO-114. Protect stream corridors to enhance water quality, provide public amenities, maintain flood control objectives, preserve and enhance habitat, and offer recreational and educational opportunities.

CO-117. Public roads, parking, and associated fill slopes shall be located outside of the stream corridor, except at stream crossings and for purposes of extending or setting back levees. The construction of public roads and parking should utilize structural materials to facilitate permeability. Crossings shall be minimized and be aesthetically compatible with naturalistic values of the stream channel.

CO-118. Development adjacent to waterways should protect the water conveyance of the system, while preserving and enhancing the riparian habitat and its function.

CO-126. Prohibit obstruction or underground diversion of natural waterways.

SA-5. A comprehensive drainage plan for major planning efforts shall be prepared for streams and their tributaries prior to any development within the 100-year floodplain defined by full watershed development without channel modifications. The plan shall:

- a. Determine the future 100-year flood elevations associated with planned and full development of the watershed;
- b. Determine the future 100-year floodplain boundaries for both flood elevations (planned and full development) based on minimum 2-foot contour intervals;
- c. Assess the feasibility of gravity drainage into the existing flowline of the stream;

- d. Assess the feasibility of alternative means of drainage into the stream;
 - e. Identify potential locations for sedimentation ponds and other stormwater treatment facilities;
 - f. Determine practical channel improvements and/or detention basins to provide the flood control needs of the proposed development;
 - g. Determine the location and extent of marsh, vernal pool and riparian habitat;
 - h. Develop measures for protecting and mitigating natural habitat;
 - i. Develop measures for protecting and mitigating for federal and state listed endangered species;
 - j. Develop and ensure implementation of measures that would reduce vector larvae;
 - k. Identify appropriate plant species to be included as part of the natural features of the comprehensive drainage plan.
- SA-10. Fill within the 100-year floodplain of creeks outside of the Urban Service Boundary is permissible to accommodate structures (e.g., residential, commercial, accessory) and septic systems, and only when the Board of Supervisors finds that the fill will not impede water flows or storm runoff capacity. Such development shall not cause an increase in base flood elevation of the 100-year floodplain exceeding 0.10 feet, unless analysis clearly indicated that the physical and/or economic use of adjacent property within the floodplain will not be adversely affected. A permit is required if the fill is within the jurisdiction of the Central Valley Flood Protection Board.
- SA-14. The County shall require, when deemed to be physically or ecologically necessary, all new urban development and redevelopment projects to incorporate runoff control measures to minimize peak flows of runoff and/or assist in financing or otherwise implementing Comprehensive Drainage Plans.
- SA-16. Deny creation of parcels that do not have buildable areas outside the 100-year floodplain unless otherwise allowed in the Floodplain Management Ordinance.
- SA-17. For residential zoning, the area outside the 100-year floodplain must be contiguous or reasonably situated to provide buildable area for a residence and associated structures. Examples of structures include swimming pools, sheds, barns, detached garages, and other outbuildings that are normally associated with residential development. There may be exceptions (such as the Delta area) as allowed in the Floodplain Management Ordinance.
- SA-18. Vehicular access to the buildable area of newly created parcels must be at or above the 10-year flood elevation. Exceptions may be made when the existing

public street from which access is obtained is below the 10-year flood elevation. There may be exceptions (such as the Delta area) as allowed in the Floodplain Management Ordinance.

- SA-22. Areas within a 100-year floodplain shall not be upzoned to a more intensive use unless and until a Master Drainage Plan is prepared that identifies areas of the floodplain that may be developed.

FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)

FEMA maintains and updates the National Flood Insurance Program maps, called the Federal Insurance Rate Maps (FIRM), that define areas of federal flood hazard. In Sacramento County and elsewhere the floodplains are identified based on U.S. Army Corps of Engineers (Army Corps) studies. FIRM maps denote the location of the federal 100-year flood area, 500-year flood area, and the Base Flood Elevation. In a 100-year floodplain, there is a 1% chance of flooding in a given year, and in a 500-year floodplain, there is a 0.2% chance of flooding in a given year. If an area is within a 100-year floodplain, flood insurance is required by most mortgage companies. FEMA is also responsible for the accreditation of levee systems (certification is by the Army Corps).

Not all 100-year floodplains are mapped by FEMA, because the focus of the FEMA FIRM maps is to provide information for insurance programs. Areas that have very little development that would be at risk from flooding, such as rural areas and wilderness areas, typically are not mapped (the proposed Project area is unmapped by FEMA for this reason). In Sacramento County, some of the rural areas of the eastern part of the County with watersheds that are generally less than 1 square mile in size have not been mapped by FEMA. Areas not mapped by FEMA, or areas where there are additional site-specific constraints that change the shape of the floodplain, are referred to as local floodplains in this EIR.

SACRAMENTO COUNTY DEPARTMENT OF WATER RESOURCES

As discussed in the Regulatory Setting section, not all floodplains are mapped by FEMA. Though not mapped by FEMA, many local 100-year floodplains have been identified by the Sacramento County Department of Water Resources (County DWR). Local floodplains in the County are typically mapped either in response to an area having flooding problems, or in response to a request by a property owner to make modifications to their parcel. In such circumstances, County DWR staff investigate the property and either decide if there is sufficient existing information to determine the floodplain elevation on the property or that a drainage study is required before a determination can be made. Floodplains, whether local or FEMA, are regulated by the provisions of the Sacramento County Floodplain Management Ordinance, Improvement Standards, and Local Floodplain Management Plan.

WATER QUALITY LEGISLATION

Government agencies regulate potential impacts to water quality in order to comply with legislative acts such as: the Clean Water Act (CWA), the Porter-Cologne Water Quality Act (Porter-Cologne), the Rivers and Harbors Act, and the California Environmental Quality Act (CEQA). The Clean Water Act contributes to the dramatic improvement of surface water bodies in the United States. The Rivers and Harbors Act prevents obstructions to navigation, including dumping of trash and sewage. CEQA prevents avoidable damage to water quality by requiring changes in projects through the use of alternatives or mitigation measures [15002(a)(3)]. Coordinated efforts by the following agencies protect water supplies from degradation:

- County of Sacramento
- Sacramento Area Flood Control Agency (SAFCA)
- California Department of Fish and Game (Fish and Game)
- State Water Resources Control Board (State Water Board)
- Regional Water Quality Control Board (Regional Water Board)
- State Lands Commission
- U.S. Coast Guard (Coast Guard)
- National Park Service (NPS)
- State Department of Water Resources Reclamation Board
- U.S. Army Corps of Engineers (Army Corps)

STREAMBED ALTERATION

Section 1603 of the Fish and Game Code requires applicants to notify Fish and Game before beginning a project if the project will substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake or use materials from a streambed. Notification is generally required for any project that will take place in the vicinity of a river, stream, or lake. The recommendations of Fish and Game may include steps to protect water quality.

PORTER-COLOGNE WATER QUALITY ACT

Porter-Cologne is enacted as part of the California Water Code, and is intended to protect the quality of waters within the State. Porter-Cologne covers many of the same issues as the Federal Clean Water Act (see below), but is specific to the needs and objectives of the State. Waters protected by the Clean Water Act must be navigable or hydrologically connected to navigable waters, whereas Porter-Cologne protects non-navigable, or “isolated”, waters. The State Water Resources Control Board (Water Board) and the Regional Water Quality Control Boards (Regional Water Board) are responsible for the coordination and control of water quality protection efforts related to Porter-Cologne. **Porter-Cologne requires each Regional Water Board to prepare and adopt a Basin Plan. According to Section 13050 of the California Water Code, Basin Plans consist of a designation or establishment for the waters within a**

specified area of beneficial uses to be protected, water quality objectives to protect those uses, and a program of implementation needed for achieving the objectives.

The Basin Plan for the Sacramento River and the San Joaquin River Basin (October 2011) identifies the following as the beneficial uses of waters within the basin (not all are applicable to every water body): municipal water supply, agricultural water supply, industrial water supply, recreation, freshwater habitat, fish migration, fish spawning, wildlife habitat, and navigation. The “Implementation” section of the Basin Plan describes the various mechanisms used by the Regional Water Board to ensure that Basin Plan standards and policies are achieved. Mechanisms which are most germane to the discussion of this Project’s impacts include: municipal and industrial National Pollutant Discharge Elimination System permits, construction National Pollutant Discharge Elimination System permits, and the 303(d) listing of impaired waters. All of these implementation mechanisms are described in sections which follow, and the Project’s impact related to these are analyzed.

CLEAN WATER ACT

The Clean Water Act (CWA) is the Federal regulation covering surface water quality – it does not address either groundwater or water quantity. Surface waters protected by the CWA must either be navigable or hydrologically connected to a navigable water. The provisions of the CWA are administered and regulated primarily by the Environmental Protection Agency (EPA), the California EPA (Cal EPA), the Army Corps, and the State and Regional Water Boards. Under the “umbrella” of Cal EPA, the State and Regional Water Boards are responsible for administration of the National Pollutant Discharge Elimination System program, which deals with stormwater pollution from construction, industrial areas, and municipal areas. The Army Corps is responsible for issuance of the CWA Section 404 permit, which deals with the discharge of dredged or fill material in a surface water, and the State and Regional Water Boards are responsible for issuance of the CWA Section 401 permit, which covers the same activity. Section 303(d) of the Clean Water Act (CWA) also requires States to identify waters that do not meet water quality standards, and to develop plans to address polluted water bodies on the 303(d) list (called Total Maximum Daily Load plans, or TMDLs).

STORMWATER POLLUTION AND EROSION CONTROL

Section 402 of the CWA established the National Pollutant Discharge Elimination System (NPDES) permit program to prohibit the unauthorized discharge of pollutants from a point source to U.S. waters. The County of Sacramento has obtained a Municipal Stormwater NPDES permit from the Central Valley Regional Water Quality Control Board under the requirements of the Clean Water Act, to reduce pollutants found in urban stormwater runoff to the maximum extent practicable. The County complies with this permit by developing and enforcing ordinances and requirements to

reduce the discharge of sediments and other pollutants in runoff from areas within the County.

Sacramento County must verify compliance with permit requirements by monitoring effluent, maintaining records, and filing periodic reports. A provision of the NPDES permit is the requirement that Sacramento County develop a Construction Site Management Program. The Construction Site Management Program is intended to help protect the water quality of surface waters by minimizing the amount of sediment runoff from a construction site. This is accomplished by enforcement of the existing County Land Grading and Erosion Control Ordinance.

The County has established a Stormwater Ordinance (Sacramento County Code 15.12). The Stormwater Ordinance prohibits the discharge of unauthorized non-stormwater to the County's stormwater conveyance system and local creeks. It applies to all private and public projects in the County, regardless of size or land use type. In addition, Sacramento County Code 16.44 (Land Grading and Erosion Control) requires private construction sites disturbing one or more acres or moving 350 cubic yards or more of earthen material to obtain a grading permit. To obtain a grading permit, project proponents must prepare and submit for approval an Erosion and Sediment Control (ESC) Plan describing erosion and sediment control best management practices (BMPs) that will be implemented during construction to prevent sediment from leaving the site and entering the County's storm drain system or local receiving waters. Construction projects not subject to SCC 16.44 are subject to the Stormwater Ordinance (SCC 15.12) described above.

In addition to complying with the County's ordinances and requirements, construction sites disturbing one or more acres are required to comply with the State's General Stormwater Permit for Construction Activities. The Construction General Permit is issued by the State Water Resources Control Board (<http://www.waterboards.ca.gov/stormwtr/construction.html>) and enforced by the Regional Board. Coverage is obtained by submitting a Notice of Intent (NOI) to the State Board prior to construction. The General Permit requires preparation and implementation of a site-specific Stormwater Pollution Prevention Plan (SWPPP) that must be kept on site at all times during construction for review.

Applicable projects applying for a County grading permit must show proof that a NOI has been filed and must submit a copy of the SWPPP. Although the County has no enforcement authority related to the Construction General Permit, the County is required by its Municipal Stormwater Permit (Order Number R5-2008-0142) to verify that the SWPPP program includes six minimum components (public education and outreach on storm water impacts, public involvement participation, illicit discharge detection and elimination, construction site storm water runoff control, post-construction storm water management in new development and redevelopment, and pollution prevention/good housekeeping for municipal operations).

In addition to the above construction controls, new development is required to include treatment of urban runoff using the BMPs required by the current standard defined in

the *Stormwater Quality Design Manual for the Sacramento and South Placer Regions, 2007*. The BMPs include a number of options for treatment including simple grassy swales and rain gardens, to more complex systems that use cisterns, pumps, and sand filters. Updates and background on the County's requirements for post-construction stormwater quality treatment controls, along with several downloadable publications, can be found at the following websites:

<http://www.msa.saccounty.net/sactostormwater/SSQP/development.asp>

<http://www.sactostormwater.org/newdevelopment.asp>

SIGNIFICANCE CRITERIA

According to the CEQA Guidelines, impacts may be significant if the Project results in one of the following:

1. A violation of any water quality standard or waste discharge requirement.
2. A substantial alteration of the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion, siltation, and/or environmental harm on- or off-site (hydromodification).
3. Creation or contribution of runoff water that would provide substantial additional sources of polluted runoff. Changes in water quality would be considered substantial if the Project will not comply with the County NPDES Program, or there is a net increase in any other pollution source associated with an impaired waterway (under Section 303d of the Clean Water Act).
4. Substantial increase to the rate or amount of surface runoff in a manner that would result in flooding on- or off-site.
5. Creation or contribution of runoff water that would exceed the capacity of existing or planned stormwater drainage systems.
6. Placement of housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map, or other flood hazard delineation map.
7. Placement of structures within a 100-year flood hazard area that would impede or redirect flood flows.
8. Exposure of people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of a failure of a levee or dam.

STUDY AREA

The Project is within the Laguna Creek, Deer Creek, and Carson Creek watersheds. A watershed is an area of land in which all of the surface water drains to the same waterway. For the purposes of this analysis, the entire watershed of a given creek need not be studied. Sufficient watershed area upstream and downstream of the site must be captured in order to ensure that the analysis properly models flows coming through the site and to capture the limits of any upstream or downstream impacts the Project may cause. The study area for the Project included 4,495 acres of land within the affected watersheds, as shown in Plate HY-2. In the exhibit, the Laguna Creek watershed has been further divided into an upper and lower watershed, to reflect the two different tributaries in the study area.

METHODOLOGY

HYDROLOGY

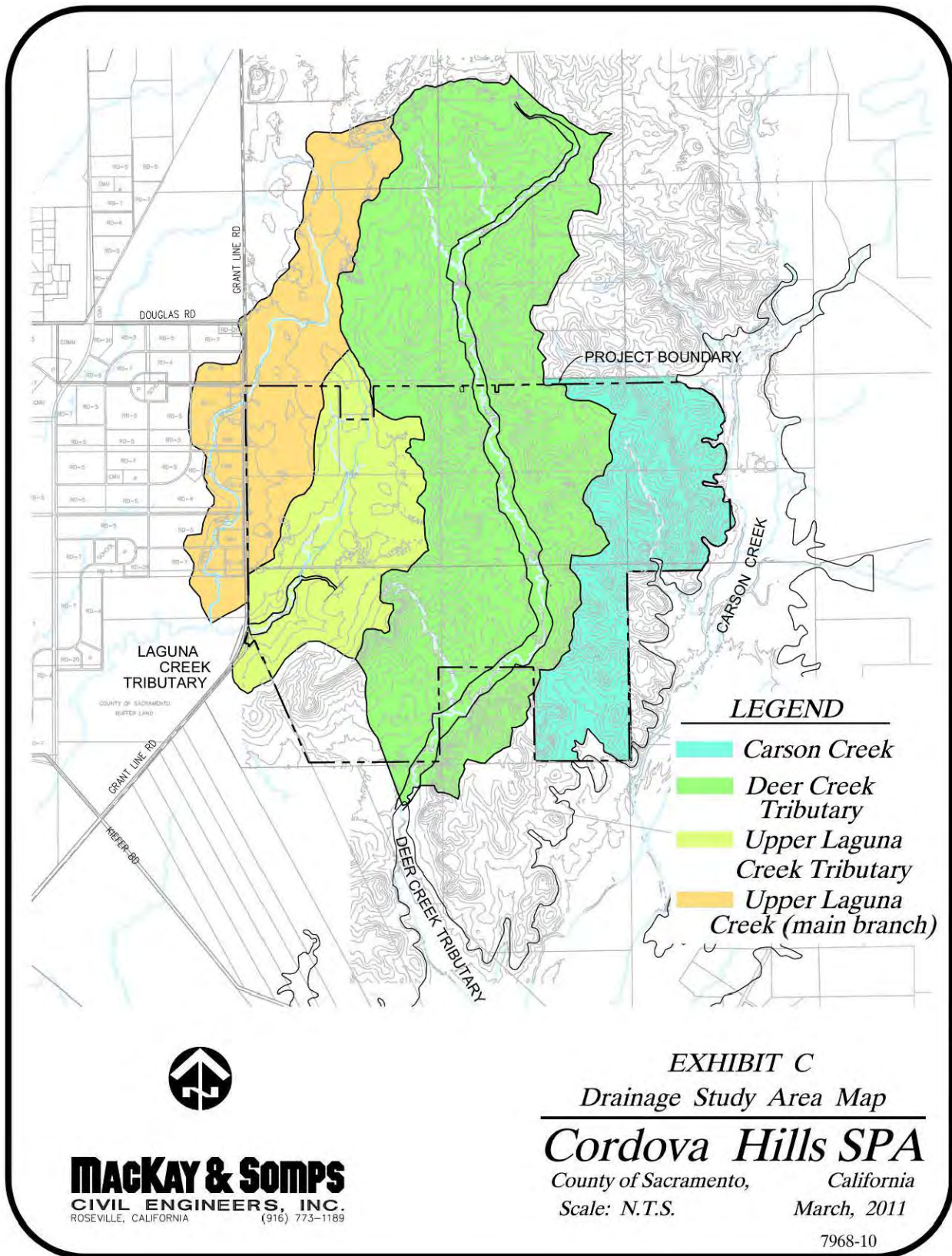
MacKay and Soms Civil Engineers, Inc. prepared a Drainage Master Plan (dated May 31, 2011 and included as Appendix HY-1. The Drainage Master Plan was prepared in accordance with the Sacramento County Improvement Standards, Hydrology Standards, and the Floodplain Management Ordinance, and was reviewed and approved as technically adequate by the Sacramento County Department of Water Resources. Runoff hydrographs for existing and developed conditions needed for input into the HEC-RAS model have been calculated using a Windows based application called the Sacramento Calculator (SacCalc) with what is commonly referred to as “the Sacramento Method”. Hydraulic analyses for water surface elevation assessment purposes have been performed using version 4.1 of the US Army Corps of Engineers HEC-RAS program, using the unsteady state routines.

The on-site sheds which are tributary to Carson Creek constitute only a very small portion of the much larger overall Carson Creek basin, so it was deemed impracticable to prepare detailed hydraulic models of Carson Creek. For these sheds, only SacCalc models for pre- and post-development conditions were run to establish peak runoff rates and associated detention and water quality volumes required for mitigation.

Also note that in the developed Project site analysis, the initial analysis of the Deer Creek tributary watershed resulted in lower peak flows leaving the site than the existing condition analysis. It was determined to be the result of hydrograph timing differences. To resolve the issue and to ensure that the proper Project detention requirements were included, a hypothetical buildout scenario was included in the model for the area north of the Project. Though this is speculative, it was determined to be appropriate under the circumstances in order to create a more conservative analysis. This assumption is consistent with ultimate long-term planning documents, such as the City of Rancho Cordova General Plan and the Draft 2030 Sacramento County General Plan. It was

assumed in the model that the Deer Creek Tributary watershed study area north of the site was 50% impermeable surfaces under post-development conditions, consistent with the requirements outlines in the Sacramento County Volume 2 Hydrology Standards.

Plate HY-2: Hydrologic Study Area



HYDROMODIFICATION

The Drainage Master Plan also includes a hydromodification assessment which examines the hydrologic and geomorphic impact of the Project relative to existing conditions of Laguna Creek, Deer Creek, and Carson Creek watersheds.

Hydromodification refers to changes in a watercourse's physical structure and/or pre-development function. Stream channels change over time, but ultimately reach a dynamic equilibrium, which essentially means that although individual characteristics of the stream change, these balance each other out so that no net change in character (profile and pattern) results. Hydromodification occurs when the variables which created the current stream function (precipitation and the character of the surrounding watershed) are changed. Changes to the watershed which occur as a result of development alter the rate and volume of runoff, which exerts new erosive forces on the channel.

As described in Appendix B of the Drainage Master Plan, there are various recognized stages of stream channel modification. When water discharge is increased, the channel begins to incise (deepen). Incision continues until hardpan is reached or the channel banks become too steep and collapse into the channel, which initiates the channel widening phase. During this time, discharge volumes that would normally overtop the banks and inundate the floodplain (the 2-year storm event, which has a 50% chance of occurring in any year) are retained in the channel, which helps erode the channel even further. Ultimately, the channel reaches a width and depth that causes flows to slow and erosive forces to reduce, and a new floodplain forms at a lower elevation than the original. Vegetation begins to establish as the floodplain becomes reconnected to the channel, and the stream begins to stabilize and reach dynamic equilibrium.

To assess the long-term hydrologic conditions in the watershed, a long-term, continuous simulation which used a 49-year precipitation record (with 1-hour interval precipitation) was used in the HEC-HMS model. To determine the total amount of erosive forces that existing and proposed conditions' runoff exert on the receiving waters, the annualized hydrograph (a plot of the variation of discharge with respect to time) was then processed using Mike11 modeling software and the geo-referenced cross sections out of the HEC-RAS model. The total erosive force resulting from post-development runoff hydrographs was then compared to that resulting from the existing conditions hydrographs in order to establish Project-related detention needs, consistent with policies CO-26 and CO-30.

WATER QUALITY

For water quality impacts resulting from the deposition of pollutants in the watersheds, the effects of the Project have been examined based on the known pollutant types that occur from completed projects of this kind; the existing pollutant loads within Laguna, Deer, and Carson Creeks (as determined from the 303d list of polluted waterways); and the available control mechanisms for pollutants. The Drainage Master Plan for the Project included an assessment of detention needs for water quality treatment, which involves proposals to construct wet water quality treatment basins.

EXISTING CONDITIONS

OVERALL SITE

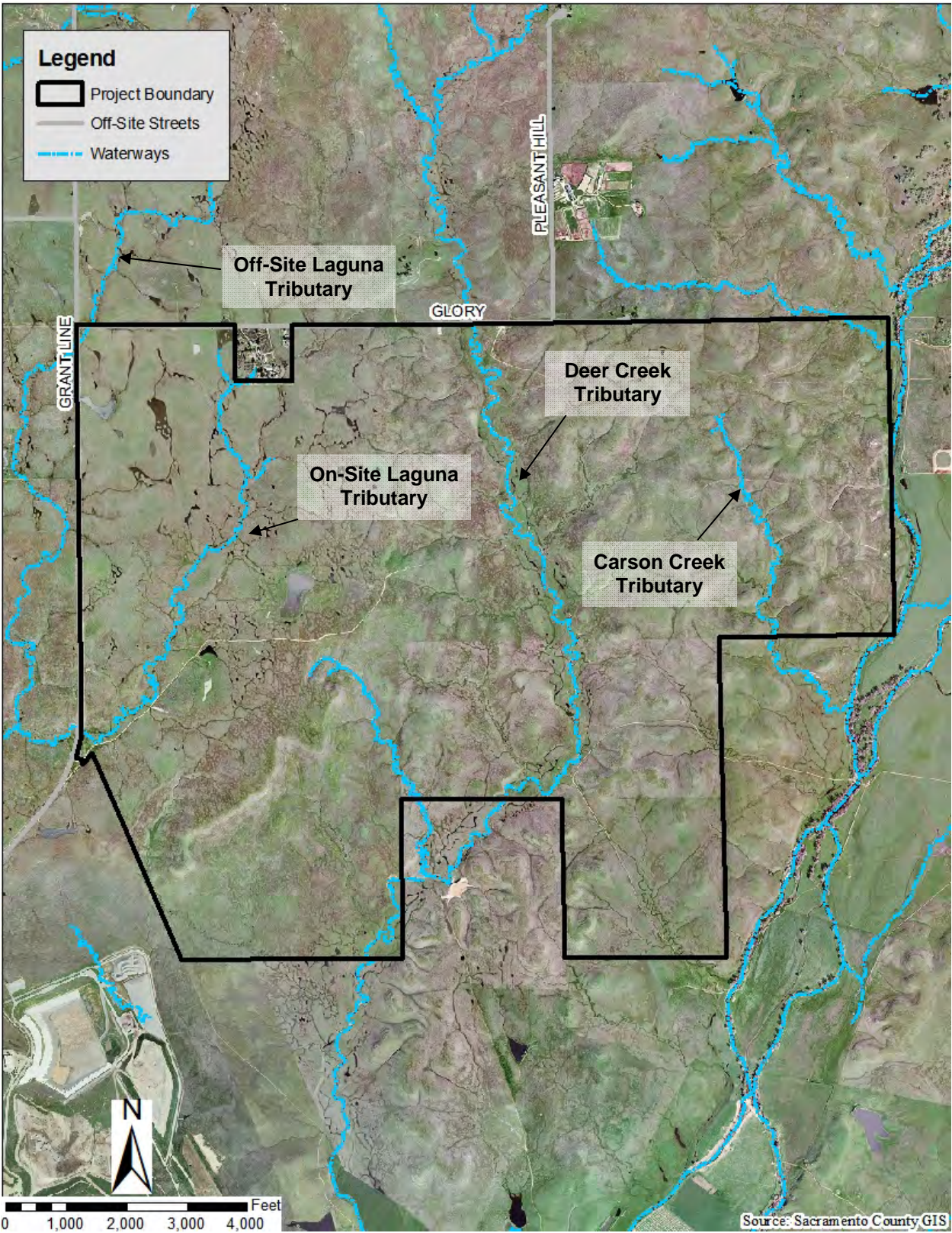
The existing condition descriptions are derived from the main body of the Drainage Master Plan, and from Appendix B of the Drainage Master Plan (the geomorphic assessment for Cordova Hills). The swales and drainages within the Project boundary are typically unstable, with deep incision, eroded banks, and little to no riparian zones. The two-year flood event is contained within many of the channels, leaving poorly connected floodplains. This lack of floodplain connection is part of the reason why a riparian zone has not been established for most channels. Plate HY-3 depicts the waterways both on- and off-site, as referenced in the discussions to follow.

The Project site is undeveloped grazing land, which ensures that common urban pollutants are not currently being discharged into local waterways. In addition, unlike other types of agricultural activities, grazing land does not require the application of pesticides or other potential pollutants. Grazing animals on the land does introduce nutrients from livestock manure, and sediment can also be introduced as a result of large livestock creating areas of bare or disturbed soil. Though there are existing sources of such pollution in this area, the sources are relatively minor.

The Regional Water Board maintains and periodically updates a listing of “impaired” waterways, called the 303(d) list. This list indicates the waterway or reach of waterway that is impaired, the pollutant for which it is impaired, the source of that pollutant (if known), and the date by which the TMDL will be completed. ~~The current 303(d) list is dated 2006, but an update to the list has been ongoing since 2008. A final version of the 2008 update ([Final 2008 Clean Water Act Section 303\(d\)/305\(b\) Integrated Report for the Central Valley Region](#)) has been published but must be approved by both the State Water Board and the US EPA prior to becoming effective. Though not finalized, the updated information has been used in this analysis. A review of the existing (2006) and proposed (2008)~~ **The current** 303d list¹ of impaired waterways indicates that Deer Creek and Carson Creek are listed as impaired, while Laguna Creek is not. Deer Creek and Carson Creek are listed for iron and aluminum, respectively.

¹ http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml

Plate HY-3: Existing Drainage Conditions



LAGUNA CREEK WATERSHED

Upper Laguna Creek begins approximately 1.5 miles to the north of the Project. The western portion of the site contains two tributaries to Laguna Creek: one which flows southward through the site and into Upper Laguna Creek and one which crosses only a small corner of the site and flows into Upper Laguna Creek. These drainages are referred to in the Drainage Master Plan as the on-site and off-site Laguna Creek tributaries, respectively. The off-site tributary crosses under Grant Line Road through corrugated metal culverts and flows into the future Sun Creek Specific Plan area in Rancho Cordova; during storm events, water ponds along the eastern side of Grant Line Road at a few of the culverts. The on-site tributary also flows under Grant Line Road through 62-inch corrugated metal culverts. The on-site tributary has a complex form, is well-connected to the Laguna Creek floodplain to the west, and is associated with local vernal pool habitats.

As shown in Plate HY-1, the 100-year floodplain associated with the on-site tributary is restricted to areas in close proximity to the channel. Where the floodplain appears to end just north of the Urban Services Boundary is the limit of the main channel of this tributary, beyond which the tributary fans out into multiple small swales within the Avoided Area; the floodplains in this area become very narrow, and thus will not impact Project development. Watersheds also include many smaller subsheds where localized drainage conditions direct flows into small channels and swales that ultimately connect to the main tributary. The three subsheds within the study area for Laguna Creek are shown on Plate HY-4.

DEER CREEK WATERSHED

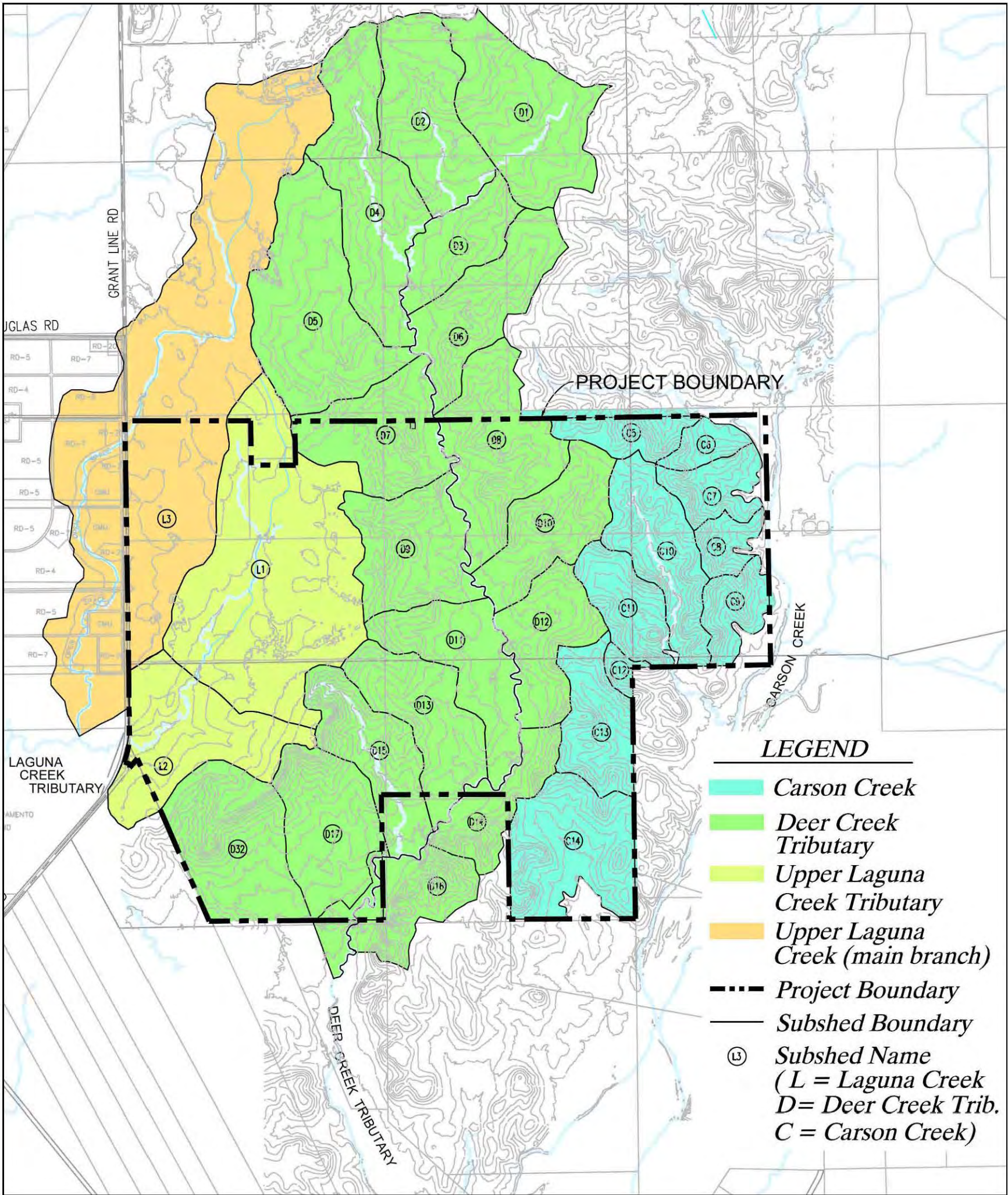
The intermittent drainage that flows to the south through the approximate center of the site is tributary to Deer Creek. This is an unmodified channel which flows for its entire length as an open waterway, running unobstructed into Deer Creek. The watershed affected by the proposed Project originates roughly 9,200 feet north of the Project. The tributary is a sharply incised cobble-strewn channel. The bed of the drainage is generally well armored by large grain sizes and cobbles and underlain by hardpan, which limits further incision. Further channel erosion would be likely to involve channel widening rather than deepening. Several locations along the creek show evidence that lateral channel migration may happen rapidly, perhaps in as little as one high-flow event. As shown in Plate HY-1, the 100-year floodplain associated with the on-site tributary is restricted to areas in close proximity to the channel. As shown in Plate HY-4, there are 18 different subsheds identified in the study area of Deer Creek.

Site observations indicate that smaller tributaries to the main tributary to Deer Creek are geomorphically unstable, meaning that degradation is continuing. The drainages are extremely incised relative to their size; the banks are typically vertical, tall, and eroding, which will continue in the future regardless of site development.

CARSON CREEK WATERSHED

The intermittent drainage that flows across the eastern side of the site is tributary to Carson Creek. As shown on Plate HY-4, there are ten subsheds identified within the study area of Carson Creek. Runoff from each of these subsheds is conveyed by sheetflow or through small intermittent tributaries. Like the Deer Creek tributary, the primary intermittent drainage is an unmodified channel which flows for its entire length as an open waterway, running unobstructed into Carson Creek. All of the channels within the Carson Creek watershed on the site are incised and unstable. There are multiple areas with older, abandoned channels left behind as the tributaries have eroded a new path and migrated laterally. Like the Deer Creek tributary, it appears that this channel migration can occur rapidly. This floodplain of this watershed was not studied, because the Project includes filling in the drainage.

Plate HY-4: Existing Condition Subsheds in the Project Vicinity



IMPACTS AND ANALYSIS

IMPACT: EXPOSURE OF PEOPLE OR STRUCTURES TO FLOOD HAZARDS

The Drainage Master Plan assumed full-buildout of the Project in order to model post-Project conditions, which includes significant grading to moderate the steep topographic changes on the site. Site grading will alter the localized drainage conditions that generated the existing condition subsheds within the larger watersheds. The new subshed boundaries that would result from Project construction are shown in Plate HY-5, along with basic detention basin locations. Plate HY-6 depicts the proposed Project grade changes, conceptual basin designs and locations, main underground trunk drainage infrastructure, and subshed identification numbers.

Proposed detention basin volumes are reported in Table 1 of the Drainage Master Plan, and the discharge rates from these basins are reported in Table 2 of the Drainage Master Plan. Each detention basin includes a flood control outlet structure designed to limit discharge rates to the existing-condition 10-year and 100-year rainfall event. Discharge is controlled by appropriate sizing of the orifice on the side of the concrete box structure. The discharge pipe outlet includes energy dissipation components which re-establish sheet flow.

The proposed detention basins have been sized to ensure that the flow rate within the tributaries post-Project does not exceed the existing condition flow rates. The necessary volumes are based on the largest predicted volume requirement resulting from modeling the 10-year and 100-year 24-hour storms, and the 100-year 10-day storm. The resulting 100-year floodplain boundaries are contained within non-urbanized open space (Plate HY-7). The Project will not expose people or structures to flood hazards; impacts are *less than significant*.

MITIGATION MEASURES:

None required.

Plate HY-5: Developed Condition Subsheds and Detention Basins

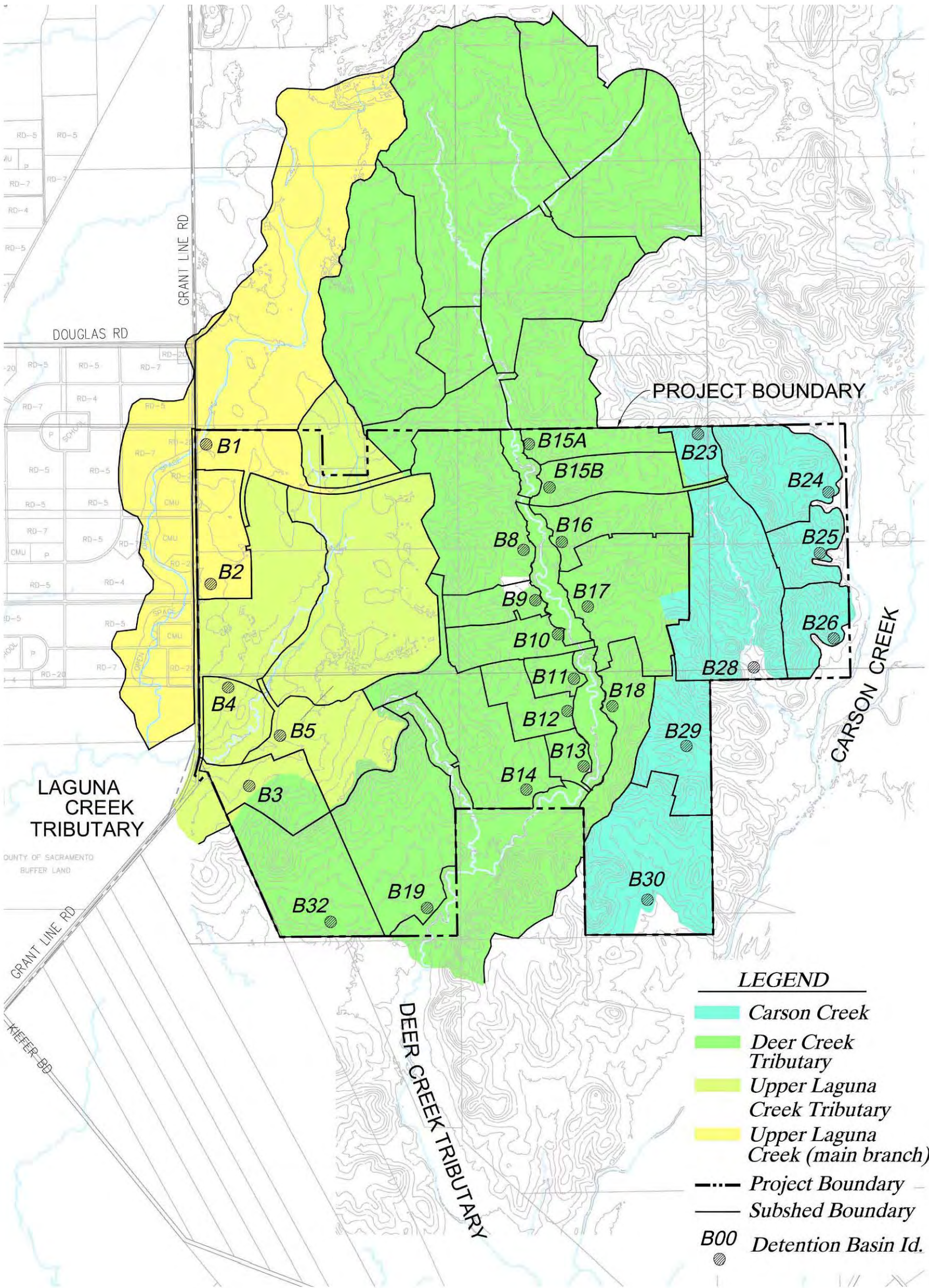


Plate HY-6: Developed Conditions Topography, Basin Design Concepts, Trunk Drainage Lines, and Subshed Identifications

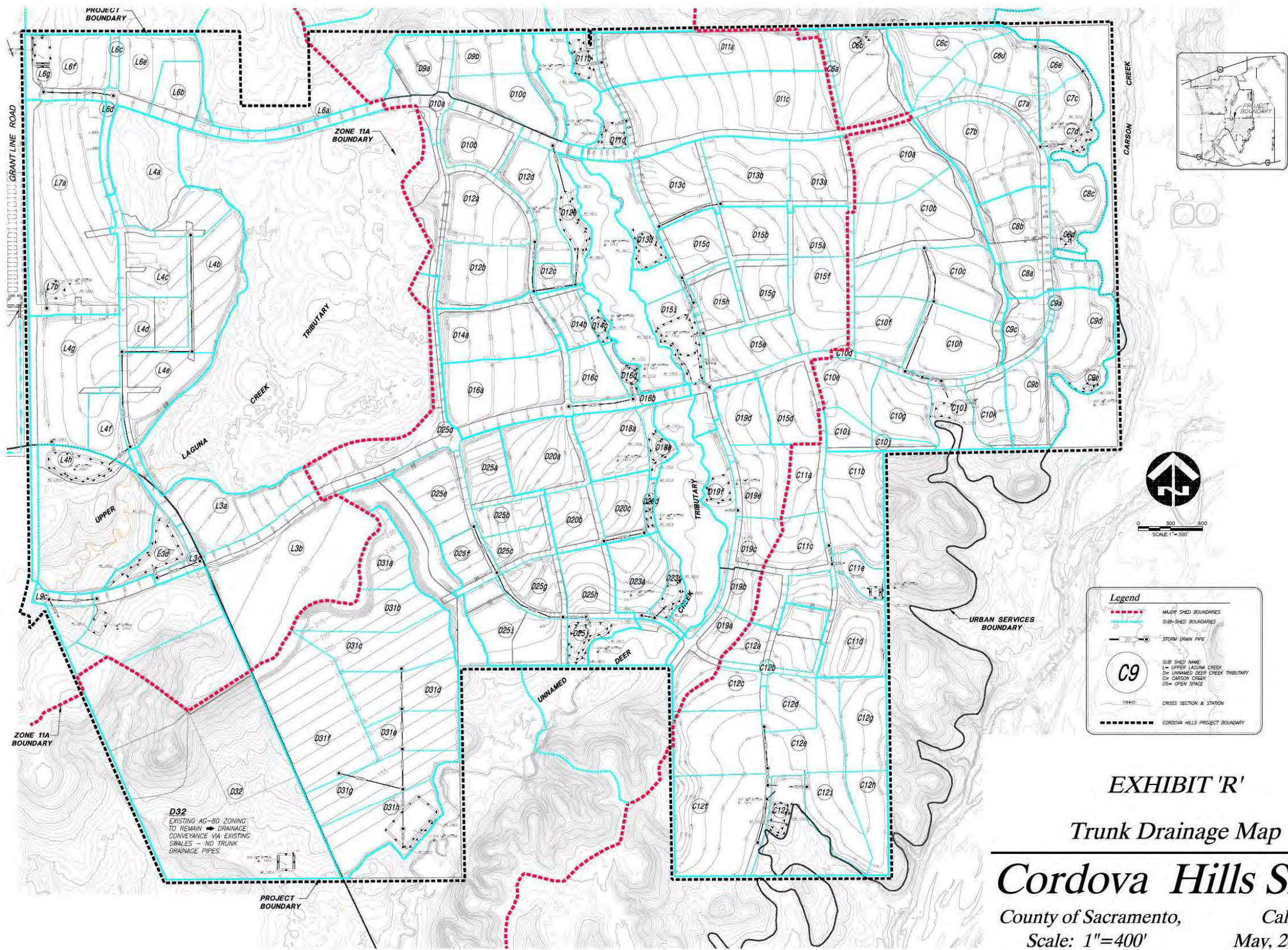
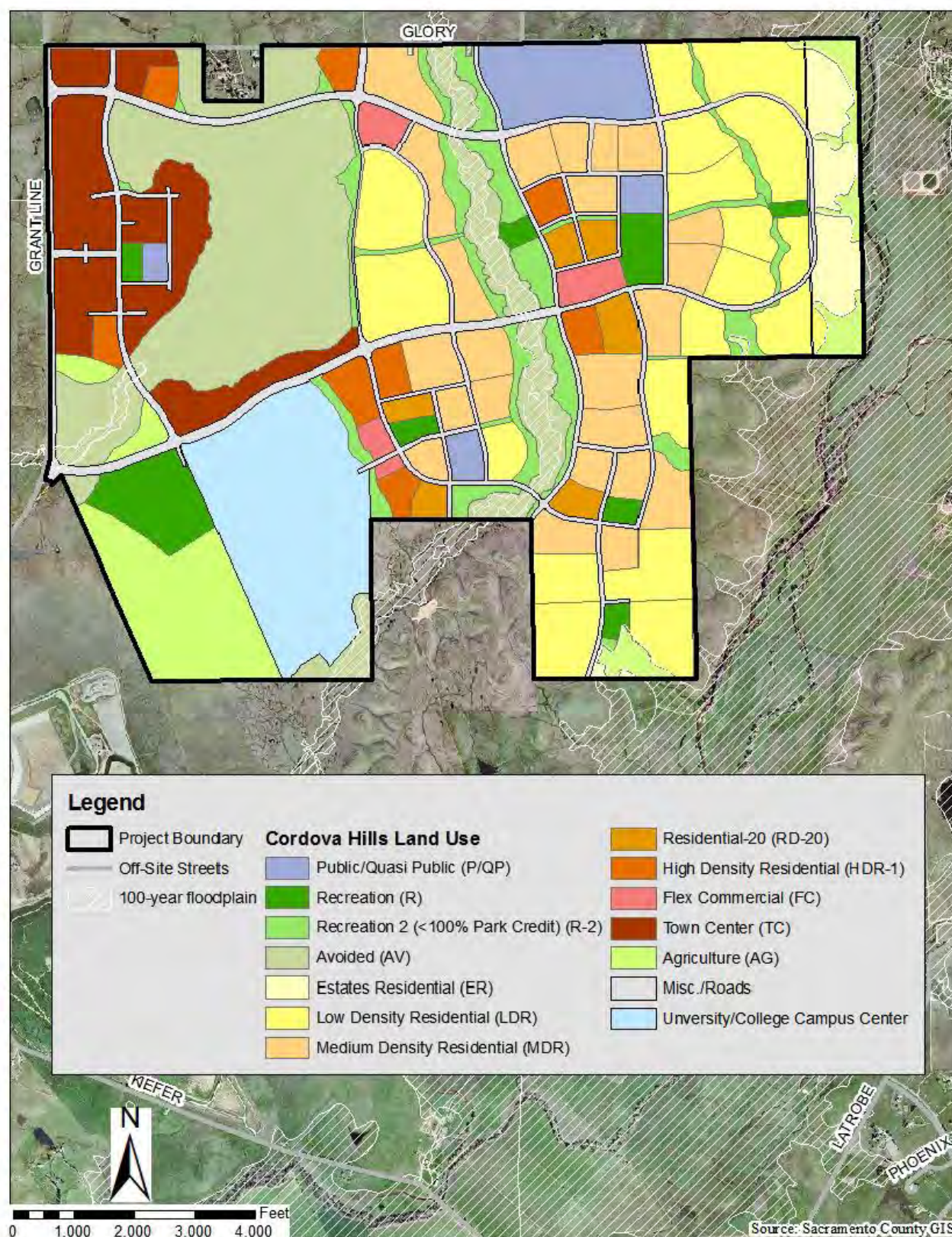


Plate HY-7: Post-Project 100-Year Floodplain and Project Uses



IMPACT: HYDROMODIFICATION

Appendix A and B of the Drainage Master Plan include the geomorphic assessment and hydromodification assessment prepared for the proposed Project. The hydromodification assessment included detailed performance criteria for the analysis (Section 1.2.2 of the Drainage Master Plan Appendix A), including that the Project peak flows (up through the 10-year storm event) should not exceed existing condition peak flows by more than 10% for the flow range specified². Put in general terms, the resulting design is a detention basin outlet control structure which retains all stormwater runoff generated up to a 10-year event and slowly releases the runoff through a very small outlet. Each detention basin includes a weir set above the basin bottom, and each weir has a V-notch opening and a 2-inch outlet pipe beneath the V-notch. The narrow outlet pipe causes water to back up within the basin, draining out slowly over an extended period of time. Overall, basin volumes were increased by approximately 20% in order to add hydromodification control to the detention basins designed for flood control. Modeling indicates that the detention basins will control flows so that substantial hydromodification impacts do not occur; impacts are *less than significant*.

MITIGATION MEASURES:

None required.

IMPACT: EXCEED CAPACITY OF STORMWATER SYSTEMS

Virtually all stormwater flows overland on the site as sheet flow into swales and channels. The only existing stormwater facilities in the Project study area are two culverts under Grant Line Road: one which routes the off-site Upper Laguna Creek into Rancho Cordova and one which routes the on-site Upper Laguna Creek into Rancho Cordova (refer to Plate HY-3 for the creek locations). The culverts which route the on-site creek are functioning properly, but water often ponds on the upstream side of the off-site creek culverts. Since only a small portion of the off-site creek edges onto the site, the Project includes the diversion of the creek along the edge of, rather than through, the site. To address the capacity constraint at the existing culverts for this creek, the Project also includes installation of a four-foot by eight-foot reinforced concrete box culvert under Grant Line Road. This culvert will be able to convey the 100-year storm runoff from the off-site Upper Laguna Creek (main branch) watershed in

² The following is from page 4, note 5, of Appendix A of the Drainage Master Plan: For the flow range specified (25% of Q2 [2-year peak flow] through Q10 [10-year peak flow]), the proposed condition discharge rates and durations should not deviate above the existing condition discharge rates and durations by more than 10% over more than 10% of the length of the flow duration curve. The flow duration curve relates to the percentage of time of the total period of record that a particular flow is equaled or exceeded. It does not refer to the duration of that particular flow event. Thus, the flow duration technique gives an indication of how the average flows are hydromodified between a specific flow range (area under the curve). Flow duration curves are the most commonly accepted method of analyzing the response of watersheds to perturbations; hence, we recommend them for this application.

addition to the existing conditions runoff from the tributary shed; this water will continue to drain directly into Rancho Cordova. No changes would be made to the culvert which takes the on-site Upper Laguna Creek tributary under Grant Line Road.

The Project also includes installation of a new trunk drainage system to convey flows throughout the site to the various proposed detention basins and outfalls. The trunk system consists only of the major underground piping, which has all been proposed within the major streets of the proposed land use plan (refer to Plate HY-6). Subsequent project-level applications for subdivisions and commercial development will, pursuant to existing County ordinances and requirements, need to design small-diameter collection pipe systems that will connect to the proposed trunk system. The overall trunk system has been designed consistent with County requirements, and will include sufficient capacity to serve buildout of the Project. The Project will not exceed the capacity of existing or planned stormwater systems; impacts are *less than significant*.

MITIGATION MEASURES:

None required.

IMPACT: CONTRIBUTION OF POLLUTED RUNOFF

Pollutants entering waterways are generally categorized by regulatory agencies as either point or nonpoint discharge. A point source discharge is one that comes from a specific location, such as a wastewater treatment plant outfall. A nonpoint source discharge is one that comes from multiple locations over a wide land area, and is the type of pollution that occurs as a result of land use activities. Rainwater or irrigation runoff flows over agricultural fields, streets, parking lots, backyards, and other areas, picking up sediment, pesticides, fertilizers, heavy metals, oils, and other pollutants before ultimately flowing into a waterway. It is nonpoint pollution that the proposed Project has the potential to generate. Nonpoint source pollution may be generated both during construction and after a site is operational; construction and operations are discussed separately below.

CONSTRUCTION IMPACTS

The Project would result in construction of residential and commercial buildings, along with associated streets and other paved areas. Water quality impacts could occur during construction from increased soil erosion and sedimentation due to clearing of vegetation, alteration of drainages, and grading. Construction also involves solvents, paints, concrete, and other materials that have the potential to contact and affect runoff from construction sites.

During the wet season (October 1 – April 30), development on the Project site must include an effective combination of erosion, sediment, and other pollution control BMPs in compliance with the Sacramento County Stormwater Ordinance, the Land Grading

and Erosion Control Ordinance, and the State's Construction General Permit. During the rest of the year erosion controls typically are not required, except in the case of predicted rain. Examples of erosion controls include: stabilized construction entrances, tackified mulch, 3-step hydroseeding, spray-on soil stabilizers, and anchored blankets. Sediment controls help to filter sediment out of runoff before it reaches the storm drains and local waterways. Examples include rock bags to protect storm drain inlets, staked or weighted straw wattles/fiber rolls, and silt fences. Erosion control plans are a requirement of the County grading permit, and would be developed and submitted for approval prior to the commencement of grading. Each plan would be tailored to address the constraints specific to the proposed grading area.

In addition to erosion and sediment controls, individual development projects that occur as a result of Project approval must have BMPs in place to keep other construction-related wastes and pollutants out of the storm drains. Such practices include, but are not limited to: filtering water from dewatering operations, providing proper washout areas for concrete trucks and stucco/paint contractors, containing wastes, managing portable toilets properly, and dry sweeping instead of washing down dirty pavement. Compliance with adopted Ordinances and standards will ensure that future development projects implemented as a result of Project approval will not cause violation of a water quality standard or waste discharge requirement, result in substantial erosion or siltation, and will not result in substantial increases to polluted runoff associated with construction; impacts are *less than significant*.

OPERATIONAL IMPACTS (POST-CONSTRUCTION IMPACTS)

New development proposed by the Project will result in the use of substances that could pollute waterways if not regulated. Vehicles deposit heavy metals, oils, and other substances onto roadways, parking lots, and driveways; residents wash their cars in streets and driveways, and the water picks up soaps, waxes, dirt, oils, and heavy metals from the cars; and people maintaining landscaping areas use pesticides and fertilizers. Water carries these and other pollutants into storm drains, where the water flows without treatment directly into the streams that provide drinking water, recreation, and wildlife habitat. This runoff could increase pollutant loads to such an extent that the waterway becomes impaired. Water temperatures can be increased, which affects the health of many organisms that live in the creeks. Even the nutrients in fertilizers can cause water quality problems, because they promote blooms of algae. Increases in discharge amounts or velocity have the potential to greatly accelerate downstream erosion and impair stream habitat in natural drainage systems. These impacts must be addressed by requiring appropriate runoff reduction and pollution prevention controls to minimize runoff and keep runoff clean for the life of the Project.

It is critical that stormwater runoff be treated, in particular for the first flush that carries the greatest concentration. Typically, the first flush is the first ½ inch of rain after an extended dry period; it carries the accumulation of many weeks or months of pollutants that have been deposited onto the soils, pavement, and plants. It is impractical to treat all stormwater run-off during large storm events, but the use of standard water quality

treatment methods can treat the first inch of run-off, which is highly beneficial and can avoid significant impacts to water quality.

The Drainage Master Plan for the Project includes an analysis of water quality basins, which function by retaining water long enough to let sediments, metals, and other heavy pollutants settle out of the water. The same basins which provide peak storm control have also been designed to function as water quality basins, consistent with the design requirements of the *Stormwater Quality Design Manual for the Sacramento and South Placer Regions*. Table 3 of the Drainage Master Plan includes calculations for each basin indicating the amount of storage needed for water quality.

In addition to retention treatment of wintertime storm flows, the Project also includes designs to reduce summertime “nuisance flows” by allowing runoff to percolate on-site rather than discharge into waterways. Summer nuisance flows consist primarily of irrigation runoff, but can also include runoff from washing vehicles in driveways or water play equipment. These flows can cause formerly ephemeral streams to become somewhat perennial, and introduce pollution. The Drainage Master Plan includes four strategies intended to retain nuisance flows: installation of drainage facilities in areas that do not have high groundwater recharge potential, installation of percolation trenches in detention basins, installation of percolation chambers disbursed throughout the drainage collection system, and the use of Low Impact Development measures to capture and retain runoff. Table 4 of the Drainage Master Plan contains an evaluation of the number of percolation trenches that will be required, though a more detailed evaluation will be necessary at the individual project application phase.

Most of the above discussion relates to the plan-level designs that will be incorporated to control pollution in the watershed and subsheds as a whole. Further measures will be required for the project-level development proposals that would follow approval of the SPA. The County requires that projects include source and/or treatment control measures on most new development projects. Using the BMPs required by the current standard defined in the *Stormwater Quality Design Manual for the Sacramento and South Placer Regions, 2007* and subsequent editions in the years to come, Low Impact Development components and other measures will be required. These may include simple grassy swales and rain gardens, to more complex systems that use cisterns, pumps, and sand filters. Basic source controls applicable to all projects include “No Dumping – Drains to Creek/River” stencils/stamps on storm drain inlets to educate the public, and providing roofs over areas likely to contain pollutants, so that rainfall does not contact the pollutants.

A review of the existing ~~(2006)~~ and proposed ~~(2008)~~ 303d list of impaired waterways indicates that Deer Creek and Carson Creek are listed as impaired, while Laguna Creek is not. Deer Creek and Carson Creek are listed for iron and aluminum, respectively. The listing states that the source of these pollutants is unknown, but neither of these pollutants are typically associated with urban runoff. Thus, although both waterways are listed as impaired, the development of the Project site will not cause a net increase of the pollutant for which the waterways are listed.

Compliance with the County Stormwater Ordinance, implementation of Low Impact Development Standards, and implementation of the Drainage Master Plan will ensure that development of the site will not alter the course of local waterways in a manner that results in substantial erosion or siltation, will not cause violation of a water quality standard or waste discharge requirement, and will not result in substantial increases to polluted runoff; impacts are *less than significant*.

MITIGATION MEASURES:

None required.

12 LAND USE

INTRODUCTION

The following chapter addresses potential physical environmental impacts related to land use. Areas of analysis include Project compatibility and consistency with adopted land use plans of Sacramento County and the City of Rancho Cordova, consistency with adopted Sacramento County General Plan policies, division or disruption of an established neighborhood, and the displacement of housing. Though growth inducement is discussed in this chapter as it relates to General Plan policy consistency, the overall discussion of growth inducement is within the Cumulative Impacts chapter.

ENVIRONMENTAL SETTING

The project site is on the eastern side of Grant Line Road in the Cosumnes Community within Sacramento County. The Sacramento County General Plan designates this area as General Agriculture and the site is zoned AG-80 (agricultural lands of at least 80 acres). There are 485 acres in the southeastern portion of the site that are under Williamson Act contracts. Those contracts are in non-renewal and are expected to expire in 2016.

Grant Line Road is a two-lane thoroughfare that lies along the western project boundary, and Glory Lane is a gravel road that lies along the northern boundary (in a prescriptive right-of-way); there are no public roadways within the project site. The surrounding lands to the north, east, and south are agricultural or open space properties with few structures, but the land along the western property boundary is within the City of Rancho Cordova and is the subject of an approved Specific Plan – the Sunridge Specific Plan. A 120-kilovolt Pacific Gas & Electric transmission line traverses the eastern edge of the project in a north-south direction adjacent and parallel to Carson Creek. The City of Rancho Cordova General Plan designates this area as “General Plan Planning Boundary”.

The nearest public water and sewer lines are within Douglas Road, approximately ¾-mile to the northwest. The Kiefer Landfill is located to the southwest of the Project site; a portion of the Project (the sports park, solar facility, and similar uses) is within the 2,000-foot urban encroachment buffer that Sacramento County established around the landfill. Mather Airport is located over four miles to the northwest of the site, and the nearest airport noise or safety contour to the Project site is nearly four miles away.

REGULATORY SETTING

To analyze the potential land use effects of the Project, this EIR considers the policies and land use designations of the Sacramento County General Plan and Zoning designations currently guiding development in the project area. The project is also on the boundary of the City of Rancho Cordova, so the EIR examines the land use designations and development plans of the City.

SACRAMENTO COUNTY GENERAL PLAN

The General Plan Land Use Element provides land development guidance through the implementation of policies LU-1 through LU-128. The land use policies listed below are those that are both pertinent to the Project and are intended to avoid an environmental effect. Though all of the policies listed below are located within the land use element, many are intended to avoid impacts related to other topical impact areas, such as public services. A relevant policy from the Public Facilities Element is also concluded, as it relates to the Kiefer Landfill.

- LU-1. The County shall not provide urban services beyond the Urban Policy Area, except when the County determines the need for health and safety purposes.
- LU-2. The County shall maintain an Urban Service Boundary that defines the long-range plans (beyond twenty five years) for urbanization and extension of public infrastructure and services, and defines important areas for protecting as open space and agriculture.
- LU-12. The County will prohibit land use projects which are not contiguous to the existing UPA, city boundaries, or existing planned communities or master plan areas (i.e. leapfrog development).
- LU-13. A Public Facilities/Infrastructure Master Plan shall be prepared to identify the major facilities required to serve new development in urban growth areas. A Public Facilities Financing Plan shall be prepared and approved by the Board of Supervisors prior to or concurrent with the approval of any zoning for any urban uses in urban growth areas. The Financing Plan shall include a Public Facilities/Infrastructure Master Plan describing required major infrastructure improvements necessary to support proposed developments, and present a detailed plan for the phasing of capital improvements and identifies the extent, timing and estimated costs of all necessary infrastructure.
- LU-19. Incompatible urban land uses should be buffered from one another by methods that retain community character, and do not consume large land areas or create pedestrian barriers.
- LU-21. Promote a better balance of employment, neighborhood services, and different housing types by reviewing development projects and the surrounding

community and designing new projects wherever feasible so that they maintain or improve the mix of uses in the community.

LU-22. Specific Plans and Community Plans should provide a balance of employment, neighborhood services, and different housing types wherever feasible.

LU-23. Providing compact, mixed use developments shall be an integral part of all master planning efforts for new growth areas and commercial corridors.

LU-25. Depending on its emphasis, a mixed use development may include the following proportions of different uses, shown as percentages of the site area:

TABLE 6			
USE	EMPHASIS OF DEVELOPMENT		
	COMMERCIAL	OFFICE	RESIDENTIAL
Retail	50 – 70%	10 – 30%	10 – 30%
Office	0 – 20%	50 – 70%	0 – 30%
Residential	20 – 40%	0 – 30%	50 – 80%
Public	10 – 30%	10 – 30%	10 – 30%
NOTE: Commercial uses refer to the LC and SC zones. Office uses refer to the BP and MP zones. Residential uses refer to the RD-5 through RD-50 zones.			

LU-26. When planning for new development in new communities, the features below shall be incorporated for their public health benefits and ability to encourage more active lifestyles, unless environmental constraints make this infeasible. In existing communities, the features below shall be considered, as appropriate and feasible:

- Where appropriate, compact, mixed use development and a balance of land uses including schools, parks, jobs, retail and grocery stores, so that everyday needs are within walking distance of homes.
- Grid or modified-grid pattern streets, integrated pathways and public transportation that connect multiple destinations and provide for alternatives to the automobile.
- Wide sidewalks, shorter blocks, well-marked crosswalks, on-street parking, shaded streets and traffic-calming measures to encourage pedestrian activity.
- Walkable commercial areas with features that may include doors and windows fronting on the street, street furniture, pedestrian-scale lighting, and served by transit when feasible.

- Open space, including important habitat, wildlife corridors, and agricultural areas incorporated as community separators and appropriately accessible via non-vehicular pathways.

LU-34. Developments in the areas designated on the Land Use Diagram as Transit Oriented Development shall be designed in a manner that conforms to the concepts of transit-oriented development, including:

- High intensity, mixed-use development concentrated in a Core Area within an easy walk (one quarter mile) of a transit stop on the Trunk or Feeder Line Network.
- An emphasis on neighborhood support commercial services at street level in the Core Area that can serve the residents of the Core and surrounding Secondary Areas, with other employment encouraged in the TODs created along the Trunk Line Network.
- A pleasant walking environment created through good land use design, short distances, amenities, and streetscape features.
- Direct, multiple linkages, especially for bicycles and pedestrians, between the Core Area and the surrounding Secondary Area.

LU-35. The primary concepts in LU-34 should be employed wherever feasible in new urban development.

LU-36. Community Plans and Specific Plans shall employ the primary concepts in LU-34 in designating locations for higher intensity mixed use development and designing circulation and pedestrian networks.

LU-46. Assure that regionally-oriented commercial and office uses and employment concentrations have adequate road access, high frequency transit service and an adequate but efficient supply of parking.

LU-113. The County shall work with SACOG to support implementation of Blueprint's policies and land use objectives.

LU-120 The County shall only consider approval of a proposed UPA expansion and/or Master Plan outside of the existing UPA if the Board finds that the proposed project is planned and will be built in a manner that¹:

- meets all of the requirements per PC-1 through PC-10, and;

¹ Some areas within a Master Plan may have existing uses that are not likely to change and are appropriate to remain. If the Master Plan designates such areas with a land use category that reflects that existing use, the Board may exclude these areas for purposes of determining consistency with these criteria.

- meets ONE of two alternative performance metrics:
 - *Alternative #1- Criteria-Based*
 - *Alternative #2 - VMT/ Greenhouse Gas Emissions Reduction Metric*

PC-1. Vision for connection to other adjacent existing and potential future development areas.

Required: Include a vision of how the development will connect to other adjacent existing and potential future development areas within the USB, including how roadways, transit, sewer, and water could occur within all adjacent areas.

PC-2. Housing choice.

Required: A variety of housing types and densities, including single-family homes, duplexes, triplexes, accessory dwelling units, townhomes, condominiums, apartments and similar multi-family units, in a variety of settings including both residential neighborhoods and mixed use nodes.

PC-3. Quality.

Required: Design guidelines, development standards and/or similar assurances that will require high-quality development consistent with the vision set forth in the Master Plan.

Discussion: The County's General Plan contains numerous policies that address quality of new development, but does not provide specific details regarding how a particular Master Plan will be planned and built to ensure that quality is achieved. Conversely, many of the County's tools used implement the General Plan (such as zoning) provide specific details about how land can be used and developed, but do not necessarily address quality. The Master Plan is the bridge between the broad-based General Plan and fine-grained implementation tools like zoning, making it the ideal context to address the quality of development expected within its boundaries.

Master Plans should provide specific details regarding the quality envisioned for the project and appropriate standards to ensure that it will be built out over time in a manner that achieves the stated vision. Detailed design guidelines and firm development standards can be excellent tools for creating certainty that quality will be achieved. Elements of quality to be addressed may include:

- Building form, including architectural styling, materials, articulation, orientation, size, massing, etc.

- “Theming” at the neighborhood or community level, including consistent signage, materials, landscaping, and other elements
- Amenities provided beyond those required by law
- The public realm
- Relationship between uses

PC-4. Accommodate the percentage of low and very low income residential units required by state law per the County’s current Housing Element based on the Regional Housing Needs Allocation (RHNA).

Required: Accommodate ≥ 90 percent of the obligation per RHNA (currently $\sim 33\%$ of units accommodated in RD-20 or higher).

Discussion: State law (California Government Code Section 65583) requires cities and counties to provide “adequate” sites with appropriate zoning, development standards, infrastructure, and public services to facilitate and encourage the development of a variety of types of housing for all income levels.

State law requires SACOG to periodically adopt a Regional Housing Needs Plan (RHNA) for the six-County region. The RHNA determines each jurisdiction’s “fair share” of the region’s housing needs per a methodology established by state law and approved by the California Department of Housing and Community Development (HCD). The purpose of this is to avoid over-concentration of low-income households in any one community.

As part of periodic Housing Element updates required by state law, the County must create a land inventory that identifies vacant and underutilized land available for residential development within the unincorporated area. This land inventory is used to demonstrate how the County can accommodate its “fair share” of the region’s housing needs as determined by the RHNA, including how it will provide adequate sites for low and very low households. Currently, 37 percent of the units allocated to the County per the RHNA are for low and very low households and must be accommodated on land zoned for 20 dwelling units per net acre (RD-20) or greater.

Requiring Master Plans to be consistent with this criterion ensures that they are contributing their “fair share” of adequate sites toward the County’s overall obligation per state law. It represents the “break even” point where the County’s ability to meet state law neither helped nor hurt by adoption of the Master Plan. If numerous Master Plans were adopted with a considerably lower percentage of its units accommodated on land

zoned RD-20 or greater, the County could fall short of adequate sites over time and be forced again to rezone properties in existing communities or planned growth areas, or face other negative consequences such as a moratorium on issuing building permits.

PC-5. Pedestrian- and transit-oriented design.

Required: Pedestrian- and transit-oriented design, including:

- Sidewalks and bike routes along interconnected streets with short block lengths and a high intersection density.
- Prominent pedestrian and bicycle network.
- Few if any cul-de-sacs.
- Pedestrian and bike connections at the ends of all cul-de-sacs unless infeasible due to topography or similar impediments inherent in the project site.

PC-6. Infrastructure Master Plan And Financing Plan

Required: Inclusion of an Infrastructure Master Plan and Financing Plan that include the following:

- The Infrastructure Master Plan shall identify required public facilities and infrastructure (including roads, transit, water, sewer, storm drainage, schools, fire, park, library, and other needed community facilities) and associated costs for the development of the proposed UPA expansion/Master Plan;
- The Financing Plan shall:
 - Include an infrastructure phasing analysis that examines development through buildout taking into consideration potential development activities, facilities requirements and constraints;
 - Identify the phase or timing for when the facilities are needed;
 - Identify the funding mechanisms proposed to pay for the identified infrastructure and facilities;
 - Demonstrate that infrastructure requirements and the associated costs are reasonably balanced throughout each development phase and outline solutions for any potential constraints and/or shortfalls for any given phase.

PC-7. Services Plan

Required: Inclusion of a Services Plan to demonstrate:

- that provision of services to the proposed UPA expansion/Master Plan are cost-neutral to the County's General Fund and existing ratepayers;
- that the operations and maintenance costs stemmed from the required public facilities and infrastructure for the development of the proposed UPA expansion/Master Plan are cost-neutral to the County's General Fund and existing ratepayers, and;
- that existing levels of municipal services will not be negatively impacted by approval and buildout of the proposed UPA expansion/Master Plan.

PC-8. Consistency with County-adopted plans.

Required: Consistency with all applicable County adopted plans not sought to be amended by the proposed project.

PC-9. Consideration of regional planning efforts.

Required: Inclusion of a discussion/analysis of how the proposed UPA expansion/Master Plan relates to broad-based and regional planning efforts, such as SACOG's adopted Blueprint Vision and Metropolitan Transportation Plan, Sacramento County's Visioning documents created for the Jackson Highway and Grant Line East Areas, any applicable Habitat Conservation Plan(s), the Sacramento Metropolitan Air Quality Management District's State Implementation Plan, and Regional Transit's Master Plan.

PC-10. Consideration of jobs-housing balance.

Required: Inclusion of a discussion/analysis of the proposed UPA expansion/Master Plan's jobs-housing balance. Master Plans should provide an internal jobs-housing balance and/or improve the jobs housing balance within the project's vicinity.

Alternative #1 – Criteria-Based

To satisfy this alternative, the Board must find that the proposed project is planned and will be built in a manner that:

- meets all of the requirements per the criteria below, and;
- qualifies for a minimum of 18 points (out of a possible 24) per the criteria below

CB-1. Minimum net density.

Required: Minimum density of at least 7 dwelling units per net acre if using “double net” methodology or 9.3 dwelling units per acre if using “triple net” methodology.

Points:

1. ≥ 8 dwelling units per acre if using “double net” methodology, or ≥ 10.6 dwelling units per acre if using “triple net” methodology.	3 points
2. ≥ 9 dwelling units per net acre if using “double net” methodology, or ≥ 12 dwelling units per acre if using “triple net” methodology.	4 points
3. ≥ 10 dwelling units per net acre if using “double net” methodology, or ≥ 13.3 dwelling units per acre if using “triple net” methodology.	5 points

Discussion and definitions:

Double net density methodology: Double net density shall be calculated by considering land area dedicated exclusively to residential and mixed-use residential areas, **including** land for streets and alleys internal to the residential and mixed use residential areas. All other lands are excluded from this calculation, including streets not internal to the residential or mixed use areas, parks, schools, detention basins, other infrastructure, and services needed to support the development, and non-residential uses such as commercial areas, offices, and open space. This methodology shall be used if the Master Plan does not contain details regarding the location, size and extent of streets internal to residential and mixed use areas. A graphic representation of this methodology is provided below, with blue shading representing the residential and mixed use areas included in the calculation.



Triple net density methodology: Triple net density shall be calculated by considering land area dedicated exclusively to residential and mixed-use residential areas, **excluding** land for streets and alleys internal to the residential and mixed use residential areas. All other lands are excluded from this calculation, including streets not internal to the residential or mixed use areas, parks, schools, detention basins, other infrastructure, and services needed to support the development, and non-residential uses such as commercial areas, offices, and open space. This methodology may only be used if the Master Plan contains sufficient details regarding the location, size and extent of streets internal to residential and mixed use areas. A graphic representation of this methodology is provided below, with blue shading representing the residential and mixed use areas included in the calculation.



Allowable deviations from density calculations: Certain lands may be excluded from the density calculation to allow for larger lot residential development and/or a transitional zone between urban uses within the USB and rural uses beyond, including:

- Land within ¼ mile of the USB, OR;
- Up to 10 % of the net residential acreage.

Definition of “dwelling units”: Dwelling units shall include single family homes, duplex and triplex units, condominium units, townhomes, apartment and multiple-family units, and residential units in mixed use buildings. Residential units in congregate care facilities and in the residential portion of a university may be counted when calculating a master plan’s overall density if the County finds that the Master Plan includes assurances that these units will be built. Each planned accessory unit that is allowed “by right” per the Master Plan’s design guidelines, development standards and zoning will be counted as ½ a dwelling unit.. If the County finds that the Master Plan includes assurances that planned

accessory dwelling units will be built to habitable standards and rented or sold to people outside the family resident in the primary unit, they will be counted as one dwelling unit. Hotel rooms and other similar transient housing will not be considered as dwelling units.

CB-2. Proximity of residential units to amenities.

Required: ≥80 percent of all residential units located within one mile of at least three of the following existing or planned amenity categories:

- Public elementary, middle, or high school
- Park or recreational facility
- Grocery store, drug store or commercial center
- Office or industrial employment center
- Civic use (e.g. library, post office, community garden, urban farm)
- Preschool, childcare or senior care facility
- Medical offices or facilities

Points:

1. ≥85 percent of all units located within one mile of at least three of the amenity categories	2 points
2. ≥90 percent of all units located within one mile of at least three of the amenity categories	3 points
3. ≥90 percent of all units located within one mile of at least four of the amenity categories	4 points

CB-3. Mixed use.

Required: Include a mixed use designation, overlay, and/or zoning category that allows vertical mixed use by right, provides uninterrupted pedestrian connections, and prohibit barriers between different uses.

Points:

1. At least 5 percent of a Master Plan's developable land zoned for mixed use (horizontal or vertical).	2 points
2. At least 10 percent of a Master Plan's developable land zoned for mixed use (horizontal or vertical).	3 points
3. At least 15 percent of a Master Plan's developable land zoned for mixed use (horizontal or vertical) or assurances that at least 5 percent of the residential units will be located and built within vertically integrated mixed-use buildings.	4 points

Discussion: Mixed use shall be defined as “residential uses and at least one or more different use integrated vertically and/or horizontally in conformance with a coherent plan with significant functional, aesthetic, and physical integration of project components including, but not limited to, pedestrian and vehicle circulation, jointly accessible common areas and shared parking, and shared architectural, landscaping, lighting and signage themes.” Mixed use zoning shall allow vertical mixed use by right, provide uninterrupted pedestrian connections, and prohibit barriers between different uses.

CB-4. Transit.

Required: ≥65 percent of all residential units located within ½ mile of existing or planned transit service, which consists of light rail, streetcars, buses, vanpools and/or shuttles that connects with regional public transit service.

Points:**Proximity**

1. ≥ 70 percent of residential units located within $\frac{1}{2}$ mile of existing or planned transit service	2 points
2. ≥ 75 percent of residential units located within $\frac{1}{2}$ mile of existing or planned transit service	3 points
3. ≥ 80 percent of residential units located within $\frac{1}{2}$ mile of existing or planned transit service	4 points

Headways

1. Transit service with headways of 60 minutes or less during peak hours (Monday through Friday from 7-9 a.m. and 4-6 p.m.)	1 points
2. Transit service with headways of 30 minutes or less during peak hours (Monday through Friday from 7-9 a.m. and 4-6 p.m.)	2 points
3. Transit service with headways of 15 minutes or less during peak hours (Monday through Friday from 7-9 a.m. and 4-6 p.m.)	3 points

Discussion: “Planned transit service” shall be defined as service identified in SACOG’s Metropolitan Transportation Plan (MTP), Regional Transit’s (RT) Short Range Transit Plan (SRTP), and/or service to be provided as part of the Master Plan and funded via a secure financial mechanism (example: CSA 10; North Natomas TMA/developer fees). The MTP has a 20+ year planning horizon and is updated every four years; the SRTP has a 10-year planning horizon and is updated every year. Both the MTP and SRTP must be “financially constrained” in that only those transportation projects and programs for which funding is reasonably expected to be available may be included in the plan. Therefore, there is a high likelihood that transit service identified in these plans will ultimately be provided. Service to be provided as part of a Master Plan and funded via a secure financial mechanism would provide similar assurances that identified service will ultimately be provided.

In contrast, transit service envisioned in RT’s long-range TransitAction Plan cannot be implemented until a significant new revenue source is secured, making such service far more speculative. For example, a new $\frac{1}{2}$ cent sales tax increase would only partially fund transit service envisioned in the TransitAction Plan. Therefore, service(s) identified in the TransitAction Plan and similar visioning documents will not be considered

“planned transit service” for purposes of determining consistency with this criterion.

CB-5. Proximity to employment.

Required: Analysis of existing employment/jobs within a five mile radius of the proposed UPA expansion/Master Plan boundary.

Points:

1. <50,000 existing employees/jobs within a 5 mile radius of the proposed project	2 points
2. Between 50,000-100,000 existing employees/jobs within a 5 mile radius of the proposed project	3 points
3. >100,000 existing employees/jobs within a 5 mile radius of the proposed project	4 points

Alternative #2 – Vehicle Miles Travelled (VMT)/Greenhouse Gas (GHG) Emission Metrics

To satisfy this alternative, the Board must find that the proposed project is planned and will be built in a manner that results in:

- ≤14 vehicle miles travelled (VMT) per resident per day (or the equivalent VMT per household per day);

OR

- ≤Equivalent GHG per capita per day from cars, light trucks, and medium trucks (less than 8,500 Gross Vehicle Weight).

Discussion: While consistency with the criteria in Alternative #1 provides a level of certainty that a proposed project will achieve particular outcomes, *measuring* the actual projected outcome(s) of the project is a viable alternative. These projected outcomes can be compared against pre-defined metrics to determine the project’s “performance”. VMT and greenhouse gas (GHG) emissions are logical metrics because a project’s performance in these areas is directly correlated to the project’s ability to achieve the same goals and mandates (relative to air quality, transportation, land use, infrastructure, and GHG emissions) as the criteria in Alternative #1. Additionally, VMT and GHG are very closely related; the mix of vehicles that residents use for their daily travel has a relatively narrow range of GHG emissions per mile traveled. Given the direct correlation between improved VMT and associated reductions in GHG emissions, this alternative directly addresses goals and mandates relative to recent state laws aimed at reducing GHG emissions, including AB 32, SB 375 and SB 97.

VMT is easily measured using standard travel demand analysis methods. Multiple traffic models exist for conducting such analysis. Given the long-range nature of the General Plan and the ever-evolving nature of traffic models, it does not make sense to require use of a specific model to determine compliance with this alternative. However, to ensure that a credible model is employed, the project proponent and County staff (including Environmental Review, DOT, Planning, etc.) will discuss the merits of available models and determine which will be used to determine compliance with this alternative prior to starting the analysis.

The 14 VMT per capita can be translated into a 13 lbs. of GHG per capita by using the same assumptions that SACOG is required to use for calculating SB375 GHG targets. These assumptions are that this travel will use cars, light trucks, and medium trucks (less than 8,500 Gross Vehicle Weight), and that vehicle and fuel improvements are not included. If the technology improvements are included (fuel economy increases and a 10% reduction in the carbon content of gasoline), then the GHG metric would be 8 lbs. of GHG per capita.

LU-123. Before granting approval of an amendment to the Land Use Diagram, the Board of Supervisors shall find that:

- the request is consistent with the objectives and policies of the General Plan;
- the request is consistent with the goals and objectives of a Sacramento County-adopted Habitat Conservation Plan;
- approval of the proposal will not adversely affect the fiscal resources of the County;
- the project will be consistent with the performance standards in this Plan and, for urban uses in urban growth areas, the project complies with the requirements of LU-13.

PF-21. Property buffering the County landfill shall remain in agricultural, recreational or other open space uses and extend at least 2,000 feet in all directions, measured from the landfill's permitted boundary, unless the Department of Waste Management and Recycling determines that the use is compatible with landfill operations and the Board of Supervisors makes the finding that the uses are compatible with the existing or future operations of the landfill.

SACRAMENTO AREA COUNCIL OF GOVERNMENTS (SACOG) BLUEPRINT

The SACOG Board of Directors adopted the Preferred Blueprint Scenario (<http://www.sacregionblueprint.org/adopted/>) in December 2004, hereinafter referred to as the Blueprint. The Blueprint is a growth concept for the greater Sacramento region based on the seven principles listed below, with an ultimate horizon of the year 2050.

Consistent with General Plan Policy LU-113, the Blueprint is treated as an applicable land use policy document intended to avoid environmental impacts. General Plan policies LU-23 and LU-26 are also applicable in this context, as they require inclusion of many of the growth principles (mixed use, compact community design, walkable environments, and open space) unless determined to be infeasible.

1. Provide a variety of transportation choices, including walkable paths
2. Mix land uses
3. Take advantage of compact building and community design
4. Create a range of housing opportunities and choices
5. Strengthen and direct development toward existing communities
6. Foster distinctive, attractive communities with a strong sense of place
7. Preserve open space, farmland, natural beauty, and critical environmental areas

The ultimate purpose of the “smart growth” concept supported by the principles is sustainable communities, and is a reaction to the recognized health and safety impacts of urban sprawl and vehicle-centric development strategies. Various studies have demonstrated that smart growth development significantly reduces impacts to air quality, water quality, open space/biological resources, and public health. A 2000 study found that compact development in New Jersey would produce 40 percent less water pollution than more dispersed development patterns (Rutgers University). A 2005 Seattle study found that residents of neighborhoods where land uses were mixed and streets are better connected, making non-auto travel easier and more convenient, traveled 26 percent fewer vehicle miles than residents of neighborhoods that were more dispersed and less connected (Lawrence Frank and Company). Smart growth development also promotes the clean-up and redevelopment of contaminated lands (brownfields), supports maintenance of infrastructure by concentrating post-development revenue into smaller areas, and requires less extension of new infrastructure. It has also been demonstrated that the greenhouse gas emission reductions incorporated within California’s Executive Order S-3-05 are unlikely to be achieved just through vehicle efficiency and development of low-carbon fuels – significant vehicle trip reductions will also be required (Yang, et. al.) and can be fostered through smart growth land use policies.

The SACOG website for the blueprint (<http://www.sacregionblueprint.org/adopted/>) states that the Blueprint “should be interpreted and used as a concept-level illustration of the growth principles” and that it is “not intended to be applied or implemented in a literal, parcel-level manner”. The Blueprint can be considered an example of how the seven principles could be applied in the Sacramento region. This analysis includes the Blueprint map applicable to the Project area, but the analysis relies on analysis of the Project’s conformity to the principles and overall vision of the Blueprint, rather than conformity to the concept map. This analysis relies on a strict definition of smart growth

– a proposal must be consistent with all seven principles to be called smart growth. The following paragraphs expand on the seven principles, and describe both what does and does not satisfy each principle. The descriptions below were developed using information from the Blueprint, from the Environmental Protection Agency's Smart Growth program (www.epa.gov/dced), from Smart Growth Online (smartgrowth.org), and from Smart Growth America (www.smartgrowthamerica.org). Though these descriptions are provided, the analysis recognizes that the Blueprint principles are general policy statements, and there is no clearly empirical way to analyze a project's consistency. This analysis is somewhat subjective in nature.

TRANSPORTATION

The first principle recommends a mix of transportation options, including walkable paths. This does not merely imply that there must be sidewalks, a bus turnout, and roadways. Those design elements are normal infrastructure required by existing development standards. A project must go beyond these minimums to satisfy the principle. The following paragraphs include some of the design elements that typify pedestrian-, bicycle-, and mass transit-friendly development.

Pedestrian-supportive development includes placing commercial and retail buildings close to the road rather than separated by large parking lots, providing separated sidewalks with landscaping, avoiding cul-de-sacs and non-linear street design that lengthens the distance from one place to another, placing amenities within 5 – 10 minutes walking distance, and creating community trails.

Bicycle-supportive development includes bicycle lanes on roads carrying higher volumes and/or speeds, avoidance of cul-de-sacs and non-linear street design, placement of secure bicycle parking facilities at all amenities, provision of showering facilities at places of employment, and providing a cash buy-out program for employees that do not use a parking space.

Transit supportive development includes creation of exclusive Bus Rapid Transit lanes, provision of queue-jump processes for buses, creation of bus stops at key locations, providing subsidies for employees who choose mass transit, institution of maintenance fees to support ongoing operation of transit, provision of high residential density along all mass transit routes to provide adequate ridership, provision of medium density in many non-corridor areas to support mass transit, provision of a jobs-housing balance within each community rather than just in the region as a whole, and location of development near existing transit lines and job centers.

MIXED-USE

A development is often called mixed use if two or more uses are proposed adjacent to one another. However, this type of project would be better described as multiple use. A mixed use project would involve multiple uses in the same building (e.g. a building with retail on the first floor and apartments on the second floor) or would at a minimum

intersperse and blend multiple uses throughout a development rather than grouping most of the similar uses together. This involves the inclusion of neighborhood community retail centers, markets, and parks within a $\frac{1}{4}$ or $\frac{1}{2}$ mile radius, rather than clustering these amenities in regional centers several miles from the average home.

COMPACT DESIGN

Compact building and community design refers to higher density development, cluster development, including multiple-story buildings, and including smaller buildings. The typical subdivision in Sacramento County is less than 5 dwelling units to the acre, whereas compact community design would involve a minimum of 10 dwelling units to the acre. In many typical subdivisions, the greenspace is divided up amongst all of the residential and commercial lots and fenced off, while in a cluster development homes and businesses would be given smaller private yards and clustered together facing a common greenspace. Townhomes and other types of housing products can be included to provide home square-footage without taking up additional land, and homes can be built with less square footage in general to avoid taking up additional land.

RANGE OF CHOICES

Many subdivisions provide only a handful of floorplans and often only one type of product. A smart growth development would include a range of house sizes and product types to accommodate the range of residents in the community. The needs of young single individuals differ from the needs of a family of 5, and differ again from the needs of seniors. The purchasing power of the different resident groups also varies. Rather than building predominantly single-family homes of several thousand square feet, developments should include cottages of 700 – 1,000 square feet, townhomes, condominiums, apartments, and other housing choices.

DEVELOP IN EXISTING COMMUNITIES

Directing development toward existing communities is accomplished by building on infill land and urban brownfields before developing greenfields, building on greenfields only after the prime infill and brownfield land is developed, and developing greenfields in a logical and phased progression beginning in those areas nearest to existing urban lands.

SENSE OF PLACE

Creating a sense of place, and creating distinctive, attractive communities can be accomplished through a variety of means, and the existing landscape and community context will be a significant driver for that process. However, it can generally be stated that the inclusion of focal points, such as town centers and community main streets plays a role in creating a sense of place. Distinctiveness and attractiveness is a function of how the setbacks are implemented, the amount and location of landscaping, providing variation in building façades while maintaining cohesion, the placement of

garages at homes, and a multitude of other factors. To ensure that this principle is achieved, it is often important to include a comprehensive set of design guidelines for a community.

PRESERVE OPEN SPACE

Preservation of open space, be it for the benefit of agriculture, ecological function, or cultural resources, is an often-overlooked component of smart growth. A project may meet all of the smart growth principles listed above, but still be developed within prime open space. Clearly, it is inevitable that development will involve the destruction of some open space resources if a project is located on undeveloped land (as opposed to a reuse project). The purpose of this principle is not to entirely prevent loss of open space, but to ensure that a project preserves the most sensitive and prime resources within the area. This is partly accomplished through principle five, which directs development toward existing communities where the open space environment is already compromised by existing urbanization. This is also accomplished by identifying the prime ecological, agricultural, and cultural resources during project design, and avoiding those areas. These resources can then become recreational and visual amenities, sequestration areas for carbon dioxide, and natural preserves.

ZONING REGULATIONS

The proposed Project includes a Zoning Ordinance Amendment to create the Cordova Hills Special Planning Area (SPA) to incorporate a Master Plan including Design Guidelines and Development Standards. This would require a rezone from AG-80 (agricultural parcels of at least 80 acres) to the SPA zone. Title II, Article 6, §235-90 through 235-93 of the Sacramento County Zoning Code establishes the procedure and authority for establishing Special Planning Areas in the County. The SPA zoning category was designed to allow for the regulation of properties that have unique environmental, historical, architectural attributes, or other elements that require special conditions that the standard zone regulations do not accommodate. According to §235-90:

It is recognized that in certain circumstances it may be desirable to provide for a greater range or mixture of uses in an area than would be permitted in the standard land use zones of this Code.

The applicant has asserted that due to its location, environmental constraints, the presence of a proposed university/college campus center, and the desire to create a smart growth mixed-use project on the site the plan area requires special conditions in order to develop and revitalize it into a community asset. Section 235-93 of the Zoning Code states that the following items shall be addressed and included in an SPA Ordinance:

1. A list of permitted uses.

2. Performance and development requirements relating to yards, lot area, intensity of development on each lot, parking, landscaping, and signs.
3. Other design standards appropriate for the specific site and development.
4. Legal description of property covered by the ordinance.
5. Reasons for establishment of an SPA Land Use Zone on the particular property.

The draft SPA that has been prepared for the Project is available online through the Sacramento County Planning and Community Development Department at <http://www.planningdocuments.saccounty.net/ViewProjectDetails.aspx?ProjectID=784>.

SIGNIFICANCE CRITERIA

CEQA Guidelines defines “significant” as “a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant.” (Section 15382)

Based on the CEQA Guidelines, a land use impact is significant if Project implementation results in any of the following:

1. Substantial conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including but not limited to a general plan, specific plan or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.
2. Substantial physical disruption or division of an established community.
3. Displacement of substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.
4. Creation of an airport safety hazard for people residing or working in the Project area.

Significance criteria four is not discussed below, because the Project lies nearly four miles outside of any of the identified safety contours of Mather Airport, and will not result in the creation of an airport safety hazard.

METHODOLOGY

An evaluation of the potential land use impacts associated with implementation of the Project was based on a review of planning documents, including the various components and policies of the Sacramento County General Plan, other County regulations affecting planning and implementation of the proposed General Plan, the City of Rancho Cordova General Plan, the Sunridge Specific Plan, field reviews of the County, and consultation with appropriate agencies.

IMPACTS AND ANALYSIS

IMPACT: CONFLICT WITH LAND USE PLANS

The Project site is zoned AG-80 and has a General Plan land use designation of General Agriculture 80 (see Plate LA-1 and Plate LA-2). Most of the land north, east, and south of the site is also zoned and designated for General Agriculture uses of at least 80 acres. There are a few single-family homes, but the land is mostly devoted to grazing or passive open space uses. There is a parcel to the north, surrounded on three sides by the Project, which is zoned AG-20 (agricultural parcels of at least 20 acres). This property contains a home, several accessory structures, and an olive grove. There are no current development proposals for the lands north or east of the site, though it should be noted that the property owners of the Project own several of the larger parcels to the north. Property to the east of the Project is outside of the Urban Services Boundary.

The Boy's Ranch, a juvenile correction facility which is operated by the Sacramento County Probation Department, is adjacent to the northeastern Project boundary. This property is zoned A-2 (agricultural-residential properties of at least two acres) and designated Public/Quasi-Public. As of the time of this writing, the facility has been closed due to budget deficits, but it should be assumed that it will resume operation once finances have improved (refer to the Sacramento County Boys Ranch section below). All chapters treat this as an operating facility, for the purposes of the analysis.

Plate LA-1: Zoning in Project Area

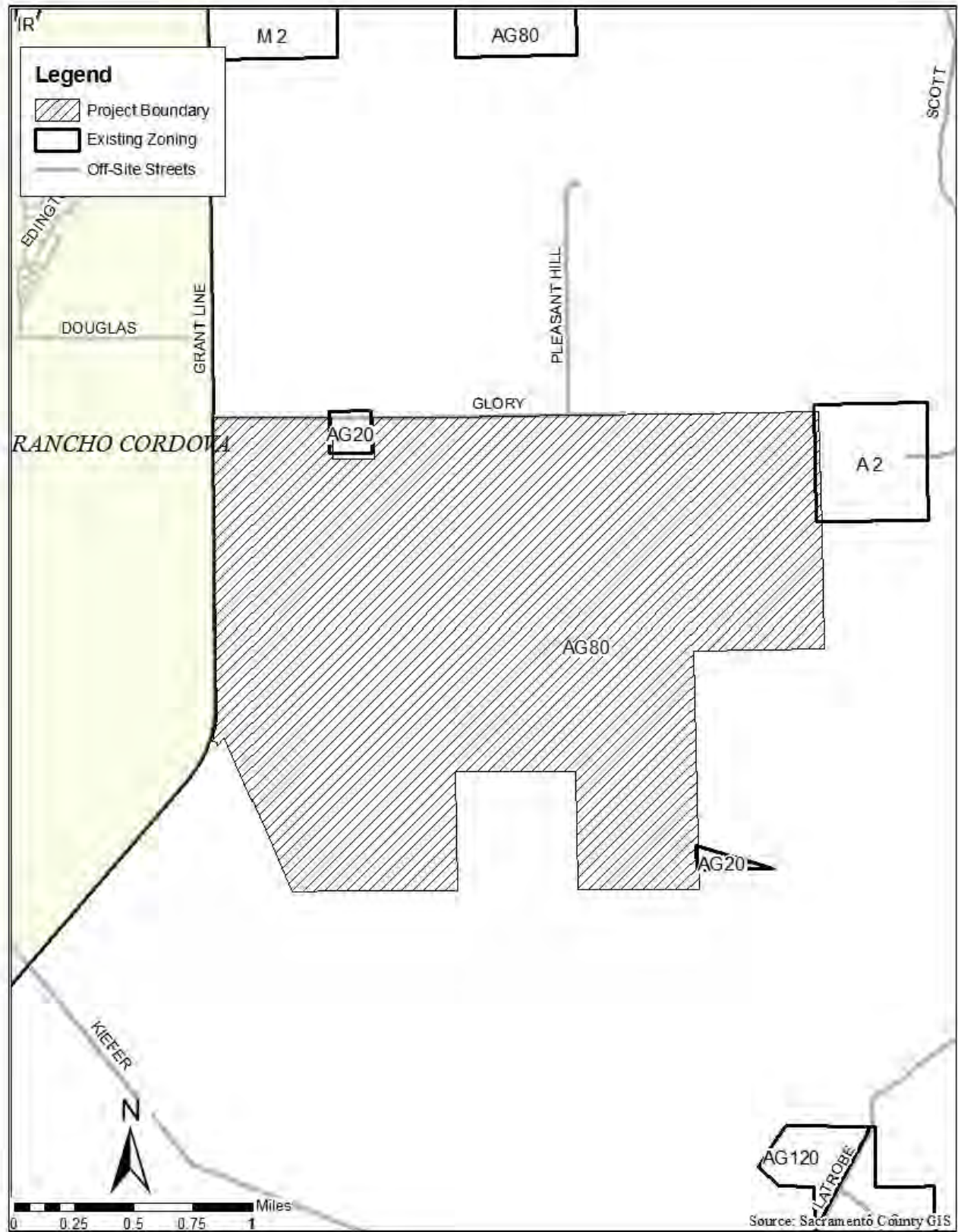
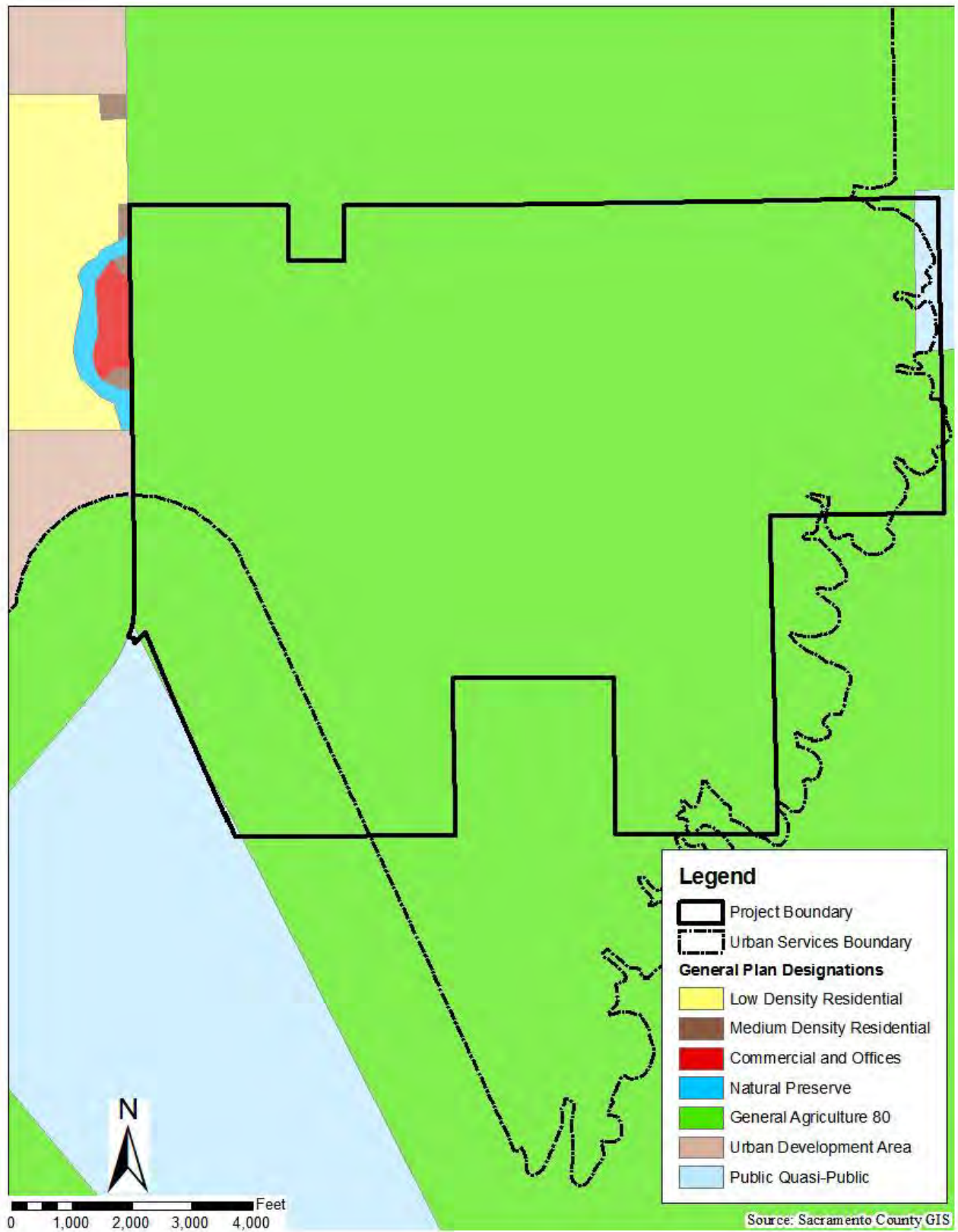


Plate LA-2: General Plan Designations in Project Area

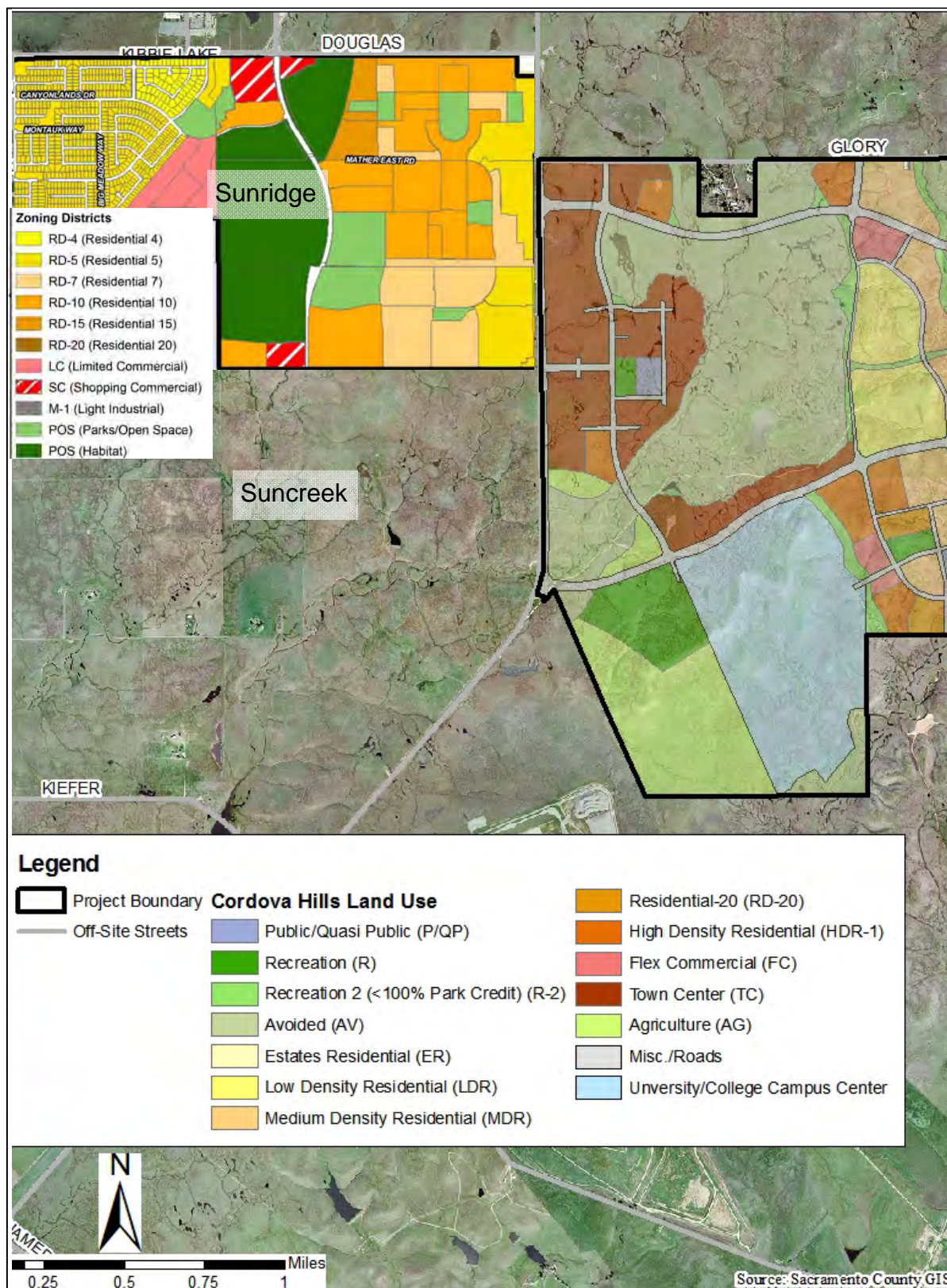


There is also an area to the southwest designated Public/Quasi-Public, which is zoned AG-20 (agricultural parcels of at least 20 acres); this is the Kiefer Landfill property. In the existing General Plan the land within 2,000 feet of the ultimate active landfill boundary has been designated as an urban use buffer which prohibits development that could be incompatible with landfill activities. Though there is currently no approved development plan for the area, the Sacramento County Board of Supervisors has initiated the Kiefer Landfill Special Planning Area project (refer to the Kiefer Landfill section below). These properties are outside of the Urban Services Boundary.

Land to the west is within the City of Rancho Cordova and is approved (tentative maps), designated (Sunridge Specific Plan), or proposed (Suncreek Specific Plan) for future urban development but is currently undeveloped. The City of Rancho Cordova General Plan covers not only the land within the City, but also a substantial amount of land that is within the unincorporated County. This further area outside the City limits is called the “General Plan Planning Boundary”, which the Rancho Cordova General Plan recognizes is outside of City jurisdiction and defines as lands where the City intends to enter into “cooperative agreements on land use and circulation planning” (Rancho Cordova General Plan, page 5). One of these Planning Areas includes the Project site. The presence of two different land use plans over the same land is an inconsistency. However, the City of Rancho Cordova does not have jurisdiction in this area, nor does the Rancho Cordova General Plan contain details about future development in this area, so this EIR does not contain a discussion about land use conflicts in this respect. The Project site is not within the City of Rancho Cordova Sphere of Influence.

The Project site shares a boundary with the City of Rancho Cordova at Grantline Road. The Rancho Cordova General Plan designates all of these City areas along Grantline Road for a range of low to high density residential with a node of commercial at the intersection of Grant Line Road and Douglas Road, north of the site. The approved Sunridge Specific Plan area lies across Grant Line Road from the Project, and includes infrastructure financing plans, approved subdivision maps, and other more detailed development approvals (Plate LA-3). The proposed Suncreek Specific Plan lies across Grant Line Road from the Project, in the area south of Chrysanthy Boulevard; this is shown on the exhibit but no uses are shown since the Draft EIR for the Specific Plan has not been published at this time. Although the land to the west of the Project is currently undeveloped open space, some of this area has land use entitlements and is likely to develop within the near-term. The proposed Project, the Sunridge Specific Plan, and the Suncreek Specific Plan are compatible projects, each containing residential, commercial, and institutional uses.

Plate LA-3: Project Uses and Adjacent Specific Planning



The potential conflicts between Project lands which will be designated for urban uses and lands designated for agricultural uses are discussed in the Agriculture Resources chapter. To summarize that chapter, substantial conflicts between the Project and agricultural lands will not arise because these lands are used for grazing, which does not generate the levels of dust, pesticide drift, fertilizer drift, and noise which are the usual source of conflict; nonetheless, a mitigation measure requiring disclosure of agricultural uses to prospective property owners is included. The proposed Project is compatible with the other adjacent land use plan, the Sunridge Specific Plan. Both projects include a similar mix of uses, and are separated by Grant Line Road. The Project will not result in a significant conflict with a land use plan adopted for the purpose of avoiding or mitigating an environmental effect; impacts are *less than significant*.

IMPACT: CONFLICT WITH LAND USE POLICIES AND REGULATIONS

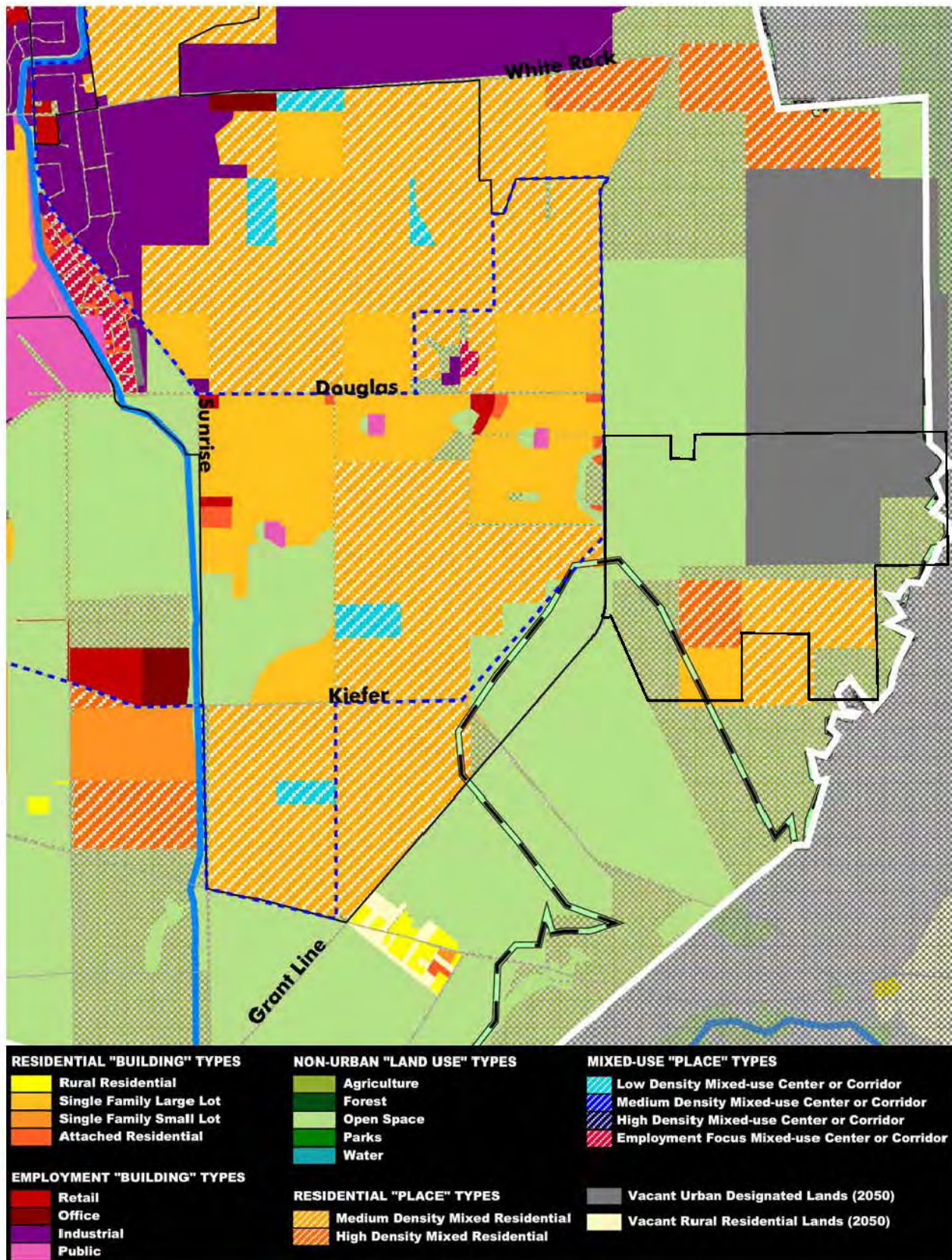
SACOG BLUEPRINT, LU-23, LU-26, AND LU-113

The Blueprint concept plan for the Project area is provided in Plate LA-4. The concept plan depicts conceptual buildout in the year 2050, and depicts buildout of the City of Rancho Cordova planning areas west of Grant Line Road, but shows a relatively minor amount of development east of Grant Line Road by that time – albeit, with a note indicating that some of the land is designated for urban uses but is vacant up to the year 2050. As this map is not intended for parcel-level interpretation, it should not be construed as depicting specific, preferred development locations but should instead be interpreted as displaying preferred overall patterns. In this context, the Blueprint indicates that development should be city-centric, focusing growth within the confines of incorporated city boundaries as a logical buildout from existing urban areas. On this basis, though some development is assumed within the Project area, the Project goes beyond the level of development assumed outside of the city areas by the year 2050 – or put another way, the Project takes a portion of the Blueprint development assumed for beyond the year 2050 and brings it within the 2050 time horizon. The sections below discuss the Project's conformity with the seven blueprint principles, which are also captured by several General Plan policies.

VARIETY OF TRANSPORTATION CHOICES

The Project includes a wide array of transportation choices, including residential collectors and arterials for vehicles, a network designed to accept Neighborhood Electric Vehicles on nearly all of the interior roadways, a mass transit system operated by the Cordova Hills Community Services District, approximately 28 miles of on-street bicycle lanes, approximately 22 miles of off-street multi-use trails, approximately 5 miles of trails within the conceptual university/college campus center, pedestrian bridges and underpasses, and approximately 20 miles of paseos (multi-use pathways which connect vehicular pathways – see the next paragraph).

Plate LA-4: Preferred Blueprint Scenario in Project Area



The only aspect of the Project which is not in strict conformity with this principle is that the overall street network deviates from the grid pattern; however, upon examination of the SPA it becomes clear that this deviation is deliberate and is intended to promote decreased reliance upon automobiles for internal travel. Section 6.11.3 of the SPA describes pedestrian and bicycle paseos, and indicates that streets will deliberately end in cul-de-sacs and other features, from which will extend bicycle and pedestrian paths called paseos (the standard is for 90% of all cul-de-sacs to include paseos). This design will make non-automotive routes the most direct line of travel in many cases. General Plan Policy LU-26 does allow for a modified grid pattern. The Project provides a variety of transportation choices, and is consistent with this principle and with General Plan policy.

COMPACT BUILDING AND COMMUNITY DESIGN

The Project Description chapter includes a table of residential unit totals, which is also included as Table LA-1 below. Including the conceptual university/college campus center dorms, the total Project net density is ten units per acre, and excluding the university/college campus center, the net density is nine units per acre. The Project is twice as dense as the County average of five units per acre, and is consistent with this principle and with General Plan policy.

Table LA-1: Residential Unit Totals

Village	Number of Units	Net Residential Acres	Net Density
Town Center Village	1,750	194.6	9
Ridgeline Village	995	107.2	9
University Village	1,475	96.3	15
Estates Village	500	125.8	4
East Valley Village	1,740	188.6	9
Creekside Village	1,540	192.4	8
University/College Campus Center	1,010	39.7	25
<i>Project Total</i>	<i>9,010</i>	<i>938.3</i>	<i>10</i>

RANGE OF HOUSING

Residential types in the Project range from estate lots of one to four units per acre, to dense multi-family areas of 30 to 40 dwelling units per acre. Based on Table 3.1 of the SPA, the percentage of housing types is approximately as follows: 2% HDR 2 (30 – 40 units per acre), 20% HDR 1 (20 – 30 units per acre), 11% RD 20 (20 units per acre), 39% MDR (7 – 15 units per acre), 24% LDR (4 – 7 units per acre), 2% ER (1 – 7 units per acre), and 2% FC (units integrated into commercial buildings). From these totals it is apparent that the Project includes a reasonable range of housing densities. In terms of product types, details would not be known until tentative map stage, but the SPA does include design guidelines for basic product types that show a variety of parcel

layouts (including alleys for product access instead of driveways), cluster development, and townhomes (beginning with Section 4.4). The SPA also includes a section on design themes for those products (beginning with Section 4.8). From these details it can be concluded that the Project includes an array of housing choices, and is consistent with this principle and with General Plan policy.

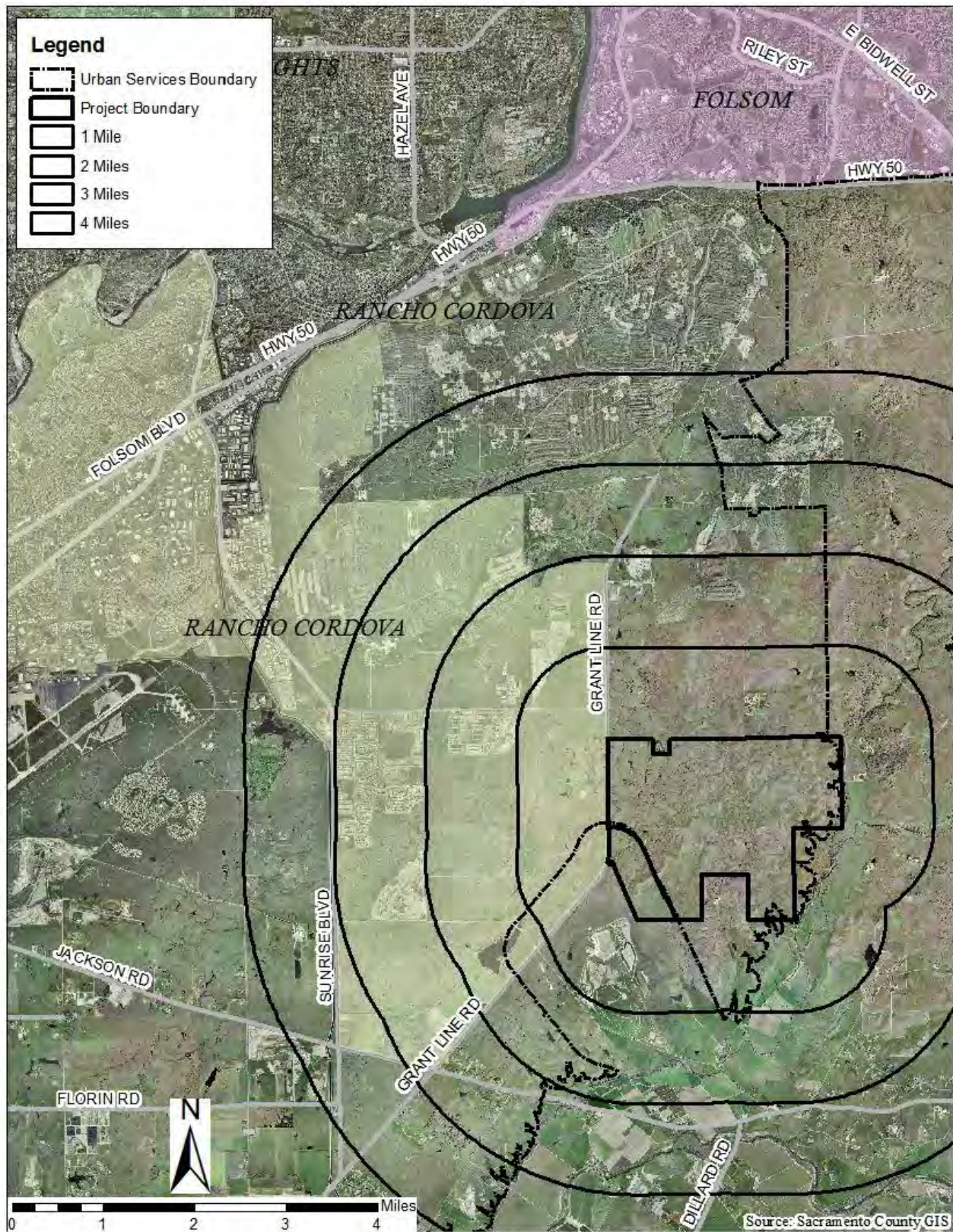
DIRECT DEVELOPMENT TOWARD EXISTING COMMUNITIES

Based on the language contained within the Blueprint, an existing community is defined for this analysis as one that is physically constructed in the existing condition, rather than one that is planned for development at a future time. The City of Rancho Cordova has several either approved or pending Specific Plans within the eastern portion of the City boundaries, but most of these properties are undeveloped, with some small areas where development had been initiated. The nearest incomplete development area is a finger of residential and commercial construction within the Sunridge Specific Plan, approximately one mile from the Project boundary. The nearest complete, built-out community area within the City of Rancho Cordova (the area at the northern end of Sunrise Boulevard) is approximately four miles from the Project boundary. The City of Folsom's Sphere of Influence boundary is approximately four miles from the Project boundary, while the existing urban boundaries are approximately six miles from the Project boundary. Plate LA-5 illustrates this discussion. The Project conflicts with this principle, thus with General Plan policy.

FOSTER A SENSE OF PLACE

The Project includes design guidelines in Chapter 4 which are intended to create a variety of building façades and treatments which nonetheless retain a unified theme. Standards address setbacks, garage locations and treatments, architectural massing, roof forms, streetscape massing, plans and styles, colors and materials, and architectural principles such as: A variety of compatible architectural styles will ensure a degree of individuality in all Villages and neighborhoods. The overall Project layout also includes a variety of open space types integrated with the residential and commercial areas, and includes a Town Center and a university/college campus center. The SPA delineates criteria that will foster a sense of place.

Plate LA-5: Proximity of the Project to Existing Communities (Year 2009)



PRESERVE OPEN SPACE

It is recognized that loss of open space resources is an inherent part of development within greenfield areas, and is not meant to suggest that greenfield development should be prohibited or avoided altogether. The key of the principle is to preserve the most sensitive and prime resources, but on this basis the principle is somewhat subjective, as there is no set definition of what is “most sensitive” or of how much preserved land is sufficient to meet the intent of the principle. One relevant planning document for this analysis is the United States Fish and Wildlife “Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon” (Recovery Plan). This document identifies vernal pool habitats in the Project area as a high priority (Rank 1) vernal pool recovery area. On this basis, the analysis focuses on wetland resources as being the “most sensitive”.

The Project involves the avoidance of 493 acres of land within the 2,669-acre Project boundary, which is approximately 18% of the total site area. The largest of these avoided areas contains the largest assemblage of vernal pool features on the site, and is 298 acres. The boundaries of the 298-acre avoided area were defined through a watershed analysis to determine the upland area that would be necessary to maintain adequate functioning of the wetlands within the open space. On this basis it can be stated that the applicants have made an effort to identify the most sensitive areas and preserve them, so the issue then revolves around the determination of sufficiency regarding the land area.

Though the Project does preserve large areas which were based on sensitivity analysis, the Project will nonetheless result in the loss of 44% of the wetlands on the Project site, which includes 33% of the vernal pool acreage. If the Project were not within an area identified as vital to the preservation and recovery of vernal pools (refer to the Biological Resources chapter), the analysis would likely conclude that the preserved area was sufficient; however, under the circumstances it is concluded that the land area preserved is insufficient to meet the intent of the principle, and thus with General Plan policy.

Though this analysis concludes that the amount of area preserved is not considered sufficient for the purposes of consistency with the principle, it is acknowledged that this determination is somewhat subjective, and that disagreement will exist. It is further acknowledged that although the Project is considered inconsistent based on the amount of land preserved, the Project is consistent inasmuch as the open space areas were designed to avoid the largest concentrations of the most sensitive vernal pool resources on the site.

SUMMARY OF SACOG BLUEPRINT ANALYSIS

The Project includes a wide variety of transportation choices, an array of housing choices, a mix of uses, compact community design, and fosters a sense of place. While acknowledging that in terms of internal community design, the Project appears to be an excellent example of “smart growth” development, it must also be acknowledged that the Project conflicts with the principles with respect to the preservation of open space

and the proximity to existing developed communities. As stated, in terms of open space preservation, the analysis is somewhat subjective, and the Project has directed preservation toward the most sensitive vernal pool areas of the site. In terms of directing development toward existing communities, the conflict is more clear. Note that this is not precisely an issue of location – the Blueprint, the Sacramento County General Plan, and the City of Rancho Cordova have all identified the Project area for future urbanization – it is an issue of timing. Though projected for future development, the Blueprint envisions growth occurring from the existing city centers outward rather than the reverse. This is a fundamental underpinning to the Blueprint, and as a result, the Project's inconsistency with this principle is considered a substantial conflict with the Blueprint and with General Plan policy which supports the Blueprint. Avoidance of this impact would require substantial Project redesign and relocation. Though Alternatives have been considered which would reduce this impact, there is no mitigation available and impacts are *significant and unavoidable*.

GENERAL PLAN GROWTH MANAGEMENT POLICY

General Plan Policy LU-120 is intended to reduce impacts of many different types – such as growth inducement, unacceptable operating conditions on roadways, poor air quality, and lack of appropriate infrastructure – by establishing design criteria for all amendments to the Urban Policy Area. A project must be consistent with the policy before it may be considered for approval. The Planning Division has reviewed the Project for consistency with LU-120 and has found in the affirmative. The Project has been deemed consistent with criteria PC-1 through PC-10, and has achieved a total of 21 points in the criteria-based standards (CB-1 through CB-5). A total of 18 points is required and 24 points are possible. The tables below (Table LA-2 and Table LA-3) summarize the reasoning for the affirmative finding for the performance criteria (PC-1 through PC-10) and for the points achieved in the criteria-based standards. Given that the Project has been deemed consistent, Project impacts related to conflict with growth management policy are *less than significant*.

Table LA-2: Cordova Hills Performance Criteria Determination

CRITERIA		CORDOVA HILLS RESPONSE
PC-1	Vision for connection to other adjacent existing and potential future development areas.	Cordova Hills is integrally linked to existing and future development of adjacent areas in terms of land use compatibility, streets, transit, bike and pedestrian paths, regional recreation opportunities, institutional amenities, resource protection, and public utilities and services.
PC-2	Housing choice.	The Cordova Hills Master Plan provides a range of housing choices that will meet the needs of a diverse range of households, lifestyles, and income levels.
PC-3	Quality.	The Cordova Hills Master Plan provides extensive design guidelines and development standards that ensure an exceptionally high quality of design throughout the Project.
PC-4	Accommodate the percentage of low and very low income residential units required by state law per the County's current Housing Element based on the Regional Housing Needs Allocation (RHNA).	Thirty-three percent (33.2%) of all units in Cordova Hills are designated for a minimum density of 20 dwelling units per acre. The plan exceeds the requirement for high-density housing.
PC-5	Pedestrian- and transit-oriented design.	Cordova Hills is designed to implement and combine several forms of circulation that will provide significant alternatives to conventional vehicle use for common, every day travel and provides an extensive pedestrian and bike trail network linked to schools, parks, employment, and shopping.
PC-6	Infrastructure Master Plan And Financing Plan.	The County Infrastructure Finance Service is reviewing the comprehensive Cordova Hills Financing Plan that addresses all of the requirements of November 6, 2011.
PC-7	Services Plan	The Urban Services and Governance Plan provides a description of the urban services that will be required to serve the Cordova Hills Community along with how and by whom these services will be provided, and how they will be funded over time.
PC-8	Consistency with County-adopted plans.	Cordova Hills is consistent with all County adopted plans that affect the project area. The project incorporates policies, smart growth principles, guiding principles and design guidelines and integrates project infrastructure plans with the County agency's master plans.
PC-9	Consideration of regional planning efforts.	The Cordova Hills Master Plan was prepared with consideration of regional planning and incorporates the Blueprint principles in the land use and circulation plan. The plan is coordinated with regional plans for transportation, transit, sewer, water, and air quality.
PC-10	Consideration of jobs-housing balance.	Cordova Hills includes a substantial employment base (6,548 jobs). The core of Cordova Hills and the adjacent development planned in Rancho Cordova will grow into a significant employment hub along Grantline Road that will contribute to a balance of jobs/housing within five miles of the project.

Table LA-3: Cordova Hills Criteria-Based Standards Determination

CRITERIA			POINTS ACHIEVED BY CORDOVA HILLS
CB-1	Minimum density	≥10 dwelling units per net acre if using “double net” methodology, or ≥13.3 dwelling units per acre if using “triple net” methodology.	5 points
CB-2	Proximity to Amenity	≥90 percent of all units located within one mile of at least four of the amenity categories	4 points
CB-3	Mixed Use	At least 10 percent of a Master Plan’s developable land zoned for mixed use (horizontal or vertical).	3 points
CB-4a	Transit Proximity	≥80 percent of residential units located within ½ mile of existing or planned transit service	4 points
CB-4b	Transit Headway	Transit service with headways of 15 minutes or less during peak hours (Monday through Friday from 7-9 a.m. and 4-6 p.m.)	3 points
CB-5	Employment Proximity	<50,000 existing employees/jobs within a 5 mile radius of the proposed project	2 points
TOTAL POINTS			21 points

GENERAL PLAN POLICIES RELATED TO GROWTH INDUCEMENT

Compliance with General Plan Policies LU-1, LU-2, and LU-12 can avoid the negative physical impacts that result from growth inducement. The need to extend new service lines or improve existing infrastructure is often a financial or physical barrier to new growth. Extending services from an existing developed area to reach a non-contiguous development area, either because of a proposed land use or existing land use, can remove these barriers for the in-between lands. As a direct result, the area may be developed and cause an increase in impacts such as vehicle congestion, pollutant emissions associated with those vehicles, and loss of biological and other physical resources. Growth inducement is discussed in broader terms in the Cumulative and Growth Inducing Impacts chapter of the EIR, and that analysis concludes differently than this analysis. The reason is that this analysis is quite narrowly confined to discussing the ramifications of the policy language, not to the overall effect of the Project on growth inducement.

The Project includes an expansion of the Urban Policy Area to include all of the Project area that is within the Urban Services Boundary. The Urban Policy Area expansion will not include the southwestern portion of the site which is outside of the Urban Services Boundary, but the applicant has nonetheless requested that the Sacramento County Water Agency supply public water for the uses in this area (the sport’s park, corporation yard, etc.). This makes the Project inconsistent with Policy LU-1, and thus the Project

also includes a General Plan Amendment which would add policy language to the General Plan allowing water to 251 acres of the Project outside the USB. The proposed policy language specifically notes that proposed uses so served should help strengthen and preserve the current location of the Urban Services Boundary, consistent with Policy LU-2. According to the Sacramento County Planning Division this language is expressly intended to prevent this policy being used to allow growth inducement, either through use of the policy itself or through statements that the policy sets a precedent of allowing water outside of the Urban Services Boundary and Urban Services Area. The Project is adjacent to existing planned communities (the Sunridge Specific Plan) and is therefore consistent with policy LU-12. The Project will not result in any substantial negative environmental impacts related to conflict with policies LU-12 or LU-1; impacts are *less than significant*.

GENERAL PLAN POLICIES RELATED TO PUBLIC SERVICES AND UTILITIES

Compliance with General Plan Policies LU-13, LU-66, LU-110, and LU-123 is intended to ensure that minimum service standards for public services and utilities are met. The policies address a variety of issues, including the need to ensure that adequate facilities will be constructed and that funding is secured for construction and that service providers are contacted to ensure that service planning is adequate. These issues are discussed in detail in the Public Services and Public Utilities chapters of this EIR, but a brief summary is provided here. The Project includes a facilities financing plan which was submitted to all of the applicable service entities for review and approval. Long-term funding sources have been identified for the maintenance of public services. The Project will not result in any substantial environmental impacts related to conflict with General Plan policies which pertain to public services or utilities; impacts are *less than significant*.

GENERAL PLAN POLICIES RELATED TO TRANSPORTATION AND AIR QUALITY

Compliance with General Plan Policies LU-21, LU-22, LU-25, LU-34, LU-35, LU-36, LU-38, LU-46, and LU-71 can reduce the impacts of a project related to transportation and air quality. These policies address provision of a mix of uses, adequate pedestrian circulation, access to non-vehicular transportation, and reduction in energy demand. Providing a mix of uses and access to non-vehicular travel modes can reduce traffic congestion and reduce total trip lengths, which in turn reduces pollutant emissions. Reducing energy demand reduces pollutant emissions generated by the provision of energy. These issues are discussed in more detail in the Air Quality and Transportation and Circulation chapters of the EIR, but a summary is provided here.

The proposed Project includes a mix of uses and a multi-modal transportation system which includes pedestrian paths, bicycle paths, a transit system, and a Neighborhood Electric Vehicle system. The Project has included a Town Center to act as the “Core Area” of the Project, which is directly along the major transportation facility, Grant Line Road. The Project also includes an Air Quality Mitigation Plan and a Greenhouse Gases Reduction Plan which include measures to reduce energy usage.

It is difficult to assess the proposed Project against Policy LU-25, because it is an SPA and does not fall into the zoning categories assumed for this policy. The Project includes areas designated for commercial uses which do not separate retail from office uses. Moreover, the Town Center portion of the Project will include some multi-story, mixed-use buildings, and thus analyzing the percent of the site footprint does not fully assess the Project mix. In addition, several of the land use categories allow both residential and commercial development. Nonetheless, including only commercial, public, and residential acreage in the Project (which excludes the university/college campus center) the Project mix is 60% residential, 16% commercial, and 24% public. This places the Project within the ranges specified by LU-25 for projects with a residential emphasis.

Though the Project does result in substantial impacts related to transportation and air quality, it is not due to conflicts with policies of the General Plan; impacts are *less than significant*.

GENERAL PLAN POLICIES: LAND USE COMPATIBILITY

Policy LU-19 states that appropriate buffers should be placed between incompatible uses, and Policy LU-94 states that new development should be compatible with existing development. The following sections discuss existing adjacent developments and their potential conflicts with the Project proposal.

SACRAMENTO COUNTY BOYS RANCH

The Boys Ranch property abuts the Project boundary, though the main facility is located approximately ¼-mile to the east, on the other side of Carson Creek from the Project site. The facility is closed at this time due to County budget constraints, but for the purposes of this analysis it is assumed that it will reopen once the budget allows. There are various potential issues of land use incompatibility when siting residential development near the Boys Ranch, which include nuisance noise from outdoor recreation areas, odor impacts from the onsite sewage treatment facility, and aesthetic impacts. Most of these issues are discussed in detail in the appropriate topical chapters of this Environmental Impact Report, but the conclusions of those discussions are described here.

The Project proposal designates the lands on the eastern boundary for agricultural uses. Adjacent to these agricultural lands, the Project proposal designates the land for estate residential (1 – 4 units per-acre properties). The estate residential area is on a bluff, which drops down significantly in elevation until reaching Carson Creek. This will place the edge of Project residential properties at least 1,200 feet from Boys Ranch, and 20 – 50 feet higher. This distance will be sufficient to buffer Project uses from nuisance noise and from incidental odors. Future residences can be placed in such a way that the facility is either not visible, due to the bluff edge blocking the view below, or through the use of screening plants. Though nuisance impacts will be *less than significant*, the nature of the facility itself may cause the perception of nuisance or discomfort, leading to potential complaints against the facility. Furthermore, additional

perceived conflict could result if people purchase property within the Project before being fully aware of the facility. For this reason, mitigation recommends including disclosures for prospective buyers of properties within the estate residential area of the Project.

KIEFER LANDFILL

Sacramento County owns and operates the Kiefer Landfill, and the landfill is the primary solid waste disposal facility in the County. Kiefer Landfill is a total of 1,084 acres in size, with a permitted disposal area of 660 acres. It is classified as a Class III municipal solid waste landfill facility and is permitted to accept general residential, commercial, and industrial refuse for disposal, including municipal solid waste, construction and demolition debris, green materials, agricultural debris, and other nonhazardous designated debris.

Kiefer Landfill is permitted to accept a maximum of 10,815 tons per day (tpd) of solid waste, but the average **current** intake is approximately **5,598** ~~6,000~~ tpd. **The annual maximum tonnage for the current fiscal year is 1,202,000 tons per year under its Solid Waste Facility Permit.** Kiefer Landfill receives over 700,000 tons of waste per year. The landfill currently has a permitted capacity of approximately 117 million cubic yards and a remaining capacity of 108 million cubic yards. Currently, the landfill is operating below permitted capacity, and according to CalRecycle the closure date of the Kiefer Landfill is anticipated to be approximately 2064. Based on this closure date, the landfill will still be operational when the Cordova Hills project reaches full build-out.

In addition to the existing Kiefer Landfill, the Board of Supervisors has also initiated the Kiefer Landfill Special Planning Area project. A Notice of Preparation for the project was released on April 19, 2010. This reasonably foreseeable project would designate landfill property for General Agriculture and Public/Quasi-Public, with the former designation for preserve areas and the latter for the landfill and for “waste stream industry” uses. The purpose of the waste stream industry uses is to provide an area for waste recycling, renewable energy projects, and other waste diversion uses. The areas nearest to the Project site would be preserve areas, while the waste stream industry uses would be located south and west of the existing landfill.

There are various potential issues of land use incompatibility when siting residential development near an active landfill, including odor, dust, nuisance pests, litter, noise, aesthetics, and nighttime lighting. Odor, noise, and nighttime lighting are discussed in the appropriate topical chapters of this EIR (Air Quality, Noise, and Aesthetics, respectively), but the conclusions of those discussions are described here. Neither odor, noise, nor aesthetics were deemed significant with respect to the Project, though mitigation is included for odor impacts. Most of the more sensitive project uses are located more than a mile from the ultimate landfill boundary. This distance ensures that the lighting and noise impacts are insubstantial, and allows time for any odors to be dispersed and diffused. The landfill itself operates a gas recapture program; natural gas emissions from landfills is one of the major sources of odor, so this is an effective means of control. Mitigation is included to recommend dense tree and shrub plantings

along the sports park and university/college campus center, to help filter, mix, and disperse any odors.

In terms of dust, nuisance pests, and litter, these are not likely to have any substantial impact on the Project. As stated, the nearest uses are nearly 2,000 feet from the ultimate active landfill boundary, which was deemed by the County to be a reasonable buffer for the purposes of preventing most land use conflicts related to the landfill (consistent with General Plan Policy PF-21). Over that buffer distance, the dust generated by vehicle traveling on unpaved roads and via waste grinding and other processes has sufficient time to be dispersed. Nuisance pests and vectors are typically experienced only in close proximity to the source condition. Any litter which escapes the site is likely to become caught within the intervening landscape; substantial litter is highly unlikely to be blown a distance of nearly ½- mile or more. Litter from the landfill was not observed on any of the site visits to the Project. In addition, there are existing regulations and permits in effect for the landfill which reduce the potential for conflicts.

Pursuant to 14 Cal. Code Regs. § 17200 et seq. 27 Cal. Code Regs. § **20760** ~~21685(b)(8)~~, **the County Environmental Management Department acts as the Local Enforcement Agency in Sacramento County and is certified by CalRecycle (formerly the California Integrated Waste Management Board) to regulate the Kiefer Landfill and oversee its compliance with the State Minimum Standards** CalRecycle (formerly the California Integrated Waste Management Board) must verify ~~that a proposed facility complies with the State Minimum Standards~~. The minimum standards require that facilities be operated and maintained so as not to create a nuisance (14 ~~27~~ Cal. Code Regs. § **20760** ~~17867(a)(2)~~). A "nuisance" at a solid waste facility is defined by CalRecycle as a storage, removal, transport, processing or disposal activity which "is injurious to human health or is indecent or offensive to the senses and interferes with the comfortable enjoyment of life or property," and "affects at the same time an entire community, neighborhood or any considerable number of persons." (14 Cal. Code Regs. §17402(a)(12); 27 Cal. Code Regs. § 20164). To this end, the Solid Waste Facilities Permit in effect for Kiefer Landfill includes an array of measures intended to control nuisance conditions. These existing regulations and permit mechanisms are sufficient to ensure that the landfill will not result in the creation of a significant nuisance condition at the Project location, and impacts are *less than significant*.

Though nuisance impacts will be less than significant, the nature of the facility itself may cause the perception of nuisance or discomfort, leading to potential complaints against the facility. Furthermore, additional perceived conflict could result if people purchase property within the Project before being fully aware of the facility. Increased complaints against the facility may have negative consequences for the landfill, as it could result in the imposition of new permit conditions that impact existing operations. For this reason, mitigation recommends including disclosures for prospective buyers of properties within one mile of the ultimate active landfill boundary.

MITIGATION MEASURES:

- LU-1.** The location and nature of the Sacramento County Boys Ranch facility shall be disclosed to all prospective buyers of estate-residential properties.
- LU-2.** The location and nature of the Kiefer Landfill facility shall be disclosed to all prospective buyers of properties within one mile of the ultimate active landfill boundary. **The disclosure notice shall include:**
- A. **A statement substantially consistent with the following: “The landfill will expand in height and land area over time, and thus the visibility and proximity of the landfill from the property at the time of purchase does not reflect how visible or proximate the landfill will be in the future.” This statement shall be supplemented with relevant facts about ultimate landfill design, including the distance of the property to the ultimate planned edge of the landfill waste disposal area to the nearest 100 feet and the ultimate planned height of the landfill (as set forth in the Solid Waste Facilities Permit).**
 - B. **Notification that the landfill operates under a Solid Waste Facilities Permit and is required to control pests, vectors, litter, and odor to the extent practicable, but that it is not possible to eliminate all of these nuisances. For this reason, property owners may experience some of these nuisance conditions.**
 - C. **Notification that the active landfill area is lighted at night.**

IMPACT: DIVISION OR DISRUPTION OF ESTABLISHED COMMUNITY

The division or disruption of an established community is an impact considered by CEQA. Case law has established that a project must create physical barriers within the established community in order to be considered under this impact category. There is no existing development on the project site, nor are there developments north, south, or east of the site that could be divided or disrupted by the project. Furthermore, the Project includes stub streets so that if there is development north or south of the site in the future, those uses could connect into the Project. The project will not disrupt or divide an established community; impacts are *less than significant*.

MITIGATION MEASURES:

None recommended.

IMPACT: DISPLACEMENT OF HOUSING

There is no existing housing on the Project site that could be displaced by the project, nor would the project uses cause the displacement of nearby housing. The site is not included in the affordable housing inventory as part of implementation of the

Sacramento County General Plan Housing Element. The Project does include an affordable housing plan. Impacts are *less than significant*.

MITIGATION MEASURES:

None recommended.

13 NOISE

INTRODUCTION

This chapter describes the regulatory and environmental settings for noise in the project area and vicinity of the project site, identifies and analyzes the noise impacts of traffic, aircraft, and stationary sources to components of the Project, analyzes the Project's contribution to off-site traffic noise and recommends mitigation measures to reduce or eliminate significant impacts.

NOISE FUNDAMENTALS AND TERMINOLOGY

Noise is often described as unwanted sound, and thus is a subjective reaction to the physical phenomenon of sound. Sound is variations in air pressure that the ear can detect. Sound levels are measured and expressed in decibels (dB), which is the unit for describing the amplitude of sound¹. Because sound pressure levels are defined as logarithmic numbers, the values cannot be directly added or subtracted. For example, two sound sources, each producing 50 dB, will produce 53 dB when combined, not 100 dB. This is because two sources have two times the energy (not volume) of one source, which results in a 3 dB increase in noise levels.

Most environmental sounds consist of several frequencies, with each frequency differing in sound level. The intensities of each frequency combine to generate sound. Acoustical professionals quantify sounds by “weighting” frequencies based on how sensitive humans are to that particular frequency. Using this method, low and extremely high frequency sounds are given less weight, or importance, while mid-range frequencies are given more weight, because humans can hear mid-range frequencies much better than low and very high frequencies. This method is called “A” weighting, and the units of measurement are called dBA (A-weighted decibel level). In practice, noise is usually measured with a meter that includes an electrical “filter” that converts the sound to dBA. The threshold at which one hears sounds is considered to be zero (0) dBA. The range of sound in normal human experience is 0 to 140 dBA. Decibels and other technical terms are defined in Table NO-1.

The ambient noise level is defined as the noise from all sources near and far, and refers to the noise levels that are present before a noise source being studied is introduced. A synonymous term is pre-project noise level.

¹ Equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micropascals.

Table NO-1: Acoustical Terminology

TERM	DEFINITION
Ambient Noise Level:	The composite of noise from all sources near and far. In this context, the ambient noise level constitutes the normal or existing level of environmental noise at a given location.
Intrusive Noise:	That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.
Decibel, dB:	A unit for describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micropascals (20 micronewtons per square meter).
Frequency, Hz	The number of complete pressure fluctuations per second above and below atmospheric pressure.
Community Noise Equivalent Level, CNEL*:	The average equivalent sound level during a 24-hour day, obtained after addition of approximately five decibels to sound levels in the evening from 7:00 p.m. to 10:00 p.m. And ten decibels to sound levels in the night before 7:00 a.m. and after 10:00 p.m.
Day/Night Noise Level, L_{dn}^*:	The average equivalent sound level during a 24-hour day, obtained after addition of ten decibels to sound levels in the night after 10:00 p.m. And before 7:00 a.m.
Equivalent Noise Level, L_{eq}:	The average noise level during the measurement or sample period. L_{eq} is typically computed over 1, 8 and 24-hour sample periods.
L_{max}, L_{min}:	The maximum or minimum sound level recorded during a noise event.
L_n :	The sound level exceeded “n” per percent of the time during a sample interval. L_{10} equals the level exceeded 10 percent of the time (L_{90} , L_{50} , etc.)
Noise Exposure Contours:	Lines drawn about a noise source indicating constant levels of noise exposure. CNEL and L_{dn} contours are frequently utilized to describe community exposure to noise.
Sound Exposure Level, SEL; or Single Event Noise Exposure Level, SENEL:	The level of noise accumulated during a single noise event, such as an aircraft overflight, with reference to a duration of one second. More specifically, it is the time integrated A-weighted squared sound pressure level for a stated time interval or event, based on a reference pressure of 20 micropascals and a reference duration of one second.
Sound Level, dBA:	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the response of the human ear and gives good correlation with subjective reactions to noise.

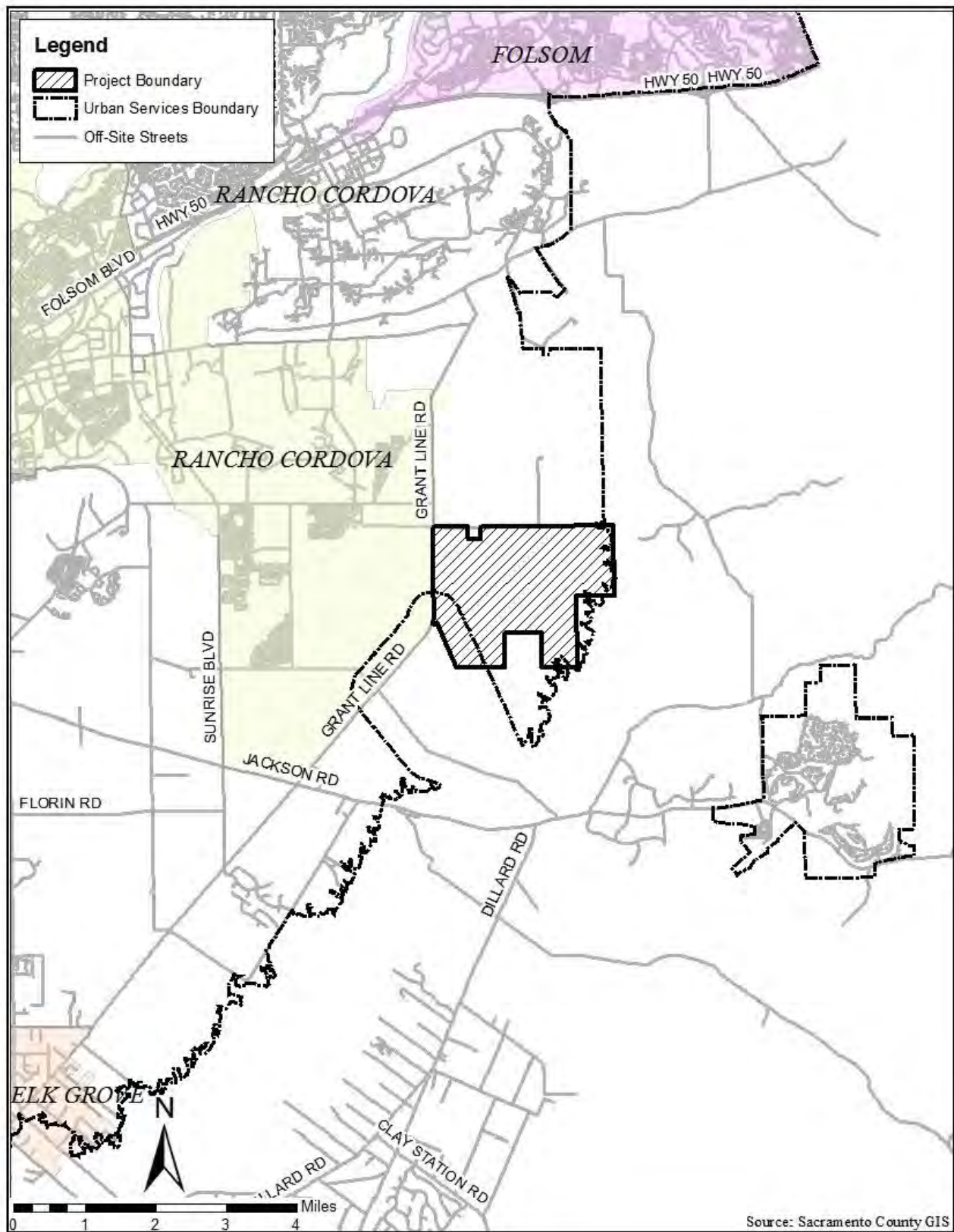
NOISE SETTING

The project site is located on the east side of Grant Line Road and south of Glory Road. Glory Road is a gravel private road serving only a few properties, and thus carries minimal traffic. Grant Line Road is a two-lane thoroughfare which carries approximately 6,500 daily trips in the Project vicinity (refer to the Traffic and Circulation chapter). Plate NO-1 depicts the location of the project site. The project site is zoned agricultural and there are a few houses just north of the project site. There is one residential structure located adjacent to the northern property boundary.

Existing potential noise sources in the Project vicinity include traffic on Grant Line Road, Kiefer Landfill, and Mather Airport. Mather Airport is located approximately 4 miles to the west. At the nearest point, the Project site is located approximately 2.25 miles outside the 60 CNEL contour for Mather Airport. Kiefer Landfill is located to the south/southwest of the project site. The nearest sensitive Project use to the landfill will be the university/college campus center, which is approximately 0.5 mile from the northern portion of the landfill.

The boundaries of the City of Rancho Cordova lie to the west of the project site, across Grant Line Road. The Rancho Cordova General Plan Land Use Policy Map (adopted June 26, 2006) designates the area along Grant Line Road, between Chrysanthy Boulevard and Douglas Road, as low density residential, with a node of commercial at the intersection of Grant Line Road and Douglas Road, north of the site. The development to take place along Grant Line Road is part of the Sunridge Specific Plan, which encompasses 2,606 acres. The project is primarily residential, consisting of mostly single-family residential units, some multi-family garden apartments, townhomes and condominiums. There is also a proposed project, the Suncreek Specific Plan, which lies south of the approved Sunridge Specific Plan and will contain similar uses.

Plate NO-1: Location Map



REGULATORY SETTING

In order to limit population exposure to physically and/or psychologically damaging noise levels, the State of California and Sacramento County have established standards and ordinances to control noise.

STATE OF CALIFORNIA

The California Department of Health Services (DHS) office of Noise Control has studied the relationship between noise levels and different land uses. As a result, the DHS has established four categories for judging the severity of noise intrusion on specified land use. Noise in the “normally acceptable” category places no undue burden on affected receptors and would need no mitigation. As noise rises into the “conditionally acceptable” range, some mitigation of exposure (as established by an acoustical study) would be warranted. At the next level, noise intrusion is so severe that it is classified “normally unacceptable” and would require extraordinary noise reduction measures to avoid disruption. Finally, noise in the “clearly unacceptable” category is so severe that it cannot be mitigated.

Title 24 of the California Administrative Code establishes standards governing interior noise levels that apply to all new multifamily residential units in California. The standards require that acoustical studies be performed prior to construction at building locations where the existing L_{dn} exceeds 60 dBA. Such acoustical studies are required to establish mitigation measures that will limit maximum L_{dn} noise levels to 45 dBA in any inhabitable room. The U.S. Department of Housing and Urban Development (HUD) has set an L_{dn} of 45 as its goal for interior noise in residential units built with HUD funding.

2030 COUNTY GENERAL PLAN NOISE ELEMENT

The goals of the Sacramento County General Plan Noise Element are to: (1) protect the citizens of Sacramento County from exposure to excess noise and (2) protect the economic base of Sacramento County by preventing incompatible land uses from encroaching upon existing planned noise-producing uses. The General Plan defines a noise sensitive outdoor area as the primary activity area associated with any given land use at which noise sensitivity exists. Noise sensitivity generally occurs in locations where there is an expectation of relative quiet, or where noise could interfere with the activity which takes place in the outdoor area. An example is a backyard, where loud noise could interfere with the ability to engage in normal conversation.

The Noise Element of the Sacramento County General Plan establishes noise exposure criteria to aid in determining land use compatibility by defining the limits of noise exposure for sensitive land uses. There are policies for noise receptors or sources, transportation or non-transportation noise, and interior and exterior noise.

NO-1. The noise level standards for noise-sensitive areas of *new* uses affected by traffic or railroad noise sources in Sacramento County are shown by Table 1. Where

the noise level standards of Table 1 are predicted to be exceeded at new uses proposed within Sacramento County which are affected by traffic or railroad noise, appropriate noise mitigation measures shall be included in the project design to reduce projected noise levels to a state of compliance with the Table 1 standards.

**Table NO-2: Noise Element Table 1
Noise Standards for New Uses Affected by Traffic and Railroad Noise**

New Land Use	Sensitive Outdoor Area – L_{dn}	Sensitive Interior Area – L_{dn}
All Residential ⁵	65	45
Transient lodging ^{3,5}	65	45
Hospitals and nursing homes ^{3,4,5}	65	45
Theaters and auditoriums ³	None	35
Churches, meeting halls, schools, libraries, etc. ³	65	40
Office buildings ³	65	45
Commercial buildings ³	None	50
Playgrounds, parks, etc	70	None
Industry ³	65	50
<ol style="list-style-type: none"> 1. Sensitive areas are defined in acoustical terminology section. 2. Interior noise level standards are applied within noise-sensitive areas of the various land uses, with windows and doors in the closed positions. 3. Where there are no sensitive exterior spaces proposed for these uses, only the interior noise level standard shall apply. 4. Hospitals are often noise-generating uses. The exterior noise level standards for hospitals are applicable only at clearly identified areas designated for outdoor relaxation either by hospital staff or patients. 5. If this use is affected by railroad noise, a maximum (L_{max}) noise level standard of 70 dB shall be applied to all sleeping rooms to reduce the potential for sleep disturbance during nighttime train passages. 		

NO-4. New residential development within adopted Airport Policy Area boundaries, but outside the 60 CNEL, shall be subject to the following conditions:

- A. Provide minimum noise insulation to 45 dB CNEL within new residential dwellings, including detached single family dwellings, with windows closed in any habitable room.

- B. Notification in the Public Report prepared by the California Department of Real Estate disclosing the fact to prospective buyers that the parcel is located within an Airport Policy Area.
- C. An Avigation Easement prepared by the Sacramento County Counsel's Office granted to the County of Sacramento, recorded with the Sacramento County Recorder, and filed with Department of Airports. Such Avigation Easement shall acknowledge the property location within an Airport Planning Policy Area and shall grant the right of flight and unobstructed passage of all aircraft into and out of the subject Airport.

Exceptions: New accessory residential dwellings on parcels zoned Agricultural, Agricultural-Residential, Interim Agricultural, Interim General Agricultural, or Interim Limited Agricultural and between the 60 and 65 CNEL contours, shall be permitted within adopted Airport Policy Area boundaries, but would be subject to the conditions listed above.

- NO-5. The interior and exterior noise level standards for noise-sensitive areas of new uses affected by existing non-transportation noise sources in Sacramento County are shown by Table 2. Where the noise level standards of Table 2 are predicted to be exceeded at a proposed noise-sensitive area due to existing non-transportation noise sources, appropriate noise mitigation measures shall be included in the project design to reduce projected noise levels to a state of compliance with the Table 2 standards within sensitive areas.

Table NO-3: Noise Element Table 2
Non-Transportation Noise Standards Median (L_{50})/Maximum (L_{max})

New Land Use	Outdoor Area		Interior
	Daytime	Nighttime	Day and Night
All Residential	55 / 75	50 / 70	35 / 55
Transient lodging ⁴	55 / 75	---	35 / 55
Hospitals and nursing homes ^{5,6}	55 / 75	---	35 / 55
Theaters and auditoriums ⁶	---	---	30 / 50
Churches, meeting halls, schools, libraries, etc. ⁶	55 / 75	---	35 / 60
Office buildings ⁶	60 / 75	---	45 / 65
Commercial buildings ⁶	---	---	45 / 65
Playgrounds, parks, etc ⁶	65 / 75	---	---
Industry ⁶	60 / 80	---	50 / 70
<ol style="list-style-type: none"> 1. The Table 2 standards shall be reduced by 5 dB for sounds consisting primarily of speech or music, and for recurring impulsive sounds. If the existing ambient noise level exceeds the standards of Table 2, then the noise level standards shall be increased at 5 dB increments to encompass the ambient. 2. Sensitive areas are defined in the acoustic terminology section. 3. Interior noise level standards are applied within noise-sensitive areas of the various land uses, with windows and doors in the closed positions. 4. Outdoor activity areas of transient lodging facilities are not commonly used during nighttime hours. 5. Hospitals are often noise-generating uses. The exterior noise level standards for hospitals are applicable only at clearly identified areas designated for outdoor relaxation by either hospital staff or patients. 6. The outdoor activity areas of these uses (if any), are not typically utilized during nighttime hours. 7. Where median (L_{50}) noise level data is not available for a particular noise source, average (L_{eq}) values may be substituted for the standards of this table provided the noise source in question operates for at least 30 minutes of an hour. If the source in question operates less than 30 minutes per hour, then the maximum noise level standards shown would apply. 			

- NO-6. Where a project would consist of or include non-transportation noise sources, the noise generation of those sources shall be mitigated so as not exceed the interior and exterior noise level standards of Table 2 at existing noise-sensitive areas in the project vicinity.
- NO-7. The “last use there” shall be responsible for noise mitigation. However, if a noise-generating use is proposed adjacent to lands zoned for uses which may have sensitivity to noise, then the noise generating use shall be responsible for mitigating its noise generation to a state of compliance with the Table 2 standards at the property line of the generating use in anticipation of the future neighboring development.
- NO-8. Noise associated with construction activities shall adhere to the County Code requirements. Specifically, Section 6.68.090(e) addresses construction noise within the County.
- NO-9. For capacity enhancing roadway or rail projects, or the construction of new roadways or railways, a noise analysis shall be prepared in accordance with the Table 3 requirements. If projected post-project traffic noise levels at existing uses exceed the noise standards of Table 1, then feasible methods of reducing noise to levels consistent with the Table 1 standards shall be analyzed as part of the noise analysis. In the case of existing residential uses, sensitive outdoor areas shall be mitigated to 60 dB, when possible, through the application of feasible methods to reduce noise. If 60 dB cannot be achieved after the application of all feasible methods of reducing noise, then noise levels up to 65 dB are allowed.

If pre-project traffic noise levels for existing uses already exceed the noise standards of Table 1 and the increase is significant as defined below, feasible methods of reducing noise to levels consistent with the Table 1 standards should be applied. In no case shall the long-term noise exposure for non-industrial uses be greater than 75 dB; long-term noise exposure above this level has the potential to result in hearing loss.

A significant increase is defined as follows:

<u>Pre-Project Noise Environment (Ldn)</u>	<u>Significant Increase</u>
Less than 60 dB	5+ dB
60 – 65 dB	3+ dB
Greater than 65 dB	1.5+ dB

- NO-12. All noise analyses prepared to determine compliance with the noise level standards contained within this Noise Element shall be prepared in accordance with Table 3.

The requirements as listed in Table 3 of the Noise Element are that an acoustical analysis shall:

1. Be the responsibility of the applicant.
2. Be prepared by qualified persons experienced in the fields of environmental noise assessment and architectural acoustics.
3. Include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions.
4. Estimate projected future (20 year) noise levels in terms of the Standards of Tables 1 and 2, and compare those levels to the adopted policies of the Noise Element.
5. Recommend appropriate mitigation to achieve compliance with the adopted policies and standards of the Noise Element.
6. Estimate interior and exterior noise exposure after the prescribed mitigation measures have been implemented.

NO-13. Where noise mitigation measures are required to satisfy the noise level standards of this Noise Element, emphasis shall be placed on the use of setbacks and site design to the extent feasible, prior to consideration of the use of noise barriers.

SACRAMENTO COUNTY NOISE CONTROL ORDINANCE

The County's Noise Control Ordinance sets limits for exterior noise levels on some designated agricultural-residential and all residential properties. The Noise Ordinance does not apply to noise levels at agriculturally zoned properties. Most of the properties surrounding the Project site are zoned agricultural; however, portions of Grant Line Road, Douglas Road and White Rock Road are zoned for future residential land uses. The portions of these roadway segments that are within the County would be subject to the Noise Ordinance.

The residential land uses along Grant Line Road and Douglas Road are located within the City of Rancho Cordova. Rancho Cordova's Noise Ordinance is based on the County's Noise Ordinance.

The standards found in the County's Noise Control Ordinance are based on the duration of noise on private property over one-hour periods. The ordinance is primarily concerned with regulating noise other than noise generated by transportation noise sources (e.g., passing cars or aircraft flyovers). The ordinance limits the duration of noise based on many factors, including the type of source, tonal characteristics of the source, ambient noise levels, time of day, etc., by utilizing a system of noise criteria not to be exceeded based on the duration of noise over any given hour. Table NO-4 summarizes the Noise Ordinance standards.

In recognition of ambient noise, the ordinance allows the standards set forth in Table NO-4 to be adjusted in 5 dBA increments to encompass the ambient noise level. For

example, if the ambient noise level for a given hour was 57 dBA, the daytime L50 noise standard would be increased to 60 dBA. The Noise Control Ordinance also states that each of the standards identified in Table NO-4 should be reduced by 5 dBA for impulsive or simple tone noises², or for noises consisting of speech or music.

Table NO-4: Sacramento County Noise Ordinance

Cumulative Duration of the Intrusive Sound	Descriptor	Exterior Noise Standard, dB	
		Daytime (7am – 10pm)	Nighttime (10pm – 7am)
30 – 60 minutes per hour	L ₅₀	55	50
15 – 30 minutes per hour	L ₂₅	60	55
5 – 15 minutes per hour	L ₀₈	65	60
1 – 5 minutes per hour	L ₀₂	70	65
Level not to be exceeded at any time	L _{max}	75	70
Source: Sacramento County, Noise Control Ordinance. Chapter 6.68.070			

MATHER COMPREHENSIVE LAND USE PLAN

The State of California regulates airports under the authority of the Airport Land Use Commission Law, Chapter 4, Article 3.5, California Public Utilities Code. The purpose of the Airport Land Use Commission Law is to:

1. Protect public health, safety and welfare through the adoption of land use standards that minimize the public's exposure to safety hazards and excessive levels of noise; and
2. Prevent the encroachment of incompatible land uses around public-use airports, thereby preserving the utility of these airports into the future.

The Sacramento Area Council of Governments (SACOG) has been designated the Airport Land Use Commission (ALUC) for Sacramento, Sutter, Yolo and Yuba counties. The ALUC is an autonomous agency and does not have jurisdiction over the operation of any airport. Under the provisions of the law, the ALUC is required to prepare a Comprehensive Land Use Plan (CLUP) for each public airport within its jurisdiction.

² "Impulsive noise" means a noise characterized by brief excursions of sound pressures whose peak levels are very much greater than the ambient noise level, such as might be produced by the impact of a pile driver, punch press or a drop hammer, typically with duration of one second or less. "Simple tone noise" or "pure tone noise" means a noise characterized by the presence of a predominant frequency or frequencies such as might be produced by a whistle or hum.

A CLUP designates planning boundaries (zones) around the airport and provides guidelines that define compatible types and patterns of future land use. These guidelines fall into three categories: (1) provide height restrictions that aim to protect the navigable airspace around airports for aircraft safety, (2) provide noise compatibility by minimizing the number of people exposed to noise from aircraft operations, and (3) provide for the safety of people on the ground by minimizing the number of people exposed to hazards related to aircraft operations and accidents.

In May 1996, the ALUC prepared a draft Mather Airport CLUP Update to establish new height, noise and safety zones for Mather Airport based on its projected buildout use as a County-operated aviation facility (and not a military airfield). An amended version of the CLUP was adopted by the ALUC Board on May 15, 1997. The Sacramento County Board of Supervisors approved a package of amendments to the General Plan that included this amended version of the Mather Field CLUP.

Land uses are restricted within airport safety zones to minimize the number of people exposed to aircraft crash hazards. The safety zones established by the CLUP consist of the clear zone, the approach-departure zone and the overflight zone. The clear zone is the area located immediately at the end of the runway and is the most restrictive safety area. The approach-departure zone is located beyond the clear zone and the end of each runway along the primary flight paths and is less restrictive. The least restrictive of the three safety areas is the overflight zone, which generally coincides with the area overflown by local traffic patterns.

The following information is from the noise section of the 1997 Mather CLUP. Airport noise is of concern since most complaints are related to noises generated by aircraft operations. The noise exposure has the potential to interfere with sleep, conversation, school, business, and recreational activities. The effect of noise interference on normal activities is most often described in terms of annoyance. Annoyance is a measure of the general adverse reaction people have to noise that causes interference to their normal lives. Currently, the best measure of this response to noise is the percentage of the affected population that can be characterized as “highly annoyed” by long term exposure to noise at a specified level. Community response is a term used to describe annoyance of groups of people exposed to noise sources in residential settings.

There is variability in the way individuals react to noise that makes it impossible to accurately predict how an individual will react to a given noise. However, when an impacted area is considered as a whole, trends start to emerge that relate noise to annoyance on a community level. The studies of community reaction to noise have shown that the community response to aircraft noise is affected not only by how loud the noise is, but also how often the noise occurs. It is noted in the Mather CLUP that complaints are not an accurate measure of impact. Annoyance can exist without complaints and complaints can occur without annoyance; thus, complaints are an inadequate indicator of the full extent of noise effects on a community or group of people.

The CLUP makes the finding that based on studies of noise the State of California has established noise standards in the California Code of Regulations, Title 21, Subchapter 6. These standards designate the Community Noise Equivalency Level (CNEL) as the noise rating method to be used at airports in California. Most commercial, industrial, and recreational uses are compatible with noise levels up to 70 dB CNEL. The State has deemed the following land uses to be incompatible in the 65 dB CNEL:

- residential dwellings
- public and private schools
- hospitals and convalescent homes
- churches, synagogues, temples and other places of worship

The project site is located outside the 60 dB CNEL (refer to Plate NO-2); therefore development of the proposed project is not considered an incompatible use per the California Code of Regulations. However, the project site is located within the Mather Airport Planning Policy Area (APPA) as shown on Plate NO-3.

MATHER AIRFIELD AIRPORT PLANNING POLICY AREA (APPA)

The Mather Airfield Airport Planning Policy Area (APPA), was adopted on April 19, 2006 by the Sacramento County Board of Supervisors by resolution 2006-1378. The APPA boundary is the area around Mather Airport that contains the 55 CNEL aircraft noise contour and most of the lower altitude portions of flight tracks for large aircraft flying below 3,000 feet above ground level. Within this area, residential development would be allowed, but a disclosure notice to potential homebuyers that addresses aircraft overflight and related noise beyond the normally mapped noise exposure contours would be required. This disclosure notice includes: seller's real estate disclosure statement, subdivision white paper disclosure, recorded deed notices, and grant of avigation easement. Thus, development within the APPA is not restricted, but there would be conditions that residential development would be contingent upon the requirement of a disclosure notice to prospective buyers. The disclosure would identify the property as located within the APPA and that aircraft can be expected to regularly fly at varying altitudes below 3,000 feet above ground level in that area. A granting of an Avigation Easement would also be required to further ensure that all future home buyers are aware of potential aircraft overflights.

Plate NO-2: Mather CNEL Contour Map

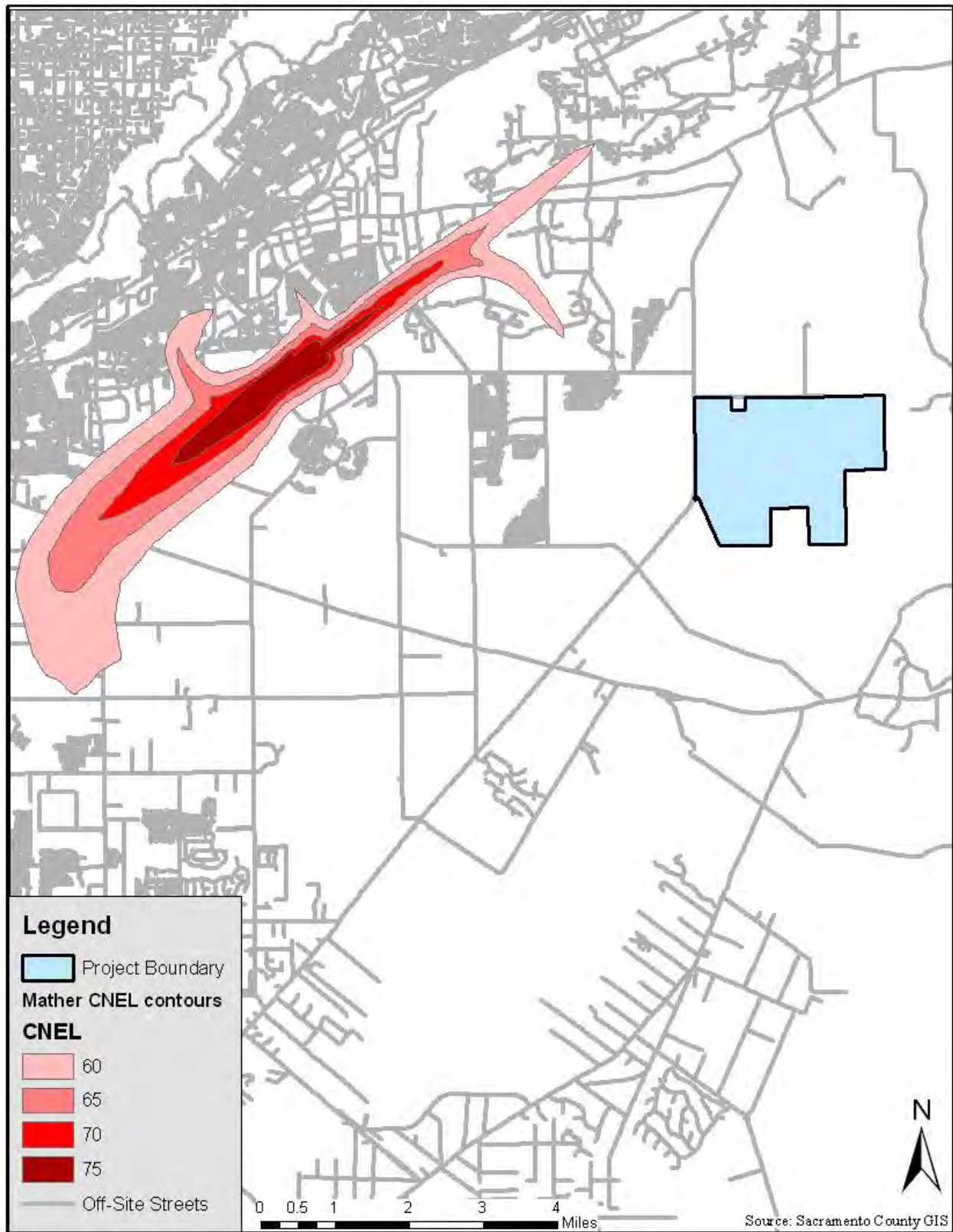
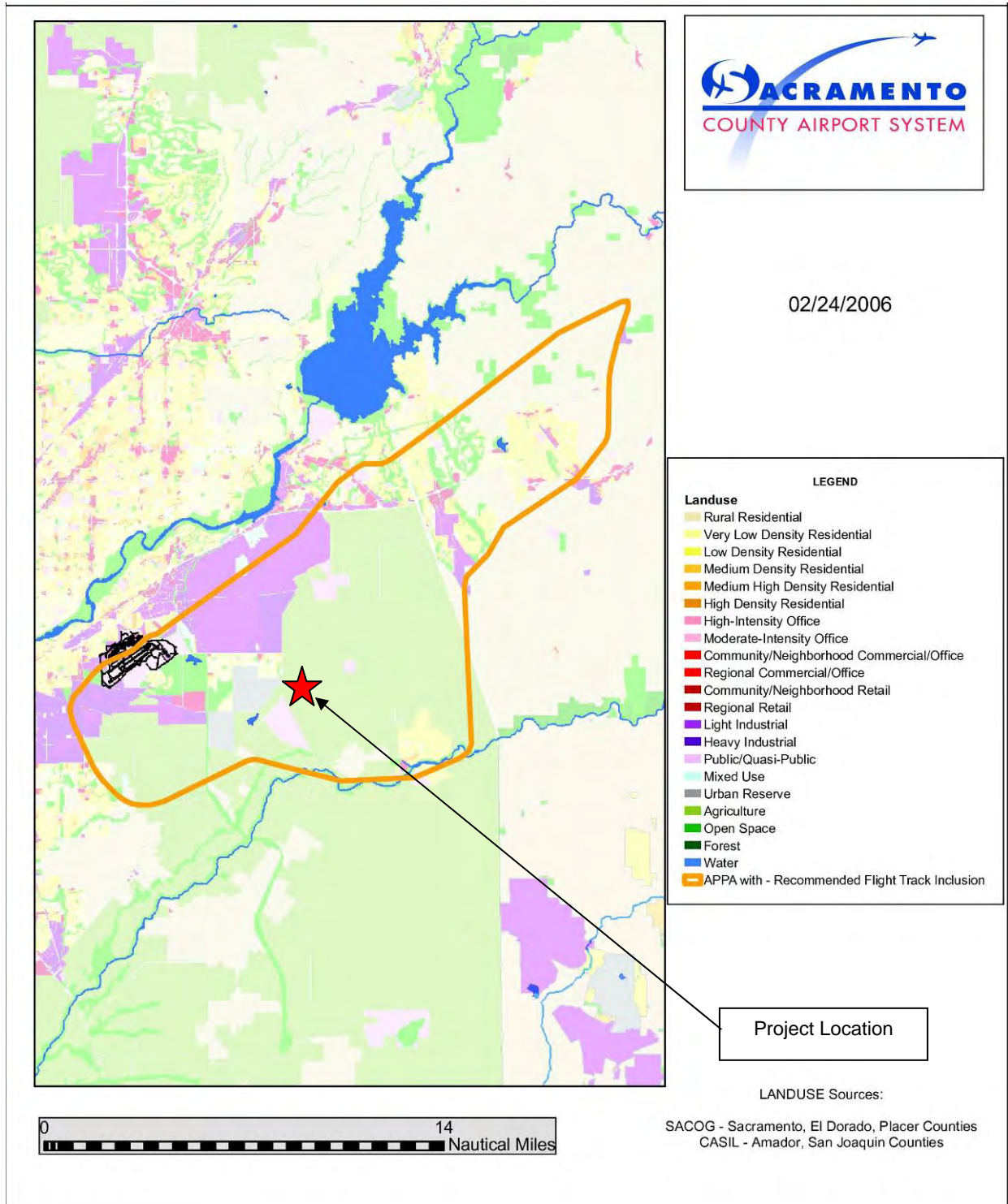


Plate NO-3: Mather Airport Planning Policy Area



CITY OF RANCHO CORDOVA GENERAL PLAN NOISE ELEMENT

There are roadway segments located within the City of Rancho Cordova that were studied in the Traffic Impact Study (TIS) and traffic associated with the proposed Project has the potential to increase noise levels to sensitive receptors.

The following Policies of the City of Rancho Cordova's Noise Element apply:

Policy N.1.2 Ensure that the indoor and outdoor areas of new projects will be located, constructed, and/or shielded from noise sources in compliance with the City's noise standards to the maximum extent feasible.

Policy N.2.3 Emphasize mitigation methods other than soundwall installation to reduce noise acceptable levels in residential areas originally constructed without soundwalls.

Table N-2 of the Rancho Cordova Noise Element outlines the maximum transportation noise exposure for various land uses. According to Table N-2, residential land uses shall not have an outdoor activity area (where the location of the outdoor activity area is unknown, the exterior noise level standard shall be applied to the property line of the receiving land use) greater than 60 dB and interior noise levels shall not exceed 45 dB. However, a footnote to the table indicates that where it is not possible to reduce noise in outdoor activity areas to 60 dB L_{dn} /CNEL or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 65 dB L_{dn} /CNEL may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.

Also note that the Noise Element contains interior noise limitations for several classes of non-residential uses, such as churches and offices, but there are no standards for industrial, retail, or other non-residential uses. The interior noise standard for churches is listed as 40 dB L_{eq} , for offices is 45 dB L_{eq} , and for transient lodging is 45 dB L_{dn} .

CITY OF FOLSOM NOISE ORDINANCE

There are some roadway segments that were studied in the TIS that are located within the jurisdiction of the City of Folsom. The Folsom General Plan Noise Element Policy 30.4 considers areas as "noise-impacted" if they are exposed to existing or projected exterior noise levels exceeding 60 dBA L_{dn} /CNEL, or to non-transportation noise exceeding the performance standards summarized of Noise Element Table 26-3 (the table is not included in this EIR, as the Project will not contribute non-transportation noise to the City of Folsom). The General Plan does not identify "noise-impacted" to mean that noise is significant, but rather that a noise analysis to determine consistency with General Plan policy would be required. Significant noise is defined by later policies, including the policy most relevant to potential Project impacts:

Policy 30.5: New development of residential or other noise sensitive land uses will not be permitted in noise impacted areas unless effective mitigation measures are incorporated into the project design to reduce noise levels to:

1. For noise due to traffic on public roadways, railroad operations, and aircraft: 60 dB L_{dn} /CNEL or less. Where it is not possible to reduce exterior noise due to these sources to 60 dB L_{dn} /CNEL or less by incorporating a practical application of the best available noise-reduction technology, an exterior noise level of up to 65 dB L_{dn} /CNEL will be allowed. Under no circumstances will interior noise levels be permitted to exceed 45 dB L_{dn} /CNEL with the windows and doors closed.
2. For nontransportation related noise sources: achieve compliance with the performance standards contained within Table 26-3.
3. If compliance with the adopted standards and policies of the Noise Element will not be achieved, a statement of overriding considerations for the project must be provided.

NON-REGULATORY SETTING

SUBJECTIVE REACTIONS TO CHANGES IN NOISE LEVELS

Another means of assessing noise impacts is to estimate public reaction to the change in noise levels which result from a given project; this is, in fact, how the General Plan has established significance for roadway projects (refer to Policy NO-9). Expected human reactions to changes in ambient noise levels have been quantified by metrics that define short-term exposure (e.g., hourly L_{eq} , L_{max} and L_n). These metrics are usually used to describe noise impacts due to industrial operations, machinery and other sources that are not associated with transportation. An increase of at least 3 dB is usually required before most people will perceive a change in noise levels, and an increase of 5 dB is required before the change will be clearly noticeable.

Table NO-5 is used to show expected public reaction to changes in environmental noise levels. This table was developed on the basis of test subjects' reactions to changes in the levels of steady-state pure tones or broad-band noise and to changes in levels of a given noise source.

Some additional guidance as to the significance of changes in ambient noise levels is provided by the 1992 findings of the Federal Interagency Committee of Noise (FICON), which assessed the annoyance effects of changes in ambient noise levels resulting from aircraft operations. The FICON findings are based upon studies that relate aircraft and traffic noise levels to the percentage of persons highly annoyed by the noise. Annoyance is a summary measure of the general adverse reaction of people to noise that generates speech interference, sleep disturbance, or interference with the desire for a tranquil environment.

The rationale for the FICON findings is that it is possible to consistently describe the annoyance of people exposed to transportation noise in terms of L_{dn} or CNEL. The

changes in noise exposure that are shown in Table NO-6 are expected to result in equal changes in annoyance at sensitive land uses. The rationale for the criteria shown in Table NO-6 is that, as ambient noise levels increase, a smaller increase in noise resulting from a project is sufficient to cause significant annoyance. Although the FICON findings were specifically developed to address aircraft noise impacts, they are considered as measures of potential noise impacts in the analysis of traffic noise.

Table NO-5: Subjective Reaction to Changes in Noise Levels

Change in Level	Subjective Reaction	Factor Change in Acoustical Energy
1 dB	Imperceptible (Except for tones)	1.3
3 dB	Just Barely Perceptible	2.0
5 dB	Clearly Noticeable	3.2
10 dB	About Twice (or Half) as loud	10.0
<i>Source: Architectural Acoustics, M David Egan, 1988.</i>		

Table NO-6: Significance of Changes in Noise Exposure

Ambient Noise Level Without the Project, L_{dn}	Significant Impact
<60 dB	+5.0 dB or more
60-65 dB	+3.0 dB or more
>65 dB	+1.5 dB or more
<i>Source: Federal Interagency Committee on Noise (FICON)</i>	

METHODOLOGY

The Federal Highway Administration Traffic Noise Prediction Model (FHWA-RD-77-108) was used to model roadway noise. The roadways analyzed were the same as those analyzed in the Traffic and Circulation chapter. The average daily traffic (ADT) volumes were provided by DKS Transportation Solutions. Results are reported as the distance from the centerline of the roadway to the 75 dB L_{dn} , 70 dB L_{dn} , 65 dB L_{dn} , and 60 dB L_{dn} noise contours. The model does not include the noise shielding effects of any existing sound walls or other noise barriers along roadways outside the proposed project area. Within the project area, noise levels were determined and then analyzed based on the land use plan.

To analyze the impact of aircraft overflights from Mather Airport, a flight track analysis was requested from the Sacramento County Airport System. The flight track analysis gathers overflight data by placing a “penetration gate” over the center of the project site (in this case, the penetration gate spans 2 ¼ miles over the center of the project site) and reports the number, type and altitude of the aircraft that passed through the gate

during a specified one month time period. The analysis also reports the number and type of aircraft that flew within a 1 ½ mile radius of the penetration gate.

The Federal Aviation Administration (FAA) Order 1050.1E, Section 311 provides a list of categorical exclusions for FAA actions involving establishment, modification, or application of airspace and air traffic procedures. Section 311i addresses changes over noise sensitive land uses and states that new or revised air traffic control procedures conducted at 3,000 feet or more above ground level would be categorically excluded. In addition, overflights for general aviation and most U.S. airspace in general, may be as low as 3,000 feet. The minimum 3,000 feet altitude is used by most pilots of general aviation aircraft since the federal requirement establishes general aviation's minimum cruise elevation to be 3,000 feet. Based on this information, it would be reasonable to generally assume that aircraft over altitudes of 3,000 feet above ground level are not increasing noise and creating an annoyance to people below the flight path. Therefore, the analysis of the flight track data focused on aircraft passing over the site at or below 3,000 feet above ground level.

SIGNIFICANCE CRITERIA

According to the CEQA Guidelines, an impact may be significant if the project results in any one of the following:

1. Exposure of persons to or generation of noise levels in excess of standards established in the Sacramento County General Plan, Zoning Code and Noise Ordinance, or applicable standards of other agencies;
2. Expose people residing or working in the project area to excessive airport noise levels;
3. Expose people to a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project; or
4. Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

The definition of what is "excessive" or "substantial" noise is generally defined in the General Plan and Noise Ordinance, as described in the Regulatory Setting section. For airports, significance is based on the Comprehensive Land Use Plan (or similar). The existing Sacramento County General Plan includes policies that establish compatibility-related noise thresholds but does not include any policies that deal with the significant changes in ambient noise described in criterion three. In this case, the thresholds described in the Non-Regulatory Setting regarding subjective responses to changes in noise are used (Table NO-6).

EXISTING NOISE LEVELS

EXISTING TRAFFIC NOISE LEVELS

Existing traffic noise levels were determined using the existing average daily traffic (ADT) from the traffic impact study (TIS) prepared by DKS Associates Transportation Solutions. The existing ADT was entered into the Federal Highway Administration (FHWA) Noise Model. Based on the ADT, the 75 dB, 70 dB, 65 dB and 60 dB noise contours were generated along the various roadway segments. The results have been included in tables Table NO-7 and Table NO-9.

The only existing residential properties along the studied roadway segments are along Douglas Road, from Sunrise Boulevard to Grant Line Road. The residential property boundaries are 73 feet from the centerline of Douglas Road (the existing paved roadway width in this location is approximately 48 feet, with a 25-foot wide landscape corridor). The existing traffic noise level at this distance is 63 dB between Sunrise Boulevard and Rancho Cordova Parkway and 60 dB between Rancho Cordova Parkway to Grant Line Road.

There are commercial and institutional land uses, ranging from offices to warehouses, along White Rock Road from Kilgore Road to Grant Line Road; along Sunrise Boulevard from US Highway 50 to Douglas Road; and along Douglas Road from Eagles Nest to Sunrise Boulevard. The buildings along these roadways are located outside of the 70 dB contour (into the 65 or 60 dB contours). Major uses include Aerojet properties and the Prairie City State Vehicle Recreation Area (SVRA).

The properties along the remainder of the studied roadway segments are large agricultural parcels, zoned AG-20, AG-80 or AG-120. In Figure II-1 of the Noise Element, agricultural and industrial land uses are acceptable up to 70 dB $L_{dn}/CNEL$ and conditionally acceptable between 70 and 80 dB $L_{dn}/CNEL$. The homes on these agricultural properties are located within the 65 dB contour.

KIEFER LANDFILL

The Sacramento County Landfill is located at Kiefer Road, near Grant Line Road, southwest of the project site. As described in the Land Use chapter, a 2,000-foot buffer was established around the landfill as a means to prevent the encroachment of incompatible urban uses; this buffer is measured from the ultimate active landfill boundary. Ongoing activities within the landfill that generate noise include bulldozers, back up warning devices, garbage trucks and private and commercial traffic utilizing the landfill.

EXISTING AIRCRAFT NOISE LEVELS

The nearest airport to the project site is Mather Airport, which is located 4 miles to the west of the site. As shown in Plate NO-2, the Project site is located outside the 60 CNEL contour of Mather Airport; however, the project site is located within the flight

path of aircraft that regularly fly at varying altitudes below 3,000 feet above ground level.

FUTURE NO PROJECT NOISE LEVELS

FUTURE TRAFFIC NOISE LEVELS

Future off-site traffic noise will be generated from various reasonably foreseeable projects. This includes traffic generated by projects in the City of Rancho Cordova (such as the Sunridge Specific Plan) and development of the proposed City of Folsom Sphere of Influence.

Aggregate haul trucks associated with hard rock quarries in the east county will also contribute to future traffic noise levels in the project vicinity. There are three hard rock quarries proposed along Scott Road, south of White Rock Road. The Teichert Quarry Project was certified by the Sacramento County Board of Supervisors on November 31, 2010 (County Control # 2002-0636). A Final EIR was released in October 2011 for the Stoneridge Quarry Project (County Control # 2010-00264). The Milgate Quarry Project is currently on hold as an incomplete application (County Control # 2010-00237). The average daily traffic calculated for the cumulative condition includes the traffic associated with the three mining projects, as all three mining projects are assumed to be in full operation in the cumulative condition analyzed by the TIS.

Another project that may contribute traffic noise in the project vicinity is the Capital Southeast Connector Joint Powers Authority Project. The Capital Southeast Connector is a proposed 35-mile roadway that will link communities in El Dorado and Sacramento Counties and the cities of Elk Grove, Folsom, and Rancho Cordova. This project may widen Grant Line Road from Calvine Road to White Rock Road from a four-lane roadway to six-lane expressway with a total right-of-way of 220 feet.

Future No Project ADT was entered into the FHWA Noise Model. Based on the ADT, the 75 dB, 70 dB, 65 dB and 60 dB noise contours were generated along the various roadway segments. The results have been included in tables Table NO-8 and Table NO-10.

NOISE REDUCING DESIGNS

There are a variety of site designs which may be used to reduce noise volumes that are applicable to most of the impact topics described later in this chapter. For ease of reference these designs are described rather than embedded throughout the later discussions.

USE OF SETBACKS

Noise exposure may be reduced by increasing the distance between the noise source and receiving use. Setback areas can take the form of open space, frontage roads, recreational areas, storage yards, etc. The available noise attenuation from this technique is limited by the characteristics of the noise source, but is generally about 4 to 6 dB per doubling of distance from the source.

USE OF BARRIERS

Shielding from noise can be achieved by placing walls, berms, or other structures, such as buildings, between the noise source and the receiver. The effectiveness of a barrier depends upon blocking line-of-sight between the source and receiver, and is improved with increasing the distance the sound must travel to pass over the barrier as compared to a straight line from source to receiver. In general, barriers are most effective when placed close to either the receiver or the source. An intermediate barrier location yields a smaller path length difference for a given increase in barrier height than does a location closer to either source or receiver.

For maximum effectiveness, barriers must be continuous and relatively airtight along their length and height. To ensure that sound transmission through the barrier is insignificant, barrier mass should be about 4 pounds per square foot, although a lesser mass may be acceptable if the barrier material provides sufficient transmission loss in the frequency range of concern. Satisfaction of the above criteria requires substantial and well-fitted barrier materials, placed to intercept line of sight to all significant noise sources. Masonry walls make an effective barrier, whereas wood materials typically do not. Earth, in the form of berms or the face of a depressed area, is also an effective barrier material.

Note that noise barrier walls have fallen into disfavor in the neighborhood planning and public health communities, because they create barriers to walkability and may decrease the desire of people to walk and bike by making the streetscape less attractive. They may also create the impression of walling off segments of the community.

SITE DESIGN

Buildings can be placed on a project site to shield other structures housing more noise sensitive uses, or to prevent an increase in noise level caused by reflections. The use of one building to shield another can significantly reduce overall project noise control costs, particularly if the shielding structure is insensitive to noise. As an example, carports or garages can be used to form or complement a barrier shielding adjacent dwellings or an outdoor activity area. Similarly, one residential unit can be placed to shield another so that noise reduction measures are needed for only the building closest to the noise source. Placement of outdoor activity areas within the shielded portion of a building complex, such as a central courtyard, can be an effective method of providing a quiet retreat in an otherwise noisy environment; this method is often used in multiple-family developments. Patios or balconies can be placed on the side of a building

opposite the noise source, and "wing walls" can be added to buildings or patios to help shield noise sensitive areas.

Another option in site design is the placement of relatively less sensitive land uses, such as commercial or storage areas, between the noise source and a more sensitive portion of the project. Examples include developing a commercial strip along a busy arterial to block noise affecting a residential area, or parking areas along the noise-impacted edge of a multifamily residential complex. Sensitive structures or activity areas may then be placed behind these buildings to reduce noise control costs.

BUILDING CONSTRUCTION TECHNIQUES

When structures have been located to provide maximum noise reduction by implementing barriers or through site design, noise reduction measures may still be required to achieve acceptable interior noise levels. One option is to place sensitive portions of a dwelling, such as bedrooms, living rooms, or family rooms on the side of the unit farthest from the noise source. Bathrooms, closets, stairwells and kitchens are relatively insensitive to exterior noise sources and can be placed on the noisy side of a dwelling unit. When such techniques are employed, noise reduction requirements for the building façade can be significantly reduced, although the architect must take care to isolate the noise impacted areas by the use of partitions or doors.

Interior noise reduction may be obtained through acoustical design of building facades. Standard residential construction practices provide 10 – 15 dB noise reduction for building facades with open windows, and approximately a 25 dB noise reduction when windows are closed. Thus, a 25 dB exterior-to-interior noise reduction can be obtained by the inclusion of adequate ventilation systems, allowing windows on a noise-impacted façade to remain closed under any weather condition.

Where greater noise reduction is required, acoustical treatment of the building façade is necessary. Reduction of relative window area is the most effective control technique, followed by providing acoustical glazing (thicker glass or increased air space between panes) in low air infiltration rate frames, use of fixed (non-movable) acoustical glazing or the elimination of windows. Noise transmitted through walls can be reduced by increasing wall mass (using stucco or brick in lieu of wood siding), isolating wall members by the use of double- or staggered-stud walls, or mounting interior walls on resilient channels. Noise control for exterior doorways is provided by reducing door area, using solid-core doors, and by acoustically sealing door perimeters with suitable gaskets. Roof treatments may include the use of plywood sheathing under roofing materials.

Whichever noise control techniques are employed, it is essential that attention be given to installation of weatherstripping and caulking of joints. Openings for attic or subfloor ventilation may also require acoustical treatment.

Design of acoustical treatment for building facades should be based upon analysis of the level and frequency content of the noise source. The transmission loss of each

building component should be defined, and the composite noise reduction for the complete façade calculated, accounting for absorption in the receiving room. A one-third octave band analysis is a definitive method of calculating the A-weighted noise reduction of a façade. A common measure of transmission loss is the Sound Transmission Class (STC). STC ratings are not directly comparable to A-weighted noise reduction, and must be corrected for the spectral content of the noise source. Requirements for transmission loss analyses are outlined by Title 24 of the California Code of Regulations.

USE OF VEGETATION

Trees and other vegetation are often thought to provide significant noise attenuation. However, approximately 100 feet of dense foliage (so that no visual path extends through the foliage) is required to achieve a 5 dB attenuation of traffic noise. Thus, the use of vegetation as a noise barrier should not be considered a practical method of noise control unless large tracts of dense foliage are part of the existing landscape.

Vegetation can be used to acoustically “soften” intervening ground between a noise source and receiver, increasing ground absorption of sound and thus increasing the attenuation of sound with distance. Planting of trees and shrubs is also of aesthetic and psychological value, and may reduce adverse public reaction to a noise source by removing the source from view, even though noise levels will be largely unaffected. However, it should be noted that trees planted on the top of a noise control berm can actually slightly degrade the acoustical performance of the barrier. This effect can occur when high frequency sounds are diffracted (bent) by foliage and directed downward over a barrier.

IMPACTS AND ANALYSIS

IMPACT: CONSTRUCTION WOULD TEMPORARILY INCREASE NOISE LEVELS

Initial site grading and road development would occur prior to occupancy. There is one residential dwelling located adjacent to the northern boundary of the project site and there are two additional residential structures located further north. Once development starts to occur, construction over the course of the project would temporarily increase noise levels in the vicinity of various construction sites. Noise sensitive land uses located in the vicinity of construction could be subjected to noise from construction activities.

In addition, the Applicant has indicated that during site preparation/grading and road development, processing of aggregate will occur to maximize the use of onsite rock deposits for construction needs. Activities will include screening, crushing and sizing of onsite aggregate-grade rock deposits encountered during onsite excavation, earthmoving, construction of structures, landscaping, compaction, fills, road cuts and embankments.

The rock aggregate processing site will be located within the areas of intended development. The processing site will separate the excavated rock materials from the soil, crush the rock, and separate the resulting aggregate into sizes and stockpiles appropriate for use during construction. The operations of the processing and sorting of grading materials will only take place within the project and no exporting of the materials offsite will be permitted. The expected types of equipment include: portable crushing device, conveyor belts, excavator, front-end loader, water truck and tanker, and power generators. This equipment generates noise volumes consistent with general construction noise volumes.

The Sacramento County Noise Ordinance specifically exempts construction-related noise from meeting noise limitations, subject to the following provisions:

Noise sources associated with construction, repair, remodeling, demolition, paving or grading of any real property, provided said activities do not take place between the hours of eight p.m. through six a.m. on weekdays and Friday commencing at eight p.m. through and including seven a.m. on Saturday; Saturdays commencing at eight p.m. through and including seven a.m. on the next following Sunday and on each Sunday after the hour of eight p.m. Provided however, when an unforeseen or unavoidable condition occurs during a construction project, and the nature of the project necessitates that work in process be continued until a specific phase is completed, the constructor or owner shall be allowed to continue work after eight p.m. and to operate machinery and equipment necessary until completion of the specific work in progress can be brought to conclusion under conditions which will not jeopardize inspection acceptance or create undue financial hardships for the contractor or owner. [Sacramento County Code, Section 6.68.090 (e)]

Construction noise impacts associated with buildout of the proposed project fall under this exemption. It is acknowledged that construction related noise could be a nuisance to sensitive receptors; however, this increase in noise is short-term, and noise standards within the General Plan are generally intended to address long-term sources of noise. Construction-related noise would not result in a permanent increase in ambient noise. Though noise volumes would undergo short-term increases, the existing construction ordinance is designed to avoid significant community effects through the restriction of nighttime and weekend disturbance, and thus impacts are *less than significant*.

IMPACT: ON-SITE TRAFFIC NOISE WOULD EXCEED NOISE STANDARDS

EXISTING PLUS PROJECT

The existing plus project noise contours for onsite roadway segments were determined using the FHWA model by entering the average daily traffic information from the Traffic Impact Study (Appendix TR-1). Detailed street sections have been provided by the applicant for the 20 internal roadway segments. The type of road, the distance from the road centerline to the right-of-way, and landscape and public utility easements were

provided for each type of roadway proposed. The type of land use proposed along the roadway segments were then compared to the noise contours.

RESIDENTIAL

As shown on Table NO-7 the distance from the roadway centerline to the road right-of-way, plus landscape and public utility easements, would result in placement of residential property lines between the 65 and 70 dB contours (note that the Town Center includes single-family dwellings, though locations are not specified). Given that the discussion references street names, an exhibit showing the roadways is also included (Plate NO-4). If outdoor activity areas (i.e. backyards and play areas) are placed along the roadway frontage without any shielding, the noise volumes will exceed the 65 dB standard. The Project is a land use master plan which does not include the detailed small-lot layouts and subdivision maps that would be needed in order to analyze noise volumes relative to individual lot design. These small-lot subdivision maps would be proposed as subsequent projects, also subject to the California Environmental Quality Act, and it would be at this time that the lot-level analysis would occur. This analysis focuses on community design issues.

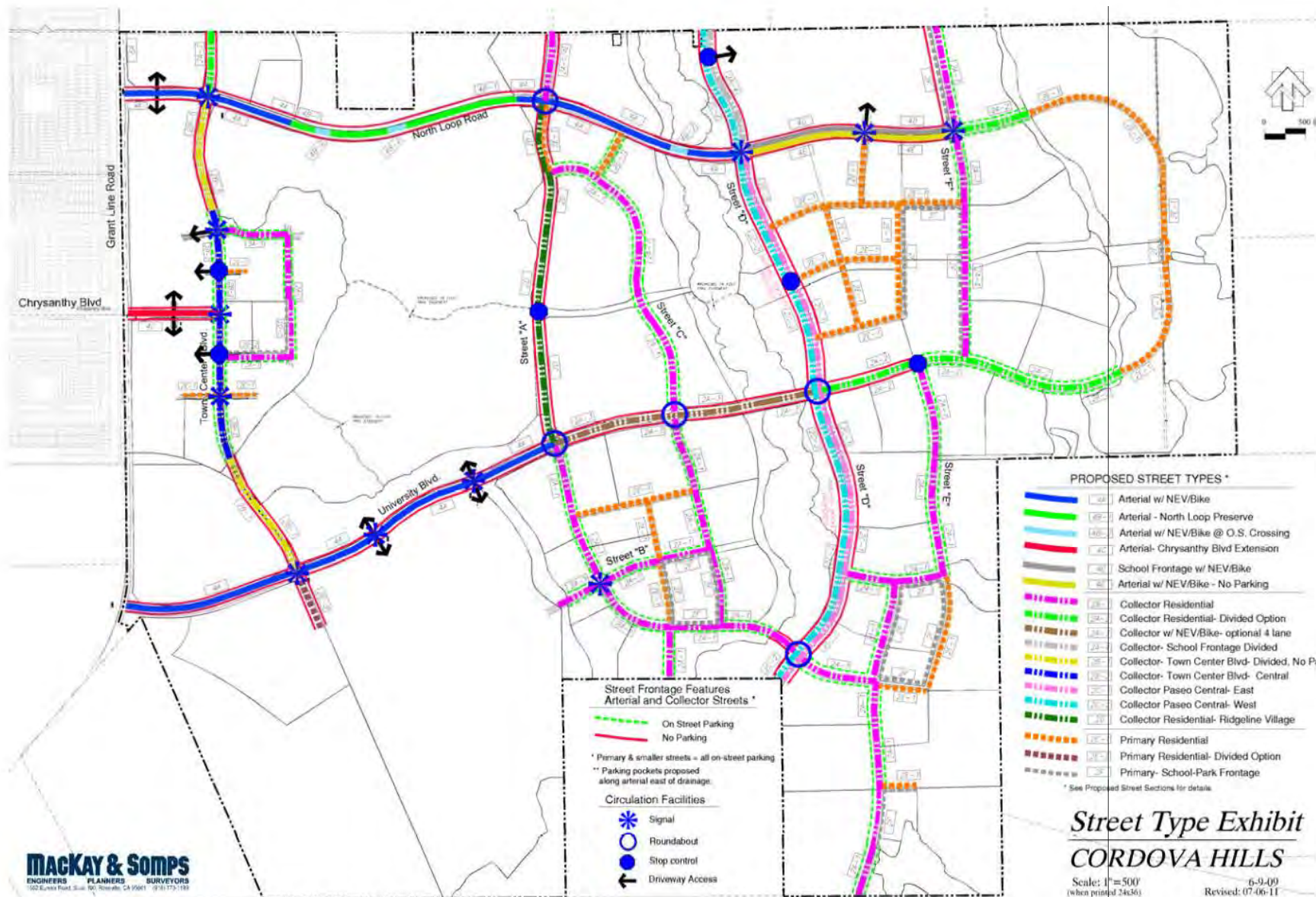
Chapter Four of the SPA includes design guidelines for residential development. These design guidelines establish minimum setbacks, lot sizes, building sizes, and other standards. In addition to the standards, the SPA includes various “typical plotting diagrams” which provide example layouts for future lots. All of these examples indicate that the homes would front onto the streets, which would place the backyards in a shielded position behind the house. Provision is also made for alternative cluster designs that would provide noise shielding, with alley-loaded garage access and cluster developments where the outdoor activity areas would be between side yards and in a shared front greencourt onto which all the homes would face. In sum, the SPA has clearly included both requirements for and flexibility to use alternative designs that would allow for appropriate noise reduction without the use of soundwalls. Lot layouts are not included for apartment-style multiple-family developments (though townhomes are shown), but outdoor common areas are usually placed within the residential complex where the buildings provide noise attenuation.

Table NO-7: Existing Plus Project Condition for On-Site Roadways

Roadway	Segment		ADT	Roadway Width ¹ (in feet)	Adjacent Land Uses ²	Noise level at property line ³	70 dB contour (in feet)	65 dB contour (in feet)
	From	To						
North Loop Rd	Grant Line Rd	Town Center Dr	26,900	74.5	TC	71	83	178
North Loop Rd	Town Center Dr	Street A	27,100	63.5 or 64.5	HDR, TC, AV, R-2	71	78	168
North Loop Rd	Street A	Street D	20,600	74.5	FC, MDR, R-2, AV	69	65	140
North Loop Rd	Street D	Street F	10,300	51 (res) 53	School, MDR	69	41	88
North Loop Rd	Street F	University Blvd	3,100	42	LDR, R-2, ER	64	18	40
Chrysanthy Blvd	Grant Line Rd	Town Center Dr	13,100	66	TC	68	48	103
University Blvd	Grant Line Rd	Town Center Dr	26,800	74.5	AV, AG, R	70	77	167
University Blvd	Town Center Dr	Street A	22,500	74.5	TC, University, R-2, HDR	70	69	148
University Blvd	Street A	Street C	13,100	74.5	HDR, MDR, LDR	67	48	103
University Blvd	Street C	Street D	12,800	74.5	MDR, R-2, AV	67	47	102
University Blvd	Street D	Street E	8,200	54	FC, HDR, RD-20	67	35	76
University Blvd	Street E	North Loop Rd	4,200	54 or 42	MDR, R, LDR, R-2, ER	64 or 66	22	48
Town Center Dr	North Loop Rd	Chrysanthy Blvd	7,100	55	TC, AV, R-2	66	32	69
Town Center Dr	Chrysanthy Blvd	University Blvd	7,100	47 or 55	TC, R, HDR, AV, AG	68 or 66	32	69
Street A	North Loop Rd	University Blvd	5,100	29	R-2, TC, LDR	69	26	55
Street A	University Blvd	Street B	9,300	48	HDR, FC, R, MDR, RD-20	68	38	82

Roadway	Segment		ADT	Roadway Width ¹ (in feet)	Adjacent Land Uses ²	Noise level at property line ³	70 dB contour (in feet)	65 dB contour (in feet)
	From	To						
Street A	Street B	Street D	6,000	48	FC, MDR, School, LDR, R-2, AV	67	29	61
Street D	North Loop Rd	University Blvd	13,300	51 or 38+(open space)	MDR, HDR, FC, RD-20, R, R-2	70 or 78	48	104
Street D	University Blvd	Street A	8,200	51 or 38+(open space)	HDR, MDR, RD-20, R-2	68 or 71	35	76
Street E	University Blvd	Street A	3,600	48	MDR, LDR, RD-20, R, R-2	64	20	44
<p>1. Roadway width is based on the ultimate roadway configuration, measured from road centerline to edge of right-of-way plus landscape and public utility easements for specified roadways (based on Street Section diagrams provided by Mackay & Somps)</p> <p>2. TC = Town Center, FC = Flex Commercial, AG = Agriculture, R = Recreation, R-2 = Recreation 2 (parks), AV = Avoided, ER = Residential Estates, LDR = Low Density Residential, MDR = Medium Density Residential, RD-20 = Residential 20, HDR = High Density Residential</p> <p>3 The noise level at the property line was determined from the following formula: $15(\log_{10}(d_1/d_2))$ and the edge of property line is assumed to be the distance specified in the Roadway width column</p>								

Plate NO-4: Circulation Diagram



With appropriate inclusion of features such as those described in the Noise Reduction Designs section, noise volumes could easily be reduced to acceptable levels. If preferred, noise barriers could also be used. Although precise barrier heights cannot be determined until small-lot map stage, approximate barrier heights can be determined using typical setbacks and roadway cross-sections provided as part of the Project. Barrier analyses using the FHWA model were performed to determine the minimum barrier heights that would be necessary, assuming minimal setbacks from the roadway were used (based on the minimum setbacks described in the SPA). The results of this analysis indicate that when the receiver is located ten feet from the barrier, a six-foot sound barrier located at the property line (when backyards front roadways) would attenuate noise levels by one dB and an eight-foot sound barrier could reduce noise levels by four dB. The loudest roadway segment where low to medium density residential land uses are proposed adjacent to the roadway will have traffic noise levels as high as 69 dB at the residential property line. A six-foot soundwall will not attenuate the outdoor activity area to within the 65 dB standard. An eight-foot soundwall would be required to reduce the noise level to an acceptable 65 dB.

Though subsequent residential projects will be subject to the California Environmental Quality Act, mitigation is nonetheless recommended to stipulate that all residential exterior activity areas exposed to noise environments of greater than 65 dB must incorporate noise-reducing designs.

The maximum interior noise level for residential uses is 45 dB. Standard residential construction generally provides interior noise reduction of 25 dB, which means that exterior noise volumes must exceed 70 dB before interior volumes will exceed the 45 dB standard. Most of the roadway segments that will have adjacent residential land uses will not expose residential properties to traffic noise levels in excess of 70 dB, and thus standard construction will result in acceptable interior noise levels. Roadway segments that will have property lines located within the 75 dB and 70 dB contours are:

- North Loop Road, from Grant Line Road to Town Center Drive (71 dB at property line),
- North Loop Road, from Town Center Drive to Street A (71 dB at property line);
- University Boulevard, from Grant Line Road to Town Center Drive (70 dB at property line), ‘
- Street D, from North Loop Road to University Boulevard (70 dB at property line); and
- Street D, from University Boulevard to Street A (71 dB at property line)

Along North Loop Road, from Town Center Drive to Street A, the majority of the land use is designated as Avoided; however there are two small segments where high

density residential land uses are proposed. High density residential land uses are generally built where the activity area is located within a courtyard shielded from traffic noise by the dwelling units. At a noise level of 71 dB at the property line, if the building is set back from the roadway, interior noise levels of 45 dB could be attained, or increased construction could be utilized to achieve greater than 25 dB attenuation in order to attain an interior noise level of 45 dB. Both single-family residential dwellings and multiple-family dwellings will be within the Town Center area, as well. Street D from University Boulevard to Street A will include high density residential uses on the eastern side of the street, and open space uses on the western side. These uses will be exposed to the same noise level as the uses along North Loop Road, and the same discussion applies.

Additional noise-reducing construction methods would need to be applied for residences exposed to exterior noise levels above 70 dB, including window coatings and additional noise insulation on exterior walls. Mitigation is included to require such designs. With the application of mitigation, the Project will not expose residents to noise levels in excess of standards, and impacts are *less than significant*.

NON-RESIDENTIAL

The compatibility standards for non-residential land uses affected by transportation noise sources are provided on Table NO-2. Town Center land uses are proposed for North Loop Road, from Grant Line Road to Town Center Drive and along a small portion of North Loop Road from Town Center Drive to Street A. Uses in this area would include office buildings, business commercial and professional buildings. There are no exterior noise standards for commercial areas and theaters, but all other non-residential areas have a standard of 65 dB. The noise level along this roadway segment is expected to be about 71 dB at the property line, but the threshold should apply at the “noise sensitive” area. For offices and other non-residential uses, outdoor gathering spaces are located in a shielded location which is not directly along the street frontage, because such spaces are intended to provide a degree of privacy and quiet which is not available when located right alongside the main street. Analysis indicates that a 10-foot soundwall would reduce noise to within standards, and thus it can easily be concluded that any outdoor area which is shielded by the building itself will be within acceptable noise standards.

There are interior noise standards outlined in the Noise Element for non-residential rooms affected by transportation noise (refer to Table NO-2). Uses that could be possible within the Town Centers similar to the rooms outlined in the table include conference rooms, small offices, large public offices, retail businesses, and libraries. The most restrictive interior noise level for these types of uses is 40 dB, and this is the standard applied to schools, churches, and libraries – places where there is an expectation of quiet throughout the building. For offices the standard is 45 dB, and for commercial businesses it is 50 dB. Standard construction affords up to a 25 dB reduction; therefore, an exterior noise environment greater than 65 dB would exceed the 40 dB interior standard, exterior noise greater than 70 dB would exceed the interior

45 dB standard, and exterior noise greater than 75 dB would exceed the interior 50 dB standard.

There are no cases where the exterior noise environment at a non-residential property line (excluding open space uses) exceeds 75 dB, and thus all commercial uses will be within thresholds in the existing plus Project condition. North Loop Road from Grant Line Road to Street A will be 71 dB, which means that additional noise attenuation may be needed for any offices or other more sensitive uses such as churches, depending on the amount by which the building is set back from the roadway. Most of the main roadways exceed 65 dB, which means that all of the most sensitive non-residential uses such as school and libraries located along these roadways will either need large setbacks, additional noise attenuation measures, or a combination thereof.

In cases where standards are exceeded, additional noise attenuation measures must be incorporated. This can be accomplished by use of other buildings to shield these rooms, placing conference rooms interior to a building, and use of building construction techniques to reduce the interior noise level. Mitigation is included which stipulates that all non-residential construction – excluding commercial uses – must be designed to adhere to the General Plan noise standards.

The only Project area adjacent to a major off-site roadway is the Town Center, which will be adjacent to Grant Line Road. All of the Town Center development on the Grant Line Road frontage is likely to be commercial, though it is planned that residential uses will exist in more interior locations of the Town Center. Based on noise volumes of more than 70 dB along Grant Line Road (refer to Table NO-9), which lists noise for off-site roadways), these uses could be exposed to substantial interior noise volumes depending on ultimate location and design. The same mitigation applied for the purpose of mitigating noise from on-site roadways would apply and would reduce noise to acceptable levels.

The land uses adjacent to University Boulevard, from Grant Line Road to Town Center Drive would consist of Avoided, Agricultural, and Recreational uses. Recreational uses are proposed adjacent to Street D, from North Loop Road to Street A. Proposed recreational land uses would be similar to the playgrounds and neighborhood parks category shown in Table NO-2, in which noise levels up to 70 dB are acceptable. The noise levels along these roadways will be 71 dB, except that the segment of Street D from North Loop Road to University Boulevard will be 78 dB. Incorporation of noise reducing design strategies (such as increased distance of play structures and seating areas from the roadway) would reduce the expected noise to within acceptable levels. Even for the segment which is 78 dB at the property line, the setback would only need to be 48 feet in order to reduce noise to 70 dB. Mitigation is recommended that stipulates that all playgrounds and neighborhood parks exposed to noise environments greater than 70 dB must incorporate noise-reducing designs to ensure that community noise levels are not exceeded.

With mitigation, traffic on internal roadways will not cause exposure of persons to noise levels in excess of standards established in the Sacramento County General Plan. This impact is *less than significant*.

CUMULATIVE PLUS PROJECT

The cumulative plus Project noise contours for onsite roadway segments were determined using the FHWA model by entering the average daily traffic (ADT) information from the Traffic Impact Study (Appendix TR-1).

Similar to the analysis for the existing plus Project condition, the expected noise level contours were compared to the street sections provided by the Applicant for the 20 studied internal roadway segments. The type of adjacent land use proposed along the roadway segments were compared to the noise contours from the FHWA model. Refer to Table NO-8.

The noise contours in the cumulative plus project condition are very similar to the existing plus project condition. The slight change in the cumulative condition noise environment does not change the conclusions of the analysis or require mitigation beyond that already proposed for existing plus project conditions. As concluded in the existing plus project analysis, mitigation will ensure that the Project does not expose people to noise levels in excess of existing standards; impacts are *less than significant*.

Table NO-8: Cumulative Plus Project Condition for On-site Roadways

Roadway	Segment		ADT	Roadway Width ¹ (in feet)	Adjacent Land Uses ²	75 dB contour (in feet)	70 dB contour (in feet)	65 dB contour (in feet)
	From	To						
North Loop Rd	Grant Line Rd	Town Center Dr	26,900	74.5	AV	39	83	179
North Loop Rd	Town Center Dr	Street A	27,100	63.5 or 64.5	HDR, AV, R-2	36	77	166
North Loop Rd	Street A	Street D	20,600	74.5	FC, MDR, R-2, AV	30	64	138
North Loop Rd	Street D	Street F	10,300	55	School, MDR	21	45	98
North Loop Rd	Street F	University Blvd	3,100	42	LDR, R-2, ER	8	18	39
Chrysanthy Blvd	Grant Line Rd	Town Center Dr	13,100	66	TC	22	48	102
University Blvd	Grant Line Rd	Town Center Dr	26,800	74.5	AV, AG, R	36	78	169
University Blvd	Town Center Dr	Street A	22,500	74.5	TC, University, R-2, HDR	31	66	143
University Blvd	Street A	Street C	13,100	74.5	HDR, MDR, LDR	21	45	96
University Blvd	Street C	Street D	12,800	74.5	MDR, R-2, AV	20	44	95
University Blvd	Street D	Street E	8,200	54	FC, HDR, RD-20	15	33	71
University Blvd	Street E	North Loop Rd	4,200	54	MDR, R, LDR, R-2, ER	10	22	47
Town Center Dr	North Loop Rd	Chrysanthy Blvd	7,100	55	TC, AV, R-2	16	35	74
Town Center Dr	Chrysanthy Blvd	University Blvd	7,100	47 or 55	TC, R, HDR, AV, AG	15	32	69
Street A	North Loop Rd	University Blvd	5,100	29	R-2, TC, LDR	12	26	56
Street A	University Blvd	Street B	9,300	48	HDR, FC, R, MDR, RD-20	17	38	81
Street A	Street B	Street D	6,000	48	FC, MDR, School, LDR, R-2, AV	13	28	61
Street D	North Loop Rd	University Blvd	13,300	51 or 38+(open space)	MDR, HDR, FC, RD-20, R, R-2	21	46	100

Roadway	Segment		ADT	Roadway Width ¹ (in feet)	Adjacent Land Uses ²	75 dB contour (in feet)	70 dB contour (in feet)	65 dB contour (in feet)
	From	To						
Street D	University Blvd	Street A	8,200	51 or 38+(open space)	HDR, MDR, RD-20, R-2	16	35	75
Street E	University Blvd	Street A	3,600	48	MDR, LDR, RD-20, R, R-2	9	20	42
<p>1. Roadway width is based on the ultimate roadway configuration, measured from road centerline to edge of right-of-way plus landscape and public utility easements for specified roadways (based on Street Section diagrams provided by Mackay & Soms)</p> <p>2. TC = Town Center, FC = Flex Commercial, AG = Agriculture, R = Recreation, R-2 = Recreation 2 (parks), AV = Avoided, ER = Residential Estates, LDR = Low Density Residential, MDR = Medium Density Residential, RD-20 = Residential 20, HDR = High Density Residential</p>								

MITIGATION MEASURES:

- NO-1.** All residential development projects exposed to greater than 65 dB L_{dn} (as identified in Appendix NO-1) at the property line shall be designed and constructed to reduce noise levels to within General Plan Noise Element standards for exterior activity areas. Potential options for achieving compliance with noise standards include, but are not limited to, noise barriers, increased setbacks, and/or strategic placement of structures. An acoustical analysis substantiating the required noise level reduction, prepared by a qualified acoustical consultant shall be submitted to and verified by the Environmental Coordinator prior to the issuance of any building permits for affected sites.
- NO-2.** All residential development projects exposed to greater than 70 dB L_{dn} (as identified in Appendix NO-1) at the property line shall be designed and constructed to achieve an interior noise level of 45 dB L_{dn} or less. Potential options for achieving compliance with noise standards include, but are not limited to, noise barriers, increased setbacks, strategic placement of structures and/or enhanced building construction techniques. An acoustical analysis substantiating the required noise level reduction, prepared by a qualified acoustical consultant, shall be submitted to and verified by the Environmental Coordinator prior to the issuance of any building permits for the site.
- NO-3.** Non-residential development projects such as churches, libraries, meeting halls, and schools exposed to greater than 60 dB L_{dn} , and all non-residential development projects such as transient lodging, hospitals and nursing homes, and office buildings exposed to greater than 65 dB L_{dn} (as identified in Appendix NO-1) at the property line shall demonstrate that interior noise volumes will not exceed General Plan Noise Element standards for non-residential uses exposed to traffic noise. This may be accomplished by providing documentation that the type of use is within acceptable limits based on the location of the identified noise contours and assuming standard exterior-to-interior attenuation of 25 dB. If this cannot be demonstrated, an acoustical analysis substantiating the required noise level reduction, prepared by a qualified acoustical consultant, shall be submitted to and verified by the Environmental Coordinator prior to the issuance of any building permits for affected sites. Potential options for achieving compliance with noise standards include, but are not limited to, noise barriers, increased setbacks, strategic placement of structures and/or enhanced building construction techniques. The measure does not apply to commercial uses.
- NO-4.** All parks exposed to noise volumes in excess of 70 dB (as identified in Appendix NO-1) at the property line shall be designed and constructed to reduce noise levels within park activity areas (benches, play structures, etc) to within General Plan Noise Element standards for parks. Potential options for achieving compliance with noise standards include, but are not limited to, noise barriers, increased setbacks, and/or strategic placement of structures. For barrier and other structural options, an acoustical analysis substantiating the

required noise level reduction, prepared by a qualified acoustical consultant shall be submitted to and verified by the Environmental Coordinator prior to the issuance of any building permits for affected sites.

IMPACT: RESULT IN ON-SITE COMMUNITY AND STATIONARY NOISE SOURCES THAT WILL EXCEED GENERAL PLAN NOISE STANDARDS

The university/college campus center has the potential to create noise, specifically from athletic fields or stadiums. The Project also includes other parks that could include playing fields, as well as schools which will have outdoor play areas. The Noise Element of the Sacramento County General Plan provides examples of the noise level of existing fixed noise sources. Softball games were found to produce noise levels up to 70 dBA at 350 feet from the bleachers, and it should be assumed that similar noise volumes could be generated by university/college campus center playing fields, as well as playing areas found in other Project parks.

Though parks and schools have the potential to generate noise in excess of standards, it is customary for parks and schools to be placed near or within residential subdivisions. Noise is typically addressed by locating the most noise-producing uses in the interior of the park, while placing more passive use areas on the boundaries. This results in an increased setback, reducing noise to nuisance levels. Furthermore, the Sacramento County Noise Ordinance exempts parks and schools from compliance with the Noise Ordinance (Sacramento County Code 6.68.090).

There are many non-residential uses which could be constructed within the Project area subsequent to SPA approval that would not require any further CEQA review or discretionary entitlements. Though CEQA would not apply, all such developments would be required to comply with the Sacramento County Noise Ordinance. Uses with the potential to generate noise include retail stores (e.g. loading docks), auto repair services, and fire stations (to list a few). Additional noise sources include the District Energy Plant, sewage pump station, and corporation yard. Development of these uses must comply with the Sacramento County Noise Ordinance Section 6.68.120 Machinery, Equipment, Fans and Air Conditioning which states:

It is unlawful for any person to operate any mechanical equipment, pump, fan, air conditioning apparatus, stationary pumps, stationary cooling towers, stationary compressors, similar mechanical devices, or any combination thereof installed after July 1, 1976 in any manner so as to create any noise which would cause the maximum noise level to exceed

- 1) Sixty dBA at any point at least one foot inside the property line of the affected residential property and three to five feet above ground level.

The above requirement will ensure that noise from machinery would not exceed acceptable levels. In addition, it is common for wells or pumps to be enclosed or blocked from view, which would further reduce the noise level.

A District Energy Plant would have noise generating equipment; however, the equipment would be interior to the facility, thus noise associated with the operation of the District Energy Plant would not exceed acceptable levels. In addition, Sections 301-10 through 301-13 of the Sacramento County Zoning Code outlines development standards for transmission facilities. An energy plant would be similar to a substation and, under Section 301-11(b)(3), substation location preferences would be first within an area designated for industrial or commercial land uses in an adopted plan or within areas designated agricultural-urban reserve in an adopted plan. The development of a District Energy Plant in the lands outside the USB would not result in sensitive receptors exposed to noise levels in excess of standards.

The corporation yard on the Project site would be used by the Cordova Hills Community Services District. Chapter 4 of the Master Plan provides design guidelines for the corporation yard. A specific condition for the development of the corporation yard as it relates to noise control is included in the SPA and is provided below.

- Auto and truck access doors to service bays, tire shops, machine shops or other areas where machinery is operated shall not be orientated toward a residential use unless noise levels at the adjacent residential use property line would not exceed the County noise level standard. Noise levels may be mitigated through various methods including, but not limited to, sound baffles around equipment and sound walls.

As a worst-case example of the potential noise that could be generated, a large corporation yard project was recently proposed and analyzed called the Sacramento Municipal Utility District (SMUD) East Campus-Operations Center Project (SMUD Corporation Yard) located within unincorporated Sacramento County. Information from the Final Environmental Impact Report (FEIR) prepared for that project indicates that the operational noise environment of the Corporation Yard would consist of off- and on-loading operations, maintenance of vehicles and equipment, servicing of equipment, fueling and washing of vehicles, and movement of trucks and equipment within the project site. The main on-site operational noise would be associated with movement of equipment, servicing and maintenance of vehicles, and operation of other miscellaneous equipment within the site. Noise calculations were performed for on-site noise levels assuming an average noise level of 86 dBA at 50 feet for equipment operating onsite. The SMUD Corporation Yard FEIR found that the noise level 500 feet (the distance to the nearest residential property line) from the SMUD Corporation Yard would be 66 dB. However, it is not expected that the Cordova Hills Corporation Yard will be located adjacent to any residential land uses, as it will be located in the southwest portion of the project site, west/southwest of the university/college campus center, and outside of the USB. The Cordova Hills corporation yard can easily be located and designed to avoid noise impacts, consistent with language already incorporated into the SPA.

Though it is likely that standard design practices and compliance with the Sacramento County Noise Ordinance will locate most of these uses in such a way that significant noise exposure is avoided, mitigation has been included to ensure this result. Mitigation

will ensure that stationary Project uses will not expose people to noise in excess of standards; impacts are *less than significant*.

MITIGATION MEASURES:

NO-5. All non-residential development projects located adjacent to residentially designated properties shall be designed and constructed to ensure that noise levels generated by the uses do not result in General Plan Noise Element standards being exceeded on adjacent properties. An acoustical analysis substantiating the required noise level reduction, prepared by a qualified acoustical consultant shall be submitted to and verified by the Environmental Coordinator prior to the issuance of any building permits for the non-residential projects with the potential to generate substantial noise (e.g. car wash, auto repair, or buildings with heavy-duty truck loading docks) if those uses are adjacent to residentially designated properties. The acoustical analysis shall include, but not be limited to, consideration of potential noise conflicts due to operation of the following items:

- Mechanical building equipment, including HVAC systems;
- Loading docks and associated truck routes;
- Refuse pick up locations; and
- Refuse or recycling compactor units.

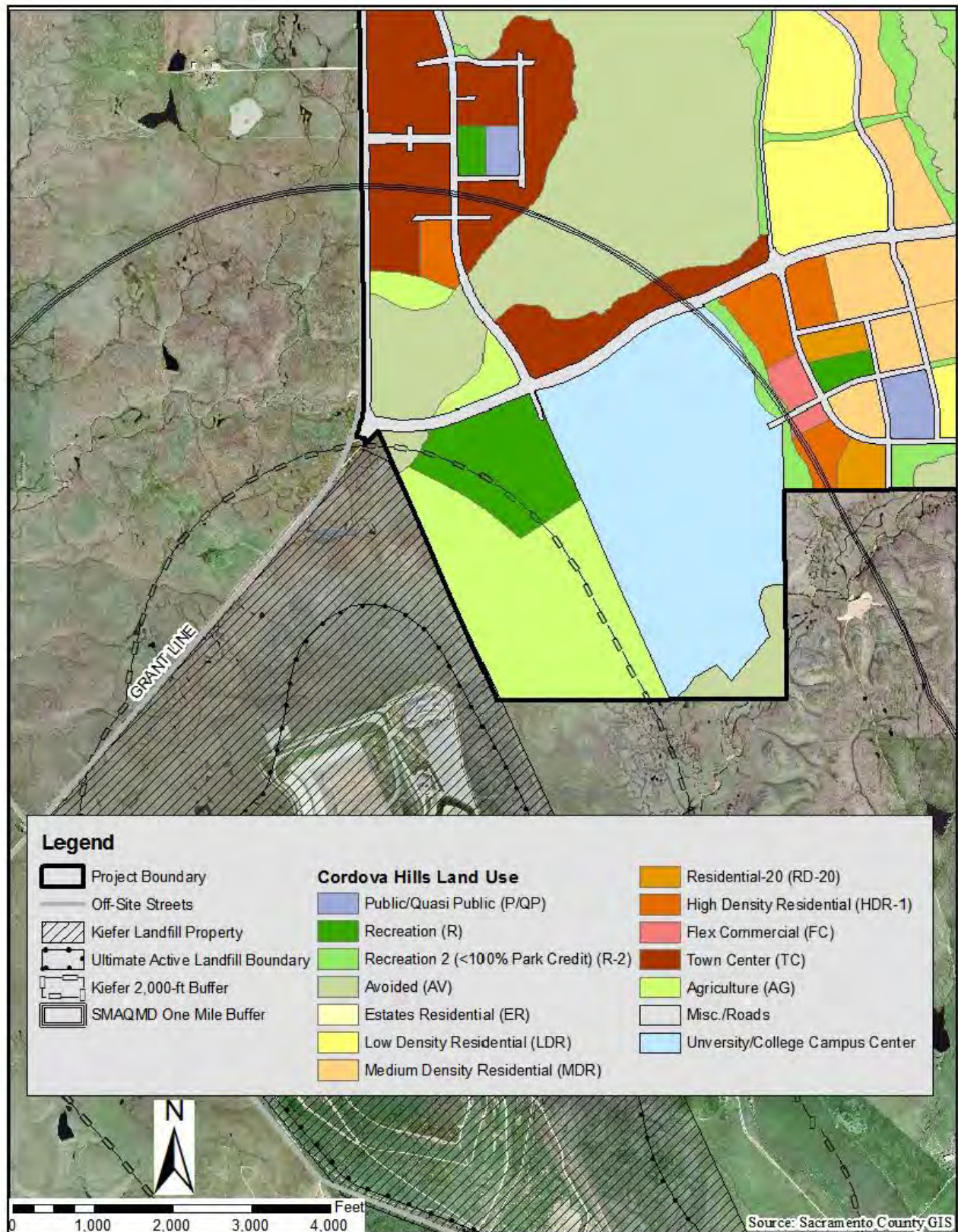
IMPACT: NOISE DUE TO ACTIVITIES AT KIEFER LANDFILL

Kiefer Landfill is located southwest of the project site. The Kiefer Landfill includes a buffer which extends 2,000 feet beyond the active landfill boundary which limits urban uses (refer to Plate NO-5). There is approximately 2,330 feet between the active landfill boundary and the nearest residential uses, which would be located on the university/college campus center. The only active use area within the buffer is a portion of the sports park.

Kiefer Landfill operations currently produce noise levels in the form of traffic noise along Kiefer Road and Grant Line Road (which is included in the traffic study) and on-site noise created by heavy equipment (e.g., bulldozers, garbage trucks, and backup warning devices) associated with the operation of the landfill. Noise measurements conducted at the landfill in 1989 yielded an average noise level of 71 dBA at a distance of 100 feet from the main dump activity area (General Plan Noise Element). All of the proposed Project uses are more than 15 times this distance away from the landfill boundary.

The following equation can be used to determine the change in the noise level of stationary sources: $20 (\log_{10}(d_1/d_2))$, where d_1 is the known distance and d_2 is distance of the sensitive receptor. In general, this equates to a 6 dB attenuation per doubling of distance. An average noise level of 71 dBA at 100 feet means that at 2,300 feet, the noise level would be about 44 dB (a reduction of 27 dB). On this basis, activities at Kiefer Landfill will not cause exposure of persons to noise levels in excess of standards established in the Sacramento County General Plan; impacts are *less than significant*.

Plate NO-5: Kiefer 2,000-foot Buffer



IMPACT: SUBSTANTIAL INCREASE IN THE EXISTING AMBIENT NOISE LEVEL

While there are General Plan noise standards applicable to *new* development affected by transportation noise, and for existing development affected by *new* transportation projects (new roadways, or roadway widening), there are no General Plan standards which apply to existing development affected by increases in traffic associated with new land uses. That impact is assessed not through General Plan standards, but the general CEQA guidelines criteria that an increase in noise which is substantial is significant. For this analysis, a substantial increase in noise is defined by the FICON noise study – which is the same basis on which new roadway project impacts are assessed according to NO-9.

According to the FICON noise study (refer to Table NO-5), an increase in the ambient noise level by 5 dB or more is substantial when existing ambient noise levels are less than 60 dB, a change in 3 dB or more is substantial when existing noise levels are between 61 and 64 dB, and a change of 1.5 dB or more is substantial when existing ambient noise levels are above 65 dB. Table NO-9 shows the roadways that would experience a substantial increase in the existing ambient noise levels as a result of project traffic. Most of these segments are located adjacent to agricultural or industrial properties where there are no residences or other occupied buildings near the roadway.

Table NO-10 is also included to disclose probable future conditions, but note that the threshold only applies to development subject to substantial increases in *existing* ambient noise. In any case, the table shows that in the majority of cases the Project contribution to cumulative noise is negligible.

Note that some of the roadways would appear to generate noise which will exceed standards as well, but even if the standards applied in this case, there would still be no impact to residential uses. The Sunridge Specific Plan requires a minimum 6-foot sound wall along Douglas Road and Chrysanthy Boulevard – which has been constructed where there are existing homes – and this wall reduces noise to below standards even in cumulative conditions. Any future uses constructed will be required by CEQA to consider and provide shielding for the cumulative noise environment. After examining the affected roadways, non-residential uses are those primarily affected, and the majority of non-residential uses along the studied roadways are retail businesses and industrial facilities; if these were new uses, they would be permissible as the County interior noise standard is 50 dB for commercial uses and “industry” (which is 75 dB exterior). The City of Rancho Cordova does not have interior noise standards for commercial or industrial uses. Any outdoor congregation spaces for non-residential uses would be behind the buildings or in a courtyard, which would provide noise shielding.

There are sections of Grant Line Road, White Rock Road, and Jackson Road, all of which are subject to substantial noise increases, which are adjacent to businesses, but these businesses generate noise themselves. When two different noise levels combine, the formula for their additive effect is $10\log(10^{(L1/10)} + 10^{(L2/10)})$. What this means is that when noise volumes differ by at least 9 dB, there is no additive effect. When noise volumes differ by between 4 – 8 dB, the higher noise volume is only increased by

approximately 1 dB. Any area subject to existing noise volumes substantially greater than the Project traffic noise volumes will not experience a substantial increase in ambient noise. The Prairie City SVRA is adjacent to Grant Line Road and White Rock Road, but people at the Prairie City SVRA are subject to noise from off-road vehicles, which can be as loud as 96 dB according to off-highway vehicle noise regulations (source http://ohp.parks.ca.gov/?page_id=23037). Users of this facility will not perceive changes in roadway noise. Business uses along Jackson Road are associated with aggregate mining or supply, with substantial truck and processing equipment noise. These areas will not be affected by increases in roadway noise.

Sections of Sunrise Boulevard have office uses and other noise-sensitive uses (such as the California Northstate College). Classrooms would be areas where the change in noise would be perceptible. Though a soundwall could be constructed, this would be incompatible with businesses which rely on roadway visibility for customers; mitigation is deemed infeasible.

Douglas Road includes existing residential areas, which are already protected by a soundwall, and this soundwall ensures that noise will not exceed standards. Nonetheless, the Project will cause a significant increase in ambient noise volumes (noise increases by 7 to 10 dB). The height of this existing barrier could be increased in order to reduce the increase in noise, but this would require disruption of a built community and is moreover not planned by the City of Rancho Cordova because the existing soundwall is sufficient to prevent exceedance of noise standards. For these reasons, mitigation is deemed infeasible.

Lastly, there are agricultural-residential properties with homes along affected segments of Jackson Road. These homes are set much farther back from the roadway than other existing uses – a minimum of 150 feet rather than the modeled distance of 70 feet. At a distance of 150 feet from the centerline, ambient existing noise levels are 64 dB, which requires a 3 dB increase to be perceptible. The Project increases noise levels by 2 dB, and thus the Project does not cause a substantial increase in ambient noise.

As described, mitigation cannot be included to reduce the substantial noise increases on Sunrise Boulevard and Douglas Road. The Project will expose people to a substantial increase in noise, and impacts are *significant and unavoidable*.

Table NO-9: Existing and Existing Plus Project Off-Site Roadway Noise

Roadway Segment	Noise Level (dB) At Modeled Location ¹		
	Existing	Existing Plus Project	Change
Grant Line Rd - Sheldon Rd to Calvin Rd	70	71	1
Grant Line Rd - Calvin Rd to Sunrise Blvd	70	71	1
Grant Line Rd - Sunrise Blvd to Jackson Rd (SR-16)	68	71	3
Grant Line Rd - Jackson Rd (SR-16) to Kiefer Blvd	68	73	5
Grant Line Rd - Kiefer Blvd to University Blvd	67	73	6
Grant Line Rd - University Blvd to Chrysanthus Blvd	67	71	4
Grant Line Rd - Chrysanthus Blvd to North Loop	67	71	4
Grant Line Rd - North Loop to Douglas Rd	67	75	8
Grant Line Rd - Douglas Rd to White Rock Rd	68	72	4
White Rock Rd - Kilgore Rd to Sunrise Blvd	71	72	1
White Rock Rd - Sunrise Blvd to Fitzgerald Rd	66	67	1
White Rock Rd - Fitzgerald Rd to Grant Line Rd	64	66	2
White Rock Rd - Grant Line Rd to Prairie City Rd	69	72	3
White Rock Rd - Prairie City Rd to Scott Rd (West)	68	69	1
White Rock Rd - Scott Rd (West) to Scott Rd (East)	68	69	1
White Rock Rd - Scott Rd (East) to County Line	67	67	0
Jackson Rd (SR-16) - Watt Ave to Bradshaw Rd	70	71	1
Jackson Rd (SR-16) - Bradshaw Rd to Excelsior Rd	69	71	2
Jackson Rd (SR-16) - Excelsior Rd to Eagles Nest Rd	69	71	2
Jackson Rd (SR-16) - Eagles Nest Rd to Sunrise Blvd	69	71	2
Jackson Rd (SR-16) - Sunrise Blvd to Grant Line Rd	70	72	2
Douglas Rd - Mather Blvd to Eagles Nest Rd	64	66	2
Douglas Rd - Eagles Nest Rd to Sunrise Blvd	64	66	2
Douglas Rd - Sunrise Blvd to Rancho Cordova Pkwy	63	70	7
Douglas Rd - Rancho Cordova Pkwy to Grant Line Rd	60	70	10
Kiefer Blvd - Grant Line Rd to Jackson Rd (SR-16)	61	64	3
Sunrise Blvd - US 50 to Folsom Blvd	74	74	0
Sunrise Blvd - Folsom Blvd to White Rock Rd	73	74	1
Sunrise Blvd - White Rock Rd to Douglas Rd	71	73	2
Sunrise Blvd - Jackson Rd (SR-16) to Florin Rd	67	67	0

Roadway Segment	Noise Level (dB) At Modeled Location ¹		
	Existing	Existing Plus Project	Change
Mather Blvd - Douglas Rd to Femoyer St	64	66	2
Zinfandel Dr - US-50 to White Rock Rd	73	73	0
Prairie City Rd - US-50 to White Rock Rd	67	70	3
Scott Rd - US-50 to White Rock Rd	67	68	1
<p>NOTES:</p> <p>1. Modeling location was 70 ft from the centerline with exception of Douglas Road, which was 73 feet from the centerline based on the nearest edge of existing residential areas.</p> <p>Bold indicates volume which exceeds standard</p> <p>Shading indicates significant impact</p>			

Table NO-10: Cumulative and Cumulative Plus Project Off-Site Roadway Noise

Roadway Segment	Noise Level (dB) At Modeled Location ¹		
	Cumulative	Cumulative Plus Project	Change
Grant Line Rd - Sheldon Rd to Calvin Rd	73	73	0
Grant Line Rd - Calvin Rd to Sunrise Blvd	74	74	0
Grant Line Rd - Sunrise Blvd to Jackson Rd (SR-16)	72	73	0
Grant Line Rd - Jackson Rd (SR-16) to Rancho Cordova Pkwy	73	74	1
Grant Line Rd - Rancho Cordova Pkwy to Kiefer Blvd	73	75	1
Grant Line Rd - Kiefer Blvd to University Blvd	73	75	3
Grant Line Rd - University Blvd to Chrysanthus Blvd	73	74	1
Grant Line Rd - Chrysanthus Blvd to North Loop	73	74	1
Grant Line Rd - North Loop to Douglas Rd	74	76	2
Grant Line Rd - Douglas Rd to White Rock Rd	75	76	1
White Rock Rd - Kilgore Rd to Sunrise Blvd	70	70	0
White Rock Rd - Sunrise Blvd to Rancho Cordova Pkwy	71	71	0
White Rock Rd - Rancho Cordova Pkwy to Americanos Blvd	69	69	0
White Rock Rd - Americanos Blvd to Grant Line Rd	69	70	0
White Rock Rd - Grant Line Rd to Prairie City Rd	76	77	1
White Rock Rd - Prairie City Rd to Scott Rd (South)	75	76	0
White Rock Rd - Scott Rd (South) to Scott Rd (North)	75	76	0
White Rock Rd - Scott Rd (North) to County Line	72	72	0
Jackson Rd (SR-16) - Watt Ave to Bradshaw Rd	77	77	0
Jackson Rd (SR-16) - Bradshaw Rd to Vineyard Rd	76	76	0
Jackson Rd (SR-16) - Vineyard Rd to Excelsior Rd	74	75	0
Jackson Rd (SR-16) - Excelsior Rd to Eagles Nest Rd	71	71	0
Jackson Rd (SR-16) - Eagles Nest Rd to Sunrise Blvd	71	71	0
Jackson Rd (SR-16) - Sunrise Blvd to Grant Line Rd	72	72	0
Douglas Rd - Excelsior Rd to Eagles Nest Rd	69	69	0
Douglas Rd - Eagles Nest Rd to Sunrise Blvd	71	72	1
Douglas Rd - Sunrise Blvd to Rancho Cordova Pkwy	72	73	1

Roadway Segment	Noise Level (dB) At Modeled Location ¹		
	Cumulative	Cumulative Plus Project	Change
Douglas Rd - Rancho Cordova Pkwy to Americanos Blvd	69	71	3
Douglas Rd - Americanos Blvd to Grant Line Rd	66	71	4
Kiefer Blvd - Bradshaw Rd to Vineyard Rd	71	71	0
Kiefer Blvd - Vineyard Rd to Excelsior Rd	70	71	1
Kiefer Blvd - Excelsior Rd to Eagles Nest Rd	67	68	1
Kiefer Blvd - Eagles Nest Rd to Sunrise Blvd	68	69	1
Kiefer Blvd - Sunrise Blvd to Rancho Cordova Pkwy	69	70	1
Kiefer Blvd - Rancho Cordova Pkwy to Grant Line Rd	65	66	2
Kiefer Blvd - Grant Line Rd to Jackson Rd (SR-16)	65	65	0
Sunrise Blvd - US 50 to Folsom Blvd	74	74	0
Sunrise Blvd - Folsom Blvd to White Rock Rd	73	73	0
Sunrise Blvd - White Rock Rd to Douglas Rd	73	73	0
Sunrise Blvd - Jackson Rd (SR-16) to Florin Rd	70	70	0
Mather Blvd - Douglas Rd to Femoyer St	64	64	0
Zinfandel Dr - US-50 to White Rock Rd	75	75	0
Zinfandel Dr - White Rock Rd to International Dr	74	74	0
Zinfandel Dr - International Dr to Douglas Rd	71	72	1
Prairie City Rd - US-50 to Easton Valley Pkwy	74	74	0
Prairie City Rd - Easton Valley Pkwy to White Rock Rd	73	73	0
Scott Rd - US-50 to Easton Valley Pkwy	76	76	0
Scott Rd - Easton Valley Pkwy to White Rock Rd	73	73	0
Chrysanthy Blvd - Sunrise Blvd to Rancho Cordova Pkwy	67	67	0
Chrysanthy Blvd - Rancho Cordova Pkwy to Americanos Blvd	69	70	0
Chrysanthy Blvd - Americanos Blvd to Grant Line Rd	64	70	5
Rancho Cordova Pkwy - White Rock Rd to Douglas Rd	72	72	0
Rancho Cordova Pkwy - Douglas Rd to Chrysanthy Blvd	71	71	0
Rancho Cordova Pkwy - Chrysanthy Blvd to Kiefer Blvd	69	69	0

Roadway Segment	Noise Level (dB) At Modeled Location ¹		
	Cumulative	Cumulative Plus Project	Change
Rancho Cordova Pkwy - Kiefer Blvd to Grant Line Rd	65	66	1
Americanos Blvd - White Rock Rd to Douglas Rd	67	68	1
Americanos Blvd - Douglas Rd to Chrysanthy Blvd	65	67	2
Americanos Blvd - Chrysanthy Blvd to Kiefer Blvd	66	66	0
Oak Ave - US-50 to Easton Valley Pkwy	69	69	0
Oak Ave - Easton Valley Pkwy to White Rock Rd	61	61	0
NOTES: 1. Modeling location was 70 ft from the centerline with exception of Douglas Road, which was 73 feet from the centerline based on the nearest edge of existing residential areas. Bold indicates volume which exceeds standard			

MITIGATION MEASURES:

None available.

IMPACT: MATHER AIRPORT

The project site is located approximately four miles east of Mather Airport. Although the project site is located outside the 60 dB CNEL contour (as shown on Plate NO-2) of Mather Airport, the project site is located within the overflight path of approaching and departing aircraft that fly below 3,000 feet above ground level. A flight track analysis was provided by the Sacramento County Airports System for the month of April 2011. A penetration gate was orientated over the center of the project site and spanned 2 ¼ miles. The flight track data provides the altitude of flights through the penetration gate in feet above mean sea level; however it does not provide the type of aircraft at specified altitudes, nor does the data specify the time of day for the various flights. Mather Airport is an economic resource for the County thus there are air cargo night operations occurring. Cargo jets tend to be louder and during the quieter evening hours it is more likely that aircraft noise could interfere with sleeping patterns. The flight track report also classifies the flight patterns as arriving, departing, and touch-and-go flights.

The project site ranges in elevation from 140 feet to 250 feet above mean sea level. The average elevation is about 200 feet above mean sea level. Flights passing over the site 3,000 feet above ground level would range in altitude of 3,140 feet to 3,250 feet above mean sea level.

Plate NO-6 shows the arrival flights recorded for Mather Airport. As shown on Plate NO-6, the majority of the flights arriving at Mather Airport are not passing over the project site, due to the orientation of the runway at Mather being in a

southwest/northeast direction and that the site is located southeast of the runway. There were 1,080 arrival flight tracks recorded for Mather Airport, of which 94 flew within 1 1/8 -mile radius of the project site and 67 penetrated the gate spanning the project site. Only eight percent of the total arrivals flew over the project site. The flights ranged in altitude from 500 to 5,000 feet above mean sea level. There were 63 flights (5 percent of total arrival flights) below 3,500 feet above mean sea level. The report does not indicate the type of aircraft at the various elevations, but does provide the overall number and type of aircraft for the studied time frame. Of the arrivals that flew within 1 1/8 -mile radius of the project site, two were military aircraft and one was cargo aircraft.

Plate NO-7 shows the departure flights recorded for Mather Airport. As shown on Plate NO-7, the majority of the flights departing Mather Airport are not passing over the project site. There were 1,082 departure flight tracks recorded at Mather Airport, of which 24 flew within a 1 1/8 -mile radius of the project site and 19 penetrated the gate spanning the site. Only two percent of the total departure flights for Mather Airport are passing over the project site. These departure flights ranged in altitudes from 1,000 to 12,000 feet above mean sea level. Of the aircraft departing Mather Airport that flew within a 1 1/8 -mile radius of the project site, there were four military and four cargo aircraft.

Plate NO-8 shows the touch-and-go flights recorded for Mather Airport. As shown on the exhibit, touch-and-go flights were a little more erratic than arrivals or departures, but most are concentrated in a ring around Mather Airport, outside a one-mile radius of the project site. It should be noted that the number of flight tracks over the site may consist of one touch-and-go flight track with multiple operations. Of the total 322 touch-and-go flights, 46 were recorded within a one-mile radius of the project site, which is 14 percent of the total touch-and-go flights. There was one jet and nine military aircraft recorded within the one-mile radius.

During an average one-month time period, a very small percentage of total departure (two percent) and arrival (eight percent) flights are passing over the project site and there is less than 15 percent of the total touch-and-go flights passing over the project site. These flights do not represent a large number of flights from Mather Airport.

It should be noted that Mather Airport receives funding from the FAA and is therefore required to allow the military to use the airport; thus the nature of military operations at Mather Airport can change in the future. Furthermore, Mather Airport has been designated to be a substitute airport in the event that the Sacramento International Airport (SMF) is flooded due to levee failure. This would result in an increase in the number of overflights over the Project area, potentially creating a greater, albeit temporary, noise nuisance.

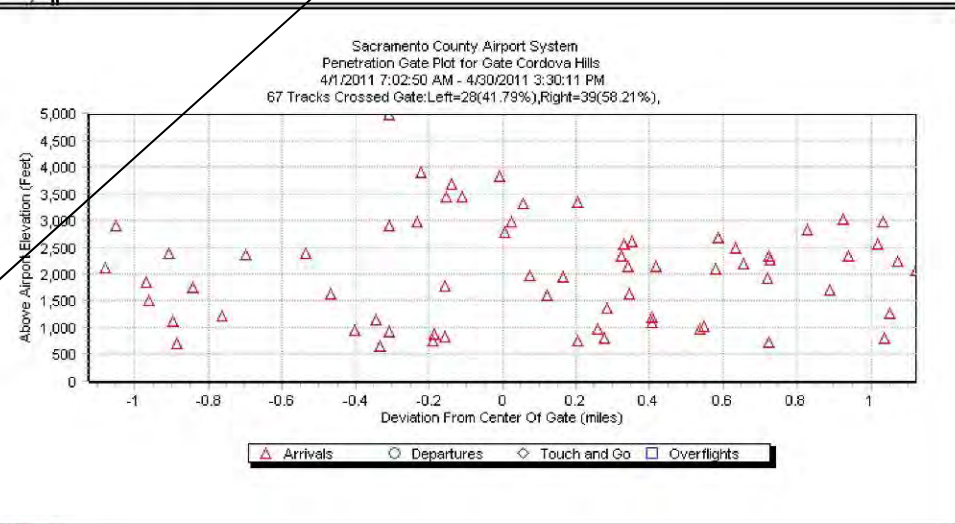
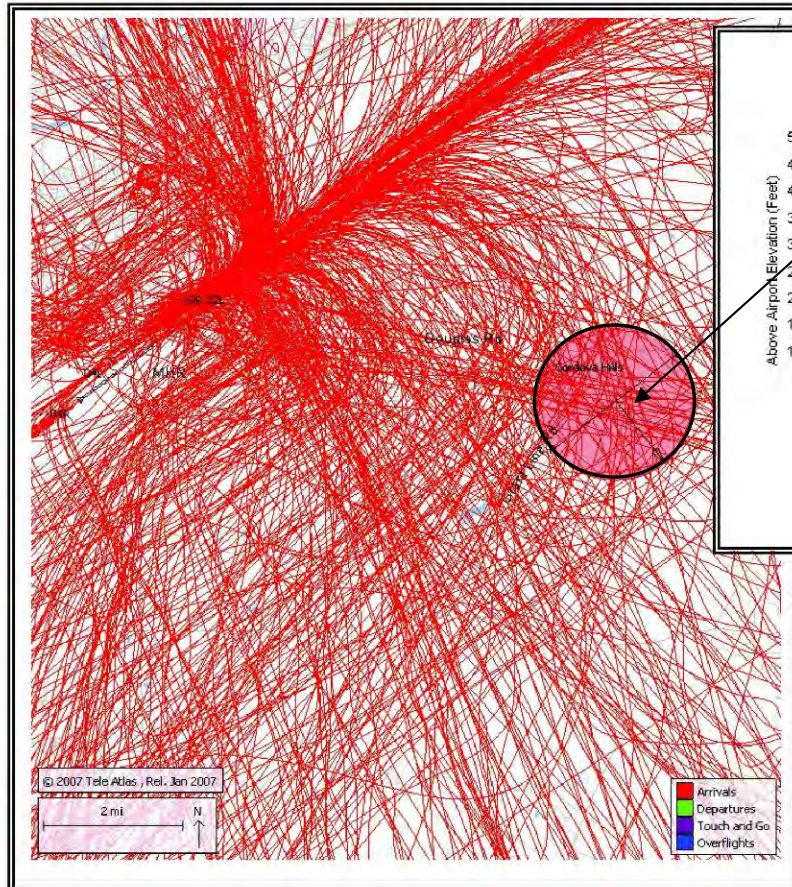
Plate NO-6: Arrival Flight Tracks for Mather Airport

**Sacramento County Airport System
Aircraft Noise Information Office**
Mather Airport Flight Altitudes Near Cordova Hills Project Location
Flight Track Analysis



Arrival Analysis

Project Penetration Gate



During April of 2011, 1,080 arrival flight tracks were recorded at Mather Airport. Of these, 94 flew within a 1 1/8-mile radius of the parcel; 67 penetrated the gate spanning the location. As indicated by the graphic above, these flights passed over the site at a wide range of altitudes from 500 to 5,000 ft MSL. The Operator Category for the total number of arrivals that flew within a 1 1/8-mile radius includes 1 Cargo, 37 Commercial, 29 General Aviation, 2 Military and 25 Unknown. The Aircraft Category includes 17 Business Jets, 1 Jet, 2 Military, 6 Propeller, 33 Regional Jets, 10 Turbo-prop and 25 Unknown.

The center of the proposed project location is approximately 5.0 miles from the end of Runway 22L at MHR.

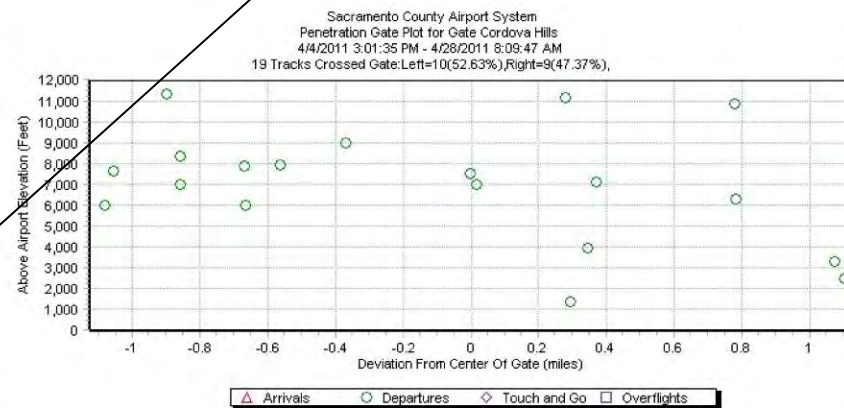
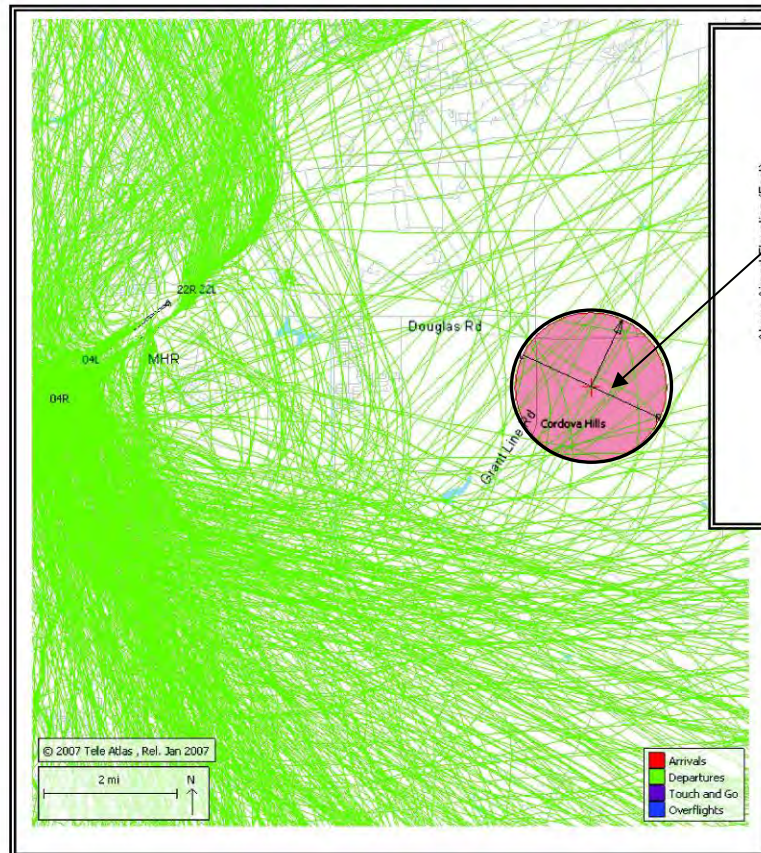
Plate NO-7: Departure Flight Tracks for Mather Airport

Sacramento County Airport System
Aircraft Noise Information Office
 Mather Airport Flight Altitudes Near Cordova Hills Project Location
Flight Track Analysis



Departure Analysis

Project Penetration Gate

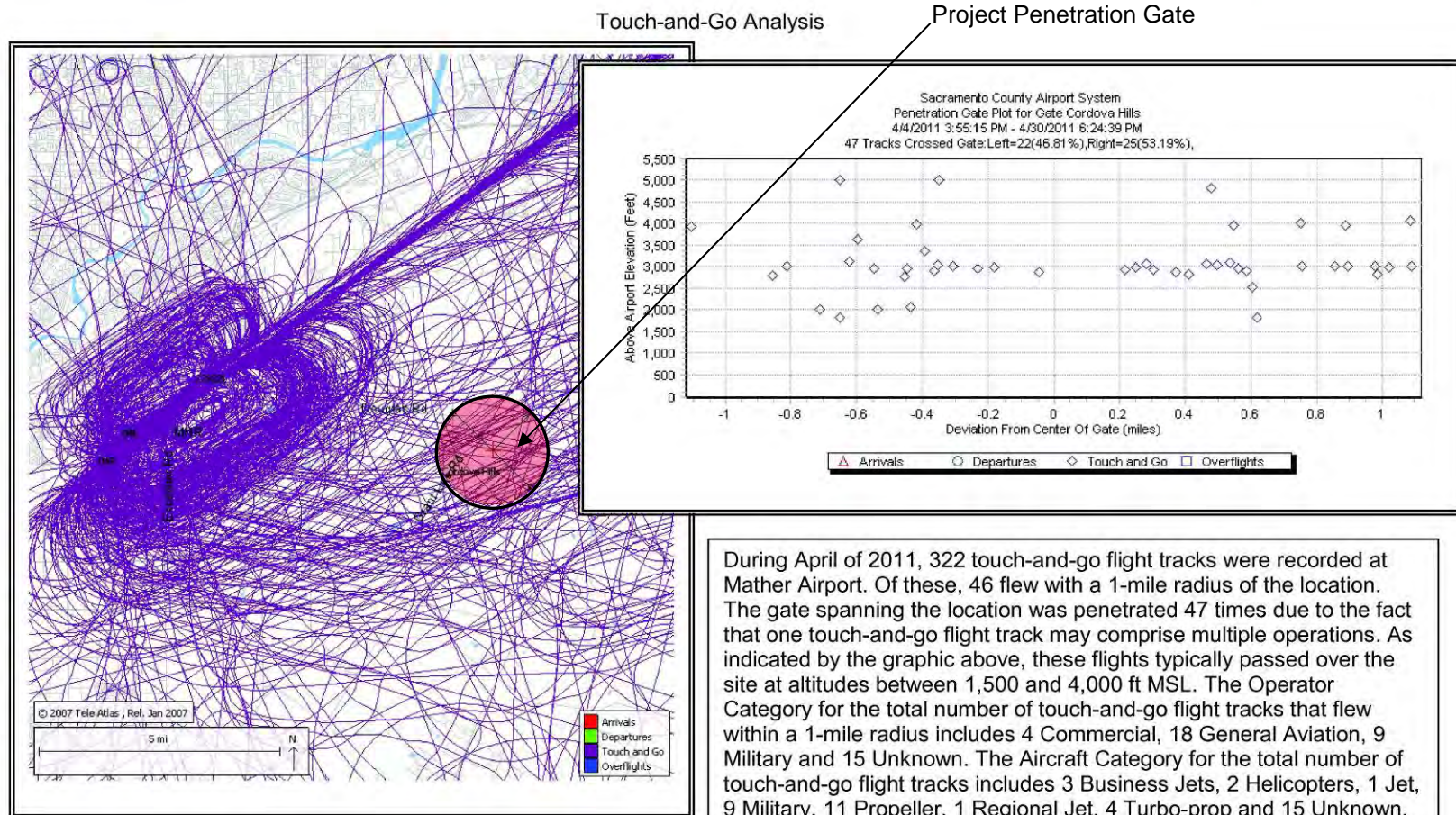


During April of 2011, 1,082 departure flight tracks were recorded at Mather Airport. Of these, 24 flew with a 1 1/8-mile radius of the parcel; 19 penetrated the gate spanning the location. As indicated by the graphic above, these flights passed over the site at a wider range of altitudes from 1,000 to 12,000 ft MSL. The Operator Category for the total number of departures that flew within a 1 1/8-mile radius includes 4 Cargo, 2 Commercial, 7 General Aviation, 4 Military and 7 Unknown. The Aircraft Category includes 8 Business Jets, 4 Jets, 4 Military, 2 Regional Jets, 3 Turbo-prop and 7 Unknown.

In order to capture the relative proximity of the flight tracks to the location center, the basic penetration gate direction was re-oriented.

Plate NO-8: Touch-and-Go Flight Tracks for Mather Airport

Sacramento County Airport System
Aircraft Noise Information Office
 Mather Airport Flight Altitudes Near Cordova Hills Project Location
Flight Track Analysis



In order to capture the relative proximity of the flight tracks to the location center, the basic penetration gate direction was again re-oriented.

During April of 2011, 322 touch-and-go flight tracks were recorded at Mather Airport. Of these, 46 flew with a 1-mile radius of the location. The gate spanning the location was penetrated 47 times due to the fact that one touch-and-go flight track may comprise multiple operations. As indicated by the graphic above, these flights typically passed over the site at altitudes between 1,500 and 4,000 ft MSL. The Operator Category for the total number of touch-and-go flight tracks that flew within a 1-mile radius includes 4 Commercial, 18 General Aviation, 9 Military and 15 Unknown. The Aircraft Category for the total number of touch-and-go flight tracks includes 3 Business Jets, 2 Helicopters, 1 Jet, 9 Military, 11 Propeller, 1 Regional Jet, 4 Turbo-prop and 15 Unknown.

Staff of the Sacramento County Airport System (B. Taylor) reviewed the proposed Project and submitted conditions of approval consistent with the Mather Airfield Airport Planning Policy Area (APPA) requiring that new properties within the APPA boundary be subject to the following condition:

Execution and recordation with the Sacramento County Recorder of an Avigation Easement to Sacramento County and compliance with all other conditions as required by the Sacramento County Board of Supervisors adoption of the APPA for Mather Airfield.

The aircraft noise associated with Mather Airport within the project area will not exceed any federal or State thresholds of significance since the site is located well outside the 60 dB CNEL contour. However, it is reasonable to conclude that although aircraft overflight noise is below thresholds of significance, aircraft noise as a result of the continued and future use of Mather Airport has the potential to be a nuisance and generate objections by residents and other sensitive receptors (such as schools, churches, theaters, etc.) throughout the Project area. For this reason, all residential units planned in the proposed Project area will be conditioned with all Mather Airfield APPA conditions in order to facilitate home buyer awareness and thereby minimize the impact of aircraft overflights which may be experienced by residents within the Project area.

Consistent with General Plan Policy NO-4, the following conditions outlined in the Mather Airfield APPA will be applicable for all planned residential units in the proposed Project area:

1. Minimum noise insulation to protect persons from excessive noise within new residential dwellings, including single family dwellings, that limits noise to 45 dB CNEL, with windows closed, in any habitable room.
2. Notification in the Public Report prepared by the California Department of Real Estate disclosing to prospective buyers that the parcel is located within the applicable airport planning policy area and that aircraft operations can be expected to overfly that area at varying altitudes less than 3,000 feet above ground level
3. Execution and recordation with the Sacramento County Recorder of an Avigation Easement prepared by the Sacramento County Counsel's Office on each individual residential parcel contemplated in the development in favor of the County of Sacramento. All Avigation Easements recorded pursuant to this policy shall, once recorded, be copied to the director of Airports and shall acknowledge the property location within the appropriate Airport Planning Policy Area and shall grant the right of flight and unobstructed passage of all aircraft into and out of the appropriate airport.

Note that item one does not apply, as standard building design would result in interior noise volumes below 45 CNEL for any building constructed outside of the 60 CNEL

contour. Sacramento County Airport System staff have indicated that Mather Airport is an economic resource to the region whose operations can increase or decrease as operations continue, and that objections by future residents could affect future operations at Mather Airport. An Avigation Easement to inform future potential residential buyers will be required to help reduce the impact to Mather Airport from new complaints by future residents or other sensitive receptors of the proposed Project; these various conditions are included as mitigation. The Project will not expose people to excessive aircraft noise which exceeds standards, and for this reason impacts are *less than significant*, but it is acknowledged that people may experience nuisance conditions related to airport operations.

MITIGATION MEASURES:

NO-6. The following conditions will be required to ensure adequate disclosure of Mather Airport operations:

1. Notification in the Public Report prepared by the California Department of Real Estate shall be provided disclosing to prospective buyers that the parcel is located within the applicable Airport Planning Policy Area and that aircraft operations can be expected to overfly that area at varying altitudes less than 3,000 feet above ground level.
2. Avigation Easements prepared by the Sacramento County Counsel's Office shall be executed and recorded with the Sacramento County Recorder on each individual residential parcel contemplated in the development in favor of the County of Sacramento. All Avigation Easements recorded pursuant to this policy shall, once recorded, be copied to the director of Airports and shall acknowledge the property location within the appropriate Airport Planning Policy Area and shall grant the right of flight and obstructed passage of all aircraft into and out of the appropriate airport.

14 PUBLIC SERVICES

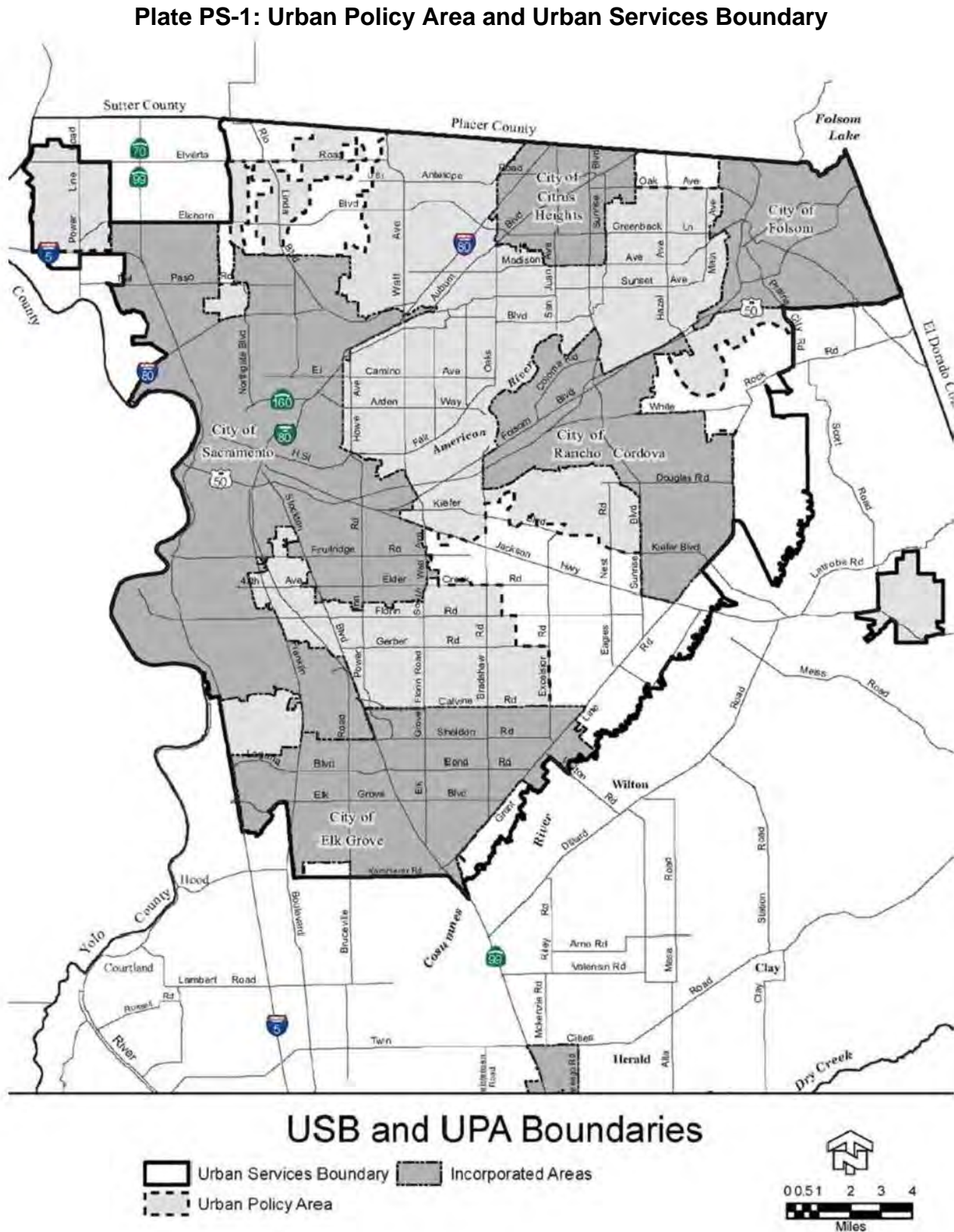
SETTING

The majority of the Project is located within the Urban Services Boundary (USB), as defined in the Land Use Element of the County of Sacramento General Plan (Plate PS-1). The USB indicates the ultimate boundary of the urban area in the unincorporated County. The portion of the Project outside the USB does not include any residential or retail uses, but does include uses such as a sports park and a corporation yard. Although mostly within the USB, none of the Project area is within the Urban Policy Area (UPA). The Urban Policy Area defines the area expected to receive urban levels of public infrastructure and services within the 20-year planning period. In order to receive urban public services, the Project must be within both the UPA and USB. To this end, the Project includes a General Plan Amendment to move the UPA to include approximately 2,366 acres of the Project site.

The Project is located within the following public service districts:

Fire Protection:	Sacramento Metropolitan Fire District California Department of Forestry and Fire Protection
Law Enforcement:	Sacramento County Sheriff's Department
Solid Waste:	County Waste Management and Recycling Division
School District:	Elk Grove Unified School District
Park District:	Sacramento County Regional Parks Department County Service Area 4B
Libraries:	Sacramento Public Library System

This chapter analyzes the Project's potential impacts on service providers due to future development of this site in accordance with the land use designations proposed. Wastewater (sewer), water supply, and energy services are addressed in the Public Utilities chapter of this EIR, while transit services are addressed in the Traffic and Circulation chapter.



PROJECT CHARACTERISTICS

According to the Cordova Hills Master Plan Special Planning Area (SPA), the Project will allow for 8,000 new households and 21,379 new residents within the Project area, a university/college campus center of 6,000 students and 2,036 employees, as well as approximately 1.4 million square feet of commercial and office uses. The SPA estimates that 90% of the undergraduate students and 10% of graduate students will live within the Project area, for a total student resident population of 4,040. In order to provide public services to support the proposed uses in the Cordova Hills Area, the Project includes the development of a new Community Services District (CSD). The Cordova Hills Community Services District (CHCSD) will be a multi-purpose special district with broad power and authority to provide services within the Project area.

CSDs can gather a number of municipal-type services under one government umbrella, granting local autonomy and a framework that can be adapted to local conditions, circumstances, and resources. According to the applicant, the CHCSD is desired in order to more effectively address the broad range of interconnected community needs. CSD's are authorized by California Government Code Section 61000 (Section 61000). According to Section 61000, CSD's can provide services in order to promote public peace, health, safety and welfare. The proposed CHCSD will provide transportation services, greenscape and surface water management, open space management, domestic water management, recreation and park services, community communication services, and landscape and streetscape maintenance services.

Currently the Project area is located within County Service Area 4b (CSA 4b), which is a parks and recreation Service Area governed by the Board of Supervisors. CSA 4b is staffed by the Sacramento County Regional Parks Department which provides park and recreation services to the eastern portion of the County where the Project site is located. According to the Project proposal, the Project area will be detached from CSA 4b, and will be provided park and recreation services under the proposed CHCSD. In order for areas to be detached from existing districts and to create CSDs, discretionary action by the Sacramento Local Agency Formation Commission (LAFCo) is required for approval. To this extent, LAFCo, which intends to use this EIR in considering public service detachment, CHCSD creation, and annexation to various public utilities (refer to the Public Utilities chapter of this EIR) related to the approval of this Project, is considered a responsible agency under CEQA.

The Project area is currently vacant and is not in close proximity to any existing public services, and as a result some extensive, costly improvements related to infrastructure and public facilities – discussed in the Public Utilities chapter – will be required to adequately support the Project. As part of the Project proposal, a Draft Cordova Hills Special Planning Area Public Facilities Financing Plan (Financing Plan, dated November 18, 2010) was submitted identifying a strategy to finance new infrastructure and other public facilities and improvements required to serve the proposed land uses within the Cordova Hills area. The Financing Plan provides the estimated costs and timing of needed facilities as well as a strategy to match the timing and costs with the availability of probable funding sources. The Financing Plan is required to be approved

concurrent with the Project. At this time the Financing Plan is a draft, so reviewers should note that the total costs stated herein are subject to change. Various public service providers were consulted during the development of the initial draft of the Financing Plan, and will continue to be consulted in order to prepare the final draft, to determine needs generated by the Project and the funding required to meet those needs.

Infrastructure improvements detailed in the Financing Plan include roadways, sanitary sewer facilities, water facilities, and storm drain facilities. Public facility improvements detailed in the Financing Plan include fire facilities, landscape corridors, parks, open space and trails, habitat and wetlands, library facilities, transit facilities, corporation yard facilities and schools. It is estimated that infrastructure and facility costs will be approximately 453 million dollars.

According to the Financing Plan, in order to fund the needed infrastructure and facilities a combination of funding sources will be utilized including:

- existing County and other public agency fee programs
- a new Cordova Hills Special Financing District (SFD), which could include the following funding mechanisms:
 - a Project area development fee program
 - bond funding through a Mello-Roos Community Facilities District (CFD)
 - developer advancements and reimbursements
- Elk Grove Unified School District CFD funding
- state, federal and other funding
- developer funding

The Cordova Hills SFD will partially fund the construction of backbone infrastructure and public facilities. The Financing Plan includes a cost allocation of the projected SFD costs to estimate the build out costs for each proposed land use type. The Financing Plan has estimated costs per unit for residential uses, per building square foot for commercial uses, and in total for the university/college campus center. The development and population estimates used in the Financing Plan are lower than those in the SPA in order to provide a conservative cost estimate to ensure that construction costs per unit or square foot are not understated if actual development occurs at levels below the maximum authorized with Project approval. Total residential development (excluding the university/college campus center) is listed as 7,500 homes with 20,110 people and approximately 850,000 square feet of non-residential uses. The Financing Plan has been developed in coordination with affected service providers in order to ensure that adequate funding is available for facilities and infrastructure needed to serve Project development. The financing plan is based on 7,500 homes rather than

the 8,000 homes assumed throughout the SPA in order to ensure that the full development cost is provided in the event that the full development of 8,000 homes is not achieved.

Aside from the capital improvement costs detailed in the Financing Plan, the Project proposal includes an Urban Services Plan (Appendix PS-1) which describes the service levels and financing strategy to fund an urban level of public services that will be provided to future residents, businesses and employees in the Project area. The services provided by independent agencies and the County will be funded from the County general fund, user fees, and existing property tax allocations. The services provided and administered by the CHCSD will ultimately be funded through user fees and special taxes or assessments of those utilizing the services. Like the Financing Plan, cost allocations are based on development and population estimates that are lower than what would be allowed to ensure adequate funding for operations and maintenance.

REGULATORY SETTING

SACRAMENTO LOCAL AGENCY FORMATION COMMISSION

Local Agency Formation Commissions (LAFCoS) are countywide commissions, required in each California county. LAFCoS govern the formation of new agencies, incorporation of new cities and districts, consolidation or reorganization of special districts and/or cities, as well as municipal service reviews and sphere of influence updates, and annexations of cities and special districts. The broad goals of the Sacramento LAFCo's directive are to ensure the orderly formation of local governmental agencies, to preserve agricultural and open space lands, and to discourage urban sprawl. LAFCoS must, by law, create Municipal Service Reviews and update Spheres of Influence for each independent local governmental jurisdiction within their countywide jurisdiction.

2030 SACRAMENTO COUNTY GENERAL PLAN

In order to assure adequate service levels and adequate funding for those services, the Sacramento County General Plan includes the following policies:

- LU-65. Levels of service shall be consistent with policies in this Plan, or where none are applicable, shall use Federal and State environmental standards and commonly accepted industry norms and standards as guidelines.
- LU-66. Assure service availability, adequacy, and funding at each stage of the development process for all public services for the life of the project consistent with the intent of the adopted Public Facilities Financing Plan and accompanying Phasing Plan.

LU-69. Supplemental mitigation fees may be established by the Board of Supervisors provided they find that supplemental fees are critical and necessary to meet the facility funding needs of a service provider and that traditional methods are inadequate.

FIRE PROTECTION AND EMERGENCY SERVICES

CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION

In accordance with CCR Title 8 Sections 1270, "Fire Prevention" and Section 6773 "Fire Protection and Fire Equipment", the California Occupational Safety and Health Administration (Cal/OSHA) has established minimum standards for fire suppression and emergency medical services. The standards include, but are not limited to, guidelines on the handling of highly combustible materials; fire hose sizing requirements; restrictions on the use of compressed air; access roads; and the testing, maintenance, and use of all fire fighting and emergency medical equipment.

EMERGENCY RESPONSE/ EVACUATION PLANS

The State of California passed legislation authorizing the Office of Emergency Services (OES) to prepare a Standard Emergency Management System (SEMS) program, which sets forth measures by which a jurisdiction should handle emergency disasters. Non-compliance with SEMS could result in the State withholding disaster relief from the non-complying jurisdiction in the event of an emergency disaster.

FIRE CODES AND GUIDELINES

The availability of sufficient water flows and pressure are a basic requirement of the fire districts. Fire District requirements are determined for specific development projects at the design stage and are based on the Uniform Building Code (UBC). In addition to meeting minimum fire flow requirements, all development projects within the unincorporated area are required to meet other various fire protection requirements identified in the plan check and review process. The Fire District specifications require that fire sprinklers be installed in all new commercial construction that exceeds 3,600 square feet and some residential properties exceeding 2,999 square feet. Also, for structures exceeding 3,600 square feet, the district requires water pressure of at least 20 pounds per square inch residual pressure at 1,000 gallons per minute flow. The district also requires that all traffic signals installed on a site include traffic control devices that allow the Fire District to activate the light and therefore control the flow of traffic in order to maintain adequate response times.

FIRE DISTRICT MASTER PLANS

Fire District Master Plans provide policy guidance, objectives, and activities in an effort to improve emergency response to the districts' citizens, use existing resources more efficiently, and improve district facilities. These plans address deficiencies with existing

fire stations, including age and condition issues; noncompliance with building codes; the ability to respond to emergencies following an earthquake; and lack of apparatus rooms of sufficient size to store present-day emergency-response equipment. SMFD has defined a 20-year plan to deal with new infrastructure needs and augment/replace equipment.

SACRAMENTO COUNTY GENERAL PLAN PUBLIC FACILITIES ELEMENT

Sacramento County General Plan Policies PF-54 through PF-64 are pertinent to fire protection and emergency services. These policies are intended to support the stated goal of the Fire Protection and Emergency Services Section of the General Plan which is to have “efficient and effective fire protection and emergency response serving existing and new development.”

The policies in the Public Facilities Element that support the County’s emergency services strategies and are relevant to the Project are as follows:

- PF-54. Require new development to install fire hydrants and associated water supply systems which meet the fire flow requirements of the appropriate fire district.
- PF-55. New development shall provide access arrangements pursuant to the requirements of the California Fire Code.
- PF-56. Infill development shall be provided adequate off-site improvements to meet on-site fire flow requirements.
- PF-57. New development, redevelopment or traffic signal replacement shall require the installation of emergency signal activation systems in all street improvements requiring signalization when requested by a fire district.
- PF-58. Traffic calming measures should be used wherever possible in a manner that does not delay emergency vehicle responses.
- PF-59. Alternative methods of fire protection and access must be instituted if access is reduced to emergency vehicles.
- PF-60. Require that structures of four stories or more in height provide on-site equipment and facilities to the satisfaction of the appropriate fire district, consistent with industry norms and standards.
- PF-61. Mitigation fees may be established by the Board of Supervisors or Fire Districts for the purpose of funding adequate fire protection and emergency medical response facilities provided they find that such fees are critical and necessary to meet the facility funding needs of the fire district and that existing methods of financing are inadequate.

- PF-63. Mitigation fees established by County ordinance or Fire District shall, together with other reasonably assured sources of funding identified in the fire district's financing plan, be sufficient to implement the adopted financing plan.
- PF-64. No building permit for new residential or commercial construction shall be issued when there is a Board of Supervisors certified fire district financing plan for any applicable fire district, which provides for mitigation fees, until the applicant has contributed all required mitigation fees.

LAW ENFORCEMENT SERVICES

SACRAMENTO COUNTY GENERAL PLAN PUBLIC FACILITIES ELEMENT

Sacramento County General Plan Policies PF-50 through PF-53 are pertinent to Law Enforcement services. These policies are intended to support the stated goal of the Sheriff Section of the General Plan which is to have “adequate Sheriff Services and Facilities for the Unincorporated Areas of Sacramento County.” The law enforcement policy relevant to the Project is as follows:

- PF-53. Design neighborhoods and buildings in a manner that prevents crime and provides security and safety for people and property; when feasible.

SOLID WASTE SERVICES

RESOURCE CONSERVATION AND RECOVERY ACT (RCRA)

The Resource Conservation and Recovery Act (RCRA) was enacted in 1976 to protect human health and the environment from potential hazards of waste disposal, to conserve energy and natural resources, to reduce the amount of waste generated, and to ensure that wastes are managed in an environmentally sound manner (EHSO, 2009).

Under RCRA, the United States Environmental Protection Agency (US EPA) has the authority to control hazardous wastes from the “cradle to grave”. This includes the generation, transportation, treatment, storage and disposal of hazardous wastes (US EPA, 2009). RCRA also sets a framework for the management of non-hazardous solid wastes. In 1986, amendments to RCRA enabled the US EPA to address underground storage tanks storing petroleum and other hazardous substances.

RCRA authorizes states to develop and enforce their own waste management programs. State programs must be approved and authorized by the US EPA.

CALIFORNIA INTEGRATED WASTE MANAGEMENT ACT AND CALRECYCLE (FORMERLY THE CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD)

Regulations for solid waste disposal in California began with the enactment of the Solid Waste Management and Resource Recovery Act of 1972. This statute created the

Solid Waste Management Board, giving it authority related to solid waste handling, disposal and reclamation.

The Integrated Waste Management Act of 1989 is the result of two pieces of legislation, AB 939 and SB 1322, which created the California Integrated Waste Management Board (which has been renamed CalRecycle). The Integrated Waste Management Act mandated a goal of 25 percent diversion of each city's and county's waste from disposal by 1995 and 50 percent diversion in 2000, with a process to ensure environmentally safe disposal of waste that could not be diverted. CalRecycle plays a central role of promoting achievement of the waste diversion as mandated by the Act (Cal EPA, 2009).

CalRecycle is the State agency designated to oversee, manage, and track California's 92 million tons of waste generated each year. They provide grants and loans to help California cities, counties, businesses and organizations meet the State's waste reduction, reuse and recycling goals. CalRecycle promotes a sustainable environment where these resources are not wasted, but can be reused or recycled. In addition to many programs and incentives, the Board promotes the use of new technologies for the practice of diverting California's resources away from landfills (CalRecycle, 2009). The Board is responsible for ensuring that State waste management programs are primarily carried out through local enforcement agencies (LEAs). The California Water Resources Control Board and the Central Valley Regional Water Quality Control Board also regulate waste disposal (the latter actually regulated solid waste prior to CalRecycle).

As reported in the CalRecycle 2008 Annual Report, California has exceeded the goals mandated by the Integrated Waste Management Act of 1989 by diverting 58 percent of its waste stream. This accomplishment is in part due to successful partnership between State government, local government, and the solid waste industry in California.

SACRAMENTO COUNTY DEPARTMENT OF WASTE MANAGEMENT AND RECYCLING (DWMR)

The Sacramento County Department of Waste Management and Recycling (DWMR) is responsible for maintaining a waste management system for residents and businesses in the unincorporated areas of the County. The DWMR has responsibility for garbage recycling and collection services, garbage disposal and recycling facilities, and recycling programs. The DWMR oversees the waste management collection and disposal services for approximately 155,500 residential customers every week. The DWMR collects and disposes/processes 150,000 tons of trash, 75,000 tons of green waste, and 45,000 tons of recyclables each year.

SOLID WASTE ADVISORY COMMITTEE

The Solid Waste Advisory Committee (SWAC) is an advisory panel consisting of appointed representative from each jurisdiction in Sacramento County. The SWAC is the State-mandated Local Task Force (as mandated by the California Public Resources Code Section 40950), which coordinates waste management and recycling efforts throughout the County. The SWAC advises the County Board of Supervisors, the city

councils of the cities within the County, and the Sacramento Regional County Solid Waste Authority (SWA) on all matters relating to the County of Sacramento Integrated Waste Management Plan and all matters relating to integrated waste management, including public education; source reduction; recycling; composting; transformation; materials recovery/resource recovery and marketing; and the collection, transfer, processing, and disposal of refuse and recycling.

SACRAMENTO COUNTY INTEGRATED WASTE MANAGEMENT PLAN

The County of Sacramento adopted the Sacramento County Integrated Waste Management Plan in March 1996, and it was approved by CalRecycle in May 1998. The plan was re-approved as part of the mandatory 5-year review process in March of 2009. This plan consists of the following:

- Siting Element (entire county: cities and unincorporated areas)
- Summary Plan (entire county: cities and unincorporated areas)
- Source Reduction & Recycling Elements (by City, County, or Regional Agency)
- Household Hazardous Waste Elements (by City, County, or Regional Agency)
- Non-disposal Facility Elements (by City, County, or Regional Agency)

These documents are the main sources and references for solid waste facility planning in Sacramento County. The Siting Element and Summary Plan are prepared and administered by the County of Sacramento, Department of Waste Management & Recycling. The remaining documents are prepared and administered by each individual jurisdiction or regional agency.

SACRAMENTO REGIONAL SOLID WASTE AUTHORITY (SWA)

The Sacramento Regional Solid Waste Authority is a joint powers authority of Sacramento County and the City of Sacramento. SWA was formed in December 1992 to assume the responsibility for solid waste, recycling, and disposal needs for businesses and apartment complexes in the Sacramento area. The SWA regulates commercial solid waste collection by franchised haulers and offers recycling services to multi-family dwelling units. SWA is governed by a Board of Directors consisting of elected officials from the City of Sacramento and the unincorporated area of Sacramento County. The following SWA recycling ordinances apply to the unincorporated areas of the County.

SWA ORDINANCES

The SWA has adopted three recycling ordinances that target three distinct waste streams: (1) The Business Recycling Ordinance, adopted in 2007 for commercial generators who subscribe to 4 cubic yards or more of refuse service per week; (2) The Certification of C&D [Construction and Demolition] Debris Sorting Facilities Ordinance, adopted in 2008, that creates a program for mixed C&D facilities that dovetails with both City and County C&D Ordinances for builders; and (3) The Multifamily Recycling

Ordinance, adopted in 2009, that requires owners of multifamily properties with over 5 units to subscribe to a recycling service for their tenants.

LOCAL ENFORCEMENT AGENCY

Local enforcement agencies (LEAs) have the primary responsibility for ensuring the correct operation and closure of solid waste facilities in the state. They also have responsibilities for guaranteeing the proper storage and transportation of solid wastes. The Sacramento County Environmental Management Department (EMD) is authorized as the LEA under Division 30 of the Public Resources Code and Title 14 of the California Code of Regulations (CCR).

SACRAMENTO COUNTY GENERAL PLAN PUBLIC FACILITIES ELEMENT

Sacramento County General Plan Policies PF-20 through PF-26 are pertinent to solid waste. These policies are intended to support the stated goal of the Solid Waste Services and Facilities Section of the General Plan which is to have a “safe, efficient and environmentally sound operation of solid waste facilities in Sacramento County.”

The majority of the policies in the General Plan pertain to service providers and not to development projects. The policies in the Public Facilities Element that support the County’s Solid Waste Services strategies and are relevant to the Project relate to fees to support adequate waste facilities and are as follows:

- PF-23. Solid waste collection, handling, recycling, composting, recovery, transfer and disposal fees shall recover all capital, operating, facility closure and maintenance costs.
- PF-24. Solid waste disposal fees and rate structures shall reflect current market rates and provide incentives for recovery.

SCHOOL SERVICES

LEROY F. GREENE SCHOOL FACILITIES ACT OF 1998

The “Leroy F. Greene School Facilities Act of 1998”, also known as Senate Bill No. 50 (SB 50) established a State program to provide per-pupil funding for new construction and modernization of existing school facilities. (OPSC, 2009). The passage of Proposition 1A in 1998 allowed SB50 to be fully implemented.

SB 50 limited the power of cities and counties to require mitigation of school facilities as a condition of approving new development and authorized school districts to assess fees (at various levels) to directly offset the costs associated with increased capacity as a result of new development.

OFFICE OF PUBLIC SCHOOL CONSTRUCTION AND THE STATE ALLOCATION BOARD

The State Allocation Board (SAB) is responsible for determining the allocation of state resources used for the new construction and modernization of local public school facilities. The SAB is also responsible for the administration of the State School Facility Program, the State Relocatable Classroom Program and the Deferred Maintenance Program. The SAB is the policy-level body for the programs administered by the Office of Public School Construction (OPSC) (OPSC, 2009). The OPSC, as staff to the SAB, implements and administers the School Facility Program and other programs of the SAB. The OPSC also has the responsibility of verifying that all applicant school districts meet specific criteria based on the type of funding which is being requested. (OPSC, 2009)

There have been four Kindergarten – University Public Education Facilities Bond Acts passed by voters (Proposition 1A, 47, 44 and 1D) that allocated billions of dollars in general obligation bonds for K – 12 facilities through the School Facility Program. These funds help assist school districts with overcrowding, accommodating future enrollment growth and repairing and modernization of older facilities.

CALIFORNIA EDUCATION CODE

The California Education Code authorizes the California Department of Education to develop site selection standards for school districts. The California Department of Education School Facilities Planning Division has prepared a School Site Selection and Approval Guide that provides criteria for location appropriate school sites in the State of California.

Site selection is determined based on a screening and ranking procedure. The criteria, in order of importance are listed below:

1. Safety
2. Location
3. Environment
4. Soils
5. Topography
6. Size and Shape
7. Accessibility
8. Public Services
9. Utilities
10. Cost
11. Availability
12. Public Acceptance

SACRAMENTO COUNTY OFFICE OF EDUCATION

The Sacramento County Office of Education (SCOE) is responsible for delivering quality education to more than 238,000 K – 12 public school students in Sacramento County. The SCOE provides technical assistance, curriculum and instructional support, staff

development, legal and financial advice and oversight to 13 school districts. SCOE also directly educates more than 30,000 children and adults.

SACRAMENTO COUNTY GENERAL PLAN PUBLIC FACILITIES ELEMENT

The Sacramento County General Plan policies that are pertinent to public school facilities are policies PF-27 through PF-39. These policies are intended to support the stated goal of the Public School Facilities Section of the General Plan which is to have “new public schools which serve as a neighborhood focus and maintain a quality learning environment for Sacramento County’s residents as the County population increases.”

The General Plan policies related to public schools generally pertain to developing schools that are functionally and physically integrated within their surrounding neighborhoods; that are developed through a coordinated planning effort between school districts; and that are at levels equal to state standards for school enrolment and school site size for all Sacramento schools. School related policies in the General Plan focus on how schools will be sited and developed rather than on how development may affect schools. School facilities mitigation is covered under California Government Codes noted above. Applicable General Plan policies are:

- PF-27. Community plans shall identify all existing and planned school sites and shall include guidelines and conceptual examples for incorporating new schools into overall neighborhood design.
- PF-28. Community and Specific Plans shall consider the needs of community colleges and address the feasibility and appropriateness of off-campus facilities, particularly in TODs.
- PF-29. Schools shall be planned as a focal point of neighborhood activity and interrelated with neighborhood retail uses, churches, neighborhood and community parks, greenways and off-street paths whenever possible.
- PF-30. New elementary schools in the urban area should be planned whenever possible so that almost all residences will be within walking distance of the school (one mile or less) and all residences are within two miles of a school.
- PF-31. Schools shall be planned adjacent to neighborhood parks whenever possible and designed to promote joint use of appropriate facilities. The interface between the school and park shall be planned with an open design and offer unobstructed views to promote safety.
- PF-32. Elementary schools shall not be located along arterials and thoroughfares. Junior high and high schools should be located near roadways with adequate capacity and should provide adequate parking to facilitate the transport of students.

- PF-33. New community college campuses and high schools within the urban service boundary shall be located along arterial or thoroughfare streets, with high priority to location adjacent to transportation corridors identified on the Transportation Plan Map.
- PF-34 All school site plans shall be designed to minimize traffic speed and maximize traffic flow around the school, allowing for several access points to and from the site.
- PF-35. New schools should link with planned bikeways and pedestrian paths wherever possible.
- PF-38. Land dedications or reservations for schools should meet state guidelines for school parcel size. Where more than one owner or development project is involved, there shall be appropriate assurances and conditions to assure that requisite acreage can and will be assembled to meet facility site requirements.
- PF-39. Specific Plans shall show the location of future school sites based upon adopted school district master plans and criteria in the General Plan.

PARK AND RECREATION SERVICES

CALIFORNIA GOVERNMENT CODE SECTION 66477

California Government Code Section 66477 (Quimby Act) allows local governments to exact land dedications or fees in lieu for park purposes from new subdivisions. The law prescribes a standard consistent with the circumstances of each park district based on a minimum of 3 acres and a maximum of 5 acres per 1,000 residents. Sacramento County's Planning Division and Municipal Services Agency oversee these requirements in the unincorporated area.

TITLE 22

Title 22 of the Sacramento County Code provides direction on calculating park acreage requirements for residential developments. Depending on the jurisdiction, residential developments are required to provide dedicated land for park construction or pay in-lieu fees.

SACRAMENTO COUNTY GENERAL PLAN PUBLIC FACILITIES ELEMENT

The Sacramento County General Plan policies that are pertinent to park facilities are policies PF-120 through PF-131. These policies are intended to support the stated goal of the Local Park Acquisition and Maintenance Section of the General Plan which is to have “adequate and well funded local park facilities for existing and new developments.”

The policies in the Public Facilities Element that support the County's park services strategies and are relevant to the Project are as follows:

- PF-122. To help assure that local recreation and park district Master Plan standards for levels of service may be achieved and maintained, the County may require new development to dedicate land, pay in-lieu fees, development impact fees, or otherwise contribute a fair share to the acquisition and development of parks and recreation facilities. For development in infill areas where land dedication may not be practical, the County in cooperation with the affected park district may explore creative alternatives for providing park and recreation facilities.
- PF-123. At a minimum, new residential developments approved by the County shall provide sites for local parks for their prospective residents consistent with the Quimby Act and the land dedication standards for each local recreation and park district adopted by Sacramento County in Chapter 22.40 of the Sacramento County Code. These requirements may be satisfied by land dedication, payment of fees in lieu of dedication, or on-site improvements per the provisions of Chapter 22.40, which will be regularly updated to reflect changing demography. These include the baseline standard of three acres of land for parks per 1,000 residents or in cases where existing parklands within a park district exceed three acres per 1,000 population, that higher ratio shall be the standard for new developments up to a maximum of five acres of land for parks per 1,000 residents based on calculations specified in SCC Chapter 22.40.
- PF-125. The County shall promote the provision of on-site recreational amenities and gathering places that are available to the public by large scale development projects and may consider providing incentives such as density bonuses or increases in building coverage for that purpose.
- PF-127. Require new residential developments to participate in park O & M financing mechanisms where established by local park districts or the County.
- PF-128. Encourage park development adjacent to school sites and the formation of joint use agreements between school and park districts.
- OS-10. Sacramento County shall seek to attain the County Regional Park System standard of 20 acres of regional parkland per 1,000 population.

LIBRARIES

SACRAMENTO COUNTY GENERAL PLAN PUBLIC FACILITIES ELEMENT

The Sacramento County General Plan policies that are pertinent to library facilities are policies PF-40 through PF-49. These policies are intended to support the stated goal of the Library Facilities and Service Section of the General Plan which is to provide for “satisfactorily designed, safe, and well-maintained library facilities using current and future technologies in Sacramento County.”

The policies in the Public Facilities Element that support the County’s library services strategies and are relevant to the Project are as follows

- PF-40. New and remodeled library facilities shall meet adopted standards for square footage and parcel size; materials and equipment; and services programs and staffing commensurate with the population served.
- PF-42. Share capital costs of library construction and renovation for existing residents through bond financing or other appropriate measures and by new residents and workers through fees on new development.
- PF-43. Include community library needs among facilities to be financed by financing districts created in new urban areas.
- PF-45. New commercial development in financing districts shall contribute to library financing such that fees based on projected employment are approximately equivalent to the fees for an equivalent number of new residents.
- PF-46. Incorporate planned libraries into community and specific plans for new development.
- PF-48. Locate future library sites to be accessible by car, bicycle, foot, public transportation, and have sufficient off-street parking.
- PF-49. Locate future library sites so as to be visible to people passing by and be accessible to children unaccompanied by adults.

LIBRARY FACILITY MASTER PLAN 2007 – 2025

The Library Facility Master Plan (FMP) for the Sacramento Public Library System sets forth general standards and criteria for the renovation and construction of all new libraries. Existing and future library needs are largely population driven, e.g., for every 30,000 residents in a community, at least one full service library is required. Ideally, new libraries would have 0.4 to 0.6 square feet per capita with some basic minimum and maximum sizes. The FMP also establishes preferred sizing and footprint and desirable components such as volumes and collection, meeting rooms, study areas, computer terminals and so on. Each of these items is standards driven. One of the most critical items for future library development is location. A new library in a poor location is an under-utilized library, and conversely, an older, under-sized library in a good location is a highly used library. Important location criteria include: land availability, cost, quality of the site, size, accessibility (parking, pedestrian access, public transportation), and synergy/location with other public and private uses. For example, a new library is often better positioned in a new town square, rather than in a residential neighborhood.

SIGNIFICANCE CRITERIA

The criteria used to evaluate the significance of public services impacts resulting from the proposed Project were developed based on CEQA Guidelines and on professional standards. Impacts of the proposed Project on public services were considered significant if implementing the Project would:

1. Result in substantial adverse physical impacts associated with the provision of emergency services;
2. Result in substantial adverse physical impacts associated with the provision of law enforcement services;
3. Result in service by a landfill with insufficient permitted capacity to accommodate the Project's solid waste disposal needs;
4. Result in non-compliance with federal, state, and local statutes and regulations related to solid waste.
5. Result in substantial adverse physical impacts associated with the provision of public school services;
6. Result in substantial adverse physical impacts associated with the provision of park and recreation services, or result in substantial physical deterioration of an existing facility due to increased use;
7. Result in substantial adverse physical impacts associated with the provision of library services.
8. Result in a service demand that cannot be met by existing or reasonably foreseeable future service capacity.

IMPACTS AND ANALYSIS

IMPACT: CONSTRUCTION OF FACILITIES

The funding of new facilities, land acquisition, and other issues are discussed within the impact sections to follow, which are specific to the type of facility (schools, parks, etc). This section discusses the overall impacts that can be expected to result from constructing new facilities, which will generally include schools, libraries, Sheriff's facilities, fire stations, and parks. The proposed Project will increase the demand on a number of services, as described in the sections that follow, to support development within the Project area. In most cases the demands will require the construction of new facilities which will result in physical impacts. These construction activities will take place within the Project boundaries in areas designated for developed uses, consistent

with the provisions of the SPA. The relevant topical chapters of this EIR disclose the physical impacts of full development of the proposed Project, which includes areas where fire stations and other public facilities would be constructed, and provide mitigation as appropriate.

Public service facilities construction will not result in any substantial physical impacts specific to public services that are not already an inherent part of overall Project impacts; impacts specific to public facility construction related to fire services, law enforcement services, solid waste services, school services, park services, and library services are *less than significant*.

MITIGATION MEASURES:

None required.

IMPACT: FIRE PROTECTION AND EMERGENCY SERVICES

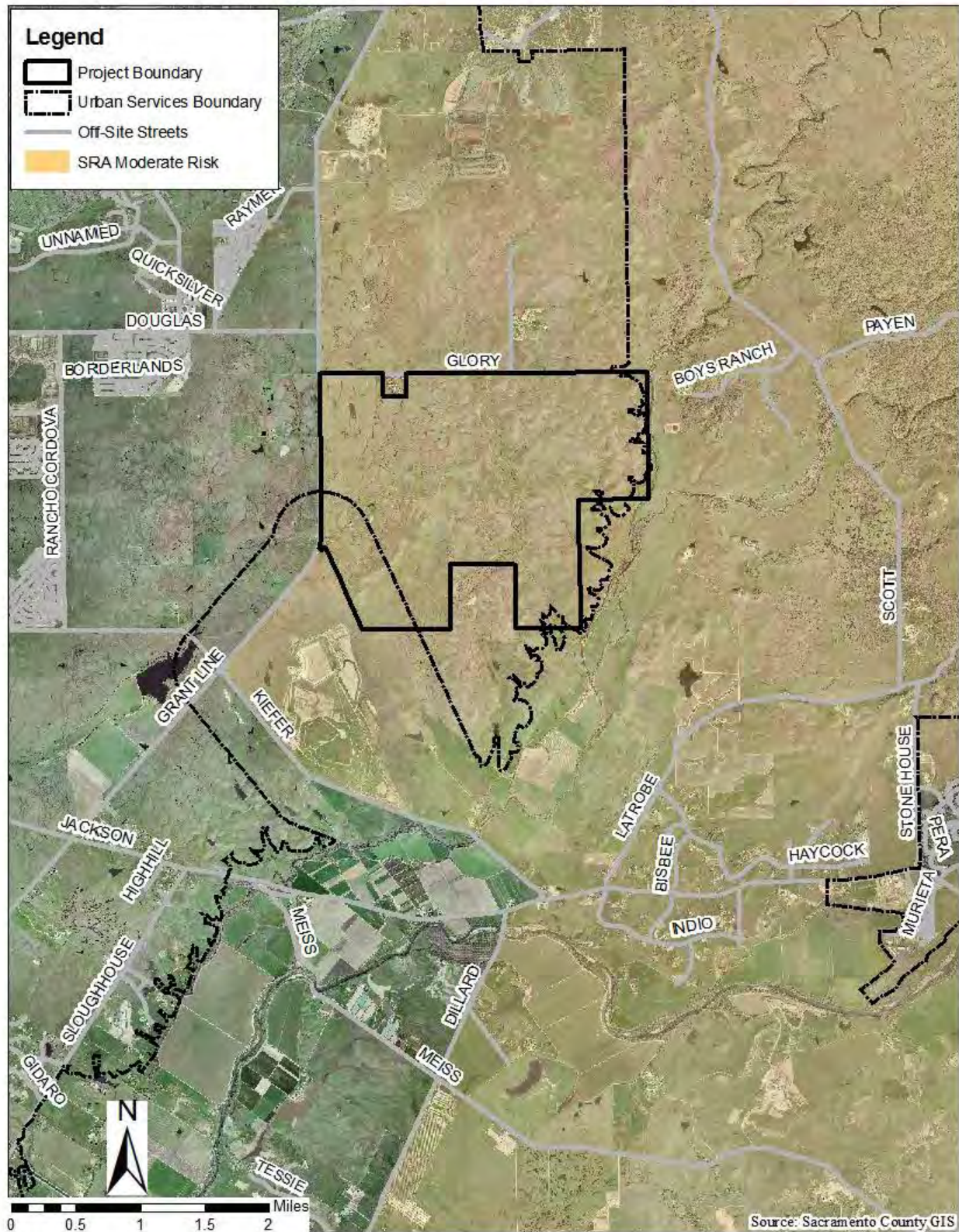
The Project site is located within an area of Sacramento County designated as a State Responsibility Area (SRA) by the California Department of Forestry and Fire Protection (CAL FIRE) (see Plate PS-2). CAL FIRE has assigned the area a moderate fire hazard severity risk rating. This is the lowest fire hazard rating applied to SRAs; nonetheless there is a risk of wildland fires in the area. Inclusion in the SRA means that the property will be subject to building codes that reduce the risk of burning embers pushed by wind-blown wildfires from igniting buildings.

Roofing standards vary by the fire hazard zone rating of a site but the codes for siding, decking, windows, and vents apply throughout all SRAs regardless of the fire hazard severity ranking. New buildings located in any Fire Hazard Severity Zone within SRAs must comply with all sections of Chapter 7 of the California Building Code.

The Project site is also within the service area of the Sacramento Metropolitan Fire District (SMFD). The Fire District does not have any adopted performance standards, but it strives to maintain minimum response times of five minutes in 90% of all cases, which is a national voluntary standard set by the National Fire Protection Association. The proposed Project will increase the demand for SMFD protection and emergency services. This increase in demand will require additional staff and fire facilities in order to maintain service levels and to ensure that adequate fire protection is provided.

In order to provide sufficient fire and emergency response services to the Project area the Cordova Hills Project proposes development regulations that will accommodate fire stations in the following land use zones: public/quasi public; low, medium, and high density residential; flex residential; flex commercial; flex office; commercial mixed use; and town center. New fire stations will be built within the Project area as development plans come forward and the need for them arises, as determined and implemented by SMFD. According to the proposed financing plan, funding for the construction and operation of the fire facilities will be provided by the District-wide Capital Fire Facilities fee.

Plate PS-2: CAL FIRE State Responsibility Area Moderate Fire Hazard Zone for Eastern Sacramento County



CAL FIRE Source Data: http://www.fire.ca.gov/fire_prevention/fhsz_maps/fhsz_maps_sacramento.php

SMFD has indicated (letter dated June 22, 2011) that the Project plan includes adequate opportunities for fire station sites throughout the Project, and that one or two fire stations will be needed to serve the Project and adjacent development. Citygate Associates LLC conducted a “standards level of coverage model” (dated September 2011 and included as Appendix PS-2) which has been approved by SMFD, indicating that a single fire station located along University Boulevard at the intersection of Street D would be sufficient. Based on the Project site, it is anticipated that the station will require a truck company, an engine company, and a medic company. With adherence to existing regulations and the construction of new fire facilities on site, impacts associated with fire protection services will be *less than significant*.

MITIGATION MEASURES:

None required.

IMPACT: LAW ENFORCEMENT SERVICES

The Project is within the service area of the Sacramento County Sheriff's Department (SSD) and includes a substantial number of housing units as well as associated non-residential uses, which will increase the demand of SSD services. The proposed Project includes a maximum of 8,000 residential units which will provide housing for a residential population of approximately 21,379 residents (excluding the university/college campus center students).

Safety and law enforcement issues are addressed within the Cordova Hills SPA as well as both the Financing Plan and the Urban Services Plan. The SPA indicates that law enforcement services will continue to be provided by SSD and that a flexibility in the land plan has been provided to accommodate a Sheriff's Department substation in the proposed Town Center Zone. Additionally, according to the SPA, police facilities will be allowed in the following land use zones: low, medium, and medium/high density residential; flex residential; flex commercial; flex office; commercial mixed use; and town center.

According to the Financing Plan, which has been reviewed by SSD, the development of the Project will “not likely necessitate the construction of additional police facilities”; however, the Urban Services Plan indicates that SSD plans to operate a substation in the Town Center Village through a lease with Cordova Hills. SSD staff (C. Burdette) was given the opportunity to review and comment on the Project and submitted recommendations/ requirements for the Project dated January 16, 2011.

SSD submitted standard recommendations related to landscaping, fencing and access control, lighting, and the addressing of buildings in order to increase visibility to public and private areas while making those areas less attractive to loiterers and potential offenders while aiding emergency service responders. These recommendations are based on the concepts and strategies of Crime Prevention Through Environmental Design (CPTED) which promotes the idea of proper design and effective use of the built environment and can lead to the reduction of crime and increase the feeling and reality

of safety (the CPTED strategies are included in Section 4.15.5.2 of the SPA). The provided comments also include staffing ratio requirements of the SSD and indicate that SSD will require an increase in staffing based on the staffing ratio of 0.75 deputies per 1,000 citizens. To meet the Sheriff Department's 0.75 officers per 1,000 persons staffing goal, approximately 16 staff members would need to be added to the department to account for the increased demand generated by the Project.

Funding for the expected increase in law enforcement services is detailed in the Cordova Hills Financing Plan. According to the Urban Services Plan, law enforcement services will be funded through the County General Fund and through County Police Services Community Facilities District 2005-1 (CFD 2005-1) annual special tax. Taxes will be levied on each new residential unit developed within the Cordova Hills area in accordance with the provisions of CFD 2005-1 which is estimated to generate approximately 2.3 million dollars for law enforcement services at full buildout.

In addition to the funding mechanisms already in place to help provide for adequate law enforcement services generated by new development, the General Plan contains policies for the planning and development of law enforcement facilities, such as law enforcement programs (educational and crime preventative programs), design of neighborhoods and regulating security measures through the Zoning Code, Uniform Building Code and Land Development Ordinances. These funding mechanisms, policies and regulations will ensure that the Sheriff's Department can adequately serve the new growth. Impacts to law enforcement services are *less than significant*.

MITIGATION MEASURES:

None required.

IMPACT: SOLID WASTE SERVICES

The Project area is provided with solid waste collection service by the Sacramento County Department of Waste Management and Recycling. The Kiefer Landfill is the primary municipal solid waste disposal facility in Sacramento County. The proposed Project will allow for the construction of 8,000 residential units, approximately 1.4 million square feet of commercial and office uses and well as a university/college campus center which is expected to accommodate 6,000 students. Development of the proposed Project will result in an increased demand for solid waste services.

The landfill facility area is 660 acres in size and, according to DWMR staff (D. Ghirardelli), is permitted to accept 10,815 tons of waste per day (at buildout in 2035). **The facility's current maximum daily tonnage is 5,598 tpd and the projected annual tonnage for the 2011/2012 fiscal year is 1,202,000 tons per its Solid Waste Facility Permit.** ~~and currently receives approximately 700,000 tons per year.~~ CalRecycle's website indicates that the landfill's permitted capacity is approximately 117 million cubic yards. According to CalRecycle staff (N. Yeates), as of April 30, 2010, the landfill's remaining capacity is approximately 108 million cubic yards. Based on current disposal rates, Kiefer landfill's anticipated "ceased operations date" (the estimated date

when the facility will reach its permitted capacity) is 2064 according to the CalRecycle website.

DWMR staff has calculated the expected annual waste generation of the Cordova Hills Project based on the current waste characterization patterns within the unincorporated portion of Sacramento County and the commercial and residential land uses proposed within the Project site. According to DWMR, the total annual waste generation expected from the Project is 61,753 tons but with a 70% current diversion rate (amount that will be recycled, composted, or otherwise not be put in the landfill) only 18,592 tons of waste will require landfill disposal.

DWMR has also calculated the expected amount of construction debris that will be generated thorough the buildout of the proposed Project. A total of 50,483 tons of construction debris is expected to be generated at full buildout of the proposed Project. However, according to DWMR staff, due to recent green building code requirements, 50% of construction debris from new structures is to be recycled and only 25,241 tons of the resultant debris will need to be disposed of in the landfill.

DWMR has indicated that landfill capacity is adequate to support the waste disposal needs generated by the Project. Additionally, DWMR staff has indicated that currently the local recyclable marketplace is adequate to support the traditional and construction recycling needs of the Project.

The proposed Project will not be served by a landfill with insufficient permitted capacity to accommodate the Project's solid waste disposal needs nor will the Project be in non-compliance with federal, state, and local statutes and regulations related to solid waste. The impacts of the proposed SPA on solid waste service are considered *less than significant*.

MITIGATION MEASURES:

None required.

IMPACT: SCHOOL SERVICES

The Project site is within the service area of the Elk Grove Unified School District (EGUSD). Development of the proposed Project would result in increases to the localized student population. The Financing Plan projects that student enrollment resulting from the Project will be approximately 4,686 total students, with approximately 2,553 of these in grades K – 6 (elementary school), 748 in grades 7 – 8 (middle school), and 1,384 in grades 9 – 12 (high school). These figures are lower than those cited in the SPA, so that the Financing Plan will be fiscally conservative in the assessment of expected future funding. According to the Financing Plan, the Project will generate the need for three elementary schools but only about 62% of a middle/high school, which is accurate even using the slightly higher figures for student generation reported in Table 8.2 of the SPA. The students and funding for the portion of the high school not attributable to the Project will come from areas outside of Cordova Hills.

School services are addressed in the Cordova Hills SPA as well as the Financing Plan. The elementary schools will be located near the centers of the Town Center Village, University Village and East Valley Village. The middle/high school will be located on an 80-acre site along the northern property line of the Project site, north of the East Valley Village. According to the Financing Plan, the construction costs of the elementary schools are expected to be approximately \$55.5 million while the middle/high school is expected to cost approximately \$97.2 million with the Project's portion of the costs totaling approximately \$60.8 million. The Financing Plan also indicates that funding for the schools will come from three different sources: existing fee programs, state funding, and the EGUSD Mello-Roos CFD No.1.

EGUSD Facilities and Planning Department staff (K. Williams) has indicated that EGUSD has been working with the Project proponents to be sure that adequate school facilities can be accommodated within the Project area and is satisfied with the proposed development and financing plans for the needed schools. EGUSD staff also indicated that EGUSD will monitor the development of the Project as well as development patterns in the EGUSD to anticipate when new schools will be required and will initiate the school development process prior to the anticipated need in order to be sure that adequate school facilities are available to support the student population of the EGUSD (pers. com. March 22, 2011).

Financial impacts to school districts for facilities are addressed under California Government Code Sections 65995(h) and 65996(b). Section 65995(h) states that the payment or satisfaction of a fee, charge, or other requirement levied or imposed pursuant to Section 17620 of the Education Code is deemed to be full and complete mitigation of the impacts for the planning, use, development, or the provisions of adequate school facilities. Section 65996(b) finds that these provisions provide full and complete school facilities mitigation. Since the Project will comply with Government Code Sections 65995(h) and 65996(b), impacts related to the provision of school services are considered *less than significant*.

MITIGATION MEASURES:

None required.

IMPACT: PARK AND RECREATION SERVICES

The Project area is located within CSA 4b which is staffed by the Sacramento County Regional Parks Department (Parks Department). The Parks Department provides park and recreation services to the eastern portion of the County where the Project site is located. According to the Project proposal, the Project area will be detached from the CSA 4b, and will be provided park and recreation services under the proposed Cordova Hills **Local Services District (CHLSD)** CSD. As stated above, in order for the Project area to be detached from CSA 4b and for park services to be provided by the proposed **CHLSD** CSD, discretionary action by LAFCo is required.

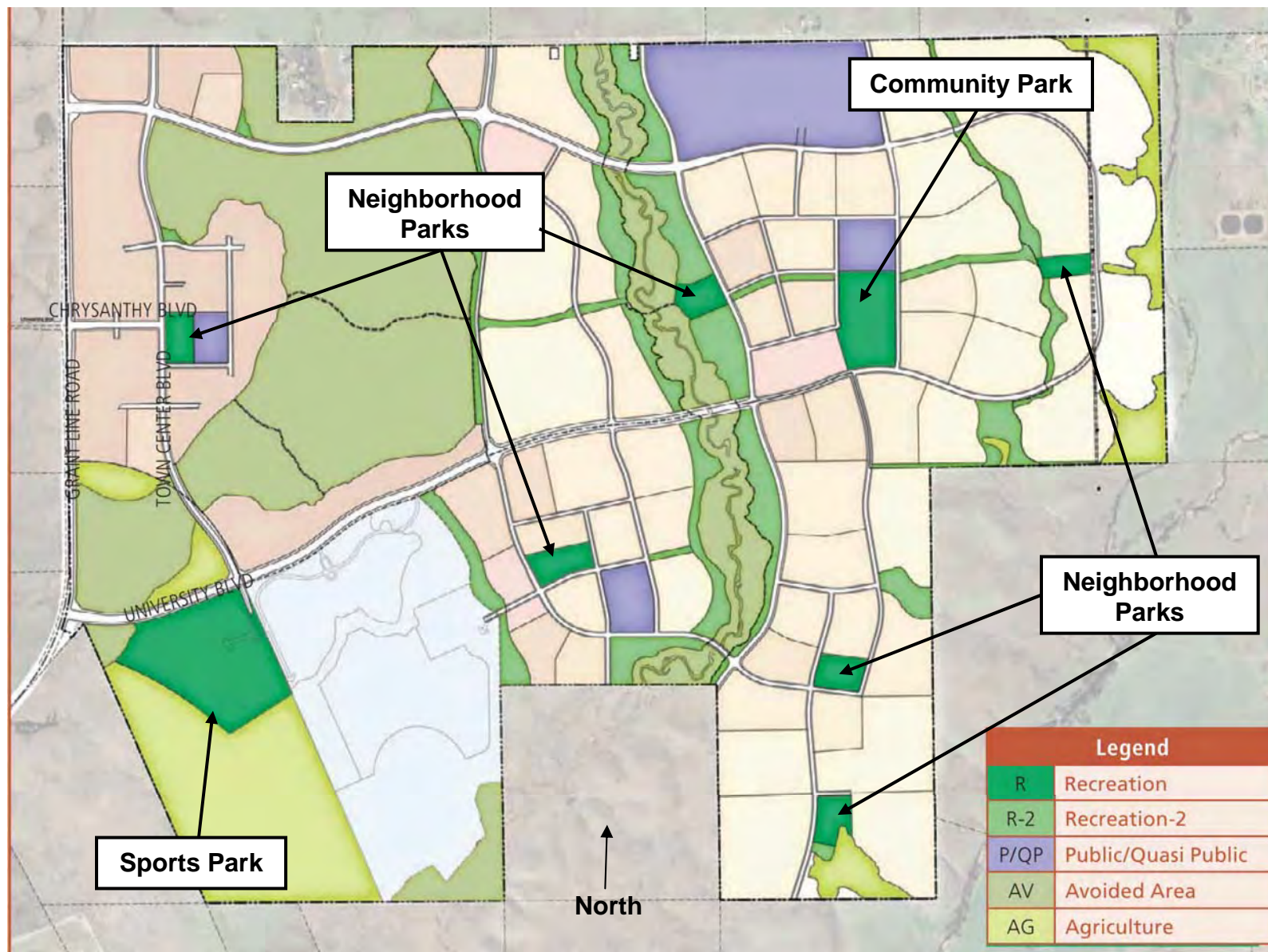
The Cordova Hills SPA describes proposed Project parks in Section 3.8, and indicates that six neighborhood parks will be distributed throughout the Project area with some adjacent to the new school sites. One community park will be located south of a school site within the East Valley Village and one sports park will be located at the southwest portion of the site. In total, 99.1 acres of designated parks are proposed as part of the Project (refer to Plate PS-3). The neighborhood parks range in size from 3.7 to 6.1 acres in size and will provide a variety of facilities that will accommodate local recreational needs. The park facilities will include soccer and softball fields, hardcourts, restrooms, playgrounds, tot lots, picnic areas and a community center that can be used as a neighborhood meeting space. Table 3.6 of the SPA provides a description of services and programming that will be available at the proposed parks.

The community park is described on page 3-31 of the SPA. This park will be 18.5 acres in size, located near an elementary school, and is intended to provide joint use opportunities. Facilities that may be provided include active play fields for organized sports such as baseball and soccer, sports courts, pedestrian and bicycle trails, an outdoor group gathering facility, and picnic areas. The sports park is also described on page 3-31 of the SPA. The sports park will be 50 acres in size and will be located west of the university/college campus center. The sports park will include baseball fields, a concession area, regulation soccer fields, basketball courts, picnic and playground areas and parking lots associated with these uses. The SPA also provides some descriptions for the town center park, pocket parks, linear parks, and open space areas. Conceptual diagrams of some of these parks are also provided in the SPA.

The Quimby Act and the Sacramento County General Plan requires a minimum of three and a maximum of five acres of parkland per 1,000 residents. The General Plan also indicates that park districts can require a greater minimum in park land dedication up to five acres per 1,000 people. The Parks Department has indicated that a five acre per 1,000 people land dedication is the standard for CSA 4b and is requesting that this standard be met. Cordova Hills will generate an estimated population of approximately 21,379 residents (excluding the university/college campus center). This population will create a minimum park dedication requirement of 106.9 acres within the Cordova Hills community. Between the sports park, neighborhood parks and the community park 99.1 acres of formal parkland will be developed.

In addition to the formal parks above, the Project also includes approximately 151 acres of land designated R-2. These R-2 areas will include trails, informal play areas, picnic areas, and paseos. The informality of these areas combined with the site characteristics (slopes, the presence of detention basins, and other factors) preclude full park credit for these areas, but partial Quimby credit may be given. If 5% of the R-2 areas received Quimby credit, that would be sufficient to achieve the full requirement of 106.9 acres of credited parkland.

Plate PS-3: Parks Plan



The proposed ~~Cordova Hills CSD~~ **CHLSD** will provide park maintenance, and recreation services and programs. The programs will include traditional sports activities such as youth and adult basketball, soccer, and coordination with other sports organizations, such as little league. Programs will also include traditional special interest activities such as dance, music training, crafts, youth summer day camp and others typically associated with a park district or department. The recreation services may also include classes on nutrition, gardening, wellness, nature studies and others and may evolve depending on the needs and interests of the community.

The Financing Plan details the proposed park development costs as well as the costs of the aquatic and events center. The general park development cost is estimated to be \$33.4 million based on an average cost of \$350,000 per acre. The aquatic center construction cost is estimated at \$7.4 million and the events center, which is planned to include meeting rooms, a gymnasium, youth center and senior center, is estimated to cost \$16.0 million. All of the park acres are proposed to be dedicated as part of the large-lot map, though it is possible that modifications will be made as part of later small-lot Tentative Subdivision Maps. The County Land Development Ordinance (Title 22 of Sacramento County Code) requires that Tentative Subdivision Maps and Tentative Parcel Maps be conditioned to dedicate land, pay a fee in lieu thereof, or provide a combination of dedication and in-lieu fees for park facilities consistent with Quimby requirements. Any changes would be required to maintain Quimby conformity.

According to the Financing Plan, the development of new parks is to be fully funded through the Cordova Hills **Special Financing District (CHSFD)** which could include funding through developer funding and reimbursements, bond-funding, or funding through a fee program. The **CHSFD** will also be used to help pay for the proposed aquatic and senior centers. The Financing Plan also details the cost allocation factors for new residential development within the Project area based on the land uses' (Estates Residential, Low Density Residential, Medium Density residential, Residential 20 and High Density residential) relative park usage. Approximately \$39.24 million will be generated through fees and funding required to provide adequate parkland will be available based on the financing strategy detailed in the Financing Plan.

The Urban Services Plan details the estimated annual cost for park maintenance services for the new parks proposed for the Project. The annual cost for park maintenance is estimated to be approximately \$1.3 million. The cost of park maintenance is proposed to be fully covered by the proposed **CHLSD** ~~CSD~~ services special tax/ assessment which will be allocated to benefiting residents.

The Urban Services Plan also details the estimated annual costs for the recreation services proposed for the Project. The annual cost of the proposed general recreation programs and the aquatics center is estimated to be approximately \$2 million. A 65% cost recovery from aquatic center user fees and a 50% cost recovery from general recreation program revenues is assumed based on similar recovery estimates in other jurisdictions in the region. The remaining costs, approximately \$853,000, are proposed to be covered by the proposed **CHLSD** ~~CSD~~ services special tax/ assessment. These costs will be allocated to the benefiting residents.

Parks Department staff (G. Kolling) reviewed the proposed Project and has indicated that the Parks Department has been working closely with the Project proponents to be sure that adequate park facilities are provided to meet the demand generated by the Project. Parks Department staff has indicated that the proposed park acreage and Financing Plan are adequate.

The Project is consistent with the requirements of the Quimby Act and the General Plan and Project residents will use the proposed parks within the Project area; therefore, the Project will not increase the demand for existing park services such that a substantial physical deterioration of existing facilities will result. Impacts to park and recreation services will be *less than significant*.

MITIGATION MEASURES:

None required.

IMPACT: LIBRARIES

The Sacramento Public Library System provides library services to the residents of Sacramento County. The library system is comprised of interdependent branches providing services to all residents. Branches are grouped by services, geography, and usage patterns to provide efficient and economical services to the residents of the County. The Sacramento Public Library is a joint powers agency between the County of Sacramento and the cities of Sacramento, Citrus Heights, Elk Grove, Galt, Isleton, and Rancho Cordova (Sacramento Public Library website, 2011).

The Project residents would increase the demand for library services provided by the Sacramento Public Library System and nearby libraries such as the Rancho Cordova Library system. The Cordova Hills SPA indicates that a new full service, 15,000 square foot branch library is planned within the proposed Town Center to serve the Cordova Hills community as well as residents in the surrounding area.

According to the Sacramento Public Library Authority Facility Master Plan 2007 – 2025 (Library Master Plan), a full service library provides for a full range of services to customers in one building and is sized appropriately for each community. The Library Master Plan indicates that a 15,000 square foot library can serve between 25,000 and 37,000 people. Based on the population allowances of the Cordova Hills Project, the proposed library size is adequate to serve the demands generated by the Project at buildout.

According to the Cordova Hills Financing Plan, a financing strategy to fund the construction of a new library in the Project area has been developed in coordination with the Sacramento Public Library System. The Financing Plan details that a development fee of \$800.00 will be required of new single family, low density residential units and a fee of \$640.00 will be required for higher density residential units to pay for the construction costs attributable to the Project. It is estimated that, at buildout, the Project will generate approximately \$5.6 million in fee revenue.

The Library Master Plan indicates that the cost of a new 15,000 square foot library (not including library materials) is approximately \$11.08 million dollars. This library would serve an area that includes, but is not limited to, the Project area. The \$5.6 million of Project funding represents the Cordova Hills fair share for the facility. The Library Master Plan states that funding for capital improvements involve a variety of sources such as City and County funds, statewide library bond funds, federal funds, general obligation bonds and Mello-Roos Special tax Bonds.

The Cordova Hills Urban Services Plan states that library operating costs will be fully funded through property tax revenue. The Library Master Plan includes an operating costs section which notes that funding sources for operational purposes are an assessment district within the City of Sacramento, the City of Sacramento General Fund, and the County Library Fund (Fund 11). Fund 11 is based on a portion of the property tax collected in all areas of the County except the cities of Sacramento and Folsom.

The Project includes a funding mechanism for a new library that is of sufficient size to accommodate the expected population of the Project, which has been developed in coordination with the Sacramento Public Library System; therefore, the Project will not result in substantial adverse physical impacts associated with the provision of library services. Impacts related to library services are *less than significant*.

MITIGATION MEASURES:

None required.

15 PUBLIC UTILITIES

INTRODUCTION

The following analysis addresses the ability of existing water service providers, sewer service providers, and energy service providers to supply utility services to the Project. The analysis describes any relevant master planning of the utility services and whether the infrastructure and demands of the Project are consistent with the utility master plans. The potential physical impacts of constructing facilities is described, as are the potential physical impacts of water demands, sewer demands, and energy demands.

ENVIRONMENTAL SETTING

WATER SUPPLY

Twenty-eight water purveyors supply water to customers within Sacramento County. The Project is within the service area of the Sacramento County Water Agency (SCWA). SCWA currently provides service to portions of the City of Rancho Cordova, all of the City of Elk Grove, and a significant portion of unincorporated Sacramento County beginning near the current Urban Policy Area boundary and ending at the Urban Services Boundary; this service area is called Zone 40. The amount of water available to supply SCWA's customers is defined by individual water rights, surface water contracts, groundwater pumping limitations, and the infrastructure necessary to treat, pump, and deliver water.

SACRAMENTO COUNTY WATER AGENCY (ZONE 40)

Zone 40 serves an area of approximately 86,000 acres. The current water supply is obtained from a mix of groundwater, surface water, recycled water, and remediated water. SCWA manages its supplies conjunctively; that is, in wet years when there is abundant surface water available SCWA will divert the maximum amount of surface water allowed, while minimizing groundwater usage. The aquifer can replenish during these wet years, so that in dry years when surface water becomes less abundant SCWA can pump groundwater to meet needs.

Zone 40 groundwater is provided from the Central Groundwater Basin by the Sacramento County Water Agency using commercial wells and treatment plants located throughout its service area. The Central Groundwater Basin underwent significant pumping that resulted in an unacceptable groundwater elevation decline. As a result of this unacceptable groundwater decline, the basin is currently being managed by the Sacramento Groundwater Authority, which has adopted a groundwater management plan for the purpose of maintaining and protecting the basin's long term sustainable yield and quality consistent with the Sacramento Water Forum's objectives; the Water Forum Agreement, adopted via a Memorandum of Understanding between the County and other stakeholders, was designed to define a reliable and safe water supply through

2030 while protecting environmental resources. These documents can be accessed at the following web addresses: www.sgah2o.org and <http://www.waterforum.org/>.

Water supply analyses supporting the Water Forum Agreement allocate up to 40,900 acre-feet of groundwater annually on a long-term basis for Zone 40. Remediated water supplies are based on yields from the various groundwater extraction and treatment plants that Aerojet and Boeing operate to clean up contaminated water in the vicinity of their historical operations. This water is pumped from the Central Groundwater Basin, and amounts to 14,532 acre-feet of yield per year. Recycled water is tertiary treated wastewater from Sacramento Regional County Sanitation District (SRCSD) sold to SCWA for non-potable uses. Currently, recycled water is not used for residential landscaping.

The SCWA conjunctive use program includes the delivery of surface water within the Zone 40 boundaries as part of a comprehensive program to maintain the long-term, regional balance of the groundwater basin. SCWA has three sources of surface water supplies totaling up to 61,251 acre-feet per year (AFY) available on a long-term average:

- SCWA has entered into a contract with the U.S. Bureau of Reclamation (USBR) for 22,000 AFY of Central Valley Project (CVP) supplies from the American River pursuant to Public Law (PL) 101-514 (often referred to as “Fazio water”). Of this 22,000 AFY, 7,000 AFY has been subcontracted to the City of Folsom for diversion from Folsom Lake. The remaining 15,000 AFY will be diverted by SCWA from the Sacramento River. The long-term average availability of this supply is 13,551 AFY.
- SMUD has assigned 30,000 AFY of its CVP contract to SCWA under the terms of a three-party agreement with the City of Sacramento. The long-term average availability of this supply is 26,000 AFY.
- State Water Resources Control Board Permit 21209 allows for excess flows on the American River and Sacramento River to be diverted by SCWA from the Sacramento River. These flows, which would be available on an intermittent basis, could range up to 71,000 AFY. The long-term average availability of this supply is 21,700 AFY.

The following supply information (Table PU-1) was taken from the *Water Supply Assessment for Cordova Hills* prepared by the Sacramento County Water Agency, October 2011 (Appendix PU-1).

Table PU-1: Zone 40 Water Supply in Five-Year Increments

Water Year	Water Supply Sources	Zone 40 Water Supply (AFY)				
		2015	2020	2025	2030	2035
Normal Year	Surface Water	41,781	37,802	53,763	63,624	67,521
	Groundwater	7,204	21,584	21,028	22,043	24,276
	Recycled Water	4,400	4,400	4,400	4,400	4,400
	<i>TOTAL</i>	<i>53,385</i>	<i>63,786</i>	<i>79,191</i>	<i>90,067</i>	<i>96,197</i>
Single Dry Year	Surface Water	24,217	30,546	33,092	34,057	34,536
	Groundwater	17,421	19,932	30,479	38,760	43,492
	Recycled Water	4,400	4,400	4,400	4,400	4,400
	<i>TOTAL</i>	<i>46,038</i>	<i>54,878</i>	<i>67,971</i>	<i>77,217</i>	<i>82,428</i>
Multiple Dry Year (1)	Surface Water	29,199	37,590	40,774	42,165	42,850
	Groundwater	14,887	15,857	26,537	34,936	39,767
	Recycled Water	4,400	4,400	4,400	4,400	4,400
	<i>TOTAL</i>	<i>48,486</i>	<i>57,847</i>	<i>71,711</i>	<i>81,501</i>	<i>87,017</i>
Multiple Dry Year (2)	Surface Water	24,217	30,546	33,092	34,057	34,536
	Groundwater	17,421	19,932	30,479	38,760	43,492
	Recycled Water	4,400	4,400	4,400	4,400	4,400
	<i>TOTAL</i>	<i>46,038</i>	<i>54,878</i>	<i>67,971</i>	<i>77,217</i>	<i>82,428</i>
Multiple Dry Year (3)	Surface Water	24,217	30,546	33,092	34,057	34,536
	Groundwater	17,421	19,932	30,479	38,760	43,492
	Recycled Water	4,400	4,400	4,400	4,400	4,400
	<i>TOTAL</i>	<i>46,038</i>	<i>54,878</i>	<i>67,971</i>	<i>77,217</i>	<i>82,428</i>

SEWER SERVICE

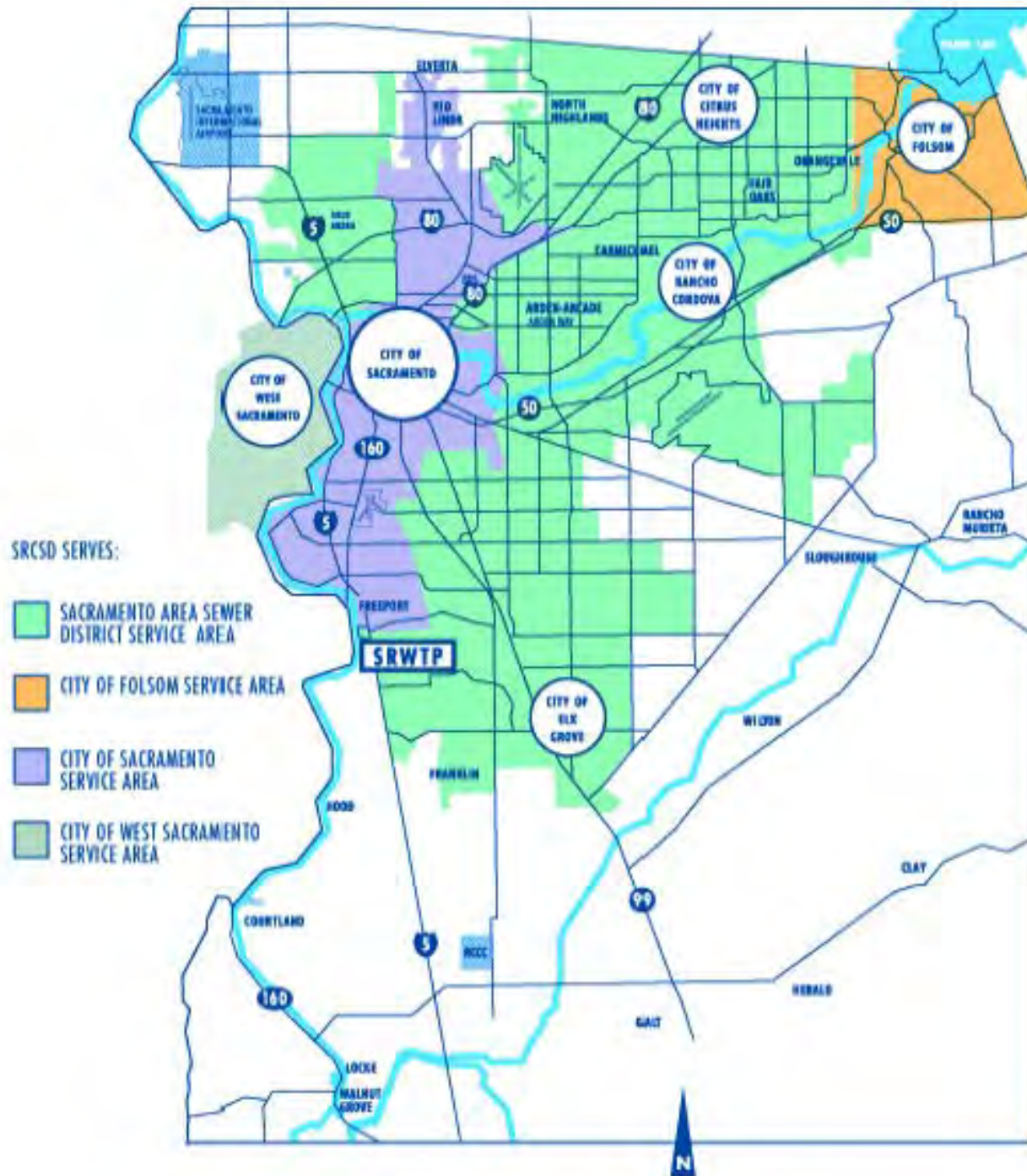
Sewer service within the Project area is provided by Sacramento Regional County Sanitation District (SRCSD), which builds and operates the interceptor lines and regional wastewater treatment plant, and Sacramento Area Sewer District (SASD), which builds and maintains trunk lines. SRCSD was formed to provide a regional wastewater conveyance, treatment, and disposal system for the entire urbanized area of the County of Sacramento. SASD is responsible for day-to-day operations and maintenance of the lower lateral and mainline pumps within its district. SRCSD and SASD are governed by a Board of Directors, whose members include the County of Sacramento Board of Supervisors and the mayors or designees of the cities of Sacramento, Citrus Heights, Elk Grove, Folsom, Rancho Cordova, West Sacramento (SRCSD only) and Yolo County (SRCSD only). SRCSD provides wastewater treatment for more than one million residents in a 435-square mile area within Sacramento and Yolo Counties, while SASD is responsible for the local collection system and maintenance in unincorporated Sacramento County as well as many of the incorporated cities (Plate PU-1).

SRCSD's and SASD's approved Sphere of Influence (SOI) in Sacramento County is the area officially designated for its future service planning effort. This area corresponds to the General Plan's Urban Services Boundary (USB), with the exception of the areas served by the Cities of Sacramento (portions), the Folsom sewer system and Rancho Murieta, Rio Cosumnes Correctional Center, the City of West Sacramento, and the Delta communities of Courtland and Walnut Grove.

Sewage is routed to the Sacramento Regional Wastewater Treatment Plant (SRWTP) by the collections systems owned by SRCSD, the City of Sacramento, and the City of Folsom. The SRWTP is a high-purity oxygen-activated sludge facility. **Incoming wastewater is screened to allow most of the heavy organic solids to settle to the bottom of tanks and be delivered to digesters. Next, oxygen is added to the wastewater to grow naturally-occurring microscopic organisms, which consume the lighter organic particles in the wastewater and then settle on the bottom of the secondary clarifiers. Clean water decants off the top of the clarifiers and is then chlorinated to remove any pathogens or other harmful organisms. Chlorine contact time occurs while the wastewater travels through a two-mile outfall pipeline to the Sacramento River, near the town of Freeport. Sulfur dioxide is added to neutralize the chlorine before the water discharges to the river, in order to neutralize the chlorine. The solids are anaerobically digested and are suitable for recycling (biosolids).**¹ After secondary treatment and disinfection, a portion of the effluent from the plant is further treated in SRCSD's Water Reclamation Facility and then used for non-potable purposes, such as landscape irrigation within select areas of Elk Grove and the SRWTP. ~~The majority of the treated wastewater is dechlorinated and discharged into the Sacramento River.~~

¹ <http://www.srcsd.com/pdf/infosheets2009.pdf>

Plate PU-1: SRCSD Service Area



The main SASD collection system includes over 2,800 miles of sewer pipelines ranging in size from four to 75 inches in diameter that deliver sewage to the interceptor system operated and maintained by SRCSD. SRCSD interceptors are a very large system of pipes (up to 10 feet in diameter), which carry wastewater directly to the SRWTP. At times of peak use, the interceptor system carries as much as 400 million gallons of wastewater per day. SRCSD currently has 123 miles of interceptor pipe including 30 miles of force mains and 9 major pumping stations. This does not include proposed interceptors or interceptors currently in construction. The SRWTP receives and treats approximately 141 mgd average dry weather flow (Seyfried, 2008). Previously, the wastewater flow at the SRWTP was about 150 mgd average dry weather flow, but appears to have been reduced due to water conservation efforts, dry weather and other factors. The SRWTP has a permitted average dry weather flow design capacity of 181 mgd and wet weather flow of 392 mgd. Wet water flows include groundwater infiltration and rainfall-dependent infiltration/inflow and are, therefore, greater than dry weather flows.

A new NPDES Discharge Permit was issued to the SRCSD by the Central Valley Regional Water Quality Control Board (Regional Water Board) in December 2010. When issuing the new Discharge Permit, the Regional Water Board required SRCSD to meet significantly more elevated treatment levels over its pre-existing levels. SRCSD believes that many of the new Permit conditions go beyond what is reasonable and necessary to protect the environment, and has appealed the permit decision to the State Water Resources Control Board. A decision on that appeal has not yet occurred. In the meantime, SRCSD is required to begin the necessary activities, studies and projects to meet the new permit conditions. All new treatment facilities must be completed by 2020. The SRWTP NPDES Permit issued in December 2010 provides for a permitted capacity of 181 mgd ADWF.

These systems are master planned for growth within the Urban Policy Area (UPA); however, the facilities are generally sized to accommodate the expected growth within the USB. The master plans discussed below are relevant to Project sewer service. The master plans described below are hereby incorporated by reference and can be viewed at County of Sacramento, Division of Environmental Review and Assessment, 827 7th Street, Room 220, Sacramento, CA 95814; or the Sacramento Regional County Sanitation District, 10545 Armstrong Avenue, Suite 101, Mather, CA 95655.

SACRAMENTO REGIONAL WASTEWATER TREATMENT PLANT MASTER PLAN 2020

The purpose of the SRWTP Master Plan is to identify wastewater treatment and facility needs for a 20-year planning period, which lasts through the year 2020. The SRWTP master plan's goal is to provide a phased program of recommended facilities to accommodate planned growth while at the same time maintaining treatment reliability, meeting future regulatory requirements, and optimizing costs. To meet this goal, a 2020 Master Plan was prepared that integrated overall strategies for wastewater treatment, effluent management, and biosolids disposal into an effective wastewater treatment management program. The 2020 Master Plan proposed that treatment facility expansion occur in stages or phases as the sewage generated by the population

increases. The capacity of the plant would increase under this plan from 181 mgd to 218 mgd (dry weather). The treatment plant is not designed to accommodate wet weather flows. During wet weather events (2-year, 10-year, and 100-year storm events), effluent must be stored (either in emergency storage basins or within the interceptors) because SRWTP cannot discharge effluent into the river. The storage basins and interceptors are designed to provide adequate capacity to accommodate wet weather flows.

The SRCSD Board of Directors approved the SRWTP Master Plan 2020 in summer of 2004. In November 2007, the Superior Court of California invalidated portions of the Environmental Impact Report that was certified for the 2020 Master Plan. Both the SRCSD and the plaintiffs have appealed the judge's ruling. Expansion of the SRWTP beyond the permitted capacity will not occur until after a Master Plan has been approved consistent with the result of the appellant decision.

INTERCEPTOR MASTER PLAN 2000

The purpose of the Interceptor Master Plan 2000 is an update of the 1993 – 1994 Sacramento Sewerage Expansion Study (SSES) to more accurately predict existing and future capacity needs in the regional interceptor system and provide a strategic approach to plan for these capacity needs. To update and refine the regional conveyance facilities, the master plan updates the service area, growth projections, existing system response to rainfall, provides dynamic modeling, estimates the cost of facilities, identifies right-of-way acquisition needs, and identifies near and long-term improvements required for regional wastewater conveyance. A master plan for the interceptor system accommodates approved developments and avoids interruption of service to developing areas. The Master Plan 2000 identifies land use and population projections based on SACOG Blueprint Criteria, and the land use plans of the member jurisdictions. The Plan also includes wastewater flow estimates, information on hydraulic modeling, interceptor design criteria, and identifies conveyance systems and policies to accommodate planned growth. The SRCSD Board of Directors approved the Interceptor Master Plan 2000 in March 2003.

The SRCSD is currently evaluating whether to update the Interceptor Master Plan 2000. District staff (S. Deeble) stated the following regarding an update to the Interceptor Master Plan 2000:

SRCSD is currently working on an Interceptor Sequencing Study to evaluate the Interceptor Master Plan 2000 (MP 2000) and determine when the next master planning document will be developed. Ideally, SRCSD will complete a Master plan on a 5-year cycle one year after CSD-1 (now SASD) master planning efforts.

The SASD Master Plan 2006 Update was approved by the Board of Directors in October 2008 (see discussion below).

SACRAMENTO AREA SEWER DISTRICT SEWERAGE FACILITIES EXPANSION MASTER PLAN

In order to effectively plan and budget for capital improvement needs, SASD adopted and periodically updates a facilities master plan. The master plan is broad based and addresses policy issues, improvements to the existing sewer system to alleviate deficiencies, and sewer trunk expansions to accommodate new development areas. This Master Plan was approved by the Board of Directors in May of 2004.

SASD SEWERAGE FACILITIES EXPANSION MASTER PLAN 2006 UPDATE

The 2006 SASD Sewerage Facilities Expansion Master Plan Update was approved by the Board of Directors in October, 2008. The Master Plan Update is a companion document to the previously approved Sewerage Facilities Expansion Master Plan. The master plan update evaluates future areas of expansion and revises relief projects approved in the previous master plan. Many of the facilities previously approved in the SASD Sewerage Facilities Expansion Master Plan Update have been constructed. In addition, the Master Plan Update incorporates the Upper Deer Creek, Lower Deer Creek, and Upper Laguna Creek sewer sheds, which were not evaluated in the previous master plan. The service area is proposed to expand from 268 square miles to 281 square miles with the update. Consequently, the number of miles of pipeline and the number of customers served is anticipated to increase.

Projected unit wastewater flow rates for future development are based on land use categories and their respective densities. The Master Plan Update used 13 land use categories for developing wastewater flow estimates for potential build-out conditions. The land use categories were developed during stakeholder sessions with the County, various cities, developers, and interested parties. The wastewater generation estimate was expressed in the equivalent of single-family dwelling units (ESDs) per acre, where one ESD represents the wastewater generation equivalent of one single-family residence. Flow estimates for an ESD are 310 gallons per day. The ESD's for each of the 13 land uses are found below (Table PU-2).

Table PU-2: Land Use Categories, Design ESD Densities, and Flow Estimates

Land Use Code	Description	ESDs per acre	Flow Estimates (gpd)
AG	Agricultural	6	1,860
VLSRI	Agricultural Residential	6	1,860
VLDR2	Very Low Density Residential	6	1,860
LDR1	Low Density Residential	6	1,860
LDR2	Medium Low Density Residential	10	3,100
MDR1	Medium Density Residential	15	4,650
MDR2	Medium High Density Residential	22	6,820
HDR	High Density Residential	30	9,300
COM	Commercial/Office	6	1,860
IND	Industrial	6	1,860
PQP	Public/Quasi-Public/Schools	6	1,860
Mixed	Mixed/Special Planning Areas/Urban Reserve	6	1,860
Open	Open Space, Recreation, Parks, Cemeteries	6	1,860

Source: CSD-1 Sewerage Facilities Expansion Master Plan 2006 Update, pages 2-9 and 2-10 and SASD Design Standards (dated February 13, 2008, page 22, section 3.1.7.

WATER RECYCLING PROGRAM

The SRCSD has a Water Reclamation Facility (“WRF”) that has been in operation since 2003 and is located in Elk Grove with a capacity for 5 MGD of Title 22 tertiary recycled water. It is located within the SRWTP property. A portion of the recycled water is used by SRCSD at the SRWTP and the rest is wholesaled to the Sacramento County Water agency (SCWA). The SCWA retails the recycled water primarily for landscape irrigation use to select customers in the City of Elk Grove.

~~SRCSD, in partnership with SCWA, has a small-scale non-potable water recycling program. SRCSD is responsible for producing and wholesaling recycled water to SCWA, while the SCWA is responsible for retailing the recycled water to selected customers. SRCSD’s small-scale water recycling program began to serve communities in the City of Elk grove in 2003. Recycled water is also used at the SRWTP. The existing Water reclamation Facility (WRF) Phase 1 at the wastewater treatment plant has a design capacity of 5 mgd of recycled water, which is used in lieu of potable water for non-potable purposes such as landscape irrigation. This facility was constructed to be expanded as demand increased.~~

In January 2004, the SRCSD Board of Directors approved a Water Recycling Program that includes the following goals:

- Increase water recycling throughout the Sacramento region on the scale of 30 – 40 mgd over the next 20 years.
- Increase utilization of recycled water to expand SRCSD's effluent management options beyond continued discharge to the Sacramento River.
- Increase utilization of recycled water to meet growing non-potable demands, allowing Sacramento area water purveyors to reduce demands on their existing high quality water supplies and reduce the need for additional water supplies in the future.

To evaluate the feasibility of implementing a large-scale water recycling program, SRCSD began preparation of its Water Recycling Opportunities Study (WROS) in November 2004 and completed the WROS in February 2007. The WROS does the following:

- Studies areas throughout the Sacramento Region and SRCSD service area to identify potential water recycling opportunities,
- Engages potential water recycling partners and stakeholders,
- Develops, assesses, and prioritizes potential water recycling projects, and
- Provides a strategy to further develop and implement the projects selected to move forward in achieving the stated goals of the large-scale Water Recycling Program.

The WROS identifies goals and objectives, and evaluates potential water recycling opportunities at a high planning level. The actual implementation of any of these opportunities is yet to be determined and depends on many factors, such as participation of all key stakeholders, permitting requirements, and financial feasibility.

GAS AND ELECTRIC

Electric service within the Project area is provided by the Sacramento Municipal Utility District (SMUD) and natural gas service in the County is provided by the Pacific Gas and Electric Company (PG&E). SMUD generates, transmits, and distributes electric power to a 900-square mile service area that includes Sacramento County and a small portion of Placer County. SMUD gets its electricity from diverse and competitively priced resources, including: hydro generation; cogeneration plants; advanced and renewable technologies such as wind, solar, and biomass/landfill gas power; and power purchased on the wholesale market. PG&E is one of the largest combination natural gas and electric utilities in the United States. PG&E delivers natural gas from three major sources – California, the southwestern U.S., and Canada.

REGULATORY SETTING

SEWER SERVICE

FEDERAL REGULATIONS

CLEAN WATER ACT

Construction of wastewater infrastructure and facilities may have impacts (erosion and sedimentation) that would be regulated by the Clean Water Act. The 1972 amendments to the federal Clean Water Act prohibit the discharge of pollutants to navigable waters from a point source unless the discharge is authorized by a National Pollutant Discharge Elimination System (NPDES) permit. The Clean Water Act requires NPDES permits for stormwater discharges caused by general construction activity. The purpose of the NPDES program is to establish a comprehensive stormwater quality program to manage urban stormwater, reducing pollution of the environment as much as possible. The NPDES program involves characterizing the quality of receiving water, identifying harmful constituents, targeting potential sources of pollutants, and implementing a comprehensive stormwater management program. NPDES permits are issued by the Regional Water Quality Control Board.

SAFE DRINKING WATER ACT

The federal Safe Drinking Water Act established a national program to protect the quality of drinking water available from municipal and industrial water suppliers. The act establishes a program requiring compliance with national drinking water standards for contaminants that may have an adverse effect on human health. It also establishes programs to protect potable groundwater from contamination.

STATE REGULATIONS

PORTER-COLOGNE WATER QUALITY CONTROL ACT

The Porter-Cologne Act requires the California State Water Resources Control Board (State Water Resources) to adopt water quality control plans and set waste discharge requirements (WDRs) for dischargers into surface and groundwater. The Central Valley Regional Water Quality Control Board (Regional Water Board) is responsible for administering and enforcing WRDs, permits, and water quality control plans.

WATER QUALITY CONTROL PLANS

NPDES permits and Erosion Control Programs are required for the construction of infrastructure and pumping facilities. The Clean Water Act requires that water resources be protected from degradation caused by waste discharges and requires that identified beneficial uses be maintained. The Regional Water Board's Water Quality Control Plan for the Central Valley Region identifies the designated beneficial uses of groundwater and surface water bodies and contains water quality objectives and standards established to protect those uses.

The County of Sacramento received a municipal NPDES permit for stormwater discharges from the Central Valley Regional Water Quality Control Board. Under this permit, permittees are required to develop, administer, implement, and enforce a Comprehensive Stormwater Management Program (CSWMP) in order to reduce pollutants in urban runoff to the maximum extent practicable. The CSWMP implemented by the county is a multi-faceted, dynamic program which is designed to reduce stormwater pollution to the maximum extent practicable. The CSWMP emphasizes all aspects of pollution control including but not limited to public awareness and participation, source control, regulatory restrictions, water quality monitoring, and treatment control.

The Sacramento Stormwater Management Program has developed the January 2000 Guidance Manual for On-Site Storm Water Quality Control Measures. The Guidance Manual contains the 2000/2001 Progress Report that provides general conditional language used to require development projects to incorporate erosion and sediment controls and on-site stormwater quality control measures. For public and quasi-public projects, mitigation requiring the Project to comply with the County's Land Grading and Erosion Control Ordinance is required.

In addition to construction/stormwater impacts, the Water Quality Control Plan for the basin contains specific numeric water quality objectives for bacteria, dissolved oxygen, pH, pesticides, electrical conductivity, total dissolved solids, temperature, turbidity, and trace elements, as well as numerous narrative water quality objectives, that are applicable to certain water bodies or portions of water bodies (Sacramento River). In 2002, the Regional Water Board completed review of their basin plan that resulted in amendments that: 1) update bacteria objectives for water contact recreation; 2) clearly state that a basin planning process will be used to designate or change designated beneficial uses; and 3) update language in the basin plan. The districts that move and treat wastewater effluent for Sacramento County (SRCSD and SASD) are responsible for compliance with Regional Water Board's Water Quality Control Plan's discharge requirements.

STATE WATER RESOURCES RESOLUTION NO. 68-16

The goal of State Water Resources Resolution No. 68-16 (Statement of Policy With Respect to Maintaining High Quality Waters in California") is to maintain high quality waters where they exist in the State. State Board Resolution No. 68-16 States, in part:

- "Whenever the existing quality of water is better than the quality established in policies as of the date on which such policies become effective, such existing high quality will be maintained until it has been demonstrated to the State that any change will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of such water and will not result in water quality less than that prescribed in the policies.
- Any activity which produces or may produce a waste or increased volume or concentration of waste and which discharges or proposes to discharge to existing high quality waters will be required to meet waste discharge requirements which

will result in the best practicable treatment or control of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained.”

The State Water Resources has interpreted Resolution No. 68-16 to incorporate the federal anti-degradation policy, which is applicable if a discharge that began after November 28, 1975 will lower existing surface water quality.

WATER RECLAMATION REGULATIONS

Wastewater reclamation in California is regulated under Title 22, Division 4, of the California Code of Regulations. The intent of these regulations is to ensure protection of public health associated with the use of reclaimed water. The regulations establish acceptable levels of constituents in reclaimed water for a range of uses and prescribe means for assurance of reliability in the production of reclaimed water. The California Department of Health Services (DHS) has jurisdiction over the distribution of reclaimed wastewater and the enforcement of Title 22 regulations. The Regional Water Board is responsible for issuing waste discharge requirements (including discharge prohibitions, monitoring, and reporting programs).

LOCAL REGULATIONS

The 2030 Sacramento County General Plan contains policies and implementation measures which pertain to the provision of wastewater collection and treatment. The Public Facilities Element policies PF-6 through PF-19 pertain to sewer services, but not all of these are applicable to the Project. There is also one policy from the Land Use Element which is applicable to the Project.

LU-73. Sewer and water treatment and delivery systems shall not provide for greater capacity than that authorized by the General Plan.

PF-6. Interceptor, trunk lines, and flow attenuation facilities shall operate within their capacity limits without overflowing.

PF-7. Although sewer infrastructure will be planned for full urbanization consistent with the Land Use Element, an actual commitment of additional sewer system capacity will be made only when the land use jurisdiction approves development to connect and use the system.

PF-8. Do not permit development which would cause sewage flows into the trunk or interceptor system to exceed their capacity.

PF-9. Design trunk and interceptor systems to accommodate flows generated by full urban development at urban densities within the ultimate service area. System design may take into consideration land that cannot be developed for urban uses due to long-term circumstances including but not limited to conservation easements, floodplains, public recreation areas etc. This could include phased construction where deferred capital costs are appropriate.

- PF-10. Development along corridors identified by the Sanitation Districts in their Master Plans as locations of future sewerage conveyance facilities shall incorporate appropriate easements as a condition of approval.
- PF-11. The County shall not support extension of the regional interceptor system to areas within the County which are beyond the Urban Service Boundary. This shall not prohibit the County from supporting the extension of the regional interceptor system to areas outside the USB which are being proposed for annexation to a city.
- PF-13. Public sewer systems shall not extend service into agricultural-residential areas outside the urban policy area unless the Environmental Health Department determines that there exists significant environmental or health risks created by private disposal systems serving existing development and no feasible alternatives exist to public sewer service.
- PF-14. Independent community sewer systems shall not be established for new development.
- PF-15. Support CSD-1 and SRCSD policies to fund new trunk and interceptor capital costs through connection fees for new development.
- PF-16. Support SRCSD policy to fully fund treatment plant operation through monthly service charges to system users. Fund treatment plant expansion and upgrades and existing trunk and interceptor replacements or improvements through connection fees or other revenue sources.
- PF-18. New development projects which require extension or modification of the trunk or interceptor sewer systems shall be consistent with sewer facility plans and shall participate in established funding mechanisms. The County should discourage development projects that are not consistent with sewer master plans or that rely upon interim sewer facilities, particularly if the costs of those interim facilities may fall on ratepayers. Prior to approval of a specific Commercial Corridor redevelopment project which requires extension or modification of the trunk or interceptor sewer systems, a sewer study and financing mechanism shall be prepared and considered along with the proposed Corridor redevelopment project, in consultation with the Sacramento Area Sewer District.
- PF-19. Extension or modification of trunk or interceptor sewer systems that are required for new developments shall be consistent with sewer facility plans and shall participate in an established funding mechanism. New development that will generate wastewater for treatment at the SRWTP shall not be approved if treatment capacity at the SRWTP is not sufficient to allow treatment and disposal of wastewater in compliance with the SRWTP's NPDES Permit.

WATER SUPPLY

FEDERAL REGULATIONS

UNITED STATES BUREAU OF RECLAMATION

The Bureau of Reclamation is part of the United States Department of the Interior and is responsible for the development and conservation of much of the water resources in the western United States. The Bureau operates Folsom Dam, Nimbus Dam, and the Folsom South Canal. While the original purpose of the Bureau was to provide for the reclamation of arid and semiarid lands in the west, the agency's current mission covers a wider range of interrelated functions. These functions include providing municipal and industrial water supplies through the Central Valley Project; generating hydroelectric power; providing irrigation water for agriculture; improving water quality, flood control, and river navigation; providing river regulation and control and fish/wildlife enhancement; offering water-based recreation opportunities; and conducting research on a variety of water-related topics.

UNITED STATES GEOLOGICAL SURVEY

The United States Geological Survey (USGS) National Water Use Information Program is responsible for compiling and disseminating the nation's water use data. The USGS works in cooperation with federal, state, and local environmental agencies to collect water use information at the local level.

STATE REGULATIONS

DEPARTMENT OF WATER RESOURCES

The Department of Water Resources (DWR) is responsible for the preparation of the California Water Plan, management of the State Water Project, protection, and restoration of the Sacramento-San Joaquin River Delta, regulation of dams, provision of flood protection, and other functions related to surface water and groundwater resources. Other functions include helping water agencies prepare their Urban Water Management Plans and reviewing such plans to ensure that they comply with the related Urban Water Management Planning Act.

WATER RESOURCES CONTROL BOARD

The Water Resources Control Board (State Water Resources) was established in 1967 to administer state water rights and water quality functions. State Water Resources and its nine regional water quality control boards administer water rights and enforce pollution control standards. State Water Resources is responsible for the granting of water right permits and licenses through an appropriation process following public hearings and appropriate environmental review by applicants and responsible agencies. In granting water right permits and licenses, the WRCB must consider all beneficial uses, including water for downstream human and environmental uses.

CENTRAL VALLEY REGIONAL WATER QUALITY CONTROL BOARD

The Central Valley Regional Water Quality Control Board (Regional Water Board) is responsible for the preparation and implementation of basin water quality plans consistent with the Clean Water Act and enforcement of those plans to ensure that local water quality is protected. The Regional Water Board may become involved in water supply programs as a responsible agency with respect to Project impacts on downstream beneficial uses.

CALIFORNIA DEPARTMENT OF FISH AND GAME

The California Department of Fish and Game (Fish and Game) is a responsible agency with respect to the review of water right applications and is responsible for issuing lake and streambed alteration permits for new water supply projects. Fish and Game often helps establish in stream flows to maintain habitat below a project.

LOCAL REGULATIONS

The 2030 Sacramento County General Plan contains policies and implementation measures which pertain to the provision of water supply. The following policies are applicable to the proposed Project.

- AG-27. The County shall actively encourage groundwater recharge, water conservation and water recycling by both agricultural and urban water users.
- CO-1. Support conjunctive use water supply for development.
- CO-7. Support the Water Forum Agreement Groundwater Management Element. Prior to approving any new development water supply plan shall be approved that demonstrates consistency with an adopted groundwater management plan.
- CO-8. Applicants proposing developments in areas with significant groundwater recharge characteristics shall evaluate the impact of said development on groundwater recharge and quality. This evaluation should recognize criteria defined in any broader County-wide determination and/or evaluation of groundwater recharge areas.
- CO-9. Developments in areas with significant contamination shall utilize remediated groundwater as part of their water supply when feasible.
- CO-13. Support the WFA Conservation Element and the California Urban Water Conservation Council Best Management Practices for Water Conservation.
- CO-14. Support the use of recycled wastewater to meet non-potable water demands where financially feasible.
- CO-16. Ensure developments are consistent with the County Water Efficient Landscape Ordinance, which shall be updated as needed to conform to state law.

- CO-22. Support water management practices that are responsive to the impacts of Global Climate Change such as groundwater banking and other water storage projects.
- CO-23 Development approval shall be subject to a finding regarding its impact on valuable water-supported ecosystems.
- CO-34. Development applications shall be subject to compliance with applicable sections of the California Water Code and Government Code to determine the availability of an adequate and reliable water supply through the Water Supply Assessment and Written Verification processes.
- CO-35. New development that will generate additional water demand shall not be approved and building permits shall not be issued if sufficient water supply is not available, as demonstrated by Water Supply Assessment and Written Verification processes.
- CO-36. Water supply entitlements will be granted on a first come first serve basis to optimize the use of available water supplies.
- LU-73. Sewer and water treatment and delivery systems shall not provide for greater capacity than that authorized by the General Plan.
- PF-2. Municipal and industrial development within the Urban Service Boundary but outside of existing water purveyors' service areas shall be served by either annexation to an existing public agency providing water service or by creation or extension of a benefit zone of the SCWA.
- PF-4. Connector fees for new development shall cover the fair share of costs to acquire and distribute surface water to the urban area.
- PF-5. New treatment facilities and all facility operations shall be funded by beneficiaries.

LEGISLATION

URBAN WATER MANAGEMENT PLANNING ACT

Pursuant to California Water Code Sections 10610-10657, as last amended by Senate Bill 318 in 2004, the Urban Water Management Planning Act requires all urban water suppliers with more than 3,000 service connections or water use of more than 3,000 AFA to submit an Urban Water Management Plan (UWMP) to the California Department of Water Resources every 5 years and update the plan on or before December 31 in years ending in 5 and 0. SB 318 is the 18th amendment to the original bill requiring a UWMP, which was initially enacted in 1983. Amendments to SB 318 have focused on ensuring that the UWMP emphasizes and addresses drought contingency planning, water demand management, reclamation, and groundwater resources.

SENATE BILL 610

SB 610 became effective January 1, 2002. The purpose of SB 610 is to strengthen the process by which local agencies determine the adequacy and sufficiency of current and future water supplies to meet current and future demands. SB 610 amended the California Public Resources Code to incorporate Water Code requirements within the CEQA process for certain types of projects (described below). SB 610 also amended the water code to broaden the types of information included in a UWMP. SB 610 consists of two primary components, the UWMP and the Water Supply Assessment (WSA) (Water Code Sections 10910-10915).

WATER CODE PART SECTION 10910

Water Code Section 10910 et seq. defines the projects for which the preparation of a Water Supply Assessment (WSA) is required as well as the lead agency's responsibilities related to the WSA. The Water Code also clarifies the roles and responsibilities of the lead agency under CEQA and of the water supplier with respect to describing current and future supplies compared to current and future demands. A WSA is required for:

- A proposed residential development of more than 500 dwelling units;
- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 250,000 square feet of floor space;
- A proposed hotel or motel, or both, having more than 500 rooms;
- A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area;
- A mixed use development that includes one or more of the uses described above;
- A development that would demand a volume of water equivalent to or greater than the volume of water required by a 500-dwelling unit project; and
- For lead agencies with fewer than 5,000 water service connections, any new development that would increase the number of water service connections in the service area by 10% or more.

Under Section 10910 of the Water Code, the lead agency must identify the affected water supplier and ask the supplier whether the new demands associated with the project are included in the suppliers UWMP. If the UWMP includes the demands, it may be incorporated by reference in the WSA. If there is no public water system to serve the project, the lead agency must prepare the WSA.

SENATE BILL 221

SB 221 requires a city or county to include as a condition of approval of any tentative map, parcel map, or development agreement for certain residential subdivisions a requirement that a “sufficient water supply” be available. Proof of a sufficient water supply must be based on a written verification from the public water system that would serve the development.

CALIFORNIA SAFE DRINKING WATER ACT

The California Safe Drinking Water Act (CA SOWA; California Health and Safety Code 4010 – 4039.6) authorizes the California Department of Public Health (CDPH) to establish maximum contaminants levels (MCLs) that are at least as stringent as those required by the US EPA under the SDWA. The CDPH has established MCLs for contaminants that may occur in public water systems, including all the substances for which federal MCLs exist, and may have adverse health effects. Operators of public water systems in California are required to meet federal and state drinking water standards.

ENERGY SERVICES*FEDERAL REGULATIONS***FEDERAL ENERGY REGULATORY COMMISSION**

The Federal Energy Regulatory Commission is an independent agency that regulates the transmission and sale of electricity, natural gas, and oil; licenses and inspects hydropower projects; reviews proposals to build liquefied natural gas (LNG) terminals; and oversees related environmental matters (FERC, 2009).

*STATE REGULATIONS***CALIFORNIA PUBLIC UTILITIES COMMISSION**

The California Public Utilities Commission (CPUC) regulates the design, installation, and management of California's public utilities, including electric, natural gas, water, transportation, and telecommunications. The CPUC also provides consumer programs and information, such as energy efficiency, low income programs, demand response, and California solar initiative for California's energy consumers.

CALIFORNIA CODE OF REGULATIONS

New buildings constructed in California must comply with the standards contained in Title 20, Energy Building Regulations, and Title 24, California Building Standards Code. Part 6 of Title 24 contains California's Energy Efficiency Standards for Residential and Nonresidential Buildings. These regulations were established in 1978 in response to legislative mandate to reduce California's energy consumption. The standards are updated periodically to incorporate new energy efficiency technologies and methods (CEC, 2009).

WARREN-ALQUIST STATE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT ACT

The Warren-Alquist Act of the Public Resources Code gives statutory authority to the California Energy Commission. Under the Warren-Alquist Act, there will be state policies for responsibility for energy resources, reduction in uses of energy, conservation of energy, and establishment of statewide goals for energy conservation. (Warren-Alquist Energy Resources Conservation and Development Act, Government Code Section 25000 *et seq.*).

LOCAL REGULATIONS

The 2030 County General Plan Public Facilities Element contains numerous policies (PF-67 through PF-119), including policies related to energy facilities include the location of facilities to minimize visual intrusion, biological impacts, and land use incompatibilities for cogeneration and solar facilities as well as conventional electric facilities, policies for the identification of non-potable water availability, and the policies related to the location of transmission infrastructure.

PF-67. Cooperate with the serving utility in the location and design of production and distribution facilities so as to minimize visual intrusion problems in urban areas and areas of scenic and/or cultural value including the following:

- Recreation and historic areas.
- Scenic highways.
- Landscape corridors.
- State or federal designated wild and scenic rivers.
- Visually prominent locations such as ridges, designated scenic corridors, and open viewsheds.
- Native American sacred sites

PF-68. Cooperate with the serving utility in the location and design of energy production and distribution facilities in a manner that is compatible with surrounding land uses by employing the following methods when appropriate to the site:

- Visually screen facilities with topography and existing vegetation and install landscaping consistent with surrounding land use zone development standards where appropriate, except where it would adversely affect photovoltaic performance or interfere with power generating capability.
- Provide site-compatible landscaping.
- Minimize glare through siting, facility design, nonreflective coatings, etc.
- Site facilities in a manner to equitably distribute their visual impacts in the immediate vicinity.

- PF-69. Cooperate with the serving utility to minimize the potential adverse impacts of energy production and distribution facilities to environmentally sensitive areas by, when possible, avoiding siting in the following areas:
- Wetlands
 - Permanent marshes
 - Riparian habitat
 - Vernal pools
 - Oak woodlands
 - Historic and/or archaeological sites and/or districts
- PF-70. Cooperate with the serving utility so that energy production and distribution facilities shall be designed and sited in a manner so as to protect the residents of Sacramento County from the effects of a hazardous materials incident.
- PF-71. Cogeneration facilities may be located in commercially zoned areas provided that the thermal host associated with the cogeneration facility is a conforming commercial use and the cogeneration facility does not adversely affect other commercial uses in the area.
- PF-726. Locate and screen cogeneration facilities in a manner that minimizes visual impacts on adjoining residential and/or commercial uses. These facilities shall also comply with noise ordinance requirements otherwise applicable in the area, or in adjacent zones that are potentially affected by facility noise.
- PF-73. Cogeneration facilities are prohibited outside the Urban Service Boundary, except as part of an existing processing operation.
- PF-74. The design and scale of a cogeneration project should be consistent with the existing design and scale of the host plant. All on-site landscaping should comply with the landscaping development standards of the surrounding land use zone.
- PE-75. Conduct an analysis of non-potable water availability prior to the development of any new cogeneration facility. The results of such an analysis shall be submitted to the State Water Resources Control Board for review and approval.
- PF-76. The County supports the generation and use of energy produced from renewable resources.
- PF- 77. The County supports a variety of solar and other renewable energy sources, including:
- A dispersed system that feeds into the electric delivery system,
 - On-site facilities that primarily supply energy for on-site uses, and
 - Properly sited large, centralized facilities consistent with Policy PF-78.

PF-78. Large multi-megawatt solar and other renewable energy facilities should be sited at locations that will minimize impacts. The following guidelines should be considered, though it is recognized that each project is different and must be analyzed individually, and that other factors may affect the suitability of a site. Locational criteria for wind turbines should be determined on a case-by-case basis and referred to the Sacramento County Airport System and the FAA for review and comment.

- Desirable sites are those which will minimize impacts to county resources and will feed into the electrical grid efficiently, including:
 - Lands with existing appropriate land use designations, e.g. industrial.
 - Brownfield or other disturbed properties (e.g. former mining areas, mine tailings) or land that has been developed previously and has lost its natural values as open space, habitat or agricultural land.
 - Sites close to existing facilities necessary for connection to the electrical grid to minimize the need for additional facilities and their impacts, and to improve system efficiency.
- Other sites may be used for siting renewable energy facilities after consideration of important natural and historic values of the land, including:
 - Farmlands. Site on farmlands of the lowest quality, e.g. land classified by the Department of Conservation as “other land” or “grazing land”, then consider farmlands of local, unique or statewide importance. Avoid high quality farmlands, especially land classified by the Department of Conservation as prime and lands under active Williamson Act contracts.
 - Habitat and Other Open Space Lands. Site on lands with the lowest habitat and open space values, and consider how a site will affect conservation planning, e.g. the Conservation Strategy in the South Sacramento Habitat Conservation Plan. Avoid areas containing vernal pool complexes and associated uplands.
 - Scenic Values. Site in areas of lowest scenic values and avoid visually prominent locations e.g. ridges, designated scenic corridors and designated historic sites.
 - Cultural Resources. Site in areas that are known to have limited potential for containing cultural resources. Otherwise, avoid sites with known cultural resources.

PF-79. New solar and other renewable energy facilities should be designed and developed so as to minimize impacts to sensitive biological resources such as oak woodlands and vernal pools, cultural resources (including designated

historic landscapes), or farmlands as defined by the California Department of Conservation. Nearby farm operations shall not be negatively affected by renewable energy facilities, per the policies of the Right-to-Farm Ordinance and the Agricultural Element.

- PF-80. Locate solar facilities, and design and orient solar panels in a manner that addresses potential problems of glare consistent with optimum energy and capacity production.
- PF-81. The County supports renewable energy facilities that convert and mitigate problem waste streams and residues that adversely impact environmental quality.
- PF-82. The County supports the placement of large multi-megawatt solar facilities on rooftops and over parking lots to minimize land use impacts associated with these systems.
- PF-83. New transmission corridors should be identified in all master plans created for new growth areas.
- PF-99. Minimize overhead wire congestion using techniques such as combining lines on poles or undergrounding.
- PF-101. Route new overhead subtransmission lines within existing transmission line corridors, along railroad tracks, or major roadways. In an effort to reduce the visual impact of new lines combine circuits on existing 69 kV power poles, wherever feasible.
- PF-102. The preferred route when installing overhead subtransmission lines through residential neighborhoods should be the landscape corridors located within arterial roadways. The County will include a map in all master plan documents that identifies the location of transmission, sub-transmission and substation facilities necessary to serve the new development.
- PF-104. Subtransmission lines within landscape corridors shall be situated street-side of the corridor's center line to minimize the visual impact to adjacent residences, but at a distance that will not affect traffic safety.
- PF-105. Landscaping shall be included in corridor design which meets the standards of the surrounding land use zone and is compatible with the overhead line design.
- PF-106. To help reduce visual intrusion landscape corridors with planned power lines along major streets in residential areas should be no less than 30 feet in width.
- PF-107. New sub-transmission lines should be routed along road rights-of-way in dedicated private or public utility easements. When necessary, sub-transmission lines can be routed along rear property lines in dedicated easements that provide adequate access for maintenance by the utility provider. Easements shall be granted as a condition of project approval. Lines near schools shall comply with California Codes and Regulations. Disclosure of future substations, transmission,

and sub-transmission lines by developers is required before property sales are made.

PF-108. To the maximum extent possible locate distribution substations serving residential areas in adjacent commercial properties. When not feasible, these facilities should be designed in a manner to harmonize visually with the surrounding development, including the use of landscaped buffers.

PF-111. It is the policy of Sacramento County not to locate public schools or grant entitlements for private schools within, or directly adjacent to power line corridors as specified below:

Power Line Capacity	Setback from the Corridor (measured from edge of easement)
○ 100 – 133kV	100 feet
○ 220 – 230 kV	150 feet
○ 500 – 550 kV	350 feet

The construction of transmission lines proximate to *an* existing and/or planned public or private school site and subject to the County Siting Process (100 kV or greater) should also comply with the distance criteria listed above unless compliance with these setbacks would result in a greater EMF impact on other adjacent uses.

PF-113. Route new high pressure gas mains within railway and electric transmission corridors, along collector roads, and wherever possible, within existing easements. If not feasible these gas mains shall be placed as close to the easement as possible.

PF-116. Community Plan land use designations and policies should be consistent with the policies of this Energy Facilities Siting section of the Public Facilities Element.

PF-117. All Community Plans shall include an Energy Facility Siting Element which indicates the location of existing and planned energy facilities. Community Plan Siting Elements and SMUD's Electric Study Plans for the corresponding area shall be consistent.

PF-118. All tentative subdivision maps should identify the location of all utility easements sufficient to accommodate existing and future needs as determined by SMUD and PG&E.

There are also multiple general plan policies which are relevant to the efficient use of energy:

EN-16. Promote the use of passive and active solar systems in new and existing residential, commercial, and institutional buildings as well as the installation of solar swimming pool heaters and solar water and space heating systems.

LU-28. Encourage the development of energy-efficient buildings and communities.

- LU-29. Promote voluntary participation in incentive programs to increase the use of solar photovoltaic systems in new and existing residential, commercial, institutional, and public buildings.
- LU-30. Whenever feasible, incorporate energy-efficient site design, such as proper orientation to benefit from passive solar heating and cooling, into master planning efforts.
- LU-70. Enact cost effective energy conservation performance standards consistent with USEPA Energy Star standards for new construction.
- LU-71. Reduce the energy impacts from new residential and commercial projects through investigation and implementation of energy efficiency measures during all phases of design and development.

SIGNIFICANCE CRITERIA

1. Require the construction of new or the expansion of existing utility facilities that could potentially cause significant construction-related environmental effects.
2. Result in a project water demand from proposed land uses that cannot be met by water purveyors' existing or future projected normal, single dry, and multiple dry year supplies.
3. Result in a service demand that cannot be met by existing or reasonably foreseeable future service capacity.
4. Contribute to groundwater pumping to serve project growth such that the average annual sustainable yield of 131,000 acre-feet for the Sacramento North Area Groundwater Basin is exceeded.
5. Contribute to groundwater pumping to serve project growth such that the average annual sustainable yield of 273,000 acre-feet for the Sacramento Central Groundwater Basin is exceeded.
6. Interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level.
7. Result in inefficient, wasteful, and unnecessary consumption of energy.

IMPACTS AND ANALYSIS

IMPACT: CONSTRUCTION OF INFRASTRUCTURE COULD RESULT IN ADVERSE PHYSICAL EFFECTS

In order to deliver utility service to the Project site, regional, local off-site, and on-site infrastructure improvements will be required. Most of this construction has either

already been contemplated as part of other infrastructure projects, or is within the boundaries of the Project site, and thus will not cause any new, previously unstudied impacts. There are a few facilities, however, which may involve construction in off-site locations that were not previously considered, or which involve construction of “interim” facilities within the alignments of previously studied projects. The sections below describe the infrastructure improvements, and describe the probable impacts. Note that as it relates to significance criteria one, an impact is only considered attributable to project-related infrastructure if infrastructure construction is the primary cause of the impact. As an example, utility lines constructed on-site that will be within Project roadway alignments do not cause utility-specific impacts; the impacts are due to the Project as a whole.

NON-POTABLE WATER

During the preparation of this Final EIR, the County determined that there were no plans to provide future non-potable water to the Cordova Hills Project area and no funding for the County or the water and sewer agencies to maintain a recycled water distribution system at Cordova Hills until non-potable water could be supplied. Consequently, in conformance with the County’s current plans, it was decided that that the Cordova Hills Project will not be installing a separate recycled water distribution system. Since the water demands that would have been satisfied by the originally proposed recycled water distribution system were included in the potable water supply analysis, there is no new environmental impact arising from this change; impacts are less than significant.

A Non-Potable Water Supply Master Plan was prepared for the Project to determine the non-potable water demands of the Project and to determine the infrastructure necessary for Project development (*Non-Potable Water Master Plan for Cordova Hills, March 2011* and *Supplemental Report Non-Potable Water Master Plan for Cordova Hills, July 2011*) these reports are included as Appendix PU-3.

Ultimately the non-potable system will be supplied by the County’s future Reclaimed Water transmission system to be located in Grant Line Road. Until this reclaimed source is available, the above mentioned demands will be met through an interim connection of the on-site non-potable system to the potable system. When a non-potable water source becomes available to the Project, the interim connection will be terminated and the reclaimed water will be distributed through a separate non-potable pipe network, independent from the potable water system. The non-potable water demands are included in the potable water supply analysis.

It is anticipated that the irrigation needs of public right-of-ways, landscape corridors, parks, other public land uses, and large commercial sites will ultimately be met by the reclaimed water system. The estimated annual irrigation demand for these uses within the Project is 2,167.8 AFY. The reclaimed water system is laid out within the major arterial and collector streets within the Project area (Plate PU-2). The distribution system consists of 8 to 18 inch diameter reclaimed water lines, which connect to all major irrigated land uses within the Project area.

~~Construction activities associated with the non-potable pipe network will take place within the Project boundaries in areas designated for developed uses, consistent with the provisions of the SPA. The relevant topical chapters of this EIR disclose the physical impacts of full development of the proposed Project and provide mitigation as appropriate. Construction of the non-potable water system will not result in substantial physical adverse effects; impacts are less than significant.~~

MITIGATION MEASURES:

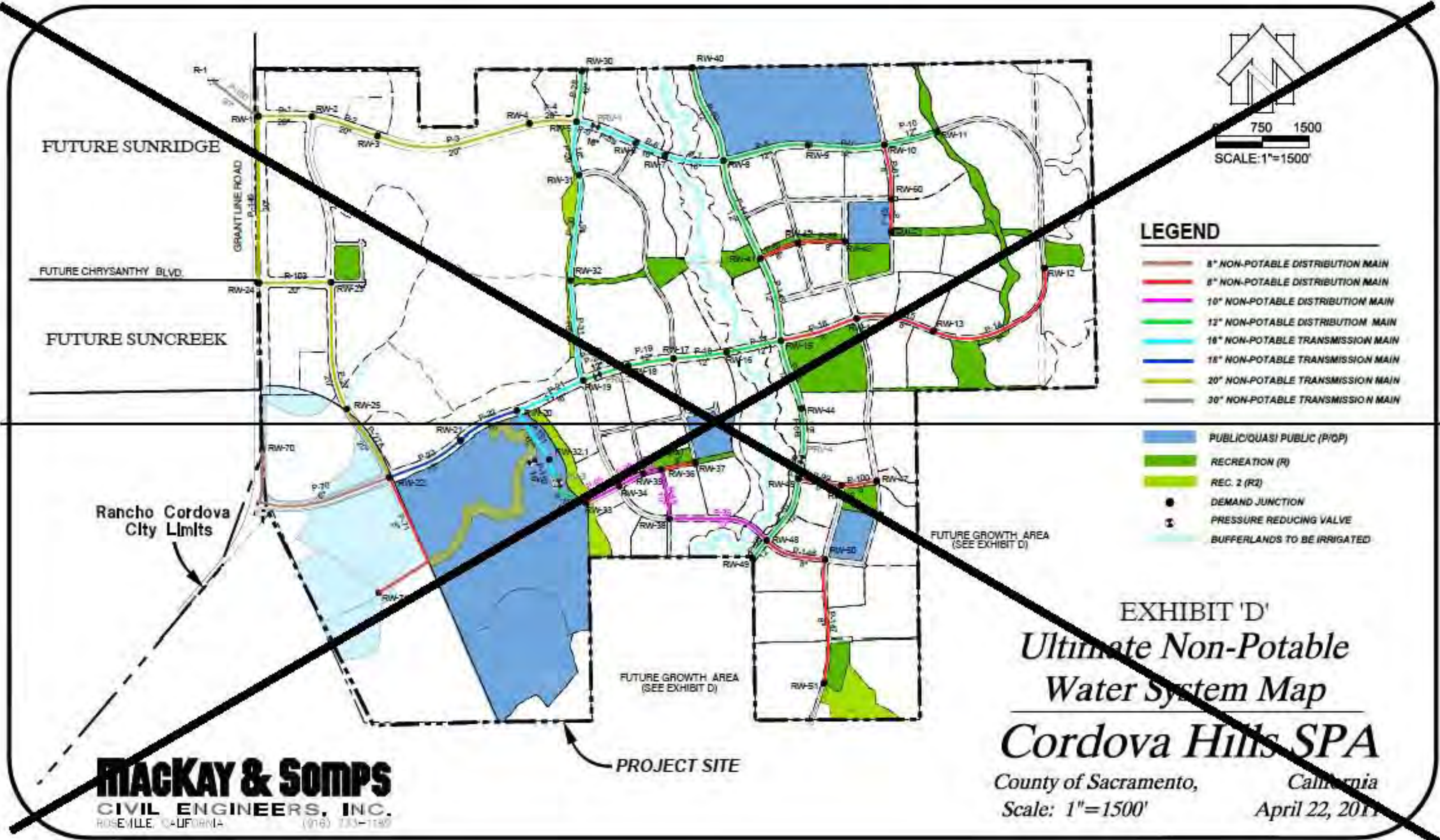
None required.

POTABLE WATER SUPPLY

There are two major projects relevant to the below discussions which have already been contemplated: the Vineyard Surface Water Treatment Plant and the North Service Area Pipeline. Construction of the Vineyard Surface Water Treatment Plant (WTP) and associated water supply facilities has recently been completed and the facilities are undergoing start-up testing. The WTP will provide potable water to existing and approved future development within the SCWA Zone 40 service area. The Vineyard Surface WTP will have capacity to treat 100 mgd of raw surface water. The raw river water will be diverted from the Sacramento River via the Freeport Regional Water Project facilities and conveyed to the Vineyard Surface WTP for treatment and delivery to the SCWA Zone 40 service area via the North Service Area Pipeline Project (NSAPP).

The NSAPP includes construction of a transmission main and booster tank station that will serve the Mather Specific Plan area and SCWA's North Service Area (NSA). The North Service Area Pipeline (NSAP) will begin at the Vineyard Surface WTP and convey water to an existing transmission main located at Douglas Road and Sunrise Boulevard.

Plate PU-2: Ultimate Non-Potable Water System Map



A Water Supply Master Plan was prepared for the Project to determine the water demands of the Project and to determine the on-site and off-site infrastructure necessary for Project development (*Potable Water Master Plan for Cordova Hills, March 2011* and *Supplemental Report-Potable Water Master Plan for Cordova Hills, July 2011*); these reports are included as Appendix PU-4. In order to determine infrastructure sizing requirements the water supply analysis also includes an evaluation of off-site areas adjacent to the Project to the east and south. Given their location (between the Project site and the USB), it is assumed that water for future development in these areas would come through the Project site. Therefore, their estimated water demands are included in the analysis in order to assure that the infrastructure that will be built with the Project is adequate to serve these areas.

The Project proposes a mix of uses which include low to high-density single-family residential units, multi-family residential units, retail, mixed-use, schools, parks, open spaces, community facilities, and a regional sports park. The SCWA preferred methodology for determining water demand is to apply a water demand factor to each proposed land use category. The unit water demand factors as defined in the *Zone 40 Water Supply Master Plan Table 2-2, February 2005* were applied to the Project land uses in order to estimate the water demands for the Project.

The TC (Town Center) designation will include a mix of residential and commercial development. In order to determine the approximate quantity of water required to serve this designation, given the uncertainty of the ratio of residential to commercial, the gross water demand was estimated under two different scenarios. One scenario assumes a high residential mix in the TC zone and the other assumes a high commercial mix in the TC zone. The two scenarios consist of the following mix of uses:

- Maximum Residential = 188.3 ac @ 9.3 DU/ac(net) + 8.8 ac Roads
- Maximum Commercial = 64 ac @ 0.35 FAR + 110.3 ac @ 9.3 DU/ca + 22.8 ac Roads

Once calculated, the water demand of 35.7 AFY for the portion of the Project outside of the USB was added to each of the scenarios. The land use scenario that yields the highest total annual potable water demand is the Maximum Residential scenario with 4,543.0 AFY. The total annual demand of the Maximum Commercial scenario is 4,347.6 AFY. The water demand of 4,543.0 AFY (Maximum Residential scenario) is used in the master plan to represent the annual potable water demand of the Project because it represents the worst case scenario.

REGIONAL INFRASTRUCTURE

SCWA has existing and planned facilities that will support the delivery of water to the Project site. The existing and planned facilities are detailed on ~~Plate PU-3~~. There are existing water lines extending to existing water storage tanks north of Douglas Road, called the North Douglas Storage Tanks. The point of connection will be at the intersection of Americanos Boulevard and Douglas Road. During the initial phases of the Project, the interconnection will be to the line which transmits water from the North Douglas Storage Tanks. Ultimately, the Project will require its own water tanks. When

demands reach the point where new storage is required, the transmission line will connect to the line which transmits water to the North Douglas Storage Tanks. The necessary water pressurization would then occur as water left the Cordova Hills storage tanks.

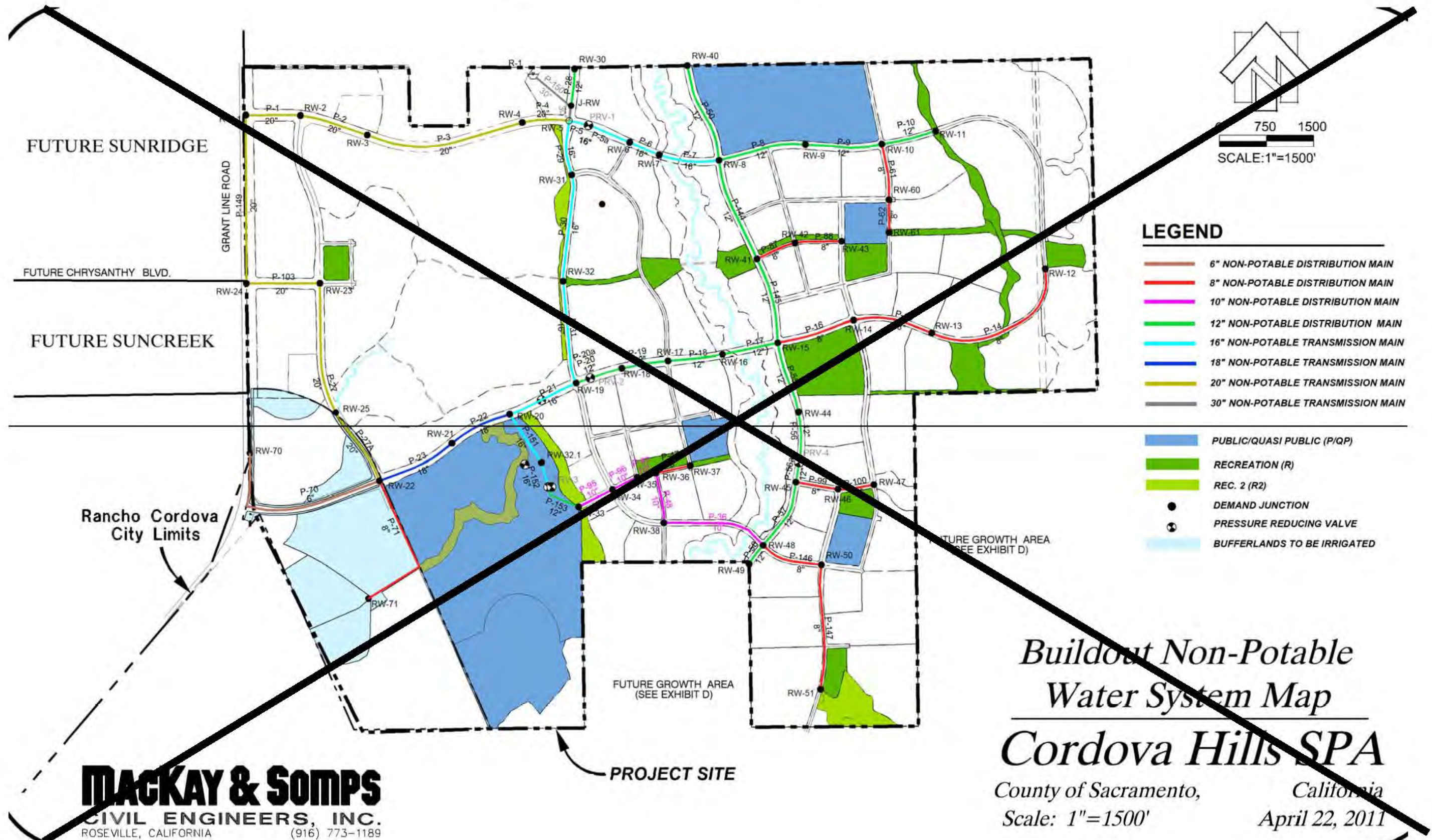
Project water demands will ultimately be met by a combination of groundwater and surface water delivered by SCWA through their water system; however, currently the North Douglas Storage Tanks are fed by the existing North Vineyard Well Field, which is intended to be expanded over time as demand increases. In addition to this existing design, there are two other regional infrastructure options which could convey water to the North Service Area of Zone 40. These are the North Service Area (NSA) Pipeline and the Anatolia Raw Water Pipeline Conversion. All three options, the existing design and the two other options, are described below.

NORTH VINEYARD WELL FIELD

Under this option, initial water demands in the NSA and Project area will be met by groundwater from the North Vineyard Well Field (NVWF) and possibly the Mather Housing wells located at Mather Field. Currently, the NVWF consists of three operational groundwater wells. As demand increases in the NSA additional well and treatment capacity will be developed to meet these demands. Ultimately, groundwater development in the NVWF will consist of seven wells. Aside from the already-anticipated well-field expansion, there are no regional off-site infrastructure improvements required for this option as facilities are currently in operation, which are capable of delivering water to the NSA.

Groundwater from the NVWF is conveyed to the Anatolia Groundwater Water Treatment Plant (AGWTP) through the Anatolia Raw Water Pipeline. Once treated, groundwater is then distributed throughout the existing NSA system. For Phase 1 of the Project, groundwater will be conveyed through the NSA system to the existing North Douglas Storage Tanks and then on to the Project site via a high pressure line connecting the tanks with the proposed on-site transmission main. Ultimately, the proposed transmission main will be connected to the existing low-head transmission main at the intersection of Americanos Boulevard and Douglas Road for conveyance to the future Cordova Hills Storage Tanks. Once this connection is made the line will be disconnected from the North Douglas Storage Tanks, and pressurization would occur at the Cordova Hills Storage Tanks.

Plate PU-3: SCWA Water Facility Plan



NORTH SERVICE AREA PIPELINE

SCWA, in cooperation with East Bay Municipal Utility District (EBMUD), has completed construction of the Freeport Regional Water Project (FRWP). SCWA's portion of the Project consists of 85 million gallons per day of diversion and conveyance capacity. Surface water from the FRWP facility will be treated at SCWA's Vineyard Surface Water Treatment Plant (VSWTP), located at the northeast corner of the intersection of Florin Road and Knox Road, prior to delivery to SCWA's customers.

The VSWTP is currently undergoing start-up testing and is expected to be fully operational in late 2011. In order to deliver treated surface water to the Project instead of water from the North Vineyard Well Field, SCWA will need to construct the NSA Pipeline project, which will provide a link between the VSWTP and the North Service Area (Plate PU-4). SCWA completed and approved an initial study/mitigated negative declaration (*NSA Pipeline Project*, Sacramento County Control Number 2007-70373) for construction of this pipeline in September 2010. The timing of construction of the NSA pipeline cannot be precisely predicted at this time, as it is dependent on demand growth in the NSA. Sacramento County Department of Water Resources staff (D. Eck and K. Schmitz) have indicated in meetings that there are no immediate plans to construct this facility, given that there is significant remaining capacity in the North Vineyard Well Field.

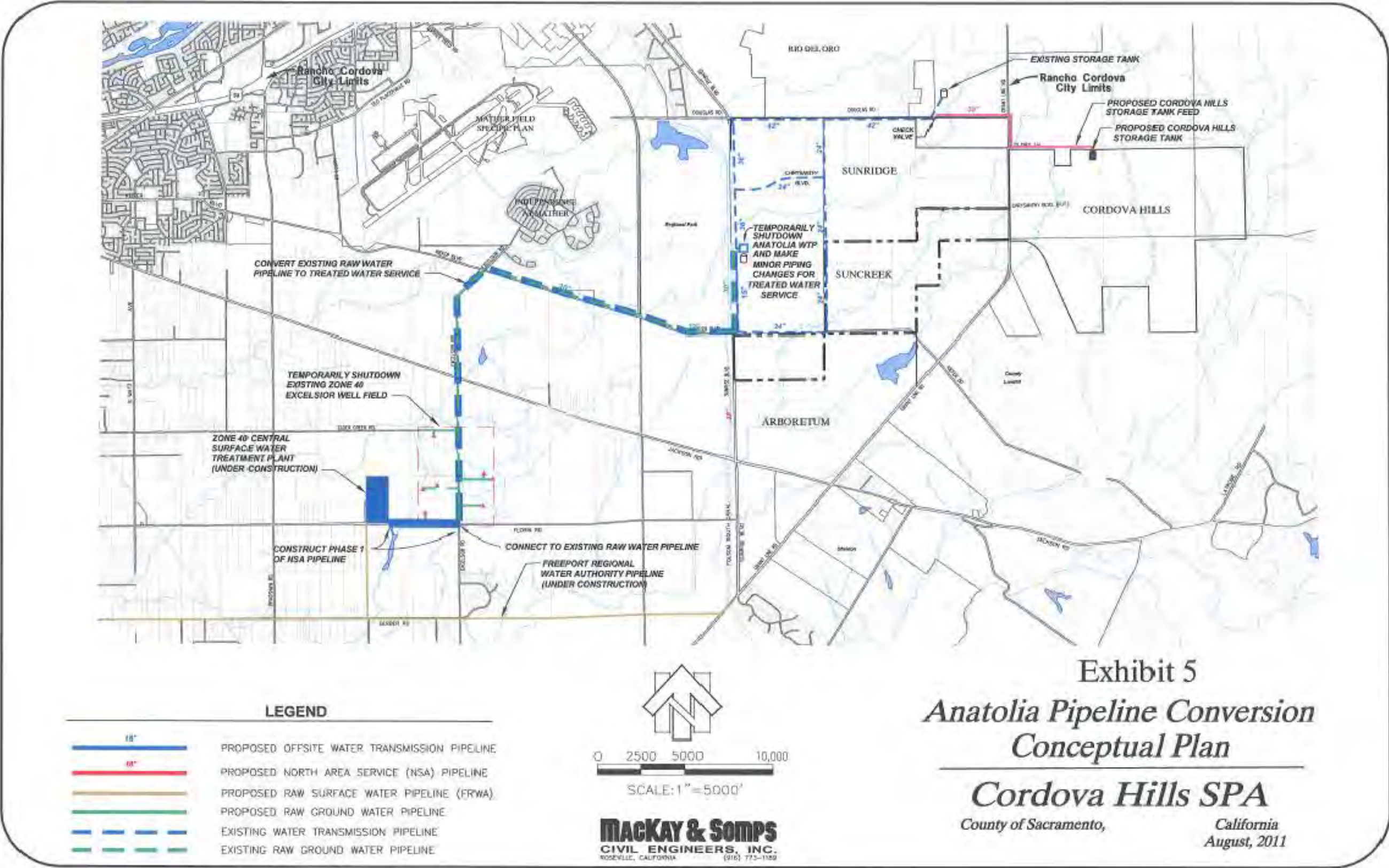
If the NSA Pipeline were constructed, the point of interconnection for the Project would be the same as under the North Vineyard Well Field option.

ANATOLIA PIPELINE CONVERSION

Due to applicant concerns about the ability to continue expanding the North Vineyard Well Field such that infrastructure remains ahead of housing demand, the applicant has proposed an interim surface water solution which would provide surface water until the NSA Pipeline is completed. Under this option surface water from the VSWTP would be conveyed to the NSA through a combination of existing, planned, and interim pipelines. Implementation of this option is detailed below, and is shown on Plate PU-5:

1. Construct "Phase 1" of the NSA pipeline, which extends from the VSWTP easterly within the Florin Road right-of-way to the intersection of Excelsior Road.
2. Construct a temporary 30-inch diameter transmission main northerly within the Excelsior Road right-of-way and connect to the existing raw water pipeline that extends from the Excelsior Well Field to the AGWTP.
3. Temporarily shut down the wells in the Excelsior Well Field until they are needed to meet future conjunctive use water demands.
4. Temporarily shut down the AGWTP until it is needed to meet future conjunctive use water demands.
5. Connect the converted raw groundwater transmission pipeline directly to the treated water side of the AGWTP. This will require minor piping modifications at the AGWTP site.

Plate PU-5: Anatolia Pipeline Conversion



This alternative requires construction of 4,600 feet of the approved NSA pipeline project located within Florin Road between the VSWTP and Excelsior Road and 2,500 feet of temporary pipeline within Excelsior Road, and converting the Anatolia Raw Water Pipeline to a treated surface water pipeline. The converted pipeline will convey treated surface water from the VSWTP to the AGWTP. Minor onsite conversions at the AGWTP would be necessary to convey surface water instead of groundwater. For Phase 1 of the Project, surface water would be conveyed through the NSA system to the existing North Douglas Storage Tanks and then on to the Project site via a high pressure line connecting the tanks with the proposed transmission main. The point of connection would be the same as for the North Vineyard Well Field option.

This alternative is intended to be temporary; once the NSA Pipeline is constructed the Anatolia Raw Water Pipeline and the AGWTP will be converted back to groundwater conveyance. Construction of "Phase 1" of the NSA Pipeline is planned and has been approved. Piping modifications at the AGWTP and the temporary 30" transmission main that will connect the raw water pipeline to the AGWTP are specific to this option and will require infrastructure project approval before implementation. These facilities are unplanned in terms of use and sizing, but they are located within existing facilities or along the same alignments as already approved and planned facilities. The piping modifications necessary to connect the converted raw groundwater transmission pipeline to the treated water side of the AGWTP are minor and will occur at the AGWTP site where habitat or other resources are not present. Construction of the temporary pipeline will occur within the alignment of the NSA Pipeline, the impacts of which were already studied and approved. Thus, any impacts resulting from construction of this line would occur regardless of the implementation of this option.

CONCLUSION

As described above, none of the regional infrastructure options would result in new, significant adverse impacts, because all of the infrastructure would be located in areas where pipelines and facilities already exist or have already been approved (and thus any impacts are not attributable to the Project); impacts are *less than significant*.

It should be noted that the Sacramento County Water Agency would need to approve the Anatolia Pipeline Conversion option, and at this time staff (D. Eck and K. Schmitz) have indicated a lack of support. Citing financial considerations and a desire to avoid interim/temporary facilities, staff indicated a preference to use the existing North Vineyard Well Field.

LOCAL OFF-SITE INFRASTRUCTURE

As previously discussed, in order to convey water to the Project site during Phase 1, a high pressure connection will be made connecting the Project to an existing pipeline leaving the North Douglas Storage Tanks. The connection will be made by constructing and connecting a new 30" transmission pipeline to the existing line in Douglas Road, which will then extend east along Douglas Road and south along Grant Line Road before finally connecting to a new 24" water line on the Project site. Once the Project's water demand begins to reach the capacity of the North Douglas Storage Tanks the Project will be disconnected from the line leaving the North Douglas Storage Tanks and

reconnected to the low-pressure line which enters the storage tanks. The 30" Project transmission line which was constructed along Grant Line Road will then be disconnected from the on-site 24" line and routed down Glory Lane to the new Cordova Hills Water Tanks. The current conceptual location of the Cordova Hills Storage Tanks is approximately 5,400 feet east of the intersection of Glory Lane and Grant Line Road, on property north of the Project site which is owned by the applicant.

The Cordova Hill Storage Tanks will consist of tanks and a booster station with the capacity to provide 5.5 million gallons of storage. Given that this water project will not go through engineering design until the facility need arises, the construction footprint and outline for the tanks are conceptual at this time. It is anticipated that the construction footprint would be a minimum of four acres and perhaps as much as 11 acres. The topography on the property is highly variable, which will influence the design and layout of the system. For example, the system could be constructed with several large tanks, which may require larger and deeper cut and fill areas but a smaller overall footprint, or with a larger number of smaller tanks, which would require less cut and fill but a larger overall footprint. The analysis of physical impacts focuses on the general area, and assumes the largest footprint in order to be conservative.

Construction of the first phase of the 30" transmission pipeline from the North Douglas Storage Tanks to the intersection of Grant Line Road and Glory Lane will occur within existing right-of-ways within existing roadways. Construction of the 30" transmission pipeline from Grant Line Road to the Cordova Hills Storage Tanks is proposed off-site on a private road where there is no existing right-of-way. The portion of the pipeline along Glory Lane is located on a private unpaved roadway in an area that is known to contain biological resources. The pipeline will be required to be constructed within a public right-of-way, general utility easement of at least 20 feet unencumbered width, or a dedicated water line easement of at least a 20-foot width. If the applicant is unable to acquire an easement then the pipeline may be located entirely within the proposed North Loop Road right-of-way. This alternative would add approximately 1,700 feet of additional pipeline to the overall pipe length. Similarly, construction of pipelines, storage tanks, and related infrastructure on the currently undeveloped, off-site Cordova Hills Storage Tank site will impact biological resources including wetlands and protected species habitat. The relevant topical chapters of this EIR disclose the physical impacts of full development of the proposed Project and provide mitigation as appropriate.

Though discussed in detail in the appropriate topical chapters, in the case of the local water line and the Cordova Hills storage tanks, the construction of infrastructure is part of an overall *significant and unavoidable* impact related to wetland resources and species supported by those wetlands.

ON-SITE INFRASTRUCTURE

On-site infrastructure consists of a combination of a variety of pipe sizes traversing the Project site as shown in (Plate PU-6). In the ultimate condition, in order to connect the Project site to the off-site Cordova Hills Water Storage Tanks a 42" waterline will extend from the storage tanks and connect to a 36" waterline, which will connect to a 30" waterline onsite and within the central portion of the site. The remaining on-site pipes

will extend from the on-site 30" waterline and traverse the Project site within the proposed roadways. The waterlines range in size from 24" to 12" and are sized to support the adjacent land uses.

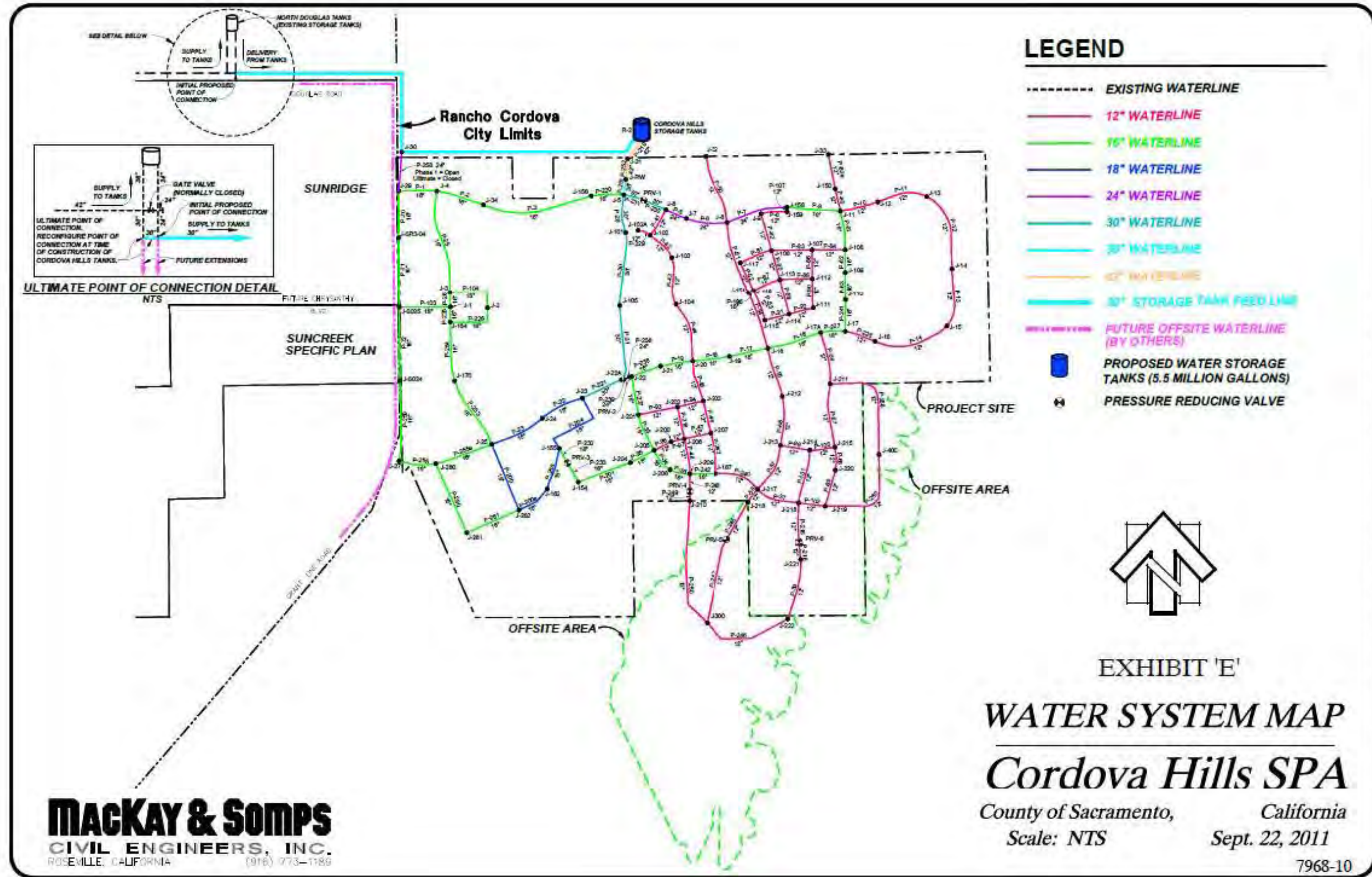
Note that the various water infrastructure exhibits within the technical studies show water lines extending off-site to the south of the Project site. These lines were included for modeling purposes only, in order to demonstrate to the Sacramento County Water Agency that the system was designed in a manner that would allow this land-locked portion within the Urban Services Boundary to connect to the Cordova Hills system if the property owner should ever choose to develop the property. The Cordova Hills applicant has an obligation, in terms of infrastructure planning, to ensure that they do not "harm" this southern property owner by creating a system that would preclude or inhibit the southern property from connecting to the overall system. Development of the Project does not require the construction of these water lines extending off-site to the south of the Project.

On-site construction activities will take place within the Project boundaries in areas designated for developed uses, consistent with the provisions of the SPA. The relevant topical chapters of this EIR disclose the physical impacts of full development of the proposed Project and provide mitigation as appropriate. Construction of on-site lines will not result in any utility-specific adverse impacts; impacts are *less than significant*.

MITIGATION MEASURES:

Mitigation for physical impacts has already been included in the various topical chapters. Relevant measures include AQ-1, BR-1, BR-3, BR-4, BR-5, BR-7, BR-8, and CR-1.

Plate PU-6: Cordova Hills Water System Map



SEWER SYSTEM

A Sewer Master Plan was prepared for the Project (*Sewer Master Plan for Cordova Hills*, December, 2010, MacKay and Soms Civil Engineers, Inc, Appendix PU-5) in order to satisfy the Sacramento County Sewer District's (SASD) Level Two Minimum Sewer Study Requirements and determine if sufficient sewer service is available for the Project. The Project proposes construction of 8,000 residential units, 1.4 million square feet of commercial and office uses, and a university/college campus center.

REGIONAL INFRASTRUCTURE

The SRWTP system is master planned for the anticipated growth within the UPA. Based on analysis of the SRCSD 2000 Master Plan, the 2006 CSD-1 Sewerage Facilities Expansion Master Plan, and implementation of the SASD/SRCSD strategic plan to utilize capacity in existing facilities, service to Cordova Hills is not constrained. There is sufficient treatment capacity to accommodate sewerage from the Project without the need for facility expansion.

The SRCSD 2000 Master Plan planned a 20 mgd regional interceptor pump station (RIPS) to collect flows from the Upper Deer Creek (DCU) shed, which includes the Cordova Hills area. To avoid overbuild of a regional pump station should SRCSD and/or SASD re-route future DCU trunk sewers, a 2.02 mgd pump station is proposed to serve Phase 1. This pump station is sited at the location of the future RIPS in the southwestern portion of the Project site (Plate PU-7 shows pump station locations and on-site sheds). This pump station will be located in an area already considered impacted by Project development, and thus no adverse utility-specific impacts would result.

The Project will follow the SASD/SRCSD regional strategic plan to utilize, on an interim basis, available capacity in nearby trunk and interceptor sewers. Phase 1 service requires SASD approval of an interim shed shift with pump station and force main facilities to transport wastewater from the Laguna Creek shed to the Bradshaw Interceptor shed. Sewer service to Cordova Hills will be phased as follows (Plate PU-8):

Phase 1: The recommended point of connection (POC) for initial service is the 18-inch Aerojet-Sunrise-Douglas trunk sewer stub at Douglas Road. If POC 1 is not available, POCs 2 and 3, which can connect to the Bradshaw Interceptor, are backup Phase 1 options.

Phases 2 and 3: Five alternative POCs, 2 through 6, are considered for Phases 2 and 3. The selected POC will be determined by SASD in the future, and is dependent on construction of the downstream Laguna Creek and Mather Interceptor (MI). If neither LCI-5 nor the MI is constructed, the POC will require approval by SRCSD as the POC will ultimately connect to the interceptor system.

All of the regional off-site infrastructure shown is already contemplated in SASD or SRCSD master planning documents, and thus are not impacts of the Project. All but

one of the on-site regional lines are located within areas designated for developed uses, consistent with the provisions of the SPA, and would not cause utility-specific physical impacts. As shown on the exhibit, POC-4 is shown being routed through an off-site area to the south, which is consistent with the trunk line alignments shown in SRCSD master planning. Wetland delineations, cultural resources surveys, and other resource studies have not been conducted for these areas because construction-level plans have not been prepared, and impacts will vary depending upon the precise alignment chosen. It is reasonable to assume that construction of this facility would result in wetland impacts and in impacts to species dependent on those wetland resources. Known cultural resources can typically be avoided. Construction of regional sewer infrastructure would contribute to *significant and unavoidable* biological resources impacts identified in the Biological Resources chapter.

LOCAL ON-SITE INFRASTRUCTURE

The Project will include the construction of several pump stations as well as lines throughout the site. All of these facilities will be located within the Project boundary within areas already proposed for development of roads and urban uses. Construction of on-site local infrastructure will not result in utility-specific adverse physical impacts; impacts are *less than significant*.

MITIGATION MEASURES:

Mitigation for physical impacts has already been included in the various topical chapters. Relevant measures include AQ-1, BR-1, BR-3, BR-4, BR-5, BR-7, BR-8, and CR-1.

Plate PU-7: On-site Sheds and Pump Stations

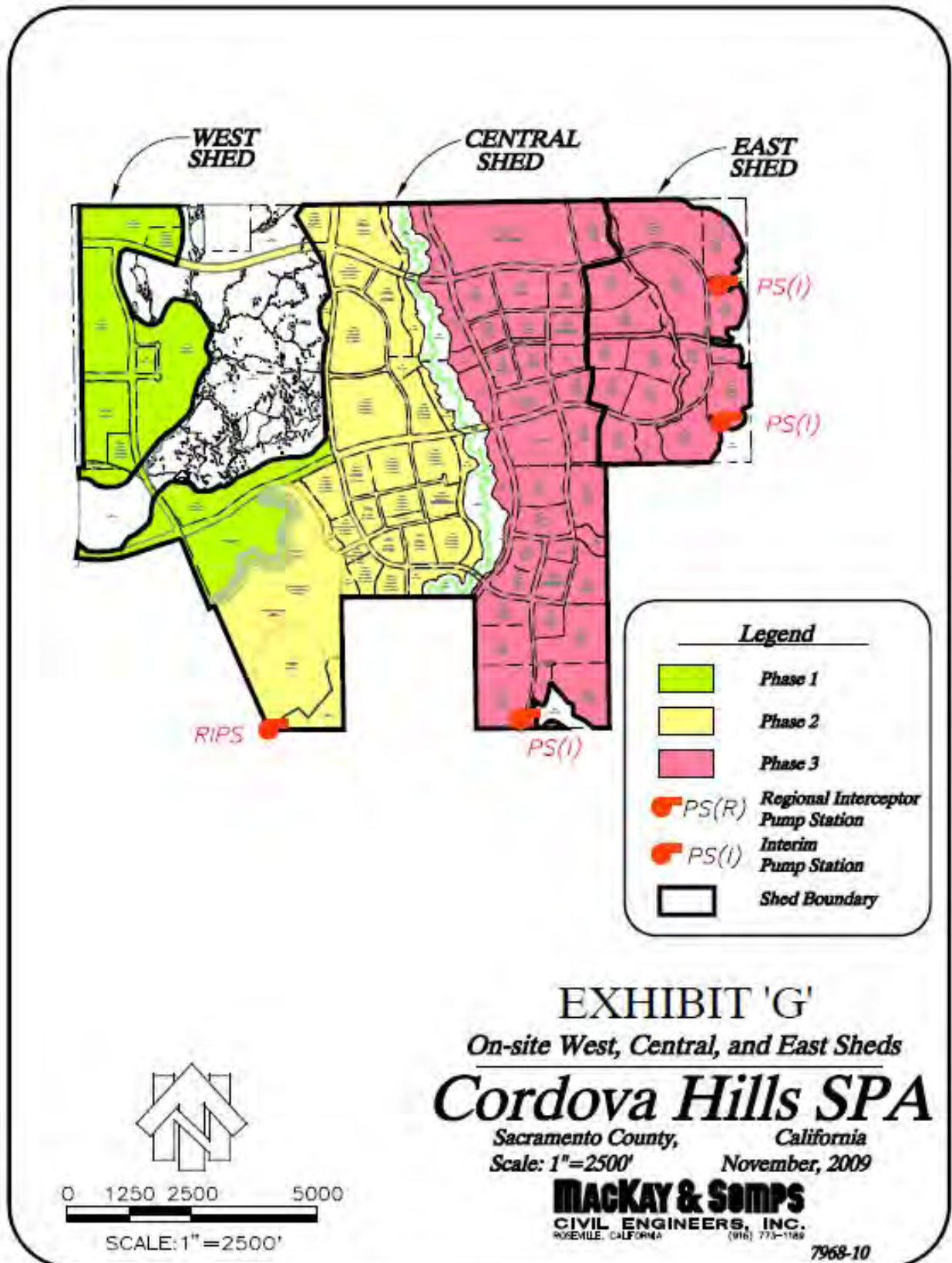
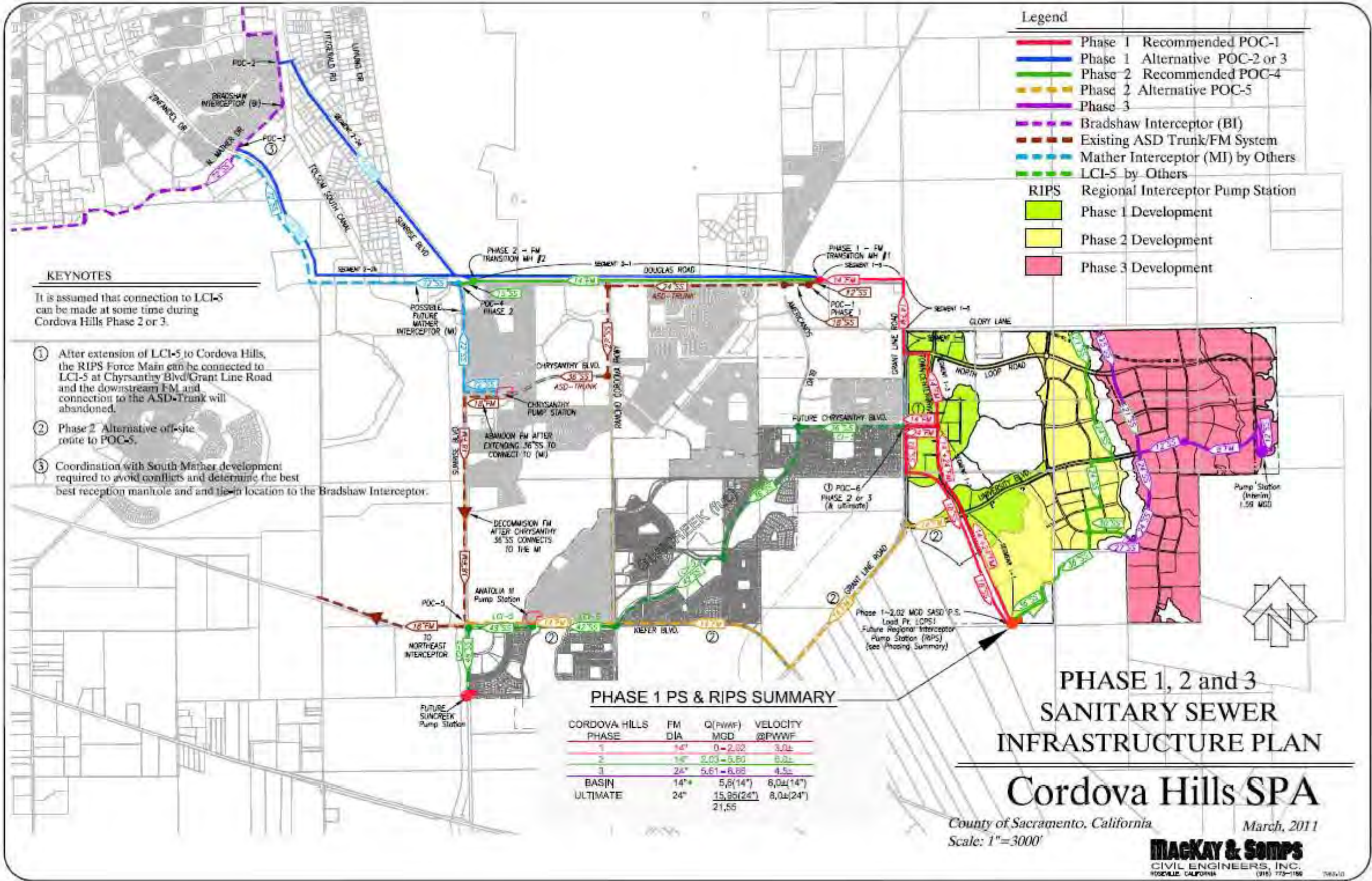


Plate PU-8: Sewer Infrastructure Plan



ENERGY SERVICES AND DRY UTILITIES

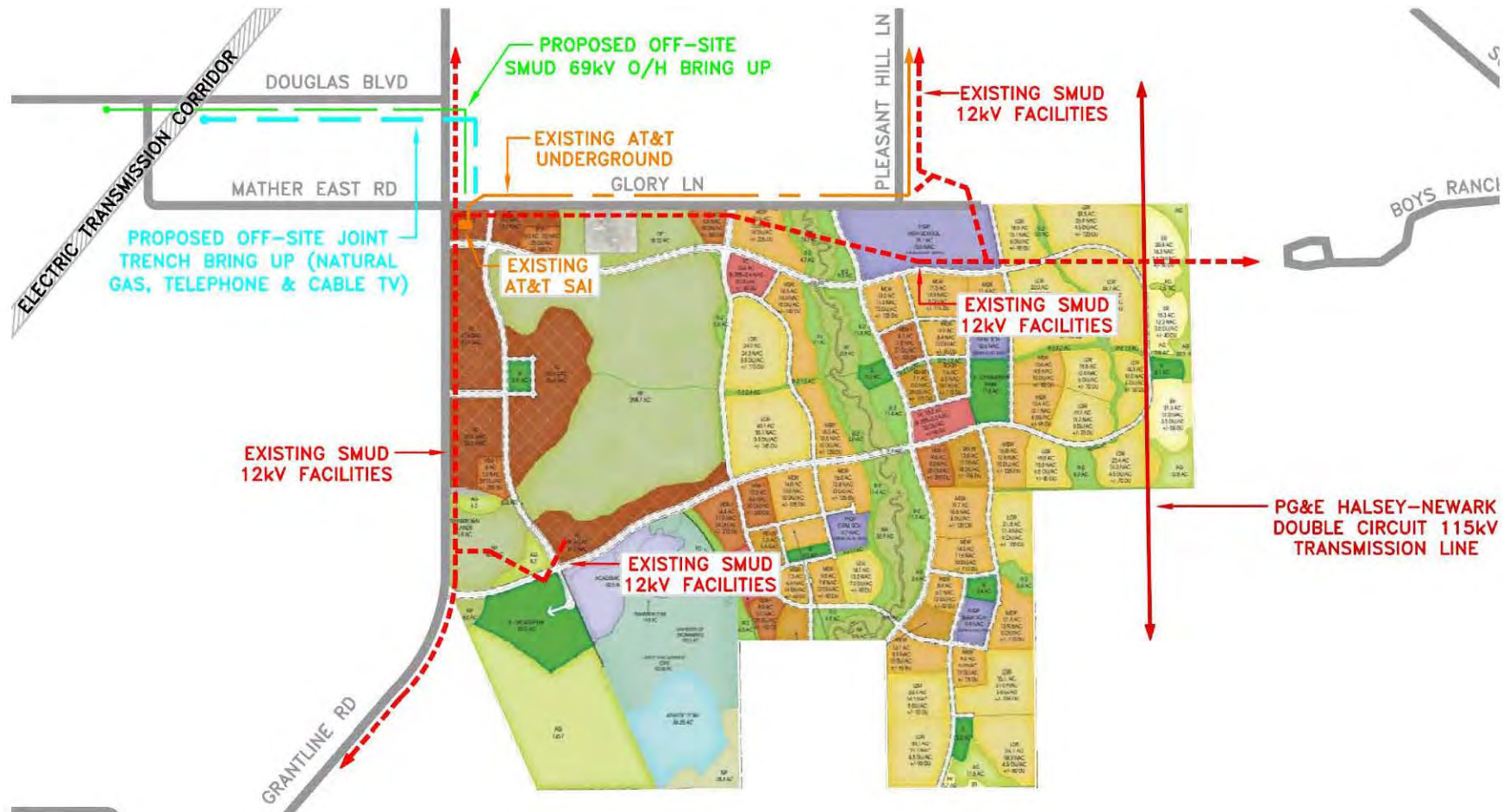
Sacramento Municipal Utility District (SMUD) and Pacific Gas & Electric Company (PG&E) will serve the electricity and natural gas needs of the Project. The natural gas and electric lines to the site will be within joint trenches along major roads. The joint trenches will be placed in franchise or public utility easements (PUEs) adjacent to the road right-of-ways. All the new distribution facilities will be underground, with the exception of transformers, switches, telephone cabinets, and other pedestals and pad-mounted equipment. With the exception of electrical lines and AT&T Cable lines, existing dry utility connections terminate approximately 0.8 miles west of Grant Line Road. Overhead electrical power line and underground television, phone, and gas lines from the existing point of connection on Douglas Road to the Project boundary and across the entire Project frontage will be required. This analysis focuses on electrical and natural gas infrastructure, as the other dry utilities are usually parallel to these facilities (either strung along the electrical poles or in a joint trench with gas lines). The following discussions are based on the Technical Dry Utilities Study dated April 2010; Appendix PU-6).

SACRAMENTO MUNICIPAL UTILITY DISTRICT

The locations of existing and proposed dry utilities are shown on Plate PU-9. There are existing 12 kilovolt (kV) overhead electrical distribution lines along Grant Line Road and internal to the Project site. In order to serve the electricity needs of the Project, SMUD will need to upgrade the existing distribution lines along Grant Line Road to 69 kV subtransmission lines with 12 kV underbuilt lines. SMUD will then continue this line past the Project frontage and loop back to the existing facilities near the intersection of Grant Line Road and the Kiefer Landfill to the south. In order to reduce the voltage from the 69 kV subtransmission lines to the 12 kV distribution lines, SMUD will need to construct three substations within the Project site.

The substations will be served from the 1.2 mile 69 kV line extended to the site south along Douglas Road and Grant Line Road. The 69 kV overhead line will continue south adjacent to the Project on Grant Line Road, with a single-circuit 69 kV line planned into the Project, then south into the substations, then west and back out to Grant Line Road, forming a loop. The line will continue south on Grant Line Road to a proposed 40 megavolt ampere (MVA) substation (2 – 20 MVA banks) near the intersection of Kiefer Boulevard and Grant Line Road. Each of the on-site substations will have two 25-MVA banks (50 MVA total) and 8 underground 12 kV mainline circuits. The substation sites will occupy from 0.5 acre to 0.75 acre sites. Transformers will be located in residential neighborhoods and at commercial sites to serve individual users. Though by preference the substations will be placed in areas of “open space”, for the purposes of this Project this would refer to R-2 areas, which are already considered impacted by development, not within Avoided Areas.

Plate PU-9: Existing and Proposed Dry Utilities



Though anticipated as aboveground lines to serve the initial Project phases, the subtransmission lines along Grant Line Road may be installed underground when Grant Line Road is widened. Existing overhead lines at Glory Lane will be converted to underground lines and routed underground through the new streets as the Project develops. All of the on-site electrical line construction would be within areas already assumed to be impacted by the overall Project; impacts are not utility-specific. Off-site impacts may occur, and have not already been studied as part of SMUD master planning proposals.

Active site disturbance will not be required along most of the off-site electrical line route, because no activity is necessary in between the utility poles. Construction activities will be focused at the location of the existing poles. Pole replacement generally uses the same hole or an adjacent location. To remove each existing pole, two holes no larger than 4 feet by 3 feet and 6 feet deep would be dug on opposite sides of the poles. Since this work will all take place along the roadway shoulder, there is little in the way of sensitive resources that could be affected. Nonetheless, there are dense wetlands all along the eastern side of Grant Line Road, and it is possible that some impacts will occur as part of line upgrades. A detailed analysis cannot be provided at this time, as construction-level designs have not been developed at this time. SMUD would act as lead agency on the utility upgrades, and would prepare an environmental analysis consistent with CEQA for the process. It should be assumed that off-site electrical line construction could result in some small amount of additional biological resources impacts, and would thus contribute to the *significant and unavoidable* impacts described in the Biological Resources chapter.

PACIFIC GAS AND ELECTRIC COMPANY

Pacific Gas & Electric Company (PG&E) will supply natural gas service to the Project in accordance with the rules and tariffs on file with the California Public Utilities Commission (CPUC). PG&E has no existing natural gas facilities adjacent to the site, but it maintains an 8-inch gas main (60 psig Maximum Operating Pressure) on Douglas Road approximately 0.8 miles west of Grant Line Road and has plans to install a 12-inch transmission pressure main extension (720 psig MOP) to the intersection of Douglas Road and Sunrise Boulevard.

Service will be extended to the Project area from the existing plastic 8" gas main (pressures range up to 60 psig) stubbed approximately 0.8 miles west of Grant Line Road on Douglas Road. The gas main will be fed from a proposed gas regulator station at Douglas Road and Sunrise Boulevard. The 8" plastic gas main will be extended east on Douglas Road then south on Grant Line Road to the Project in a joint trench. The gas main will be located within an existing right-of-way. If a second natural gas regulator station is required for the Project, it will be located at the intersection of Douglas Road and Grant Line Road and it will be fed from a distribution feeder main (DFM) extension from the regulator station planned at Sunrise and Douglas.

Eight-inch, six-inch, and four-inch plastic distribution mains will distribute natural gas throughout the Project area via the major internal roads. Distribution lines and services

will extend off the mains and will be sized based on anticipated gas loads to the various parcels. Residential neighborhoods will have two-inch plastic mains and one-inch services.

Impacts related to natural gas service are not expected to be significant, as trenched utility lines would be placed either within the paved margins of the roadway or directly adjacent to paved areas, where there are gravel shoulders and little to no biological or other resources; natural gas construction impacts are *less than significant*.

ENERGY EFFICIENCY

CEQA Guidelines Section 21100(b)(3)) indicates that an EIR should consider whether mitigation is needed due to “wasteful, inefficient, and unnecessary consumption of energy”. The Climate Change chapter describes the potential energy usage of the Project and compares this to a “business as usual” scenario. As described, the Project residential uses will consume approximately 19,500 MWh less electricity annually than a “business as usual” project, through exceedance of Title 24 standards, installation of Energy Star rated appliances, and the usage of renewable energy to supply 20% of residential energy. The Project will likewise result in more efficient usage of non-residential electricity, and of both residential and non-residential natural gas. The Project will not result in the wasteful, inefficient, and unnecessary consumption of energy, and impacts are *less than significant*.

MITIGATION MEASURES:

None required for onsite impacts; off-site impacts would be analyzed and appropriate mitigation would need to be provided by the lead agency (SMUD or PG&E) when the specific utility project is proposed. Sacramento County cannot impose mitigation requirements on SMUD or PG&E.

IMPACT: RESULT IN A PROJECT WATER DEMAND THAT CANNOT BE MET BY SUPPLY

The Project encompasses approximately 2,669 acres, which is largely within the Urban Services Boundary but also includes areas outside of the Urban Services Boundary. Initial technical studies determined that uses within the Cordova Hills “bufferlands” – the southwestern portion of the Project which is outside of the Urban Services Boundary – would need public water service as they are currently proposed, because groundwater supplies would not be sufficient and reliable for the uses. As a result, the Project includes a request to amend General Plan Policy LU-57 and add Policy LU-XX (which would be numbered upon approval) as follows:

“The County shall not provide urban services beyond the Urban Policy Area, except when the County determines the need for such services for health and safety purposes or where provision of such services is permitted pursuant to Policy LU-XX (below).”

“Limited public water service and facilities can be extended beyond the Urban Policy Area/Urban Services Boundary to serve the 251 acre area located in proximity to Kiefer Landfill, as shown in Exhibit “A”. Permitted uses within this area include agriculture, sports park, solar farm, district energy plant, corporation yard, park and ride lot, transit parking facility, fueling station, roads, storm water and storm water quality basins, community gardens, avoided areas, sewer pump station and lines, water tanks and similar utilities. Water facilities shall be sized adequately to only serve these permitted uses. Furthermore, proposed uses must be consistent with these permitted uses, act as a buffer between urban and open space uses, and help strengthen and preserve the current location of the Urban Services Boundary.”

If this policy is approved, SCWA would provide public water to serve the Cordova Hills uses in the area referenced. The Water Supply Assessment was prepared on this basis. The projected annual water demand for the entire Project is 6,549.9 acre feet per year (AFY), including system losses. The Project’s projected water demand by land use is detailed in Table PU-3. The Project’s water demand projection over the next 20 years in five-year increments is shown in Table PU-4.

The water demands associated with implementation of the Project were included in the *Cordova Hills Water Supply Master Plan Amendment* (WSMP Amendment, Appendix PU-2). An amendment is necessary because the water demand associated with the Project was not included and addressed in the Urban Water Management Plan (UWMP). The WSMP Amendment was prepared in order to add the water demand associated with the Project to the broader Zone 40 service area. The adjusted Zone 40 demands for normal, single-dry, and multiple-dry years in 5-year increments over a 20-year projection (2015 to 2035) are shown in Table PU-5.

SCWA has appropriate rights to the underlying groundwater in the Central Basin in the amount of 40,900 AFY and three sources of surface water totaling up to 61,251 AFY. The total maximum water supply to Zone 40 is 102,151 AFY. At build out the Project is expected to add 6,549.9 AFY to the overall Zone 40 water demand. This demand has been accounted for in the WSMP Amendment as shown in Table PU-5 above. The Project will add to the overall demand for water within the Zone 40 service area, but not beyond the service area’s projected supplies which were analyzed as part of the original Zone 40 Water Supply Master Plan. The Project will not contribute any previously-unanalyzed or undisclosed impacts to river flows, which is the issue at the heart of General Plan Policy CO-23. Zone 40 has sufficient supply to provide water service to the Project; therefore, impacts are *less than significant*.

MITIGATION MEASURES:

None required.

Table PU-3: Proposed Cordova Hills Land Use and Projected Water Demands

Land Use Category ¹	Proposed Water Demands ³		
	Maximum Residential Land Use Scenario (Acres)	Unit Demands ² (AFY/acre)	Annual Demands (AFY)
<i>Within USB</i>			
Estate Residential (ER)	64.7	1.33	86.1
Low Density Residential (LDR)	442.8	2.89	1,279.7
Medium Density Residential (MDR)	516.2	3.70	1,909.9
Residential 20 (RD-20)	54.0	3.70	199.8
High Density Residential 1 (HDR-1)	79.6	4.12	328.0
Public/Quasi-Public (P/QP)	105.8	3.46	366.1
Recreation (R)	49.1	3.46	169.9
Recreation 2 (R-2)	150.6	3.46	521.1
University	223.6	3.46	773.7
Misc Roads & Open Space	195.3	0.21	41.0
Flex Commercial (FC)	34.6	2.75	95.2
Town Center (TC) ⁴	0.0	2.75	0.0
Avoided (AV)	444.0	0.00	0.0
Agriculture (AG)	54.5	0.00	0.0
Sub-Total	2,414.8		5,770.3
+System Loss @ 7.5%	n/a		432.8
Sub-Total	2,414.8		6,203.1
<i>Outside USB</i>			
Regional Sports Park	50.0	3.46	173.0
Community Gardens @ 50% of Park Demand	20.0	1.73	34.6
Roads (Paved Areas)	6.5	0.00	0.0
Median and Streetscape Corridors	8.6	3.46	29.8
Detention Basin (10% Landscaped Area)	17.4	0.35	6.1
CHCSD Corporation Yard/Transit Bus Park	3.0	2.71	8.1
Solar Farm	96.4	0.00	0.0
Solar Farm Landscaped Buffer	1.7	3.46	5.9
Central Utility Plant (Administration Area)	1.0	3.75	3.8
Central Utility Plant (Production Area)	Incl.	n/a	61.4

Land Use Category ¹	Proposed Water Demands ³		
	Maximum Residential Land Use Scenario (Acres)	Unit Demands ² (AFY/acre)	Annual Demands (AFY)
Nature Preserve	49.2	0.00	0.0
Sub-Total	253.8		322.6
+System Loss @ 7.5%	n/a		24.2
Sub-Total	253.8		346.8
GRAND TOTAL	2,668.6		6,549.9
Note(s): ¹ The land use classification and acreage information are provided by the Project proponent in March 2011. ² The unit water demands provided in this table are consistent with the <i>Zone 40 WSMP (SCWA, 2005)</i> . ³ The total water demand of the potable and non-potable water master plans for Cordova Hills is 161.1 acre-feet per year greater than estimated herein due to different assumptions used for non-potable water demand estimation. This WSA assumes all water demands for the Project will be met by potable water. ⁴ There is no "Town Center" classification of water demand, so the acreage from the Town Center were incorporated by increasing the total acreage of the Medium Density Residential from the 310.5 of the Land Plan to the 516.2 reflected in this table.			

Table PU-4: Cordova Hills Water Demand Growth Projection in Five-Year Increments

Year	2011	2016	2021	2026	2031
Water Demand (AF/Year)	0	1,179.0	3,274.9	5,370.9	6,549.9

Table PU-5: SCWA Zone 40 Water Demands in Five-Year Increments

Year	Zone 40 Water Demand (AF/Year)				
	2015	2020	2025	2030	2035
Normal Year	53,385	63,786	79,190	90,068	96,197
Single Dry Year	46,037	54,878	67,972	77,218	82,428
Multiple Dry Year (1)	48,487	57,847	71,711	81,501	87,017
Multiple Dry Year (2)	46,037	54,878	67,972	77,218	82,428
Multiple Dry Year (3)	46,037	54,878	67,972	77,218	82,428

IMPACT: RESULT IN A PROJECT SEWER DISPOSAL DEMAND THAT CANNOT BE MET BY DISPOSAL OR CONVEYANCE CAPACITY

Flow estimates and ultimate buildout wastewater demands for conveyance facilities are calculated using ESDs, with one ESD representing the effluent generated by one single family residence. The ESD projections are based on gross acreage and used to determine the location and capacity of future wastewater conveyance facilities and trunk sheds. The Sewer Master Plan prepared for the Project (*Sewer Master Plan for Cordova Hills*, December, 2010, MacKay and Soms Civil Engineers, Inc) indicates that buildout of Phase 1 of the Project will result in 349.7 sewered acres resulting in 2,879 ESDs and an ADWF of 0.89 mgd, while ultimate buildout of the Project will result in 1,912.6 sewered acres resulting in 16,094 ESDs and an ADWF of 4.99 mgd. The peak wet weather flow for Project buildout is 10.41 mgd based on 16,094 ESDs.

The SRWTP has a permitted average dry weather flow (ADWF) design capacity of 181 mgd and wet weather flow (AWWF) of 392 mgd. The plant receives and treats approximately 141 mgd ADWF (Seyfried, 2008). The Project disposal demand can be met by this existing capacity. SASD and SRCSD have indicated that adequate interim capacity is available to serve development of Phase 1 of the Project, and that long-term options for providing service to Phase 2 and Phase 3 have been identified in master plans. SASD and SRCSD did not identify any facility constraints to service. Connection to the system is dependent on available capacity at the time of connection and is on a first come first served basis.

The Project will follow the SASD/SRCSD regional strategic plan to utilize, on an interim basis, available capacity in nearby trunk and interceptor sewers. Pipes are sized to accommodate dry weather base wastewater flow, rain-dependent inflow/infiltration, and gravity flow requirements. The SRCSD and SASD design criteria for pipe size is intended to guide design specifications for future construction. The size of the SRCSD interceptors is based on full buildout of the USB and is not related to any specific land use or designation. The actual size of the trunk lines is determined by the specific proposed land use.

Sacramento County Code regulates public sewage systems within the County. The Code includes requirements related to connection, design, and operation in order to ensure public safety and to lessen environmental impacts. Wastewater service for proposed development is subject to regulatory review and compliance with applicable wastewater Master Plans. The proposed extension of service is consistent with the SRCSD and SASD Master Plans, and thus conveyance facilities will be adequately sized for Project development. The Project will not exceed existing or planned disposal and conveyance capacity; impacts are *less than significant*.

MITIGATION MEASURES:

None required.

IMPACT: RESULT IN AN ENERGY DEMAND THAT CANNOT BE MET BY ENERGY SERVICE PROVIDERS

Energy usage data for the Project, derived from the *Cordova Hills Greenhouse Gas Plan*, May 2011, indicates that the estimated annual residential and commercial electricity demand for the Project will be 122,903,000 kilowatt hours and that the estimated annual residential and commercial natural gas demand for the Project will be 4,201,494 therms². Peak electric demand at buildout is estimated at approximately 63.2 MVA (Table PU-6). The estimated peak natural gas demand at buildout is 582.6 thousand cubic feet per hour (MCFH), which equates to 4,755,560 therms (Table PU-6). The California Energy Commission's Energy Consumption Data Management System reports that 10,691.67 million kilowatt hours of energy and 315.57 million therms were consumed within Sacramento County in the year 2010. The estimated energy usage of the Project is substantially less than the annual energy production for either SMUD or PG&E. Energy service providers have sufficient capacity to serve the Project; impacts are *less than significant*.

MITIGATION MEASURES:

None required.

Table PU-6: Estimated Electric Demand at Buildout (MVA)

Land Use	Residential	Commercial Mixed Use	Business Professional	Schools	University/ College Campus Center	Total Demand
Average Demand	20.3	2.9	0.7	0.5	5.5	29.9
Peak Demand	41.1	6.6	1.9	2.4	11.2	63.2

Table PU-7: Estimated Natural Gas Peak Demand at Buildout (MCFH)

Land Use	Residential	Commercial Mixed Use	Business Professional	Schools	University/ College Campus Center	Total Peak Demand
Peak Demand	400.0	51.9	15.9	21.3	93.5	582.6

² From Table 5a (77,955 megawatt hours), Table 9 (144 therms per capita by Project population of 25,419), Table 12 (44,948 megawatt hours), and Table 13 (401.03 therms per 1,000 square feet by Project total of 1,349,419 square feet).

IMPACT: EXCEED THE SUSTAINABLE YIELD OF THE SACRAMENTO NORTH AREA GROUNDWATER BASIN

The Project will not draw groundwater from the Sacramento North Area Groundwater Basin, and thus will not impact the basin; impacts are *less than significant*.

MITIGATION MEASURE

None required.

IMPACT: EXCEED THE SUSTAINABLE YIELD OF THE SACRAMENTO CENTRAL GROUNDWATER BASIN

The ultimate water demands associated with the Project will be met by a combination of groundwater and surface water provided by SCWA. According to SCWA the initial Project demands will be met with groundwater from the North Vineyard Well Field (NVWF) and possibly the Mather Housing wells located at Mather Field. Groundwater from the NVWF will be conveyed to the Anatolia Groundwater Water Treatment Plant (AGWTP) through the Anatolia Raw Water Pipeline.

SCWA currently exercises, and will continue to exercise, its rights as a groundwater appropriator to extract groundwater from the Central Groundwater Basin underlying Zone 40 for delivery to its customers. A long-term average annual yield of 40,900 AFY of groundwater has been identified in both the Water Forum Agreement (WFA) and WSMP for SCWA in the Central Basin. Additionally, as a signatory to the WFA and a member of the Sacramento Central Groundwater Authority (Groundwater Authority), SCWA recognizes the Water Forum-defined long-term sustainable average annual yield of the underlying groundwater basin of 273,000 AFY.

The additional groundwater draw caused from implementation of the proposed Project will not result in exceedance of the agreed-upon sustainable yield of 273,000 AFY. Impacts are *less than significant*.

MITIGATION MEASURE

None required.

IMPACT: ADVERSELY AFFECT GROUNDWATER RECHARGE

The majority of the County is considered a poor area for groundwater recharge due to clay or hardpan soils, which hinders infiltration. Areas of high groundwater recharge are typically found along stream channels, with the larger rivers (the American River, Sacramento River, and the Cosumnes River) containing the broadest recharge areas. There are some areas not associated with stream systems that also have good groundwater recharge capability, such as in some areas just south of the American River, where mining has been conducted. Areas of groundwater recharge capability have been mapped within Sacramento County, and given a rating of either high,

medium, or low based on the presence of porous soils that allow surface water to infiltrate to recharge the groundwater body. Development introduces impervious surfaces that prevent or hinder groundwater recharge. In areas of hardpan soils where infiltration is already very low, development has negligible effect on recharge. In areas of porous soils with good groundwater recharge potential, the placement of impervious surfaces can have measureable negative effects on that recharge ability.

The ability to replenish our groundwater supplies is very important to the availability of water, especially during dry years. Since the majority of the County has poor groundwater recharge capability due to clay or hardpan soils, it is imperative that the areas of high, medium, or even low groundwater recharge capabilities be maintained. Figure 4 of the Conservation Element of the General Plan shows that the main central waterway on the Project site has high groundwater recharge capability, and should be maintained. The Project already includes this area of high recharge within open space. Since this recharge area will not be covered with impervious surfaces and the Drainage Master Plan is designed to prevent substantial hydromodification, it is concluded that the Project will not interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level; impacts are *less than significant*.

MITIGATION MEASURES:

None required.

16 TRAFFIC AND CIRCULATION

Mitigation Measures have been amended to reflect alternative mitigation proposed and found acceptable, and to reflect roadway improvements which were constructed in the interval between scoping of the traffic study roadway system and publication of this FEIR. All changes have been recommended or approved by the Sacramento County Department of Transportation (County DOT). Specifically:

TR-1.B has been deleted because a traffic signal at Douglas Road/Zinfandel Drive was constructed, and additional analysis shows that another signal consistent with TR-1.B is no longer needed. Refer to Appendices TR-1.A and TR-1.B.

TR-1.E has been amended to reflect language changes recommended by County DOT.

TR-1.F has been deleted because the improvement is in the process of being completed through a County DOT project.

TR-2.D has been modified to clarify the language to show all the lanes for the eastbound and westbound approaches, because that will make it easier for future staff to correctly verify the number of lanes required on the improvement plans.

TR-5.H has been deleted because this improvement was constructed.

TR-5.I has been modified to recognize that a portion of the specified improvement is already being constructed.

TR-5.I and TR-7 have been modified to recognize that a standard curb, gutter, and sidewalk cannot be installed at the ultimate location, because the facility will be four lanes at the time that the pedestrian facilities are needed, but will ultimately be six lanes. The measures now recognize that interim pedestrian improvements would be constructed.

INTRODUCTION

The chapter summarizes the key analysis points of the Cordova Hills Traffic Analysis Technical Report (October 2011) prepared by DKS Associates Transportation Solutions, hereinafter called the Traffic Study. The Traffic Study is included as Appendix TR-1.

TRANSPORTATION SETTING

Information on the existing transportation system was assembled from field observations, surveys (including traffic counts), previous environmental impact reports, and available information from the Sacramento County Department of Transportation (SacDOT), California Department of Transportation (Caltrans), the Sacramento Area Council of Governments (SACOG), and Regional Transit.

STUDY AREA

The study area was defined through cooperative work with SacDOT and Caltrans. The existing condition study area intersections and roadways are illustrated in Plate TC-1 and Plate TC-2. In the existing condition the study area includes 45 intersections, 54 roadway segments and portions of the US 50 freeway system between Howe Avenue and Hazel Avenue. By the cumulative condition the study area includes 66 intersections, 80 roadway segments, and portions of the US 50 freeway system between Howe Avenue and Scott Road. The roadways, transit systems, and pedestrian/bicycle networks within the study area are described in sections that follow.

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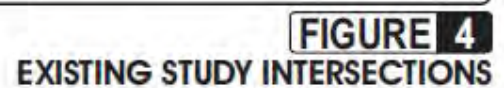
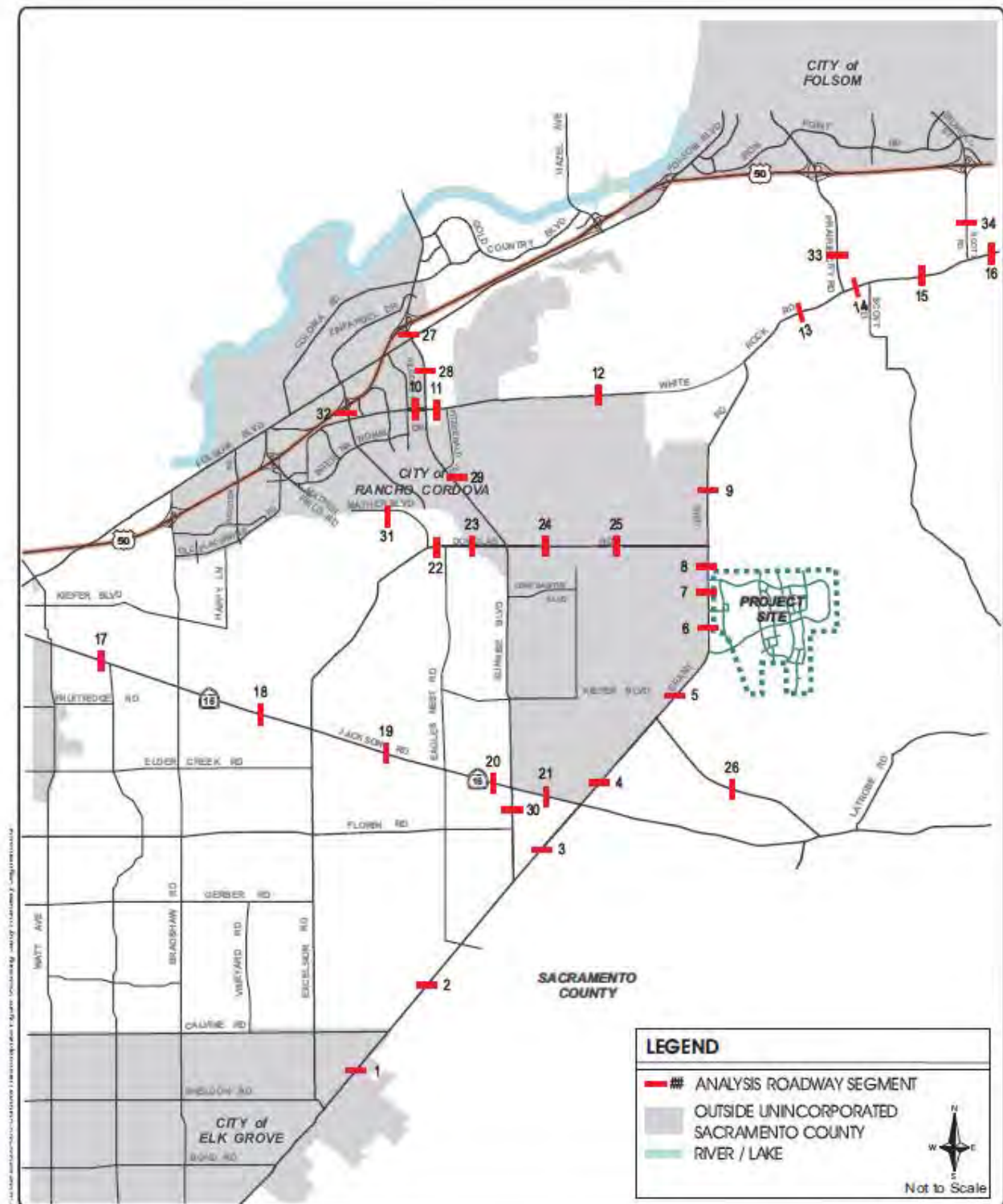


Plate TC-2: Study Area Roadways



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FIGURE 6
EXISTING STUDY ROADWAY SEGMENTS

EXISTING ROADWAY SYSTEM

U.S. Highway 50 (US 50) is an east-west freeway that extends from the Interstate 80 (I-80) junction in West Sacramento to Canal Street in the City of Placerville, where it continues as a highway across the Sierra Nevada to South Lake Tahoe and Nevada. West of Sunrise Boulevard it is an eight-lane freeway. Between Sunrise Boulevard and Folsom Boulevard, it has six mixed flow lanes and two High Occupancy Vehicle (HOV) lanes (carpool lanes). Between Folsom Boulevard and El Dorado Hills Boulevard U.S. 50 has four mixed flow lanes and two HOV lanes. East of El Dorado Hills Boulevard, it has four mixed flow lanes.

Douglas Road is a two-lane, east-west road that extends from Mather Boulevard to Grant Line Road. It is generally a two-lane rural road with widening to five through-lanes in developed areas near Sunrise Boulevard.

Eagles Nest Road is a rural north-south road that extends from Douglas Road on Mather Field to Grant Line Road. Eagles Nest Road is closed to public traffic immediately north of Kiefer Boulevard.

Grant Line Road is a two-lane north-south rural roadway that forms the western Project boundary. It extends from White Rock Road to Highway 99 south of Elk Grove.

Jackson Road (State Route 16) is an east-west facility that extends from Folsom Boulevard to the west into Amador County to the east. It is a two-lane highway with additional turning lanes at some intersections.

Kiefer Boulevard is an east-west roadway that extends from Florin Perkins Road to the west to Jackson Road to the south. Kiefer Boulevard is not maintained and is not open to public traffic adjacent to Mather Airport, between Happy Lane and Eagles Nest Road. Portions of the roadway are also not maintained midway between Sunrise Boulevard and Grant Line Road.

Prairie City Road begins at White Rock Road and extends to the north across US 50 into the City of Folsom where it becomes Sibley Street. Prairie City Road is two lanes wide north of White Rock Road and its intersection with White Rock Road is controlled by stops signs on all three approaches.

Scott Road is a north-south facility that has two major segments called Scott Road (West) and Scott Road (East) in this traffic study. Scott Road (West) terminates at White Rock Road. To the south, it extends to Latrobe Road. Scott Road (West) is two lanes wide and is stop sign controlled at its intersection with White Rock Road. It is a rural road of limited width and substandard horizontal and vertical alignment. This road is also known as Old Scott Road. Scott Road (East) terminates at White Rock Road about one and a half miles east of Scott Road (West). To the north, the roadway continues across US 50, at an interchange, into the City of Folsom where it becomes East Bidwell Street. Scott Road (East) is two lanes wide north of White Rock Road. The roadway has an all way stop intersection at White Rock Road.

Sunrise Boulevard is a north-south roadway designated as a thoroughfare within the unincorporated County. It has six lanes between U.S. 50 and White Rock Road, four to six lanes between White Rock Road and Douglas Road, five lanes between Douglas Road and Kiefer Boulevard, and two lanes between Kiefer Boulevard and Grant Line Road.

White Rock Road is a two to six lane east-west roadway that provides access to the office parks/light industrial uses near Sunrise Boulevard. It begins at International Drive to the west and continues easterly into El Dorado County.

EXISTING TRANSIT SYSTEM

No transit service is currently provided in the Project area. Transit service is provided near the Project area by the Sacramento Regional Transit District (RT), Folsom Stage Line, and El Dorado County Transit. All of these transit services operate along routes located a considerable distance from the Project site.

EXISTING PEDESTRIAN AND BICYCLE FACILITIES

No pedestrian or bike facilities exist in the Project area. The nearest pedestrian and bicycle facilities are located in the City of Rancho Cordova to the west.

REGULATORY SETTING

STATE PLANS, POLICIES, REGULATIONS AND LAWS

The *Guide for the Preparation of Traffic Impact Studies* published by Caltrans (2002) identifies circumstances under which Caltrans believes that a traffic impact study would be required, information that Caltrans believes should be included in the study, analysis, scenarios, and guidance on acceptable analysis methodologies. The Traffic Impact Study prepared for the Project complies with Caltrans guidelines.

The standards for Caltrans' facilities in the study area are detailed in the U.S. 50 Corridor System Management Plan (CSMP). The 20-Year Concept Level of Service (LOS) for U.S. 50 in the study area is LOS F, because improvements necessary to improve the LOS to E are not feasible due to environmental, right-of-way, financial, and other constraints. For SR 16, the minimum acceptable operating condition is based on the local jurisdictional thresholds (i.e. City of Rancho Cordova or Sacramento County).

REGIONAL AND LOCAL PLANS, POLICIES, REGULATIONS AND LAWS

METROPOLITAN TRANSPORTATION PLAN FOR 2035 (MTP)

The MTP 2035 is a long range planning document for identifying and programming roadway improvements throughout the Sacramento region, which was adopted in 2008.

The MTP has a history of being able to fund and deliver identified Tier 1 projects through State and local funding. The Sacramento Area Council of Governments periodically updates the MTP, and published an updated Draft MTP in November 2011. A review of this draft indicates that there are no changes to the list of funded facilities which would impact the traffic analysis for this Project.

SACRAMENTO COUNTY DEPARTMENT OF TRANSPORTATION

The Sacramento County Department of Transportation's (SacDOT) Traffic Impact Guidelines (July 2004) defines the methodologies to use in determining significant impacts, while the Sacramento County General Plan defines acceptable operating conditions. Sacramento County defines the minimum acceptable operation level for its roadways and intersections to be LOS D for rural areas and LOS E for urban areas. The urban areas are those areas within the Urban Service Boundary (USB) as shown in the Land Use Element of the County General Plan. The areas outside the USB are considered rural.

2030 SACRAMENTO COUNTY GENERAL PLAN

The Sacramento County General Plan Circulation Element focuses on providing roadways for growing automobile demands and alternative modes of transportation. This requires improving those alternatives through regional coordination, improved funding, better land use and design, and fair pricing. The overarching goals of the element seeks a balanced transportation system that moves people and goods in a safe and efficient way that minimizes environmental impacts, supports urban land uses, and serves rural needs. Supporting General Plan policies include conducting planning for roads, parking, clean alternative fuel and low emission vehicles, and other methods consistent with achieving air quality goals; conducting land use and transportation planning with a regional perspective; and mitigating new development traffic impacts.

Included within the Circulation Element is the Transportation Plan, which emphasizes four major themes: air quality, balance, transportation-land use coordination, and transportation funding. Air quality is an important aspect of this element because the major air quality problems in the County are related to automobile traffic. As a result, transportation planning in the County is to be conducted in a manner that promotes air quality. A balance of opportunities offers an efficient transportation system to citizens of the County by increasing the emphasis on transit, walking, and bicycling.

Goals and policies of the Sacramento County General Plan relating to traffic, circulation and transportation applicable to the Project are listed below:

- CI-1. Provide complete streets to provide safe and efficient access to a diversity of travel modes for all urban, suburban and rural land uses within Sacramento County except within certain established neighborhoods where particular amenities (such as sidewalks) are not desired. Within rural areas of the County, a complete street may be accommodated through roadway shoulders of sufficient width or other means to accommodate all modes of travel.

- CI-3. Travel modes shall be interconnected to form an integrated, coordinated and balanced multi-modal transportation system, planned and developed consistent with the land uses to be served.
- CI-4. Provide multiple transportation choices to link housing, recreational, employment, commercial, educational, and social services.
- CI-5. Land use and transportation planning and development should be cohesive, mutually supportive, and complement the objective of reducing per capita vehicle miles travelled (VMT).
- CI-9. Plan and design the roadway system in a manner that meets Level of Service (LOS) D on rural roadways and LOS E on urban roadways, unless it is infeasible to implement project alternatives or mitigation measures that would achieve LOS D on rural roadways or LOS E on urban roadways. The urban areas are those areas within the Urban Service Boundary as shown in the Land Use Element of the Sacramento County General Plan. The areas outside the Urban Service Boundary are considered rural.
- CI-10. Land development projects shall be responsible to mitigate the project's adverse impacts to local and regional roadways.
- CI-12. To preserve public safety and local quality of life on collector and local roadways, land development projects shall incorporate appropriate treatments of the Neighborhood Traffic Management Program.
- CI-16. The County supports creating communities that promote access and mobility for all modes of travel through the development of roadway networks based on a grid or modified grid layout.
- CI-27. Public Facilities Financing Plans shall incorporate capital costs for transit. Infrastructure Master Plans shall include transit planning.
- CI-29. The County shall work with transit service providers to establish and implement development guidelines to maximize the ability of new development and redevelopment to support planned transit services. New development and redevelopment shall have an orientation to travel patterns that are conducive to transit service. This will include concentration of development in centers and along linear corridors such that trip origins and destinations are concentrated near transit services.
- CI-35. The applicant/developer of land development projects shall be responsible to install bicycle and pedestrian facilities in accordance with Sacramento County Improvement Standards and may be responsible to participate in the fair share funding of regional multi-use trails identified in the Sacramento County Bicycle Master Plan.

- CI-37. Pursue all available sources of funding for the development, improvement, and maintenance of bikeways, pedestrian facilities and multi-use trails, and to support bicycle and pedestrian safety, education, encouragement and enforcement programs.
- LU-37. Provide and support development of pedestrian and bicycle connections between transit stations and nearby residential, commercial, employment or civic uses by eliminating physical barriers and providing linking facilities, such as pedestrian overcrossings, trails, wide sidewalks and safe street crossings.
- LU-39. Support implementation of the ADA Transitional Plan and the Pedestrian Master Plan to create a network of safe, accessible and appealing pedestrian facilities and environments.
- LU-40. Employ appropriate traffic calming measures in areas where pedestrian travel is desirable but made unsafe by a high volume or excessive speed of automobile traffic. Preference shall be given to measures that slow traffic and improve pedestrian safety while creating the least amount of conflict with emergency responders.
- LU-42. Master planning efforts for new growth areas shall provide for separated sidewalks along all arterials and thoroughfares to make walking a safer and more attractive transportation option.

CITY OF RANCHO CORDOVA GENERAL PLAN

Goals and policies of the City of Rancho Cordova General Plan relating to traffic and transportation found applicable to the Project are listed below:

- C.1.2 Seek to maintain operations on all roadways and intersections at Level of Service D or better at all times, including peak travel times, unless maintaining this Level of Service would, in the City's judgment, be infeasible and/or conflict with the achievement of other goals. Congestion in excess of Level of Service D may be accepted in these cases, provided that provisions are made to improve traffic flow and/or promote non-vehicular transportation as part of a development project or a City-initiated project.
- C.1.11 As part of major individual roadway enhancement project (e.g., intersection redesign, signalization of previously un-signalized intersection), enhance and upgrade pedestrian and bicycle facilities within one-quarter mile of the project.
- C.2.6 Provide on-street bike lanes along all connector roadways and on local and major roadways when necessary to provide for interconnected routes. On-street bike routes maybe provided on local, connector, and major roadways as deemed necessary by the City.

Because the City of Rancho Cordova formally adopted the County's traffic-impact study guidelines upon incorporation, plans and policies from the County Guidelines were used in this analysis, except where the Circulation Element/Plan of the City of Rancho Cordova General Plan supersedes County thresholds and requirements. The City of Rancho Cordova has adopted a Level of Service D policy.

CITY OF FOLSOM GENERAL PLAN

Goals and policies of the City General Plan relating to traffic and transportation applicable to the Project are listed below:

Goal 17 To develop a comprehensive transportation / circulation system which includes as a minimum:

1. Freeways, highways, and/or expressways designed to route through-traffic away from Folsom's neighborhoods.
2. Arterial roads which provide access among Folsom's neighborhoods, major cross-town links, and links between Folsom and adjacent communities.
3. Additional crossing(s) over the American River.
4. Pathways and designated route for bicycle and pedestrian traffic.
5. Designated routes for commercial vehicles.
6. The protection of residential neighborhoods from through-traffic.
7. Public transportation routes.

Policy 17.1 The City shall plan for an integrated circulation system which provides for travel by private vehicles, commercial vehicle routes, a public transportation system, and for pedestrian and bicycle routes.

Policy 17.2 The City should establish a hierarchy of roads consisting of the following:

1. Freeways or limited access highways. Such roads shall be grade separated at each intersection with another road. The major purpose of such roads is to route traffic around Folsom, with as few interruptions to the surface street system as possible. U.S. Highway 50 currently meets the definition of a freeway. The City has made a firm commitment that a new freeway would not bisect the city.
2. Expressways. Allow for moderate- to high-speed travel within the City. The purpose of an expressway is to carry cross-town traffic from other communities or between neighborhoods within the City. An expressway may contain some grade-separated intersections, but this type of road would be mainly a surface street. Expressways

should be located to allow for controlled intersections spaced at one-half mile intervals or more. Only arterial and collector roads should intersect with an expressway.

3. Arterial roads (or major streets). Serve to connect neighborhoods within the City and the City with surrounding communities. Arterials would normally define the boundaries of neighborhoods, not provide internal access to a neighborhood.
4. Collector (or secondary) roads. Serve to route traffic from local streets within a neighborhood to an arterial road. Collector streets would not normally serve as “through” roads for more than one area, but would circulate throughout a neighborhood.
5. Local (or tertiary) roads. Serve a portion of a neighborhood only and route traffic to a collector street.
6. Street-ends (cul-de-sacs, dead end streets, etc.). Limited in length and serve only a few residences.

Policy 17.3 Arterial roads serving new developments shall be aligned with arterial roads whenever possible.

Policy 17.9 The City should plan for the expansion of future public transit routes (bus and fixed rail service).

1. Transit routes should coincide with major destinations for employment and shopping, the location of major institutions, concentrations of multifamily housing, and other land uses likely to attract public transit ridership.
2. The City should preserve existing railroad rights-of-way for their potential future use as public transit routes.
3. Bus routes should follow major roads with service to residential neighborhoods via collector streets.

Policy 17.10 The City should develop and maintain a bikeway and pedestrian master plan that links residential developments with sources of employment, public open space, parks, schools, neighborhood shopping areas, the central commercial district, other major recreational destinations, and adjoining communities.

1. The City should ensure that new residential developments incorporate pedestrian and bicycle paths or routes when there are nearby schools, parks, public open spaces, sources of employment or other destinations for such travel. Such paths or routes should be designed so that schools and parks accessible to area

residents. Pedestrian / bicycle over- and under-crossings may be provided when necessary to cross arterial roads or expressways.

2. The City should establish and maintain an internal pathway system that links parks sources of employment and public open spaces using right-of-way and parkways.
3. Where on-street bikeways are not feasible, the City should provide for Class I off-street bikeways.
4. The City should endeavor to provide routes for recreational travel, providing access to important recreational areas of the City, including Folsom Lake.

Policy 17.16 The City shall designate locations for park and ride lots and adopt standards for their development. Several such lots are designated on the Plan Map and dedication of land for each site shall be required as part of the approval process for developing of adjoining parcels.

Policy 17.17 The City should strive to achieve at least a traffic Level of Service “C” throughout the City. During the course of the Plan buildout it may occur that temporary higher Level of Service results where roadway improvements have not been adequately phased as development proceeds. However, this situation will be minimized based on annual traffic studies as approved by the City of Folsom and Monitoring programs. Resolution No. 3798.

Policy 17.18 The City will work with the California Department of Transportation in planning for and funding freeway interchange improvements and additional interchanges along U.S. Highway 50. A specific study should be prepared by the City to determine the required phasing of construction of freeway and interchange improvements based upon buildout of land uses designated on the Plan Map.

Policy 17.19 Because the Traffic Studies upon which this Circulation Element are based shows various intersections which will not achieve Level of Service “C”, the City should adopt a mandatory TSM program that applies to existing as well as future development and will ensure the assumed reduction in peak hour trips. Prior to adoption of the Program by the City, all discretionary development permits issued by the City should require the applicants to participate in the TSM program when enacted. Specific Studies should be conducted to determine the most desirable methods for achieving the required level of trip reduction.

Policy 17.22 The City shall require at a minimum two lane arterial roads be installed adjacent to or in the vicinity of new subdivision.

CITY OF ELK GROVE GENERAL PLAN

Goals and policies of the City of Elk Grove General Plan relating to traffic and transportation found applicable to the Project are listed below:

CI-10 The City shall implement the roadway master plan shown in Figure CI-2 of the General Plan. The following policies apply to selected roadways: The City shall use the latest version of Caltrans' Transportation Concept Report for I-5 and Hwy 99 to determine the planned width of these freeways. Expanded right-of-way indicates roadways on which sufficient width is provided for a middle two-way turn lane and/or expanded turn pockets at roadway intersections. The City will widen Grant Line Road north of Bradshaw Road only as needed to accommodate traffic, and strongly supports efforts to locate a future regional connector to provide traffic relief for this roadway. Grant Line Road north of Bradshaw Road should be widened in phases as needed, and should be widened to six lanes only if no alternative route for a future regional connector (see Policy CI-12) has been located and traffic conditions warrant the widening.

CI-10-Action 1: Require the dedication of right of way and the installation of roadway improvements as part of the review and approval of development projects. The City shall require the dedication of major road rights of way (generally, arterials and thoroughfares) at the earliest opportunity in the development process in order to implement this policy.

CI-11 The City shall assist Caltrans in implementing improvements to I-5 and Hwy 99 within the city.

CI-11-Action 1: Require the reservation of right of way for projects adjacent to I-5 and Hwy 99 sufficient to accommodate the freeway facilities outlined in the most recent Caltrans Transportation Concept Report.

CI-11 Action 2: A new Whitelock Parkway interchange, as shown on Figure CI-2 of the General Plan, may be considered by the City Council in the future. Any interchange in this general location shall be designed to minimize impacts to the Elk Grove Regional Park as well as other assets to the fullest extent possible. Consultation with Caltrans, the Cosumnes Community Services District, and other stakeholder groups shall be conducted prior to approval of any interchange design.

CI-12 The City supports efforts to locate an alternative route for a future regional roadway connecting Hwy 99 and Hwy 50 in order to reduce the need for widening of Grant Line Road, particularly in the Sheldon town area.

CI-12-Action 1: Participate in regional efforts to locate and implement an alternative route for a future Hwy 99-Hwy 50 connector.

- CI-13 The City shall require that all roadways and intersections in Elk Grove operate at a minimum Level of Service D at all times.
- CI-14 The City recognizes that Level of Service D may not be achieved on some roadway segments, and may also not be achieved at some intersections. Roadways on which LOS D is projected to be exceeded are shown in the General Plan Background Report, based on the latest traffic modeling conducted by the City. On these roadways, the City shall ensure that improvements to construct the ultimate roadway system as shown in this Circulation Element are completed, with the recognition that maintenance of the desired level of service may not be achievable.
- CI-14-Action 1: The City shall develop criteria to determine which roadway segments and intersections will not achieve the desired level of service standard.
- CI-15 Development projects shall be required to provide funding or to construct roadway/intersection improvements to implement the City's Circulation Master Plan. The payment of established traffic impact or similar fees shall be considered to provide compliance with the requirements of this policy with regard to those facilities included in the fee program, provided that the City finds that the fee adequately funds all required roadway and intersection improvements. If payment of established fees is used to provide compliance with this policy, the City may also require the payment of additional fees if necessary to cover the fair share cost of facilities not included in the fee program.
- CI-15-Action 1: Update the City's traffic analysis guidelines to implement the policies of this General Plan. Items to be addresses should include: Guidelines for determining when traffic analysis is required, Guidelines for the preparation of traffic analysis, Significance criteria for use in CEQA analysis of proposed projects. The guidelines and significance criteria referenced above shall be reviewed by the Elk Grove Planning Commission within six months of adoption of this General Plan.
- CI-16 Where a development project is required to perform new roadway construction or road widening, the entire roadway shall be completed to its planned width from curb to-curb prior to the operation of the project for which the improvements were constructed, unless otherwise approved by the City Engineer. Such roadway construction shall also provide facilities adequate to ensure pedestrian safety as determined by the City Engineer.
- CI-17 The City shall regulate truck travel as appropriate for the transport of goods, consistent with circulation, air quality, congestion management, and land use goals.

- CI-17-Action 1: The City shall on an as needed basis review existing truck routes within Elk Grove and designate routes consistent with the need to reduce traffic, noise and other impacts, and negative effects on residential areas.
- CI-18 To the extent possible, major traffic routes for residential areas should be separate from those used by the city's industrial areas, with the purpose of avoiding traffic conflicts and potential safety problems.
- CI-19 The circulation system serving the city's industrial areas should be designed to safely accommodate heavy truck traffic.
- CI-20 The City shall discourage the creation of private roadways unless the roadways are: 1) Constructed to public roadway standards, or 2) Are used in an affordable residential development.
- CI-21 The City shall require the installation of traffic pre-emption devices for emergency vehicles (police and fire) at all newly constructed intersections, and shall seek to retrofit all existing intersections to incorporate these features.
- CI-22 Where traffic calming devices or techniques are employed, the City shall coordinate design and implementation with the Elk Grove Police Department and the Elk Grove CSD to ensure adequate access for police and fire vehicles.
- CI-23 All public streets should have sufficient width to provide for parking on both sides of the street and enough remaining pavement width to provide for fire emergency vehicle access.

The City of Elk Grove has adopted a Level of Service D policy.

METHODOLOGY

LEVEL OF SERVICE METHODOLOGY

Determination of roadway operating conditions is based upon comparison of traffic volumes to roadway capacity. "Levels of service" describe roadway operating conditions. Level of service is a qualitative measure of the effect of a number of factors, which include speed and travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience, and operating costs. Levels of service are designated "A" through "F" from best to worst, which cover the entire range of traffic operations that might occur. Levels of Service (LOS) "A" through "E" generally represent traffic volumes at less than roadway capacity, while LOS "F" represents over capacity and/or forced conditions. Table TC-1 presents the Level of Service definitions.

Table TC-1: Level of Service (LOS) Definitions

LOS A	LOS A describes primarily free-flow operations at average travel speeds, usually 90 percent of the free-flow speed for the given street class. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Control delay at signalized intersections is minimal.
LOS B	LOS B describes reasonably free-flow operations at average travel speeds, usually 70 percent of the free-flow speed for the given street class. The ability to maneuver within the traffic stream is only slightly restricted and control delay at signalized intersections are not significant.
LOS C	LOS C describes stable operations; however, ability to maneuver and change lanes in midblock locations may be more restricted than at LOS B and longer queues, adverse signal coordination, or both may contribute to lower average travel speeds of about 50 percent of the free-flow speed for the street class.
LOS D	LOS D borders on a range in which small increases in flow may cause substantial increases in delay and decreases in travel speed. LOS D may be due to adverse signal progression, inappropriate signal timing, high volumes, or a combination of these factors. Average travel speeds are about 40 percent of the free-flow speed.
LOS E	LOS E is characterized by significant delays and average travel speeds of 33 percent or less of the free-flow speed. Such operations are caused by a combination of adverse progression, high signal delay, high volumes, extensive delays at critical intersections and inappropriate signal timing.
LOS F	LOS F is characterized by urban street flow at extremely low speeds, typically one-third to one-fourth of the free-flow speed. Intersection congestion is likely at critical signalized locations, with high delays, high volumes and extensive queuing.

Source: *Highway Capacity Manual*, Transportation Research Board, Special Report No. 209, Washington, D.C., 2000.

Sacramento County utilizes a LOS “E” standard for urban areas, and a LOS “D” standard for rural areas. The cities of Elk Grove and Rancho Cordova utilize a LOS “D” standard for their roadways. The city of Folsom utilizes a LOS “C” standard for their intersections. In Sacramento County, Caltrans has a route concept LOS “F” for US 50. In this report, we use a LOS “E” standard for all Caltrans facilities along US 50 to be conservative. For SR 16, we used LOS “D” standard for segments within City of Rancho Cordova and LOS “E” standard for segments within Sacramento County.

In this traffic assessment, capacity analyses were conducted for intersections and roadway segments in accordance with Sacramento County, City of Rancho Cordova, City of Folsom, City of Elk Grove, and Caltrans practice. The following summarizes the analysis types:

- Intersection-based capacity analyses are conducted utilizing a.m. and p.m. peak commuter hour traffic volumes. These analyses evaluate the ability of intersections to accommodate traffic volumes during peak travel periods.
- Roadway segment-based capacity analyses are conducted utilizing daily traffic volumes for Sacramento County and the cities of Elk Grove and Rancho Cordova. These analyses evaluate the adequacy of the number of roadway lanes between major intersections.
- Freeway segment-based capacity analyses are conducted utilizing a.m. and p.m. peak hour volumes for Caltrans facilities. These analyses evaluate the adequacy of the number of freeway lanes between interchanges.
- Freeway merge, diverge, and weave analyses are conducted utilizing a.m. and p.m. peak hour volumes for Caltrans facilities. These analyses evaluate the adequacy of the freeway system to accommodate entering and exiting traffic volumes.

INTERSECTION ANALYSIS

For intersection-based capacity analyses, different analysis methodologies are utilized depending upon whether an intersection is controlled by a traffic signal, two-way stop sign control, or all-way stop sign control.

UNSIGNALIZED INTERSECTIONS

For unsignalized intersections, LOS is based upon average control delay calculated, based upon *Highway Capacity Manual, 2000* methods. For two-way stop locations, delay is calculated for each lane group, and the worst delay/ level of service is reported. For all-way stop locations, average delay for all movements is reported. Table TC-2 presents the LOS definitions for unsignalized intersections, both two-way and all-way stop control.

The Project and alternatives include roundabouts within the Project site. These intersections were evaluated in accordance with techniques described in the Federal Highway Administration publication "Roundabouts: An Informational Guide," publication number FHWA-RD-00-067. Level of service at roundabouts is based upon delay in accordance with the criteria shown in Table TC-2 for other unsignalized intersections.

SIGNALIZED INTERSECTIONS

For signalized intersections, different methodologies are used depending on jurisdiction. Sacramento County and the City of Rancho Cordova use an updated version of the *Circular 212 (Interim Materials on Highway Capacity)* methodology. The level of service definitions based on the Circular 212 methodology are shown in Table TC-3. For the City of Elk Grove, City of Folsom, and Caltrans, the *Highway Capacity Manual, 2000* methodology is used. The level of service definitions based upon this methodology are shown in Table TC-4. For signalized intersections, level of service reflects average intersection conditions. Some movements may experience better or worse levels of service.

Table TC-2: Level of Service Criteria for Unsignalized Intersections

Level of Service (LOS)	Description	Total Delay per Vehicle (seconds)
A	Little or no delay	≤ 10
B	Short traffic delays	> 10 and ≤ 15
C	Average traffic delays	> 15 and ≤ 25
D	Long traffic delays	> 25 and ≤ 35
E	Very long traffic delays	> 35 and ≤ 50
F	Stop-and-go conditions	> 50

Source: Highway Capacity Manual, Transportation Research Board, Washington, D.C., 2000

Table TC-3: LOS for Signalized Intersections – Circular 212 Method

LOS	Sum of Critical Lane Volumes by Signal Phasing (Vehicles/critical lane/hour)		
	2-Phase	3-Phase	4 or more Phases
A	0 – 990	0 – 930	0 – 990
B	991 – 1,155	931 – 1,085	901 – 1,050
C	1,156 – 1,320	1,086 – 1,240	1,051 – 1,200
D	1,321 – 1,485	1,241 – 1,395	1,201 – 1,350
E	1,486 – 1,650	1,396 – 1,550	1,351 – 1,500
F	$> 1,650$	$> 1,550$	$> 1,500$

Source: Interim Materials on Highway Capacity (Circular 212, Transportation Research Board, 1980); and Traffic Impact Guidelines, County of Sacramento, Public Works Agency, 2004

Table TC-4: LOS for Signalized Intersections – Highway Capacity Manual Method

LOS	Description	Total Delay per Vehicle (seconds)
A	Uncongested operations; all queues clear in a single cycle	≤ 10
B	Very light congestion; an occasional phase is fully utilized	> 10 and ≤ 20
C	Light congestion; occasional queues on approaches	> 20 and ≤ 35
D	Significant congestion on critical approaches, but intersection is functional. Cars required to wait through more than one cycle during short peaks. No long-standing queues formed.	> 35 and ≤ 55
E	Severe congestion with some long-standing queues on critical approaches. Traffic queue may block nearby intersection(s) upstream of critical approach(es).	> 55 and ≤ 80
F	Total breakdown, stop-and-go conditions.	> 80

Source: Highway Capacity Manual, Transportation Research Board, Washington, D.C., 2000

ROADWAY SEGMENT ANALYSIS

Level of service analyses were conducted for Sacramento County, City of Elk Grove, and City of Rancho Cordova roadway segments in the study area based upon daily traffic volumes, number of traffic lanes between intersections, and roadway characteristics (the City of Folsom does not have a roadway segment LOS criteria). These analyses were conducted utilizing the methodology employed in the analysis of the Sacramento County General Plan. In this methodology, the major roadway network is divided into “capacity class” categories for level of service determination, as shown in Table TC-5.

The capacity class categories are based upon the nature of traffic flow along the facility, including number of interruptions due to intersection control and “side-friction” due to driveways and local streets. For each capacity class shown in Table TC-5, relationships were developed between daily traffic volumes and roadway level of service. Table TC-6 summarizes the maximum daily traffic volumes for each capacity class/level of service combination. The segment-based level of service represents peak hour conditions, although it is calculated based upon daily traffic volumes and capacity estimates.

FREEWAY SEGMENT ANALYSIS

Level of service analyses were conducted for freeway segments in the study area based upon peak hour traffic volumes, and number of both mixed flow and full auxiliary lanes. The methodology is outlined in the Transportation Research Board’s Special Report 209, *Highway Capacity Manual*, 2000. Table TC-7 presents the level of service criteria for the freeway mainline.

FREEWAY RAMP MERGE/DIVERGE ANALYSIS

Freeway ramp junctions (merge/diverge) analyses were conducted at study area interchanges using the 2000 Highway Capacity Manual methodology. This methodology correlates the LOS to the expected density of vehicles in passenger cars per mile per lane. Table TC-8 summarizes the relationship between density and LOS for freeway ramp junctions and weaving areas.

Table TC-5: Roadway Capacity Class

Capacity Class	General Criteria			
	Stops per Mile	Driveways	Speed Range	Lanes
Urban Roadways				
Arterial – High Access Control	1 – 2	None	45 – 55	4 +
Arterial – Moderate Access Control	2 – 4	Limited	35 – 45	2 +
Arterial – Low Access Control	4 +	High	25 – 35	2 +
Rural Roadways				
Two-lane Highway	< 0.5	Limited	45 – 55	2
Two-lane road, paved shoulders	0.5 – 2	Limited	45 – 55	2
Two-lane road, no shoulders	0.5 – 2	Limited	45 – 55	2
Source: Sacramento County General Plan Update, Draft Environmental Impact Report, 2009				

Table TC-6: Roadway Segment LOS Criteria – Sacramento County and City of Rancho Cordova

Capacity Class	Maximum Daily Traffic Volume Per Lane LOS				
	A	B	C	D	E
Residential Roadways					
Residential Local w/ frontage	8,00	1,600	2,400	3,200	4,000
Residential Local w/o frontage	3,000	3,500	4,000	4,500	5,000
Urban Roadways					
Arterial – High Access Control	6,000	7,000	8,000	9,000	10,000
Arterial – Moderate Access Control	5,400	6,300	7,200	8,100	9,000
Arterial – Low Access Control	4,500	5,250	6,000	6,750	7,500
Rural Roadways					
Two-lane Highway	1,200	2,400	3,950	6,750	11,450
Two-lane road, paved shoulders	1,100	2150	3550	6100	10,000
Two-lane road, no shoulders	900	1,800	2,950	5,050	8,500
Source: Sacramento County Traffic Analysis Impact Guidelines					

Table TC-7: Freeway Mainline Segment Level of Service Criteria

Level of Service	Maximum Density (passenger vehicles per mile per lane)
A	11
B	18
C	26
D	35
E	45
F	varies
Source: <i>Highway Capacity Manual</i> , Transportation Research Board, Special Report No. 209, Washington, D.C., 2000.	

Table TC-8: Level of Service Criteria for Freeway Ramp Merge/Diverge and Weaving Area

Level of Service	Merge/Diverge Density (pc/mi/ln)¹	Weaving Area Density (pc/mi/ln)¹
A	≤ 10.0	≤ 10.0
B	> 10.0 – 20.0	> 10.0 – 20.0
C	> 20.0 – 28.0	> 20.0 – 28.0
D	> 28.0 – 35.0	> 28.0 – 35.0
E	> 35.0	> 35.0 – 43.0
F	Demand exceeds capacity	> 43.0
<p>1. pc/mi/ln = passenger cars per mile per lane</p> <p>Source: <i>Highway Capacity Manual</i>, Transportation Research Board, Special Report No. 209, Washington, D.C., 2000.</p>		

SIGNAL WARRANTS

At each unsignalized intersection, the potential need for a traffic signal was evaluated. Traffic signal warrants are a series of standards that provide guidelines for determining if a traffic signal is appropriate. If one or more of the signal warrants are met, signalization of the intersection may be appropriate. However, a signal likely should not be installed if none or few of the warrants are met since the installation of signals may increase delays on the previously uncontrolled major street and may contribute to an increase in accidents. The California Manual on Uniform Traffic Control Devices (CMUTCD) presents various warrant analyses to assist in evaluating the need for traffic signals at an intersection. The peak hour delay and/or the peak hour volume warrant were utilized to evaluate the possibility that traffic signals may be warranted at study intersections in this report.

SIGNIFICANCE CRITERIA

ROADWAYS AND INTERSECTIONS

This analysis was conducted using a combination of policies and guidelines based on whether the impacted facility is a state, county, or city facility. Each roadway facility was analyzed in accordance with the policies and guidelines of its jurisdiction. Sacramento County identifies LOS "E" as the minimum acceptable standard for intersection and roadway operations within the Urban Service Boundary, and LOS "D" outside. The Cities of Elk Grove and Rancho Cordova identify LOS "D" as its minimum standard for intersection and roadway operations. The City of Folsom identifies LOS "C" as its minimum standard for intersection operations. For state-controlled facilities, thresholds presented in the State's Corridor System Management Plan or Route Concept Report were applied. (The concept service level for U.S. 50 is LOS "F." For this study, LOS "E" is applied to U.S. 50 as a conservative approach for identifying impacts). For SR 16, we used LOS "D" standard for segments within City of Rancho Cordova and LOS "E" standard for segments within Sacramento County.

Table TC-9 presents the roadway standards of significance for each facility type in each jurisdiction. For each facility type in each jurisdiction, an impact is deemed significant if:

1. The facility is operating at an acceptable level of service (better than or equal to the standard) without the Project, and the addition of traffic associated with the Project degrades the level of service to worse than the standard.
2. The facility is operating at an unacceptable level of service (worse than the standard) without the Project, and the addition of traffic associated with the Project causes operations to exceed the stated impact threshold.

Table TC-9: Roadway Thresholds of Significance

Jurisdiction	LOS Standard	Facility Type	Impact Threshold if Already Deficient
Unincorporated Sacramento County	E or better inside Urban Service Boundary, D or better outside Urban Service Boundary	Unsignalized Intersection	Delay increase > 5 seconds (also must meet signal warrant)
		Signalized Intersection	v/c ratio increase > 0.05
		Segment	
City of Rancho Cordova	D or better	Unsignalized Intersection	Delay increase > 5 seconds (also must meet signal warrant)
		Signalized Intersection	v/c ratio increase > 0.05
		Segment	
City of Elk Grove	D or better	Signalized and Unsignalized Intersections	Delay increase \geq 5 seconds
		Segment	v/c ratio increase > 0.05
City of Folsom	C or better	Intersections	Delay increase \geq 5 seconds
Caltrans	E or better	Ramps and Freeways	Any volume increase
<p>Sources:</p> <p><i>Traffic Impact Guidelines</i>, County of Sacramento, Public Works Agency, Transportation Division, July 2004</p> <p><i>City of Rancho Cordova General Plan EIR</i>, 2006.</p> <p><i>City of Elk Grove General Plan</i>, 2009.</p> <p><i>US 50 Corridor Systems Management Plan</i>, Caltrans, 2009.</p>			

BICYCLE AND PEDESTRIAN FACILITIES

Bicycle facilities include Class I (off-street facilities), Class II (on-street bicycle lanes identified with signage and markings), and Class III (on-street bicycle routes identified by signage). Pedestrian facilities are composed of paths, sidewalks, and pedestrian crossings. A bicycle or pedestrian impact is considered significant if the proposed Project would:

- Eliminate or adversely affect an existing bikeway or pedestrian facility in a way that would discourage its use;
- Interfere with the implementation of a planned bikeway as shown in the Bicycle Master Plan, or be in conflict with the Pedestrian Master Plan; or
- Result in unsafe conditions for bicyclists or pedestrians, including unsafe bicycle/ pedestrian, bicycle/ motor vehicle or pedestrian / motor vehicle conflict.

TRANSIT FACILITIES

Transit facilities include shuttle services, bus service, bus rapid transit (BRT), and light-rail facilities. A project is considered to have a significant impact on the public transit system if the project would generate ridership which, when added to existing or future ridership, exceeds available or planned system capacity. An impact may also be significant if a project would conflict with or obstruct implementation of a transit plan.

EXISTING CONDITIONS

Existing a.m. and p.m. peak hour traffic volumes and lane geometry at the study area intersections are illustrated in Figure 7 of Appendix TR-1. Existing count data was obtained between 2007 and 2010. Intersection peak hour turning movement counts were collected by the Walltown Quarry Traffic Study (2008 and 2009), Mather Airport Traffic Study (2008), Folsom South of US 50 Annexation Environmental Impact Report (2007), Teichert Quarry Traffic Study (2006 and 2007), and this Project (2010). Peak hour freeway directional volumes were from the Caltrans Performance Measurement System (2008 and 2009). Daily Roadway Segment Volumes were collected by Sacramento County Department of Transportation (2007 – 2009), Caltrans (2008), Walltown Quarry Traffic Study (2008 and 2009), and this Project (2010).

Table TC-10 summarizes a.m. and p.m. peak hour operating conditions and peak-hour traffic signal warrants at the study area intersections. Table TC-11 summarizes roadway segment operating conditions based upon daily traffic volumes. Table TC-12 and Table TC-13 report freeway conditions.

Table TC-10: Existing Intersection Operating Conditions

Intersection			Level of Service (LOS) Methodology		AM Peak Hour			PM Peak Hour		
ID #	North-South Street	East-West Street	Analysis Methodology	Policy	Meets Signal Warrant	V/C or Delay ¹	LOS	Meets Signal Warrant	V/C or Delay ¹	LOS
<i>Sacramento County</i>										
1	S Watt Ave	Jackson Rd(SR-16)	Circular 212 Planning	E	--	0.80	C	--	0.90	D
2	Bradshaw Rd	Jackson Rd(SR-16)	Circular 212 Planning	E	--	0.96	E	--	0.87	D
3	Mather Blvd	Douglas Rd	2000 HCM 4-Way Stop	E		47.5	E		12.9	B
4	Excelsior Rd	Jackson Rd(SR-16)	Circular 212 Planning	E	--	0.57	A	--	0.55	A
5	Eagles Nest Rd	Jackson Rd(SR-16)	2000 HCM Unsignalized	E	No	12.5	B	No	21.3	C
6	Grant Line Rd	Sunrise Blvd	Circular 212 Planning	E	--	0.81	D	--	0.93	E
7	Grant Line Rd	White Rock Rd	2000 HCM Unsignalized	E	No	17.5	C	Yes	80.8	F
8	Prairie City Rd	White Rock Rd	2000 HCM 4-Way Stop	D	Yes	35.3	E	Yes	71.2	F
9	Scott Rd (W)	White Rock Rd	2000 HCM Unsignalized	D	No	14.2	B	No	17.1	C
10	Scott Rd (E)	White Rock Rd	2000 HCM 4-Way Stop	D	Yes	13.2	B	Yes	20.4	C
<i>City of Elk Grove</i>										
11	Grant Line Rd	Calvine Rd	2000 HCM Operations	D	--	16.3	B	--	13.1	B
<i>City of Rancho Cordova</i>										
12	Zinfandel Dr	White Rock Rd	Circular 212 Planning	D	--	0.61	B	--	0.94	E
13	Sunrise Blvd	Folsom Blvd	Circular 212 Planning	D	--	0.76	C	--	0.64	B
14	Sunrise Blvd	White Rock Rd	Circular 212 Planning	D	--	0.74	C	--	0.82	D
15	Sunrise Blvd	Douglas Rd	Circular 212 Planning	D	--	0.52	A	--	0.45	A
16	Sunrise Blvd	Jackson Rd(SR-16)	Circular 212 Planning	D	--	0.95	E	--	0.84	D

Intersection			Level of Service (LOS) Methodology		AM Peak Hour			PM Peak Hour		
ID #	North-South Street	East-West Street	Analysis Methodology	Policy	Meets Signal Warrant	V/C or Delay ¹	LOS	Meets Signal Warrant	V/C or Delay ¹	LOS
17	Grant Line Rd	Jackson Rd(SR-16)	Circular 212 Planning	D	--	1.04	F	--	1.13	F
18	Grant Line Rd	Kiefer Blvd	2000 HCM 4-Way Stop	D	Yes	13.6	B	No	14.4	B
19	Grant Line Rd	Douglas Rd	2000 HCM Unsignalized	D	No	21.6	C	No	12.0	B
<i>Caltrans State Highways</i>										
20	Mather Field Rd	US-50 WB Ramps	2000 HCM Operations	E	--	20.6	C	--	16.3	B
21	Mather Field Rd	US-50 EB Ramps	2000 HCM Operations	E	--	21.7	C	--	17.3	B
22	Zinfandel Dr	US-50 WB Ramps	2000 HCM Operations	E	--	17.3	B	--	14.3	B
23	Zinfandel Dr	US-50 EB Ramps	2000 HCM Operations	E	--	28.6	C	--	134.6	F
24	Sunrise Blvd	US-50 WB Ramps	2000 HCM Operations	E	--	14.2	B	--	13.0	B
25	Sunrise Blvd	US-50 EB Ramps	2000 HCM Operations	E	--	19.2	B	--	17.6	B
26	Prairie City Rd	US-50 WB Ramps	2000 HCM Operations	E	--	20.2	C	--	23.0	C
27	Prairie City Rd	US-50 EB Ramps	2000 HCM Operations	E	--	17.0	B	--	16.7	B
28	Scott Rd	US-50 WB Ramps	2000 HCM Operations	E	--	19.7	B	--	12.5	B
29	Scott Rd	US-50 EB Ramps	2000 HCM Operations	E	--	16.3	B	--	15.1	B
<p>1. V/C = Volume-to-Capacity ratio, Delay: At 4-Way Stop intersections (based on the 2000 HCM 4-Way Stop methodology) the reported delay is the average intersection delay.</p> <p>NOTES:</p> <p>At unsignalized, 2-Way Stop intersections (based on the 2000 HCM Unsignalized methodology), the reported delay is for the worst approach. At signalized intersections (based on the 2000 HCM Operations), the reported delay is the intersection delay.</p> <p>Bold indicates deficiency.</p> <p>Source: DKS Associates, 2011</p>										

Table TC-11: Existing Roadway Operating Conditions

ID #	Roadway Segment	Facility	Lanes	Policy	Volume	V/C	LOS
1	Grant Line Rd - Sheldon Rd to Calvine Rd	Rural S	2	D	12,800	0.64	E
2	Grant Line Rd - Calvine Rd to Sunrise Blvd	Rural S	2	E	14,200	0.71	E
3	Grant Line Rd - Sunrise Blvd to Jackson Rd (SR-16)	Rural S	2	E	7,900	0.40	D
4	Grant Line Rd - Jackson Rd (SR-16) to Kiefer Blvd	Rural S	2	D	7,800	0.39	D
5	Grant Line Rd - Kiefer Blvd to University Blvd	Rural S	2	D	6,500	0.33	C
6	Grant Line Rd - University Blvd to Chrysanthy Blvd	Rural S	2	D	6,500	0.33	C
7	Grant Line Rd - Chrysanthy Blvd to North Loop	Rural S	2	D	6,500	0.33	C
8	Grant Line Rd - North Loop to Douglas Rd	Rural S	2	D	6,500	0.33	C
9	Grant Line Rd - Douglas Rd to White Rock Rd	Rural NS	2	D	9,600	0.56	D
10	White Rock Rd - Kilgore Rd to Sunrise Blvd	Arterial M	6	D	27,000	0.50	A
11	White Rock Rd - Sunrise Blvd to Fitzgerald Rd	Arterial M	4	D	9,800	0.27	A
12	White Rock Rd - Fitzgerald Rd to Grant Line Rd	Rural NS	2	D	3,400	0.20	B
13	White Rock Rd - Grant Line Rd to Prairie City Rd	Rural NS	2	E	9,900	0.58	D
14	White Rock Rd - Prairie City Rd to Scott Rd (West)	Rural NS	2	D	7,000	0.41	D
15	White Rock Rd - Scott Rd (West) to Scott Rd (East)	Rural NS	2	D	7,000	0.41	D
16	White Rock Rd - Scott Rd (East) to County Line	Rural NS	2	D	7,500	0.44	D
17	Jackson Rd (SR-16) - Watt Ave to Bradshaw Rd	Arterial M	2	E	12,800	0.71	C
18	Jackson Rd (SR-16) - Bradshaw Rd to Excelsior Rd	Rural Hwy	2	E	10,800	0.47	D
19	Jackson Rd (SR-16) - Excelsior Rd to Eagles Nest Rd	Rural Hwy	2	E	9,200	0.40	D
20	Jackson Rd (SR-16) - Eagles Nest Rd	Rural Hwy	2	E	9,200	0.40	D

ID #	Roadway Segment	Facility	Lanes	Policy	Volume	V/C	LOS
	to Sunrise Blvd						
21	Jackson Rd (SR-16) - Sunrise Blvd to Grant Line Rd	Rural Hwy	2	D	13,000	0.57	D
22	Douglas Rd - Mather Blvd to Eagles Nest Rd	Arterial M	2	E	6,500	0.36	A
23	Douglas Rd - Eagles Nest Rd to Sunrise Blvd	Arterial M	2	D	6,300	0.35	A
24	Douglas Rd - Sunrise Blvd to Rancho Cordova Pkwy	Arterial M	2	D	4,400	0.24	A
25	Douglas Rd - Rancho Cordova Pkwy to Grant Line Rd	Arterial M	2	D	2,300	0.13	A
26	Kiefer Blvd - Grant Line Rd to Jackson Rd (SR-16)	Rural NS	2	D	2,900	0.17	B
27	Sunrise Blvd - US 50 to Folsom Blvd	Arterial M	6	D	54,500	1.01	F
28	Sunrise Blvd - Folsom Blvd to White Rock Rd	Arterial M	6	D	49,500	0.92	E
29	Sunrise Blvd - White Rock Rd to Douglas Rd	Arterial M	6	D	28,200	0.52	A
30	Sunrise Blvd - Jackson Rd (SR-16) to Florin Rd	Rural S	2	E	11,100	0.56	D
31	Mather Blvd - Douglas Rd to Femoyer St	Arterial M	2	D	6,500	0.36	A
32	Zinfandel Dr - US-50 to White Rock Rd	Arterial M	6	D	43,300	0.80	D
33	Prairie City Rd - US-50 to White Rock Rd	Rural NS	2	D	5,900	0.35	C
34	Scott Rd - US-50 to White Rock Rd	Rural NS	2	D	4,800	0.28	C
<p>NOTES:</p> <p>LOS = level of service; SR = State Route; US-50 = U.S. Highway 50; V/C = volume-to-capacity; Arterial M = medium access control arterial; Rural Hwy = rural highway; Rural NS = rural road with no shoulders; Rural S = rural road with shoulders.</p> <p>Bold indicates deficiency.</p> <p>Source: DKS Associates, 2011</p>							

Table TC-12: Existing Freeway Segment Operating Conditions

Roadway Segment	Lanes ml/hov/aux	Total Volume	Density	LOS
<i>AM Peak Hour</i>				
US-50 EB Power Inn/Howe Ave to Watt Ave	4/0/0	7,230	34	D
US-50 EB Watt Ave to Bradshaw Rd	4/0/0	7,720	38	E
US-50 EB Bradshaw Rd to Mather Field Rd	4/0/0	7,200	34	D
US-50 EB Mather Field Rd to Zinfandel Dr	4/0/1	6,420	24	C
US-50 EB Sunrise Blvd to Hazel Ave	3/1/0	4,750	27	D
US-50 WB Hazel Ave to Sunrise Blvd	3/1/0	7,100	56	F
US-50 WB Zinfandel Dr to Mather Field Rd	4/0/1	7,420	29	D
US-50 WB Mather Field Rd to Bradshaw Rd	4/0/0	7,290	35	D
US-50 WB Bradshaw Rd to Watt Ave	4/0/0	7,870	40	E
US-50 WB Watt Ave to Power Inn/Howe Ave	4/0/1	8,350	34	D
<i>PM Peak Hour</i>				
US-50 EB Power Inn/Howe Ave to Watt Ave	4/0/0	7,550	37	E
US-50 EB Watt Ave to Bradshaw Rd	4/0/0	7,630	38	E
US-50 EB Bradshaw Rd to Mather Field Rd	4/0/0	6,920	32	D
US-50 EB Mather Field Rd to Zinfandel Dr	4/0/1	7,190	28	D
US-50 EB Sunrise Blvd to Hazel Ave	3/1/0	7,060	52	F
US-50 WB Hazel Ave to Sunrise Blvd	3/1/0	4,480	24	C
US-50 WB Zinfandel Dr to Mather Field Rd	4/0/1	6,370	28	D
US-50 WB Mather Field Rd to Bradshaw Rd	4/0/0	6,770	31	D
US-50 WB Bradshaw Rd to Watt Ave	4/0/0	7,590	37	E
US-50 WB Watt Ave to Power Inn/Howe Ave	4/0/1	7,130	27	D
<p>NOTES:</p> <p>ml = main line; hov = high occupancy vehicle; aux = auxiliary lane; LOS = level of service; U.S. 50 = U.S. Highway 50</p> <p>flow calculation assumes: free flow speed=65 mph; capacity of 2350 pc/h/ln; peak hour factor=0.9; heavy vehicle factor=0.976; population factor=1.0; and excludes hov volume and capacity</p> <p>auxiliary lane capacity is based on the Highway Capacity Manual volume-ratio (VR) methodology</p> <p>Bold indicates deficiency.</p> <p>Source: DKS Associates, 2011</p>				

Table TC-13: Existing Freeway Ramp Operating Conditions

Roadway Segment	Lanes	Total Volume	Density or V/C	LOS
<i>AM Peak Hour</i>				
US-50 EB Watt Ave Double Off	2	1,186	10.6	B
US-50 EB Watt Ave Loop On	1	1,484	36.0	E
US-50 EB Watt Ave Slip-On	1	619	31.7	D
US-50 WB Watt Ave Double Off	2	1,598	14.4	B
US-50 WB Watt Ave Loop On	1	708	36.5	E
US-50 WB Watt Ave Slip-On to Auxiliary	1	1,484	0.8	E
<i>PM Peak Hour</i>				
US-50 EB Watt Ave Double Off	2	1,570	14.2	B
US-50 EB Watt Ave Loop On	1	1,041	35.4	E
US-50 EB Watt Ave Slip-On	1	475	29.9	D
US-50 WB Watt Ave Double Off	2	2,146	17.7	B
US-50 WB Watt Ave Loop On	1	566	32.4	D
US-50 WB Watt Ave Slip-On to Auxiliary	1	1,041	0.6	C
Note: US-50 = U.S. Highway 50; aux = auxiliary lane; LOS = level of service; Bold indicates deficiency. Source: DKS Associates, 2011				

INTERSECTION ANALYSIS

SACRAMENTO COUNTY

During the a.m. and p.m. peak hours, all of the Sacramento County intersections meet the LOS E standard within the Urban Service Boundary and the LOS D standard outside the boundary with the exception of the following intersections:

- *Grant Line Road and White Rock Road* – LOS F in p.m. peak hour
- *Prairie City Road and White Rock Road* – LOS E in a.m. peak hour and LOS F in p.m. peak hour

CITY OF ELK GROVE

During the a.m. and p.m. peak hours, the intersection of Grant Line Road and Calvine Road operates acceptably at the LOS D standard.

CITY OF RANCHO CORDOVA

During the a.m. and p.m. peak hours, all of the City of Rancho Cordova intersections meet the LOS D standard with the exception of the following intersections:

- *Zinfandel Drive and White Rock Road* – LOS E in p.m. peak hour
- *Sunrise Boulevard and Jackson Road* – LOS E in a.m. peak hour
- *Grant Line Road and Jackson Road* – LOS F in a.m. and p.m. peak hours

CALTRANS STATE HIGHWAY

During the a.m. and p.m. peak hours, all of the Caltrans State Highway intersections meet the Level of Service (LOS) E standard with the exception of the Zinfandel Drive and US 50 Eastbound Ramps, which is LOS F in the p.m. peak hour.

ROADWAY SEGMENT ANALYSIS

SACRAMENTO COUNTY

All of the Sacramento County roadway segments meet the LOS E standard within the Urban Service Boundary and the LOS D standard outside the boundary.

CITY OF ELK GROVE

The segment of Grant Line Road between Excelsior Road and Calvine Road operates at LOS E, exceeding the City of Elk Grove's LOS D standard.

CITY OF RANCHO CORDOVA

All of the City of Rancho Cordova roadway segments meet the LOS D standard with the following exceptions:

- *Sunrise Boulevard* – US 50 to Folsom Boulevard – LOS F

- *Sunrise Boulevard* – Folsom Boulevard to White Rock Road – LOS E

CALTRANS FREEWAYS

MAINLINE

Level of service analyses were also conducted for the study area freeway segments. Table 13 summarizes the freeway levels of service. All of the Caltrans freeway segments meet the LOS E standard with the following exceptions:

- *Westbound US 50 from Hazel Avenue to Sunrise Boulevard* – LOS F in a.m. peak hour
- *Eastbound US 50 from Sunrise Boulevard to Hazel Avenue* – LOS F in p.m. peak hour

RAMP JUNCTIONS

Level of service analyses were also conducted for the study area freeway merge/diverge areas. Table 14 summarizes the freeway levels of service. All of the Caltrans freeway ramp junctions meet the LOS E standard.

BICYCLE AND PEDESTRIAN FACILITIES

The following two-lane roadway segments near the Project site are deficient for bicycles and pedestrians because there are no sidewalks or bike lanes:

- *Grant Line Road from Douglas Road to White Rock Road*
- *Douglas Road from Rancho Cordova Parkway to Grant Line Road*

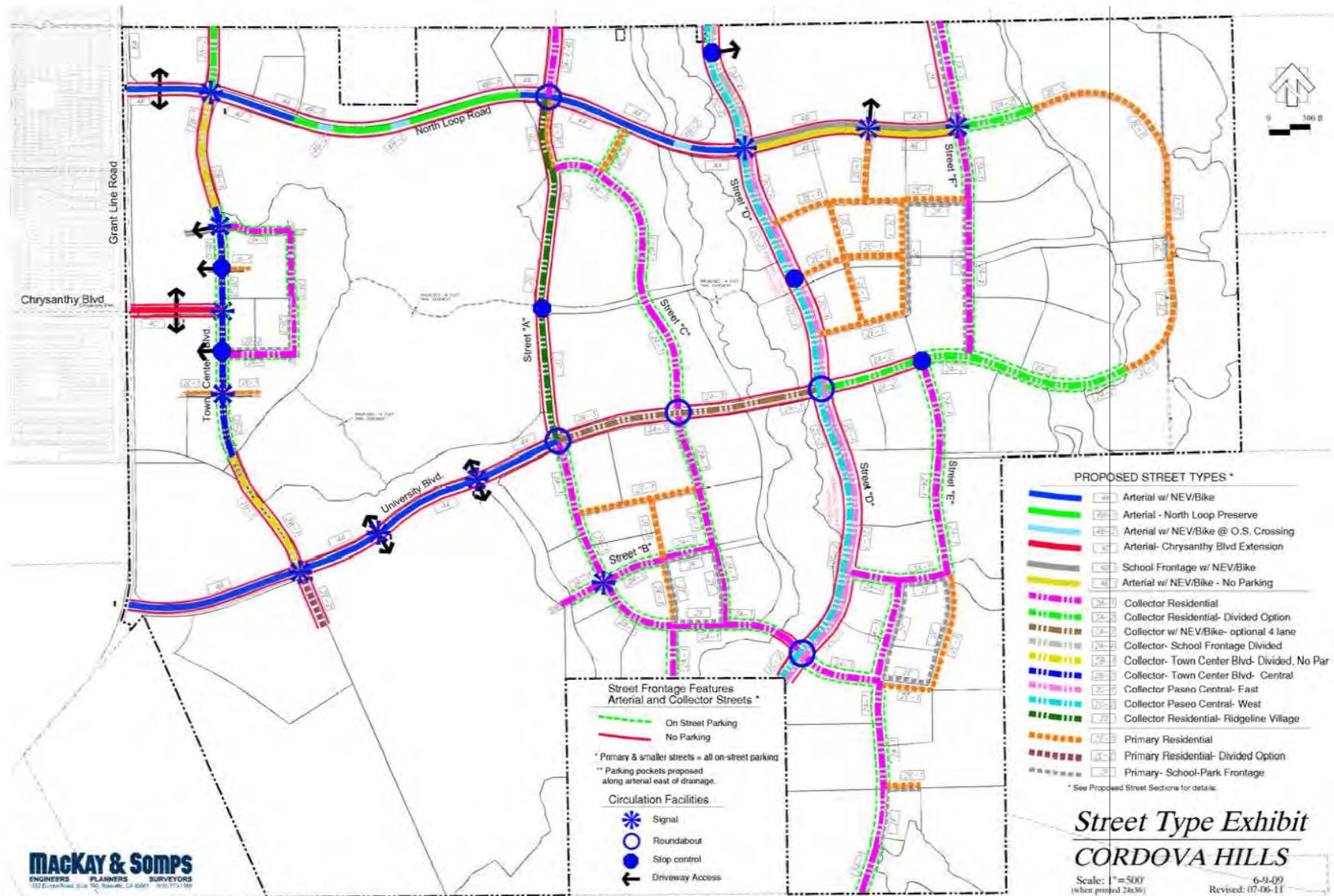
IMPACTS AND MITIGATION MEASURES

EXISTING PLUS PROJECT CONDITIONS

PROJECT TRIP GENERATION

The Project includes access via three east-west roadways: University Boulevard, North Loop Road, and Chrysanthy Boulevard. The proposed University Boulevard provides access to the southern portion of the site and the proposed North Loop Road provides access to the northern portion. The future Chrysanthy Boulevard would be extended across Grant Line Road into the Project site as the third access point. The Cordova Hills street exhibit, Plate TC-3, shows the three access points into the Project as four-lane arterials. North Loop Road decreases to a two-lane collector east of Street D and University Boulevard decreases to a two-lane collector east of Street A.

Plate TC-3: Project Access and Circulation



The Cordova Hills Urban Service Plan includes funding for operating a transit system. The Project will operate a local transit system consisting of two routes: an internal and external route. The internal route will service the Cordova Hills plan area. The external route will provide a connection to the Mather Field/Mills LRT station through the City of Rancho Cordova. The internal route will service 15 minute headways in the peak periods and 30 minute headways in the off peak period. The external route will service 15 minute headways in the peak periods and 60 minute headways in the off peak period. The Project also includes a pedestrian and bicycle system consisting of approximately: 26.2 miles of on-street class-2 bicycle paths and 22.0 miles of off-street community/multi-use/university trails.

Table TC-14 summarizes the vehicular trip generation of the Cordova Hills Project and alternatives. The estimation of trip generation focused on the unique characteristics of the Project elements, the portion of trips made by non-automobile modes (e.g., bike, walk, transit), and the number of vehicle trips that remain internal to the Project. Trip generation for the University/College Campus Center is based on conceptual designs provided by the applicant, as well as its relationship to the other land use elements of the Cordova Hills Project. Important characteristics include:

- 4,040 students (of a total of 6,000 students) will reside on campus (67 percent)
- 90 percent of underclass students will reside on campus
- Freshman will not be allowed to have cars on campus
- 100 housing units on campus for faculty on temporary assignment
- Good pedestrian and bicycle circulation
- Ample transit services both within and near the campus
- Limited parking on campus

As trip generation rates for colleges and universities vary widely based upon school characteristics, the Project applicant's consultant conducted a survey of universities to find similar campuses and provided a summary memorandum. This information was reviewed by the traffic study preparers and by County staff and was found to be appropriate for use in the transportation analysis. The conceptual university element of the Project results in approximately 8,807 daily external vehicle trips, as shown in Table TC-14. It should be noted that this estimate is based upon the favorable transportation characteristics listed previously; deviation from these characteristics could result in higher vehicle trip generation, and potentially greater impacts.

Trip generation of other land use elements (residential, retail, office, etc.) is based upon SACOG's Sacramento Regional Travel Demand Model (SACMET). The travel model estimates the number of person trips for each land use, the mode of travel for each trip, and the origin and destination of each trip. As shown in Table TC-14, these land uses result in about 91,970 daily vehicle trips. Combined with the University/College Campus Center, the total daily vehicle trip generation is estimated to be approximately 100,777 trips, of which about 69,343 trips travel outside the Cordova Hills boundary.

Table TC-14: Trip Generation

Land Use	Units	Vehicle Trip End Rates ¹			Daily Vehicle Trip Rates ^{1,2}			Vehicle Trips Ends			Vehicle Trips		
		AM	PM	Daily	AM	PM	Daily	AM	PM	Daily	AM	PM	Daily
Single-family DU	5,340	0.7	0.8	9.4	0.6	0.6	7.2	3,863	4,418	50,424	2,947	3,350	38,248
Multi-family DU	2,660	0.5	0.6	6.5	0.4	0.4	4.9	1,273	1,506	17,233	982	1,144	13,105
Retail Employee	1,897	1.0	1.7	17.5	0.8	1.2	13.1	1,884	3,164	33,174	1,453	2,352	24,858
Other Employee	2,166	0.3	0.3	3.7	0.2	0.3	3.0	623	731	8,060	510	588	6,565
K12 Students	7,140	0.4	0.2	1.8	0.3	0.1	1.3	2,707	1,183	12,513	2,033	872	9,193
<i>SubTotal</i>								<i>10,350</i>	<i>11,003</i>	<i>121,404</i>	<i>7,925</i>	<i>8,306</i>	<i>91,970</i>
University Students	6,000	0.1	0.2	1.8	0.1	0.1	1.5	755	973	10,808	631	792	8,807
<i>Total</i>								<i>11,105</i>	<i>11,975</i>	<i>132,211</i>	<i>8,555</i>	<i>9,098</i>	<i>100,777</i>
<i>External Trips³</i>											<i>6,005</i>	<i>6,221</i>	<i>69,343</i>
NOTES: 1. Rates in the table may not compute exactly due to rounding. 2. Vehicle trip rates reflect internalization reduction. For trips internal to the Cordova Hills Project, half the trip is attributed to the origin and half to the destination. 3. Approximate of vehicle trips traveling outside the Cordova Hills specific plan Vehicle trip summary based on modified version of the SACMET travel demand forecasting (TDF) model. Source: DKS Associates, 2011													

TRIP DISTRIBUTION AND MODE SHARE

The SACMET travel model predicts the travel mode of each person trip, including walk, bike, transit, and carpool. These modes vary by trip purpose, time of day, and whether the trip is internal to the Cordova Hills site or external (i.e. one trip end is outside of Cordova Hills). For the non-university/college campus center land uses, about 34 percent of person trips are internal to the non-university/college campus center uses, 11 percent travel to and from the university/college campus center, and about 55 percent are external trips. Non-automobile modes account for about 11 percent of the trips.

For the university/college campus center land use, about 67 percent of the total trips (not including trips entirely internal to the university/college campus center) are expected to remain internal to the Cordova Hills site. About 43 percent of these trips are expected to use non-automobile modes.

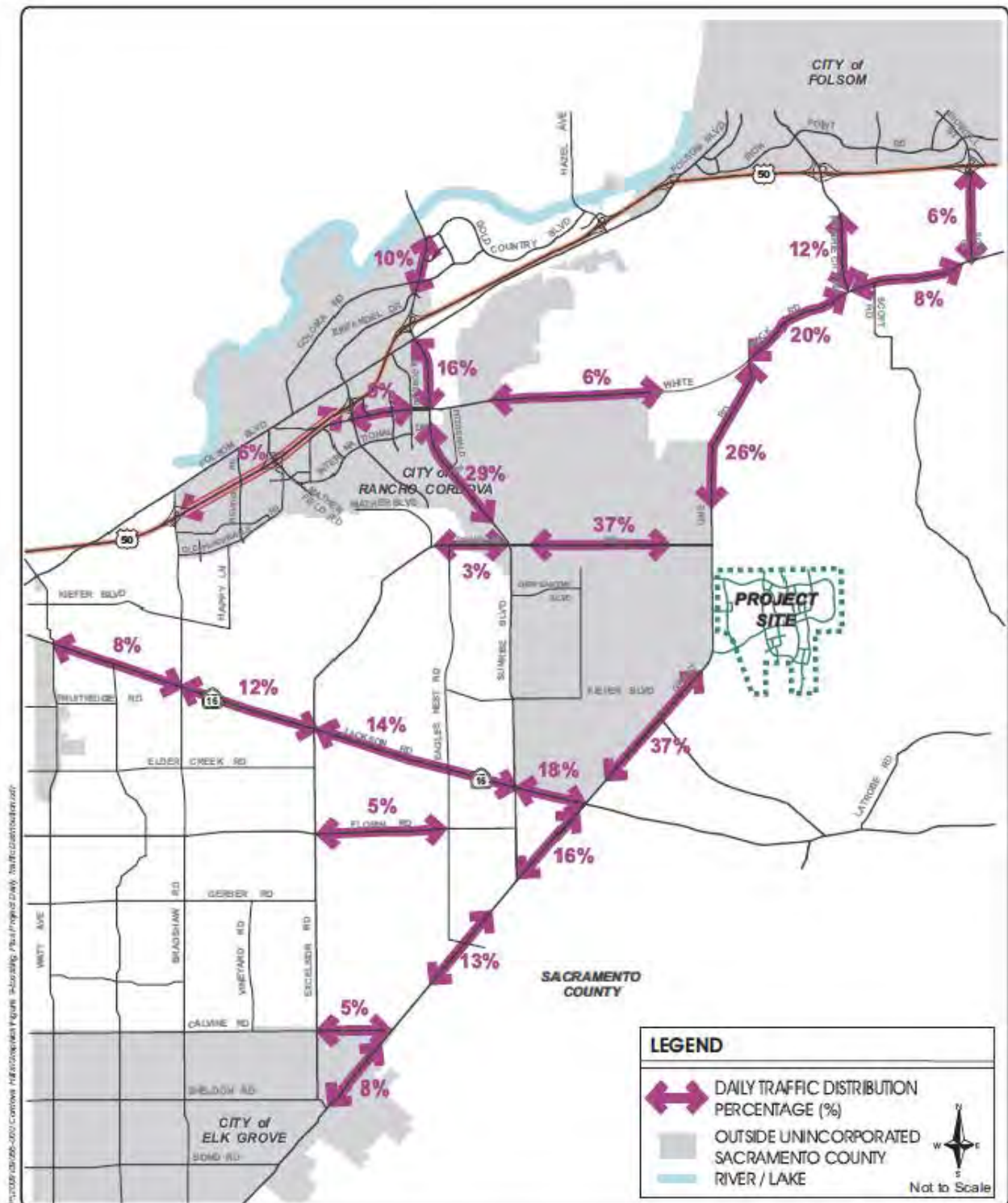
Overall, the analysis estimates that about 36 percent of all vehicle trips will remain internal to the Cordova Hills site, and that about 12 percent of all person trips (excluding on-campus trips) will be by non-automobile modes. The analysis estimates that about 43 percent of all person trips (excluding on-campus trips) will remain internal to the Cordova Hills site.

Plate TC-4 illustrates the external traffic trip distribution based upon daily traffic volumes (the distribution varies by time of day due to changing trip purposes and destinations). About 37 percent of traffic would use Douglas Road to the west, about 26 percent would use Grant Line Road to the north, and about 37 percent would use Grant Line Road to the south.

EXISTING PLUS PROJECT IMPACTS

The existing plus Project scenario assumes full construction of the Project roadway system, including frontage improvements along Grant Line Road adjacent to the Project site. Operating conditions for studied intersections, roadways, and freeways (ramps and segments) are provided in Table TC-15 through Table TC-18.

Plate TC-4: Existing Plus Project Trip Distribution



DKS Associates
TRANSPORTATION SOLUTIONS

FIGURE 9
EXISTING PLUS PROJECT DAILY TRAFFIC DISTRIBUTION

Table TC-15: Existing Plus Project Intersection Operating Conditions

Intersection			Level of Service (LOS) Methodology		AM Peak Hour			PM Peak Hour		
ID #	North-South Street	East-West Street	Analysis Methodology	Policy	Meets Signal Warrant	V/C or Delay ¹	LOS	Meets Signal Warrant	V/C or Delay ¹	LOS
<i>Sacramento County</i>										
1	S Watt Ave	Jackson Rd(SR-16)	Circular 212 Planning	E	--	0.93	E	--	0.94	E
2	Bradshaw Rd	Jackson Rd(SR-16)	Circular 212 Planning	E	--	1.10	F	--	0.97	E
3	Mather Blvd	Douglas Rd	2000 HCM 4-Way Stop	E	Yes	100.3	F	Yes	19.1	C
4	Excelsior Rd	Jackson Rd(SR-16)	Circular 212 Planning	E	--	0.66	B	--	0.62	B
5	Eagles Nest Rd	Jackson Rd(SR-16)	2000 HCM Unsignalized	E	Yes	35.2	E	Yes	129.1	F
6	Grant Line Rd	Sunrise Blvd	Circular 212 Planning	E	--	1.07	F	--	0.90	D
7	Grant Line Rd	White Rock Rd	2000 HCM Unsignalized	E	Yes	[xxxxx]	F	Yes	841.6	F
8	Prairie City Rd	White Rock Rd	2000 HCM 4-Way Stop	D	Yes	135.9	F	Yes	142.8	F
9	Scott Rd (W)	White Rock Rd	2000 HCM Unsignalized	D	Yes	19.3	C	Yes	18.9	C
10	Scott Rd (E)	White Rock Rd	2000 HCM 4-Way Stop	D	Yes	15.5	C	Yes	23.3	C
34	Town Center Dr	North Loop Rd	Circular 212 Planning	E	--	0.69	B	--	0.74	C
35	Town Center Dr	Chrysanthy Blvd	Circular 212 Planning	E	--	0.34	A	--	0.47	A
36	Town Center Dr	University Blvd	Circular 212 Planning	E	--	0.69	B	--	0.76	C
37	Street "A"	North Loop Rd	FHWA Roundabout	E		4.1	A		3.6	A
38	Street "A"	University Blvd	FHWA Roundabout	E		12.1	B		25.9	D
39	Street "A"	Street "B"	Circular 212 Planning	E	--	0.24	A	--	0.28	A
40	Street "C"	University Blvd	FHWA Roundabout	E		7.5	A		6.6	A
41	Street "D"	North Loop Rd	Circular 212 Planning	E	--	0.87	D	--	0.69	B

Intersection			Level of Service (LOS) Methodology		AM Peak Hour			PM Peak Hour		
ID #	North-South Street	East-West Street	Analysis Methodology	Policy	Meets Signal Warrant	V/C or Delay ¹	LOS	Meets Signal Warrant	V/C or Delay ¹	LOS
42	Street "D"	University Blvd	FHWA Roundabout	E		7.9	A		8.6	A
43	Street "D"	Street "A"	FHWA Roundabout	E		3.3	A		3.3	A
44	School Access	North Loop Rd	Circular 212 Planning	E	--	1.09	F	--	0.49	A
45	Street "F"	North Loop Rd	Circular 212 Planning	E	--	0.28	A	--	0.17	A
<i>City of Elk Grove</i>										
11	Grant Line Rd	Calvine Rd	2000 HCM Operations	D	--	17.9	B	--	17.1	B
<i>City of Rancho Cordova</i>										
12	Zinfandel Dr	White Rock Rd	Circular 212 Planning	D	--	0.66	B	--	1.01	F
13	Sunrise Blvd	Folsom Blvd	Circular 212 Planning	D	--	0.83	D	--	0.67	B
14	Sunrise Blvd	White Rock Rd	Circular 212 Planning	D	--	1.07	F	--	1.13	F
15	Sunrise Blvd	Douglas Rd	Circular 212 Planning	D	--	1.07	F	--	0.80	C
16	Sunrise Blvd	Jackson Rd(SR-16)	Circular 212 Planning	D	--	1.07	F	--	0.96	E
17	Grant Line Rd	Jackson Rd(SR-16)	Circular 212 Planning	D	--	1.84	F	--	1.77	F
18	Grant Line Rd	Kiefer Blvd	2000 HCM 4-Way Stop	D	Yes	433.9	F	Yes	383.7	F
19	Grant Line Rd	Douglas Rd	2000 HCM Unsignalized	D	Yes	[xxxxx]	F	Yes	[xxxxx]	F
30	Grant Line Rd	North Loop Rd	2000 HCM Unsignalized	D	Yes	[xxxxx]	F	Yes	[xxxxx]	F
31	Grant Line Rd	Chrysanthy Blvd	2000 HCM Unsignalized	D	Yes	180.50	F	Yes	492.2	F
32	Grant Line Rd	University Blvd	2000 HCM Unsignalized	D	Yes	[xxxxx]	F	Yes	[xxxxx]	F
<i>Caltrans State Highways</i>										
20	Mather Field Rd	US-50 WB Ramps	2000 HCM Operations	E	--	20.6	C	--	16.6	B
21	Mather Field Rd	US-50 EB Ramps	2000 HCM Operations	E	--	21.5	C	--	17.4	B

Intersection			Level of Service (LOS) Methodology		AM Peak Hour			PM Peak Hour		
ID #	North-South Street	East-West Street	Analysis Methodology	Policy	Meets Signal Warrant	V/C or Delay ¹	LOS	Meets Signal Warrant	V/C or Delay ¹	LOS
22	Zinfandel Dr	US-50 WB Ramps	2000 HCM Operations	E	--	17.5	B	--	14.3	B
23	Zinfandel Dr	US-50 EB Ramps	2000 HCM Operations	E	--	33.4	C	--	136.4	F
24	Sunrise Blvd	US-50 WB Ramps	2000 HCM Operations	E	--	13.8	B	--	12.6	B
25	Sunrise Blvd	US-50 EB Ramps	2000 HCM Operations	E	--	18.9	B	--	17.1	B
26	Prairie City Rd	US-50 WB Ramps	2000 HCM Operations	E	--	20.2	C	--	23.0	C
27	Prairie City Rd	US-50 EB Ramps	2000 HCM Operations	E	--	17.0	B	--	17.5	B
28	Scott Rd	US-50 WB Ramps	2000 HCM Operations	E	--	20.2	C	--	12.1	B
29	Scott Rd	US-50 EB Ramps	2000 HCM Operations	E	--	16.6	B	--	15.6	B
<p>NOTES:</p> <p>¹ V/C = Volume-to-Capacity ratio, [xxxxx] indicates that the delay exceeds 500 seconds</p> <p>Delay: At 4-Way Stop intersections (based on the 2000 HCM 4-Way Stop methodology) the reported delay is the average intersection delay.</p> <p>At unsignalized, 2-Way Stop intersections (based on the 2000 HCM Unsignalized methodology), the reported delay is for the worst approach.</p> <p>At signalized intersections (based on the 2000 HCM Operations), the reported delay is the intersection delay.</p> <p>Bold indicates deficiency. Shaded areas indicate impacts.</p> <p>Source: DKS Associates, 2011</p>										

Table TC-16: Existing Plus Project Roadway Segment Operating Conditions

ID #	Roadway Segment	Facility	Lanes	Policy	Volume	V/C	LOS
1	Grant Line Rd - Sheldon Rd to Calvine Rd	Rural S	2	D	14,500	0.73	E
2	Grant Line Rd - Calvine Rd to Sunrise Blvd	Rural S	2	E	17,700	0.89	E
3	Grant Line Rd - Sunrise Blvd to Jackson Rd (SR-16)	Rural S	2	E	15,400	0.77	E
4	Grant Line Rd - Jackson Rd (SR-16) to Kiefer Blvd	Rural S	2	D	27,200	1.36	F
5	Grant Line Rd - Kiefer Blvd to University Blvd	Rural S	2	D	28,600	1.43	F
6	Grant Line Rd - University Blvd to Chrysanthy Blvd	Rural S	2	D	14,900	0.75	E
7	Grant Line Rd - Chrysanthy Blvd to North Loop	Rural S	2	D	16,700	0.84	E
8	Grant Line Rd - North Loop to Douglas Rd	Rural S	2	D	42,400	2.12	F
9	Grant Line Rd - Douglas Rd to White Rock Rd	Rural NS	2	D	21,100	1.24	F
10	White Rock Rd - Kilgore Rd to Sunrise Blvd	Arterial M	6	E	36,800	0.68	B
11	White Rock Rd - Sunrise Blvd to Fitzgerald Rd	Arterial M	4	E	12,400	0.34	A
12	White Rock Rd - Fitzgerald Rd to Grant Line Rd	Rural NS	2	E	6,400	0.38	D
13	White Rock Rd - Grant Line Rd to Prairie City Rd	Rural NS	2	E	16,800	0.99	E
14	White Rock Rd - Prairie City Rd to Scott Rd (South)	Rural NS	2	D	9,000	0.53	D
15	White Rock Rd - Scott Rd (South) to Scott Rd (North)	Rural NS	2	D	9,200	0.54	D
16	White Rock Rd - Scott Rd (North) to County Line	Rural NS	2	D	7,900	0.46	D
17	Jackson Rd (SR-16) - Watt Ave to Bradshaw Rd	Arterial M	2	E	15,600	0.87	D
18	Jackson Rd (SR-16) - Bradshaw Rd to Excelsior Rd	Rural Hwy	2	E	16,100	0.70	E
19	Jackson Rd (SR-16) - Excelsior Rd to Eagles Nest Rd	Rural Hwy	2	E	16,400	0.72	E
20	Jackson Rd (SR-16) - Eagles Nest Rd to Sunrise Blvd	Rural Hwy	2	E	16,400	0.72	E
21	Jackson Rd (SR-16) - Sunrise Blvd to Grant Line Rd	Rural Hwy	2	D	22,400	0.98	E
22	Douglas Rd - Mather Blvd to Eagles Nest Rd	Arterial M	2	E	8,800	0.49	A

ID #	Roadway Segment	Facility	Lanes	Policy	Volume	V/C	LOS
23	Douglas Rd - Eagles Nest Rd to Sunrise Blvd	Arterial M	2	D	8,600	0.48	A
24	Douglas Rd - Sunrise Blvd to Rancho Cordova Pkwy	Arterial M	2	D	23,300	1.29	F
25	Douglas Rd - Rancho Cordova Pkwy to Grant Line Rd	Arterial M	2	D	25,100	1.39	F
26	Kiefer Blvd - Grant Line Rd to Jackson Rd (SR-16)	Rural NS	2	D	5,700	0.34	C
27	Sunrise Blvd - US 50 to Folsom Blvd	Arterial M	6	D	58,300	1.08	F
28	Sunrise Blvd - Folsom Blvd to White Rock Rd	Arterial M	6	D	54,800	1.01	F
29	Sunrise Blvd - White Rock Rd to Douglas Rd	Arterial M	6	D	46,000	0.85	D
30	Sunrise Blvd - Jackson Rd (SR-16) to Florin Rd	Rural S	2	E	11,500	0.58	D
31	Mather Blvd - Douglas Rd to Femoyer St	Arterial M	2	D	8,800	0.49	A
32	Zinfandel Dr - US-50 to White Rock Rd	Arterial M	6	D	47,400	0.88	D
33	Prairie City Rd - US-50 to White Rock Rd	Rural NS	2	D	11,400	0.67	E
34	Scott Rd - US-50 to White Rock Rd	Rural NS	2	D	6,900	0.41	D
35	North Loop Rd - Grant Line Rd to Town Center Dr	Arterial M	4	E	29,600	0.82	D
36	North Loop Rd - Town Center Dr to Street A	Arterial M	4	E	27,100	0.75	C
37	North Loop Rd - Street A to Street D	Arterial M	4	E	20,600	0.57	A
38	North Loop Rd - Street D to Street F	Arterial L	4	E	10,300	0.34	A
39	North Loop Rd - Street F to University Blvd	Residential NF	2	E	3,100	0.31	A
40	Chrysanthy Blvd - Grant Line Rd to Town Center Dr	Arterial M	4	E	13,100	0.36	A
41	University Blvd - Grant Line Rd to Town Center Dr	Arterial M	4	E	26,800	0.74	C
42	University Blvd - Town Center Dr to Street A	Arterial M	4	E	22,500	0.63	B
43	University Blvd - Street A to Street C	Arterial M	2	E	13,100	0.73	C
44	University Blvd - Street C to Street D	Arterial M	2	E	12,800	0.71	C
45	University Blvd - Street D to Street E	Residential NF	2	E	8,200	0.82	D

ID #	Roadway Segment	Facility	Lanes	Policy	Volume	V/C	LOS
46	University Blvd - Street E to North Loop Rd	Residential NF	2	E	4,200	0.42	A
47	Town Center Dr - North Loop Rd to Chrysanthy Blvd	Arterial L	2	E	7,100	0.47	A
48	Town Center Dr - Chrysanthy Blvd to University Blvd	Arterial L	2	E	7,100	0.47	A
49	Street A - North Loop Rd to University Blvd	Residential NF	2	E	5,100	0.51	A
50	Street A - University Blvd to Street B	Residential NF	2	E	9,300	0.93	E
51	Street A - Street B to Street D	Residential NF	2	E	6,000	0.60	B
52	Street D - North Loop Rd to University Blvd	Arterial L	2	E	13,300	0.89	D
53	Street D - University Blvd to Street A	Residential NF	2	E	8,200	0.82	D
54	Street E - University Blvd to Street A	Residential F	2	E	3,600	0.45	C
<p>NOTES:</p> <p>LOS = level of service; SR = State Route; U.S. 50 = U.S. Highway 50; V/C = volume-to-capacity;</p> <p>Arterial M = medium access control arterial; Arterial L = low access control arterial; Rural Hwy = rural highway; Rural NS = rural road with no shoulders;</p> <p>Rural NS = rural road with shoulders; Residential NF = residential collector without frontage; Residential F = residential collector with frontage.</p> <p>Bold indicates deficiency. Shaded areas indicate impact.</p> <p>Source: DKS Associates, 2011</p>							

Table TC-17: Existing Plus Project Freeway Segment Operating Conditions

Roadway Segment	Lanes (ml/hov/aux)	Total Volume	Density	LOS
<i>AM Peak Hour</i>				
US-50 EB Power Inn/Howe Ave to Watt Ave	4/0/0	7,350	35	E
US-50 EB Watt Ave to Bradshaw Rd	4/0/0	7,820	40	E
US-50 EB Bradshaw Rd to Mather Field Rd	4/0/0	7,290	35	D
US-50 EB Mather Field Rd to Zinfandel Dr	4/0/1	6,520	25	C
US-50 EB Sunrise Blvd to Hazel Ave	3/1/0	5,020	29	D
US-50 WB Hazel Ave to Sunrise Blvd	3/1/0	7,250	62	F
US-50 WB Zinfandel Dr to Mather Field Rd	4/0/1	7,590	30	D
US-50 WB Mather Field Rd to Bradshaw Rd	4/0/0	7,460	36	E
US-50 WB Bradshaw Rd to Watt Ave	4/0/0	8,080	43	E
US-50 WB Watt Ave to Power Inn/Howe Ave	4/0/1	8,580	36	E
<i>PM Peak Hour</i>				
US-50 EB Power Inn/Howe Ave to Watt Ave	4/0/0	7,690	38	E
US-50 EB Watt Ave to Bradshaw Rd	4/0/0	7,810	39	E
US-50 EB Bradshaw Rd to Mather Field Rd	4/0/0	7,070	33	D
US-50 EB Mather Field Rd to Zinfandel Dr	4/0/1	7,320	28	D
US-50 EB Sunrise Blvd to Hazel Ave	3/1/0	7,260	58	F
US-50 WB Hazel Ave to Sunrise Blvd	3/1/0	4,720	26	C
US-50 WB Zinfandel Dr to Mather Field Rd	4/0/1	6,480	29	D
US-50 WB Mather Field Rd to Bradshaw Rd	4/0/0	6,870	31	D
US-50 WB Bradshaw Rd to Watt Ave	4/0/0	7,710	38	E
US-50 WB Watt Ave to Power Inn/Howe Ave	4/0/1	7,280	28	D
<p>NOTES:</p> <p>ml = main line; hov = high occupancy vehicle; aux = auxiliary lane; LOS = level of service; U.S. 50 = U.S. Highway 50</p> <p>flow calculation assumes: free flow speed=65 mph; capacity of 2350 pc/h/ln; peak hour factor=0.9; heavy vehicle factor=0.976; population factor=1.0; and excludes hov volume and capacity</p> <p>auxiliary lane capacity is based on the Highway Capacity Manual volume-ratio (VR) methodology</p> <p>Bold indicates deficiency. Shaded areas indicate impact.</p> <p>Source: DKS Associates, 2011</p>				

Table TC-18: Existing Plus Project Freeway Ramp Operating Conditions

Roadway Segment	Lanes	Total Volume	Density	LOS
<i>AM Peak Hour</i>				
US-50 EB Watt Ave Double Off	2	1,238	11.2	B
US-50 EB Watt Ave Loop On	1	1,484	36.1	E
US-50 EB Watt Ave Slip-On	1	659	31.7	D
US-50 WB Watt Ave Double Off	2	1,599	15.0	B
US-50 WB Watt Ave Loop On	1	714	37.6	E
US-50 WB Watt Ave Slip-On to Auxiliary	1	1,491	0.8	E
<i>PM Peak Hour</i>				
US-50 EB Watt Ave Double Off	2	1,584	14.7	B
US-50 EB Watt Ave Loop On	1	1,039	35.9	E
US-50 EB Watt Ave Slip-On	1	530	30.3	D
US-50 WB Watt Ave Double Off	2	2,127	17.9	B
US-50 WB Watt Ave Loop On	1	565	33.1	D
US-50 WB Watt Ave Slip-On to Auxiliary	1	1,048	0.6	C
<p>NOTES:</p> <p>U.S. Highway 50; aux = auxiliary lane; LOS = level of service;</p> <p>Bold indicates deficiency. Shaded areas indicate impact.</p> <p>Source: DKS Associates, 2011</p>				

INTERSECTION ANALYSIS

SACRAMENTO COUNTY

The Project causes significant impacts to seven intersections, which are listed below. The list includes both the facility impact, as well as the operating conditions that would result after the implementation of mitigation (for more detailed data on mitigation, refer to Table 22 of Appendix TR-1). The facility improvements listed in Mitigation Measure TR-1 would improve all operating conditions from unacceptable to acceptable levels, and impacts would be *less than significant*.

- *Bradshaw Road and Jackson Road* – Operating conditions deteriorate from an acceptable LOS E to LOS F in the a.m. peak hour. Operating conditions deteriorate from an acceptable LOS D to LOS F in the p.m. peak hour. Mitigation would improve operating conditions to an acceptable LOS E.
- *Mather Boulevard and Douglas Road* – Operating conditions deteriorate from an acceptable LOS "E" to LOS "F" in the a.m. peak hour. This intersection meets peak hour traffic signal warrants with the addition of Project traffic. Mitigation would improve operating conditions to LOS E.
- *Eagles Nest Road and Jackson Road* – Operating conditions deteriorate from an acceptable LOS C to LOS F in the p.m. peak hour. This intersection meets peak hour traffic signal warrants with the addition of Project traffic. Mitigation would improve operating conditions to LOS B.
- *Grant Line Road and Sunrise Boulevard* – Operating conditions deteriorate from an acceptable LOS D to LOS F in the a.m. peak hour. Mitigation would improve operating conditions to LOS D.
- *Grant Line Road and White Rock Road* – Operating conditions deteriorate from an acceptable LOS C to LOS F in the a.m. peak hour. Operating conditions remain at LOS F in the p.m. peak hour, with an increase in delay of more than five seconds. This intersection meets peak hour signal warrants without and with the addition of Project traffic. Mitigation would improve operating conditions to LOS C.
- *Prairie City Road and White Rock Road* – Operating conditions already at an unacceptable LOS E degrade to LOS F in the a.m. peak hour, with an increase in delay of more than five seconds. Operating conditions remain at LOS F in the p.m. peak hour, with an increase in delay of more than five seconds. This intersection meets peak hour signal warrants without and with the addition of Project traffic. Mitigation would improve operating conditions to LOS D.
- *School Access and North Loop Road* – This new intersection operates at LOS F during the a.m. peak hour. Mitigation would improve operating conditions to LOS D.

CITY OF ELK GROVE

The intersection of Grant Line Road and Calvine Road will continue to operate at an acceptable LOS B in the a.m. peak hour. The intersection level of service will change from A to an acceptable B in the p.m. peak hour. Impacts are *less than significant*.

CITY OF RANCHO CORDOVA

The Project causes significant impacts to ten intersections, which are listed below. The list includes both the facility impact, as well as the operating conditions that would result after the implementation of mitigation (for more detailed data on LOS calculations pertinent to the mitigation, refer to Table 22 of Appendix TR-1). The facility improvements listed in Mitigation Measure TR-2 would improve all operating conditions from unacceptable to acceptable levels, but the implementation of some of the below measures cannot be guaranteed because the facility lies wholly outside of the jurisdiction of Sacramento County. While the mitigation identified would reduce those facility impacts to less than significant levels, Sacramento County does not have the land use authority to ensure that facilities outside of its jurisdiction are constructed. Thus, although adequate mitigation is included, the impact is considered potentially *significant and unavoidable*. Note that some of the facilities below are within both the City of Rancho Cordova and Sacramento County, and they have been included in this section simply to reflect the fact that they have been analyzed using the more conservative City of Rancho Cordova LOS standards.

- *Grant Line Road and Chrysanthy Boulevard* – This new intersection operates at LOS "F" during the a.m. and p.m. peak hours. This intersection meets peak hour signal warrants with the addition of Project traffic. Mitigation would improve operating conditions to LOS A.
- *Grant Line Road and Douglas Road* – Operating conditions deteriorate from an acceptable LOS C to LOS F in the a.m. peak hour. Operating conditions deteriorate from an acceptable LOS B to LOS F in the p.m. peak hour. This intersection meets peak hour signal warrants with the addition of Project traffic. Mitigation would improve operating conditions to LOS B.
- *Grant Line Road and Jackson Road* – During the a.m. and p.m. peak hours, operating conditions remain at an unacceptable LOS F, with an increase in V/C ratio of more than 0.05. Mitigation would not improve the LOS, but the change in the V/C ratio would be less than 0.05.
- *Grant Line Road and Kiefer Boulevard* – During the a.m. and p.m. peak hours, operation conditions deteriorate from an acceptable LOS B to LOS F. This intersection meets peak hour signal warrants without and with the addition of Project traffic. Mitigation would improve operating conditions to LOS C.
- *Grant Line Road and North Loop Road* – This new intersection operates at LOS F during the a.m. and p.m. peak hours. Mitigation would improve operating conditions to LOS C.

- *Grant Line Road and University Boulevard* – This new intersection operates at LOS "F" during the a.m. and p.m. peak hours. This intersection meets peak hour signal warrants with the addition of Project traffic. This would improve operating conditions to LOS B.
- *Sunrise Boulevard and Douglas Road* – Operating conditions deteriorate from an acceptable LOS A to LOS F in the a.m. peak hour. Mitigation would improve operating conditions to LOS D.
- *Sunrise Boulevard and Jackson Road* – Operating conditions deteriorate from an unacceptable LOS E to LOS F in the a.m. peak hour, with an increase in V/C ratio of more than 0.05. Operating conditions deteriorate from an acceptable LOS D to LOS E in the p.m. peak hour. Mitigation would improve operating conditions to LOS D.
- *Sunrise Boulevard and White Rock Road* – Operating conditions deteriorate from an acceptable LOS C to LOS F in the a.m. peak hour. Operating conditions deteriorate from an acceptable LOS D to LOS F in the p.m. peak hour. Mitigation would improve operating conditions to LOS D.
- *Zinfandel Drive and White Rock Road* – During the p.m. peak hour, operating conditions remain at an unacceptable LOS E, with an increase in V/C ratio of more than 0.05. Mitigation would improve p.m. peak hour operating conditions to LOS E and the change in the V/C ratio would be less than 0.05.

CALTRANS

The Zinfandel Drive and US 50 Eastbound ramp intersection remains at an unacceptable LOS F during the p.m. peak hour, with the Project causing a 1.8-second increase in delay. Caltrans has no plans to expand the eastbound ramps beyond the build-out capacities assumed in this analysis, nor are any funding mechanisms established to collect money to fund such improvements. No feasible mitigation measures exist to offset this impact; impacts are *significant and unavoidable*.

ROADWAY SEGMENT ANALYSIS

SACRAMENTO COUNTY

Project traffic causes operations degrade from an acceptable LOS C to LOS E on the segment of Prairie City Road from US 50 to White Rock Road. Mitigation Measure TR-3 would improve operating conditions to LOS D (for more detailed data on LOS calculations pertinent to the mitigation, refer to Table 23 of Appendix TR-1), which would reduce impacts to this facility to *less than significant* levels. Note that the traffic study indicates an impact to an internal roadway. This impact is not described here because the applicant already incorporated the recommended mitigation to designate the roadway as four lanes.

CITY OF ELK GROVE

Project traffic will result in a v/c ratio increase of more than 0.05 on the segment of Grant Line Road from Excelsior Road to Calvine Road, which already operates at an unacceptable LOS E in the existing condition. Mitigation Measure TR-4 would improve operating conditions to LOS A, which would reduce impacts to this facility to *less than significant* levels.

CITY OF RANCHO CORDOVA

The Project causes significant impacts to eleven roadway segments, which are listed below. The list includes both the facility impact, as well as the operating conditions that would result after the implementation of mitigation (for more detailed data on LOS calculations pertinent to the mitigation, refer to Table 23 of Appendix TR-1). The facility improvements listed in Mitigation Measure TR-5 would improve most operating conditions from unacceptable to acceptable levels.

- *Douglas Road from Sunrise Boulevard to Rancho Cordova Parkway* – Operations deteriorate from an acceptable LOS A to LOS F. Mitigation would improve operating conditions to LOS B.
- *Douglas Road from Rancho Cordova Parkway to Grant Line Road* – Operations deteriorate from an acceptable LOS A to LOS F. Mitigation would improve operating conditions to LOS B.
- *Grant Line Road from Jackson Road to Kiefer Boulevard* – Operations deteriorate from an acceptable LOS D to LOS F. Mitigation would improve operating conditions to LOS C.
- *Grant Line Road from Kiefer Boulevard to University Boulevard* – Operations deteriorate from an acceptable LOS C to LOS F. Mitigation would improve operating conditions to LOS C.
- *Grant Line Road from University Boulevard to Chrysanthy Boulevard* – Operations deteriorate from an acceptable LOS C to LOS E. Mitigation would improve operating conditions to LOS A.
- *Grant Line Road from Chrysanthy Boulevard to North Loop* – Operations deteriorate from an acceptable LOS C to LOS E. Mitigation would improve operating conditions to LOS A.
- *Grant Line Road from North Loop to Douglas Road* – Operations deteriorate from an acceptable LOS C to LOS F. Mitigation would improve operating conditions to LOS C.
- *Grant Line Road from Douglas Road to White Rock Road* – Operations deteriorate from an acceptable LOS D to LOS F. Mitigation would improve operating conditions to LOS A.

- *Jackson Road from Sunrise Boulevard to Grant Line Road* – Operations deteriorate from an acceptable LOS D to LOS E. Mitigation would improve operating conditions to LOS B.
- *Sunrise Boulevard from US 50 to Folsom Boulevard* – Operations remain at an unacceptable LOS F, with an increase in V/C ratio of more than 0.05. No mitigation is available (see below discussion).
- *Sunrise Boulevard from Folsom Boulevard to White Rock Road* – Operations deteriorate from an unacceptable LOS E to LOS F, with an increase in V/C ratio of more than 0.05. No mitigation is available (see below discussion).

The same discussion provided for the intersection analysis applies here. While the mitigation identified would reduce those facility impacts to less than significant levels, Sacramento County does not have the land use authority to ensure that facilities outside of its jurisdiction are constructed. Thus, although adequate mitigation is included for most facilities, the impact is considered potentially *significant and unavoidable*. In addition, the only mitigation available for Sunrise Boulevard would be to widen the roadway, but this roadway is at full build-out according to the City of Rancho Cordova General Plan. Widening would require a General Plan Amendment, as well as significant acquisition of right-of-way which would involve property losses and the loss of improvements on what is currently private property. This being the case, the mitigation is considered infeasible, and impacts to these two facilities are *significant and unavoidable*.

CALTRANS FREEWAYS

MAINLINE

The Project causes significant impacts to two freeway segments, which are listed below. The list includes both the facility impact, as well as the operating conditions that would result after the implementation of mitigation. The facility improvements listed in Mitigation Measure TR-6 would improve all operating conditions from unacceptable to acceptable levels. While the mitigation identified would reduce those facility impacts to less than significant levels, Sacramento County does not have the land use authority to ensure that facilities outside of its jurisdiction are constructed. Thus, although adequate mitigation is included for most facilities, the impact is considered potentially *significant and unavoidable*.

- *Westbound US 50 from Hazel Avenue to Sunrise Boulevard* – There is an increase in traffic volume on this freeway segment already operating at LOS F in the a.m. peak hour. Mitigation would improve operating conditions to LOS E.
- *Eastbound US 50 from Sunrise Boulevard to Hazel Avenue* – There is an increase in traffic volume on this freeway segment already operating at LOS F. Mitigation would improve operating conditions to LOS D.

RAMP JUNCTIONS

Project traffic does not cause a level of service standard to be exceeded, nor does it significantly contribute to an existing unacceptable operating condition; impacts are *less than significant*.

BICYCLE AND PEDESTRIAN ANALYSIS

Many miles of trails, pedestrian paths, and bicycle paths will be provided within the Project boundaries; on an internal level, the Project provides benefits, rather than negative impacts. The Sacramento County Bicycle Master Plan indicates that Grant Line Road is planned for bicycle lanes. The Sacramento County Pedestrian Master Plan does not identify Grant Line Road for pedestrian improvements. Project implementation will not result in substantial new adverse offsite physical impacts to existing bikeways or pedestrian facilities, nor will it interfere with the implementation of future facilities. No new pedestrian or bicycle conflicts will be created, but the Project will contribute to existing impacts.

There are two-lane rural roadway segments that currently do not have shoulders or other dedicated bicycle or pedestrian facilities (see below). These are potentially unsafe conditions for existing pedestrians and bicyclists who use the facilities, particularly since speed limits are relatively high (all are 55 mph). The Project will result in substantial increases in traffic along these roadway segments, increasing the potential for conflict. The Project will significantly increase existing impacts along the following roadway segments:

- Grant Line Road from Douglas Road to White Rock Road
- Douglas Road from Rancho Cordova Parkway to Grant Line Road

Mitigation is included which requires that the applicant contribute a fair share toward the construction of bicycle lanes and pedestrian facilities along these roadways. This mitigation will reduce impacts to *less than significant* levels.

TRANSIT ANALYSIS

The Project will create a demand for transit services both on-site and off-site, with an expected non-automotive usage of approximately 12% of all trips. Though the Project will introduce this demand, there is no existing transit service available to the Project. The nearest existing services are operated by Sacramento Regional Transit District north of Mather Airport, which is over five miles (when driving) from the Project boundary. There are no transit plans within the Project area with which the Project could conflict; note that this is primarily a cumulative condition issue, and is discussed in more detail in the Cumulative Plus Project section. The Project Urban Services Plan includes a transit system to meet this demand, which has sufficient frequency and capacity to serve the Project. This transit system is also designed to link riders to existing transit systems. The Project would not conflict with any adopted transit plans, nor would it exceed the available capacity of a transit system; impacts are *less than significant*.

MITIGATION MEASURES:

SACRAMENTO COUNTY INTERSECTIONS

- TR-1.** The applicant shall construct or fund, as set forth in the phasing and financing plan approved by the Sacramento County Department of Transportation, the below mitigation measures. The phasing and financing plan shall ensure commencement of construction of traffic improvements prior to degradation of LOS below applicable County standards. This mitigation recognizes that should any of the measures below benefit other projects, a reimbursement agreement and/or a fee credit to the applicant may be considered.
- A. *Bradshaw Road and Jackson Road* – Provide a second westbound through lane.
 - B. ~~*Mather Boulevard and Douglas Road* – Construct a new traffic signal. Provide a shared through-right turn lane on the northbound approach; provide a separate left turn lane and a through lane on the southbound approach; and provide separate left turn lane and a separate right turn lane on the westbound approach.~~
 - C. *Eagles Nest Road and Jackson Road* – Construct a new traffic signal. Provide a left turn lane and a through-right turn shared lane on the northbound and southbound approaches.
 - D. *Grant Line Road and Sunrise Boulevard* – Provide a separate southbound right turn lane so the southbound approach has one left turn lane, one through lane and one right turn lane.
 - E. *Grant Line Road and White Rock Road* – ~~Construct a new~~ **Modify the intersection and** traffic signal **to provide** dual left turn lanes and **a separate two** through lanes on the northbound approach; provide a **two** through lanes and a separate right turn lane on the southbound approach; and provide separate **two** left turn lanes and a separate right turn lane on the eastbound approach. Also an extra westbound departure lane is needed for the dual northbound left movement. **On the western leg of the intersection, two westbound departure lanes are required.**
 - F. ~~*Prairie City Road and White Rock Road* – The applicant shall be responsible for a fair share of this measure. Construct a new traffic signal. Provide a separate left turn lane and a separate right turn lane on the southbound approach; provide a separate left turn lane and a through lane on the eastbound approach; and provide a through lane and a separate right turn lane on the westbound approach. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation and may be up to 100% of the cost of the improvements.~~

- G. *School Access and North Loop Road* – Provide dual eastbound left turn lanes. The applicant shall be responsible for a focused access study addressing the internal circulation of the Cordova Hills project to finalize the design of intersection geometries and length of left turn pockets. The scope of work for the analysis shall be submitted to the Sacramento County DOT staff. Upon completion, the analysis shall be submitted to the Sacramento County DOT for approval and recommendations.

CITY OF RANCHO CORDOVA INTERSECTIONS

- TR-2.** The applicant shall construct or fund, as set forth in the phasing and financing plan approved by the Sacramento County Department of Transportation, and in consultation with the City of Rancho Cordova, the below mitigation measures. The phasing and financing plan shall ensure commencement of construction of traffic improvements prior to degradation of LOS below the applicable County or City standards. This mitigation recognizes that should any of the measures below benefit other projects, a reimbursement agreement may be considered.
- A. *Zinfandel Drive and White Rock Road* – The applicant shall be responsible for a fair share of this measure. Provide separate dual right turns on the westbound approach so the westbound approach has two left turn lanes, two through lanes and two right turn lanes. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation and may be up to 100% of the cost of the improvements.
- B. *Sunrise Boulevard and White Rock Road* – Provide overlap phasing on the eastbound and westbound approaches.
- C. *Sunrise Boulevard and Douglas Road* – Provide overlap phasing on the westbound approach.
- D. *Sunrise Boulevard and Jackson Road* – ~~Provide dual through lanes on the eastbound and westbound approaches.~~ **Provide an eastbound through lane, and eastbound through-right turn shared lane, and an eastbound left turn lane; a northbound left turn lane and a northbound through-right turn shared lane; two westbound through lanes, a westbound right turn lane, and a westbound left turn lane; a southbound through lane, a southbound left turn lane, and a southbound right turn lane.**
- E. *Grant Line Road and Jackson Road* – The applicant shall be responsible for a fair share of this measure. Provide a left turn lane and a through-right shared turn lane on the eastbound and westbound approaches. Provide a separate left turn lane, a through lane and a separate right turn lane on the northbound and southbound approaches. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation and may be up to 100% of the cost of the improvements.

- F. *Grant Line Road and Kiefer Boulevard* – Construct a new traffic signal. Provide a left turn lane, a through lane and a through-right turn shared lane on the northbound and southbound approaches; provide a left turn lane and a through-right turn shared lane on the eastbound and westbound approaches.
- G. *Grant Line Road and Douglas Road* – Construct a new traffic signal. Provide dual left turn lanes and a separate through lane on the northbound, a through lane and a through-right turn shared lane on the southbound approach, and a separate left turn lane and a free-right turn lane on the eastbound approach. Also an extra southbound departure lane is needed for the eastbound free-right movement. To be consistent with the segment mitigations a second northbound through lane is included.
- H. *Grant Line Road and North Loop Road* – Construct a new traffic signal. Provide two through lanes and a separate right turn lane on the northbound approach, dual left turn lanes and one through on the southbound approach, and one left turn lane and one free-right turn lane on the westbound approach. Also an extra northbound departure lane is needed for the westbound free-right movement. To be consistent with the segment mitigations a second southbound through lane is included.
- I. *Grant Line Road and Chrysanthy Boulevard* – Construct a new traffic signal. Provide a through lane and a separate right turn lane on the northbound approach, dual left turn lanes and a through lane on the southbound approach, and dual left turn lanes and one right turn lane on the westbound approach. To be consistent with the segment mitigations a second northbound and southbound through lane is included. Also provide two westbound through lanes for when Chrysanthy Boulevard is connected through Rancho Cordova.
- J. *Grant Line Road and University Boulevard* – Construct a new traffic signal. Provide a through lane and a separate free-right turn lane on the northbound approach, dual left turn lanes and one through lanes on the southbound approach, and dual left turn lanes and a right turn lane on the westbound approach. Also an extra eastbound departure lane is needed for the northbound free-right movement. To be consistent with the segment mitigations a second northbound and southbound through lane is included.

SACRAMENTO COUNTY ROADWAY SEGMENTS

- TR-3.** The applicant shall construct or fund, as set forth in the phasing and financing plan approved by the Sacramento County Department of Transportation, the below mitigation measures. The phasing and financing plan shall ensure commencement of construction of traffic improvements prior to degradation of LOS below applicable County standards. This mitigation recognizes that should any of the measures below benefit other projects, a reimbursement agreement and/or a fee credit to the applicant may be considered.

- A. *Prairie City Road from US 50 to White Rock Road* – Increase roadway capacity by upgrading the capacity class for this segment from a rural highway without shoulders to a rural highway with shoulders.

CITY OF ELK GROVE ROADWAY SEGMENT

TR-4. The applicant shall construct or fund, as set forth in the phasing and financing plan approved by the Sacramento County Department of Transportation, and in consultation with the City of Elk Grove, the below mitigation measures. The phasing and financing plan shall ensure commencement of construction of traffic improvements prior to degradation of LOS below the applicable County or City standards. This mitigation recognizes that should any of the measures below benefit other projects, a reimbursement agreement may be considered.

- A. *Grant Line Road from Sheldon Road to Calvine Road* – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with moderate access control.

CITY OF RANCHO CORDOVA ROADWAY SEGMENTS

TR-5. The applicant shall construct or fund, as set forth in the phasing and financing plan approved by the Sacramento County Department of Transportation, and in consultation with the City of Rancho Cordova, the below mitigation measures. The phasing and financing plan shall ensure commencement of construction of traffic improvements prior to degradation of LOS below the applicable County or City standards. This mitigation recognizes that should any of the measures below benefit other projects, a reimbursement agreement may be considered.

- A. *Grant Line Road from Jackson Road to Kiefer Boulevard* – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with moderate access control.
- B. *Grant Line Road from Kiefer Boulevard to University Boulevard* – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with moderate access control.
- C. *Grant Line Road from University Boulevard to Chrysanthy Boulevard* – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with moderate access control.
- D. *Grant Line Road from Chrysanthy Boulevard to North Loop* – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with moderate access control.
- E. *Grant Line Road from North Loop to Douglas Road* – Increase roadway capacity by widening this segment to 6 lanes and upgrading the capacity class to an arterial with moderate access control.

- F. *Grant Line Road from Douglas Road to White Rock Road* – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with moderate access control.
- G. *Jackson Road from Sunrise Boulevard to Grant Line Road* – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with moderate access control.
- ~~H. *Douglas Road from Sunrise Boulevard to Rancho Cordova Parkway* – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with moderate access control.~~
- I. *Douglas Road from Rancho Cordova Parkway to Grant Line Road* – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with moderate access control **between Americanos Boulevard and Grant Line Road, and by adding two westbound travel lanes to Douglas between Rancho Cordova Parkway to Americanos Boulevard. Construct interim sidewalk improvements (typically a detached asphaltic concrete path) and bicycle lanes.**

CALTRANS FREEWAY MAINLINE

- TR-6.** The applicant shall be responsible for funding a fair share of the construction costs of the below mitigation measures. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation, in consultation with Caltrans.
- A. *Westbound US 50 from Hazel Avenue to Sunrise Boulevard* – Add an auxiliary lane.
 - B. *Eastbound US 50 from Sunrise Boulevard to Hazel Avenue* – Add an auxiliary lane.

BICYCLE AND PEDESTRIAN FACILITIES

- TR-7.** The applicant shall be responsible for a fair share of the below mitigation measures. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation and may be up to 100% of the cost of the improvements.
- A. Construct **interim sidewalk improvements (typically a detached asphaltic concrete path)** and bicycle lanes along Grant Line Road from Douglas Road to White Rock Road and on Douglas Road from Rancho Cordova Parkway to Grant Line Road, **to the satisfaction of the Sacramento County Department of Transportation.**

CUMULATIVE CONDITIONS (WITHOUT THE PROJECT)

The primary travel forecasting tool used for future year travel forecasts is the Sacramento Metropolitan Travel Demand Model (SACMET) model. This model has provided the basis for other recent regional studies, corridor analyses, and environmental documents. SACOG maintains SACMET over time, updating base year and forecast year demographic data and networks, and working with a technical advisory committee to periodically update and enhance the model. Also, many local jurisdictions use the model as the basis for general plans and environmental studies. For all of these reasons, this model provides the best starting point for travel forecasts for the Cordova Hills Project.

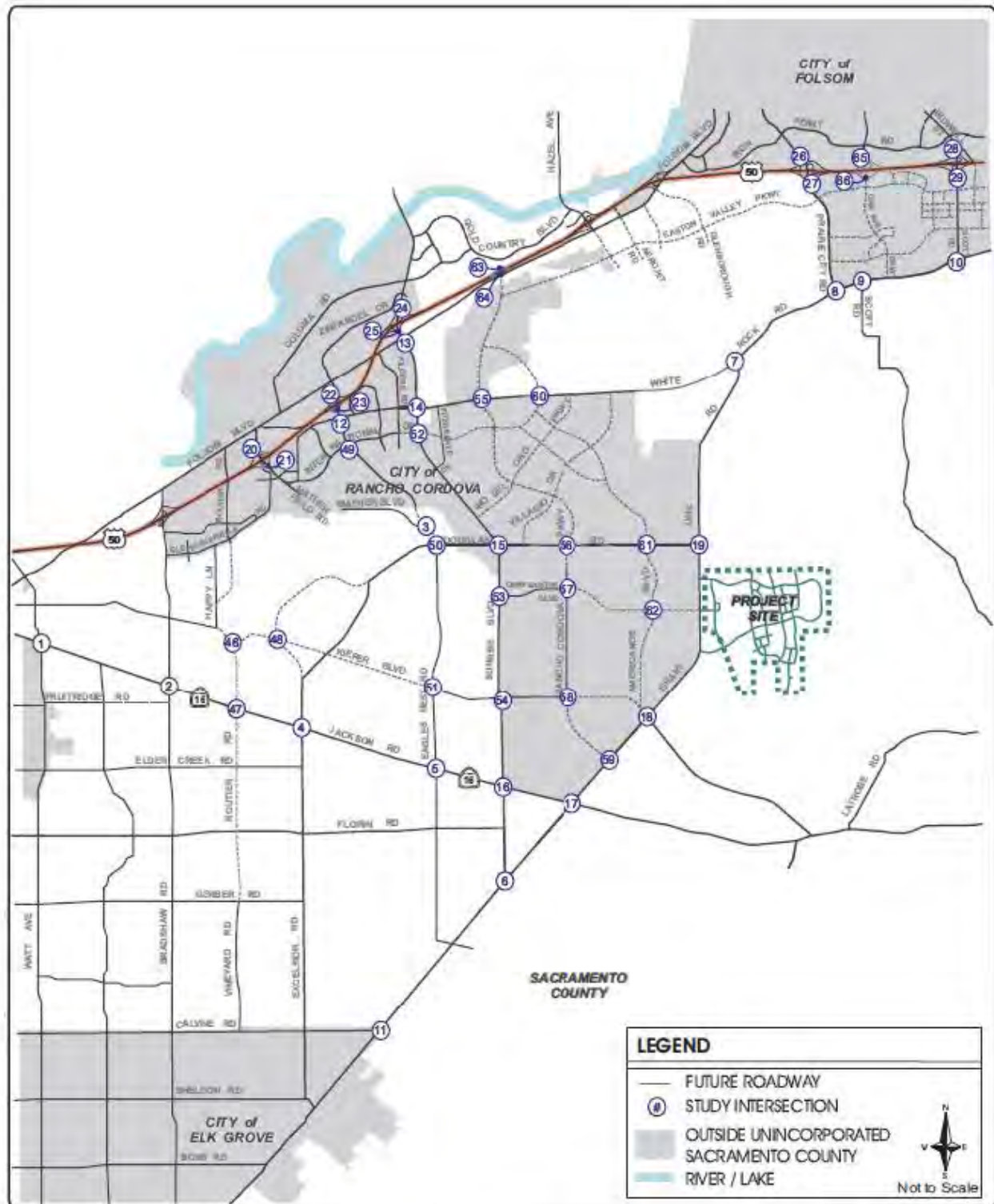
To evaluate the transportation impacts of the proposed Project adequately, a few modifications to SACMET roadway and development inputs were needed. Modifying a regional model roadway network and traffic analysis zone (TAZ) system to provide additional detail in the Project area and neighboring areas is a common practice for a transportation impact analysis. Regional cumulative conditions are based upon year 2035 projections. The development forecast used for the cumulative year scenarios are consistent with SACOG's currently adopted 2035 MTP development forecast. SACOG's development forecast include reasonable and foreseeable projects neighboring the Cordova Hills site such as Sun Ridge, Suncreek, Arboretum, Rio Del Oro, Westborough, Easton/Glenborough, and Folsom SOI. In addition to SACOG's 2035 development forecasts, truck trips from the proposed quarries in eastern Sacramento County are included in cumulative conditions. Quarry truck volumes were estimated using "average day" trip generation rates and distribution from the East Sacramento County Truck Study for the three proposed quarries (Teichert, Stoneridge, and Milgate). The development forecasts do not include any adjacent growth north or south of the Project. The future year roadway and transit networks are also consistent with the region's currently adopted 2035 MTP. However, based on input from recent transportation studies, the following MTP roadway improvements were changed:

- The number of lanes on White Rock Road from the El Dorado County line to Scott Road (E) was reduced from 6 to 4 to be consistent with the maximum number of lanes allowed on that segment in the proposed Sacramento County General Plan.
- The extension of Hazel Avenue from the future Easton Valley Parkway south to White Rock Road was not assumed.
- The number of lanes on Rancho Cordova Boulevard from the Chrysanthy Boulevard to Grant Line Road was reduced from 6 to 4 to be consistent with the maximum number of lanes allowed on that segment in the City of Rancho Cordova General Plan.
- The number of lanes on Prairie City Road from U.S. 50 to Easton Valley Parkway was increased from 4 to 6 to be consistent with the Folsom SOI.

- The number of lanes on Scott Road from Easton Valley Parkway to White Rock Road was reduced from 6 to 4 to be consistent with the Folsom SOI.

The study area includes 66 intersections, 80 roadway segments, and portions of the US 50 freeway system between Howe Avenue and Scott Road (refer to Plate TC-5 and Plate TC-6). Tables showing the cumulative condition operating conditions for all studied facilities are included in the Cumulative Plus Project analysis section, so that reviewers can see the No Project and Project impacts side by side (refer to tables Table TC-20 through Table TC-23). Note that the interface between the Project and the proposed Capitol Southeast Connector project is discussed in the Cumulative and Growth Inducing Impacts chapter.

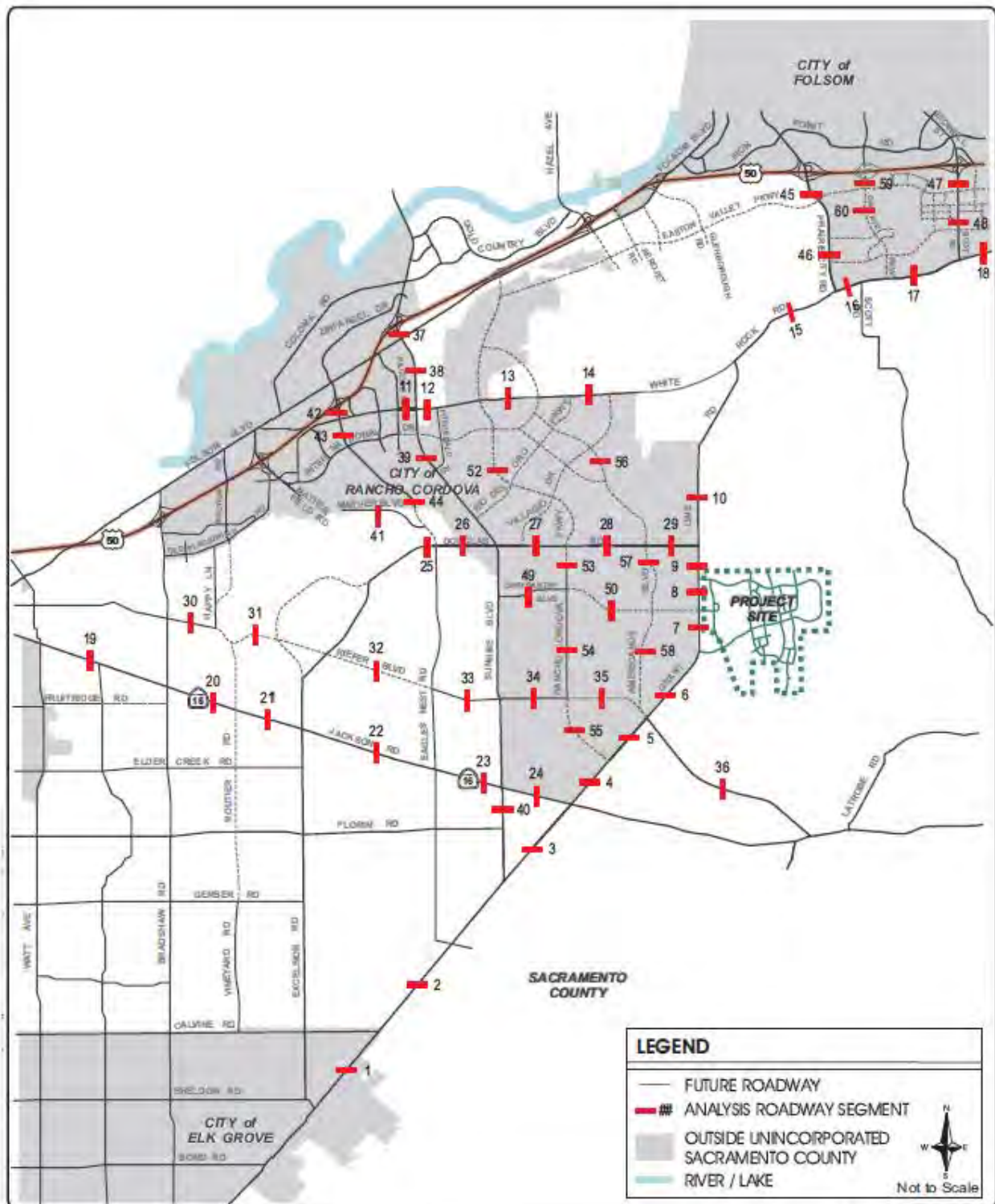
Plate TC-5: Cumulative Study Intersections



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FIGURE 16
CUMULATIVE STUDY INTERSECTIONS

Plate TC-6: Cumulative Study Roadway Segments



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TRANSPORTATION SOLUTIONS

FIGURE 18
CUMULATIVE STUDY ROADWAY SEGMENTS

*INTERSECTION ANALYSIS***SACRAMENTO COUNTY**

During the a.m. and p.m. peak hours, the following Sacramento County intersections do not meet the Level of Service (LOS) E standard within the Urban Service Boundary or the Level of Service (LOS) D standard outside the boundary:

- *Bradshaw Road and Jackson Road* – LOS F in the p.m. peak hour
- *Excelsior Road and Jackson Road* – LOS F in the p.m. peak hour
- *Grant Line Road and Sunrise Boulevard* – LOS E in the p.m. peak hour
- *South Watt Avenue and Jackson Road* – LOS F in the a.m. and p.m. peak hours

CITY OF FOLSOM

During the a.m. and p.m. peak hours, all of the City of Folsom intersections meet the LOS C standard.

CITY OF ELK GROVE

During the a.m. and p.m. peak hours, the intersection of Grant Line Road and Calvine Road meets the LOS D standard.

CITY OF RANCHO CORDOVA

During the a.m. and p.m. peak hours the following City of Rancho Cordova intersections do not meet the Level of Service (LOS) D standard:

- *Zinfandel Drive and White Rock Road* – LOS F in the p.m. peak hour
- *Sunrise Boulevard and Folsom Boulevard* – LOS F in the a.m. peak hour
- *Sunrise Boulevard and Douglas Road* – LOS E in the a.m. peak hour
- *Sunrise Boulevard and Jackson Road* – LOS E in a.m. peak hour
- *Zinfandel Drive and International Drive* – LOS E in the a.m. peak hour and LOS F in the p.m. peak hour
- *Rancho Cordova Parkway and Douglas Road* – LOS F in the p.m. peak hour

CALTRANS

During the a.m. and p.m. peak hours, all but the Zinfandel Drive and US 50 Eastbound Ramps meet the Caltrans State Highway LOS E standard. In this location, intersection is at LOS F in the p.m. peak hour.

*ROADWAY SEGMENT ANALYSIS***SACRAMENTO COUNTY**

The following Sacramento County roadway segments do not meet the Level of Service (LOS) E standard within the Urban Service Boundary or the Level of Service (LOS) D standard outside the boundary:

- *Jackson Road from Watt Avenue to Bradshaw Road – LOS F*
- *Jackson Road from Bradshaw Road to Vineyard Road – LOS F*

CITY OF ELK GROVE

The segment of Grant Line Road between Excelsior Road and Calvine Road operates at LOS C, which meets the City of Elk Grove's LOS D standard.

CITY OF RANCHO CORDOVA

The following City of Rancho Cordova roadway segments do not meet the Level of Service (LOS) D standard:

- *Grant Line Road from Douglas Road to White Rock Road – LOS E*
- *Sunrise Boulevard from US 50 to Folsom Boulevard – LOS F*
- *Sunrise Boulevard from Folsom Boulevard to White Rock Road – LOS F*
- *Zinfandel Drive from US 50 to White Rock Road – LOS F*
- *Zinfandel Drive from White Rock Road to International Drive – LOS F*

CALTRANS FREEWAYS**MAINLINE**

The following Caltrans freeway segments do not meet the LOS E standard:

- *Eastbound US 50 from Watt Avenue to Bradshaw Road – LOS F in a.m. and p.m. peak hours*
- *Eastbound US 50 from Rancho Cordova Parkway to Hazel Avenue – LOS F in a.m. and p.m. peak hours*

- *Westbound US 50 from Hazel Avenue to Rancho Cordova Parkway* – LOS F in the a.m. peak hour
- *Westbound US 50 from Bradshaw Road to Watt Avenue* – LOS F in a.m. and p.m. peak hours

RAMP JUNCTIONS

The following Caltrans freeway ramp junctions do not meet the LOS E standard:

- *Eastbound US 50 Exit Ramp to Watt Avenue* – LOS F in p.m. peak hour
- *Eastbound US 50 Slip Ramp Entrance from Watt Avenue* – LOS F in a.m. and p.m. peak hours
- *Westbound US 50 Exit Ramp to Watt Avenue* – LOS F in a.m. and p.m. peak hours
- *Westbound US 50 Slip Ramp Entrance from Watt Avenue* – LOS F in a.m. peak hour

CUMULATIVE PLUS PROJECT CONDITIONS

TRIP GENERATION, DISTRIBUTION, AND MODE SHARE

Project trip generation and distribution would differ from the Existing Plus Project scenario due to the buildout of facilities and land uses in proximity to the Project, such as within the City of Rancho Cordova. The Cumulative Plus Project trip generation is shown in Table TC-19. Overall, the analysis estimates that 36% of all drive-person trips will remain internal to the Cordova Hills site and that about 12% of all person trips will be by non-automobile modes.

Plate TC-7 illustrates the external Project trip distribution based upon daily traffic volumes (the distribution varies by time of day due to changing trip purposes and destinations). Approximately 70,019 daily vehicle trips travel outside the Cordova Hills specific area. About 28 percent of traffic would use Douglas Road to the west, about 22 percent would use Chrysanthy Boulevard to the west, about 18 percent would use Grant Line Road to the north, and about 32 percent would use Grant Line Road to the south.

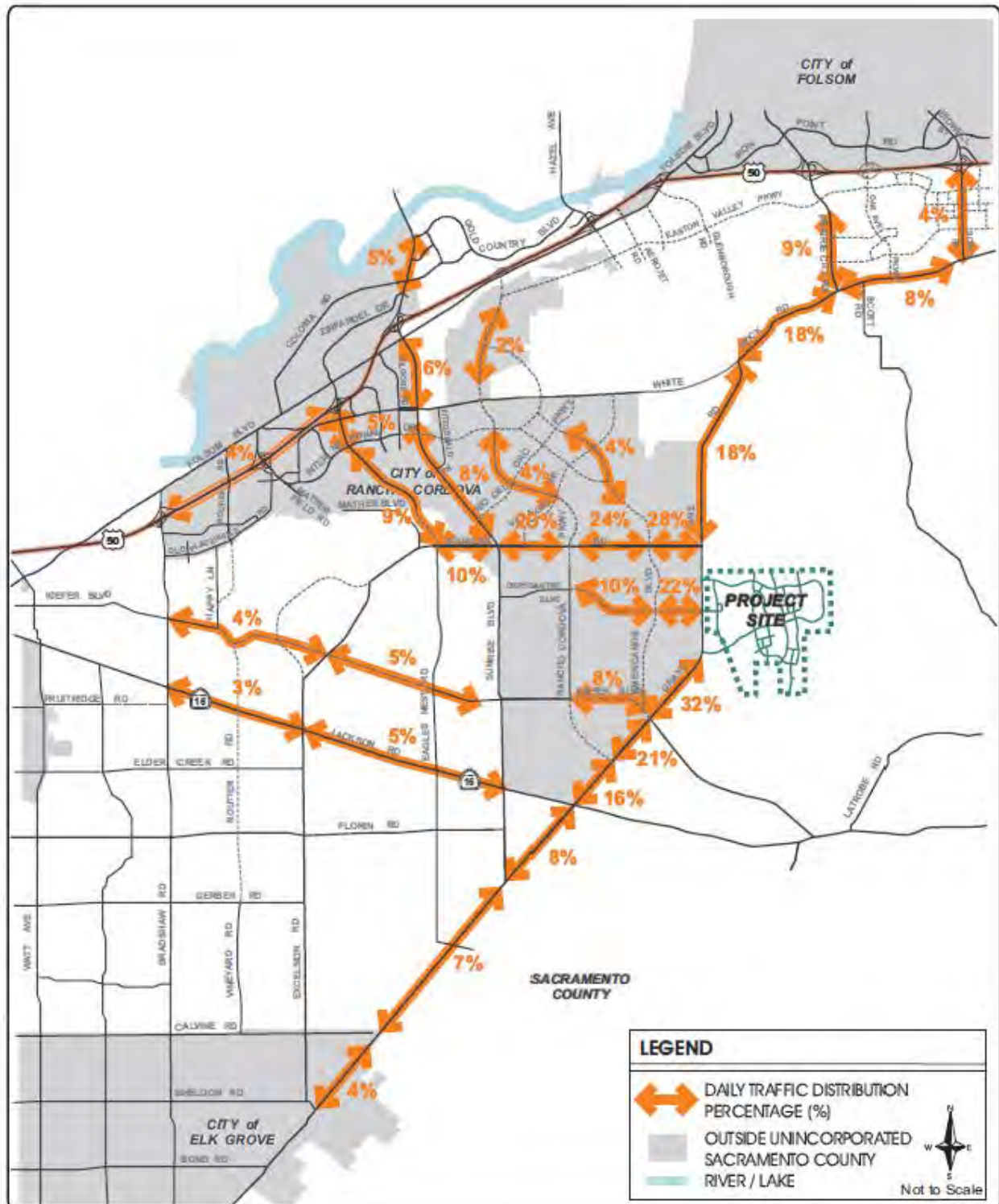
CUMULATIVE PLUS PROJECT IMPACTS

Impacts are defined by comparing the proposed Project to the cumulative without Project (No Project) conditions. Table TC-20 through Table TC-23 describe the operating conditions for the studied facilities in both the cumulative No Project and Cumulative Plus Project conditions.

Table TC-19: Cumulative Trip Generation

Land Use	Units	Vehicle Trip End Rates ¹			Daily Vehicle Trip Rates ^{1,2}			Vehicle Trips Ends			Vehicle Trips		
		AM	PM	Daily	AM	PM	Daily	AM	PM	Daily	AM	PM	Daily
Single-family DU	5,340	0.7	0.8	9.2	0.5	0.6	6.9	3,775	4,300	49,295	2,848	3,214	36,956
Multi-family DU	2,660	0.5	0.6	6.3	0.4	0.4	4.8	1,244	1,467	16,872	955	1,106	12,750
Retail Employee	1,897	1.0	1.7	17.8	0.8	1.3	13.7	1,912	3,230	33,778	1,515	2,471	26,048
Other Employee	2,166	0.3	0.4	3.9	0.3	0.3	3.3	657	764	8,432	555	635	7,067
K12 Students	7,140	0.4	0.2	1.8	0.3	0.1	1.3	2,745	1,207	12,820	2,052	880	9,337
<i>SubTotal</i>								10,350	11,003	121,404	7,925	8,306	91,970
University Students	6,000	0.1	0.2	1.8	0.1	0.1	1.5	760	978	10,862	637	798	8,880
<i>Total</i>								11,093	11,946	132,059	8,562	9,104	101,039
<i>External Trips³</i>											6,031	6,262	70,019
NOTES: 1. Rates in the table may not compute exactly due to rounding. 2. Vehicle trip rates reflect internalization reduction. For trips internal to the Cordova Hills Project, half the trip is attributed to the origin and half to the destination. 3. Approximate of vehicle trips traveling outside the Cordova Hills specific plan Vehicle trip summary based on modified version of the SACMET travel demand forecasting (TDF) model. Source: DKS Associates, 2011													

Plate TC-7: Cumulative Plus Project Trip Distribution



DKS Associates
TRANSPORTATION SOLUTIONS

FIGURE 21
CUMULATIVE PLUS PROJECT DAILY TRAFFIC DISTRIBUTION

Table TC-20: Cumulative and Cumulative Plus Project Intersection Operating Conditions

Intersection			Level of Service Methodology		AM Peak Hour				PM Peak Hour			
					No Project		Project		No Project		Project	
ID #	North-South Street	East-West Street	Analysis Methodology	Policy	v/c or Delay ¹	LOS	v/c or Delay ¹	LOS	v/c or Delay ¹	LOS	v/c or Delay ¹	LOS
Sacramento County												
1	S Watt Ave	Jackson Rd(SR-16)	Circular 212 Planning	E	1.27	F	1.26	F	1.11	F	1.13	F
2	Bradshaw Rd	Jackson Rd(SR-16)	Circular 212 Planning	E	0.95	E	0.96	E	1.18	F	1.12	F
3	Zinfandel Dr ²	Mather Blvd ²	Circular 212 Planning	E	0.42	A	0.46	A	0.61	B	0.71	C
4	Excelsior Rd	Jackson Rd(SR-16)	Circular 212 Planning	E	0.72	C	0.77	C	1.14	F	1.15	F
5	Eagles Nest Rd	Jackson Rd(SR-16)	Circular 212 Planning	E	0.39	A	0.40	A	0.60	A	0.62	B
6	Grant Line Rd	Sunrise Blvd	Circular 212 Planning	E	0.89	D	0.96	E	1.11	F	1.12	F
7	Grant Line Rd	White Rock Rd	Circular 212 Planning	E	0.77	C	0.83	D	0.85	D	0.91	E
9	Scott Rd (W)	White Rock Rd	Circular 212 Planning	D	0.54	A	0.61	B	0.53	A	0.58	A
34	Town Center Dr	North Loop Rd	Circular 212 Planning	E	--	--	0.65	B	--	--	0.73	C
35	Town Center Dr	Chrysanthy Blvd	Circular 212 Planning	E	--	--	0.52	A	--	--	0.76	C
36	Town Center Dr	University Blvd	Circular 212 Planning	E	--	--	0.69	B	--	--	0.78	C
37	Street "A"	North Loop Rd	FHWA Roundabout	E	--	--	3.8	A	--	--	3.5	A
38	Street "A"	University Blvd	FHWA Roundabout	E	--	--	11.4	B	--	--	18.4	C
39	Street "A"	Street "B"	Circular 212 Planning	E	--	--	0.24	A	--	--	0.29	A
40	Street "C"	University Blvd	FHWA Roundabout	E	--	--	6.6	A	--	--	5.9	A
41	Street "D"	North Loop Rd	Circular 212 Planning	E	--	--	0.83	D	--	--	0.63	B
42	Street "D"	University Blvd	FHWA Roundabout	E	--	--	7.2	A	--	--	7.1	A
43	Street "D"	Street "A"	FHWA Roundabout	E	--	--	3.3	A	--	--	3.3	A
44	School Access	North Loop Rd	Circular 212 Planning	E	--	--	1.18	F	--	--	0.52	A
45	Street "F"	North Loop Rd	Circular 212 Planning	E	--	--	0.31	A	--	--	0.19	A
46	Vineyard Rd	Kiefer Blvd	Circular 212 Planning	E	0.90	D	0.91	E	0.90	D	0.95	E
47	Vineyard Rd	Jackson Rd(SR-16)	Circular 212 Planning	E	0.76	C	0.77	C	0.96	E	0.97	E
48	Excelsior Rd	Kiefer Blvd	Circular 212 Planning	E	0.71	C	0.75	C	0.59	A	0.55	A
50	Zinfandel Dr	Douglas Rd	Circular 212 Planning	E	0.53	A	0.58	A	0.72	C	0.78	C
51	Eagles Nest Rd	Kiefer Blvd	Circular 212 Planning	E	0.64	B	0.68	B	0.62	B	0.69	B
City of Folsom												
8	Prairie City Rd	White Rock Rd	2000 HCM Operations	C	16.9	B	20.1	C	19.4	B	20.6	C
10	Scott Rd (E)	White Rock Rd	2000 HCM Operations	C	33.2	C	34.7	C	15.5	B	15.4	B
City of Elk Grove												
11	Grant Line Rd	Calvine Rd	2000 HCM Operations	D	11.5	B	11.7	B	8.5	A	9.0	A

Intersection			Level of Service Methodology		AM Peak Hour				PM Peak Hour			
					No Project		Project		No Project		Project	
ID #	North-South Street	East-West Street	Analysis Methodology	Policy	v/c or Delay ¹	LOS	v/c or Delay ¹	LOS	v/c or Delay ¹	LOS	v/c or Delay ¹	LOS
City of Rancho Cordova												
12	Zinfandel Dr	White Rock Rd	Circular 212 Planning	D	0.80	D	0.83	D	1.28	F	1.29	F
13	Sunrise Blvd	Folsom Blvd	Circular 212 Planning	D	1.01	F	0.96	E	0.80	D	0.80	C
14	Sunrise Blvd	White Rock Rd	Circular 212 Planning	D	0.60	B	0.62	B	0.72	C	0.73	C
15	Sunrise Blvd	Douglas Rd	Circular 212 Planning	D	0.90	E	1.04	F	0.88	D	0.91	E
16	Sunrise Blvd	Jackson Rd(SR-16)	Circular 212 Planning	D	0.91	E	0.93	E	0.79	C	0.81	D
17	Grant Line Rd	Jackson Rd(SR-16)	Circular 212 Planning	D	0.63	B	0.73	C	0.63	B	0.63	B
18	Grant Line Rd	Kiefer Blvd	Circular 212 Planning	D	0.61	B	0.77	C	0.72	C	0.79	C
19	Grant Line Rd	Douglas Rd	Circular 212 Planning	D	0.58	A	1.10	F	0.56	A	1.16	F
30	Grant Line Rd	North Loop Rd	Circular 212 Planning	D	--	--	1.53	F	--	--	1.27	F
31	Grant Line Rd	Chrysanthy Blvd	Circular 212 Planning	D	0.48	A	0.64	B	0.39	A	0.69	B
32	Grant Line Rd	University Blvd	Circular 212 Planning	D	--	--	0.91	E	--	--	0.96	E
49	Zinfandel Dr	International Rd	Circular 212 Planning	D	0.90	E	0.93	E	1.23	F	1.25	F
52	Sunrise Blvd	International Dr	Circular 212 Planning	D	0.87	D	0.92	E	0.79	C	0.81	D
53	Sunrise Blvd	Chrysanthy Blvd	Circular 212 Planning	D	0.67	B	0.76	C	0.54	A	0.53	A
54	Sunrise Blvd	Kiefer Blvd	Circular 212 Planning	D	0.59	A	0.63	B	0.58	A	0.65	B
55	Rancho Cordova Pkwy	White Rock Rd	Circular 212 Planning	D	0.69	B	0.73	C	0.73	C	0.74	C
56	Rancho Cordova Pkwy	Douglas Rd	Circular 212 Planning	D	0.73	C	0.72	C	1.08	F	1.01	F
57	Rancho Cordova Pkwy	Chrysanthy Blvd	Circular 212 Planning	D	0.61	B	0.70	C	0.59	A	0.66	B
58	Rancho Cordova Pkwy	Kiefer Blvd	Circular 212 Planning	D	0.54	A	0.59	A	0.53	A	0.55	A
59	Rancho Cordova Pkwy	Grant Line Rd	Circular 212 Planning	D	0.46	A	0.59	A	0.45	A	0.51	A
60	International Dr	White Rock Rd	Circular 212 Planning	D	0.36	A	0.35	A	0.44	A	0.45	A
61	Americanos Blvd	Douglas Rd	Circular 212 Planning	D	0.45	A	0.51	A	0.68	B	0.75	C
62	Americanos Blvd	Chrysanthy Blvd	Circular 212 Planning	D	0.27	A	0.51	A	0.36	A	0.56	A
Caltrans State Highways												
20	Mather Field Rd	US-50 WB Ramps	2000 HCM Operations	E	23.7	C	22.9	C	22.5	C	22.4	C
21	Mather Field Rd	US-50 EB Ramps	2000 HCM Operations	E	36.5	D	34.6	C	19.7	B	20.1	C
22	Zinfandel Dr	US-50 WB Ramps	2000 HCM Operations	E	15.9	B	16.1	B	20.2	C	20.4	C
23	Zinfandel Dr	US-50 EB Ramps	2000 HCM Operations	E	57.4	E	59.5	E	122.4	F	125.0	F
24	Sunrise Blvd	US-50 WB Ramps	2000 HCM Operations	E	23.4	C	23.2	C	31.1	C	32.1	C
25	Sunrise Blvd	US-50 EB Ramps	2000 HCM Operations	E	21.6	C	21.4	C	19.8	B	20.0	C
26	Prairie City Rd	US-50 WB Ramps	2000 HCM Operations	E	20.1	C	20.0	B	34.5	C	35.2	D

Intersection			Level of Service Methodology		AM Peak Hour				PM Peak Hour			
					No Project		Project		No Project		Project	
ID #	North-South Street	East-West Street	Analysis Methodology	Policy	v/c or Delay ¹	LOS	v/c or Delay ¹	LOS	v/c or Delay ¹	LOS	v/c or Delay ¹	LOS
27	Prairie City Rd	US-50 EB Ramps	2000 HCM Operations	E	12.1	B	12.0	B	14.7	B	14.7	B
28	Scott Rd	US-50 WB Ramps	2000 HCM Operations	E	15.3	B	15.4	B	13.7	B	13.9	B
29	Scott Rd	US-50 EB Ramps	2000 HCM Operations	E	19.4	B	19.5	B	16.1	B	16.1	B
63	Rancho Cordova Pkwy	US-50 WB Ramps	2000 HCM Operations	E	20.2	C	20.5	C	25.1	C	25.8	C
64	Rancho Cordova Pkwy	US-50 EB Ramps	2000 HCM Operations	E	12.2	B	12.4	B	21.1	C	21.5	C
65	Oak Ave Pkwy	US-50 WB Ramps	2000 HCM Operations	E	14.1	B	14.4	B	9.0	A	8.9	A
66	Oak Ave Pkwy	US-50 EB Ramps	2000 HCM Operations	E	19.2	B	19.2	B	21.5	C	21.5	C
<p>NOTES:</p> <p>¹ V/C = Volume-to-Capacity ratio, Delay: At 4-Way Stop intersections (based on the 2000 HCM 4-Way Stop methodology) the reported delay is the average intersection delay.</p> <p>² The Zinfandel Drive extension project includes realigning Mather Boulevard to connect at Zinfandel Drive (see Figure 16)</p> <p>At unsignalized, 2-Way Stop intersections (based on the 2000 HCM Unsignalized methodology), the reported delay is for the worst approach.</p> <p>At signalized intersections (based on the 2000 HCM Operations), the reported delay is the intersection delay.</p> <p>Bold indicates deficiency. Shaded areas indicate impact.</p> <p>Source: DKS Associates, 2011</p>												

Table TC-21: Cumulative and Cumulative Plus Project Roadway Operating Conditions

ID #	Roadway Segment	Facility	Lanes	Policy	No Project			Plus Project		
					Volume	V/C	LOS	Volume	V/C	LOS
1	Grant Line Rd - Sheldon Rd to Calvine Rd	Arterial M	4	D	25,700	0.71	C	27,000	0.75	C
2	Grant Line Rd - Calvine Rd to Sunrise Blvd	Arterial M	4	E	29,500	0.82	D	31,700	0.88	D
3	Grant Line Rd - Sunrise Blvd to Jackson Rd (SR-16)	Arterial M	4	E	21,400	0.59	A	23,800	0.66	B
4	Grant Line Rd - Jackson Rd (SR-16) to Rancho Cordova Pkwy	Arterial M	4	D	24,000	0.67	B	30,800	0.86	D
5	Grant Line Rd - Rancho Cordova Pkwy to Kiefer Blvd	Arterial M	4	D	25,900	0.72	C	35,200	0.98	E
6	Grant Line Rd - Kiefer Blvd to University Blvd	Arterial M	4	D	20,400	0.57	A	36,900	1.03	F
7	Grant Line Rd - University Blvd to Chrysanthy Blvd	Arterial M	4	D	20,400	0.57	A	28,000	0.78	C
8	Grant Line Rd - Chrysanthy Blvd to North Loop	Arterial M	4	D	24,600	0.68	B	30,200	0.84	D
9	Grant Line Rd - North Loop to Douglas Rd	Arterial M	4	D	24,600	0.68	B	50,200	1.39	F
10	Grant Line Rd - Douglas Rd to White Rock Rd	Arterial M	4	D	34,700	0.96	E	41,300	1.15	F
11	White Rock Rd - Kilgore Rd to Sunrise Blvd	Arterial M	6	E	24,200	0.45	A	24,500	0.45	A
12	White Rock Rd - Sunrise Blvd to Rancho Cordova Pkwy	Arterial M	6	E	16,600	0.31	A	16,700	0.31	A
13	White Rock Rd - Rancho Cordova Pkwy to Americanos Blvd	Arterial M	6	E	11,700	0.22	A	12,100	0.22	A
14	White Rock Rd - Americanos Blvd to Grant Line Rd	Arterial M	6	D	12,300	0.23	A	13,400	0.25	A
15	White Rock Rd - Grant Line Rd to Prairie City Rd	Arterial M	6	E	44,000	0.81	D	51,500	0.95	E
16	White Rock Rd - Prairie City Rd to Scott Rd	Arterial M	6	D	31,400	0.58	A	35,100	0.65	B

ID #	Roadway Segment	Facility	Lanes	Policy	No Project			Plus Project		
					Volume	V/C	LOS	Volume	V/C	LOS
	(South)									
17	White Rock Rd - Scott Rd (South) to Scott Rd (North)	Arterial M	6	D	31,700	0.59	A	35,100	0.65	B
18	White Rock Rd - Scott Rd (North) to County Line	Arterial M	4	D	21,200	0.59	A	22,800	0.63	B
19	Jackson Rd (SR-16) - Watt Ave to Bradshaw Rd	Arterial M	6	E	66,900	1.24	F	67,700	1.25	F
20	Jackson Rd (SR-16) - Bradshaw Rd to Vineyard Rd	Arterial M	6	E	55,300	1.02	F	56,400	1.04	F
21	Jackson Rd (SR-16) - Vineyard Rd to Excelsior Rd	Arterial M	6	E	35,200	0.65	B	37,200	0.69	B
22	Jackson Rd (SR-16) - Excelsior Rd to Eagles Nest Rd	Arterial M	4	E	22,500	0.63	B	24,900	0.69	B
23	Jackson Rd (SR-16) - Eagles Nest Rd to Sunrise Blvd	Arterial M	4	E	24,600	0.68	B	26,600	0.74	C
24	Jackson Rd (SR-16) - Sunrise Blvd to Grant Line Rd	Arterial M	4	D	29,100	0.81	D	32,100	0.89	D
25	Douglas Rd - Excelsior Rd to Eagles Nest Rd	Arterial M	4	E	19,800	0.55	A	17,600	0.49	A
26	Douglas Rd - Eagles Nest Rd to Sunrise Blvd	Arterial M	6	D	31,100	0.58	A	35,000	0.65	B
27	Douglas Rd - Sunrise Blvd to Rancho Cordova Pkwy	Arterial M	6	D	36,100	0.67	B	44,400	0.82	D
28	Douglas Rd - Rancho Cordova Pkwy to Americanos Blvd	Arterial M	6	D	17,100	0.32	A	31,400	0.58	A
29	Douglas Rd - Americanos Blvd to Grant Line Rd	Arterial M	6	D	10,300	0.19	A	27,800	0.51	A
30	Kiefer Blvd - Bradshaw Rd to Vineyard Rd	Arterial M	4	D	28,400	0.79	C	30,800	0.86	D
31	Kiefer Blvd - Vineyard Rd to Excelsior Rd	Arterial M	4	D	23,000	0.64	B	25,900	0.72	C

ID #	Roadway Segment	Facility	Lanes	Policy	No Project			Plus Project		
					Volume	V/C	LOS	Volume	V/C	LOS
32	Kiefer Blvd - Excelsior Rd to Eagles Nest Rd	Arterial M	4	D	11,500	0.32	A	14,300	0.40	A
33	Kiefer Blvd - Eagles Nest Rd to Sunrise Blvd	Arterial M	4	D	16,300	0.45	A	18,600	0.52	A
34	Kiefer Blvd - Sunrise Blvd to Rancho Cordova Pkwy	Arterial M	4	D	18,400	0.51	A	21,000	0.58	A
35	Kiefer Blvd - Rancho Cordova Pkwy to Grant Line Rd	Arterial M	4	D	6,800	0.19	A	10,100	0.28	A
36	Kiefer Blvd - Grant Line Rd to Jackson Rd (SR-16)	Rural NS	2	D	7,000	0.41	D	7,800	0.46	D
37	Sunrise Blvd - US 50 to Folsom Blvd	Arterial M	6	D	62,300	1.15	F	63,300	1.17	F
38	Sunrise Blvd - Folsom Blvd to White Rock Rd	Arterial M	6	D	54,800	1.01	F	57,000	1.06	F
39	Sunrise Blvd - White Rock Rd to Douglas Rd	Arterial M	6	D	41,200	0.76	C	45,000	0.83	D
40	Sunrise Blvd - Jackson Rd (SR-16) to Florin Rd	Arterial M	4	E	22,400	0.62	B	23,400	0.65	B
41	Mather Blvd - Douglas Rd to Femoyer St	Arterial M	2	D	5,900	0.33	A	6,500	0.36	A
42	Zinfandel Dr - US-50 to White Rock Rd	Arterial M	6	D	80,600	1.49	F	81,800	1.51	F
43	Zinfandel Dr - White Rock Rd to International Dr	Arterial M	6	D	55,000	1.02	F	57,200	1.06	F
44	Zinfandel Dr - International Dr to Douglas Rd	Arterial M	6	D	30,600	0.57	A	34,800	0.64	B
45	Prairie City Rd - US-50 to Easton Valley Pkwy	Arterial M	6	D	27,600	0.51	A	29,100	0.54	A
46	Prairie City Rd - Easton Valley Pkwy to White Rock Rd	Arterial M	4	D	19,100	0.53	A	21,300	0.59	A
47	Scott Rd - US-50 to Easton Valley Pkwy	Arterial M	6	D	43,100	0.80	C	44,500	0.82	D
48	Scott Rd - Easton Valley Pkwy to White Rock Rd	Arterial M	4	D	19,800	0.55	A	21,500	0.60	A
49	Chrysanthy Blvd - Sunrise Blvd to Rancho Cordova Pkwy	Arterial M	4	D	10,800	0.30	A	11,800	0.33	A

ID #	Roadway Segment	Facility	Lanes	Policy	No Project			Plus Project		
					Volume	V/C	LOS	Volume	V/C	LOS
50	Chrysanthy Blvd - Rancho Cordova Pkwy to Americanos Blvd	Arterial M	4	D	19,400	0.54	A	21,400	0.59	A
51	Chrysanthy Blvd - Americanos Blvd to Grant Line Rd	Arterial M	4	D	6,100	0.17	A	21,000	0.58	A
52	Rancho Cordova Pkwy - White Rock Rd to Douglas Rd	Arterial M	6	D	33,600	0.62	B	35,400	0.66	B
53	Rancho Cordova Pkwy - Douglas Rd to Chrysanthy Blvd	Arterial M	6	D	29,400	0.54	A	29,700	0.55	A
54	Rancho Cordova Pkwy - Chrysanthy Blvd to Kiefer Blvd	Arterial M	4	D	20,300	0.56	A	19,700	0.55	A
55	Rancho Cordova Pkwy - Kiefer Blvd to Grant Line Rd	Arterial M	4	D	6,800	0.19	A	9,500	0.26	A
56	Americanos Blvd - White Rock Rd to Douglas Rd	Arterial M	4	D	12,200	0.34	A	15,400	0.43	A
57	Americanos Blvd - Douglas Rd to Chrysanthy Blvd	Arterial M	4	D	7,600	0.21	A	10,900	0.30	A
58	Americanos Blvd - Chrysanthy Blvd to Kiefer Blvd	Arterial M	4	D	9,600	0.27	A	9,500	0.26	A
59	Oak Ave - US-50 to Easton Valley Pkwy	Arterial M	4	D	17,900	0.50	A	18,700	0.52	A
60	Oak Ave - Easton Valley Pkwy to White Rock Rd	Arterial M	4	D	3,100	0.09	A	3,200	0.09	A
61	North Loop Rd - Grant Line Rd to Town Center Dr	Arterial M	4	E				29,900	0.83	D
62	North Loop Rd - Town Center Dr to Street A	Arterial M	4	E				26,600	0.74	C
63	North Loop Rd - Street A to Street D	Arterial M	4	E				20,100	0.56	A
64	North Loop Rd - Street D to Street F	Arterial L	4	E				12,000	0.40	A
65	North Loop Rd - Street F to University Blvd	Residential NF	2	E				3,000	0.30	A

ID #	Roadway Segment	Facility	Lanes	Policy	No Project			Plus Project		
					Volume	V/C	LOS	Volume	V/C	LOS
66	Chrysanthy Blvd - Grant Line Rd to Town Center Dr	Arterial M	4	E				12,900	0.36	A
67	University Blvd - Grant Line Rd to Town Center Dr	Arterial M	4	E				27,300	0.76	C
68	University Blvd - Town Center Dr to Street A	Arterial M	4	E				21,200	0.59	A
69	University Blvd - Street A to Street C	Arterial M	2	E				11,700	0.65	B
70	University Blvd - Street C to Street D	Arterial M	2	E				11,500	0.64	B
71	University Blvd - Street D to Street E	Residential NF	2	E				7,500	0.75	C
72	University Blvd - Street E to North Loop Rd	Residential NF	2	E				4,000	0.40	A
73	Town Center Dr - North Loop Rd to Chrysanthy Blvd	Arterial L	2	E				8,000	0.53	A
74	Town Center Dr - Chrysanthy Blvd to University Blvd	Arterial L	2	E				7,200	0.48	A
75	Street A - North Loop Rd to University Blvd	Residential NF	2	E				5,200	0.52	A
76	Street A - University Blvd to Street B	Residential NF	2	E				9,100	0.91	E
77	Street A - Street B to Street D	Residential NF	2	E				5,900	0.59	A
78	Street D - North Loop Rd to University Blvd	Arterial L	2	E				12,400	0.83	D
79	Street D - University Blvd to Street A	Residential NF	2	E				8,100	0.81	D
80	Street E - University Blvd to Street A	Residential F	2	E				3,400	0.43	C
<p>NOTES:</p> <p>LOS = level of service; SR = State Route; U.S. 50 = U.S. Highway 50; V/C = volume-to-capacity; Arterial M = medium access control arterial; Arterial L = low access control arterial; Rural Hwy = rural highway; Rural NS = rural road with no shoulders; Rural NS = rural road with shoulders; Residential NF = residential collector without frontage; Residential F = residential collector with frontage.</p> <p>Bold indicates deficiency. Shaded areas indicate impact.</p> <p>Source: DKS Associates, 2011</p>										

Table TC-22: Cumulative and Cumulative Plus Project Freeway Segment Operating Conditions

Roadway Segment	Lanes mi/hov/aux	No Project			Plus Project		
		Total Volume	Density	LOS	Total Volume	Density	LOS
AM Peak Hour							
US-50 EB Power Inn/Howe Ave to Watt Ave	4/1/0	8,950	42	E	9,070	43	E
US-50 EB Watt Ave to Bradshaw Rd	4/1/0	9,340	49	F	9,470	51	F
US-50 EB Bradshaw Rd to Mather Field Rd	4/1/0	8,680	40	E	8,740	41	E
US-50 EB Mather Field Rd to Zinfandel Dr	4/1/1	8,300	31	D	8,420	31	D
US-50 EB Rancho Cordova Pkwy to Hazel Ave	3/1/1	7,470	47	F	7,690	52	F
US-50 WB Hazel Ave to Rancho Cordova Pkwy	3/1/1	8,960	67	F	9,040	71	F
US-50 WB Zinfandel Dr to Mather Field Rd	4/1/1	9,550	34	D	9,720	35	D
US-50 WB Mather Field Rd to Bradshaw Rd	4/1/0	9,030	43	E	9,180	45	F
US-50 WB Bradshaw Rd to Watt Ave	4/1/0	10,010	55	F	10,120	58	F
US-50 WB Watt Ave to Power Inn/Howe Ave	4/1/1	10,670	44	E	10,770	46	F
PM Peak Hour							
US-50 EB Power Inn/Howe Ave to Watt Ave	4/1/0	9,590	43	E	9,710	44	E
US-50 EB Watt Ave to Bradshaw Rd	4/1/0	9,780	48	F	9,860	49	F
US-50 EB Bradshaw Rd to Mather Field Rd	4/1/0	8,670	36	E	8,730	36	E
US-50 EB Mather Field Rd to Zinfandel Dr	4/1/1	9,450	35	E	9,470	36	E
US-50 EB Rancho Cordova Pkwy to Hazel Ave	3/1/1	8,940	90	F	8,990	94	F
US-50 WB Hazel Ave to Rancho Cordova Pkwy	3/1/1	6,070	27	D	6,230	28	D
US-50 WB Zinfandel Dr to Mather Field Rd	4/1/1	8,210	26	D	8,240	27	D
US-50 WB Mather Field Rd to Bradshaw Rd	4/1/0	8,220	33	D	8,240	33	D
US-50 WB Bradshaw Rd to Watt Ave	4/1/0	9,660	48	F	9,670	48	F

Roadway Segment	Lanes ml/hov/aux	No Project			Plus Project		
		Total Volume	Density	LOS	Total Volume	Density	LOS
US-50 WB Watt Ave to Power Inn/Howe Ave	4/1/1	9,170	31	D	9,180	31	D
<p>NOTES:</p> <p>ml = main line; hov = high occupancy vehicle; aux = auxiliary lane; LOS = level of service; U.S. 50 = U.S. Highway 50</p> <p>flow calculation assumes: free flow speed=65 mph; capacity of 2350 pc/h/ln; peak hour factor=0.9; heavy vehicle factor=0.976; population factor=1.0; and excludes hov volume and capacity</p> <p>auxiliary lane capacity is based on the Highway Capacity Manual volume-ratio (VR) methodology</p> <p>Bold indicates deficiency. Shaded areas indicate impact.</p> <p>Source: DKS Associates, 2011</p>							

Table TC-23: Cumulative and Cumulative Plus Project Freeway Ramp Operating Conditions

Roadway Segment	Lanes ml/hov/aux	No Project			Plus Project		
		Total Volume	Density	LOS	Total Volume	Density	LOS
AM Peak Hour							
US-50 EB Watt Ave Double Off	2	1,463	14.7	B	1,454	14.7	B
US-50 EB Watt Ave Loop On	1	1,524	38.0	E	1,518	38.1	E
US-50 EB Watt Ave Slip-On	1	772	33.5	F	779	33.6	F
US-50 WB Watt Ave Double Off	2	1,628	16.6	F	1,685	17.3	F
US-50 WB Watt Ave Loop On	1	872	39.9	E	907	40.1	E
US-50 WB Watt Ave Slip-On to Auxiliary	1	1,782	1.0	F	1,792	1.0	F
PM Peak Hour							
US-50 EB Watt Ave Double Off	2	1,835	18.3	F	1,888	18.8	F
US-50 EB Watt Ave Loop On	1	1,124	37.9	E	1,126	37.8	E
US-50 EB Watt Ave Slip-On	1	761	32.0	F	771	32.0	F
US-50 WB Watt Ave Double Off	2	2,248	21.0	F	2,264	21.1	F
US-50 WB Watt Ave Loop On	1	723	36.8	E	736	36.7	E
US-50 WB Watt Ave Slip-On to Auxiliary	1	1,261	0.7	D	1,267	0.7	D
NOTES:							
aux = auxiliary lane; LOS = level of service; U.S. 50 = U.S. Highway 50							
Bold indicates deficiency. Shaded areas indicate impact.							
Source: DKS Associates, 2011							

INTERSECTION ANALYSIS

SACRAMENTO COUNTY

The Project causes significant impacts to the intersection of School Access and North Loop Road. This new intersection operates at LOS F during the a.m. peak hour. Mitigation Measure TR-8 would improve operating conditions to LOS D (for more detailed data on LOS calculations pertinent to mitigation, refer to Table 31 of Appendix TR-1), which would reduce impacts to this facility to *less than significant* levels.

CITY OF FOLSOM

The Project does not cause a level of service standard to be exceeded, nor does the Project cause a significant increase in delay at a facility already operating at unacceptable levels; impacts are *less than significant*.

CITY OF ELK GROVE

The Project does not cause a level of service standard to be exceeded, nor does the Project cause a significant increase in delay at a facility already operating at unacceptable levels; impacts are *less than significant*.

CITY OF RANCHO CORDOVA

The Project causes significant impacts to five intersections, which are listed below. The list includes both the facility impact, as well as the operating conditions that would result after the implementation of mitigation (for more detailed data on LOS calculations pertinent to mitigation, refer to Table 31 of Appendix TR-1). The facility improvements listed in Mitigation Measure TR-9 would improve four of the intersection operating conditions from unacceptable to acceptable levels. While the mitigation identified would reduce those facility impacts to less than significant levels, Sacramento County does not have the land use authority to ensure that facilities outside of its jurisdiction are constructed. Thus, although adequate mitigation is included for most facilities, the impact is considered potentially *significant and unavoidable*. Furthermore, the intersection at Sunrise Boulevard and International Drive would remain at unacceptable operating conditions, as feasible mitigation is not available; impacts are *significant and unavoidable*.

- *Sunrise Boulevard and Douglas Road* – Operating conditions deteriorate from an acceptable LOS E to LOS F in the a.m. peak hour, with an increase in v/c ratio of greater than 0.05. Operating conditions deteriorate from an acceptable LOS D to LOS E in the p.m. peak hour. Mitigation will improve the a.m. peak hour operating conditions to LOS E and the change in the V/C ratio would be less than 0.05. Mitigation will improve the p.m. peak hour operating conditions to LOS D.

- *Grant Line Road and Douglas Road* – Operating conditions deteriorate from an acceptable LOS A to LOS F in the a.m. and p.m. peak hour. Mitigation will improve operating conditions to LOS D.
- *Grant Line Road and North Loop Road* – This new intersection operates at LOS F during the a.m. and p.m. peak hours. Mitigation will improve operating conditions to LOS D.
- *Grant Line Road and University Boulevard* – This new intersection operates at LOS E during the a.m. and p.m. peak hours. Mitigation will improve operating conditions to LOS B.
- *Sunrise Boulevard and International Drive* – Operating conditions deteriorate from an acceptable LOS D to LOS E in the a.m. peak hour. No feasible mitigation is available for the reasons described in the Existing Plus Project analysis. Widening of the roadway would be required, and is infeasible.

CALTRANS

The Project will increase traffic and delay at the Zinfandel Drive and US 50 eastbound ramp intersection during the p.m. peak hour, and this facility is operating at an unacceptable LOS F. No feasible mitigation measures are available, for the same reasons described in the Existing Plus Project section. Impacts to this Caltrans facility are *significant and unavoidable*.

ROADWAY SEGMENT ANALYSIS

SACRAMENTO COUNTY

The Project does not cause a level of service standard to be exceeded, nor does the Project cause a significant increase in delay at a facility already operating at unacceptable levels; impacts are *less than significant*.

CITY OF ELK GROVE

The Project does not cause a level of service standard to be exceeded, nor does the Project cause a significant increase in delay at a facility already operating at unacceptable levels; impacts are *less than significant*.

CITY OF RANCHO CORDOVA

The Project causes significant impacts to four roadway segments, which are listed below. The list includes both the facility impact, as well as the operating conditions that would result after the implementation of mitigation (for more detailed data on LOS calculations pertinent to mitigation, refer to Table 31 of Appendix TR-1). The facility improvements listed in Mitigation Measure TR-10 would improve three of the roadway operating conditions from unacceptable to acceptable levels. While the mitigation identified would reduce those facility impacts to less than significant levels, Sacramento

County does not have the land use authority to ensure that facilities outside of its jurisdiction are constructed. Thus, although adequate mitigation is included for three of the facilities, the impact is considered potentially *significant and unavoidable*.

- *Grant Line Road from Rancho Cordova Parkway to Kiefer Boulevard* – Operations deteriorate from an acceptable LOS C to LOS E. Mitigation would improve operating conditions to LOS B.
- *Grant Line Road from Kiefer Boulevard to University Boulevard* – Operations deteriorate from an acceptable LOS A to LOS F. Mitigation would improve operating conditions to LOS B.
- *Grant Line Road from North Loop to Douglas Road* – Operations deteriorate from an acceptable LOS B to LOS F. Mitigation would improve operating conditions to LOS E, which is still unacceptable. No further mitigation beyond that described is feasible. Refer to the below discussion.
- *Grant Line Road from Douglas Road to White Rock Road* – Operations deteriorate from an unacceptable LOS E to LOS F, with an increase in v/c ratio of greater than 0.05. Mitigation would improve operating conditions to LOS C.

Grant Line Road from North Loop to Douglas Road was already modeled at maximum capacity, and a General Plan Amendment would be required to further increase capacity. Since neither right-of-way nor funding for this further expansion have been identified or acquired, the mitigation is considered infeasible. Realignment of the north Project access with Douglas Boulevard would potentially eliminate this impact; this was studied in one of the Alternatives to the Project. Despite application of feasible mitigation, Grant Line Road between North Loop Road and Douglas Road will operate at unacceptable levels; impacts are *significant and unavoidable*.

CALTRANS FREEWAYS

MAINLINE

The Project causes significant impacts to six freeway segments, which are listed below. Further widening of these freeway segments would be required in order to reduce Project impacts, but Caltrans currently has no plans to expand the segments beyond the build-out capacities assumed in this analysis, nor are any funding mechanisms established to collect money to fund such improvements. No feasible mitigation exists to offset impacts to freeway segments; Project impacts are *significant and unavoidable*.

- *Eastbound US 50 from Watt Avenue to Bradshaw Road* – LOS F in a.m. and p.m. peak hours.
- *Eastbound US 50 from Rancho Cordova Parkway to Hazel Avenue* – LOS F in a.m. and p.m. peak hours.

- *Westbound US 50 from Hazel Avenue to Rancho Cordova Parkway* – LOS F in the a.m. peak hour.
- *Westbound US 50 from Mather Field Road to Bradshaw Road* – LOS F in a.m. peak hour.
- *Westbound US 50 from Bradshaw Road to Watt Avenue* – LOS F in a.m. and p.m. peak hours.
- *Westbound US 50 from Watt Avenue to Power Inn/Howe Avenue* – LOS F in a.m. peak hour.

RAMP JUNCTIONS

The Project causes significant impacts to four freeway ramps, which are listed below. Caltrans currently has no plans to expand the following ramp junctions beyond the build-out capacities assumed in this analysis, nor are any funding mechanisms established to collect monies to fund such improvements. No feasible mitigation exists to offset impacts to freeway ramps; Project impacts are *significant and unavoidable*.

- *Eastbound US 50 Exit Ramp to Watt Avenue* – LOS F in p.m. peak hour.
- *Eastbound US 50 Slip Ramp Entrance from Watt Avenue* – LOS F in a.m. and p.m. peak hours.
- *Westbound US 50 Exit Ramp to Watt Avenue* – LOS F in a.m. and p.m. peak hours.
- *Westbound US 50 Slip Ramp Entrance from Watt Avenue* – LOS F in a.m. peak hour.

BICYCLE AND PEDESTRIAN ANALYSIS

The Project includes the provision of internal bicycle and pedestrian facilities, as has been described previously. Mitigation has already been required in the existing condition to address Project contribution to an existing pedestrian and bicycle system potential deficiency on two off-site roadways (Grant Line Road and Douglas Road). By the cumulative time horizon, these improvements will have been installed as part of buildout within Rancho Cordova, and as part of other improvements to Grant Line Road consistent with the Sacramento County General Plan, the Sacramento County Bicycle Master Plan, and the City of Rancho Cordova General Plan. The Project will not eliminate or adversely affect bicycle or pedestrian facilities, result in unsafe conditions, or interfere with implementation of planned bicycle or pedestrian facilities; impacts are *less than significant*.

TRANSIT ANALYSIS

The nearest existing transit services are operated by the Sacramento Regional Transit District north of Mather Airport, which is over five miles (when driving) from the Project

boundary. The Sacramento Regional Transit Master Plan identifies three scenarios for future buildout of the system by 2035. In the first two scenarios (A and B), transit will be no nearer to the Project than it is presently. In the final scenario (C), a streetcar line would be extended through Rancho Cordova, with the nearest point of that line (when driving) located approximately 1.5 miles from the Project boundary. There are no cumulative transit plans for service along Grant Line Road, where the Project lies.

There are existing commuter services that operate along Highway 16 (Amador Transit) and along the Highway 50 corridor (El Dorado Transit). It is possible that a commuter bus service will operate on the Grant Line Road corridor in the future as development within Rancho Cordova, the City of Folsom SOI, and within the Project increase demand for service along the corridor; however, this is entirely speculative. The nearest existing stops for either of the services mentioned, which both have destinations in downtown Sacramento, are a little more than three miles to the south (Sloughhouse stop, Amador Transit) and nearly eight miles to the north in Folsom (Iron Point Light Rail Station stop, El Dorado Transit).

Since there are no plans to expand services to the Project site, it must be assumed that extension of existing transit to the Project area will not occur in the cumulative scenario. Cordova Hills residents will need to rely on the transit services provided through the Cordova Hills Urban Services Plan, which as discussed previously is sufficient to meet demand; impacts are *less than significant*.

MITIGATION MEASURES:

SACRAMENTO COUNTY INTERSECTIONS

TR-8. The applicant shall be responsible for a fair share of the below mitigation measures. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation and may be up to 100% of the cost of the improvements.

- A. *School Access and North Loop Road* – Provide dual eastbound left turn lanes.

CITY OF RANCHO CORDOVA INTERSECTIONS

TR-9. The applicant shall be responsible for a fair share of the below mitigation measures. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation, in consultation with the City of Rancho Cordova, and may be up to 100% of the cost of the improvements.

- A. *Sunrise Boulevard and Douglas Road* – Provide overlap phasing on the eastbound and westbound right turns.
- B. *Grant Line Road and Douglas Road* – Provide a third southbound through lane and overlap phasing on the eastbound right turn lane. To be consistent with the segment mitigations a third northbound through lane is included.

- C. *Grant Line Road and North Loop Road* – Provide a westbound free-right turn lane. Also an extra northbound departure lane is needed for the westbound free-right movement.
- D. *Grant Line Road and University Boulevard* – Provide a northbound free-right turn lane. Also an extra eastbound departure lane is needed for the northbound free-right movement.

SACRAMENTO COUNTY ROADWAY SEGMENTS

TR-10. The applicant shall be responsible for a fair share of the below mitigation measures. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation and may be up to 100% of the cost of the improvements.

- A. *North Loop Road from Street D to Street F* – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with low access control.

CITY OF RANCHO CORDOVA ROADWAY SEGMENTS

TR-11. The applicant shall be responsible for a fair share of the below mitigation measures. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation, in consultation with the City of Rancho Cordova, and may be up to 100% of the cost of the improvements.

- A. *Grant Line Road from Rancho Cordova Parkway to Kiefer Boulevard* – Increase roadway capacity by widening this segment to a 6 lane arterial with moderate access control.
- B. *Grant Line Road from Kiefer Boulevard to University Boulevard* – Increase roadway capacity by widening this segment to a 6 lane arterial with moderate access control.
- C. *Grant Line Road from North Loop to Douglas Road* – Increase roadway capacity by widening this segment to a 6 lane arterial with moderate access control.
- D. *Grant Line Road from Douglas Road to White Rock Road* – Increase roadway capacity by widening this segment to a 6 lane arterial with moderate access control.

17 SUMMARY OF IMPACTS AND THEIR DISPOSITION

SIGNIFICANT EFFECTS WHICH CANNOT BE AVOIDED

AESTHETICS: DEGRADATION OF EXISTING VIEWS AND VISUAL QUALITY

The Project will remove the illusion of continuity – that is, the illusion that the grasslands continue unbroken up to the foothills – both due to the introduction of the structures themselves, and because of the substantial changes in the color and texture of the viewshed. The Project will introduce hard, angled shapes into an area that previously appeared smooth, and will introduce a wider array of color into an area that was previously quite uniform. Though this will increase the diversity of the view, the loss of continuity and the partial obstruction of views of the Sierra Nevada significantly and negatively impacts the quality of the views. These impacts are due to the placement of a large urban development in an area currently dominated by open space; the impact is not due to any particular feature or features that could be changed. No mitigation is available.

AESTHETICS: NEW SOURCES OF LIGHT OR GLARE

Project lighting will not result in sleep disruption or significant wildlife impacts, but will nonetheless introduce a substantial new source of light. This impact is not due to any individual feature or features, but due to the result of introducing a large urban development within a rural landscape. Though the impact cannot be made less than significant, usage of lighting fixtures that minimize glare and light trespass can reduce the impact to some degree. Mitigation is included requiring the use of fixtures approved by the International Dark Sky Association, but this will not reduce impacts to less than significant levels.

AIR QUALITY: OPERATIONAL EMISSIONS OF OZONE PRECURSORS (NO_x OR ROG)

The Project will result in worst-case NO_x and ROG emissions of 415.22 pounds per day and 857.40 pounds per day, respectively, which is significantly above the threshold of 65 pounds per day. A mitigation plan is included to reduce emissions by 35%, but emissions will still exceed the threshold.

AIR QUALITY: CONSTRUCTION ACTIVITIES WOULD INCREASE PARTICULATE MATTER EMISSIONS

Modeling conducted by SMAQMD has indicated that applying basic construction rules will ensure that impacts will not be significant provided that construction is limited to no

more than 15 acres of active grading. On a project of this size, it is unreasonable to assume that construction will be limited to such a small area. The Project will generate particulate matter emissions which exceed thresholds.

AIR QUALITY: IMPLEMENTATION OF THE PROJECT COULD CONFLICT WITH OR OBSTRUCT IMPLEMENTATION OF AIR QUALITY PLANS

The Project will result in significant emissions of ozone precursors, which SMAQMD has indicated can obstruct successful implementation of the State Implementation Plan (SIP). The current SIP did not assume that the land east of Grant Line Road would develop, and thus even if the Project's emissions of ozone precursors were not significant, the Project would still conflict with implementation of the SIP.

BIOLOGICAL RESOURCES: WETLANDS

In total, there are approximately 89.1 acres of wetland resources on the Project site. The Project will result in the fill or dredge of 41.37 acres of wetlands, which includes approximately 16 acres of vernal pool; three acres of seasonal wetland; 15 acres of seasonal wetland swale; six acres of intermittent drainage; and less than one acre of seep, stock pond, and creek. Mitigation is required to offset these direct impacts, but given the extent of wetland loss (46% of the wetlands on the site) and the fact that this is in a Rank 1 Vernal Pool Recovery Plan area the mitigation is not sufficient to reduce impacts.

Future development within the SPA could include amendments to the SPA which would modify the Avoided Area boundaries. This could result in additional incremental losses of needed uplands and/or wetlands, increasing the severity of what is already a significant impact in an area noted as vital to the recovery of vernal pool resources. For this reason, mitigation is also included which would require the establishment of a permanent conservation easement over all areas designed as Avoided.

BIOLOGICAL RESOURCES: INVERTEBRATES

The site contains wetlands suitable for the California linderella, midvalley fairy shrimp, Ricksecker's water scavenger beetle, vernal pool fairy shrimp, and vernal pool tadpole shrimp. Published protocols for the vernal pool fairy shrimp and vernal pool tadpole shrimp contain survey requirements for determining absence, and mitigation to be applied in case of presence or if presence is being assumed. These same measures are applied to the Species of Concern, California linderella and midvalley fairy shrimp as well. Mitigation being required for these species will also serve to provide mitigation for the Ricksecker's water scavenger beetle, which uses the same habitats. Though in-kind mitigation will be required for the loss of habitat on the site, the loss of 46% of the wetlands on the site within an area identified as vital to the recovery for vernal pool habitats and their dependent species is significant even with mitigation.

CLIMATE CHANGE: GREENHOUSE GAS EMISSIONS AND CONFLICT WITH PLANS INTENDED TO AVOID SUBSTANTIAL CLIMATE CHANGE

In concert with state and federal activities, the design features of the SPA are intended to offset the Project climate change impact. Ideally, this mitigation would reduce the Project emissions and climate change impacts to levels that are not cumulatively significant, but there are many unknown variables and implementation challenges. Refinements to the County baseline modeling have already resulted in a change to the significance thresholds – a change which takes the Project from a conclusion of less than significant to a conclusion of significant. Furthermore, it is possible that the 15% emissions reduction estimated by the state will be revised upward. Aside from changes to the targets, the quantification of Project emissions has used the best available evidence, but there is a lack of research on the accuracy of such modeling compared to the actual emissions which result from the constructed master planning area. Given the substantial emissions which will result from the Project and the uncertainties related to target-setting and the current state of modeling this analysis concludes that Project impacts may remain significant. The analysis likewise concludes that due to uncertainties the Project may hamper attainment of AB 32 and SB 375 goals.

CLIMATE CHANGE: IMPACTS TO THE PROJECT

The effects of climatic changes on the Sacramento region are potentially significant, and can only be mitigated through both adaptation and reduction strategies.

Sacramento County is requiring that this Project, as well as other projects in the County, mitigate for their emissions. Adaptation strategies related to climate change may involve new water supply reservoirs or other storage options, changes to dam release schedules, changes to medical and social service programs, and other broad-level actions. Most of these strategies are within the auspices of the State of California, not local government. This is recognized within the AB 32 Scoping Plan that has been adopted by the State, as well as publications by agencies such as the California Department of Water Resources. Therefore, by requiring mitigation of projects that may result in significant greenhouse gas emissions, and by adopting County programs and changes in government operations, the County is implementing all feasible strategies to reduce the effects of climate change on the region. Nonetheless, it is probable that these strategies will not be sufficient to offset all of the impacts of climate change, and that some of these impacts will be significant.

LAND USE: CONFLICT WITH THE SACOG BLUEPRINT

The Project includes a wide variety of transportation choices, an array of housing choices, a mix of uses, compact community design, and fosters a sense of place. While acknowledging that in terms of internal community design the Project appears to be an excellent example of “smart growth” development, it must also be acknowledged that the Project conflicts with the principles with respect to the preservation of open space and the proximity to existing developed communities. In terms of open space preservation, the analysis is somewhat subjective, and the Project has directed

preservation toward the most sensitive vernal pool areas of the site. In terms of directing development toward existing communities, the conflict is more clear. Though projected for future development, the Blueprint envisions growth occurring from the existing city centers outward rather than the reverse. This is a fundamental underpinning to the Blueprint, and as a result, the Project's inconsistency with this principle is considered substantial.

NOISE: SUBSTANTIAL INCREASE IN EXISTING AMBIENT VOLUMES

The Project would result in a substantial increase in existing ambient noise for multiple roadway segments, but only two of these include receptors which would be impacted: Sunrise Boulevard and Douglas Boulevard. Noise volumes would be increased by 2 dB on Sunrise Boulevard and by 7 dB and 10 dB along Douglas Boulevard. Based on the existing noise environments, these are substantial increases. On Sunrise Boulevard, a noise barrier is not appropriate because businesses rely on visibility to attract customers, and on Douglas Road a barrier is already present. Thus, no further improvements can be made to reduce impacts.

PUBLIC UTILITIES: INFRASTRUCTURE CONSTRUCTION

Water, sewer, and dry utility lines constructed within the Project boundaries would not cause any additional utility-specific construction impacts, as utility construction will occur within areas that will already urbanize as part of the Project. Most of the off-site utility lines are shown within areas already proposed for utility construction as part of service provider master planning documents. There are some improvement areas which have not already been studied or approved, and which are likely to contribute to wetland impacts and impacts to associated species, which have been determined to be substantial.

TRAFFIC AND CIRCULATION: FACILITY IMPACTS

The Project results in significant impacts to the Zinfandel and US 50 freeway ramp intersection and to the Sunrise Boulevard from US 50 to White Rock Road roadway segment in the existing condition. Neither facility can be expanded sufficiently to offset the impact, as neither Caltrans nor the City of Rancho Cordova have identified any plans or secured any funding for such a project. In the case of the roadway facility, a General Plan Amendment would be required to increase the allowed facility size, and significant right-of-way would need to be acquired. For these reasons, no feasible mitigation exists to offset the impacts.

The Project results in significant impacts to the following facilities in the cumulative condition:

- *Intersections:* Zinfandel and US 50 freeway ramp intersection and Sunrise Boulevard and International Drive.

- *Roadway/Freeway Segments:* Grant Line Road from North Loop Road to Douglas Road, eastbound US 50 from Watt Avenue to Bradshaw Road, eastbound US 50 from Rancho Cordova Parkway to Hazel Avenue, westbound US 50 from Hazel Avenue to Rancho Cordova Parkway, westbound US 50 from Mather Field Road to Power Inn/Howe Avenue.
- *Freeway Ramps:* eastbound US 50 Exit Ramp to Watt Avenue, eastbound US 50 Slip Ramp Entrance from Watt Avenue, westbound US 50 Exit Ramp to Watt Avenue, and westbound US 50 Slip Ramp Entrance from Watt Avenue.

For the same reasons discussed for existing condition impacts, feasible mitigation does not exist to improve operations to acceptable levels.

In addition, the Project will result in significant impacts to intersections and roadway/freeway segments which do not lie wholly within the jurisdiction of Sacramento County. While in most cases mitigation has been identified which would reduce impacts to less than significant levels, Sacramento County does not have the land use authority to assure that non-County facilities will be constructed.

SIGNIFICANT EFFECTS WHICH COULD BE AVOIDED WITH IMPLEMENTATION OF MITIGATION MEASURES

AGRICULTURAL RESOURCES

The proposed uses are permitted with approval of the Zoning Ordinance Amendment to adopt the Cordova Hills SPA, there are no lands designated as Prime Farmland, and the land does not support intensive agricultural investment. Though there are soils that are considered prime when irrigated, the site is not irrigated. The Project will result in the loss of 8.6 acres of Unique Farmland and 242.4 acres of Grazing Land, which exceeds the 50-acre threshold established by the County; mitigation is required. The Project will not result in substantial conflicts with existing agricultural use of adjacent lands, though mitigation requiring deed notices is recommended.

There is one existing Williamson Act Contract (72-AP-109) within the Project limits. The landowner initiated the non-renewal process for this contract in February 2007. Under the nonrenewal process the contract will expire in the year 2016, and the land will no longer be subject to Williamson Act contract restrictions. The Project proposal includes a large-lot subdivision map which would create parcels that range from less than an acre in size to approximately 35 acres, and also includes a rezone from an agricultural to an urban designation. In order to approve the subdivision map, the approval action would either need to be deferred until February 2013 (within three years of nonrenewal) or the Board of Supervisors would need to be make findings that the parcels can maintain agricultural use. In order to approve the rezoning, the approval action would need to stipulate that the zoning agreement will not become effective until 2016.

Provided these actions take place, the Project would be consistent with the provisions of the Williamson Act.

AIR QUALITY: CONSTRUCTION ACTIVITIES WOULD INCREASE NO_x EMISSIONS

The Project has the potential to result in significant impacts throughout most of the life of the Project, even after implementation of the Basic Construction Emission Control Practices and Enhanced Construction Emission Control Practices which are required by rule through the Sacramento Metropolitan Air Quality District (SMAQMD). Mitigation is included (which is in addition to the rules) to ensure that all subsequent projects which occur within the Project area conform to the SMAQMD mitigation and abatement requirements which are in effect at the time. This will offset Project emissions.

AIR QUALITY: PROJECT OPERATION WOULD RESULT IN TAC EMISSIONS

Using the published California Air Resources Board siting criteria for sources of toxic air contaminants (TAC) and sensitive receptors, there are no off-site TAC sources proximate to the sensitive receptors of the Project, and the Project will not generate TAC that would impact off-site sensitive receptors. The Project could result in exposure of proposed on-site uses to proposed on-site stationary source TAC, but mitigation is included to ensure that the siting of new uses conforms to ARB recommendations.

AIR QUALITY: PROJECT OPERATION MAY RESULT IN EXPOSURE TO OBJECTIONABLE ODORS

The Project is proximate to both the Boys Ranch and the Kiefer Landfill. The former facility includes wastewater treatment ponds. The facility is specifically prohibited from causing a nuisance odor condition, and nuisance odor is fully controllable through maintenance of aerated conditions in the ponds. Though based on historic operation of wastewater facilities in general and of this facility in specific it can be expected that there will be events when aeration fails (a pump malfunctions, for instance), it can also be expected that these will be infrequent events of short duration.

Only considering the meteorological conditions and the proximity of the Project to the landfill, it would be likely that some significant odor impacts to the Project could occur; however, the SMAQMD Guide does provide further information regarding factors that can reduce odor impacts, if present. Kiefer Landfill has established an active gas-to-energy system that employs active gas extraction from the landfill for use in electrical generation. As landfill gas is a major source of odor from a landfill, the active extraction of gases for use in generating electricity is an effective form of limiting odors. Given the foregoing and the mitigation incorporated below, odor impacts are not expected to be substantial.

BIOLOGICAL RESOURCES: BIRD SPECIES

The following special status bird species are identified as having potential to occur on or near the Project site: burrowing owl, Cooper's hawk, ferruginous hawk, golden eagle, grasshopper sparrow, northern harrier, Swainson's hawk, tricolored blackbird, and white-tailed kite. Excluding the large avoided area and two adjacent smaller avoided areas on the western side of the site, the Project will result in the conversion of 2,120 acres of grassland habitat to urban uses (note that the central linear avoided area is not considered preserved for the purposes of Swainson's hawk habitat, which is why the mitigation total for that species is 2,231 acres). Except the tricolored blackbird, all of the species listed above use grasslands for foraging and/or nesting and will be impacted by Project development. The Swainson's hawk is the only Threatened species, and mitigation is included requiring 1:1 habitat mitigation. Mitigation of habitat for the benefit of the Swainson's hawk will also provide habitat compensation for other bird species.

The Project site does not contain any trees for nesting, but there are offsite trees nearby; pre-construction nesting surveys have been included for tree-nesting raptors. Pre-construction nesting surveys are also included for burrowing owl (which is ground-nesting), and are also included for tricolored blackbird (for those areas which are within 300 feet of suitable habitat, such as cattail or blackberry).

BIOLOGICAL RESOURCES: PLANT SPECIES

The Project site was surveyed for special status plant species in May 2007, April and June 2008, and May and July 2010 by ECORP Consulting Inc. The special status plant surveys revealed two special status species present on the Project site: legumere and Sacramento Orcutt grass. The wetlands containing these plants are located within Avoided Areas, but given the proximity of these wetlands to development areas, mitigation requires additional measures be implemented to control invasive species and to avoid pollution runoff from urban activities.

CULTURAL RESOURCES

The Project area contains three historic era sites, and a fourth historical site that is included in a multi-component site. One prehistoric bedrock mortar station site and one prehistoric component of a multi-component site were discovered in the project area. None of the sites are associated with any important persons or events in California or national history. They are not considered to be unique and do not represent the work of a master or possess high artistic values. In all cases, the historic sites lack sufficient cultural material to address research questions. All of the historic sites were evaluated as not eligible under any criteria for the National Register of Historic Places or the California Register of Historical Resources and are not considered a historical resource or unique archeological resource as defined by CEQA. There always remains a potential to encounter buried or as yet undiscovered resources during land clearing and construction work. Mitigation is included to ensure that such resources are treated appropriately if discovered.

HAZARDS AND HAZARDOUS MATERIALS

The site was assessed for on-site hazardous conditions, and this assessment concluded that there is no evidence of any recognized hazardous conditions that may have a significant adverse effect on the development of the project site. There are three agency-listed contaminated sites within approximately one mile of the project site. These include the Sacramento County Boys Ranch (a juvenile correction facility within 1,000 feet of the eastern Project boundary), Aerojet (located just over a mile to the northwest), and the Kiefer Landfill (located approximately 2,000 feet to the south). The Boys Ranch hazardous condition was remediated and the case closed. Aerojet remediation activities are ongoing. Contaminated soils from Aerojet would not affect the Project, as these are off-site, while the groundwater contamination plumes are migrating away from the Project area. Groundwater contamination at Kiefer Landfill is likewise migrating away from the Project site. The Project will also be using public water provided through the Sacramento County Water Agency, not groundwater. Landfill gas migration from Kiefer Landfill also appears not to affect the site, but a mitigation measure is nonetheless included for the small portion of the site outside of the Urban Services Boundary that is within the 2,000 foot buffer established around the Kiefer Landfill.

NOISE: ON-SITE NOISE SOURCES (TRAFFIC AND STATIONARY)

Traffic on the internal Project roadways will generate noise that has the potential to exceed General Plan noise standards related to both residential and non-residential uses. Mitigation is included to ensure that future subdivisions and non-residential developments are constructed in a manner that achieves compliance with General Plan standards. The Project also includes uses which include noise-generating sources such as playing fields, loading docks, a corporation yard, and other uses. Mitigation is included to require that all such uses located adjacent to residential lands be designed so as not to cause the General Plan standards to be exceeded.

TRAFFIC AND CIRCULATION: FACILITY IMPACTS

The Project results in significant existing condition impacts to six County intersections, ten City of Rancho Cordova intersections, the Zinfandel and US 50 freeway ramp intersection, two County roadway segments, one City of Elk Grove roadway segment, eleven City of Rancho Cordova roadway segments, two US 50 freeway segments, and bicycle and pedestrian facilities. The Project results in significant cumulative condition impacts to five City of Rancho Cordova intersections, the Zinfandel and US 50 freeway ramp intersection, one new Project roadway segment, four City of Rancho Cordova roadway segments, six Caltrans freeway segments, and four Caltrans freeway ramps. For all of the facilities within Sacramento County, mitigation has been provided which would reduce impacts to less than significant. Mitigation is also available and has been described for most of the facilities not within County jurisdiction, which would reduce impacts to less than significant if their construction could be assured (refer to the Significant Effects Which Cannot Be Avoided section).

EFFECTS FOUND NOT TO BE SIGNIFICANT

AIR QUALITY: PROJECT OPERATION WOULD GENERATE CO EMISSIONS

Eighteen intersections would either be subject to degradation of LOS to a level of service E or worse, or add vehicles to an intersection already operating at an LOS of E or worse. Examining these facilities as compared to the SMAQMD screening methodology for CO impacts: none of the affected intersections would result in an hourly traffic volume of more than 31,000 vehicles, a review of area topography indicates that these intersections are located in open areas (not in locations where vertical or horizontal mixing would be limited), and the Project would not substantially change the mix of vehicle fleets typical to Sacramento County at these intersections. Project traffic would not cause threshold exceedance.

BIOLOGICAL RESOURCES: AMPHIBIANS

The Project site contains suitable breeding habitat and suitable upland habitat for the western spadefoot toad. The Project will result in loss of approximately 19 acres of seasonal wetlands and vernal pools which are potential breeding habitat for the species. Western spadefoot, a Species of Concern, has been observed in several counties across the state, and a number of sites with suitable habitat for western spadefoot are already being protected. Additionally, 23 vernal pool species are federally protected; preservation efforts for those species and associated habitats will contribute to the conservation of the western spadefoot. While a localized population of the toad may be reduced through development of the Project site, the regional population will not be reduced significantly for the reasons stated above.

GEOLOGY AND SOILS

Multiple topics were examined: soil erosion, expansive soils, naturally occurring asbestos, mineral resources, and geologic hazards. The Project has the potential to increase soil erosion due to disturbance of onsite soils, and some of the soils in the Project area have a high shrink-swell potential. There are existing regulations in place to address both of these issues, including the Sacramento County Land Grading and Erosion Control Ordinance, the Uniform Building Code, and the California Building Code. The Project site is not considered likely to include asbestos-containing soils, and soil testing found no evidence of naturally occurring asbestos. There are no mapped mineral resources on the site, and furthermore, the Project includes a plan to use whatever suitable rock deposits are found on the site to serve Project construction needs; the Project will not obstruct access to mineral resources. Seismic ground-shaking hazards are low in Sacramento County, and existing building codes require adherence to seismic design standards.

HYDROLOGY AND WATER QUALITY

The Project included a Drainage Master Plan which evaluated the on- and off-site floodplains, the potential for hydromodification of stream channels, and the adequacy of existing and planned stormwater infrastructure. The existing floodplains on the site will be within the Avoided Areas where no development will occur, and detention basins have been included to ensure that the post-Project flow rates do not exceed pre-Project rates. Put in general terms, the design to prevent hydromodification is a detention basin outlet control structure which retains all stormwater runoff generated up to a 10-year event and slowly releases the runoff through a very small outlet. The Project also includes stormwater infrastructure which is sufficient to handle flows.

Compliance with adopted Ordinances and standards will ensure that future development projects implemented as a result of Project approval will not cause violation of a water quality standard or waste discharge requirement, result in substantial erosion or siltation, and will not result in substantial increases to polluted runoff associated with construction. Compliance with the County Stormwater Ordinance, implementation of Low Impact Development Standards, and implementation of the Drainage Master Plan will ensure that development of the site will not alter the course of local waterways in a manner that results in substantial erosion or siltation, will not cause violation of a water quality standard or waste discharge requirement, and will not result in substantial increases to polluted runoff.

LAND USE: CONFLICT WITH ADOPTED LAND USE PLANS

The Project uses are compatible with surrounding existing and proposed land use plans, and would not result in substantial conflicts with land use plans designed to avoid environmental effects.

LAND USE: CONFLICT WITH GENERAL PLAN POLICIES RELATED TO GROWTH INDUCEMENT

The Project is inconsistent with Policy LU-1, and includes a General Plan Amendment to address this inconsistency. The General Plan Amendment includes language specifically intended to avoid growth-inducing impacts.

LAND USE: CONFLICT WITH GENERAL PLAN POLICIES RELATED TO PUBLIC SERVICES AND UTILITIES

Compliance with General Plan Policies LU-13, LU-66, LU-110, and LU-123 is intended to ensure that minimum service standards for public services and utilities are met. The Project includes a facilities financing plan which was submitted to all of the applicable service entities for review and approval. Long-term funding sources have been identified for the maintenance of public services. The Project will not result in any substantial environmental impacts related to conflict with General Plan policies which pertain to public services or utilities.

LAND USE: CONFLICT WITH GENERAL PLAN POLICIES RELATED TO AIR QUALITY AND TRANSPORTATION

The Project results in significant impacts related to both transportation and air quality, but these impacts are not due to General Plan Policy inconsistency. The Project is consistent with policies intended to alleviate air quality and transportation impacts.

LAND USE: CONFLICT WITH GENERAL PLAN POLICIES RELATED TO LAND USE COMPATIBILITY

Policy LU-19 states that appropriate buffers should be placed between incompatible uses, and Policy LU-94 states that new development should be compatible with existing development. The Project is adjacent to two existing uses, the Boys Ranch and Kiefer Landfill, with the potential to result in conflicts. For the Boys Ranch, the distance from the majority of the site and the topographical changes between the site and the Boys Ranch act as a natural barrier. For the Kiefer Landfill, distance from the site combined with existing regulations for landfills will prevent substantial impacts. For both facilities, there remains the potential for nuisance impacts. For this reason, mitigation is included requiring disclosure of the facilities to prospective buyers.

LAND USE: DIVISION/DISRUPTION OF AN ESTABLISHED COMMUNITY

The division or disruption of an established community is an impact considered by CEQA. Case law has established that a project must create physical barriers within the established community in order to be considered under this impact category. There is no existing development on the project site, nor are there developments north, south, or east of the site that could be divided or disrupted by the project. Furthermore, the Project includes stub streets so that if there is development north or south of the site in the future, those uses could connect into the Project. The project will not disrupt or divide an established community.

LAND USE: DISPLACEMENT OF HOUSING

There is no existing housing on the Project site that could be displaced by the project, nor would the project uses cause the displacement of nearby housing. The site is not included in the affordable housing inventory as part of implementation of the Sacramento County General Plan Housing Element.

NOISE: KIEFER LANDFILL

All sensitive uses are located a sufficient distance from the landfill to avoid substantial noise exposure. Noise at the university/college campus center (the nearest area where residences would be located) would be 44 dB, which is well within standards.

NOISE: MATHER AIRPORT

The project site is located approximately four miles east of Mather Airport. Although the project site is located outside the 60 dB CNEL contour of Mather Airport, the project site is located within the overflight path of approaching and departing aircraft that fly below 3,000 feet above ground level. During an average one-month time period, a very small percentage of total departure (two percent) and arrival (eight percent) flights are passing over the project site and there is less than 15 percent of the total touch-and-go flights passing over the project site. Though the Project will not expose people to excessive aircraft noise, continued and future use of Mather Airport has the potential to be a nuisance and generate objections by residents and other sensitive receptors. An Avigation Easement to inform future potential residential buyers will be required to help reduce the impact to Mather Airport from new complaints by future residents or other sensitive receptors of the proposed Project; these various conditions are included as mitigation.

PUBLIC SERVICES

The public services analysis concludes that the Project provides for adequate public services and will not result in substantial adverse physical impacts associated with the construction of facilities, or result in a service demand that cannot be met by existing or reasonably foreseeable service capacity. In summary, service needs are as follows:

- Up to two fire stations, each of which will require a truck company, an engine company, and a medic company.
- A total of 16 new Sacramento County Sheriff's Department staff.
- 18,592 tons of waste of annual landfill disposal and 25,241 tons of construction debris disposed of in the landfill.
- Three elementary schools but only about 62% of a middle/high school, with student generation of 2,553 in grades K – 6 (elementary school), 748 in grades 7 – 8 (middle school), and 1,384 in grades 9 – 12 (high school).
- Approximately 107 acres of parkland required, with the Project providing approximately 99 acres of formal parkland and 151 acres of recreational open space which will receive partial credit.
- The Cordova Hills SPA indicates that a new full service, 15,000 square foot branch library is planned within the proposed Town Center to serve the Cordova Hills community as well as residents in the surrounding area.

PUBLIC UTILITIES

There is adequate water supply, sewage disposal capacity, and energy supply to serve the Project, nor will provision of these utilities result in substantial impacts to the

sustainability of groundwater resources or to groundwater recharge. The projected annual demands and system capacities are as follows:

- Water demand is 6,549.9 acre feet per year (AFY), while Zone 40 supply is 102,151 AFY.
- Sewage disposal demand is 4.99 million gallons per day (mgd) average dry weather flow and the peak wet weather flow is 10.41 mgd while the Sacramento Regional Wastewater Treatment Plant has remaining capacity of approximately 40 mgd average dry weather flow.
- Electricity demand is 527,434,520 kilowatt hours annually, which is a fraction of the total 10,691.67 million kilowatt hours delivered in Sacramento County in 2010.
- Natural gas demand is 4,215,491 therms annually, which is a fraction of the 315.57 million therms delivered in Sacramento County in 2010.

As a signatory to the WFA and a member of the Sacramento Central Groundwater Authority (Groundwater Authority), SCWA recognizes the Water Forum-defined long-term sustainable average annual yield of the underlying groundwater basin of 273,000 AFY. The additional groundwater draw caused from implementation of the proposed Project will not result in exceedance of the agreed-upon sustainable yield of 273,000 AFY. Furthermore, the central intermittent drainage on the site – which is mapped as an area of high groundwater recharge potential – is being retained within open space in the Project, and will not be subject to direct impacts.

TRAFFIC AND CIRCULATION: FACILITY IMPACTS AND CONFLICT WITH PLANS

Existing condition Project impacts will not be substantial for 28 of the 45 studied intersections, 40 of the 54 studied roadway segments, eight of the ten studied freeway segments, and all six of the studied freeway ramps. Cumulative condition Project impacts will not be substantial for 60 of the 66 studied intersections, 75 of the 80 studied roadway segments, four of the ten studied freeway segments, and two of the six studied freeway ramps.

IRREVERSIBLE ENVIRONMENTAL CHANGES

CEQA Guidelines Section 15126.2 requires the evaluation of significant irreversible environmental changes, stating that “uses of nonrenewable resources during the initial and continued phases of a proposed project may be irreversible since a large commitment of these resources makes removal or nonuse thereafter unlikely.” This section of the EIR evaluates whether the project would result in the irretrievable commitment of resources, or would cause irreversible changes in the environment.

Construction of various Project elements will require irretrievable commitments of a variety of finite natural resources, including aggregates, petrochemicals, and metals. These commitments will occur both as direct and indirect impacts of the Project. Direct impacts include the consumption of fuel by the construction fleet and equipment, the consumption of fuel as part of vehicle usage originating from and entering the completed Project, the use of metals in the constructed buildings, and the use of aggregates in the constructed buildings and paved surfaces. Indirect impacts include the consumption of fuel and other resources to produce the materials used in construction. The Project will also require the commitment of potentially renewable, but limited natural resources such as lumber, other forest products, and water.

The Project includes design features whose purpose is to reduce the usage of energy, water, and construction materials (see the Project Description chapter). CEQA Guidelines Appendix F focuses particularly on the “inefficient, wasteful and unnecessary consumption of energy.” As discussed in the Climate Change chapter, the Project includes a commitment to achieve building design which is 20% more efficient than 2008 Title 24 standards, water-efficient landscapes, water efficient irrigation, and the use of reclaimed water (when available). As described in the Public Services chapter, it is anticipated that 50% of the construction debris and 70% of all household/commercial waste will be diverted from the landfill for recycling. For these reasons, the investment of additional resources in the project would be less than the level of investment historically required for projects of this scale and type.

18 CUMULATIVE AND GROWTH INDUCING IMPACTS

INTRODUCTION

The CEQA Guidelines section 15355 defines a cumulative impact as “two or more individual effects which, when considered together, are considerable”. An individual effect need not itself be significant to result in significant cumulative effects; the impact is the result of the incremental effects of the Project combined with the effects of “other closely related past, present, and reasonably foreseeable probable future projects.” CEQA does not define “closely related”, but the Code of Federal Regulations (40 CFR 1508.25) indicates that a “closely related” project is one which is automatically triggered by the Project; one which cannot proceed without the Project first proceeding (mutual dependency); one which requires the Project for justification or is an interdependent part of the same action; or one which is a similar action with common timing, geography, and other features.

The requirements for a cumulative analysis are described in CEQA Guidelines Section 15130. A cumulative analysis “need not provide as great detail as is provided for the effects attributable to the project alone.” The analysis should focus on analyzing the effects of the Project to which other projects contribute, to the extent practical and reasonable. These other projects may be identified either through the provision of a list of cumulative projects, or via a summary of projections contained in an adopted General Plan or an adopted EIR. This EIR uses a combination of the two methods, using projections contained in adopted General Plans and related planning documents, as well as known major reasonably foreseeable other projects.

The significance criteria used for analysis are the same as those used throughout the topical chapters of the EIR. Section 15130(a)(3) states that a Project’s contribution to an impact is “less than cumulatively considerable if the project is required to implement or fund its fair share of a mitigation measure or measures”.

GROWTH INDUCING IMPACTS

GROWTH INDUCEMENT

The CEQA Guidelines identify several ways in which a project could have growth-inducing impacts (CEQA Guidelines Section 15126.2). Growth inducement is when a project fosters economic or population growth in the surrounding environment, which may be directly or indirectly caused. For instance, a project may generate significant additional employment opportunities, which in turn generates the construction of additional housing to bring additional residents near this employment center. Indirect

growth inducement is also possible, if a project removes obstacles to population growth, or encourages and facilitates other activities that are beyond those proposed as part of the project. For instance, a project may upgrade and increase the capacity of a major water pipeline, which then allows additional development in the area that had previously been constrained by lack of additional infrastructure capacity. Aside from infrastructure, other indirect examples include altering the availability of developable land and precedent-setting actions related to local government growth policies.

Growth inducement may not be considered necessarily detrimental, beneficial, or of significance under CEQA. Induced growth is considered a significant impact only if it directly or indirectly affects the ability of agencies to provide needed public services or if it can be demonstrated that the potential growth, in some other way, significantly affects the environment. The paragraphs below analyze the Project's potential to induce growth by removing a barrier to growth, by setting a land use precedent, or by fostering additional development.

REMOVING BARRIERS TO GROWTH

The Project includes the extension of public infrastructure, including water lines and sewer lines. There are several possibilities outlined in the Public Utilities chapter for the routing of existing service lines, but all involve extending existing lines more than ½-mile from their current locations, and through areas west of the Project which are currently undeveloped. The costs for this extension are estimated to be \$6.5 million for off-site sewer construction alone. The construction of this backbone infrastructure could remove or reduce financial and infrastructure constraints in the undeveloped areas. The extension of infrastructure through the site itself could also remove such barriers for development of land within the USB immediately north or south of the Project. The public utilities studies have, in fact, included analyses which demonstrate that it would be possible for the property south of the Project to connect to the proposed sewer and water system within the Project boundaries. Conceptual water and sewer lines are shown extending through the property south of the site. The Project also includes roads that end in stubs at the northern and southern Project boundaries. The parcels south of the site currently have no public roadway frontage, but would be able to connect to the Project roadway system.

Extension of infrastructure through undeveloped areas west of the site does have the potential to reduce some constraints to growth; however, all of these areas have already been considered for growth even in absence of the Project. The entire area east of Sunrise Boulevard and south of Douglas Road, where the extensions would take place, are the subject of proposed or approved master plans. These are the Sunridge Specific Plan, the Suncreek Specific Plan, and the Arboretum development. The Project will not cause substantial growth inducement west of the site; growth in these areas is already contemplated. The sections below do not further discuss areas west of the site.

Areas north and south of the Project have physical constraints very similar to those of the Project: wetland resources, variable topography, and no proximate existing utilities. The Project would remove the latter barrier by extending water and sewer lines through

the Project. Neither the Sacramento Area Council of Governments MTP nor Blueprint anticipate growth in the areas north or south of the Project until after the Project reaches buildout. The City of Rancho Cordova General Plan included the Project area and areas north and south of the site within the planning boundary of the “East Planning Area”. Although the City of Rancho Cordova has no jurisdictional authority in these areas, it is worthy of note that the “Timing” section for the East Planning Area indicates that although development is currently not assumed during the life of the General Plan, development may occur within the General Plan time horizon if “necessary conditions are met (e.g. **infrastructure is provided**, annexation is approved)”. [emphasis added]

Although existing planning documents indicate that there is some minimal existing development pressure north and south of the site, there is no expectation of development until well after Project buildout is completed. The extension of service lines and roadways into the site could cause development north and south of the site to occur during the construction life of the Project, because a major barrier to growth would be removed or alleviated.

LAND USE PRECEDENT AND FOSTERING DEVELOPMENT

There are two primary elements of the Project which could set a land use precedent or otherwise foster development: expansion of the UPA to include the Project area and a General Plan Amendment to allow the extension of public water outside of the Urban Services Boundary.

Currently, the areas east of Grant Line Road and within the USB are designated for agricultural use, and are predominantly used as grazing land. The Project will extend the UPA two miles into these undeveloped grazing lands east of Grant Line Road, while leaving areas north and south of the property outside of the UPA. The property to the north of the site is already adjacent to property designated for urban uses (in Rancho Cordova, across Grant Line Road), but after Project approval it would be adjacent on two sides. The property to the south is currently landlocked, without access to public roads or other infrastructure, or proximity to existing designated urban uses. The Project would change those circumstances, and would also make urbanization of the property more logical because of the adjacency of the new urban sphere. Though the Project would bring areas into closer proximity with urbanized areas, it is not this land use decision which will drive the growth, but rather the extension of infrastructure discussed in the prior section. General Plan Policy LU-120 sets the standards for UPA expansion, and the Planning Division has determined that the Project meets these standards. Implementing a policy in the manner it was intended to be applied is not precedent-setting.

The Project also includes a General Plan Amendment which would change the existing General Plan policy prohibiting the provision of public water outside of the Urban Services Boundary (USB). The Amended Policy would read:

Policy LU-XX (numbering would be added after approval). Limited public water service and facilities can be extended beyond the Urban Policy

Area/Urban Services Boundary to serve the 251 acre area located in proximity to Kiefer Landfill, as shown in Exhibit "A". Permitted uses within this area include agriculture, sports park, solar farm, district energy plant, corporation yard, park and ride lot, transit parking facility, fueling station, roads, storm water and storm water quality basins, community gardens, avoided areas, sewer pump station and lines, water tanks and similar utilities. Water facilities shall be sized adequately to only serve these permitted uses. Furthermore, proposed uses must be consistent with these permitted uses, act as a buffer between urban and open space uses, and help strengthen and preserve the current location of the Urban Services Boundary.

The Sacramento County Board of Supervisors voted to initiate this policy amendment on September 28, 2011. The staff report prepared for this action indicated that the uses proposed for this area are conditionally permissible within the AG-80 zoning of the site, but that groundwater to serve the uses would be insufficient in drought conditions. It was also noted that groundwater extraction could impact groundwater remediation efforts at Kiefer Landfill. According to correspondence with the Sacramento County Department of Waste Management and Recycling and the Sacramento County Department of Water Resources, the likelihood of impacts could be studied and subsequently mitigated through changes to the remediation system, but that this would be costly. Under the circumstances, the Sacramento County Planning Division recommended initiation of the policy amendment.

This action sets a precedent, as Zone 40 water has never been provided outside of the Urban Services Boundary to serve *proposed* uses, though it has been extended to serve *existing* uses due to a public health and safety hazard (e.g. contaminated groundwater jeopardizing the water supply of existing communities). That said, it is unlikely to be common that a proposal is constrained both by supply and by contribution toward a hazardous condition, as it is in this case. Also, the uses being served are those which would be conditionally allowed within the AG-80 zoning in any case, so approval would not set a precedent for allowing uses which are not ordinarily permissible. For these reasons, it is concluded that although the policy change sets a precedent, that this change will not result in substantial additional growth.

CONCLUSION

The Project will not induce growth west of Grant Line Road, but will induce growth both north and south of the Project. The land to the north and south includes several thousand acres of large parcels. Review of aerial photography indicates that these properties have similar physical resources as the Project site, including wetlands and other special status species habitat. Growth in these areas is also likely to cause additional transportation system impacts and a commensurate increase in pollutant emissions. Project impacts in these topical areas are significant, and the conversion of adjacent lands to urban uses will contribute to this impact; the Project will result in *significant* environmental impacts associated with growth inducement.

CUMULATIVE ENVIRONMENTAL SETTING

The cumulative setting is based largely upon the development forecasts of the adopted Sacramento Area Council of Governments' 2035 Metropolitan Transportation Plan (MTP) development forecast. The MTP was approved with a certified FEIR on March 20, 2008. The MTP included development projections for Sacramento County and its incorporated cities, as well as for adjacent counties and cities, based on adopted and in-development General Plans, Specific Plans, and Community Plans in each jurisdiction. Reasonably foreseeable development areas already considered in the MTP include the proposed 2030 Sacramento County General Plan, the areas within the Vineyard community of Sacramento County, Rio Del Oro, Easton, the proposed City of Folsom SOI, and the City of Rancho Cordova Sunridge and Suncreek Specific Plans.

The above baseline cumulative setting was then augmented with current data on approved and proposed projects in Sacramento County. These include several major quarry proposals (Teichert Quarry, FEIR certified November 2010; Stoneridge Quarry formerly known as Walldown, FEIR dated October 2011; and Milgate Quarry, formerly known as DeSilva Gates, NOP dated January 2008) a greenwaste composting facility known as Greencycle (approved March 2010), and the Kiefer Landfill Special Planning Area (NOP dated April 19, 2010). In addition to these land use projects, the cumulative analysis also considers the Capitol Southeast Connector roadway project (Draft Program EIR dated March 2011). The analyses below also consider the growth which could occur north and south of the Project as a result of Project approval.

CUMULATIVE IMPACTS AND ANALYSIS

Cumulative impacts are assessed below, organized by EIR chapter. Mitigation measures are not included at the end of each subtopic below, but are instead included at the end of the Cumulative Impacts and Analysis section.

AESTHETICS

Singular project aesthetics analyses focus on a specific project site and its immediate environment, but for the purposes of this cumulative discussion the viewshed is defined more broadly. Most of the County includes relatively flat topography which is either urbanized or dominated by crop farming interspersed with rural communities and open space areas. The eastern portion of the County that is east of Grant Line Road, north of the Cosumnes River, and west of Carson Creek is non-urban, but is also of low cropland potential. For these reasons, this landscape tends to be dominated by unmodified grasslands which are used for grazing. The character of these lands are very similar to the visual character described for the site in the Aesthetics chapter.

The viewing groups for this larger viewshed area are mostly composed of people traveling along roadways which border the viewshed, such as Grant Line Road,

Jackson Highway, White Rock Road, and Scott Road. Scott Road is designated as a scenic road by the Sacramento County General Plan. Most of this viewshed is within the Urban Services Boundary of the existing Sacramento County General Plan, and can ultimately be expected to develop. As discussed, the Project is likely to induce growth within this area earlier than had been anticipated. As the Project results in significant visual impacts to the views of the site, it is also reasonable to conclude that additional development north and south of the site would have similar impacts. These impacts are related to the conversion of open space to urban uses, and cannot be mitigated, and thus the Project will contribute to *significant and unavoidable* cumulative aesthetic impacts.

AGRICULTURAL RESOURCES

The Project site includes approximately 2,660 acres of land designated as Grazing Land and approximately 9 acres of Unique Farmland. Grazing Land is not a farmland designation specifically protected within the CEQA Guidelines or within County Policy, but loss of this farmland type can be considered under the broader significance criteria which asks whether a project may result in substantial conversion of farmland to non-agricultural use. This analysis is restricted to the cumulative analysis because grazing impacts must be very large-scale in order to result in substantial impacts; grazing is not agriculturally intensive, and thus the loss of even one thousand acres may only represent the loss of 70 cattle (the Project site supports one head of cattle for every 15 acres). When considered cumulatively with other projects impacting grazing lands in the County, the cumulative loss of grazing land may exceed 10,000 acres (this includes the three quarry projects, the Folsom SOI, and conversion of lands north and south of the site). Using the same production rate that exists on the Project site, this represents the loss of over 650 cattle. While on a singular level the Project does not cause substantial farmland impacts, the loss of grazing land due to the project in conjunction with other cumulative growth in the vicinity is cumulatively significant. Mitigation has already been included as part of the Biological Resources chapter for species which rely on grassland habitats; this mitigation will result in preservation of grasslands, and represents all feasible mitigation. Though land will be preserved, the cumulative loss of farmland is still considered significant, and thus impacts are *significant and unavoidable*.

AIR QUALITY

Project construction and operation will result in the generation of ozone precursors and particulate matter. Ozone precursors generated by construction can be mitigated to below threshold levels regardless of the amount, because of the availability of the SMAQMD mitigation fee program. All of the cumulative projects proposed are subject to the SMAQMD rules related to ozone precursors, and will be required to offset construction emissions. Even on a cumulative level, existing mitigation will be sufficient to offset construction-related ozone precursor emissions.

Even on a singular level, construction-level particulate matter emissions, operational particulate matter and ozone precursor emissions will exceed significance thresholds

despite the application of feasible mitigation, and thus the Project can also be expected to contribute to a cumulatively significant and unavoidable impact. Likewise, the Project will contribute to a cumulatively significant and unavoidable impact related to conflict with implementation of the State Implementation Plan.

Cumulative development would increase traffic and change traffic flows on the regional roadway network, and these changes would tend to increase local CO levels. The cumulative traffic impacts are anticipated to degrade the level of service to LOS E or F, or increase the traffic volume for intersections already operating at an LOS of E or worse for eighteen intersections, as shown in Table CU-1. None of the affected intersections would result in an hourly traffic volume of more than 31,000 vehicles. These intersections are not in a location where vertical or horizontal mixing would be limited, nor would the implementation of the Project substantially change the mix of vehicle fleets typical to Sacramento County at these intersections. Therefore, based on SMAQMD screening methodology as described in the methodology section of the Air Quality chapter, the cumulative impact related to increases in CO levels would be less than significant.

Though cumulative impacts related to construction emissions of ozone precursors and operational emissions of carbon monoxide are less than significant, cumulative impacts related to construction-level particulate matter, operational particulate matter and ozone precursors, and conflict with implementation of the State Implementation Plan will be *significant and unavoidable*.

Table CU-1: Cumulative Intersection LOS and Peak Hourly Volumes

Int#	Int North-South Street	Int East-West Street	AM/PM	Cumulative No Project		Cumulative W/ Project	
				LOS	Total Vehicle	LOS	Total Vehicle
1	S Watt Ave	Jackson Rd(SR-16)	PM	F	9,592	F	9,641
2	Bradshaw Rd	Jackson Rd(SR-16)	AM	E	8,307	E	8,446
4	Excelsior Rd	Jackson Rd(SR-16)	PM	F	4,775	F	4,900
6	Grant Line Rd	Sunrise Blvd	PM	F	3,153	F	3,288
7	Grant Line Rd	White Rock Rd	PM	D	4,400	E	4,841
8	Prairie City Rd	White Rock Rd	PM	E	4,918	F	5,364
12	Zinfandel Dr	White Rock Rd	PM	F	7,026	F	7,149
15	Sunrise Blvd	Douglas Rd	AM	E	5,869	F	6,440
16	Sunrise Blvd	Jackson Rd(SR-16)	AM	E	4,610	E	4,871
19	Grant Line Rd	Douglas Rd	AM	A	3,232	F	4,780
23	Zinfandel Dr	US-50 EB Ramps	PM	F	7,869	F	7,934
30	Grant Line Rd	North Loop Rd	AM	A	2,564	F	4,458
46	Vineyard Rd	Kiefer Blvd	PM	B	2,686	E	5,631
47	Vineyard Rd	Jackson Rd(SR-16)	PM	A	1,875	E	6,166
49	Zinfandel Dr	International Rd	PM	A	4,518	F	8,674
52	Sunrise Blvd	International Dr	AM	-	-	E	7,200
55	Rancho Cordova Pkwy	White Rock Rd	PM	-	-	E	6,574
56	Rancho Cordova Pkwy	Douglas Rd	PM	-	-	F	5,351

Source: DKS Associates, March 2011

BIOLOGICAL RESOURCES

Cumulative loss of grassland habitat (grazing land) may exceed 10,000 acres. Grassland habitats support a variety of special status species, as described in the Biological Resources chapter. Singular Project impacts can be reduced to less than significant levels though habitat preservation required through mitigation, but there will still be a net loss of habitat. The cumulative net loss of grassland habitat will be substantial, despite the application of singular project mitigation; the Project will contribute to a cumulatively significant and unavoidable impact related to loss of grassland habitat.

The grassland areas also include wetland resources such as vernal pools, seasonal wetlands, swales, and creeks. On the Project site alone there are nearly 90 acres of delineated wetlands. Wetlands within the three quarry areas are relatively sparse;

Teichert Quarry will impact approximately 1.5 acres of wetlands, for instance. Approximately 40 acres of wetlands would be impacted by the Folsom SOI, according to that project's FEIR (dated May 2011). Based on a review of aerial photography, the properties to the north contain wetlands in densities similar to those found on the Project site. Wetlands support special status invertebrates, amphibians, and plants. Singularly, Project impacts to wetlands and some of the associated species are significant even after the application of mitigation; thus, it can be concluded that cumulative impacts will also be considerable, and that despite the application of mitigation cumulative impacts will remain *significant and unavoidable*.

CLIMATE CHANGE

Climate change is by nature a cumulative impact, and the significance threshold is based on cumulative growth projections and the limits which must be set in order to meet reduction targets by the year 2020. To that extent, the cumulative analysis has already been completed. The cumulative development projects included in the MTP assumptions did not include greenhouse gas analyses, as the environmental work predates the 2006 Global Warming Solutions Act (AB 32), and other cumulative projects have not yet reached DEIR publication. Based on a review of the recent published EIRs, the two published quarry projects and the Folsom SOI included a greenhouse gas analysis. The Folsom SOI EIR calculated emissions of approximately 291,000 metric tons annually, while the total of both quarry projects is approximately 112,000 metric tons annually. The Project will emit approximately 147,000 metric tons annually. This results in a cumulative total of 550,000 metric tons per year of emissions, which is equivalent to approximately 4.5% of total County emissions based on the Countywide greenhouse gases inventory. Note that these figures are reported in gross totals because there is no residential component associated with those projects and they cannot be reported as a per capita figure. All of the published EIRs include mitigation to offset emissions, but for the same reasons described in the Climate Change Chapter, this mitigation may be insufficient to avert substantial climate change, and impacts are *significant and unavoidable*.

CULTURAL RESOURCES

Cumulative development in Sacramento County, could significantly impact historic, archaeological, paleontological, geologic, or human resources. The archaeology of prehistoric resources in their original contexts is crucial in developing an understanding of the social, economic, and technological character of the resources. The boundaries of an archaeologically important site could extend beyond property boundaries. As a result, a meaningful approach to preserving and managing cultural research should focus on the likely distribution of cultural resources, rather than on Project or parcel boundaries. The cultural system is represented archaeologically by the total inventory of all sites and other cultural remains. However, proper planning and appropriate mitigation can help to capture and preserve knowledge of such resources and can provide opportunities for increasing understanding of the past environmental conditions and cultures by recording data about any sites discovered and preserving artifacts

found. Based on the findings of the records and literature search and field survey, mitigation has been proposed that attempts to document and preserve cultural resources that have been identified or may be encountered during construction of this Project as well as other cumulative projects. This mitigation limits the cumulative contribution of impacts to cultural resources within the County to *less than significant* levels.

GEOLOGY AND SOILS

Most geologic impacts are not cumulative in nature. The exception is in cases where projects may obstruct access to valuable mineral resources, in which case losses can accumulate over multiple projects. The Project does not obstruct access to mineral resources, and thus does not contribute to a substantial impact; cumulative impacts are *less than significant*.

HAZARDS AND HAZARDOUS MATERIALS

Like geologic hazards, most impacts in this category are existing hazardous conditions which have the potential to impact projects, but which are not exacerbated by projects. The only impact discussed in the Hazards and Hazardous Materials chapter to which the Project could cumulatively contribute is increases in the transport, use, and disposal of hazardous materials. As concluded for the Project, all of the cumulative developments would be required to implement and comply with federal, state, and local hazardous materials regulations and codes monitored by the state and/or local jurisdictions, and as such would not create a cumulatively significant hazard; impacts are *less than significant*.

HYDROLOGY AND WATER QUALITY

The floodplain and hydromodification analyses for the Project assumed development north of the site, in order to ensure that facilities were adequately designed to handle cumulative conditions. On the basis of this cumulative environment, the Project drainage master plan has been designed to ensure that downstream impacts do not occur. Therefore, the Project will not contribute to a significant impact related to flooding or hydromodification.

As noted in the Hydrology and Water Quality chapter, Deer Creek, Carson Creek, and Laguna Creek are not listed as impaired for pollutants associated with urban runoff. All cumulative development affecting the same watersheds as the Project (this includes development to the north, development to the south, and development within the City of Rancho Cordova) will be required to comply with the Stormwater Quality Design Manual for the Sacramento and South Placer Regions, which requires that projects include source and/or treatment control measures on most new development projects. Compliance with adopted Ordinances and standards will ensure that future development projects will not cause violation of a water quality standard or waste discharge requirement. Developments are also required by the Sacramento County

General Plan and the City of Rancho Cordova General Plan to incorporate stormwater treatment basins into the drainage master plans for major development projects. This will ensure that cumulative impacts to water quality are *less than significant*.

LAND USE

Though the Land Use chapter of this EIR examined many topics (policy consistency, displacement of housing, etc), the potential cumulative impacts related to land use are restricted to the topic of land use compatibility with adjacent uses, because the character of adjacent land uses will be different in the cumulative condition than in the existing condition. The Land Use chapter already addressed probable future uses, which included master planning in the City of Rancho Cordova. Thus, the Land Use chapter has already addressed the cumulative land use impacts of the Project, and it was determined that with mitigation impacts would be *less than significant*.

NOISE

The Project analysis of noise included cumulative analyses of traffic noise, which is the noise source to which the Project could cumulatively contribute. To summarize, when comparing the cumulative condition with the cumulative plus project condition, the Project does not cause any significant impacts which cannot be mitigated; cumulative noise impacts are *less than significant*.

PUBLIC SERVICES

As described in the Public Services chapter, the Project includes adequate public services facilities and infrastructure, and also includes an infrastructure financing plan to fund the construction of those facilities. There are existing fees and other programs which fund operation of services. The Project has been reviewed by service providers. Given that the singular analysis concludes that the Project can be adequately served, the Project also does not contribute to any cumulative degradation of service; cumulative impacts are *less than significant*.

PUBLIC UTILITIES

The on-site and off-site wet and dry utility lines described in the facility master plans for the Project are designed to handle cumulative conditions, and that analysis concludes that capacity will be sufficient. The Zone 40 Water Supply Amendment prepared to accompany the Project already examines the cumulative water demand projections out to the year 2050, and projects that demand will reach 105,862 acre-feet/year. In the multiple-dry year scenario, the maximum groundwater demand will be approximately 54,000 acre-feet/year, which is within the sustainable yield of the groundwater basin. These cumulative demand projections include growth in the City of Rancho Cordova, within approved but incomplete developments within Sacramento County (e.g. Florin Vineyard Gap), and other reasonably foreseeable development. On a cumulative basis, there is sufficient water to supply the Project, and impacts are *less than significant*.

The existing capacity of the Sacramento Regional Wastewater Treatment Plant (SRWTP) is 181 million gallons per day (mgd), and existing treatment flows are 141 mgd. The SRWTP Master Plan uses an average figure of 132.4 gallons per day (gpd) per capita and combines that figure with population projections to determine the needed capacity. On this basis, the treatment plant can accommodate a population increase of approximately three million people. In terms of housing units, this is equivalent to 113,152 additional units (United States Census Bureau average household size in Sacramento Count from 2005 – 2009 was 2.67 people, (<http://quickfacts.census.gov/qfd/states/06/06067.html>, accessed on September 29, 2011). This capacity is within the projected population and household increases currently expected by the year 2035, according to the Sacramento Area Council of Governments most current draft growth projections. Cumulative impacts are *less than significant*.

TRAFFIC AND CIRCULATION

The Traffic and Circulation chapter contains cumulative analyses of impacts to the transportation network. To summarize briefly, the Project contributes to multiple cumulative impacts and mitigation is required, as listed in the topical chapter. Some of these impacts cannot be fully mitigated, and impacts are *significant and unavoidable*.

In addition to the standard cumulative condition facility analyses alluded to above, it is necessary to address the Capital Southeast Connector Project (Connector). The NOP for the Connector was published in February 2010, several months prior to the release of the Project NOP in June 2010, but a preferred alignment among the four alternatives offered had not been selected. Thus, though the Connector was reasonably foreseeable, modeling the cumulative traffic scenario with this project would have required four different cumulative base scenarios and four cumulative plus project scenarios. Given that the project design remained speculative, rather than including the Connector in the cumulative base model, a sensitivity analysis was prepared. This analysis also includes information from the Connector EIR, which was published in March 2011.

The traffic analysis of cumulative conditions for the Project assumes that Grant Line Road would have four lanes (consistent with the number of lanes in the region's currently adopted 2035 MTP) and would be improved to the County's thoroughfare standards. The Cumulative Plus Project conditions assumes that the Project's three proposed access points along Grant Line Road would be at-grade signalized intersections. The assumptions described above would not be consistent with the Connector project, if that Project identified Grant Line Road as the preferred alignment. At this time, a Final Programmatic EIR for the Connector has been published and the preferred alignment chosen is, in fact, one of the versions which uses Grant Line Road adjacent to the Project. The sensitivity analysis reflects the chosen Connector alignment.

Much of the 35 mile long Connector Project is being planned to function as an expressway, including the portion of Grant Line Road adjacent to the proposed Cordova

Hills project. An expressway is defined as a roadway with at least partial control of access, where limits are placed on the number and types of intersecting roadways and driveways. The Connector's expressway segments would consist of a four-lane or six-lane, divided roadway with grade-separated interchanges where necessary to maintain an acceptable LOS and a design speed of 65 mph. Grade separations provide opportunities to maximize the capacity of available lanes on the Connector. Where an LOS C can be maintained, the Connector Project could allow at-grade signalized intersections in lieu of the grade-separated interchanges.

The Connector EIR assumed the presence of the Project, and determined that grade-separated interchanges would be required at the access roadways to the Project along Grant Line Road to accommodate projected traffic volumes and maintain an acceptable LOS. Where grade-separated interchanges are required on the Connector, the spacing between interchanges should typically be at least one mile to provide adequate traffic operations at and between its ramp junctions. The EIR for the Connector evaluated the potential interchange locations along its expressway segments to determine if there would be adequate distance to maintain acceptable traffic operations. Table CU-2 summarizes the results of that analysis.

The analysis indicates that adequate traffic operations could be provided with the 0.7 mile spacing between Chrysanthy Boulevard and University Boulevard based on projected traffic volumes. However, the analysis indicates that the 0.5 mile spacing between Douglas Road and North Loop Road and between North Loop Road and Chrysanthy Boulevard would not allow adequate distance for weaving between ramps and merging at ramp junctions. Therefore, the Connector EIR recommends that the location where North Loop Road connects to Grant Line Road be relocated one-half mile to the north. The concept is to realign and extend North Loop Road so that it would connect to Grant Line Road as an eastern leg of a Douglas Road/Grant Line Road interchange. This connection would allow one-mile spacing between proposed interchanges at Douglas Road and Chrysanthy Boulevard and it would allow an acceptable LOS along Grant Line Road in the vicinity of the Cordova Hills project. However, the FEIR was amended from the DEIR to state that other connections which differ from the recommendation above could be allowed provided that the alternative design meets the LOS standards and performance standards for the Connector.

Though the Alternatives to the Project were identified and the traffic study initiated in August of 2010, long before the above Connector EIR analysis was published, comments from the Connector JPA on the Project NOP made it clear that the road spacing was likely to cause conflicts if Grant Line Road were selected. For this reason, the Expanded Footprint Alternative (which incorporates 90% of the Project development) includes the access design ultimately recommended by the Connector EIR.

**Table CU-2: Analysis of Distance between Planned Intersections
Along Grant Line Road**

Segment of Grant Line Road	Distance (Miles)	Distance Provides Acceptable Traffic Operations
Douglas Road to North Loop Road	0.5	No
North Loop Road to Chrysanthy Boulevard	0.5	No
Chrysanthy Boulevard to University Boulevard	0.7	Yes
University Boulevard to Kiefer Boulevard	1.2	Yes
Source: DKS Associates, 2011		

Table CU-3 presents the average daily traffic volumes along Grant Line Road and on access roadways to the Cordova Hills project under Cumulative Plus Project conditions with and without the Connector Project. The Connector would significantly increase the overall traffic volumes along Grant Line Road, since the higher speed expressway would attract more regional traffic. However, the capacity increase due to the Connector's grade-separations would be much more than the volume increase caused by the Connector. Therefore, all of Grant Line Road would operate at an acceptable level of service with the Connector. The faster speeds and improved capacity along Grant Line Road with the Connector would also increase the amount of Cordova Hills' traffic that would travel to destinations external to the project site by approximately 4.5 percent. However, the increase in external vehicle trips would not cause any of the Project's access roadways to operate at an unacceptable level of service.

To summarize, the presence of the Connector would tend to improve cumulative traffic conditions on Grant Line Road, so there are no additional Project impacts when assuming the Connector, but the current Project access design conflicts with the recommended Connector design. The access design of the Expanded Footprint Alternative would avoid this conflict.

Table CU-3: Cumulative Plus Project Roadway Operating Conditions with Connector Project

Roadway Segment	Lanes	Without Connector Project			With Connector Project		
		Volume	V/C	LOS	Volume	V/C	LOS
Grant Line Road							
Douglas Rd to North Loop Rd	4	47,380	1.32	F	44,380	0.62	B
North Loop Rd to Chrysanthy Blvd	4	27,440	0.76	C			
Chrysanthy Blvd to University Blvd	4	25,550	0.71	C	47,070	0.65	B
University Blvd to Kiefer Blvd	4	34,420	0.96	E	54,360	0.76	C
Cordova Hills Access Roads – All East of Grant Line Road							
North Loop Rd (Realigned to Douglas Rd)	4	N/A	N/A	N/A	26,370	0.73	C
North Loop Rd	4	29,860	0.83	D	N/A	N/A	N/A
Chrysanthy Blvd	4	12,860	0.36	A	15,790	0.44	A
University Blvd	4	27,250	0.76	C	30,960	0.86	D
Source: DKS Associates, 2011							

19 BIBLIOGRAPHY

- Adams, Jeremy. 2010. Guide to Evaluating Electric Transmission Structures for the National Register of Historic Places. Master's Thesis, Master of Arts in Public History, California State University-Sacramento.
- Anderson, P. R. 1968. The reproductive and developmental history of the California tiger salamander. Masters thesis, Department of Biology, Fresno State College, Fresno, California. 82pp.
- Babaluk, J.A., Reist, J.D., Johnson, J.D., and Johnson, L. "First records of sockeye (*Oncorhynchus nerka*) and pink salmon (*O. gorbuscha*) from Banks Island and other records of Pacific salmon in Northwest Territories, Canada". *Arctic* 53(2):161-164. (2000)
- Babcock, K.W. 1995. Home range and habitat use of breeding Swainson's Hawks in the Sacramento Valley of California. *Journal of Raptor Research*, 29: 193- 197.
- Beardsley, R.K. 1954. Temporal and Areal Relationships in Central California Archaeology, Parts I & II. University of California Archaeological Survey reports, Nos. 25, Berkeley, California.
- Beedy, E. C., and W. J. Hamilton III. 1999. Tricolored Blackbird (*Agelaius tricolor*). In The Birds of North America, No. 423 (A. Poole and F. Gill, eds.). The Birds of North America, Inc., Philadelphia, PA.
- Bidwell, J. 1971. Sutter's Fort. In *California Heritage: An Anthology of History and Literature*, edited by John and Laree Caughey, pp. 134-138. F.E. Peacock Publishers, Itasca. Revised Edition.
- Bryant, William. "Sacramento County Seismic Issues." E-mail to Kevin Messerschmitt. 30 Jan. 2009.
- Bureau of Land Management. 2008. GLO Records.
<http://www.gloreports.blm.gov/search/default.aspx#searchTabIndex=0&searchByTypeIndex=0>.
- California Climate Change Center at U.C. Berkeley (CCCC). "Managing Greenhouse Gas Emissions in California", 2006a.
- California Climate Change Center at U.C. Berkeley (CCCC). "Scenarios of Climate Change in California: An Overview", publication number CEC-500-2005-186-SF, 2006b.

- California Department of Conservation, California Geological Survey.
<http://redirect.conservation.ca.gov/cgs/rghm/pshamap/pshamain.html>.
Accessed: December 12, 2008.
- California Geological Survey – Special Report 192.
http://www.consrv.ca.gov/cgs/minerals/hazardous_minerals/asbestos/Pages/east_sacramento.aspx. Accessed: May 28, 2008.
- California Department of Fish and Game (CDFG). 2003. California Natural Diversity Data Base (CNDDB). Sacramento, California.
- California Department of Resources Recycling and Recovery. Available:
<http://www.calrecycle.ca.gov/SWFacilities/Directory/34-AA-0001/Detail/>.
Accessed: March 30, 2011.
- California Division of Mines and Geology (CDMG). 1955. California Journal of Mines and Geology Volume 51, No. 2, San Francisco, California.
- _____. 1999. *Mineral Land Classification: Portland Cement Concrete-Grade Aggregate and Kaolin Clay Resources in Sacramento County*, (Open File Report 99-09).
- California Energy Commission (CEC). “Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2002 Update”, 2005.
- California Native Plant Society (CNPS). Electronic Inventory of Rare and Endangered Plants of California. Sacramento, California.
<http://www.cnps.org/cnps/rareplants/inventory/> Last accessed: March 29, 2011.
- California State Mining Bureau. 1890. Tenth Report of the State Mineralogist, State Printing, Sacramento, California.
- _____. 1925. Twenty-First Report of the State Mineralogist, State Printing, Sacramento, California.
- Cayan, D.C, Maurer, E., Dettinger, M., Tyree, M., Hayhoe, K. Bonfils, C., Duffy, P., and Santer, B., “Climate Scenarios for California: Climate Action Team Reports to the Governor and Legislature”, publication # CEC-500-2005-203-SF (March 2006a).
- Cayan, D.C, Bromirski, P., Hayhoe, K., Tyree, M., Dettinger, M. and Flick, R. “Projecting Future Sea Level: Climate Action Team Reports to the Governor and Legislature”, publication # CEC-500-2005-202-SF (March 2006b).
- Chartkoff, J.L. and K.K. Chartkoff. 1984. The Archaeology of California. Stanford University Press, Palo Alto, California.
- City of Rancho Cordova. 2009. City of Rancho Cordova General Plan.

- _____. Municipal Code, Section 6.68, Noise Control.
<http://www.codepublishing.com/CA/RanchoCordova/> Last accessed September 15, 2011.
- City of Folsom. City of Folsom Municipal Code, Section 8.42, Noise control.
http://nt5.scbbs.com/cgi-bin/om_isapi.dll?clientID=262611282&depth=2&infobase=folsom.nfo&record={68C2}&softpage=PL_frame. Last accessed September 15, 2011.
- Department of Water Resources (DWR). Progress of Incorporating Climate Change into Management of California's Water Resources, Technical Memorandum Report. State of California, July 2006.
- Dettinger, M.D., Cayan, D.R., Meyer, M.K., and Jeton, A.E., "Simulated hydrologic responses to climate variations and change in the Merced, Carson, and American River basins, Sierra Nevada, California, 1900-2099: Climatic Change", 62 (2004): 283-317.
- Dodds, G.C. 1923. A New Species of Phyllopod. Occasional Papers of the Museum of Zoology 141:1-3.
- Dunk, J. R. 1995. White-tailed Kite (*Elanus leucurus*). In The Birds of North America, No. 178 (A. Poole and F. Gill, eds.). The Academy of Natural Sciences, Philadelphia, and The American Ornithologists' Union, Washington, D.C.
- Earthquake Shaking Potential for California.
http://www.consrv.ca.gov/cgs/information/publications/ms/Documents/MS48_revised.pdf. Accessed: December 12, 2008.
- ECORP Consulting, Inc. 2007. "Cultural Resources Survey Report: Cordova Hills, Sacramento County, California" January 2007.
- _____. 2007. "Cultural Resources Survey Report: Solitu Property, Sacramento County, California" November 2007.
- _____. 2008. "Cultural Resources Survey Report: Grant Line Mesa, Sacramento County, California" May 2008.
- _____. 2008. "Test Program Results and Evaluation for Cultural Resources In the Conwy and Solitu Projects, Sacramento County, California" August 2008.
- _____. 2011. "Evaluation of Significance of PG&E Transmission Lines within the Cordova Hills Project Area, Sacramento County, California" October 2011.
- Elsasser, A.B. 1978. Development of Regional Prehistoric Cultures, in R.F. Heizer, ed., Handbook of North American Indians, Volume 8: California, pp. 37-57. Smithsonian Institution, Washington.

- England, A. Sidney, J. Estep, W. Holt. 1995. Nest-site and reproductive performance of urban-nesting Swainson's hawks in the Central Valley of California. *Journal of Raptor Research*, 29: 179 – 186.
- Erikson, C.H. and D. Belk, 1999. Fairy Shrimps of California's Puddles, Pools, and Playas. Mad River Press, Eureka, CA.
- Estep, J.A. 1989. Biology, movements, and habitat relationships of the Swainson's Hawk in the Central Valley of California, 1986 – 87. California Department of Fish and Game. Unnumbered Report.
- Estep, J. A., and S. Teresa. 1992. Regional conservation planning for the Swainson's hawk (*Buteo swainsoni*) in the Central Valley of California. Pages 775– 789 in D. R. McCullough and R.H. Barrett (eds.), *Wildlife 2001: populations*. New York: Elsevier Applied Science.
- Feeney, L. 1992. Site Fidelity in Burrowing Owls. Unpub. paper presented to Raptor Research Annual Meeting, November 1992. Seattle, Washington.
- Gallaughier, P. and L. Wood. In: The World Summit on Salmon, June 10-13, 2003, Proceedings, pgs 53 – 59. Vancouver, British Columbia.
- Gudde, E.G. 1969. California Place Names: The Origin and Etymology of Current Geographical Names. University of California, Berkeley.
- Harwood, D.S., and Helley, E.J., 1987, *Late Cenozoic Tectonism of the Sacramento Valley, California: U.S. Geological Survey Professional Paper 1359*.
- Helm, B. P. 1998. Biogeography of eight large branchiopods endemic to California. Pages 124-139 in: C. W. Witham, E. T. Bauder, D. Belk, W. R. Ferren Jr. and R. Ornduff, editors. Ecology, conservation, and management of vernal pool ecosystems-Proceedings from a 1996 Conference. California Native Plant Society, Sacramento, California. Conference. California Native Plant Society, Sacramento, California.
- Henny, Charles J.; Blus, Lawrence J. 1981. Artificial burrows provide new insight into burrowing owl nesting biology. *Raptor Research*. 15(3): 82-85. [26112]
- Hickman, J. C, editor. 1993. The Jepson Manual. University of California Press, Berkeley, California. 1,400 pages.
- Holland, R.F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. Prepared for the California Department of Fish and Game, Sacramento California.

- Intergovernmental Panel on Climate Change, United Nations (IPCC). "Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the IPCC", 2007a.
- Intergovernmental Panel on Climate Change, United Nations (IPCC). "Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the IPCC", 2007b.
- Intergovernmental Panel on Climate Change, United Nations (IPCC). "Climate Change 2007: Mitigation of Climate Change. Contribution of Working Group III to the Fourth Assessment Report of the IPCC", 2007c.
- Jennings, C.W., 1994, "Fault activity map of California and adjacent areas with locations and ages of recent volcanic eruptions": California Department of Conservation, Division of Mines and Geology Data Map Series No. 6, 92 p., 2 plates, map scale 1:750,000.
- Jennings, M.R. and M.P. Hayes. 1994. Amphibian and Reptile Species of Special Concern in California. Final Report to the California Department of Fish and Game, Inland Fisheries Division, Rancho Cordova, CA.
- Kamler, E. "Ontogeny of yolk-feeding fish: An ecological perspective." *Reviews in Fish Biology and Fisheries*, 12, 79-103. (2002)
- Kiparsky, M. and P.H. Gleick. "Climate Change and California Resources: A Survey and Summary of the Literature". Oakland, CA: Pacific Institute for Studies in Development, Environment, and Security, July 2003.
- Kroeber, A.L. 1976. *Handbook of the Indians of California*. Dover Publications, Inc., New York.
- Lawrence Frank and Company, Inc. A Study of Land Use, Transportation, Air Quality, and Health (LUTAQH) in King County, WA. 2005. Available: http://cascadiascorcard.typepad.com/sprawl_and_health/air_quality_health/
- Lawson, J.D. 2002. Sacramento County History. <<http://www.cagenweb.com/~sacramen/sachstry.htm>> Accessed 11-25-2002
- Lillard, J.B., R.F. Heizer, and F. Fenenga. 1939. An Introduction to the Archaeology of Central California. Sacramento Junior College, department of Anthropology Bulletins, No. 2, Sacramento, California.
- Littlejohn, H.W. 1928. Nisenan geography. Ms in Bancroft Library, University of California, Berkeley.
- Marshall, J.W. 1971. The Discovery. In *California Heritage: An Anthology of History and Literature*, edited by John and Laree Caughey, pp. 191-193. F.E. Peacock Publishers, Itasca. Revised Edition.

- Melton, N. P. 2003. Sacramento County Biographies, 1880. Internet site.
<http://www.calarchives4u.com/biographies/sacrametno/sac-art.htm> Accessed June 17, 2008.
- Miller, N.L., Jin, J., Hayhoe, K., and Aufhammer, M. "Climate Change, Extreme Heat, and Electricity Demand in California", publication number CEC-500-2007-023 (August 2007).
- Moratto, M.J. 1984. California Archaeology. Academic Press, San Francisco, California.
- National Marine Fisheries Service. October 2009. Public Draft Recovery Plan for the Evolutionarily Significant Units of Sacramento River Winter-Run Chinook Salmon and Central Valley Spring-Run Salmon and the Distinct Population Segment of the Central Valley Steelhead. National Marine Fisheries Service, Sacramento, California.
- National Park Service (NPS). 1990. Guidelines for Evaluating and Documenting Traditional Cultural Properties. National Register Bulletin 38, National Park Service, Washington, D.C.
- _____. 1983. Archaeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines. F8 Fed. Reg. (Federal Register) 44716-68.
- Natural Resources Conservation Service (NRCS). 2007. Soil Survey of Sacramento County, California.
- _____. Web Soil Survey. <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>. Accessed, March 24, 2010.
- Neft, J.A. 1937. Nesting Distribution of the Tricolor Red-wing Condor. Pages 39, 61-81.
- Office of Historic Preservation (OHP). 1989. Archaeological Management Reports (ARMR): Recommended Contents and Format. Preservation Planning Bulletin 4a. Department of Parks and Recreation, Office of Historic Preservation, Sacramento.
- Old Sacramento Foundation, Inc. 2001. History of Old Sacramento.
<http://oldsacramento.com/history.php>. Accessed: July 12, 2011.
- O'Neal, K. "Effects of Global Warming on Trout and Salmon in U.S. Streams", Defenders of Wildlife and National Resources Defense Council, Washington, DC, 2002.
- Platenkamp, G. A. 1998. Patterns of vernal pool biodiversity at Beale Air Force Base. Pages 151-160 in: C. W. Witham, E. T. Bauder, D. Belk, W. R. Ferren, Jr., and R. Ornduff, editors. Ecology, conservation, and management of vernal pool

- ecosystems - proceedings from a 1996 conference. California Native Plant Society, Sacramento, California.
- Ragir, S. 1972. The Early Horizon in central California prehistory. Contributions of the University of California Archaeological Research Facility 15. Berkeley, California.
- Rathbun, G.B., N.R. Seipel, and D.C. Holland. 1992. Nesting behavior and movements of western pond turtles (*Clemmys marmorata*). The Southwestern Naturalist 37(3):319-324.
- Rich, T. 1984. Monitoring Burrowing Owl Populations: Implications of Burrow Re-use. Wildlife Soc Bull. 12:178-180.
- Rutgers University, Center for Urban Policy and Research. The Costs and Benefits of Alternative Growth Patterns: The Impact Assessment of the New Jersey State Plan. 2000. Available: <http://www.nj.gov/dca/osg/plan/impact.shtml>.
- Sacramento Municipal Utility District. April 2010. SMUD East Campus-Operations Center Project Draft EIR (SCH# 2009112078).
- Shipley, W.F. 1978. Native Languages of California, in R.F. Heizer, ed., Handbook of North American Indians, Volume 8: California, pp.80-90. Smithsonian Institution, Washington.
- Shuford, W. D., and Gardali, T., editors. 2008. California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Studies of Western Birds 1. Western Field Ornithologists, Camarillo, California, and California Department of Fish and Game, Sacramento.
- Syrdahl, R. L. 1993. Distribution patterns of some key macro-invertebrates in a series of vernal pools at Vina Plains Preserve in Tehama County, VI-33 California. Biological Sciences. University of California, Chico California. www.californiaherps.com/frogs/pages/s.hammondii.html. Accessed: November 11, 2010.
- The Weather Channel. Local Weather, Monthly Averages for Sacramento, CA. <http://www.weather.com/weather/wxclimatology/monthly/graph/USCA0967?from=search> Accessed: July 12, 2011.
- Thompson, T.H. & A.A. West. 1880. History of Sacramento County. Reproduced by Howell-North, 1960, Berkeley, California.
- United States Census Bureau. 1850. Historical Census Browser, 1850 census. Retrieved May 28, 2008, from the University of Virginia, Geospatial and Statistical Data Center: <http://fisher.lib.virginia.edu/collections/stats/histcensus/index.html>

- _____. 1860. Historical Census Browser, 1860 census. Retrieved May 28, 2008, from the University of Virginia, Geospatial and Statistical Data Center:
<http://fisher.lib.virginia.edu/collections/stats/histcensus/index.html>
- _____. 1870. Historical Census Browser, 1870 census. Retrieved May 28, 2008, from the University of Virginia, geospatial and Statistical Data Center:
<http://fisher.lib.virginia.edu/collections/stats/histcensus/index.html>
- United States Department of Transportation, Federal Aviation Administration. 2006. Order 1050.1E, CHG 1.
- United States Environmental Protection Agency (EPA). "Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2004", 2006.
- _____. Climate Change website. <http://www.epa.gov/climatechange/>. Accessed: July 12, 2011.
- United States Fish and Wildlife Service. 1999. Draft Recovery Plan for the Giant Garter Snake (*Thamnopsis gigas*). U.S. Fish and Wildlife Service, Portland, Oregon.
- _____. 2002. Recovery Plan for the California Red-legged Frog (*Rana aurora draytonii*). U.S. Fish and Wildlife Service, Portland, Oregon.
- _____. 2004. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the California Tiger Salamander, Central Population. Federal Register 69(153) 48570-48649.
- _____. 2005. Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon. Portland, Oregon.
- _____. 2007a. Species Account; Vernal Pool Fairy Shrimp, *Branchinecta lynchi*. Last updated October 11, 2007.
- _____. 2007b. Species Account; Vernal Pool Tadpole Shrimp, *Lepidurus packardi*. Last updated October 15, 2007.
- _____. 2008. *Orcuttia viscida*, Sacramento Office. 5-year Review: Summary and Evaluation.
- United States Geological Survey. Simplified Fault Activity Map of California.
http://www.consrv.ca.gov/cgs/information/outreach/Documents/Simplified_Fault_Activity_Map.pdf
Accessed: December 12, 2008.
- _____. Earthquake Hazards Program.
<http://earthquake.usgs.gov/learn/topics/mercalli.php>. Accessed: December 12, 2008.

- United States National Archives and Records Administration (US NARA). 2008. The Homestead Act of 1862. <http://www.archives.gov/education/lessons/homestead-act>. Accessed: June 17, 2008.
- Wallace, W.J. 1978. Post-Pleistocene Archaeology, 9000 to 2000 B.C., in R.F. Heizer, ed., Handbook of North American Indians, Volume 8: California, pp 25-36. Smithsonian Institution, Washington.
- Webber-Band, J., 1998, "Neotectonics of the Sacramento-San Joaquin Delta area, east-central Coast Ranges", California: Ph.D. dissertation, University of California, Berkeley, 216 p.
- Westerling, A., and B. Bryant. Climate change and wildfire in and around California: Fire modeling and loss modeling. California Climate Change Center, publication number CEC-500-2005-190-SD (December 2005).
- Wilson, N.L., and A.H. Towne. 1978. Nisenan, in R.F. Heizer, ed., Handbook of North American Indians, Volume 8: California, pp. 387-397. Smithsonian Institution, Washington.
- World Meteorological Organization (WMO). 2005: Statement on the Status of the Global Climate in 2005: Geneva, 15 December 2005.
- Yang, Christopher; McCollum, David; McCarthy, Ryan; Leighty, Wayne. Identifying Options for Deep Reductions in Greenhouse Gas Emissions from California Transportation: Meeting an 80% Reduction Goal in 2050 Full Report including Policymaker Summary and Appendix. University of California at Davis, One Shields Avenue • Davis, California.
- Zarn, M. 1974. Burrowing Owl, report no. 11. Habitat management series for unique or endangered species. U. S. Department of the Interior, Bureau of Land Management, Denver, Colorado. 25pp.

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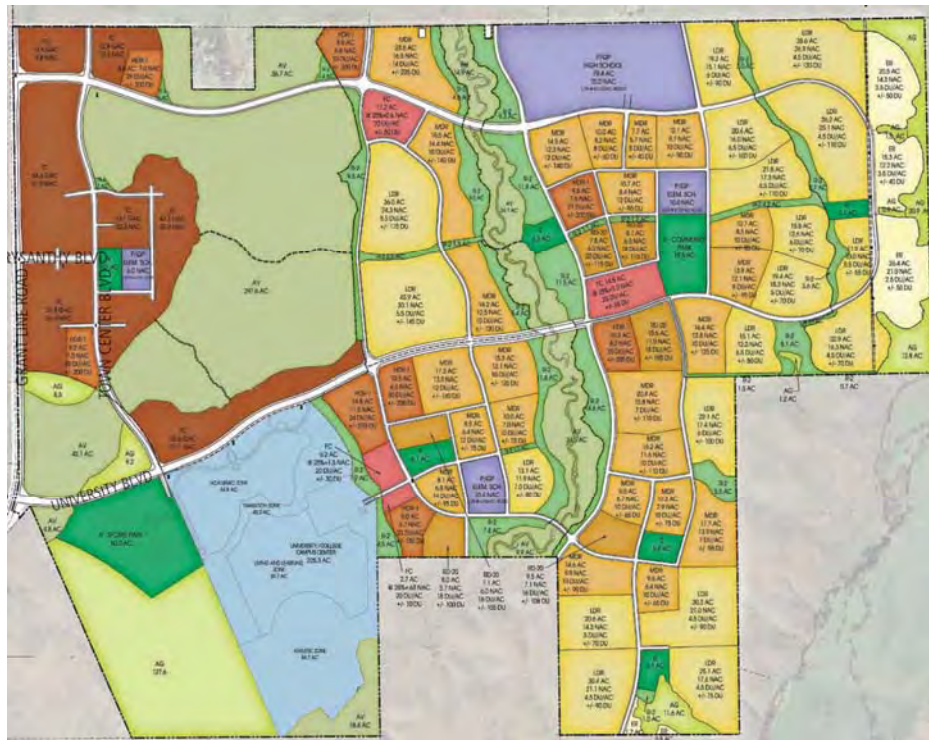
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Cordova Hills Ownership Group

FINAL ENVIRONMENTAL IMPACT REPORT

VOLUME III OF III

CORDOVA HILLS



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COUNTY OF SACRAMENTO
DEPARTMENT OF COMMUNITY DEVELOPMENT
PLANNING AND ENVIRONMENTAL REVIEW
827 7TH STREET, ROOM 220
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TABLE OF CONTENTS

20 RESPONSE TO COMMENTS.....	20-1
LETTER 1	20-5
LETTER 2	20-7
LETTER 3	20-45
LETTER 4	20-53
LETTER 5	20-54
LETTER 6	20-69
LETTER 7	20-72
LETTER 8	20-74
LETTER 9	20-93
LETTER 10	20-104
LETTER 11	20-105
LETTER 12	20-112
LETTER 13	20-115
LETTER 14	20-120
LETTER 15	20-124
LETTER 16	20-130
LETTER 17	20-134
LETTER 18	20-141
LETTER 19	20-145
LETTER 20	20-148
ORAL COMMENTER 1	20-152
ORAL COMMENTER 2	20-153
ORAL COMMENTER 3	20-154
ORAL COMMENTER 4	20-155
ORAL COMMENTER 5	20-156
ORAL COMMENTER 6	20-157
ORAL COMMENTER 7	20-158
ORAL COMMENTER 8	20-159
ORAL COMMENTER 9	20-160
MITIGATION MONITORING AND REPORTING PROGRAM	1

DECLARATION OF AGREEMENT	4
TABLE OF MEASURES	5
IMPLEMENTATION	7
PURPOSE AND PROCEDURES	9
STANDARD PROVISIONS	11

20 RESPONSE TO COMMENTS

The written comment period for the DEIR was set to close on February 22, 2012 at 5 p.m, but was extended to March 5, 2012 at the request of the California Department of Transportation (Caltrans). A total of 20 individual letters were received during the written comment period. Each letter has been given a numeric designation (e.g. Letter 1), which can be found on the upper right-hand corner of the attached letters. All 20 letters are included at the end of the Response to Comments chapter, except that the letter from Caltrans received during the comment period was superseded by a July letter; it is the July correspondence which has been included. Opportunity for oral comment on the DEIR was offered at the Sacramento County Planning Commission on September 24, 2012, at which time the comment period was closed. Each Draft EIR reviewer that submitted written comments is listed below. The letters are listed by respondent, in alphabetical order. Oral comments received during the public hearings before the Sacramento County Planning Commission are also included and are organized in accordance with the order in which they spoke. Oral comments begin after the written comments.

Individual comments addressing separate subjects within each letter are labeled in this chapter based on the letter's numeric designation and comment number (e.g. 1-1). Where a letter essentially addresses only one subject, comment numbers are not assigned. The text of the comments on DEIR adequacy has been provided, followed by a response. In cases where there is substantial letter text (spanning multiple pages), but little or none of the text addresses DEIR adequacy or this specific Project, the text of the comment has not been provided and reviewers are directed to the appropriate page of the attached comment letters. Also note that the preface language of the letters is often excluded (where the text consists of salutations and brief descriptions of the commenting organization). Oral comments have been paraphrased with a response following each comment. Oral comments which duplicated written comments submitted by the speaker are not presented; the text instead refers the reader back to the letter submitted by the speaker (this text is presented in brackets).

In some cases the response to the comment is "comment noted". Pursuant to Section 15088 of the CEQA Guidelines, no written responses are provided for those letters or comments that did not address the adequacy of the DEIR. While no response to the comment is provided, the comment letters are forwarded to the Board of Supervisors for consideration via this EIR.

LIST OF WRITTEN COMMENTS ON THE EIR (WITH PAGE ON WHICH RESPONSE BEGINS)

1. California Department of Transportation (20-5)
2. California Native Plant Society, Sacramento Valley Chapter (20-7)
3. California Native Plant Society, Sacramento Valley Chapter, Supplemental (20-45)
4. California Natural Resources Protection Agency, Central Valley Flood Protection Board (20-53)
5. California Regional Water Quality Control Board, Central Valley Region (20-54)
6. City of Rancho Cordova (20-69)
7. Elk Grove Unified School District (20-72)
8. Environmental Council of Sacramento (20-74)
9. Friends of the Swainson's Hawk (20-93)
10. Pacific Gas and Electric Company (20-104)
11. Sacramento Area Bicycle Advocates (20-105)
12. Sacramento Area Sewer District (20-112)
13. Sacramento County Department of Transportation (20-115)
14. Sacramento County Department of Waste Management and Recycling (20-120)
15. Sacramento County Environmental Management Department (20-124)
16. Sacramento Local Agency Formation Commission (20-130)
17. Sacramento Metropolitan Air Quality Management District (20-134)
18. Sacramento Regional County Sanitation District (20-141)
19. Sierra Club, Mother Lode Chapter (20-145)
20. Southeast Capital Connector Joint Powers Authority (20-147)

ORAL COMMENTS: SACRAMENTO COUNTY PLANNING COMMISSION SEPTEMBER 24, 2012
(BEGINS ON PAGE 20-151)

1. Larry Greene, Sacramento Metropolitan Air Quality Management District (20-151)
2. Tom Zlotkowski, Capital SouthEast Connector Joint Powers Authority (20-152)
3. Peter Christiansen, Environmental Council of Sacramento (20-153)
4. Sean Worth, Environmental Council of Sacramento and Sierra Club (20-154)
5. Keith Roberts, Environmental Council of Sacramento (20-155)
6. Kristain Heston, Rancho Cordova resident (20-156)
7. Glen Holstein, Environmental Council of Sacramento (20-157)
8. Betsy Wyland, Save the American River Association (20-158)
9. Jim Wiley, Taylor and Wiley (20-159)

Written Comments on the EIR

LETTER 1

Eric Fredericks, California Department of Transportation; written correspondence; originally dated March 1, 2012 but superseded by July 6, 2012 letter

Comment 1-1

We disagree with the assertion that there are not “*any funding mechanisms established to collect money to fund such improvements*” listed on page 16-50. Caltrans has established specific mechanisms to collect and retain fair share funding to support the State Highway System (SHS) mitigation related to local development.

Response 1-1

Though Caltrans does have the means to collect fair-share funds, the statement quoted from page 16-50 is not general in nature, but refers only to the Zinfandel Drive and US 50 ramp intersection. It is accurate to state that there are no established funding mechanisms which are designed to collect funds for improvements to the facility where the Project impact is identified. There must be a nexus between an impact and the identified mitigation, so a lead agency cannot properly require payment of fair-share funds if there is no means to ensure that those funds will be used to offset the Project impact identified.

Comment 1-2

Approximately 10% of the overall trip generation is going to-or-from United States Highway (US) 50. As a result, this segment will degrade from Level of Service (LOS) E to F (Page 16-80). As mitigation for this significant impact, the DEIR has proposed to contribute fair share fees to add a transition lane on US 50 between Sunrise Boulevard (Blvd) and Hazel Avenue (Ave) in both directions. We do not agree with the Traffic Impact Study that adding a transition lane on Eastbound (EB)-50 between Sunrise Blvd and Hazel Ave will improve the LOS on this segment of EB-50 (Page 16-52). The bottle neck is located near the Folsom Blvd interchange due to the lane drop and the vertical/horizontal curves. In order to relieve the congestion on EB-50 between Sunrise Blvd and Hazel Ave, we request a fair share contribution for construction of a transition lane on EB-50 from Folsom Blvd to Scott Road (Rd) in addition to a transition lane from Sunrise Blvd. to Hazel Ave.

Response 1-2

The statements within this comment are not supported by the evidence. Firstly, of the seven freeway segments impacted, only two are a case in which the LOS is E without the Project and F with the Project (both of these are Cumulative Plus Project impacts). The mitigation referenced by this comment is for the Existing Plus Project condition, and the traffic impact study indicates that it would change LOS from F to E in the westbound direction, and from F to D in the eastbound direction. Though Caltrans states that they

do not believe the mitigation will have this effect on LOS, no evidence has been provided in support of this statement. Caltrans then suggests improving a freeway segment which is not within the study area, and which is not impacted by the Project. Though Caltrans staff may think that the reach of US 50 from Folsom Boulevard to Scott Road is in greater need of improvements, the purpose of the EIR analysis is to identify Project-related impacts and appropriate mitigation with a nexus to those impacts. Mitigation has been included for the segment of US 50 from Sunrise Boulevard to Hazel Avenue, because that is the segment impacted.

Comment 1-3

In addition, the following TDM strategies could be considered: hiring a full-time TDM coordinator for the development, providing commute shuttles to nearby Regional Transit/Capitol Corridor stations, coordinating carpools/vanpools, providing on-site satellite office space for telecommuting, incentivizing off-peak commuting, developing an internal job-housing match program, and reducing housing prices or Home Owner Association dues for units with reduced parking provision.

Response 1-3

The proposed SPA does include measures such as those recommended in this comment, including a Transit Management Association and a transit service which will connect to the Mather/Mills light rail station. Refer to the SPA Master Plan "Circulation" chapter for detailed descriptions.

LETTER 2

Glen Holstein, Botanist, California Native Plant Society, Sacramento Valley Chapter; written correspondence; undated (received February 16, 2012)

Comment 2-1

Due to length, reviewers are referred to the attached letter; the comment has not been included here. The comment begins at the outset of the letter and includes two pages of text, with a final paragraph on the third page (the portion which precedes the heading "Aesthetics").

Response 2-1

This is not a comment on the adequacy of the EIR. Comment noted.

Comment 2-2

Page 3-6 of the DEIR provides color examples of high and low visual quality places. The high quality example looks much like the Cordova Hills site does now except for its lack of oaks, while the low quality example resembles numerous places littering California left half built when the bubble burst and money ran out. The proposed Cordova Hills project promises to provide one more.

Subsequent photos in the aesthetics chapter suggest the project will have little visual impact, but all views are from outside the project site looking in. None examine the visual impact the project would cause inside its 2,669 acres. This is a significant omission since it is theoretically possible to cover the Grand Canyon's walls with condominiums invisible just a few yards from the its rim.

That's relevant to Cordova Hills since its central stream valley and the Grand Canyon share similar origins. Both are incised by erosion into nearly level flat-lying sediments (Twidale 1976). The central stream valley at Cordova Hills is tiny relative to the Grand Canyon, of course, but its relief is a rare and significant aesthetic resource in mostly level Sacramento County equal to 12.5% of total county relief (Suttle 1994). The central stream valley at Cordova Hills may be the last place in the county where natural landscapes free from the works of man can be seen. This place largely hidden from current public view is where the Cordova Hills project proposes to develop most intensively.

Response 2-2

Comment noted. CEQA requires that the impacts of a project be examined in light of the existing conditions. The site is vacant private property, and thus there are no existing public viewer groups within the Project boundaries which would be affected by Project construction. The EIR properly examines the impact of Project development on the existing viewer groups surrounding the site. The EIR found that the Project would substantially degrade the existing visual character and quality of the site and determined that the Project would have significant and unavoidable aesthetic impacts. See Draft EIR at Pages 3-10 to 3-20. It is also worth noting that the central drainage feature pointed out in this comment will be preserved within one of the Avoided Areas; it will not be filled and developed.

Comment 2-3

At the beginning of the air quality chapter (chapter 5) several air pollutants are defined but in latter parts of this chapter a pollutant category (ROG) appearing often in tables and text is left completely undefined. That kind of editorial carelessness suggests DEIR preparers were more interested in producing large numbers of pages than informing the public. Hidden in this lengthy chapter on Page 5-28 is the important conclusion that the proposed project would “exceed daily emissions thresholds” for NO_x and ROG ozone precursors that contribute significantly to unhealthy air pollution. Consequently Page 5-30 concludes that implementation of the project would have a significant and unavoidable impact on implementation of regional air quality plans

Response 2-3

The EPA uses the term VOC rather than ROG, and thus the term VOC was used in the explanation of ozone formation; however, the term ROG (reactive organic gases) is still the constituent reported by many models, and is still the term in use pursuant to the Sacramento Metropolitan Air Quality Management District’s thresholds for ozone precursors. A clarification has been added to the Air Quality chapter on this subject. Though a description of the acronym ROG was accidentally omitted, it is apparent from text located throughout the chapter that ROG is an ozone precursor (e.g. the impact heading “Impact: Operational Emissions of Ozone Precursors (NO_x or ROG)”). The conclusion referenced by the comment as being “hidden” is in fact clearly located under the major heading referenced in parentheses above.

Comment 2-4

The project’s distant location from places of employment is also in clear conflict with Sacramento County General Plan Policy EN-5 to “Reduce travel distances and reliance on the automobile and facilitate increased use of public transit through appropriate land use plans and regulations.”

Response 2-4

The Project includes an internal transit system with linkages to existing external transit provided by Sacramento Regional Transit, and also includes other trip-reducing features (described in the Air Quality Mitigation Plan and the Greenhouse Gas Reduction Plan). As described in the Climate Change chapter, compared to a “business-as-usual” development in this location, the Project design will reduce vehicle miles traveled.

Comment 2-5

On the very first page of this chapter the DEIR completely mischaracterizes vegetation of the Cordova Hills project site by stating: “The dominant vegetation is non-native grassland comprised of ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), wild oats (*Avena fatua*), barley (*Hordeum* species), and ryegrass (*Lolium multiflorum*).”

In fact these are only the site’s weeds. Similar areas in the site’s vicinity are native California prairie dominated by the native non-grass species *Holocarpus virgata* (Holstein 2001), and that author found during visits to Cordova Hills it also likely dominates there. Nothing in the DEIR suggests any effort was made to survey the site’s vegetation. Consequently its statement above about dominance by non-native grasses is utterly without supporting evidence.

Response 2-5

The Draft EIR states on page 6-58, “The Project site was surveyed for special status plant species in May 2007, April and June 2008, and May and July 2010 by ECORP Consulting Inc.” All plant species observed on-site during those visits were documented by the surveying botanists, which is consistent with standard protocols for rare plant surveys (Appendix BR-3). The description of the grass species growing on the site is an accurate one, not just for this site but for the County’s (and even the Central Valley’s) grasslands as a whole. It is well-documented that most of the Central Valley grasslands are now dominated by non-native grass species¹. It would be inappropriate to describe these grasses as “weeds”; the term “weed” is not a scientific one², as all it means is a plant which is growing where it is not wanted. Calling the grasses weeds would seem to imply that the grassland area is not of habitat value – not wanted – when that is clearly not the case. The site supports the native plant *Holocarpha virgata*, commonly known as tarplant, but the purpose of the DEIR description was to describe the grass species which made up the grassland, not to describe all of the annual forbs. It is also worth noting that *Holocarpha virgata* is actually quite common in Central Valley grasslands, and has no special status designation. At the request of the commenter, a sentence listing some of the most common herbaceous plants on the site has been included after the description of the grasses on the site (page 6-1 of the FEIR).

¹ Kie, J. G. 2005. Annual grassland. In Mayer and Laudenslayer 1988.

² http://www.blm.gov/wo/st/en/prog/more/weeds/weed_definition.html

Comment 2-6

This is extremely significant because among the 32 Sacramento General Plan policies cited on pages 6-3 to 6-6 are:

CO-59. Ensure mitigation occurs for any loss of or modification to the following types of acreage and habitat function: native vegetative habitat. (California prairie is native vegetative habitat.)

CO-70. Community Plans, Specific Plans, and Master Plans, and development projects shall include the location, extent, proximity, and diversity of existing natural habitats and special status species in order to determine potential impacts, necessary mitigation and opportunities for preservation and restoration.

Most significantly not included among the 32 Sacramento County General Plan policies cited in these pages, however, is the following one perhaps most relevant of them all to Cordova Hills:

CO-135. Protect the ecological integrity of California Prairie habitat.

Since that is unquestionably the actual dominant habitat at Cordova Hills (Burcham 1957, p. 80; Shelford 1963, pp. 354-355; Keeler-Wolf et al. 2007, p. 22; Lulow & Young 2009), the proposed development project there would be a clear and utterly unmitigated violation of this Sacramento County General Plan policy. Cordova Hills is over 2,600 acres of the finest quality California Prairie habitat and is among the largest and most pristine areas of this habitat in Sacramento County. It is exactly what CO-135 intends to protect.

Consequently it violates the major goal outlined in the Conservation Element of the General Plan of management and protection of natural resources for the use and enjoyment of present and future generations while maintaining the long-term ecological health and balance of the environment.

Response 2-6

The term California Prairie and the relevant policy were not included due to some internal staff confusion over this policy, which was adopted two months prior to the release of the Project DEIR. Most documentation of habitats in the Sacramento Valley refers to the habitat assemblage known as Valley Grassland³, including the anticipated draft South Sacramento Habitat Conservation Plan; these same sources document that the dominant species within the grasslands are non-native, not native. It was assumed that the term California Prairie referred to a different type of grassland habitat than the term Valley Grassland, so the policy was excluded. Further investigation found that usage of the term California Prairie exists within published literature, but that it is not broadly used, and thus has no generally-recognized scientific definition. Examining the administrative record on the 2030 General Plan indicates that when the new policy was originally drafted, it was simply intended to apply to grasslands in general. Thus, the EIR has been revised to include the policy.

³ D'Antonio, et. al., Ecology and Restoration of California Grasslands with special emphasis on the influence of fire and grazing on native grassland species, page 5: "The California grassland has long been divided into two major community types, the Coastal Prairie and the Valley Grassland."

Though the term California Prairie was not used in the DEIR and the policy was excluded, it should be emphasized that the EIR does in fact analyze the impacts of the project on the ecological integrity of grassland habitats – which is to say, on the ability of the grassland habitat to support special status species reliant on that habitat. Furthermore, the Cumulative and Growth Inducing Impacts chapter specifically discusses cumulative grassland loss in the eastern County, and describes that impact as significant. Mitigation is also included for the loss of grassland habitat. The only thing absent from the EIR is the usage of the term “California Prairie”; the impact to grassland habitats has been properly assessed.

Comment 2-7

The United States Fish and Wildlife Service Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon to achieve self-sustaining populations of many species which rely on vernal pools identifies Cordova Hills as part one of its highest priority core areas vital to achieving the plan’s goals (Page 6-26). Despite this the project proposes to eliminate 46% wetlands and 33% vernal pools at Cordova Hills (Page 6-28). Such deliberate destruction of these vital wetlands would be an unconscionable environmental crime exacerbated by the project’s dubious economic prospects.

Despite DEIR discussion of mitigating this net loss, loss of vernal pools especially is essentially unmitigatable because they require specific intact soil profiles with permanent aquaculdes to pond water and thus function (Ferren & Gevirtz 1990; Leidy & White 1998). The typical mitigation project of creating artificial vernal pools is also usually done in natural California prairie landscapes. Since such construction of artificial vernal pools violates the ecological integrity of these prairie landscapes it is in direct conflict with Sacramento County General Plan policy CO-135.

Response 2-7

The Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon (Recovery Plan) is cited on page 6-28 of the EIR, and it is disclosed that the Project lies within an area designated as vital to achieve the goals of the Recovery Plan. Although mitigation is included to reduce project impacts, the EIR found that “given the extent of wetland loss (46% of the wetlands on the site) and the fact that this is in a Rank 1 Vernal Pool Recovery Plan area the mitigation is not sufficient to reduce impacts.” Loss of wetland habitat was identified as a significant unavoidable impact of the Project.

Vernal pools are a functional part of grassland habitats in the County and in much of the Central Valley, and thus the inclusion of created vernal pools in grasslands – which are typically completed under the guidance of the Fish and Wildlife Service – does not degrade the ecological integrity of grasslands. The re-creation of vernal pools has long been required by the U.S. Army Corps of Engineers and U.S. Fish and Wildlife Service as a manner of providing compensatory mitigation for lost vernal pools, with monitoring periods and success criteria that must be satisfied. In fact, created vernal pools are noted as a recovery strategy in the U.S. Fish and Wildlife Service’s Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon.

Comment 2-8

Special status species sections of the DEIR contain numerous errors of fact and interpretation. These errors do not appear to be accidental or random since they consistently minimize the impact of the proposed project on these species. Random errors are expected to be a mixture of those maximizing and minimizing impact. Examples of such errors are:

1. On Page 6-33 Ferruginous Hawk is listed as having moderate potential for occurrence on the site because “the nearest recorded occurrence is just under 6 miles west of the site.” It is well known that the recorded occurrence grid for this and several other highly vagile species is very incomplete. Consequently they must be assumed to at least occasionally use all available good habitat within their range. Since that includes all the Cordova Hills site (Small 1994, Wheeler 2003), Ferruginous Hawks have high rather than moderate potential for occurrence there.
2. On Page 6-33 Golden Eagle is listed as having moderate potential for occurrence on the site because “there are no recorded occurrences of this species within ten miles” although it is acknowledged that the species “could forage on the grassland of the site.” This is another vagile species with a very incomplete occurrence grid. Consequently they must be assumed to at least occasionally use all available good habitat within their range. Since that includes all the Cordova Hills site (Small 1994, Wheeler 2003), Golden Eagles have high rather than moderate potential for occurrence there.

Response 2-8

This is a suite of comments which takes issue with Table BR-3 of the EIR (“Special Status Species Matrix”). The reasoning behind the potential for occurrence designations is explained in the text preceding the table, and the probability of occurrence for the ferruginous hawk and golden eagle is consistent with this reasoning. The table simply provides a quick reference of all species considered, and provides a means of describing the available data for each of the species. If habitat was present but no recorded sightings occurred within five miles, the potential was “moderate” and if sightings had occurred within five miles, the potential was “high”. A rating of “high potential” versus a rating of “moderate potential” makes no difference to the subsequent analysis; all species with at least a moderate potential for occurrence are analyzed, because habitat is present for all such species. Presence of an occurrence on the CNDDDB was *not* used as the sole means to determine whether an analysis was warranted, as it was clearly stated that both lack of CNDDDB occurrence *and* lack of adequate on-site habitat must be confirmed before a discussion of the species would be excluded.

CEQA does not require the data used in an EIR to be exact, and an EIR may rely upon informed estimates. Use of an industry-standard approach for assessing an impact is also appropriate. (See, *Eureka Citizens for Responsible Government v. City of Eureka* (2007) 147 Cal.App.4th 357, 54 Cal.Rptr.3d 485. Reasonable assumptions may also be used in the impact analysis. See, *State Water Resources Control Board Cases* (2006) 136 Cal.App.4th 674, 39 Cal.Rptr.3d 189. The CNDDDB is commonly used as a database for the preparation of environmental documents. Like any database, it has its limitations (as noted by the commenter) and – to repeat – was not the sole source of the biological resources information used to prepare the Draft EIR for the Cordova Hills Project. There were also a number of site-specific biological surveys performed by

professional biologists, and a review of site habitat. Taken together, these data sources demonstrate that a good faith effort was made by the preparers of the Draft EIR to provide accurate and sufficient information to examine the proposed Project's impacts to biological resources. Please see the sources listed in the Draft EIR at Pages 19-1 to 19-9 and the Draft EIR Appendices BR-1, BR-2, BR-3 and BR-4.

Comment 2-9

3. On Page 6-33 Grasshopper Sparrow is listed as having moderate potential for occurrence despite being recorded "2.5 miles east of the site [which] contains potential foraging and nesting habitat." The DEIR thus violates its own criteria for high potential, which Page 6-31 gives as "Habitat is present and the species has been observed within five miles of the site." The DEIR emphasizes the site's lack of shrubs in an apparent attempt to minimize its habitat value for Grasshopper Sparrows, but they don't require habitat with shrubs (Small 1994). Their nests that I've personally seen were in areas completely lacking shrubs.

Response 2-9

The comment is correct that the "moderate" designation is an error, and should indicate "high". The correction has been made in the FEIR. As discussed in Response 2-8, this change has no effect on the discussion for the species, because the table was simply a means of displaying the habitat and occurrence data for each species examined, and an analysis was provided regardless of whether the potential was designated as "high" or "moderate".

Comment 2-10

4. On Page 6-34 Loggerhead Shrike is listed as having low potential for occurrence even though "the site contains foraging habitat" and "The nearest recorded occurrence is just over three miles to the west." Thus by the DEIR's own criteria given on Page 6-31 Loggerhead Shrike has high rather than low potential to occur on the site.

Response 2-10

The designation of "low potential" accurately reflects the data available for the species, and is consistent with the definitions described prior to the table. Page 6-30 of the Biological Resources chapter indicates that if the species is listed for loss of a particular habitat then the likelihood of occurrence will be based specifically on that habitat type. The loggerhead shrike is listed specifically for loss of breeding habitat. The California Department of Fish and Game Life History Account (links to these are provided at the end of Table BR-3 in the DEIR) indicate that the species breeds in shrublands or open woodlands, neither of which habitat is present on the site.

Comment 2-11

5. On Page 6-34 Northern Harrier is listed as having moderate potential for occurrence on the site because “no occurrences are recorded within ten miles” even though it is acknowledged that “foraging habitat is present on the site.” This is another vagile species with a very incomplete occurrence grid, but in suitable habitat like Cordova Hills it is seasonally abundant in Sacramento County (Bell et al. 1983). The DEIR emphasizes that the site lacks shrubs sometimes used by the species for nesting, but their use is only occasional since they often nest directly on the ground (Wheeler 2003). Since Cordova Hills is excellent habitat for Northern Harriers, their potential for occurrence there is high rather than moderate.

Response 2-11

Subsequent to DEIR release Environmental Review was made aware that northern harrier had been observed flying over the site. On this basis, the relevant section within Table BR-3 of the EIR has been changed from “moderate potential” to “high potential”. As discussed in Response 2-8, this change makes no difference to the actual analysis of the Project’s impacts to the species. Though northern harriers rarely nest within the Central Valley (refer to DEIR page 6-50) and the site nesting habitat is not optimal, the species has been added to the required raptor nesting surveys, in order to address the commenter’s apparent concerns.

Comment 2-12

6. On Page 6-34 American Badger is listed as having low potential for occurrence on the site for no apparent reason. Once again the DEIR violates its own criteria since Page 6-34 states that this species occurs in “grasslands” and “The nearest recorded occurrence is approximately 2.5 miles to the west.” According to Page 6-1 of the DEIR “grassland” is the site’s “dominant vegetation type”, and according to Page 6-31 species like American Badger for which “Habitat is present” that have “been observed within five miles of the site” have high, not low, potential for occurrence.

Response 2-12

The CNDDB occurrence listed in this comment as being 2.5 miles is noted within the CNDDB as “extirpated”, because the area was developed with residential uses. The nearest extant occurrence is more than five miles away. The American badger requires friable soils for denning; friable soils are those that break or crumble easily when handled. Dens are used on a more long-term basis for breeding, but according to the California Department of Fish and Game Life History Account for the species, they are also used in the short-term for cover – in the summer, some badgers have been observed digging a new den every night. This makes the presence of friable soils a critical habitat component. The species also prefers areas without steep topographic variation. Based on the Soil Survey of Sacramento County, the majority of site soils have a shallow hard-pan layer – which is not friable. For instance, the soils on the eastern plateau are mainly the Redding soil series, which are described as friable only up to a depth of 20 inches, after which the hardpan is usually present. This is very shallow for an animal the size of an adult badger (up to 40 pounds and, particularly when accounting for the nesting chamber necessary for the rearing of young. Areas where deeper friable soils are present on the site are located in the areas of greatest steepness, right along the margins of the deeply incised channels on the site. Soil

conditions are described in the Biological Resources chapter and in the Geology and Soils chapter.

Comment 2-13

7. On Page 6-38 Tuolumne Button-celery (*Eryngium pinnatisectum*) is listed as “Not Present” for no apparent reason. Since it is known to occur in vernal pools and in Sacramento County (Tibor 2001), its potential to occur at Cordova Hills is at least moderate and probably is high.

Response 2-13

Table BR-3 of the DEIR clearly states that the suitable habitat for Tuolumne button-celery is “mesic areas [seasonal wetland areas] within cismontane [foothills] woodland and lower montane [lower elevation mountains] coniferous forests”. The species can be found within vernal pools, but it is found within vernal pools in the above types of vegetative habitats. The site is clearly neither cismontane nor lower montane coniferous forest. There is a single occurrence of the species in Sacramento County, as noted in this comment, and it occurs near the eastern County line in the woodlands of the lower foothills.

Comment 2-14

8. On Pages 6-38 – 6-39 five rare vernal pool annual plants Dwarf Downingia, Bogg’s Lake Hedge Hyssop, Ahart’s Dwarf Rush, Pincushion Navarretia, and Slender Orcutt Grass are listed as not present at Cordova Hills because plant surveys didn’t find them. Such vernal pool annuals may not appear every year, however, even though they are present as seeds undetectable by standard plant surveys (Holland & Jain 1981). One such California annual, although not a vernal pool species, apparently survived exclusively as seeds for 102 years. Long thought extinct, it was rediscovered when its seeds finally germinated (McCune 2005). Many other examples of such rediscoveries are known in California although the duration of their presumed extinction is usually not a century long (Tibor 2001). In all such cases soil profiles have remained intact so seeds could germinate when conditions were favorable. There is at least some potential that any or all of the five rare vernal pool annuals not found by Cordova Hills plant surveys may exist there as seeds. As long as the site’s natural soil conditions are intact they might reappear at any time. The project’s proposal to destroy 33% of the site’s vernal pools significantly diminishes this possibility.

Response 2-14

The rare plant surveys were performed consistent with the guidelines established by the United States Fish and Wildlife Service, California Department of Fish and Game, and the commenter’s group, the California Native Plant Society. This included an examination of reference populations nearby the Project site, to ensure that the reference populations were in bloom at the time the on-site surveys were conducted. The EIR does conclude that wetland impacts, the habitat on which the listed rare plants are reliant, are significant and unavoidable despite mitigation.

Comment 2-15

9. On Pages 6-43 – 6-45 & 6-51 mitigation for Swainson’s Hawk habitat loss is discussed in a mishmash of statements. Some are quite strange like the claim on 6-43 that proposed avoided areas “will be connected to thousands of acres of open space to the north and west.” That conveniently ignores the likelihood of growth inducement by the proposed project that would encourage elimination of this open space.

Response 2-15

The impact of the Project to biological resources should be assessed by comparing the existing plus project condition to the existing condition. In the existing plus project condition, the lands to the north and west of the Project site are open grassland habitat, and thus the Project avoided areas would remain connected to open habitat. Certainly these lands are all within the Urban Services Boundary, and it is presumed that at some future time which is unknown these lands may develop. However, it is speculative to determine when such a future project would occur, and if it did, where and how that future project would develop. That being the case, it is also speculative to draw conclusions about the affect of such a project on the Cordova Hills avoided areas, since the impact would depend on the design of the future project (e.g. does it include preserves, and of what size, and where). Moreover, any impact would be the impact of that future project, not the impact of Cordova Hills. See, CEQA Guideline Section 15144; *Environmental Council of Sacramento v. City of Sacramento* (2006) 142 Cal.App.4th 1018, 48 Cal.Rptr.3d 544; *Save Round Valley Alliance v. County of Inyo* (2007) 157 Cal.App.4th 1437, 70 Cal.Rptr.3d 59.

Comment 2-16

The many potential mitigation measures discussed on 6-44 – 6-45 promise or propose nothing specific. On 6-45, for example, it is stated that “Projects impacting 40 acres or more of foraging habitat must provide land acceptable to CDFG and County.” The proposed project would clearly impact far more than 40 acres but makes no commitment to provide any land at all.

Response 2-16

The County Code referenced in the mitigation clearly indicates that projects impacting more than 40 acres cannot use the fee payment option, and must dedicate land. Mitigation Measure BR-4 also clearly indicates the amount of land which must be mitigated by land dedication (far more than 40 acres), and indicates that mitigation must be provided prior to recordation of the final map or approval of either building permits or improvement plans (whichever occurs first). In short, land dedication is explicitly required in the mitigation.

Comment 2-17

10. On Page 6-48 a “Fish and Game Life History Account” is listed as a source but not referenced in the DEIR’s bibliography. That may be another careless oversight or deliberate avoidance of sometimes inconvenient information from this source (Zeiner et al. 1990). For example the claim that “since [Ferruginous and Swainson’s hawks] use the same habitats, additional mitigation is unnecessary” is unsupported by either the source or the DEIR. Swainson’s Hawks primarily use cropland while Ferruginous Hawks mostly use rangeland (Zeiner et al. 1990), and the DEIR proposes no specific mitigation for destroying habitat of either species. The DEIR particularly emphasizes a brief and apparently casual statement in Zeiner et al. that Ferruginous Hawks successfully compete with Swainson’s Hawks to clearly imply they threaten them. If this occurs, it is likely very insignificant since in California Swainson’s are mostly present only in summer and confined to cropland while Ferruginous are present only in winter and confined to rangeland (Small 1944), and such interaction is unmentioned in modern surveys of western raptors like Wheeler’s (2003). Since Cordova Hills is significant as one of the largest remaining intact tracts of ideal wintering habitat for rare Ferruginous Hawks in the region, the DEIR’s claim that “The Development of the Project site would not result in substantial negative effects to the sustainability of the species and thus impacts to ferruginous hawk habitat are *less than significant*” is patently absurd.

Response 2-17

Links to the Life History Accounts published by the California Department of Fish and Game were provided in the DEIR at the foot of Table BR-3, and thereafter are simply referenced in the discussions as “the Life History Account for the species”. In the case of the Project site the two species do, in fact, use the same habitat – and it is the Project site under discussion, not a site with cropland habitat. Mitigation Measure BR-4, which requires mitigation for loss of Swainson’s hawk foraging habitat, explicitly states that dedication land must be grassland or a similar open habitat. This statement is included specifically because the grassland on the site provides habitat for other species – such as ferruginous hawk – and should be replaced with like habitat. Page 4-48 of the DEIR accurately summarizes the basic information within the Life History Account published by Fish and Game for the species. The summary includes a single sentence indicating that the species “has a tendency to displace red-tailed hawks and Swainson’s hawks” – no particular emphasis has been placed on this information.

Comment 2-18

11. Also on Page 6-48 the DEIR even more blatantly misrepresents the Golden Eagle life history account in Zeiner et al. (1990) than that of Ferruginous Hawk. The DEIR states Zeiner et al. says Golden Eagle “does not occur in the center of the Central Valley.” What it actually says is Golden Eagles don’t permanently reside in or migrate through that area. It makes quite clear, however, that they forage there in winter at places like Cordova Hills (Zeiner et al. 1990), a widely recognized fact (Wheeler 2003) even the DEIR acknowledges. Its claims that “mitigation for the golden eagle is unnecessary” because “Mitigation for foraging habitat loss has already been required as part of Swainson’s hawk impacts” and “The development of the project site would not result in substantial negative effects to the sustainability of the species, and thus impacts to golden eagle habitat are *less than significant*” are once again absurd since Golden Eagles and Swainson’s Hawks use completely different habitat and the DEIR identifies no specific mitigation plan for either species. It also fails to even mention Rough-legged Hawk, another raptor species that, like Ferruginous Hawk and Golden Eagle, uses prairie/grassland habitat for winter foraging but is somewhat less uncommon (Bell et al. 1983). Consequently it is likely to use Cordova Hills even more frequently.

Response 2-18

Refer to Response 2-17. The Fish and Game Life History Account for the species states: “Uncommon permanent resident and migrant throughout California, except center of Central Valley”. The sentence from Fish and Game does not use the term “migrate”, which would merely imply that migratory routes do not pass through the center of the Central Valley; it uses the term “migrant”, a term which describes all golden eagles which migrate. Thus, the sentence states that while the Golden Eagle exists uncommonly in California, neither migrants nor resident golden eagles (and this captures all golden eagles) occur in the center of the Central Valley.

The site is grassland, not cropland, and mitigation requires the dedication of grassland. As stated in the DEIR, to the extent that Swainson’s hawk and golden eagle individuals may forage in the same grassland habitat on the site, mitigation for the Swainson’s hawk habitat will also mitigate any impacts to golden eagle foraging habitat. Thus, it is entirely accurate to state that the species use the same habitat on this particular site, and that mitigation is sufficient for both species; the commenter has not provided any substantial evidence which runs contrary to this finding. Rough-legged hawk is not a special status species, and this comment has provided no evidence to support including a specific discussion for this species.

Comment 2-19

12. On Pages 6-48 – 6-49 the DEIR associates another species, Grasshopper Sparrow, with Swainson's Hawk despite very different habitat requirements. Grasshopper Sparrow, a California Species of Special Concern, is the California passerine species most obligately associated with undisturbed prairie/grassland habitat, and Cordova Hills is among the largest tracts of it in central California. While the species may use shrubs while singing, the DEIR's implication that lack of shrubs at Cordova Hills reduces its habitat value for this species is incorrect (Small 1994, Shuford & Gardali 2008). Once again the DEIR claims that the proposed project won't negatively impact this species because a non-existent mitigation plan for Swainson's Hawk will protect it are completely inaccurate. Large contiguous tracts of prairie/grassland habitat like Cordova Hills are the most important Grasshopper Sparrow habitat requirement, and urbanization by projects like the one now proposed there is the greatest threat to its survival (Shuford & Gardali 2008).

Response 2-19

Refer to Response 2-17. The Project site is undoubtedly large, and California's grassland habitats are being impacted by urbanization and agriculture, but it is unclear what evidentiary basis the commenter relies upon to offer the supernumerary statement that it is "among the largest tracts" of grassland in central California. There are equally large and larger tracts even in Sacramento County, as a simple review of parcel data and aerial photographs will demonstrate. Furthermore, since mitigation for lost Swainson's hawk habitat specifies grassland or a similar open habitat, this will also mitigate for any impacts to potential grasshopper sparrow habitat.

The Fish and Game Life History Account for the species states: "In general, however, Grasshopper Sparrows in California prefer short to middle-height, moderately open grasslands with scattered shrubs." The project site does not match this description, because while it is "short to middle-height" grassland, it is very open and contains no shrubs. Thus, it is accurate to state that this may inhibit use of the site when compared to nearby areas which do contain some scattered shrubs.

Comment 2-20

13. On Page 6-49 the claim is again made that a non-existent mitigation plan for Swainson's Hawk will greatly reduce the impact of development at Cordova Hills on a California Species of Special Concern, the raptor Northern Harrier, despite DEIR acknowledgement that thousands of acres of ideal harrier habitat would be lost. Contrary to the DEIR claim such "impacts to northern harrier are *less than significant*", California Department of Fish and Game states that "The primary threats to breeding harriers are loss and degradation of nesting and foraging habitat" (Shuford & Gardali 2008).

Response 2-20

Refer to Response 2-17. As stated in the DEIR, to the extent that Swainson's hawk and northern harrier individuals may forage in the same grassland habitat on the site, mitigation for the Swainson's hawk habitat will also mitigate any impacts to northern harrier foraging habitat.

Comment 2-21

14. On Pages 6-53 – 6-54 the DEIR claims “Project impacts to western spadefoot toad are *less than significant*” because various “conservation lands” it names are preserved, but it provides no evidence Western Spadefoot actually exists at any of them. Numerous places with apparently suitable habitat lack records of Western Spadefoot, a California Species of Special Concern that requires a specific pattern of wetland and upland habitat and associated fauna to survive (Jennings & Hayes 1994). The thriving population of Western Spadefoot at Cordova Hills confirms it has these suitable conditions, but the named “conservation lands” lack its unique wetland/upland geometry or any evidence provided by the DEIR of spadefoot presence. The healthy Western Spadefoot population at Cordova Hills makes it a biological treasure of great value. Wanton destruction of that treasure would be a crime against nature.

Response 2-21

The DEIR cites the Vernal Pool Recovery Plan published by the United States Fish and Wildlife Service, which is the source for many of the conservation lands listed as being regional preserves which support western spadefoot. Western spadefoot toads have been documented at both the Gill Ranch Conservation Bank (as reported in the *California Tiger Salamander Assessment-Level Aquatic Larval Survey for Gill Ranch*) and at the Mather Regional Park (CNDDDB Occurrences 56, 167, and 396). The reasoning for the determination that impacts could be mitigated is explained in the DEIR. The comment cites Jennings and Hayes, which is in fact the same source used by the EIR preparers to develop the habitat description for the species used in the EIR (the internet link to the publication is provided at the foot of Table BR-3). Nothing in Jennings and Hayes provides information which conflicts with the information presented in the EIR.

The commenter has provided no evidence that this particular population of western spadefoot is more “healthy” or “thriving” – terms which are subjective in any case – than other populations. Even for species listed under the California or federal Endangered Species Act, protocol surveys are not required to provide detailed assessments of populations and their abundance; the purpose of a survey is simply to determine presence or absence, so that it can be determined whether mitigation is necessary.

Comment 2-22

15. On Pages 6-54 to 6-55 the DEIR acknowledges that several special status invertebrates are expected to occur in Cordova Hills wetlands. These are three Federal Special Concern Species (California Linderiella, Ricksecker’s Water Scavenger Beetle, and Midvalley Fairy Shrimp) and one Federal Threatened Species (Midvalley Fairy Shrimp). It also acknowledges that the project’s proposal to eliminate 43% of Cordova Hills wetlands providing their habitat would be a “*significant and unavoidable*” impact to them.
16. On Page 2 of BR-3 (Special Status Plant Survey Reports) the presence of common vetch at the site is mentioned but it is not included in the site plant list (Attachment C). That’s a great rarity for this DEIR, an honest mistake.

Response 2-22

Comment noted. The Cordova Hills plant list has been amended to include the common vetch.

Comment 2-23

17. On Page 6 of BR-3 it is reported that the earliest rare plant surveys started April 21, 2008, and even later in other years. Starting that late and only including a single year of any April surveys may cause species to be missed, especially in years with early heat waves like 1988 when 90 degrees was recorded on March 28 at Sacramento (The Weather Channel 2012). The latest surveys ended August 9, too early to clearly record the site's dominance by native *Holocarpha virgata*.

Response 2-23

Refer to Response 2-14. The surveys were timed to identify rare vernal pool plants, not to identify a common, native species not found in vernal pools.

Comment 2-24

18. Page 12 of BR-3 states that Tuolumne button-celery was not surveyed for because it occurs in cismontane woodland and conifer forest, which aren't present at Cordova Hills, but it also occurs in vernal pools and in Sacramento County (Tibor 2001), which makes it a potential Cordova Hills rare species that should have been surveyed for.

Response 2-24

Refer to Response 2-13. The source quoted by the commenter is simply an inventory of listed species with a very basic listing of species facts (scientific name, a bullet-list of habitats, elevations, etc), and does not include life history details and other background information. Thus, the commenter appears to have taken the bullet-list of habitats for the species (cismontane woodland, lower montane coniferous forest, vernal pools) and erroneously determined that it occurs in vernal pools as a stand-alone habitat, wherever they may be found, rather than having more accurately concluded that they occur in vernal pools *within* cismontane woodlands and lower montane coniferous forest. The vernal pools on the site are not within woodland or forest habitats, and thus the site does not include suitable habitat for the species.

While the Tuolumne button-celery was not considered a target species for Project plant surveys, the surveys were floristic in nature, and would have detected and noted Tuolumne button-celery if it was present on-site at Cordova Hills.

Comment 2-25

This chapter is a vast haystack of information about climate change that's mostly irrelevant to Cordova Hills, but hidden in that haystack are a few very relevant needles. They are:

1. On Page 7-13 there is very brief reference to the Sacramento County Climate Action Plan goals of “reductions in vehicle miles traveled” and “higher density development”. The proposed Cordova Hills development plan’s great distance from existing communities and realistic employment opportunities is in direct conflict with these goals.
2. On Pages 7-26 – 7-27 it is acknowledged the proposed project would exceed acceptable levels of greenhouse gas emissions because its isolation from existing communities would cause too many long car trips. Consequently “it is concluded that [its] impacts [on greenhouse gas emissions] are *significant and unavoidable*.” The DEIR also suggests the model determining the project would violate greenhouse gas reduction targets is biased against it in various ways, but the model is actually strongly biased in the project’s favor since it assumes a university at Cordova Hills will provide employment and reduce car trips despite lack of evidence or any prospect such a university will ever be built (see above).

Response 2-25

The primary purpose of a community-level Climate Action Plan is to address emissions from the existing built community; at this time it is the thresholds of significance that are intended to address whether or not proposed future projects are contributing their fair share of offsets. The Climate Change chapter acknowledges well-known modeling limitations, but concludes that it is unknown whether removal of those limitations would result in higher or lower VMT – it specifically states that it should *not* be assumed that it would lower impacts. The university/college campus center is part of the proposed project; it is not “bias” to analyze a project as it has been proposed.

Comment 2-26

The DEIR’s climate change chapter completely ignores an important and very relevant issue regarding its mitigation. The over 2,600 acres of natural California prairie habitat at Cordova Hills currently provides a critical ecological service of sequestering the atmospheric carbon dioxide that primarily contributes to climate change. This habitat has greater and more sustainable capacity to provide this ecological service than the better known contribution made by forests in comparable climate zones since temperate prairies, grasslands, and steppes sequester an average of 21.2 kilograms of carbon per square meter while temperate forests sequester an average of only 19.8 (Schlesinger 1991). The Cordova Hills development project proposes eliminating the critical climate change mitigation ecological service California prairie currently provides there.

Response 2-26

There is a one-time release of greenhouse gases due to permanent changes in landscapes – for instance, when a forest burns down. Areas temporarily disturbed that will eventually recover to become vegetated do not need to be counted as part of that release, nor do areas which will be avoided. There is no standardized protocol for project-level modeling of greenhouse gases in California at this time. Methodologies and significance thresholds differ between jurisdictions and between Air Quality Management Districts. Landscape-level changes in greenhouse gas emissions can be a particular challenge to model, because research on the amount of sequestration provided by certain landscape types is highly variable. For instance, this comment cites

a study identifying grassland sequestration as approximately 87 metric tons per acre (converted from 21.2 kilograms per square meter), while the California Air Pollution Control Officer's Association (CAPCOA) lists a default number of 4.31 metric tons of CO₂ accumulation per acre for grassland. This is a dramatic difference in numbers. Due to these uncertainties, including the landform sequestration potential in greenhouse gas analyses is not the part of the standard methodology used by Sacramento County, nor was it required by the Sacramento Metropolitan Air Quality Management District. Sacramento County and the Sacramento Metropolitan Air Quality Management District have indicated an interest in calculating or otherwise including the usage of individual tree planting as mitigation, and thus there was a credit given for the planting of 15,000 trees (a very conservative number). But no credit was given for the planting of shrubs or groundcover, and no greenhouse gas reduction credit was taken for the removal of the cattle from the property, despite the fact that cattle generate methane, a high global warming potential greenhouse gas.

Comment 2-27

Page 9-19 acknowledges Sacramento County General Plan policy AG-28 requires "The County shall actively encourage conservation of soil resources." That is necessary in general for implementation of policy CO-59 ensuring that mitigation occurs for any loss of native vegetative habitat and in particular for implementation of policies CO-134 to maintain and establish a diversity of native vegetative species in Sacramento County and CO-135 to protect the ecological integrity of California Prairie habitat. Cordova Hills are almost entirely California Prairie habitat and currently support a diversity of native vegetative species highly dependent on soil resources with intact and undisturbed soil profiles (Jackson et al. 2007). The proposed Cordova Hills project thus directly conflicts with Sacramento County General Plan policies AG-28, CO-59, CO-134, and CO-135 because it would eliminate over 2,000 acres of intact soils and native California Prairie vegetation.

Response 2-27

The cited policy, AG-28, is preceded by language which states that the intent of the policy is to reduce soil losses associated with tillage of light-textured soils in the Delta, which are highly susceptible to wind erosion and are prime for agricultural use. The Project is not in the Delta, and does not contain light-textured soils. The policy should not have been included in the DEIR for that reason and has been stricken in the FEIR. Mitigation for habitat on the site has been provided; refer to the Biological Resources chapter. Also refer to Response 2-6. The Project does not "conflict" with the General Plan policies listed, because appropriate mitigation has been provided.

Comment 2-28

This chapter attempts to spin the unspinnable fact that the proposed Cordova Hills project is the opposite of smart growth and violates numerous policies encouraging it. Among them are the following Sacramento County General Plan policies:

1. LU-1 (P. 12-2) – “The County shall not provide urban services beyond the Urban Policy Area.” The proposed project is beyond the Urban Policy Area.
2. LU-12 (P. 12-2) – “The County will prohibit land use projects which are not contiguous to the existing UPA, city boundaries, or existing planned communities or master plan areas (i.e. leapfrog development.” The proposed project is a textbook example of leapfrog development.
3. LU-21 (Pp. 12-2 – 12-3) – “Promote a better balance of employment, neighborhood services, and different housing types by reviewing development projects and the surrounding community and designing new projects wherever feasible so that they maintain or improve the mix of uses in the community.” The proposed project has no surrounding community and depends for employment on a hypothetical university with no realistic prospect of ever existing.
4. LU-22 (P. 12-3) – “Specific Plans and Community Plans should provide a balance of employment, neighborhood services, and different housing types wherever feasible.” The proposed project’s Specific Plan depends on a hypothetical university with no realistic prospect of ever existing for employment.
5. LU-113 (P. 12-4) – The County shall work with SACOG to support implementation of Blueprint’s policies and land use objectives.” The proposed project massively conflicts with those objectives.

Response 2-28

All of the land use policies described in these comments were considered in the analysis of the Project. These comments are one-line statements indicating the commenter’s opinion about the Project’s interface with these policies. The comments do not provide any discussion indicating how or where the DEIR is deficient with regard to these. In fact, the comment on LU-113 states that the Project conflicts with the Blueprint – which is precisely the conclusion drawn in the DEIR. The statements are unsubstantiated, do not always even disagree with the DEIR, and the Land Use chapter provides substantiated analysis of the policies. Comment noted.

Comment 2-29

6. LU -120 (Pp. 12-4 – 12-5) – “The County shall only consider approval of a proposed UPA expansion and/or Master Plan outside the UPA if the Board finds that the proposed project is planned and will be built in a manner that: meets all the requirements per PC-1 through PC-10 and; meets one of two alternative performance metrics.” The proposed project meets neither all the requirements nor the performance metrics. Among requirements not met are:
7. PC-6 (P. 12-7) – “Inclusion of an infrastructure Master Plan and Financing Plan [is required].” While such a plan is provided, its assumptions are unrealistic as discussed below.
8. PC-8 (P. 12-8) – “Consistency with all applicable County adopted plans not sought to be amended by the proposed project [is required].” The proposed project is inconsistent with numerous elements of the adopted Sacramento County General Plan as discussed in these comments.
9. PC-9 (P. 12-8) – “Inclusion of a discussion/analysis of how the proposed UPA expansion/Master Plan relates to broad-based and regional planning efforts, such as SACOG’s adopted Blueprint Vision and Metropolitan Transportation Plan, Sacramento County’s Visioning documents created for the Jackson Highway and Grant Line East Areas, any applicable Habitat Conservation Plan(s), The Sacramento Metropolitan Air Quality Management District’s State Implementation Plan, and Regional Transit’s Master Plan [is required].” While discussion/analysis of how the proposed UPA expansion relates to these broad-based regional planning efforts is present, it clearly shows it violates their spirit and letter as is discussed elsewhere in these comments.
10. PC-10 (P. 12-8) – “Inclusion of a discussion/analysis of the proposed UPA expansion/Master Plan’s jobs-housing balance [is required]. Master Plans should provide an internal jobs-housing balance and/or improve jobs-housing balance within the project’s vicinity.” The proposed UPA expansion depends for jobs on a hypothetical university with no realistic prospect of ever actually existing.

Response 2-29

Project impacts related to this policy are described beginning on page 12-32 of the DEIR. The policy states that it is up to the Board of Supervisors to make a finding of consistency or inconsistency. The DEIR provides the Planning section’s analysis of the Project in light of this policy, which concludes that the Board could find the Project is consistent. Responses from the Planning section are provided in bulleted form:

- PC-6: The policy requires an Infrastructure Financing Plan, which has been provided. The Cordova Hills Financing Plan, including associated assumptions, was subject to an extensive review by several county and non county staff. This effort was coordinated by the Infrastructure Financing Services of County’s Building and Code Enforcement Department. This comment provides no supporting evidence for the alleged deficiency.
- PC-8: The Project has been designed to be consistent with adopted infrastructure master plans. The Cordova Hills application includes several General Plan Amendment entitlements to bring the project into compliance with the adopted General Plan including amendments to the Urban Policy Area, Land Use Diagram, Transportation Diagram and Bikeways Master Plan. This comment provides no supporting evidence for the alleged inaccurate assumptions, nor does it identify the specific inaccurate assumptions.

- PC-9: The policy language requires such a discussion, but does not require any particular conclusion. A discussion has been provided; this criteria has been satisfied.
- PC-10: The Draft EIR, Appendix TR-1, Table 1 - Projected Land Use (page 152) identifies the 4,633 employees projected in Cordova Hills in addition to the 2,036 employees projected at the university/college campus center for a total of 6,669 employees. Thus, the majority of jobs are not affiliated with the university/college campus center. The non-university jobs include retail, business professional, public services, and schools. Minus the university site, the Cordova Hills Land Use Plan designates over one million square feet of commercial and office uses. Jobs will also be created following the establishment of the Cordova Hills Community Services District or County Services Area and construction of school sites. There is also an abundance of jobs within a five mile radius of Cordova Hills which includes the employment center along Highway 50 corridor in Rancho Cordova.

Comment 2-30

11. In Alternative #1 Criteria-based performance metrics the DEIR uses to justify a proposed UPA expansion increase desirable densification by counting group quarters at this entirely unrealistic hypothetical university (P. 12-10).

Response 2-30

Comment noted. The university/college campus center is part of the proposed Project, and must be analyzed as such – it should not be treated as being any more hypothetical than any other use in a long-term master plan.

Comment 2-31

12. In Alternative #1 Criteria-based performance metrics “Planned transit service shall be defined as service identified in SACOG’s Metropolitan Transportation Plan (MTP), Regional Transit’s (RT) Short Range Transit Plan (S RTP), and/or service to be provided as part of the Master Plan and funded via a secure financial mechanism (example: CSA 10; North Natomas TMA/developer fees). The MTP has a 20+ year planning horizon and is updated every four years; the S RTP has a 10-year planning horizon and is updated every year. Both the MTP and S RTP must be “financially constrained” in that only transportation projects and programs for which funding is reasonably expected to be available may be included in the plan. Therefore there is high likelihood that transit service identified in these plans will ultimately be provided. Service to be provided as part of a Master Plan and funded via a secure financial mechanism would provide similar assurances that identified service will ultimately be provided. In contrast transit service envisioned in RT’s long range TransitAction Plan cannot be implemented until a significant new revenue source is secured, making such service far more speculative. For example, a new ½ cent sales tax increase would only partially fund transit service envisioned in the TransitAction Plan. Therefore, service(s) identified in the TransitAction Plan and similar visioning documents will not be considered.” As discussed elsewhere in these comments, financing for transit and other services for the proposed project are hypothetical, highly speculative, and ultimately infeasible.

Response 2-31

The Draft EIR passage cited in the comment clearly states that the performance metrics consider “services provided as part of the Master Plan and funded via a secure financial mechanism” (example CSA 10; North Natomas TMA Developer fees). The Cordova Hills Master Plan includes a lengthy description of just such a transit service and finance mechanism. The planned Cordova Hills transit service does not rely on the MTP or Regional Transit Short Range Transit Plan or RT’s Long Range Transit Plan for implementation. As an example, the Draft EIR mentioned the North Natomas TMA as a transit system that is locally funded and does not depend on the SACOG or RT plans for funding. It is not speculative or infeasible to utilize a similar system at Cordova Hills. The comment does not substantiate the alleged deficiency. The appropriate County departments and agencies, including the Infrastructure Finance Section, have thoroughly vetted the adequacy of the Infrastructure Master Plans and the Financing Plan. Consideration and ultimate approval of these plans by the Board of Supervisors will be made with the input and recommendation of the appropriate agencies and departments. Commenter has not provided any substantial evidence that any specific assumptions used in those plans were unrealistic or inaccurate.

Comment 2-32

13. In Alternative #1 Criteria-based performance metrics (P.12-14) “Analysis of existing employment/jobs within a five mile radius of the proposed UPA/Master Plan boundary [is required].” Such employment/jobs are essentially non-existent at Cordova Hills.

Response 2-32

This statement is unsubstantiated. The Draft EIR, Appendix TR-1, Table 1 – Projected Land Use (page 152) identifies the 4,633 employees projected in Cordova Hills in

addition to the 2,036 employees projected at the university/college campus center for a total of 6,669 employees. Also see Response 2-29. Comment noted.

Comment 2-33

14. Low Vehicle Miles Travelled (VMT)/Greenhouse Gas (GHG) Emission metrics are Alternative #2 performance metrics (Pp. 12-14 – 12-15), but the DEIR's climate change chapter determined the proposed project's VMT and GHG are "*significant and unavoidable*" impacts on climate change (P. 7-26).

Response 2-33

Consistency with PC-1 through PC-10 is mandatory, after which an applicant must be consistent with Alternative criteria #1 or Alternative criteria #2. The applicant chose to use Alternative #1, and the Planning section reviewed the Project on that basis. Alternative #2 performance metrics are therefore not applicable to the project.

Comment 2-34

15. Sacramento County General Plan Policy LU-123 (P. 12-15) requires that "Before granting approval of an amendment to the Land Use Diagram, the Board of Supervisors shall find that the request is consistent with the objectives and policies of the General Plan; the request is consistent with the goals and objectives of a Sacramento County adopted Habitat Conservation Plan; approval of the proposal will not adversely affect the fiscal resources of the County; [and] the project will be consistent with the performance standards in this Plan and, for urban uses in urban growth areas, the project complies with the requirements of LU-13." The proposed plan violates this plan because it is inconsistent with numerous other Sacramento County General Plan policies, there is no adopted Habitat Conservation Plan and it would be inconsistent with the goals and objectives of one if it were adopted, fiscal resources of the County would be adversely affected as discussed below, and financial aspects of LU-13 are not adequately complied with as discussed below.

Response 2-34

Refer to Response 2-27, Response 2-28, and Response 2-29. The General Plan policy does not require an approved HCP to be in existence before an amendment to the General Plan's Land Use Diagram can be approved, it merely indicates that a project must be consistent with any existing plans. It is entirely speculative to declare that the Project would be inconsistent with an HCP after having just stated (correctly) that an HCP doesn't exist. The comment claims inadequacies in the financial analysis and numerous policy inconsistencies, but does not specifically identify any particular inadequacy.

Comment 2-35

The proposed Cordova Hills project also directly conflicts with the Sacramento Area Council of Governments (SACOG) Blueprint since it violates at least two of its seven core principles (Pages 12-15, 12-16):

1. Principle 5 is “strengthen and direct development toward existing communities.” The project directs it away from existing communities toward open space.
2. Principle 7 is “preserve open space, farmland, natural beauty, and critical environmental areas. The project is proposed to be sited entirely on open space of great natural beauty and critical environmental importance.

“The ultimate purpose of the ‘smart growth’ concept supported by the principles is sustainable communities, and is a reaction to the recognized health and safety impacts of urban sprawl and vehicle-centric development strategies.” The latter describes the proposed project, which is definitely not smart growth since that “must be consistent with all seven principles” (P. 12-17).

On Page 12-18 the concept of developing in existing communities is explained as follows:

“Directing development toward existing communities is accomplished by building on infill land and urban brownfields before developing greenfields, building on greenfields only after the prime infill and brownfield land is developed and developing greenfields in a logical and phased progression beginning in those areas nearest to existing urban lands.” Much Sacramento infill and brownfield land has not been developed, and the project proposes building on greenfields distant and isolated from existing urban lands (P. 12-30).

Page 12-19 states that the purpose of preserving open space in Principle 7 is to “ensure that a project preserves the most sensitive and prime resources within the area. This is partly accomplished through principle 5, which directs development toward existing communities.” Not only does the project not direct development toward existing communities, even its own inadequate environmental analysis acknowledges it will eliminate 43% of its environmentally critical wetlands. Its even more extensive critical uplands are entirely written off and ignored by being falsely labeled non-native annual grassland (see above)

On Page 12-20 the DEIR acknowledges that “Based on the CEQA guidelines, a land use impact is significant if Project implementation results in ...Substantial conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project.” These comments identify numerous examples of such conflicts.

Response 2-35

These comments do not appear to disagree with the analysis in the DEIR, but instead emphasize that the Project is inconsistent with Blueprint policies five and seven and that this is a significant land use impact. With regard to grasslands, refer to Response 2-5.

Comment 2-36

Other conflicts arise from the DEIR's internal contradictions. For example in reference to Swainson's Hawks P. 6-43 states "On the basis of the above research, the 298-acre Avoided Area on the western side of the site, plus two adjacent Avoided Areas to the north and south, will remain suitable habitat; this collective area is 382 acres, which will be connected to thousands of acres of open space to the north and west" while P. 12-24 states that "Although the land to the west of the Project is currently undeveloped open space, some of this area has land use entitlements and is likely to develop in the near-term." In other words the DEIR wants it both ways. The land to the west is long term open space when the goal is expanding Swainson's Hawk habitat but soon to be developed urban land when the goal is adjacency to other communities.

Response 2-36

There is no inconsistency between the cited sections. One section states that the onsite preserve will be connected to open space to the north and west, and the second section states that "*some* of the land to the west" (emphasis added) includes urban land use entitlements. A *portion* of lands to the west are the subject of an approved master plan (the Sunridge Specific Plan), while many other thousands of acres within the limits of the City of Rancho Cordova are not. The portion of land with the approved master plan is across from North Loop Road, while the land to the west which interfaces with the Project avoided area is not the subject of an approved master plan. Furthermore, Page 6-43 is focused on describing existing plus Project conditions as it relates to the Swainson's hawk, not cumulative conditions. In the existing condition, land to the north and west is largely undeveloped. It is also worth noting that there is connectivity to the Kiefer Landfill preserve areas, and that this direct connectivity links the onsite open space with large tracts of grassland and cropland outside of the Urban Services Boundary. Additional clarifying language, which mirrors this response, has been added to the FEIR discussion of Swainson's hawk.

Comment 2-37

On Page 12-26 it is acknowledged that "the [SACOG] Blueprint should be city-centric, focusing growth within the confines of incorporated city boundaries as a logical buildout from existing urban areas...on this basis the Project goes beyond the level of development assumed outside the city areas by the year 2050." Could there be any more explicit violation of the Blueprint? The same page states "The Project...includes a mass transit system operated by the Cordova Hills Community Services District." A reasonable person might think that means a significant mass transportation connection to Sacramento, but no. Page 16-82 makes it clear that "Since there are no plans to expand services to the Project site, it must be assumed that extension of existing transit to the Project area will not occur."

Response 2-37

The beginning of this comment appears to agree with Project analysis with regard to the Blueprint, but then discusses the planned transit system and misconstrues DEIR analysis by citing a section out of context. Sacramento Regional Transit District (Regional Transit) has no plans to extend existing service to the Project, but the Cordova Hills planned transit system, as described in multiple chapters of the DEIR (predominantly in the Traffic and Circulation chapter), will be coordinated with the Regional Transit Gold Line and will connect to the Mather/Mills light rail station.

Comment 2-38

Page 12-28 makes much of planned bicycle and pedestrian paths that “will make non-automotive routes the most direct line of travel in many cases.” An important question is travel to where? The plan is designed around a theoretical university with no realistic prospects of ever being built. Consequently what the project proposes are pedestrian and bicycle paths to nowhere. On the same page the DEIR claims this imaginary university will increase the project’s density and thus its “compact building and community design.”

Response 2-38

This comment seems to assume that all non-automotive travel would be going to the university/college campus center, rather than to the parks, elementary schools, restaurants, and adjacent neighborhoods that make up the bulk of travel in most communities. The university/college campus center is certainly a unique use in the proposed Project, but it is in the southwestern corner of the site, and is hardly the hub of the pedestrian and bicycle network. The pedestrian and bicycle network is an integral part of the proposal regardless of the university/college campus center. One hundred percent (100%) of all homes will be within ¼-mile of a park, paseo or open space corridor; 94% of all homes will be within ½-mile of a transit stop; 87% of all homes will be within ½-mile of a school; and 84% of all homes will be within ½-mile of a commercial service center. The university/college campus center is part of the proposed Project, and must be analyzed as such – it should not be treated as being any more hypothetical than any other use in a long-term master plan. The presence of student dormitories does increase the density of the Project.

Comment 2-39

On Page 12-29 the DEIR acknowledges that the project conflicts with SACOG Blueprint principle 5 since it proposes development directed away from rather than toward existing communities. It thus violates Sacramento County General Plan policies requiring conformance with Blueprint principles. The DEIR identifies the nearest existing communities to the site as being 4 and 6 miles away.

Principle 7 of the SACOG Blueprint is preserve open space, farmland, natural beauty, and critical environmental areas. The Cordova Hills site is 2,669 acres of such open space and has outstanding natural beauty. Its wetland acreage is identified as a critical environmental area of the highest priority in the United States Fish and Wildlife Service (USFWS) Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon. Nevertheless on Page 12-31 the DEIR acknowledges the proposed plan would eliminate 44% of the site’s wetland acreage and 33% of its vernal pool acreage despite its identification by USFWS as a highest priority critical environmental area. The site’s non-wetland open space, also proposed for elimination, is native California prairie habitat of great environmental value to many native plant and animal species, some of which are discussed elsewhere in these comments. The DEIR consequently concludes correctly that “the land area preserved is insufficient to meet the intent of the principle [7], and thus with General Plan Policy.”

On Page 12-32 the DEIR further concludes correctly that “the Project’s inconsistency with this principle [5] is considered a substantial conflict with the Blueprint and with General Plan policy which supports the Blueprint. Avoidance of this impact would require substantial Project redesign and relocation. Though Alternatives have been considered which would reduce this impact, there is no mitigation available and impacts are *significant and unavoidable*.”

Response 2-39

Refer to Response 2-29 and Response 2-35. Comment noted.

Comment 2-40

On Pages 12-32 – 12-34 the DEIR claims the proposed Cordova Hills project does not conflict with Sacramento County General Plan Policy LU-120 regarding growth management based on County Planning Division decisions summarized in Tables LA-2 and LA-3. These decisions so blatantly conflict with the plain language information both internal and external to the DEIR that they provide prima facie evidence of conflict of interest on the part of the Planning Division. A kindergartener could tell coal is black, snow is white, and the proposed Cordova Hills plan isn't smart growth. It takes the willfully blind, the insane, or highly paid advocates to claim otherwise.

Some examples in Tables LA-2 and LA-3 are:

1. Contrary to claims in Table LA-2 PC-1 the DEIR clearly demonstrates the proposed project is not "integrally linked" to existing communities. It is 4 to 6 miles distant from them. In current planning documents like the SACOG Blueprint such linkage is not contemplated until at least 2050. The DEIR also makes clear no significant transit linkage with existing communities is contemplated and public utility linkage is highly problematic.
2. PC-5 is about transit-oriented design, but the proposed project has no significant transit links to employment. Its transit proposal is almost entirely internal and consequently a system to nowhere since no realistic significant employment sources are identified at Cordova Hills.
3. PC-6 is about a Financing Plan. The one provided is utterly unrealistic and impossible to implement (see below).
4. PC-7 is about a Services Plan. The one provided conflicts with a water provider and potentially other service providers and depends on infeasible funding sources (see below).
5. PC-8 is about consistency with County-adopted plans. The project claims to be consistent with all County-adopted plans. In fact these comments identify numerous conflicts with such plans. An example is Sacramento County General Plan Policy CO-135 to protect the ecological integrity of California Prairie habitat. The project site is over 2,600 acres of the habitat this policy concerns, but it isn't even mentioned in the DEIR, which does, however, acknowledge the proposed project's conflicts with the County-adopted SACOG Blueprint (see above and below).
6. PC-9 is about consideration of regional planning efforts, but even the DEIR acknowledges the proposed project substantially conflicts with SACOG Principle 5 of directing development toward instead of away from existing communities and Principle 7 of preserving open space. Contrary to project claims, it is also not coordinated with regional transit and water plans (see above and below).
7. PC-10 is consideration of jobs-housing balance. The proposed plan's claim it will provide 6,548 jobs is patently false. It will provide essentially none beyond initial construction. Jobs claims are based on an imaginary "university" with no prospects of ever existing (see above).
8. On Table LA-2 the County Planning Department assigns the proposed project "points" for LU-120 Criteria in an apparently arbitrary manner. Five points are assigned for CB-1, minimum density. Much of this density is achieved through an imaginary "university" with no prospect of ever existing (see above).
9. Criteria CB-2 is about proximity to amenities. The proposed project claims that at least four of the amenity categories are within one mile but doesn't say which. In fact all amenities are entirely theoretical and may never exist. The most significant of these is the claim of an employment amenity at an imaginary "university" with no prospect of existing. Real amenities in actually existing communities are four and six miles away (see above).

10. Criteria CB-4a is about transit proximity. Its clear intent is interconnecting the Sacramento Metro area with mass transit. The proposed project's transit element is a primarily internal system to nowhere with little realistic prospect of connecting the isolated proposed project with the rest of the Metro area (see below).
11. Criteria CB-4b is about transit headway. The proposed project says its transit system will have headways of 15 minutes or less during peak hours, but since it has no realistic destinations and goes nowhere, it will have no peak hours.
12. Criteria CB-5 is about employment proximity. Since the proposed project's "employment" is based entirely on an imaginary "university" with no prospect of existing, the nearest realistic employment is a minimum of 4 to 6 miles away in existing communities, but is likely to be much farther (see above).

Response 2-40

Refer to Response 2-29. Responses from the Planning section are provided in bulleted form, numbered in the same manner as the comment:

1. The policy language of PC-1 states that a Project must "include a vision of how the development will connect to other adjacent existing and potential future development areas within the USB, including how roadways, transit, sewer, and water could occur within all adjacent areas". The Project clearly provides all of the above documentation, as described in the appropriate topical chapters of the EIR.
2. The Project proposes a local transit shuttle system consisting of two distinct but coordinated routes: one internal and one external. The internal system will be organized in a loop within the Project, and the external system will connect to the Mather/Mills Light Rail station. A transfer hub is envisioned in the Cordova Hills Town Center; both routes will be coordinated so that they can operate as a single continuous route with no transfer required. The external transit route would depart the planned transit node located in the Cordova Hills Town Center on Chrysanthy Boulevard, head west on Chrysanthy Boulevard, north on Rancho Cordova Parkway, west on Douglas Road, northwest on Mather Boulevard, north on Whitehead Street where it becomes Mather Field Road, and a final stop at the Light Rail Station. The external transit system would provide a link to employment centers along Highway 50 corridor in Rancho Cordova. Development triggers have been identified in the Cordova Hills Development Agreement to define start up and operations features of this service. The Development Agreement also provides additional details including the timing for such services, hours and days of operation, and peak and off peak frequency of operation.
3. The Cordova Hills Financing Plan, including associated assumptions, was subject to an extensive review by several county and non county experts retained by the County. This effort was coordinated by Infrastructure Financing Section of the County's Building and Code Enforcement Department. The commenter has provided no specific evidence that the Financing Plan is inadequate or based on specific faulty assumptions.
4. The methodologies, assumptions, and general conclusions of the Cordova Hills Urban Services Plan and Governance Plan and the Fiscal Impact Report were

reviewed by several county and non-county experts retained by the County and further verified by an outside third party consultant. The commenter has provided no specific evidence that the documentation is inadequate.

5. The Project has been designed to be consistent with adopted infrastructure master plans. The Cordova Hills application includes several General Plan Amendment entitlements to bring the project into compliance with the adopted General Plan including amendments to the Urban Policy Area, Land Use Diagram, Transportation Diagram and Bikeways Master Plan. Refer to Response 2-6. The SACOG Blueprint was endorsed by the Sacramento County Board of Supervisors and is supported by the Sacramento County General Plan, but it is not a County-adopted plan.
6. Policy language of PC-9 requires “consideration of regional planning efforts”, which should include a “discussion/analysis” of how the Project relates to regional planning efforts; it does not require absolute consistency. The required analysis has been provided in the DEIR (as acknowledged in this comment) to the degree that it relates to environmental impacts, and complete policy-level analysis has been included within the staff report for the Project. Also refer to item two of this response. The Public Utilities chapter provides an analysis of the proposed water supply, which included coordination with the Sacramento County Water Agency – the entity which will supply the water. This comment fails to support the allegations of inadequacy with any supporting evidence.
7. The Cordova Hills plan will generate an estimated 6,548 jobs, and over 4,500 jobs will be non-university jobs. The non-university jobs include retail, business professional, public services (Cordova Hills CSD) and schools. Minus the university site, the Cordova Hills Land Use Plan designates over one million square feet of commercial and office uses. Jobs will also be created following the establishment of the Cordova Hills Community Services District or Community Services Area and construction of school sites. There is also an abundance of jobs within a five mile radius of Cordova Hills which includes the employment center along Highway 50 corridor in Rancho Cordova.
8. Cordova Hills achieves a density of 10.1 dwelling units per acre based upon 8,000 residential units and 1,010 university residential units. A majority of residential units proposed in Cordova Hills are non-university housing units.
9. The Cordova Hills Land Use Plan has been designed to ensure that over 90 percent of all residential units are located within one mile of the following four amenities: transit, schools, shopping and parks/paseos/recreation. Several exhibits have been prepared to illustrate one-quarter and one half mile walking radius for each of the four destination land use categories. These exhibits are included in the SPA Master Plan. These linkages are also observable on the proposed land use master plan found in the DEIR, which clearly shows the integrations of parks, commercial, and institutional uses throughout the Project.
10. Refer to item two of this response.

11. Development triggers have been identified in the Development Agreement to define start up and operations features of Cordova Hills' internal and external transit service. The Development Agreement also provides additional details including the timing for such services, hours and days of operation, and peak and off peak frequency of operation.
12. Refer to item seven of this response.

Comment 2-41

On Pages 12-34 – 12-35 the DEIR claims the proposed Cordova Hills project isn't growth inducing although its own chapter on Cumulative and Growth Inducing Impacts says it is. It justifies this by claiming to be adjacent to "existing planned communities" to its west. The operable word here is "existing" since on Pages 12-29 – 12-30 the DEIR acknowledges no such communities actually exist. On Page 6-43 the DEIR even claims this area is "thousands of acres of open space to the north and west" that can help mitigate for Swainson's Hawk habitat the project proposes eliminating. The proposed project clearly is leapfrog development and thus directly violates Sacramento County General Plan Policy LU-12 prohibiting it. As noted above, even a kindergartner can understand leapfrog development. The frog leaps over a pond (open space) to a toadstool (development) but splashes mud (growth inducement) in its path. Only the insane, willfully blind, or well-paid advocates can deny that.

Response 2-41

The reason that the Land Use chapter and the Cumulative and Growth Inducing Impacts chapter differ is explained on the cited page 12-34. The Land Use chapter narrowly focuses on the impacts of the policy language, not the overall effects of the physical Project on growth inducement. With regard to Policy LU-12, the full text of the policy requires adjacency to "city boundaries, or existing planned communities or master plan areas". Though the policy states "or", and thus the Project need only satisfy one of these, the Project satisfies all of them. The Project is adjacent to the City of Rancho Cordova Boundary, and is adjacent to the existing *planned* communities within the existing approved master plan area called the Sunridge Specific Plan. The policy does not require that a project be adjacent to an existing *built* community. Refer to Response 2-36.

Comment 2-42

On Page 12-35 the DEIR briefly discusses public services and utilities and acknowledges "the need to ensure that adequate facilities will be constructed and that funding is secured for construction." It also claims a "facilities financing plan" and "Long term funding sources have been identified for the maintenance of public services." The DEIR's Public Services Chapter reveals, however, that the proposed project's financing plan and long term funding sources are unrealistic and grossly inadequate (see below). Consequently the project violates General Plan policies LU-13, LU-66, LU-110, and LU-123 to ensure minimum standards for public services and utilities are met.

On Pages 12-35 – 12-36 the DEIR lists Sacramento County General Plan Policies LU-34, LU-35, LU-36, and LU-46 but fails to discuss their call for development compatible with a regional transit system interconnecting the Sacramento Metropolitan Area. That's presumably because the proposed development would be largely distantly isolated from such a system and almost entirely dependent on roads for access. Since the only bone it throws transit concerns is a largely internal system to

nowhere lacking significant destinations, it greatly conflicts with General Plan policies mandating development compatible with regional transit.

Response 2-42

Refer to Response 2-31 and Response 2-37.

Comment 2-43

On Page 14-3 the DEIR says a new Cordova Hills Community Services District (CHCSD) will provide services for the proposed project, but CHCSD is purely hypothetical at this time since it must be approved by the Sacramento Local Agency Formation Commission (LAFCO). It's acknowledged on the same page that the proposed project is "not in close proximity to any existing public services, and as a result some extensive, costly improvements related to infrastructure and public facilities – discussed in the Public Utilities Chapter – will be required to adequately support the Project."

Pages 14-4 – 14-5 then explain how these "extensive, costly improvements" will be financed since they will cost "approximately \$453 million dollars." The DEIR states that some of this funding will be born by local, state, and federal taxpayers but it will also depend on construction and sale of 7,500 new homes out of the project's planned 8,000.

The 7,500 new homes needed to finance the proposed project are 2.5% of all new homes sold in the United States in 2011 (Kravitz 2012). Since the proposed project covers 0.0001% of U.S. area, that's 25,000 times its share of new American homes by area. Closer to home 14,000 new homes were sold in California in the first 7 months of 2011 (Lazo 1011). If we generously assume an equal number were sold in the last 5 months, that's a total of 28,000 new California homes sold in 2011. The 7,500 new homes needed to finance the proposed project are thus 27% of all new homes sold in California in 2011. The proposed project is 0.003% of California's area, so its 7,500 homes are 9,000 times its share by area in California.

Now of course all acres aren't the same. One in Silicon Valley may be much more desirable than many in the Mojave Desert. Is that the case for Cordova Hills? It may have been when gas was cheap and long commutes popular, but that's changing fast. Generation Y, the largest cohort of 21 to 30 year olds since the Baby Boom, is avoiding cars. They now contribute only 14% of miles driven even though that age group provided 21% of miles in 1995. They're so used to buying on line they consider commuting by car wasting time they could spend with their electronic devices on buses or trains (Ostroff 2010). That trend is evident in fewer young people getting drivers licenses and more moving to big cities where mass transit makes car ownership optional (Terlep 2012). Distantly isolated places with virtually no planned connection to urban areas by mass transit like the proposed Cordova Hills project are consequently becoming increasingly unattractive.

Despite these trends there will probably always be a niche market for rural homes made attractive by personal space provided by their often low density environments. The proposed Cordova Hills project is clearly rural since it is 4 and 6 miles from the nearest communities (DEIR Pages 12-29 – 12-30), but it is planned to be "twice as dense as the [Sacramento] county average (DEIR Page 12-28). High density rural developments certainly do exist like the neighboring Sacramento County Boys Ranch (DEIR Pages 12-36 – 12-37) but residence there tends to be less than voluntary and involve debts to society not paid in cash.

The proposed project's financial plan conflicts with far too many economic trends to be even marginally viable. Expecting the monopolization of 27% of the California new home market it takes to succeed is as realistic as expecting those with no jobs, income, or assets to make their mortgage payments. We know how that worked out. All the project offers is another ugly husk of a half built project like those that began littering the Central Valley after the real estate bubble burst. This would be doubly tragic at Cordova Hills since some of the Sacramento region's most beautiful and biologically critical habitat lands might be eliminated in the process for no good purpose.

The proposed project also increases taxes on the Sacramento region's current residents. For example:

1. On Page 14-18 the DEIR says "new fire stations will be built within the Project area" and that "funding for the construction and operation of the fire facilities will be provided by the District-wide Capital Fire Facilities fee." The district referred to is the Sacramento Metropolitan Fire District.
2. On Page 14-20 the DEIR says the financing plan doesn't call for "construction of additional police facilities" but the Urban Services Plan does.
3. On Page 14-21 the DEIR says "law enforcement services will be funded through the County General Fund" at least partially with the balance provided by the financing plan's shaky assumptions.
4. On Page 14-23 the DEIR says funding for new schools will come from "existing fee programs, state funding, and the [Elk Grove Unified School District] EGUSD" augmented by the financing plan's shaky assumptions.
5. On Page 14-28 the DEIR says "library operating costs will be fully funded through property tax revenue" assessed within the City and County of Sacramento.

Response 2-43

The Project is following the appropriate procedural pathway for the formation of a Community Services District, which obviously cannot be formed until the community it would serve is approved. Thus, at this stage, the requirement is to provide a plan for services. The remainder of this comment deals with the infrastructure financing for the project. This comment indicates that the issue being taken with the infrastructure financing plan is not that the plan inaccurately describes the costs, but rather that the reviewer believes that the profit margin for the project is too low to be viable given the high costs of infrastructure. It is the duty of the EIR preparers to describe what is physically necessary to complete a project, and what the potential environmental consequences of that will be; it is *not* to determine the profit margin of the Project.

The "half-built" communities referenced by the comment resulted from the fact that market conditions trended downward while projects were mid-stream in construction. That is not the case here; the current down conditions are well-known. Thus, even if the commenter is correct and the profit margin at this time is too low, the only potential result would be that the land would continue to be vacant until the market improved; it would not be a half-built "husk". Also, to bolster this statement the commenter presents an unsupportable calculation that purports to equate local residential absorption with the entire land mass of the United States. Then, in another calculation, the commenter uses the total housing proposed over a 30-year buildout and compares it with the real estate sales in a single down-market year. The Cordova Hills Project is estimated to have a 30-year buildout, not a one-year buildout. The comment concludes by asserting that a variety of taxes will increase in order to support Project infrastructure, which is not a comment on the adequacy of the EIR, and also ignores the funding which will be provided through the Infrastructure Financing Plan.

Comment 2-44

On DEIR Page 15-16 two Sacramento County General Plan policies related to water are incompatible with the proposed project. They are:

1. CO-23 is about “impact on valuable water supported ecosystems”. On Page 6-28 the DEIR acknowledges the proposed project would eliminate 46% of its wetlands and 33% of its vernal pools. On Page 6-26 it also acknowledges these wetlands are identified by the U.S. Fish and Wildlife as having their highest environmental protection priority.

Response 2-44

The purpose of policy CO-23 is to protect rivers and other water bodies, where water supplies are extracted, from experiencing the negative impacts of extraction. This policy is unrelated to the fill or excavation of seasonal wetlands.

Comment 2-45

2. CO-35 is about new development not being approved and building permits not being issued without sufficient water supply. The proposed project’s water supply is highly problematic as discussed below.

On DEIR Pages 15-26 – 15-36 a complex ad hoc system of pipes is proposed to bring water to the proposed project in a plan requiring approval by the Sacramento County Water Agency. On Page 15-34 the DEIR acknowledges that this agency opposes the project’s proposed water plan. Page 15-35 also acknowledges that the proposed water plan significantly impacts wetland resources and their species.

Response 2-45

This comment does not identify any deficiencies in the DEIR analysis. The water supply for the Project will require extension from an off-site location, and to that extent can be described as “problematic”. There are several means of conveying the water, only one of which the Sacramento County Water Agency has indicated is not supported for policy reasons. Instead, they prefer to use the North Vineyard well field, which was one of the delivery systems analyzed. It is not accurate to state that the Sacramento County Water Agency opposes the Project’s water plan. Comment noted.

Comment 2-46

On DEIR Pages 15-38 – 15-39 the need for significant new sewer infrastructure facilities to serve the proposed project is discussed. It is acknowledged their construction will have significant impact on biological resources but their financing is not discussed. Presumably Sacramento County Sewer District ratepayers are expected to fund these new facilities which are estimated to cost \$6.5 million for off-site sewer construction alone.

On DEIR Pages 15-42 – 15-45 construction requirements for extending electric and gas utilities to the proposed project are discussed but not their funding. Presumably Pacific Gas and Electric and Sacramento Municipal Utility District ratepayers are expected to fund these new facilities.

On DEIR Pages 15-45 – 15-46 the DEIR acknowledges the proposed project would violate Sacramento County General Plan policies LU-57 and LU-XX to not extend urban services beyond the Urban Policy Area except to 251 acres near the Kiefer Landfill. Its proponents consequently want these policies changed.

Response 2-46

The financing of the sewer system improvements is addressed in the Finance Plan. The commenter's presumption that the cost of improvements will fall on ratepayers outside of the Cordova Hills Project is incorrect. The Project will fund its fair share of the off-site sewer improvements through payment of SRCSD impact fees. It is the SRCSD that plans, designs, and constructs regional sewer infrastructure. With regard to sewer trunk infrastructure owned and operated by the SASD and required for the Cordova Hills Project, it is customary that such sewer trunk infrastructure would be constructed by the Cordova Hills Project. SASD will then give fee credits and reimbursements against the SASD sewer impact fees that Cordova Hills will otherwise have to pay to offset those construction costs.

Please see the "Cordova Hills Technical Dry Utilities Study" dated April 2010, prepared by Capitol Utility Specialists, and contained as Appendix PU-6, for a comprehensive description of the funding of the utility construction costs for electricity and natural gas.

The Project is not inconsistent with General Plan Policy LU-XX; this policy does not exist in the General Plan at this time. Pages 15-45 and 15-46 describe that because the Project is inconsistent with General Plan Policy LU-57, the Project includes a request to amend the policy and add the language in LU-XX. The amended language would make the Project consistent with the General Plan.

Comment 2-47

On Page 16-5 the DEIR acknowledges there are no transit connections to the proposed project. Without these the proposed project violates Sacramento County General Plan policy CI-4 on Page 16-7 to "provide multiple transportation choices to link housing, recreational, employment, commercial, educational, and social services." Since the proposed project provides no realistic significant local employment sources and only weak transit connections to those elsewhere, it appears to violate this policy.

The proposed project appears to violate two other Sacramento County General Plan policies presented on DEIR Page 16-7:

1. CI-5 calls for "Land use and transportation planning and development should be cohesive, mutually supportive, and complement the objective of reducing per capita vehicle miles travelled (VMT). Since the project proposes only weak transit connections between Cordova Hills and the Sacramento Metro Area it tends to isolate any residents in a place distant from significant employment centers or other urban amenities. Their only option would be greatly increasing VMT.
2. CI-27 says "Public Facilities Financing Plans shall incorporate capital costs for transit. Infrastructure Master Plans shall include transit planning." The purpose of such transit is explained in Policy CI-4. It is to "link housing, recreational, employment, commercial, educational, and social services." Instead the project proposes a primarily internal transit system to nowhere providing no such significant linkage.

DEIR Pages 16-36 – 16-38 confirm the project proposes a local primarily internal transit system only weakly linked to the Sacramento Metro Area. Its only rationale is internal trips to an imaginary college with no prospects of ever being built (see above). Consequently it is a transit system to nowhere also unlikely to viably ever exist since it is dependent on the unrealistic financing plan discussed above. Pages 16-37 and 16-38 in particular demonstrate the proposed transit system's entire rationale is the imaginary college. Pages 16-81 – 16-82 reiterate the proposed project's isolation from actually existing mass transit.

Response 2-47

Sacramento Regional Transit District (Regional Transit) has no plans to extend existing service to the Project, but the Cordova Hills planned transit system, as described in multiple chapters of the DEIR (predominantly in the Traffic and Circulation chapter), will be coordinated with the Regional Transit Gold Line and will connect to the Mather/Mills light rail station. The Project is consistent with Policy CI-4. The Project will reduce vehicle miles traveled when compared with a “business as usual” project in the same location, and is thus consistent with policy CI-5 (Response 2-4). The Project includes a Public Facilities Financing Plan and an Urban Services Plan which lays out the costs for the transit system; the Project is consistent with policy CI-27.

Similar to earlier comments, this one takes the stance that the university/college campus center is the sole destination and primary job source in the Project. In a previous comment it was asserted that pedestrian and bicycle trips were going “nowhere” (see Response 2-38). In this comment it is asserted that the “only rationale” for the internal transit system is to shuttle people to the university/college campus center, and that absent the university/college campus center the Project provides “no realistic significant local employment”. None of these assertions are supported by the evidence. Refer to Response 2-32. It is certainly not true that without a university there is no point to non-automotive forms of travel, or that no one will have a place to work.

Refer to Response 2-31, Response 2-37, Response 2-38, and Response 2-40. Even if a university/college campus center were not constructed, residents would still need a transit system connection to light rail and would still benefit from a system connecting the community to the Town Center retail and employment area. The data on page 16-38 of the DEIR supports this response, not the comment, as it indicates that 34% of person trips are to non-university internal uses, while only 11% of person trips are to the university. The Draft EIR, Appendix TR-1, Table 1 - Projected Land Use (page 152) identifies the 4,633 employees projected in Cordova Hills in addition to the 2,036 employees projected at the university/college campus center for a total of 6,669 employees; thus, the majority of Project jobs are not associated with the university.

Comment 2-48

Pages 16-78 – 16-83 of the DEIR demonstrate the proposed project will increase VMT so much even assuming the imaginary college will actually exist that traffic congestion will be significantly increased on numerous intersections, roads, freeways, and freeway ramps in the Sacramento area.

Response 2-48

Comment noted. Refer to Response 2-28, Response 2-38, and Response 2-40.

Comment 2-49

The proposed project has numerous cumulative and growth inducing impacts. Among them are:

1. Pages 18-2 – 18-3 acknowledge extending public infrastructure to the proposed project, which would cost an estimated \$6.5 million dollars for off-site sewer construction alone, would greatly facilitate development of its thousands of acres of adjoining open space. Consequently the DEIR states that “a major barrier to growth would be removed.”
2. Page 18-3 acknowledges the project’s proposed expansion of the Urban Policy Area (UPA) would facilitate development of adjacent open space but claims the proposed expansion conforms with General Plan policy LU-120. As discussed above such expansion clearly violates LU-120.
3. Pages 18-3 – 18-4 acknowledge the proposed project includes a General Plan Amendment to extend provision of public water beyond the Urban Services Boundary (USB). It further states that “This action sets a precedent, as Zone 40 water has never been provided outside of the Urban Services Boundary to serve *proposed* uses” and that this “proposal is constrained both by supply and by contribution toward a hazardous condition” because it “could impact groundwater remediation efforts at Kiefer Landfill.”
4. Pages 18-5 – 18-6 acknowledge the proposed project would “contribute to significant and unavoidable cumulative aesthetic impacts.”
5. Page 18-6 acknowledges the proposed project would cause “cumulative loss of farmland” and consequently its “impacts are significant and unavoidable.”
6. Pages 18-6 – 18-7 acknowledge the proposed project’s “cumulative impacts related to construction-level particulate matter, operational particulate matter and ozone precursors, and conflict with implementation of the State [air quality] Implementation Plan will be significant and unavoidable.”
7. Pages 18-8 – 18-9 acknowledge that because of the proposed project “Cumulative loss of grassland habitat (grazing land) [i.e. California prairie] may exceed 10,000 acres [that] support a variety of special status species” and “Project impacts to wetlands and some of the associated species are significant even after the application of mitigation; thus, it can be concluded that cumulative impacts will also be considerable, and that despite the application of mitigation cumulative [biological] impacts will remain significant and unavoidable.”
8. Page 18-9 acknowledges “mitigation may be insufficient to avert substantial climate change, and impacts are significant and unavoidable.” That conclusion doesn’t even consider how loss of California prairie that may exceed 10,000 acres will reduce carbon sequestration.
9. Page 18-11 claims the proposed project’s cumulative land use impacts “would be less than significant”, but this conclusion is contradicted in numerous places throughout the DEIR and in these comments. Since the land use chapter of this DEIR negates the SACOG Blueprint’s plain language regarding regional land use planning, it essentially abolishes this significant regional planning effort. The cumulatively huge negative impact would be giving carte blanche to completely unplanned growth and development.
10. Page 18-11 claims the proposed project’s cumulative impacts on public services are less than significant, but that conclusion is based on assumed taxpayer subsidy and a deeply flawed financial plan as discussed above.
11. Page 18-11 – 18-12 also claim the proposed project’s cumulative impacts on public utilities are less than significant, but that conclusion assumes taxpayer and ratepayer subsidies as discussed above.
12. Pages 18-12 – 18-15 acknowledge the proposed project’s impacts on traffic and circulation “cannot be fully mitigated, and impacts are significant and unavoidable.”

Response 2-49

Most of these comments simply state facts and conclusions reported in the DEIR, which are sometimes followed by the commenter's opinion. Some refer back to previous comments on topical chapters, which have already been addressed in this response to comments. Refer to Response 2-6, Response 2-15, Response 2-26, Response 2-43, and Response 2-48. The only comment needing more specific response here is #9, which indicates that the cumulative land use discussion is in conflict with the topical chapter on land use. As stated on page 18-11, the cumulative land use discussion is restricted to the issue of compatibility with adjacent uses, as that is the only land use topic which changes between the existing and the cumulative condition. There is no conflict between the chapters.

Comment 2-50

The No Project alternative presented on Pages 2-14 – 2-15 of the DEIR is recommended because of numerous reasons discussed in these comments.

Response 2-50

Comment noted.

LETTER 3

Carol W. Witham, CNPS Treasurer, California Native Plant Society, Sacramento Valley Chapter; written correspondence; dated February 22, 2012

Comment 3-1

This letter supplements the comments of Dr. Glen Holstein of the Sacramento Valley Chapter of the California Native Plant Society (CNPS). We hereby incorporate Dr. Holstein's comments by reference. CNPS incorporates by reference the comments of the Environmental Council of Sacramento and Habitat 2020 submitted by Sean Wirth. CNPS is highly concerned with the overall level of take, undermining of the South Sacramento Habitat Conservation Plan, and leap frog development resulting in poor urban connectivity. The project also proposes misuse of the proposed Southeast Connector which will set precedence for additional sprawl along this "expressway".

CNPS is a statewide non-profit organization of some 10,000 scientists, educators, and laypeople dedicated to the conservation and understanding of the California native flora. As a science-based conservation organization, we believe that good land use decisions must be accompanied by a thorough assessment of the environmental impacts as required by the state and federal Endangered Species Acts, the Clean Water Act, the National Environmental Policy Act, the California Environmental Quality Act, and other resource protection laws.

The Sacramento Valley Chapter of CNPS has been highly involved in participating in and commenting upon land use decisions at all levels that affect vernal pool ecosystems in Sacramento County. Chapter volunteers serve on the South Sacramento Habitat Conservation Plan steering committee and biological subcommittee. Chapter volunteers serve on a stakeholders group to determine land use planning for the former Mather Air Force Base and its vernal pool grassland ecosystem. Chapter volunteers participated in the General Plan revision and the Visioning exercises for the eastern part of the county. Chapter volunteers serve on local land trust boards, steering committees, and management committees. Chapter volunteers have testified at innumerable planning commission, board of supervisors, and city council meetings on projects that impact vernal pool resources.

The Sacramento Valley Chapter of CNPS has long viewed the region including the area referenced in the Cordova Hills Project as the "Yellowstone" of vernal pool landscapes in Sacramento County. Geospatial analysis independently conducted for the developing South Sacramento Habitat Conservation Plan has confirmed that this region is unique within Sacramento County from the perspective of both density and diversity of vernal pools present, and in listed species presence. The diversity of vernal pool sizes, shapes, and hydroperiods is strongly correlated to high species diversity and a high level of ecosystem supporting function. The density of aquatic resources and listed species indicates that losses of this habitat will not easily be mitigated for elsewhere in the county.

The following comments are based on our knowledge of the wetland and endangered species resources in the vicinity of the proposed project and our understanding of the resource protection laws and their associated public review process.

Response 3-1

This section is preface language which does not provide any explicit comments on the integrity of the EIR analysis. Comment noted.

Comment 3-2

The Cordova Hills project description *fails to describe the whole of the proposed action*. Specifically, a wetlands mitigation plan will be required to offset destruction of vernal pools and other wetlands within the development. Construction of a minimum of 41.37 acres of mitigation wetlands will have environmental impacts above and beyond those described in the DEIR. Additionally, these impacts will occur on another, undisclosed site for which a baseline biological setting has not been provided. Preparation of a mitigation plan after local entitlements are granted constitutes *improper segmentation or piecemealing* of the project and precludes the public from receiving full disclosure of the environmental impacts of the proposed project in its entirety including any proposed mitigation.

The California Environmental Quality Act (CEQA) requires full disclosure of environmental impacts for the whole project regardless of whether they are detrimental or beneficial. Preparation of an after-the-fact mitigation plan negates CEQA's intended public participation process. For the purposes of informing the public, simply stating that the plan will be approved by the regulatory agencies is also insufficient and lacks transparency.

Response 3-2

Formulation of mitigation measures should not be deferred until some future time; however, measures may specify performance standards which would mitigate the significant effect of the project (CEQA Guidelines, Section 15126.4(a)(1)(B)). Mitigation Measure BR-1 establishes a minimum mitigation ratio of 1:1, and describes the interface between this requirement and the regulatory permitting process. It is possible that the mitigation plan will involve construction of created wetlands, but it is also possible that it will be achieved through other means (such as purchase of mitigation credits from wetlands which have already been created). Measures which defer these particular details to a later time have been challenged in the courts numerous times, but these challenges have failed. A recent example in our region is the Clover Valley Foundation v. City of Rocklin (2011) 197 Cal.App.4th 200, in which it was stated that “a condition requiring compliance with environmental regulations is a common and reasonable mitigating measure”. This statement was, in fact, a quote from yet another court case: *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 308. Courts have approved deferring the formulation of the details of a mitigation measure where another regulatory agency will issue a permit for the project and is expected to impose mitigation requirements independent of the CEQA process, so long as the EIR included performance criteria and the lead agency committed itself to mitigation. Mitigation Measures BR-1 and BR-7 commit the County to ensuring that mitigation is provided at a minimum 1:1 mitigation ratio, which is a sufficient and common performance standard and is also consistent with County policy.

Comment 3-3

Throughout the DEIR, actual *mitigation measures are being deferred* to the future. The document continually refers to yet-to-be-prepared plans, studies, and reports. In addition to deferring a Wetland Mitigation and Monitoring Plan to some future date outside of the public review process, analyses and mitigation of other environmental impacts are also being deferred. For example, specific mitigation for noise will be determined after some future acoustical analysis and report. This failure to fully disclose impacts and to provide substantive and enforceable mitigation measures occurs throughout the document.

Simply creating a plan or an afterthought mitigation measure is not adequate for the purposes of CEQA disclosure. The DEIR must contain specific and measurable mitigation that demonstrates to both the land use authority and the public that impacts have been reduced through mitigation. The Board of Supervisors cannot make findings of "less than significant after mitigation" if they don't even know what the mitigation measures and success criteria are.

Response 3-3

Refer to Response 3-2. All of the mitigation measures within the document specify minimum performance standards, including the noise measures mentioned in this comment. The Noise measures indicate that developments must be consistent with the noise standards of the General Plan, and list potential options for achieving those standards. It is impossible at the master plan level to be more precise than this, because noise levels are highly dependent on specific lot layout details and construction designs which are not available until small-lot tentative maps and specific commercial site plans are proposed. The mitigation ensures that when these future project-level plans are submitted to the County, that they will comply with County noise standards. See CEQA Guideline 15126.4.

Comment 3-4

Deferral of a Wetland Mitigation and Monitoring Plan is particularly troubling because in its absence the project applicant cannot demonstrate that the mitigation measure(s) are feasible (able to be accomplished). Without sufficient information to determine whether the wetland mitigation is in fact feasible, the public is left with the uncertainty that it may never be accomplished.

The U.S. Army Corps of Engineers' (Corps) Record of Decision (dated 25 January 2011) related to the Sunridge Projects in the City of Rancho Cordova states the following:

- "e. The Corps recognizes the significant cumulative loss of vernal pool wetlands within the Mather Core Recovery Area. For future unavoidable impacts to vernal pools within the Mather Core Recovery Area... compensatory mitigation shall be:
- 1) based on a method for assessing the functions of all waters of the U.S. on the project site;
 - 2) accomplished at a ratio of greater than 1:1, after considering direct and indirect impacts, temporal loss and difficulties creating vernal pool wetlands; and
 - 3) located in the Mather Core Recovery Area, unless determined impracticable or inappropriate by the Corps."

A complete Wetland Mitigation and Monitoring Plan is necessary from two perspectives. First, the public has a right to know the environmental consequences of the proposed mitigation. Second, the Board of Supervisors has a public trust obligation to understand how this mitigation, supposedly to occur within the Mather Core Recovery Unit which is almost entirely within the USB, will impact future development (and mitigation) in the County of Sacramento. Will the mitigation for this project preclude development of a more worthwhile and better designed project in the future?

Response 3-4

Once adopted as part of an approved project, a mitigation measure cannot simply be deleted outside of a public hearing process. If Mitigation Measure BR-1 is adopted, then the applicant must provide 1:1 mitigation *before* building permits will be issued. The scenario posited by this comment, that unbeknownst to the public, the mitigation will fail to be carried out and yet the Project will be allowed to develop, is impermissible. Refer to Response 3-2. The final question posed by the comment is a policy question about regional prioritization of development. This is not an issue which can be or ought to be addressed by this individual master plan's CEQA document. Furthermore, it should not be assumed that the same conditions included in the Record of Decision for the Sunridge project will apply here.

Comment 3-5

The incomplete description of the environmental setting, the incomplete description of the proposed project, the inappropriately deferred mitigation measures, and the potential infeasibility of the proposed wetland mitigation all demonstrate that the DEIR is woefully inadequate for the purposes of public disclosure. CNPS requests that these deficiencies be remedied in a Revised DEIR to be recirculated to the public for additional consideration and comments.

Response 3-5

Refer to all of the responses to this letter. Recirculation is not required.

Comment 3-6Mitigation Measure BR-1

As discussed above, a commitment to prepare a (Wetland) Mitigation and Monitoring Plan is not mitigation. Additionally, the impacts of such a plan are not disclosed in the DEIR even though they are clearly an integral part of the proposed project.

Response 3-6

Refer to Response 3-2.

Comment 3-7Table BR-3: Special Status Species Matrix

Please note the comments of Dr. Glen Holstein on behalf of the Sacramento Valley Chapter of CNPS. In addition to his specific observations, we request the addition of *Lytta molesta* as a potential species of concern on the project site.

Response 3-7

Refer to the responses to Letter 2. *Lytta molesta*, also called the molestan blister beetle, has no federal or state special status designation through any agency⁴. It is tracked through the California Natural Diversity Database, and as part of that tracking is given a global and state rank of 2. This means that there are six to twenty element occurrences in the California Natural Diversity Database, and is on this basis considered through that database to be at high risk. The species is found on flowers, where they forage, and has been associated with dried vernal pools; very little is actually known about the life history of this species.⁵ The comment requests inclusion of this species, but does not explain why it is felt to be necessary. The species is not included – or even mentioned – in the anticipated draft South Sacramento Habitat Conservation Plan, and it has not been collected in Sacramento County. In addition, there are no documented occurrences of this species in the adjacent areas of Placer County and San Joaquin County. Nonetheless, the species has been added to Table BR-3, with a potential for occurrence designation of “low” – which means that no further discussion is included.

It is worth noting that Project mitigation already requires full replacement of all wetland and upland habitat which will be lost, and given that the molestan blister beetle is not agency-listed, it is reasonable to assume that this mitigation already in place would prevent substantial impacts to the species in the extremely unlikely event that it may use the site. It is thus unclear why the respondent wishes for the EIR to include treatment of this species, given the lack of any known occurrence in the County or adjacent counties and the fact that it would have no effect on the mitigation or conclusions of the EIR.

⁴ www.dfg.ca.gov/biogeodata/cnddb/pdfs/spanimals.pdf

⁵ http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/invert/Insects_-_Coleoptera/Lytta_molesta.pdf

Comment 3-8**Mitigation Measures BR-3 through BR-6**

An additional mitigation measure needs to be added to survey for ground nesting birds if construction occurs between March 1 and June 30. Several special status bird species written off as having low potential to occur on the site, actually have a high potential (again see Dr. Holstein's comment letter) and are ground nesters.

Response 3-8

The only ground-nesting (or near-to-the-ground) bird species listed as having a low potential for occurrence in Table BR-3 is the loggerhead shrike. As discussed in the table, this species nests in shrubs or low in trees, and the site contains neither shrubs nor trees. Thus, the site does not contain nesting habitat for this species and mitigation is not required to offset an impact. Nonetheless, since pre-construction nesting surveys will already be performed for many other species, it is not burdensome to add this species, in an overabundance of caution. To try and alleviate any concerns, the species has been added to the pre-construction nesting survey mitigation.

Comment 3-9**Western Spadefoot**

Loss of Western Spadefoot breeding habitat on the Cordova Hills project would be significant. There are less than a handful of extant populations within the Mather Core Recovery Area and these occur on the very periphery of its range. The Mather Specific Plan is also proposing destruction of a breeding pool with no mitigation, so cumulatively the impacts are also significant. The Cordova Hills project should conduct additional surveys to determine the locations and extent of the onsite population and prepare a specific mitigation and monitoring plan for this species in order to reduce the impact to less than significant.

Response 3-9

Refer to Response 2-21. The statement that the Mather Specific Plan proposes to impact a breeding pool of western spadefoot without providing mitigation is not correct. Firstly, federal and state permits are required for any destruction of wetlands, and a minimum 1:1 mitigation typically results from this process – sometimes more. Secondly, the EIR for the Mather Specific Plan includes policy language requiring that future projects in the Specific Plan obtain the appropriate permits, and that replacement mitigation be provided for all wetland habitat lost. With regard to the request for detailed surveys of populations and numbers, even for amphibian species where protocols have been developed for surveys, the level of detail requested by this comment is not required (e.g. California tiger salamander). The purpose of a survey is simply to determine presence or absence, so that it can be determined whether mitigation is necessary. Presence of the western spadefoot is already known, and mitigation is being provided for all wetlands and uplands lost.

Comment 3-10Translocation of Inoculum

Because there is not a Wetland Mitigation and Monitoring Plan included for review as part of this project, it is impossible to speculate on all of the measures that might be incorporated into such a plan. However, language in Mitigation Measure ALT-1 suggests that the project proponents intend to translocate inoculum (soil, seeds and cysts) from the impact site to some yet-to-be-identified mitigation site. Such translocation of materials is inappropriate over any distance. Vernal pool landscapes are very similar to island archipelago biogeography, with near neighbors being more closely related genetically than distant neighbors. The practice of translocating propagules from one area to another could have significant consequences including: i) genetic swamping of closely related species, ii) crossbreeding that leads to mortality/extirpation, or iii) crossbreeding that leads to superweeds.

As an aside, Mitigation Measure ALT-1 also contains language that appropriate success for mitigation of rare plant populations would be a restoration criteria (sic) standard of 60 percent survivorship. Given that the plants are all annuals and subject to precipitation and temperature patterns, this criterion is both nonsensical and immeasurable.

These are examples of why it is important to fully disclose environmental impacts during the public comment phase of CEQA disclosure. Who knows what other ill informed practices and immeasurable criteria might be proposed in the Mitigation and Monitoring Plan? Who knows if the plan will be feasible?

Response 3-10

As indicated by the "ALT" acronym, the measure referenced applies to a CEQA Alternative to the Project and is found within the EIR section describing impacts related to Alternative 1. The applicants have not proposed this measure for the Project, given that the Project avoids all impacts to wetlands containing rare plants. It is common practice for the terms and conditions of Section 404 Permits to require the translocation of inoculum to preserve the genetic diversity of the affected species. (See, U.S. Army Corps of Engineers San Francisco District's *Mitigation and Monitoring Proposal Guidelines*, dated December 20, 2004, at Pages 7 and 13; See also, U.S. Army Corps of Engineers, *Regulatory Guidance Letter*, dated December 24, 2002). The statement of 60% survivorship has been misconstrued by the commenter, and has been clarified to prevent future confusion. Survivorship should be measured based on the population density in the destroyed pool, meaning that the population in the created or inoculated pool cannot fall below 60% of the population which had been present in the destroyed pool. The point is taken that stand-alone, this could result in the applicant either having a standard which is too high or too low in any given year, as populations would naturally be more abundant or less abundant depending on climatic conditions. Comparison to an undisturbed reference pool has been included in the measure, to take this into account. Also note that any such plan would require the review and approval of the U.S. Fish and Wildlife Service, as inoculum collection from a vernal pool is prohibited without their express approval. A note has also been added to state that the measure may be superseded by any plan approved by the U.S. Fish and Wildlife Service.

Comment 3-11

On behalf of CNPS, I appreciate the opportunity to provide these additional comments on the Draft Environmental Impact Report for Cordova Hills.

As articulated above, we believe that the document fails to comply with the spirit of the California Environmental Quality Act. While the DEIR may satisfy minimum standards, it has unsuccessfully informed the public of the environmental setting and environmental consequences of the project including its offsite mitigation components. Therefore, CNPS requests that a Revised DEIR be prepared for this project that addresses our concerns and that the Revised DEIR be recirculated for an additional round of public comment.

Please keep me informed of activities related to projects in this area that might impact vernal pool grasslands and endangered species habitat.

Response 3-11

Comment noted. See prior responses.

LETTER 4

James Herota, Staff Environmental Scientist, California Natural Resources Agency, Central Valley Flood Protection Board; written correspondence; dated February 6, 2012

Comment

Please refer to the letter, which begins on page 28 of the “Cordova Hills FEIR: Comment Letters”. The letter explains when a permit from the Central Valley Flood Protection Board is required, and describes the types of issues which could impact flood control facilities.

Response

This is a standard comment letter, which has typically been received for many EIRs published in Sacramento County. The impacts of the Project on floodplains and hydrologic conditions have been examined, and impacts addressed in the Hydrology and Water Quality chapter. The Project does not involve levees and there are no existing structures on the site.

LETTER 5

Genevieve Sparks, Environmental Scientist, California Regional Water Quality Control Board, Central Valley Region; written correspondence; dated February 22, 2012

Comment 5-1
Basin Plan:

The Water Quality Control Plan (Basin Plan) is not described in Chapter 11 (Hydrology and Water Quality). The Basin Plan is briefly referenced on page 15-11 in Chapter 15 (Public Utilities).

The Central Valley Water Board is required to formulate and adopt Basin Plans for all areas within the Central Valley region under Section 13240 of the Porter-Cologne Water Quality Control Act. Each Basin Plan must contain water quality objectives to ensure the reasonable protection of beneficial uses, as well as a program of implementation for achieving water quality objectives with the Basin Plans. Federal regulations require each state to adopt water quality standards to protect the public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act. In California, the beneficial uses, water quality objectives, and the Antidegradation Policy are the State's water quality standards. Water quality standards are also contained in the National Toxics Rule, 40 CFR Section 131.36, and the California Toxics Rule, 40 CFR Section 131.38.

The Basin Plan is subject to modification as necessary, considering applicable laws, policies, technologies, water quality conditions and priorities. The original Basin Plans were adopted in 1975, and have been updated and revised periodically as required, using Basin Plan amendments. Once the Central Valley Water Board has adopted a Basin Plan amendment in noticed public hearings, it must be approved by the State Water Resources Control Board (State Water Board), Office of Administrative Law (OAL) and in some cases, the United States Environmental Protection Agency (USEPA). Basin Plan amendments only become effective after they have been approved by the OAL and in some cases, the USEPA. Every three (3) years, a review of the Basin Plan is completed that assesses the appropriateness of existing standards and evaluates and prioritizes Basin Planning issues.

For more information on the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins*, please visit our website:
http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/.

The Draft Environmental Impact Report should provide an expanded discussion on the Proposed Project's consistency with the Basin Plan, in terms of protecting surface and ground water quality in, and downstream of, the Proposed Project area.

Response 5-1

Though the comment includes substantial text describing the Basin Plan and its adoption procedures, the only sentence which discusses the EIR is the final one, which simply requests an expansion of the discussion to tie the analysis of surface and groundwater quality to the Basin Plan. The Basin Plan is a broad-level policy document, while the Project is specific to a small area within the total area encompassed by the Basin Plan. Given this fact, it is typical for an analysis to focus on the specific local water quality rules and regulations which have been enacted as a means of determining consistency with overarching policy documents such as the Basin Plan. This is consistent with case law, which has found that an EIR need not contain an exhaustive description of the regulatory requirements and plans that may apply to a Project⁶. For clarity, text has been added to the Porter-Cologne Water Quality Act section of the Hydrology and Water Quality chapter to explicitly reference the Basin Plan as one of the enacting frameworks for Porter-Cologne. Discussion has also been added which describes the “Implementation” section of the Basin Plan, because the implementing programs are those which are discussed in the DEIR. In the DEIR it was determined that the Project would have no adverse impacts to surface water quality (pages 11-23 to 11-27), or to groundwater/groundwater recharge (pages 15-51 to 15-52).

⁶ City of Long Beach v. Los Angeles Unified School District (2009) 176 Cal.App.4th 889 at 918-919, 98 Cal.Rptr.3d 137 at 163.

Comment 5-2**Statement of Policy With Respect to Maintaining High Quality of Waters in California (State Water Board Resolution 68-16):**

State Water Board Resolution 68-16 is briefly described in Chapter 15 (Public Utilities) on page 15-12.

A key policy of California's water quality program is the State's Antidegradation Policy. This policy, formally known as the *Statement of Policy with Respect to Maintaining High Quality Waters in California* (State Water Board Resolution No. 68-16), restricts degradation of surface and ground waters. In particular, this policy protects water bodies where existing quality is higher than necessary for the protection of beneficial uses. Under the Antidegradation Policy, any actions that can adversely affect water quality in all surface and ground waters must:

1. meet Waste Discharge Requirements which will result in the best practicable treatment or control of the discharge necessary to assure that a pollution or nuisance will not occur and the highest water quality consistent with maximum benefit to the people of the State will be maintained;
2. not unreasonably affect present and anticipated beneficial use of the water; and
3. not result in water quality less than that prescribed in water quality plans and policies.

Furthermore, any actions that can adversely affect surface waters are also subject to the Federal Antidegradation Policy (40 CFR Section 131.12) developed under the Clean Water Act.

For more information on this policy, please visit our website at:

http://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/1968/rs68_016.pdf.

The Draft Environmental Impact Report should provide an expanded discussion on the Proposed Project's consistency with the State Board Resolution No. 68-16, in terms of protecting surface and ground water quality in the Proposed Project area.

Response 5-2

Refer to Response 5-1. Also see pages 11-23 to 11-27 of the DEIR, where it was determined that the Project would have no adverse impacts on water quality, and pages 15-51 to 15-52 where it was determined that the Project would not have adverse impacts on groundwater quality or recharge. Since the DEIR determined that the Project would not result in adverse impacts, there is no need to provide an expansive discussion of consistency with Resolution No. 68-16. The comment does not provide any evidence to the contrary.

Comment 5-3**Clean Water Act 303(d) Listed for Impaired Water Bodies**

The Clean Water Act 303(d) List for impaired water bodies is discussed briefly in Chapter 11 (Hydrology and Water Quality), including pages 11-8, 11-10, 11-13, 11-14, and 11-26.

Please use the 2010 Clean Water Act 303(d) list for impaired water bodies, which can be located at

http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml

The Final Environmental Impact Report should provide a comprehensive list of all water bodies located within, and downstream of, the Proposed Project area which are included on the 2010 Clean Water Act 303(d) list for impaired water bodies, and the constituent(s) or parameter(s) each water body or water body segment is listed for.

If Total Maximum Daily Load (TMDL) and implementation plan is under development or completed for any receiving water body or water body segment listed on the Clean Water Act 303(d) list, the Draft Environmental Impact Report should include an expanded discussion on the Proposed Project's compliance with that TMDL and implementation plan.

Response 5-3

The DEIR discussion uses what this comment refers to as the 2010 Clean Water Act 303(d) list, but calls it the 2008 list. It appears that the State Water Board website needs updating. The comment directs the lead agency to the website www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml, while the information from the chapter was obtained from www.swrcb.ca.gov/rwqcb5/water_issues/tmdl/impaired_waters_list/303d_list.shtml. The latter website indicates that the current version is the 2006 list, and that the update is called the "2008 Update". The website referenced by the letter indicates that the list was approved in November 2010, and that it is called the 2008 – 2010 303(d) list. In either case Environmental Review has reviewed both sources cited and determined that it is the same list. Page 11-15 of the DEIR indicates the status of all three rivers to which Project waters will flow, via onsite tributaries, and notes the constituents for which they are listed. There are no TMDLs for these waterways. The text of the DEIR has been revised to reflect the current adoption status and nomenclature of the relevant 303d list.

Comment 5-4**Construction Storm Water General Permit**

The Construction Storm Water General Permit is briefly referenced in Chapter 11 (Hydrology and Water Quality) on page 11-9.

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction Activities (Construction General Permit), Construction General Permit Order No. 2009-009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP).

For more information on the Construction General Permit, visit the State Water Resources Control Board website at:

http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml

The Final Environmental Impact Report should provide an expanded discussion on the Proposed Project's compliance with this permit, including, but not limited to, the development of a SWPPP.

Response 5-4

The DEIR describes all of the grading permit requirements referenced by this comment, including that the County will not issue a grading permit until proof is submitted showing that a Notice of Intent was filed with the Regional Water Quality Control Board, and until submission of a site-specific SWPPP showing compliance with standards set forth in the County's Municipal Stormwater Permit (see page 11-9 of the DEIR). The DEIR does discuss construction stormwater impacts which could result from future developments, and describes common best management practices used to avoid impacts (see page 11-25). A master planned project of this size will be developed in increments over a long time period. Site-specific SWPPPs can only be prepared for specific areas when project-level proposals (small-lot subdivision maps, improvement plans, etc) are submitted.

Comment 5-5**Municipal Separate Storm Sewer System (MS4) Permit**

The MS4 permit is briefly referenced in Chapter 11 (Hydrology and Water Quality) on pages 11-3, 11-4, and 11-9. References to hydromodification and low impact development are made in Chapter 11 (Hydrology and Water Quality) and Chapter 15 (Public Utilities), among others.

The federal Clean Water Act makes municipalities responsible for regulating and managing the quality of storm water runoff throughout their jurisdictions, since municipalities own and operate the storm drain pipes and drainage channels that collect runoff prior to its discharge into creeks, rivers, and other water bodies. Under the Clean Water Act, storm water discharges are regulated through National Pollutant Discharge Elimination System (NPDES) storm water permits.

In California, the State Water Board and its nine Regional Water Boards have been authorized by the USEPA to oversee implementation of the Clean Water Act. The Central Valley Water Board issues and enforces NPDES municipal storm water permits in the Sacramento area. As such, the County of Sacramento and the cities of Sacramento, Citrus Heights, Elk Grove, Folsom, Galt and Rancho Cordova are subject to the Sacramento area wide NPDES Municipal Storm Water Permit (NPDES No. CAS082597; Order NO. R5-2008-0142) (Storm Water Permit). This Storm Water Permit, originally issued in 1990, was re-issued by the Central Valley Water Board in September 2008, covering the period November 2008 –September 2013. The Storm Water Permit (Provision A) states:

1. Discharges from MS4s in a manner causing, or threatening to cause, a condition of pollution, contamination, or nuisance as defined in § 13050 of the California Water Code are prohibited.
2. Discharges from MS4s which cause or contribute to exceedances of receiving water quality standards and water quality objectives (designated beneficial uses of the Basin Plan and water quality objectives developed to protect beneficial uses) for surface water or ground water are prohibited.
3. Discharges from MS4s containing pollutants that have not been reduced to the maximum extent practicable (MEP) are prohibited.

In addition, the Storm Water Permit contains specific requirements related to:

- Reporting and other project management functions
- Reducing specific target pollutants
- Monitoring and conducting special studies
- Reducing storm water impacts from new development projects, construction projects, municipal operations and commercial/industrial businesses
- Conducting public outreach and watershed stewardship

- Conducting public outreach and watershed stewardship
- Preventing illicit discharges
- Assessing program effectiveness

The current Storm Water Permit differs from the prior one in several notable ways:

- Many of the requirements are more general (less prescriptive) than in the prior permit.
- The permit includes requirements pertaining to protecting creeks from erosion and other harm caused by increased runoff volume and flow rate (i.e., hydromodification) due to new development and redevelopment.
- It requires a modest amount of additional monitoring (in addition to the existing extensive monitoring program) to learn more about discharges of pyrethroid insecticides and mercury, which are impairing water quality in various local waterways. The data could lead to new understanding on how to control these pollutants and eventually to additional requirements amended to the Storm Water Permit.

Storm Water Quality Improvement Plan (SQIP)

Another component of the Storm Water Permit is the implementation of the SQIP. The SQIP describes the storm water pollution prevention efforts to be implemented either jointly or individually by the County of Sacramento and the Cities of Sacramento, Citrus Heights, Elk Grove, Folsom, Galt and Rancho Cordova. Those agencies, collectively referred to as the Sacramento Storm Water Quality Partnership (Partnership), developed the SQIP to protect local waterways and fulfill regulatory requirements. The SQIP outlines Partnership priorities and activities planned for the 2008-2013 permit term. It also includes background information to provide readers with an understanding of the environmental and regulatory context as well as the Partnership's past accomplishments. The SQIP, adopted on 29 January 2010, supersedes and replaces all previous management plans developed for the Partnership, including the 1994 Comprehensive Storm Water Management Plan, the 1995 Effectiveness Evaluation Plan, the July 2003 SQIPs and their amendments, and the draft 2007 SQIPs.

The overall goals of the SQIP, as identified in the Storm Water Permit, are to: a) reduce the degradation of waters of the State and waters of the United States by urban runoff and protect their beneficial uses; and b) develop and implement an effective SQIP that is well understood and broadly supported by regional stakeholders. The core objectives of the SQIP are to:

- Identify and control those pollutants in urban runoff that pose significant threats to the waters of the State and waters of the United States and their beneficial uses;

- Comply with the federal regulations to eliminate or control, to the MEP, the discharge of pollutants from urban runoff associated with the storm drain system;
- Achieve compliance with water quality standards;
- Develop a cost-effective program which focuses on pollution prevention of urban storm water;
- Seek cost-effective alternative solutions where prevention is not a practical solution for a significant problem; and
- Coordinate implementation of control measures with other agencies.

As it relates to the Storm Water Permit, the SQIP proposes compliance activities to be conducted during the five-year term of the Storm Water Permit, and as specified, the SQIP is considered part of the permit and is enforceable as such.

For more information on the MS4 Permit the Proposed Project applies to, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/

The Final Environmental Impact Report should provide an expanded discussion on the Proposed Project's compliance with the MS4 Permit held by Sacramento County, including, but not limited to, the implementation of specific Low Impact Development measures throughout the Proposed Project area and a post-construction hydromodification strategy.

Response 5-5

A discussion of hydromodification is included on page 11-24, and the EIR includes a detailed hydromodification technical appendix. A discussion of the SQIP for the region is provided beginning on page 11-26 of the DEIR. Also note that the proposed Cordova Hills Master Plan includes a section listing the low impact development proposals which will apply in the Project area (Chapter 7, Section 7.7.1 of the Master Plan). More detailed discussion cannot be included at this time because this is a plan-level proposal, and specific grading plans and other details will not be prepared until subsequent requests for subdivision maps and other discretionary approvals are submitted.

Comment 5-6**Clean Water Act Section 401 Permit – Water Quality Certification**

Water Quality Certifications issued under Section 401 of the Clean Water Act are briefly described under Chapter 6 (Biological Resources) on page 6-8.

If an United States Army Corps of Engineers (USACOE) permit, or any other federal permit, is required for the Proposed Project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification(s) must be obtained from the Central Valley Water Board prior to initiation of Proposed Project activities.

The Final Environmental Impact Report should clarify that (a) there are no waivers for Clean Water Act Section 401 Water Quality Certifications in the State of California; (b) a Clean Water Act Section 401 Water Quality Certification serves as both a certification, in part or in whole, of a federal permit, under Section 401 of the Clean Water Act, and as a Waste Discharge Requirement under the Porter-Cologne Water Quality Control Act; and (c) under Section 401 of the Clean Water Act, the State of California can review and approve, condition, or deny all federal permits that may result in a discharge to waters of the State, including wetlands.

The Central Valley Water Board does not issue Individual 401 Water Quality Certifications and/or Waste Discharge Requirements for Proposed Projects that are not in final design.

Required items for a complete Clean Water Act Section 401 Water Quality Certification application are based on Sections 3836 and 3856 of Title 23 of the California Code of Regulations.

Should one federal permit be issued for the all future individual projects, the Central Valley Water Board may opt to incrementally certify the federal permit according to the project proponent's demonstration of readiness-to-proceed with specific project phases. Should this occur, a sequence of 401 Water Quality Certifications and/or Waste Discharge Requirements may be issued in 5-year increments as specific project phases are ready-to-proceed and implemented.

Please clarify in the Final Environmental Impact Report whether the Project Proponent will be seeking one Water Quality Certification for the Proposed Project based on this environmental document, or a series of Water Quality Certifications for future tiered environmental documents.

Response 5-6

Comment noted. Page 6-8 of the DEIR indicates that any activities requiring a Section 404 permit will likewise require a Section 401 permit. The applicant has submitted a single application for a Section 404 permit which would cover the entire site, and will seek a Section 401 permit in the same manner.

Comment 5-7**Compensatory Mitigation**

Mitigation Measure BR-1 should be amended to include a discussion on the Central Valley Water Board's compensatory mitigation requirements. The Central Valley Water Board may require compensatory mitigation for impacts to waters of the State. Compensatory mitigation must comply with the State of California's 1993 Wetlands Conservation Policy, which ensures no overall net loss of wetlands for impacts to waters of the State.

If conservation easements are implemented as part of the compensatory mitigation strategy, the recorded executed conservation easement shall be consistent with California Civil Code Sections 815-816.

Waste Discharge Requirements

If USACOE determines that only non-jurisdictional waters of the State (i.e., "non-federal" waters of the State) are present in the Proposed Project area, the Proposed Project will require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation.

In the case a Water Quality Certification(s) is issued for the Proposed Project, the Water Quality Certification(s) would serve as to certify the federal permit(s) and as a Waste Discharge Requirement under Porter-Cologne Water Quality Control Act.

For more information on the Water Quality Certification and WDR processes, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/water_issues/water_quality_certification/

Response 5-7

Mitigation Measure BR-1 already requires 1:1 mitigation of wetlands, regardless of federal jurisdictional status, consistent with County policy. Though already required by law, the mitigation has been amended to require that the applicant obtain all applicable federal and state permits (the term "permit" covers either a Section 401 permit or Waste Discharge Requirements). Any conservation easements used to implement the compensatory mitigation will comply with California Civil Code Sections 815 – 816. All wetlands on the site are both Waters of the U.S. and Waters of the State.

Comment 5-8**Definition of "Waters of the State"**

Page 6-11 Chapter 6 (Biological) of the Draft Environmental Impact Report references "waters of the State" under the discussion of the Porter-Cologne Water Quality Control Act.

The Final Environmental Impact Report should clarify the definition of "waters of the State", as related to "waters of the United States." "Waters of the State" are defined more broadly than "waters of the United States." According to California Water Code Section 13050(e), means "any surface water or groundwater, including saline waters, within the boundaries of the state", and includes all waters within the state's boundaries, whether public or private, including waters in both natural and artificial channels.

"Waters of the State" includes all "waters of the United States", including all federally jurisdictional and non-federally jurisdictional waters, whether hydrologically isolated or not, and territorial seas.

This definition is relevant and central to any action taken by the Central Valley Water Board on the Proposed Project and should be incorporated within the Final Environmental Impact Report accordingly.

Please clarify throughout the Final Environmental Impact Report, including, but not limited to, the discussion provided on page 6-11, in preface to any discussion regarding waters of the United States or federal jurisdictional waters, the definition of "waters of the State." All tables, figures, maps, discussions, and references to "waters of the United States" should be revised to "waters of the State and waters of the United States" throughout the entire Final Environmental Impact Report.

Response 5-8

Page 6-8, which describes the Clean Water Act permits, specifically states that although the SWANCC decision limits the applicability of federal jurisdiction over isolated waters, state and local jurisdiction still applies. A second note to this effect has been added to the Porter-Cologne discussion section on page 6-11, as requested by this comment. Rather than revising all exhibits, as this comment requests, a sentence has been added to the beginning of the "Wetlands and Surface Waters" section of the impact discussions noting that all delineated waters on the site are both Waters of the State and Waters of the United States; there are no "isolated" waters present. Also note that the wetland delineations of the Project site, as included in the DEIR, have already been verified by Army Corps and an application for a Section 404 Clean Water Act Permit is currently pending with the Army Corps.

Comment 5-9**Aerojet Facility Site**

Pages 10-4 through 10-5 and 10-14 of Chapter 10 (Hazardous Materials) provides a discussion on the Aerojet site, as related to the Proposed Project.

The description of the Aerojet site provided on these pages contains numerous errors and does not provide an adequate description of the Aerojet Site. The Central Valley Water Board has the following clarifications:

Response 5-9

This is simply a preface to the comments below. Refer to the comments and responses which follow.

Comment 5-10

- On page 10-4 the authors provide a description of the Aerojet facility and discuss underground tanks sites and associated contamination associated with the tanks sites. The tank sites provide an infinitesimal portion of the soil and groundwater contamination at the 8500-acre facility. Rocket manufacturing and testing and chemical manufacturing have led to extensive soil and groundwater contamination, with the groundwater plumes extending over 25 square miles. In fact there are over 350 potential source areas being investigated on the Aerojet Superfund site. Contamination includes solvents, components of liquid and solid rocket fuels, and chemical manufacturing residuals. Investigation of the contamination commenced in the late 1970's.

Response 5-10

Page 10-4 simply provides a brief background of contamination present at Aerojet; it is not intended to serve as a comprehensive description of all contamination present. The section states that the Aerojet site is a Federal Superfund site – it does not merely indicate that contamination is due to leaking tanks – and states that there is contamination of wells and groundwater from “volatile organic compounds and solvents (among other contaminants)”. A comprehensive list of the hundreds of known and potential contaminants would be unnecessary for the purposes of this EIR – it is simply necessary to establish that Aerojet is a Federal Superfund site which involves contamination of both soil and groundwater. The analysis section of the DEIR, which begins on page 10-14, gives a more detailed account of contaminants and their sources, to the extent that they are relevant to Project impacts.

Comment 5-11

- On page 10-14, the writer mistakenly talks about both the Inactive Rancho Cordova Test Site (IRCTS) and the Aerojet Superfund site as a single site. In fact, they are two distinct sites. The Aerojet Superfund Site currently comprises the 8500 acre site bounded roughly by US50, the Folsom South Canal, White Rock Road and Prairie City Road, plus Area 39 (portions of the State Highway Off-Road Vehicle Park), Area 40 (area east of Prairie City Road) and the former Cavitt Ranch (400 acres on Scott Road, east of Area 40). This site has significant soil and groundwater pollution and is being investigated and cleaned under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The IRCTS is 4000 acres south of White Rock Road, north of Douglas Road, east of Sunrise and extends about halfway to Grant Line Road. The IRCTS is being investigated and cleaned up under the State hazardous waste site cleanup program.

Response 5-11

The EIR does not mistakenly conflate the Aerojet Superfund and the IRCTS. An EIR will sometimes characterize or frame issues more simplistically, provided that the more precise or technical realities are not necessary in order to understand the outcome of the analysis. The EIR notes that the Aerojet Superfund and the IRCTS are two separate areas, but then notes that for the purposes of analysis they will both be referred to as Aerojet, given that they are adjacent, are both associated with the Aerojet company, and that soil and groundwater contamination are the relevant issues of concern for both areas. There was no need to discuss each separately for the purposes of describing probable impacts to the Project.

Comment 5-12

- On the IRCTS rocket-testing activities have ceased and the site is being cleaned up. The site will be developed as the Rio Del Oro project by Elliot Homes and Aerojet Real Estate. The groundwater pollution at the site and it is migrating to the west and southwest, away from the project site.

Response 5-12

Comment noted.

Comment 5-13

- The main groundwater pollution in the area is coming from the Superfund site and consists primarily of volatile organics such as trichloroethylene, perchlorate and n-nitrosodimethylamine. There are several different groundwater plumes associated with the Aerojet site. The main one of concern to this project is the plume emanating from the liquid rocket test-area on the far east side of Aerojet, west of Prairie City Road. This plume is heading south and bit west, and extends as far south as the southern edge of the Teichert processing facility on Grant Line Road. The southern edge of the plume is approximately 1.7 miles north of the project site and moving in the direction of the project. Aerojet is undertaking remedial actions to control the leading edge of the plume, but those actions are not yet complete. Failure of containment will allow the plume to continue to migrate to south and west. There is an additional groundwater plume associated with Area 39, but are in shallow groundwater and not moving very much.

Response 5-13

The EIR contains a link to a map showing the various areas of groundwater contamination (including the IRCTS). All of the various groundwater contamination plumes and their direction of migration are shown. There is a plume to the north of the Project site, but as stated in the comment this is nearly two miles from the site. The analysis focuses on the plumes closest to the Project site. At a distance of nearly two miles, it would take a serious and long-term containment failure before such a plume could reach the site. Such a serious failure is highly unlikely given that the scope of the problem is known, a plan for remediation is in place, and that similar remediation efforts in other Aerojet areas have been proceeding successfully. Also, the Project will be relying entirely on a public water system, not on groundwater beneath the site; the Project does not include drilling any groundwater wells.

Comment 5-14

- Not all of the cleanup sites in the vicinity of the project have been included in this section. There is another cleanup site just north of White Rock Road and west of Grant Line Road as is called the White Rock Road North Dump. The contaminants of concern in the groundwater plume are volatile organics and perchlorate. The plume associated with this project extends as far south as the Aerojet plume described above and is on the west side of Grant Line Road.

Response 5-14

The White Rock Road North Dump was included in the EIR, but it was included in the section on landfills, not in the "Aerojet" section. Refer to page 10-5 of the DEIR.

Comment 5-15

- Aerojet has had a groundwater extraction and treatment system program operating since 1982, not 2002. The 2002 date is associated with Aerojet's Western Groundwater Operable Unit and the commencement of remediation of that Operable Unit.

Response 5-15

The line in the EIR was meant to refer specifically to the GET system for the Administration Area of the IRCTS, which came online in 2002 and is the source of the nearest contaminated groundwater to the site. The section has been clarified.

LETTER 6

Ted A. Gaebler, City Manager, City of Rancho Cordova; written correspondence; dated February 22, 2012

Comment 6-1

The City of Rancho Cordova is submitting the following comments on the Cordova Hills EIR focusing on two primary areas of concern, municipal services and traffic mitigation. The Cordova Hills project is uniquely situated at the eastern boundary of our city and will rely heavily on City infrastructure and services. We anticipate some level of mutual impacts across jurisdictional boundaries from various development projects within the City and the County, but this project is extremely dependent on Rancho Cordova's urban investments. There are virtually no County services and very limited infrastructure in the Cordova Hills area. While the City generally supports the proposed development, these concerns must be addressed within the EIR prior to certification of the environmental document by the County Board of Supervisors.

Given Cordova Hills is far removed from other developed unincorporated areas that receive County services, there will be significant additional time and costs of trying to provide quality, timely services to the new development if services to the area are provided by existing County municipal service providers. Adjacent and neighboring service providers, by comparison, could provide more effective and efficient municipal services to Cordova Hills.

With government facing financial challenges into the future, it is critical that the most cost effective and efficient way to provide municipal services to new development be utilized. One such way would be to have Cordova Hills services be provided by the adjacent and neighboring service providers. Another option would be the formation of an additional government organization, such as a community services district (CSD). However this option seems duplicative and inefficient as it would require the additional expenses of its own board, manager, legal, human resources, finance, technology, and other costs for what would remain a small district.

The EIR should consider whether it is feasible for the County to provide all infrastructure and services needed to support the Cordova Hills project and whether providing services to the project in this manner has the potential to adversely affect the City of Rancho Cordova's infrastructure capacities and municipal services.

Response 6-1

The Project includes an Urban Services Plan (See Appendix PS-1 to the Draft EIR) that describes the service levels and financing strategy to fund an urban level of services that will be provided to future residents, businesses, and employees in the Project area. Services to be provided by independent agencies and by the County will be funded from the County General Fund, user fees, and existing property tax allocations. The services provided by the Cordova Hills Local Services District (which may consist of a County Service Area or a Community Services District) will be funded by user fees and special taxes or assessments on those utilizing those services. Other details regarding the funding of facility construction and operation are described within the Public Services and Public Utilities chapters of the DEIR, and are also considered in the required Infrastructure Financing Plan. This comment does not provide any evidence that these analyses are insufficient. There is also no evidence that if the County provides services

to areas which lie within the County, that this will negatively impact the City of Rancho Cordova. CEQA does not obligate the EIR to discuss the possibility of having the City provide services for an area within the County.

Comment 6-2

The City is in agreement that the majority of the project's off site trips will rely on roadways, transit facilities and bikeways that are within City of Rancho Cordova's jurisdictional boundary. As such, we are concerned about reasonable contributions to the development of our transportation facilities from the Cordova Hills development.

The Cordova Hills EIR identifies mitigation requirements within the City limits and indicates the project's intent to fairly participate in the development of the City's transportation infrastructure. However, we remain concerned that the alternatives analyzed in the traffic study do not adequately represent the actual timing and phasing of infrastructure development.

It is likely that most of the physical transportation improvements identified in the existing plus project scenario will be built once the Cordova Hills development begins to trigger these requirements. We agree that the mitigation trigger should be associated with level of service (LOS) standards, but feel that Rancho Cordova developments or other County projects, such as the Teichert and Stoneridge quarries, will have already triggered many of these requirements. As a result Cordova Hills will rely upon, and benefit from investments by other developing properties. This concern is also evident in the cumulative plus project scenario. The limited number of required improvements in the cumulative scenario is the consequence of very large infrastructure investments provided by other projects. The EIR should include mitigation measures that ensure the Cordova Hills project will pay its fair share of traffic improvements needed to mitigate impacts.

Response 6-2

Part of the implementation of the various transportation measures includes requirements within the Development Agreement that the County and the Project developer must pursue a reciprocal funding agreement between the County of Sacramento and the City of Rancho Cordova, since the County does not have the land use authority to implement mitigation within the City. CEQA Guideline 15091 and Public Resources Code 21081 both recognize that the lead agency cannot take responsibility for mitigation for the construction of roadway improvements outside of the lead agency's jurisdiction. The Conditions of Approval specify when the need for mitigation will be triggered (in terms of equivalent dwelling units), but the actual construction of those improvements is at the discretion of the City of Rancho Cordova, and is thus not a proper topic for a mitigation measure being adopted by the County. The County of Sacramento is without the legal authority to require a project applicant to construct roadway improvements that are within the exclusive jurisdiction and control of another government jurisdiction, and any mitigation measure that sought to do so would be infeasible. Fair-share mitigation fees are being required for impacts within Rancho Cordova, but Sacramento County cannot issue any requirements regarding the construction of those improvements. Consequently, the EIR was required to conclude that cross-jurisdictional roadway impacts were significant and unavoidable.

Regarding the interface between other reasonably foreseeable projects and the subject Project, the existing plus project and the cumulative plus project traffic modeling scenarios were developed consistent with CEQA provisions. Traffic modeling scenarios are intended to be constructed by including the existing conditions and then including

the Project, and by including cumulative conditions (including all reasonably foreseeable projects) and then the Project. This is the only way to clearly determine the additive impact of an individual Project. It would be infeasible to speculate about when all of the various reasonably foreseeable projects would be constructed relative to the Project in question, and to attempt to build a modeling scenario on that basis.

Comment 6-3

In reality, the expansion and development of new roadways east of Sunrise Boulevard will not resemble either of these two theoretical EIR scenarios. The result of relying on these scenarios is that the EIR does not identify any mitigation requirements on Chrysanthy Boulevard, Americanos Boulevard, Sunrise Boulevard, White Rock Road, or Rancho Cordova Parkway, even though the trip distribution diagrams for Cordova Hills indicate that significant trips will be added to these roadways. Cordova Hills takes advantage of the excess capacity on these roadways that will be created by the City's extensive Capital Improvement Program, yet it does not identify adequate fair share contributions toward these improvements. That means there will be less roadway capacity available for the intended beneficiaries of the City's Capital Improvement Program - future projects within the City. The EIR should include mitigation to address impacts from project trips on these roadways.

I would like to reiterate that the City is not opposed to the proposed Cordova Hills Development. However, the project must mitigate impacts to transportation infrastructure within the limits of the City of Rancho Cordova, and the County must provide an effective strategy to manage municipal services so that the Rancho Cordova is not burdened with additional costs for service.

We appreciate the opportunity to comment on this project and look forward to additional dialogue regarding these concerns.

Response 6-3

Refer to Response 6-2. It is entirely proper to assume that roadway projects identified for construction within a Capital Improvement Program will be in place in the cumulative model condition. With each additional or new travel lane added to a roadway, a roadway's vehicle capacity jumps a substantial amount (i.e., thousands of vehicles). While the Cordova Hills Project benefits from the existing and cumulative constructed roadway network within the City of Rancho Cordova, the same can be said for new projects within the City of Rancho Cordova which will benefit from the existing and cumulative constructed roadway network within Sacramento County. The City's comment is more related to an economic issue than a CEQA issue.

LETTER 7

William Heinicke, Director of Planning, Elk Grove Unified School District; written correspondence; dated February 27, 2012

Comment 7-1

The Elk Grove Unified School District (EGUSD) appreciates the opportunity to review and comment on the Draft Environmental Impact Report (EIR) for Cordova Hills. EGUSD requests that the following comment be considered and included in the Final Environmental Impact Report (EIR).

- **Page 1-35, Last paragraph** – EGUSD requests the paragraph entitled “Schools” be reworded as follows:

The Project includes three areas designated as elementary school sites (two of which are approximately ten acres each and one of which is **7 – 10** acres in size, and one area designated as a **middle/high** school (approximately 78 acres). Cordova Hills is within the Elk Grove Unified School District.

EGUSD requests the stated size of the “Town Center” elementary school site be changed from 6 acres to a range of 7 – 10 acres; because, six acres will not be large enough, and a range will allow some flexibility as the plan moves forward. Even with multi-story buildings, providing a complete school program requires a minimum of eight acres. A smaller site may be feasible dependent upon the availability of certain school facilities. For example, a minimum number of parking spaces are required, some of which could possibly be located in adjacent parking facilities. Likewise, required play field areas might be shared on the adjacent park property, if an appropriate joint use agreement is in place.

Response 7-1

The Applicant has agreed to show a school size of eight (8) acres at the Town Center elementary school site in response to this comment, and will make corresponding changes in the Cordova Hills Large Lot Tentative Map, Cordova Hills Master Plan and the Cordova Hills SPA to reflect that change in size. The FEIR also has been revised accordingly. Furthermore, since a precise acreage must be shown on the Land Plan, not a range between 7 to 10 acres, the Cordova Hills Master Plan has been amended to allow flexibility on the school site size. In an email to the applicant from the school district dated March 13, 2012, it was confirmed that Section 8.9 of the SPA Master Plan would have the following language incorporated into it in order to allow flexibility for the 8 acre school site noted on the land plan:

“Elementary school site sizes can be adjusted in size and configuration at the small lot subdivision level. Elementary schools in University/College Campus and East Valley are anticipated to be approximately 10 acres in size. The Town Center elementary school size may vary from 7 to 10 acres depending on educational programming, site design, and use of 2-story structures. Also, there may be joint use facilities of parks and

schools that may warrant a smaller school footprint. . A smaller school site in Town Center will be pursued if possible. However a 10-acre size may be needed if the above strategy is not practicable. The Town Center elementary school would ultimately serve the elementary education needs of students in the Town Center, but could be used to serve portions of other villages during phased development of Cordova Hills.”

LETTER 8

Jonathan Ellison, President, Environmental Council of Sacramento; written correspondence; dated February 21, 2012

Comment 8-1

These comments are submitted on behalf of the Environmental Council of Sacramento (ECOS) on the Cordova Hills Draft Environmental Impact Report (DEIR), dated 9 January 2012. ECOS is a coalition of environmental and civic organizations with a combined membership of more than 12,000 citizens throughout the Sacramento Region. Our mission is to achieve regional and community sustainability and a healthy environment for existing and future residents.

ECOS was quite dismayed that this DEIR was proceeding without an accompanying EIS, as is typically the situation. We believe there may well be a considerable disparity between these two required documents and that it is highly probable that the EIS may require substantial changes to the Project. It is therefore inappropriate for these two documents to proceed independently.

ECOS remains unequivocally opposed to the Cordova Hills project given the lack of foreseeable demand and lack of demonstrated economic feasibility. We are also opposed to the project due to its negative impacts on biological resources, air quality, climate change and the sustainability of the Sacramento region. We will attempt however to limit our comments here to the adequacy of the draft environmental impact report with respect to land use and growth inducement, transportation, biological resources and climate change.

Response 8-1

Comment noted. While CEQA allows the preparation of a joint EIR/EIS, it is not mandatory (see Public Resources Code Section 21083.70). CEQA Guideline Section 15170 provides that a "... lead agency under CEQA *may* work with a federal agency to prepare a joint document ..." [emphasis added]. Comment noted.

Comment 8-2

The primary justification for the original acceptance of this application by the Board of Supervisors was that it would bring the sought after asset of a university to Sacramento. The university initially interested is no longer interested and the likelihood of finding another university, particularly a self-contained university of the type described, is highly unlikely. The Sacramento Council of Governments (SACOG) in its letter to the project proponent dated October 7, 2011 (Attachment 1), states, *"Finding, financing and constructing a private 6,000 student institution of higher learning rates very high on the degree of difficulty scale, especially in this economic environment. It has never been done in this region. Many of the short trips and multimodal trips from the project will turn into longer distance car trips if the university is not constructed early in the project, or at all."*

The entire environmental analysis is based on the university as an integral part of the Project. Without the university, the Project is inconsistent with numerous additional General Plan policies, particularly the growth management criteria. Consistency with the growth management criteria is a requirement for the Project to be considered for approval. The project proponents are themselves now saying that it is more likely that a combination campus complex would locate here. This type of complex would be made up of a number of educational institutions, with different specialties, locating here and perhaps sharing some facilities. This would much more likely be a commuter college, rather than a self-contained university as currently proposed and analyzed in this document. Given the very remote potential for a university of the type proposed, this document should have also analyzed the project without the university. This would be necessary for the document to be totally adequate and complete.

Response 8-2

The premise of this argument is that the loss of an identified end-user for the proposed university/college campus center means that the proposed use itself must be eliminated from the Project as part of the analysis. It has been consistently held by the courts that the identity of the end user of a project is irrelevant to CEQA review. See, *Maintain Our Desert Environment v. Town of Apple Valley* (2004) 124 Cal.App.4th 430, 15 Cal.Rptr.3d 322; *American Canyon Community v City of American Canyon* (2006) 145 Cal.App.4th 1062, 52 Cal.Rptr.3d 312; also see, *Friends of Davis v. City of Davis* (2000) 83 Cal.App.4th 1004, 100 Cal.Rptr.2d 413. In *Maintain Our Desert Environment v. Town of Apple Valley* the judicial opinion reads:

It is common knowledge that projects are often developed without any knowledge of who the user/tenant will be. If CEQA was to be interpreted as the Attorney General suggests, no such projects could ever proceed until all potential user/tenants were identified and subsequently investigated by the lead agency. In addition to being completely impractical, this interpretation finds no support in the sphere of law and regulation encompassed by CEQA, as we now explain.

No portion of a Project can simply be excluded from analysis at the discretion of the EIR preparers; this could be characterized as an improper segmentation, as CEQA requires analysis of the whole of a Project (CEQA Guidelines Section 15378.a). The analysis examines the Project application which has been submitted to, and accepted by, the County. The identification of the end user of a project is not required under CEQA for purposes of the project's environmental analysis.

The University as a land use has garnered much attention because it is unique, but in terms of the Project Description required to be analyzed pursuant to CEQA, we see no reason why it should be treated differently than any other land use proposed within the Project. It has been argued by these and other comments that many of the residential uses proposed are unlikely to develop, based on the current low housing demand and other market factors. CEQA does not allow the analysis to exclude examination of some portion of the residential land proposed because the current housing market is not presently growing at historic rates. The proposed Town Center of the project is unique in character, and contains many design characteristics which have an overall positive effect on trip lengths and trip number; this land use cannot be excluded or revised because no tenants have been identified and current market conditions do not support

this large amount of mixed-use development. It would set enormous precedent for the EIR preparers to undertake an analysis of the advisability, profitability, or potential market success of a long-term master plan proposal and then refuse to analyze the Project as submitted on the basis of that examination. Furthermore, such an analysis would be entirely speculative, because it presumes a knowledge of future market conditions.

What the commenter suggests – the segmentation of the Project based on speculation about the market suitability of one of the Project uses – is not within the scope of the EIR preparer's authority. Nor is it the directive of CEQA to define an Alternative on that basis. The primary purpose of an Alternative is to reduce identified Project impacts. None of the significant effects of the Project are tied to the fact that one of the proposed uses is a university/college campus center. In fact, this comment alleges that impacts would increase if the university/college campus center were removed, which is contrary to the primary purpose of identifying alternatives.

Comment 8-3

The phasing of the Project as illustrated in Plate PD-16 is also totally unrealistic. By allowing significant commercial and residential development to occur prior to development of the university, the analysis of impacts in this document is totally compromised. Given the very speculative nature of the university, a "what if" scenario needs to be included which addresses the impacts of the Project without the university. Additionally, **a mitigation measure should be included that requires that 25% of the university complex be completed prior to more than 10 commercial units being issued building permits and 200 residential units being issued building permits for the remainder of the project.**

Response 8-3

Refer to Response 8-2. The phasing exhibit is conceptual, and simply shows that development will occur from Grant Line Road – the area closest to existing infrastructure and other development – toward the east, which is simply the logical means of progression. The EIR analysis is not compromised, because the analysis has properly examined the impact of the Project as a whole on the existing conditions and on cumulative conditions – no phasing was used in any portion of the analysis, because doing so would be entirely speculative. For this reason, mitigation is developed by looking at the impact of the entire project as required by CEQA Guidelines Section 15378.a.

Comment 8-4

The document states that *in terms of internal community design, the Project appears to be an excellent example of "smart growth" development...., it must also be acknowledged that the Project conflicts with the principles with respect to preservation of open space and proximity to existing developed communities.* How can a project be considered "smart growth" development when it conflicts with some of the major foundation principles of "smart growth", contiguous development and open space preservation? Also, the remaining "smart growth" aspects of the project would be seriously compromised if a university is not constructed early in the project development, or at all.

Response 8-4

The EIR concludes that the Project results in significant impacts with respect to conformance with Blueprint smart growth principles, precisely because the two referenced principles are so central to smart growth. It is also a true statement that the Project conforms to all the smart growth principles related to community design (mix of housing, etc). All of these community design parameters would still be present if the university/college campus center were not present.

Comment 8-5

The DEIR states that the Project is inconsistent with LU-1 related to growth inducement, but that a General Plan Amendment is included to address this conflict. This General Plan Amendment adds Policy LU-XX to the General Plan. This policy allows for limited public water service beyond the Urban Policy Area/Urban Services Boundary for the 251 acres located with the landfill buffer. What about sewer service? Are all the permitted facilities going to rely on porta-potties? The document goes on to say that this policy is specifically intended to avoid growth-inducing impacts but contains no explanation as to how the policy will actually do that. It does avoid the conflict with the original policy, but it does not avoid growth inducing impacts. By avoiding conflict with the original policy in this instance, it opens the door for future policies LU-XXX and LU-XXXX. As acknowledged in the document, the action of adopting this General Plan Amendment would set a precedent and encourage future amendments and further growth inducement. The Amendment cannot therefore be justified.

If the Amendment is to be approved, the uses and development standards proposed for this area are far too general. A Use Permit should be required for any development in this area to ensure it is appropriate and does not result in additional growth inducement. This should be considered as an additional mitigation measure.

Response 8-5

The Project description chapter describes the intended uses within the area outside of the Urban Services Boundary (beginning on page 1-32), as well as how those uses will be supported. As described, most of the uses will not require sewage disposal because they are not associated with permanent staff (transit parking lots, park and rides, corporation yard, etc). The General Plan Amendment is being pursued to provide water; septic systems will be installed for sewage disposal. The policy amendment itself explicitly states that any uses reliant on this extended water should strengthen and preserve the existing Urban Services boundary (as stated on page 12-35 of the DEIR).

None of the proposed uses which will be within the area affected by the new policy require a rezone or General Plan Amendment to be approved. All of the proposed uses are those which are permissible or conditionally permissible within an agriculturally-zoned property in the existing condition. Furthermore, the majority of the uses do not involve the use of water (e.g. park and rides, roads, utility infrastructure, etc). Some of the uses allowed outright in the SPA would require a Use Permit in the existing condition, including a solar facility, an energy plant, and a corporation yard (plus fueling station). The potential impacts of developing the areas where these uses are proposed have been assessed in this EIR. Furthermore, as indicated on page 1-32 of the DEIR, Planning Division staff reviewed recent similar projects in Sacramento County (solar facilities, parks, etc) and have included appropriate conditions in the SPA which would

apply to these uses (see Section 4-7 of the SPA Master Plan). Thus, approval of water for these uses does not set a precedent which would result in growth inducement either in this location or elsewhere, because the types of facilities being enabled by the water supply are not those which induce growth, and are those which are already permitted or conditionally permitted by the zoning code outside of the Urban Services Boundary.

Comment 8-6

Aside from this General Plan Amendment, the project, in and of itself, will have a significant impact on growth inducement as indicated in the Growth Inducing Impacts Section of the DEIR. Yet, no mitigation is proposed. We believe that feasible mitigation is available, and if not applied, project applications to the north and south will soon appear. Perhaps more importantly, the Project is proposed immediately adjacent to the Urban Services Boundary (USB). Building up to the USB without providing mitigation for growth inducement beyond the USB is unacceptable. While the applicant has indicated to ECOS the intention to put restrictions on the property east of the project, we can find no reference to this important mitigation in the document.

Response 8-6

The comment states that mitigation is available, but then does not provide any suggested measures. Other than the No Project alternative, the EIR preparers are unaware of any measures which could avoid inducing growth north and south of the site. The Urban Services Boundary itself is the means of avoiding growth east of the site. Only agricultural, agricultural-residential, and similar low-intensity uses are permissible outside of the Urban Services Boundary. Furthermore, the land east of the site drops sharply downward in elevation to Carson Creek, and there is a floodplain associated with this waterway. Some of this property is also owned by Sacramento County, and is not available for private development. Ultimately, the presence of the Urban Services Boundary, the topographic change, and the creek and associated floodplain would prevent the extension of development from the site to the east.

Comment 8-7

Interestingly, the Summary of Impacts indicates that growth inducing impacts are less than significant, while the Growth Inducing Impacts Section indicates they are significant. Obviously the Summary of Impacts determination of less than significant needs to be corrected and as required by the California Environmental Quality Act (CEQA), feasible mitigation for growth inducing impacts applied.

Response 8-7

The Summary of Impacts section referred to summarizes the land use policy impacts described in the Land Use chapter, which are in fact less than significant. This does not need to be corrected. The conclusion of significance is found in the Cumulative and Growth Inducing Impacts chapter, and deals with impacts which go beyond policy impacts.

Comment 8-8

The DEIR identifies the project to be in conflict with the Blueprint, the MTP/SCS and the State Implementation Plan, as well as some General Plan policies. ECOS believes that this document underestimates the seriousness of these conflicts. The health and sustainability of the entire region are jeopardized as a result of these conflicts.

Response 8-8

The impacts discussed in this comment are described by the DEIR as significant and unavoidable - the most serious impact statement provided under CEQA.

Comment 8-9

The transportation analysis is seriously flawed because it does not base its significance determinations on the project without university scenario. As noted above, the university component is not realistic, and without it, many of the project characteristics that would have helped to reduce transportation and other impacts are not likely to occur.

Response 8-9

Refer to Response 8-2.

Comment 8-10

Two specific examples of how including the university in the transportation analysis results in flawed impact analyses are 1) unrealistically high non-automobile mode share, and 2) improper trip internalization reduction. First, the DEIR states that a whopping 43 percent of the total university trips that stay within Cordova Hills will use non-automotive modes (DEIR, 16-38). For comparison, the rest of Cordova Hills is expected to have a non-automotive mode share of only 11 percent. Without a university campus with substantial on-campus housing, the project would result in a much higher automotive mode share, and this must be analyzed. Second, the DEIR claims that 36 percent of all vehicle trips will have their origin and destination within the project. Table TC-14 shows how internal trips are used in the traffic analysis to reduce the total vehicle trip rates. For example, single family dwelling units are expected to generate 9.4 trip ends per day, but after adjusting for the internal trips, the rate is reduced to only 7.2 trips per day. It is improper to apply this internalization factor because it is highly dependent on the university. These impacts must be analyzed, and all significance determinations must be based on these more realistic worst-case impacts. Failure to do so could result in unidentified significant impacts, as well as impacts that are more significant than shown in the DEIR.

Response 8-10

Some of the numbers in the comment have been misused or misunderstood. It is accurate that the traffic analysis showed that 43% of university-associated trips would use non-automobile modes, and that 11% of trips not associated with the university would use non-automotive modes. But the comment then concludes that the project would result in even more automobile uses if the university were excluded. The figure reported as 11% *already* measures only those trips unaffiliated with the university, so that figure would not change (worsen). Later on the cited page (DEIR page 16-38) it is stated that combining the university-affiliated and non-affiliated trips results in a non-automotive mode share of 12%, which demonstrates that as a proportion of overall trips, the large non-automotive mode share of the university has a very small impact on overall mode-share.

An issue similar to the one described above occurs in the commenter's discussion of trip rates. The actual numbers reported are correct, but the conclusion is not supported by evidence. This comment assumes – with no supporting documentation – that all or a major portion of the trip rate reduction occurred due to the presence of the university/college campus center, but this is not the case. Trip reductions were included, but these were based on factors such as the proposed transit system, Neighborhood Electric Vehicle system, pedestrian and bicycle trails, and proximity to uses. One hundred percent (100%) of all homes will be within ¼-mile of a park, paseo or open space corridor; 94% of all homes will be within ½-mile of a transit stop; 87% of all homes will be within ½-mile of a school; and 84% of all homes will be within ½-mile of a commercial service center. It is expected that the trip rates would increase to some degree if the university/college campus center were excluded, but it would not be expected to eliminate all or even most of the trip reductions seen in the analysis.

Lastly, while the comment emphasizes the positive impact that university-affiliated trips have on internal trip dynamics, the comment neglects to account for the effect of the trips on the external environment. Removal of the university/college campus center would alter the trip rates for other uses to some degree, but would also remove nearly 9,000 daily trips, so it cannot be stated that removal of the university/college campus center is certain to be a “worst-case” traffic scenario. Furthermore, the same could be said for the removal of any of the other components of the Project, such as the high density residential uses or commercial uses. The removal of any component of a master planned land use proposal would always result in changes to its trip generation and distribution. An analysis would be required to determine how impacts would change, and with respect to that, refer to Response 8-2. CEQA does not require an analysis of a dissected project with and without its primary land use components.

Comment 8-11

The proposed limited transit service is not adequate to substantially reduce transportation, air quality, and climate change impacts. The Transit Analysis section of the DEIR (p. 16-81) claims that the project meets transit demand. However, nowhere does the DEIR disclose what the demand actually is. The only specific reference to transit demand is in tables 16 and 30 of the Traffic Impact Study in Appendix TR-1. However, transit demand is aggregated with bicycle and pedestrian demand, so it is impossible to determine if the proposed service actually meets transit demand, or if other options would provide better service. For example, Sacramento Regional Transit (RT) has no current plans to provide service in the area, which is easy to understand since there are no residents in the area now. Why didn't the EIR evaluate the potential for RT or another public transit provider to provide service? Many transit studies show that the need to transfer between services is a common reason that people chose to drive instead of taking transit. Would the proposed transit service require purchase of a transit ticket (for either Cordova Hills residents or the public in general)? Would people who work in Cordova

Hills but live elsewhere be required to purchase a ticket? Would students of elementary or high schools be able to use transit to get to and from school? It is important to note that the proposed service is very limited, with 15 minute headways only during peak commute periods on weekdays. In fact, much of the proposed service is only half hour or hourly headways, which is not sufficient to encourage substantial transit ridership. At a minimum, the DEIR must disclose what the specific transit demand projection is, the ridership assumptions relative to maximum capacity, and the amount of projected demand that can be satisfied by the proposed service. In addition, it is important that transit service is provided as soon as residents occupy the project and establish transportation routines. Therefore, the DEIR should include a mitigation measure that transit service becomes operational no later than completion of the first 200 residential units.

Response 8-11

The comment is incorrect and ignores the information provided in the Cordova Hills Master Plan, Figure 6.14 – External Transit Shuttle Route (At Page 6-41), and Table 6.5 – Proposed Service & Operating Characteristics for the External Transit Shuttle (At Page 6-40) or any of the other detailed information provided in the plan that describes the proposed transit system. The proposed transit system is directly linked to the time and frequency of light rail trains at the Mather/Mills Light Rail station and the Project proponents have coordinated the transit system with Regional Transit staff. The 15-minute headways during peak hours for both the internal and external transit routes are equal or superior to any service provided by Regional Transit. Please refer to Table 6.4 – Proposed Service & Operating Characteristics for the Internal Transit Shuttle in the Cordova Hills Master Plan (At Page 6-39). The Draft EIR states that the performance metrics consider “services provided as part of the Master Plan and funded via a secure financial mechanism (example CSA 10; North Natomas TMA Developer fees).” The Cordova Hills Master Plan includes a lengthy description of just such a transit service and finance mechanism. The planned service does not rely on SACOG’s MTP or Regional Transit’s Short Range Transit Plan or Regional Transit’s Long Range Transit Plan for implementation. Similar to the example of the North Natomas TMA cited in the Draft EIR, the Cordova Hills transit system is locally funded and does not depend on SACOG or Regional Transit plans for funding.

Comment 8-12

Consultations with the California Native Plant Society biologist Glen Holstein Phd have raised concerns as to the accuracy of the opening statement that: “The dominant vegetation is non-native grassland comprised of ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), wild oats (*Avena fatua*), barley (*Hordeum* species), and ryegrass (*Lolium multiflorum*).” His understanding of the literature, and his personal site visits in the past, suggest that this California prairie ecosystem is dominated by the native species *Holcarpa virgata*, which is not a grass (Holstein 2001). This DEIR needs to substantially support its conclusions with evidence (CEQA 15064(f)(5). Dr. Holstein further pointed out the omission of Sacramento General Plan policy CO-135, to protect the ecological integrity of California Prairie habitat, in those policies listed in 6-3 to 6-6. The plan preparers need to include all relevant information and policies in order to meet a good faith effort standard for informing the public and decision makers about the true nature of the environmental impacts to be considered (CEQA 15003(i) and 15151). The development of the California prairie habitat in the project area would clearly violate CO-135.

Response 8-12

Refer to Response 2-5 and Response 2-6.

Comment 8-13

An important discussion and consideration of the particular vernal pools to be lost is missing from this environmental document. These vernal pool resources are some of the very finest remaining examples of their type within the USB. This project is not merely impacting vernal pool resources, it is impacting some of the very highest quality pools and potentially threatening their connectivity to other vernal pool resources. The Recovery Plan for Vernal Ecosystems of California and Southern Oregon, prepared by the United States Fish and Wildlife Service, clearly identifies Cordova Hills as being within one of its highest priority core areas and as such is integral to attaining the goals set out in the recovery plan. This description of the particular significance of these pools needs to be included in the EIR in order for it to meet its good faith effort standard for informing the public and decision makers about the true nature of the environmental impacts to be considered (CEQA 15003(i) and 15151).

Response 8-13

Page 6-27 of the DEIR specifically references the Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon, and describes that the Project site lies within an area identified as rank 1, which is the highest priority for recovery.

Comment 8-14

Given the extreme biological value of these vernal pool resources and their associated uplands, it is not made clear what the overall and cumulative impact of their removal will be. Consultations with USFWS and the Army Corps and compliance with the requirements of their permits are presented as mitigations, but no effort is made to address the question of the impact of removal of these pools, and further isolating those to be avoided, from the totality of the conservation effort in the Mather Core Recovery Area. It is

clear that the impact is great based on the effect this project and several others have had on the SSHCP and the creation of viable preserves in the Mather Core Recovery Area. The Plan has been stuck over this very issue and these very resources. As part of a good faith effort, there needs to be a discussion of the significance of these vernal pool resources in terms of the process of creating viable preserves within the USB that have adequate size, to minimize edge effect, and connectivity, as well as a discussion of the problems this project has posed for the completion of the SSHCP (CEQA 15003(i) and 15151). 33% of the vernal pool resources in this project area are slated for destruction.

As well, there remain serious concerns as to the connectivity of these vernal pool resources to potential vernal pool reserves to the west of Grant Line Road. The formation of these resources west of Grant Line road into a preserve is as of yet unresolved, but flexibility must be retained within the Cordova Hills plan to allow for such connectivity if the preserve materializes, or both vernal pool complexes will be further isolated and have diminished viability. A good faith effort necessitates discussion of this issue (CEQA 15003(i) and 15151).

Response 8-14

The DEIR concludes that impacts to wetlands are significant and unavoidable specifically because of the amount of wetland loss and the fact that these are within a Rank 1 area. This loss has been addressed both on a Project-specific level in the Biological Resources chapter and in the Cumulative and Growth Inducing Impacts chapter. A public draft of the South Sacramento Habitat Conservation Plan has not been released, and the preferred preservation areas have not been finalized. It is not the duty of this EIR or Project to describe impacts to an unpublished draft habitat conservation plan. It is the purpose of the habitat conservation plan, not the purpose of

this project-specific EIR, to define and describe the creation of a viable regional preserve network.

In addition, as noted by the commenter, the size and location of any wetland preserves on the southwestern side of Grant Line Road remains unresolved and unknown. Consequently, it would be speculation for the Draft EIR to attempt to discuss in detail any indirect connectivity and isolation issues with regard to other possible wetland preserves outside of the boundaries of the Cordova Hills Project area that may or may not be created. CEQA does not require speculation on such issues. See, CEQA Guideline Section 15145; *Environmental Council of Sacramento v. City of Sacramento* (2006) 142 Cal.App.4th 1018, 48 Cal.Rptr.3d 544; *Anderson First Coalition v. City of Anderson* (2005) 130 Cal.App.4th 1173, 30 Cal.Rptr.3d 1652; *Residents Ad Hoc Stadium Committee v. Board of Trustees* (1979) 89 Cal.App.3d 274, 152 Cal.Rptr. 585.

Comment 8-15

The biological resource section misuses the CNDDDB throughout by assuming that the data base is a record of absence (i.e. by assuming that if a species does not show up in the CNDDDB, then it's not there). The CNDDDB has a clear disclaimer for users on this point. This constitutes a bad faith effort (CEQA 15003(i) and 15151).

The abuse of the CNDDDB leads to bizarre results such as the conclusion that, for example, there are no recorded incidences of Ferruginous Hawk within 5 miles of the project area, and no Golden Eagles or Northern Harriers within 10 miles, and so moderate potential for occurrences were provided for them despite the fact that suitable foraging habitat is available and despite the fact that the CNDDDB is notoriously incomplete and often only has incidence listing for nesting birds. The Grasshopper sparrow and Loggerhead Shrike are also given a moderate potential for occurrence even though suitable habitat is available and there are recorded incidences within five miles, the definition of high potential for occurrence provided in this EIR. There is no mention whatsoever of the Rough Legged Hawk that is a likely forager in this project area. American Badgers are listed as having low potential for occurrence despite the recorded incidence within 2.5 miles of the project area and the availability of suitable habitat for this species which has a large home range.

Consultations with Glen Holstein Phd indicated some plant deficiencies as well. Tuolumne Button-celery (*Eryngium pinnatisectum*) is listed as "Not Present" despite the fact that it is known to occur in vernal pools and in Sacramento County (Tibor 2001), and as such its potential to occur at Cordova Hills is at least moderate and probably is high. Furthermore, five rare vernal pool annual plants Dwarf Downingia, Bogg's Lake Hedge Hyssop, Ahart's Dwarf Rush, Pincushion Navarretia, and Slender Orcutt Grass are listed as not present at Cordova Hills because plant surveys didn't find them. Such vernal pool annuals may not appear every year, however, even though they are present as seeds undetectable by standard plant surveys (Holland & Jain 1981). One such California annual, although not a vernal pool species, apparently survived exclusively as seeds for 102 years. Long thought extinct, it was rediscovered when its seeds finally germinated (McCune 2005). Many other examples of such rediscoveries are known in California although the duration of their presumed extinction is usually not a century long (Tibor 2001). In all such cases soil profiles have remained intact so seeds could germinate when conditions were favorable. There is at least some potential that any or all of the five rare vernal pool annuals not found by Cordova Hills plant surveys may exist there as seeds. As long as the site's natural soil conditions are intact they might reappear at any time. The project's proposal to destroy 33% of the site's vernal pools significantly diminishes this possibility.

Response 8-15

As discussed in Response 2-8, presence of an occurrence on the CNDDDB was *not* used as the sole means to determine whether an analysis was warranted, as it was clearly

stated that both lack of CNDDDB occurrence *and* lack of adequate habitat must be confirmed before a discussion of the species would be excluded. All species with either a rating of “moderate” or “high” potential were analyzed, and the analysis was conducted to the same level of detail regardless of whether the rating was “moderate” or “high”. The remainder of this comment repeats comments found in Letter 2. Refer to Response 2-9, Response 2-10, Response 2-12, Response 2-13, and Response 2-14.

Comment 8-16

1. CalEEMod is the most appropriate and current modeling tool suitable for measuring greenhouse gas (GHG) emissions from a project. Please use CalEEMod and eliminate patchwork analysis.

Response 8-16

The Project analysis used the California Air Pollution Control Officers Association (“CAPCOA”) mitigation measures to assess emission reductions from greenhouse gas mitigation measures, which is the same technical study which was used to design CalEEMod. SMAQMD has recommended usage of CalEEMod for projects with a Draft EIR published after January 1, 2013. The Cordova Hills DEIR was published nearly one year prior to that date. Furthermore, the methodology used in the analysis for the Project was reviewed and found to be appropriate by County staff and by SMAQMD. (Note that though SMAQMD has expressed concerns in their comment letter, these concerns are unrelated to the methodology used.)

Comment 8-17

2. AQMP-2; SMAQMD 29: The Cordova Hills Master Plan requires all buildings to be constructed to at least 20 percent above 2008 Title 24 standards.

This GHG reduction measure is specious and meaningless for any project permitted after 2015, and nearly useless for projects built between 2012 and 2015. Title 24 is updated every three years and is intended to become approximately 15 percent more stringent for each three year cycle.

To remedy this deficiency, please revise the measure as follows:

At the time of building permit issuance, buildings will be designed to be at least 20% more efficient than Title 24 requirements in force at the time of building permit issuance. Construction must start within one year of receiving building permit and construction is to be completed within two years of receiving building permit, or the Title 24 compliance demonstration must be revised relative to the updated requirements.

Response 8-17

This measure cannot be written as suggested, because this is a master plan which will not be fully developed for decades. The intention of Title 24 is to eventually require that buildings achieve a net-zero energy use, and it would not be feasible for buildings to be 20% more efficient than net-zero. It is true that over time buildings will be required to be more efficient than current mitigation requires, but it is not uncommon for mitigation on a master plan to eventually be supplanted by future regulations which become more

stringent. Mitigation is based on what is deemed feasible and reasonable based on current technologies and evidence, which is the appropriate measure.

Comment 8-18

3. AQMP-2; SMAQMD 33: The TMA is speculative and cannot be counted on for the 5 points. It is difficult to understand whether the proposed transit system is economically justifiable without reviewing the proposed financial plan in parallel with the EIR. AQMP-2; SMAQMD 33 was too general and ECOS could find no specifics elsewhere in the EIR.
- Will the transit system collapse due to inadequate funding?
 - Will parcels go unsold due to high cost of fees to fund transit?
 - What is guaranteed minimum level of service?
 - What is the definition of a peak-time period?
 - What are the proposed contribution rates for commercial and residential properties?
 - i. How do these compare with other user-financed transit systems?

Response 8-18

The TMA and the transit service are core services of the proposed Cordova Hills County Service District, which will also provide parks, landscape maintenance, community internet, and other services for the residents, institutions, and businesses in the Cordova Hills Project. The Cordova Hills Master Plan includes a lengthy description of just such a transit service and finance mechanism. The planned service does not rely on SACOG's MTP or Regional Transit's Short Range Transit Plan or Regional Transit's Long Range Transit Plan for implementation or funding. Many of the economic questions raised by this comment are beyond the purview of CEQA analysis, and the other questions are answered within the Master Plan and Urban Services Plan. With regard to peak time periods, these represent the standard peak commute hours used in transportation analysis (7:00 to 9:00 a.m. and 4:00 to 6:00 p.m.).

Comment 8-19

4. AQMP-2; SMAQMD-99B: The entropy of the Cordova Hills project is low (LUT-3 from CAPCOA Quantification of GHG Measures); this is not a well-mixed project as compared to an urban setting; there are clearly high- medium and low density housing areas with off-site commercial. It is unclear how a 25.32% VMT reduction can be claimed relative to BAU. The DKS analysis claimed approximately 15% VMT reduction and additional CAPCOA measures claimed 10.5% additional VMT reduction. Although AQMP indicates that double counting was not done, it is hard to believe that the interactions between all modeled and estimated measures could achieve a combined 25.32% VMT reduction.

Response 8-19

Comment noted. The Project incorporates a mix of uses required for daily life within ¼- to ½-mile of all residential areas. In addition, all of these uses are directly accessible by the proposed bike and pedestrian network system. In the Cordova Hills Master Plan, Table 6.3 – Proximity to Services (at page 6-27) summarizes the connectivity afforded by the bike and pedestrian trail linkages to major destinations. One hundred percent (100%) of all homes will be within ¼-mile of a park, paseo or open space corridor; 94% of all homes will be within ½-mile of a transit stop; 87% of all homes will be within ½-mile of a school; and 84% of all homes will be within ½-mile of a commercial service center. The comment offers no evidence that the calculations were incorrect.

Comment 8-20

5. AQMP-2; SMAQMD-99B: Table C identifies business as usual conditions and has been replicated as Attachment 2. ECOS has derived proposed project conditions using data on page 8 of AQ-2 and presented in the same format as Table C. There are several notable comments when comparing the 2 tables:
- It is unclear how the 8,006 dwelling units, 7,140 K-12 students in this table relate to the 2.54 people per rented dwelling unit and 2.71 people per owned dwelling unit mesh. ECOS has adjusted conversion factors to try and achieve 25,419 residential population. What are the differences in populations?

Response 8-20

Attachment 2 of the comment letter takes Table C of Appendix AQ-2 and adds several new columns with calculations and factors generated by ECOS. The fundamental assumptions of these calculations are in error. Firstly, the commenter has attempted to calculate the total Project population in a manner which is different than the way it was calculated for the DEIR. The population estimate in the DEIR of 25,419 residents is based upon a simple calculation of the average number of persons per household for each residential dwelling unit (du) times the total number of dwelling units in that category⁷, plus adding a student population of 4,040. Attachment 2 of the comment letter, on the other hand, includes a column titled “conversion”, in which a population factor of unknown source is applied to every land use – including non-residential uses such as a racquetball court or a gas pump – in order to attempt to derive the total population. The calculations provided in this comment letter are in error.

Comment 8-21

- It is unclear how the 1,583 employees in Table C relate to the 6,548 employees from Table 3.

Response 8-21

Table C of the AQMP does not include any data on employees. The land uses identified in Table C are described in terms of size, not occupancy, (e.g. number of dwelling units or thousands of square feet of non-residential floor area). No correlation factors for re-interpreting that data to generate population or the number of employees for a particular use was provided or intended; thus there is no correlation between the estimated employment at the Cordova Hills Project shown in the AQMP’s Table 3 and the commenter’s effort to estimate 1,583 employees by using the size metrics contained in Table C.

Comment 8-22

- VMT between BAU and proposed drops 12.7% from 239 million mi/yr to 209 million mi/yr; Table D, page 8 indicates that the proposed VMT is 199 million miles
 - Why is there a 10 million mile difference? (209 vs. 199)

⁷ 2.71 people per single-family dwelling unit and 2.54 people per multi-family dwelling unit. The Sacramento Area Council of Governments (SACOG) is the source of these persons per household figures (see Appendix AQ-2, Page 14, Table 1 Master Plan and Table 2: Cordova Hills Population Estimate).

Response 8-22

The commenter's number of 209 million miles is a figure which has been calculated by ECOS, and does not appear in the AQMP. This calculation is incorrect, because it uses the incorrect trip generation rates. The trip generation figures used by ECOS are those which were initially *input* to the SACMET model as part of the traffic analysis for the Project, while the trip generation used in the DEIR and reported in Table C of Appendix AQ-2 is the *output* trip generation of the SACMET model. The Traffic and Circulation chapter simply reports the major assumptions which were used to define the Project for the purpose of modeling, and the unadjusted trip generation is only the first of many such input factors. Other input factors include pass-by rates, trip redistribution rates, and reductions taken for transit availability. These other factors reduce the total number of trips, the total trip lengths, or both; thus, it is only by looking at the output of the traffic modeling that the final trip generation can be obtained. The correct calculation of annual VMT generated by the Cordova Hills Project is shown in the AQMP's Table F: "Overall Annual VMT Reduction 2035."

Comment 8-23

- d. VMT/capita per day drops from 29 under BAU conditions (Attachment 1) to 26 under proposed project (Attachment 3), both are high numbers and will make SACOG's effort to meet 2020 and 2035 goals difficult
 - i. ECOS understands that attempting to assist SACOG in meeting their GHG reduction goals is voluntary, but the high VMT per capita calls into question the need for building such a large project on the urban fringe

Response 8-23

Refer to Response 8-22. The VMT calculations included in the ECOS letter are in error. The remainder of this comment is an opinion on whether or not the Project ought to be approved. Comment noted.

Comment 8-24

- e. The student population stands out as a tremendous VMT and GHG reduction measure, yet the University is a very speculative venture
 - i. Recommend splitting University students into those living on-campus vs. those living off-campus to highlight the VMT differences

Response 8-24

Refer to Response 8-2 and Response 8-10. The DEIR reports the proportion of trips which are external to the Project and have the university/college campus center as their destination/origin (page 16-38), but it is not possible or necessary to parse out the trips to the refined detail recommended by this comment. Also note that the university/college campus center is not a mitigation measure, it is a component of the Project.

Comment 8-25

6. AQMP-2; SMAQMD-99B: Since the proposed development of a University has become a very speculative item and because the on-campus student population skews VMT and GHG emissions to a very low per capita level, ECOS believes that the GHG analysis is flawed.

The analysis must either include:

- a. a complete analysis of what the project would consist of without a University that meets or exceeds Sacramento County suite of thresholds adopted 11/3/11 or
- b. a mitigation measure that does not allow construction of Cordova Hills to start until a University with a built out population of 6,000 with an on-campus population that is at least 67% shows good faith that it intends to occupy the space. Good faith might consist of [\$147¹] million in escrow that is forfeited to the SMAQMD for climate mitigation if a mutually agreed to timeline is not achieved. Timeline developed is to include input from public.
 - i. 100% commuter type Universities will NOT be consistent with analysis that indicates 67% of students live on-campus and is not a viable option
 - ii. This mitigation measure must be included in AQMP-2.

Response 8-25

Refer to Response 8-2 and Response 8-10. In addition, payment of funds to SMAQMD would not be appropriate mitigation because SMAQMD has not established a program at this time to ensure that those funds would be used for demonstrable mitigation projects. The “fee” suggested by this comment of \$20.00 per metric ton is not supported by any documentation indicating why this number was chosen by the commenter. A lead agency cannot arbitrarily determine a mitigation “fee”; any funding amount must be supported by evidence in the record which demonstrates both that the amount would be sufficient to offset the impact and that there is an identified means of implementing demonstrable mitigation projects with the funding. The comment has satisfied neither requirement.

Comment 8-26

7. CC-1 below is not acceptable as worded. The 5.80 efficiency metric includes the contribution of a very low per capita University component- say 3.8 or so. The wording of CC-1 could allow the 6,000 person, GHG efficient University to be replaced by a 6,000 person GHG average tenant thus increasing the overall emissions of the project tremendously.

CC-1. The following text shall be added to the Cordova Hills SPA: All amendments to the SPA shall include an analysis which quantifies, to the extent practicable, the effect of the Amendment on greenhouse gas emissions. The Amendment shall not increase greenhouse gas emissions above an average 5.80 metric tons per capita (including emissions from building energy usage and vehicles).

Response 8-26

Mitigation Measure CC-1 is intended to require any amendment to the SPA to meet the threshold of 5.80 MTCO₂e per capita for the overall Project. If an amendment to the SPA meets the 5.80 MTCO₂e per capita threshold, then there would be no need to amend the GHG Reduction Plan. In order to clarify the matter, Mitigation Measure CC-1 has been revised in the Final EIR as follows:

CC-1. The following text shall be added to the Cordova Hills SPA: All amendments to the SPA **with the potential to change SPA-wide GHG emissions** shall include an analysis which quantifies, to the extent practicable, the effect of the Amendment on **SPA-wide** greenhouse gas emissions. The Amendment shall not increase **SPA-wide** greenhouse gas emissions above an average 5.80 metric tons per capita (including emissions from building energy usage and vehicles). **If the SPA amendment would require a change in the approved GHG Reduction Plan in order to meet the 5.80 MT CO₂e threshold, then the proponent of the SPA amendment shall consult with the Sacramento County Environmental Coordinator on the revised analysis and shall prepare a revised GHG Reduction Plan for approval by the County, who will coordinate with SMAQMD.**

Comment 8-27

8. Cordova Hills proponents indicated at a meeting with ECOS on 2/16/12 that a University will be built at the site or that the land will be surrendered to the County at expiration of 30-year agreement. This is deferred mitigation which has been disallowed by the courts (*Communities for A Better Environment v. Richmond* (2010) 184 Cal.App.4th 70. (CBE).). Liquidated damages (LD) must begin flowing to the SMAQMD Indirect Source program (or other responsible agency) by 2017 if no University with significant on-campus population has not been committed to. Timelines and LD amounts need to be developed with public input.

Response 8-27

The discussion referred to by ECOS was part of a meeting between the proponent and the applicant at which County staff were not present. As described in Response 8-2 and Response 8-10, the university/college campus center is a part of the Project as it has been proposed, and has been analyzed as such. Surrendering the property to the County if it were to remain undeveloped is not a mitigation measure in the DEIR; it is part of the Development Agreement. The transfer of a property from one owner to another is unrelated to any physical impact, and is not a mitigation measure. The proposed condition is also unrelated to the use of the site, because even if this condition were to come into effect, the property would still be designated for a university. This may be a policy consideration for the County, but is not a CEQA issue.

Comment 8-28

1. ECOS could find nothing in chapters 7, 11, 15 or AQMP-2 on water, sewer, or storm drain efficiency measures that might be employed by the project to reduce loads on off-site water, sewer or storm drain infrastructure and thus also reduce effects on climate change.

Water, sewer, and storm drain infrastructure is very expensive per unit. As an example, the high cost of the regional sewage treatment plant upgrade to tertiary status has been in the papers over the last 2 years. The proposed high sewer hook-up fees and hefty monthly rate increases that correspond to the need for capital cost recovery on the sewer plant upgrade are very costly on a unit basis and existing customers are blanching at the proposals. See http://ecosacramento.net/ClimateChange/?page_id=784 for more information.

In many cases efficiency improvements at the loads (in this case Cordova Hills (CH)) can be achieved at a lower unit cost than upgrading infrastructure.

Response 8-28

The DEIR specifically addresses the issues of water conservation on climate change. As stated in the Draft EIR, the Project's water will be supplied by the Sacramento County Water Agency's (SCWA) Zone 40, which is a conjunctive use water system. SCWA has taken climate change into account in its water supply planning, having assumed that surface water supplies could diminish by 25% (according to the Programmatic Water Supply Assessment prepared for the Sacramento County Draft 2030 General Plan Update). In addition, the 2010 California Green Building Standards Code requires the installation at the Cordova Hills Project of water-efficient fixtures in all new construction, including low-flow showerheads, faucets, and toilets. The Cordova Hills Special Planning Area ordinance also indicates that many of the public landscaped areas within the Project will consist of drought-tolerant species fed by drip irrigation or similar low-water systems. Taken together, the requirements for water efficiencies and the planning for water reduction would ensure that the Project has adequate water supply in the long-term. (See, Draft EIR, Page 7-31).

Commenter also asked for a description of the steps the Cordova Hills Project would be taking to reduce its overall demand for water, and thereby reduce its effects on climate change. The Cordova Hills Master Plan ("CHMP") contains substantial documentation on the conservation design measures that will reduce the Project's water, sewer and storm drainage demands on the regional systems. CHMP Section 2.4 on Water Conservation (CHMP, at Page 2-5) describes detailed measures included in the CHMP to reduce water demand. Also see the CHMP's Table 2-1 for water measures that describes the individual measures that will be applied throughout the Cordova Hills Project, including water efficient landscapes, water efficient irrigation, water efficient fixtures, and reduced turf in landscape and lawns (CHMP Section 2.5 on stormwater management, CHMP Section 4.41 on landscape design guidelines, and CHMP Section 7.7 on water quality protection and enhancement). With regard to wastewater, CHMP Section 2.6 describes wastewater management.

Comment 8-29

Because of the disconnect between the economics of supply and demand of commodities (water, sewer and storm), please evaluate above-and-beyond-code water, sewer and storm drain efficiency measures such as:

- gray water
- local scalping plants: (i.e. small plants that take sewage and treat it to recycled water standards and distribute locally)
 - with recycled water to serve non-potable needs
- low-impact storm water management
- water efficiency in new development (would above and beyond Green Code Tier 2 water efficiency measures be cost effective?)
- exemplary effort to keep storm water out of sanitary sewer system

Response 8-29

The availability of gray water to operate a recycled water distribution system is determined by the water services provider, not by the developer. During the preparation of this Final EIR, the County determined that there were no plans to provide future non-potable water to the Cordova Hills Project area and no funding for the County or the water and sewer agencies to maintain a recycled water distribution system at Cordova Hills until non-potable water could be provided. Consequently, in conformance with the County's current plans, it was decided that the Cordova Hills Project will not be installing a recycled water distribution system and the pertinent sections in the CHMP have been revised in this regard. The feasibility of local scalping plants is another service determined by the sewer services provider, not the developer. However, the requirement to otherwise implement water efficiency measures in plumbing fixtures and exterior landscape irrigation continues to be addressed in the CHMP's Section 2.4 on Water Conservation (See, CHMP at Page 2-5). Low impact storm water management was extensively described in the CHMP's Section 2.5.1. With regard to storm water and sewers, both the CHMP's Figure 8.5 "Cordova Hills Waste Water System" (CHMP at Page 8-14) and the CHMP's Figure 8.6 "Cordova Hills Storm Water Management Plan" (CHMP at Page 8-15) depict totally segregated sanitary sewer and storm water systems. In the CHMP, Section 8.5 on "Storm Drainage" states that "[t]he storm water detention and water quality features throughout Cordova Hills are designed as an integrated management system. Implementation of LID measures throughout Cordova Hills will help reduce overall development impacts on the quality of storm water runoff from the project." (See, CHMP at Page 8-16).

Comment 8-30

By NOT including water, sewer and storm drain efficiency improvement measures in the project design that are similar to the unit cost of infrastructure, the project is unknowingly forcing utility providers to pass along unnecessary costs to existing ratepayers in the form of unnecessary infrastructure. The ratepayers of the County cannot keep being tapped for higher monthly fees when lower unit cost alternatives such as on-site efficiency can be employed to societies (i.e. rate payers) advantage.

Response 8-30

Refer to Response 8-29. Commenter has fundamentally expressed an economic opinion, and not raised an issue concerning the environmental analysis in the DEIR.

Nonetheless, the Cordova Hills water, waste water, and storm water systems as described in the references cited in the preceding responses demonstrate the water conservation and system efficiency improvement measures that were designed into the Cordova Hills Project. The comment poses an opinion regarding economic equity that is beyond the scope of the DEIR and overlooks the efficiency measures already incorporated into the design of the Cordova Hills Project.

Comment 8-31

As referenced in the preceding sections, this document is deficient in numerous areas. The most basic flaw is associated with the project description, which includes a 6,000 student self-contained university that is unlikely to ever materialize, at least in the form described, making the project description totally unrealistic. By including this hypothetical university the entire analysis is biased, does not represent the project, and therefore is flawed. In order for this document to be accurate and complete, the project needs to be analyzed without the university.

Additionally, we do not believe the necessary findings and statements of overriding considerations can be defensibly made to approve this project. There is no substantial evidence in the record that a self-contained 6,000 student university will ever exist at this location. Given these considerations, the DEIR should be redrafted and recirculated for public review.

Response 8-31

CEQA does not require EIR's to evaluate and speculate as to what the environmental impacts of a project would be if specific components of the proposed project are not built. Lead agencies are not required to foresee the unforeseeable or to speculate about hypothetical future conditions, which include speculation about when or even whether a user may be found for the university/college campus center. See, CEQA Guidelines Section 15144; *Anderson First Coalition v. City of Anderson* (2005) 130 Cal.App.4th 1173, 30 Cal.Rptr.3d 738; *Residents Ad Hoc Stadium Committee v. Board of Trustees* (1979) 89 Cal.App.3d 274, 152 Cal.Rptr. 585. Also refer to Response 8-2.

LETTER 9

Judith Lamare, Ph.D., President, Friends of the Swainson's Hawk; written correspondence; dated February 22, 2012

Comment 9-1

FOSH is a volunteer group providing grassroots advocacy for wildlife and habitat in the Central Valley. We, along with others, have major concerns about the pending Application to County of Sacramento to develop 2,669 acres along Grant Line Road east of Rancho Cordova. We concur in the comments already submitted by the Environmental Council of Sacramento and the California Native Plant Society.

The EIR determines that the Project will require 2,231 acres of mitigation to compensate for the loss of Swainson's hawk foraging habitat, using the County's mitigation program, another mitigation plan acceptable to CDFG, or the South Sacramento County Habitat Conservation Plan, if it has been approved. The other 438 acres of project area are avoided areas that the EIR claims will retain their foraging value after the project is completed. We have a number of concerns with the analysis and the mitigation measures as presented in the DEIR.

These comments will focus on the Swainson's Hawk impact analysis and mitigation. However, we also have concerns about the environmental impacts of the timing and location of development approvals in Sacramento County for which the necessary infrastructure has not been assured.

We completely agree with the EIR's determination that all of the land within the project area is Swainson's Hawk foraging habitat and that the appropriate mitigation ratio for this area would be 1:1 for loss of foraging habitat.

The EIR relies on CNDDDB to identify species presence. CNDDDB records are poorly maintained, out of date, and are therefore not complete and often underestimate species presence and recent nesting behavior.

CNDDDB is not intended to provide definitive data for purposes of CEQA review of a project. The CNDDDB webpage says:

“...we cannot and do not portray the CNDDDB as an exhaustive and comprehensive inventory of all rare species and natural communities statewide. Field verification for the presence or absence of sensitive species will always be an important obligation of our customers.” (http://www.dfg.ca.gov/biogeodata/cnddb/cnddb_info.asp)

CNDDDB is a first stop for biological assessment, indicating where likely rare plants and animals may be found. When assessing Swainson's Hawk impacts, DERA should consult directly with CDFG to determine how well the area has been surveyed in the past, and include all data available at CDFG, not just what is reported in the CNDDDB.

In the attached email from CDFG's CNDDDB manager, Brian Acord, dated September 15, 2011, more information is provided about the backlog in updating the database with nesting site information. Mr. Acord notes: "...we currently have 418 unprocessed source documents for Swainson's hawk in the state." He also notes that these records could be nests, perched or flying birds.

In the case of Swainson's Hawk records, the County had access to recent, high quality data commissioned by the Cities of Elk Grove and Rancho Cordova as well as the Department of Fish and Game. Much of this data had been incorporated into the planning for the South Sacramento County Habitat Conservation Plan and is represented on maps we are submitting with our comments.

Response 9-1

Refer to Response 2-8 and Response 8-15. Environmental Review staff had multiple phone conversations and a meeting with California Department of Fish and Game as part of assessing the extent of the Project impacts and establishing appropriate mitigation.

Comment 9-2

The EIR is deficient in identifying the location of nesting Swainson's Hawks in relationship to the project site. Nor has it made a good faith effort to survey the site for Swainson's Hawk nesting territories.

Attached you will find several maps of Swainson's Hawk nesting sites. The map titled "Range of the Swainson's Hawk in the SSHCP Plan Area" was produced by the South Sacramento County Habitat Conservation Plan staff and shows nesting territories known to the County through the CNDDDB, and the surveys conducted for the Cities of Elk Grove and Rancho Cordova by Estep Biological Consulting. Measuring distances using the legend of distances on the Map, the Map shows at least three active SWH nests within one mile of the Project site, and many nesting territories within five and ten miles of the Project site.

We also include Figure 10 of Estep Environmental Consulting, 2006. The distribution, abundance, and habitat associations of Swainson's Hawk (*Buteo swainsoni*) in the City of Rancho Cordova Planning Area. (Prepared for the City of Rancho Cordova, CA.) This map confirms the siting documented in the SSHCP map.

We also attach a map prepared for FOSH by a volunteer which places the project site on the SSCHCP map and places circles around the nearest nesting territories on the map. The attached map shows yellow and purple dots representing known nesting territories identified by County of Sacramento SSCHCP staff in preparation of the attached map “Range of Swainson’s Hawk in the SSHCP Plan Area.” These include recent surveys done by Cities of Elk Grove and Rancho Cordova. Nesting sites close to the project are indicated with colored circles showing one (orange), two (yellow) and three (blue) mile radii circles around each nest site. Our map indicates that there are two known nesting sites quite close (within a mile) to the northwest corner of the project area, one within a mile of the southwest project boundary, one within a mile of the southeast project boundary and several others within 1 to 3 miles of the project.

These documents amply demonstrate that the EIR is deficient in identifying known nesting territories proximate to the project site and therefore the likely intensity of use of the site for foraging habitat as well as the likelihood of nesting activity within the project area.

Response 9-2

At the outset of this comment letter, Friends of the Swainson’s Hawk (FOSH) agrees that the entire site is foraging habitat and that a 1:1 mitigation ratio is appropriate. It is unnecessary to know exactly how many nests are located within a given radius of a site in order to determine whether impacts to a species will occur, and thus whether habitat mitigation is required. The amount of habitat mitigation is rarely tied to the number of species which may use the site. It is typical simply to require a set proportion of mitigation if a site contains habitat, regardless of the number of individuals which are proximate to a site. This is the case for Swainson’s hawk mitigation, which is required at a standard 1:1 ratio. Furthermore, the number of known nests within a five or ten mile radius of a site does not correlate to the relative use of that particular site as foraging habitat. According to both CNDDDB data and the data referred to by this comment letter, the vast majority of Sacramento County – including urbanized areas such as the City of Sacramento – are within five miles of multiple nests. Yet, the intensity of Swainson’s hawk foraging is not identical throughout all of Sacramento County. The DEIR discloses the nearest known Swainson’s hawk nest, just as it discloses the nearest occurrences for other species. The nearest known nest disclosed in the DEIR is the same nearest nest shown in the exhibits which accompany this comment letter.

Comment 9-3

Potential direct and cumulative impacts on the species range and reproductive activity should be identified, including but not limited to the following:

- a) potential impacts on reproductive activity in nesting sites and nesting success within two miles
- b) potential impacts on reproductive activity and nesting success of other nesting sites within 2 - 5 miles;
- c) cumulative impacts due to urbanization of foraging lands already permitted by the Cities of Rancho Cordova and Elk Grove and the County of Sacramento.
- d) potential impacts on survivability of fledged juveniles from these nesting sites as well as potential impacts on the adequacy of nourishment of SWH needed to provide the strength and energy required to survive the annual SWH Fall migration. (Undernourished birds, especially undernourished first-year birds, are unlikely to survive the rigors of long-distance migration to central Mexico and southward)
- e) the potential for the project to “take” Swainson’s Hawks, thus necessitating an incidental take permit from the Department of Fish and Game.

What are the risks of take from the project and how will the project mitigate these risks of take to less than significant?

Response 9-3

The California Department of Fish and Game has published guidelines on the assessment of nest disturbance impacts, as described on page 6-41 of the DEIR. The DEIR analysis is consistent with those guidelines, and the analysis recommends mitigation to avoid nesting disturbance or take of Swainson’s hawk (note that Mitigation Measure BR-3 has been amended to include the ½-mile survey radius specified in the discussion, which was inadvertently excluded from the measure). Mitigation has likewise been included for loss of foraging habitat, to ensure the survivability of Swainson’s hawk. Cumulative loss of the grassland habitat on the site is addressed on DEIR page 18-8. Commenter has not presented any substantial evidence that the findings and conclusions of the Draft EIR were in error.

Comment 9-4

The EIR mitigation measure to reduce take is unnecessarily vague and defers mitigation to an unknown future time. CEQA does not permit deferred mitigation. DERA should have standard language from DFG on these measures. In this case DERA did not set any minimum standard to meet the "mitigation below a level of significance" standard required of the lead agency. Instead, it defers the required mitigation on to DFG at some future time. We recommend the following language:

In order to avoid take of nesting raptors (including Swainson's hawks), a pre-construction raptor nest survey shall be conducted within 15 days prior to the beginning of construction activities by a California Department of Fish and Game (CDFG) approved biologist in order to identify active nests in the project site vicinity. The results of the survey shall be submitted to CDFG. If active nests are found, a quarter-mile (1320 feet) initial temporary nest disturbance buffer shall be established. If project related activities within the temporary nest disturbance buffer are determined to be necessary during the nesting season, then an on-site biologist/monitor experienced with raptor behavior shall be retained by the project proponent to monitor the nest, and shall along with the project proponent, consult with the CDFG to determine the best course of action necessary to avoid nest abandonment or take of individuals. Work may be allowed to proceed within the temporary nest disturbance buffer if raptors are not exhibiting agitated behavior such as defensive flights at intruders, getting up from a brooding position, or flying off the nest. The designated on-site biologist/monitor shall be on-site daily if necessary while construction related activities are taking place and shall have the authority to stop work if raptors are exhibiting agitated behavior. In consultation with the CDFG and depending on the behavior of the raptors, over time it may be determined that the on-site biologist/monitor may no longer be necessary due to the raptors' acclimation to construction related activities.

Response 9-4

This comment refers to Mitigation Measure BR-3, which requires preconstruction nesting surveys for raptors. As stated in the text of the DEIR (page 6-45 and 6-47), the lack of detailed avoidance and minimization measures is because the appropriate measures will depend on many variables, including the distance of activities from the found nest, the types of activities, and whether the landform between the nest and activities provides any kind of natural screening. Depending on these factors, a biological monitor may be deemed by Fish and Game to be unnecessary. While including a large amount of language related to the recommended biological monitor, the proposed measure does not indicate the time of year that the surveys should be conducted or recommend an appropriate survey distance. These are critical factors which are included in existing Mitigation Measure BR-3.

Comment 9-5

We have reviewed the DEIR discussion of avoided areas and the analysis of whether the avoided areas retain their foraging habitat value. The EIR concludes that 438 acres of the avoided area will not lose its Swainson's Hawk foraging habitat value.

This conclusion is unsupported. Review of the Project map shows that the large contiguous 298 acres of avoided area is largely surrounded by intensive urban development, with the exceptions of two corridors at the northern and southern ends opening onto adjacent undeveloped areas (grassland). Portions of the avoided area within the project site are quite narrow. Normally, raptors are reluctant to forage on lands adjacent to, or surrounded by, intensive urban uses. For that reason, it appears that a large portion of the 298-acre avoided area within the project would seldom or never be used by SWH.

The DEIR states that two multi-purpose trails will be constructed through the primary avoidance area, and roads will also cross the avoidance area. These impacts will further reduce the SWH foraging value of the avoidance area

CDFG should be asked to make a determination of the amount of the avoided area that would be significantly impacted by adjacent intensive urban development, and accordingly recalculate the SWH habitat that would remain usable by SWH in the avoided areas within the project at build-out of the planned urban development. There is no evidence that such analysis has been done in the preparation of the draft EIR.

Response 9-5

While stating that the DEIR conclusion is unsupported, the commenter does not provide any evidence of this, and in fact makes several unsupported statements of its own. For instance, the comment states that "normally, raptors are reluctant to forage on lands adjacent to, or surrounded by, intensive new uses". This is true for some raptor species, but is not true of raptors in general. Many species of raptor are quite tolerant of urbanized environments, such as falcons which nest on buildings and feed on pigeons⁸ and Cooper's hawk which are regularly found in residential backyards⁹.

With regard to Swainson's hawk, what the comment describes is the impact of urban edge conditions on the overall suitability of a habitat patch. There is abundant research on the suitability of different cover types (e.g. grassland, crops, orchards, etc) and on the size of home ranges, but to the lead agency's knowledge there is no research which defines when edge conditions render a habitat patch unsuitable. The commenter has also not offered any published studies or reports stating a minimum acreage threshold at which Swainson's hawks no longer forage where prey are otherwise abundant and available.

⁸ http://www.allaboutbirds.org/guide/Peregrine_Falcon/id

⁹ http://www.allaboutbirds.org/guide/Coopers_Hawk/id

The commenter also states that the EIR should have been prepared in consultation with Fish and Game. The analysis was formed with the input of Fish and Game, as the County had multiple phone conversations and a meeting with California Department of Fish and Game staff to discuss the Project's impacts on Swainson's hawk; however, the agency has declined to take a public position, on the basis that the County is lead agency. The analysis included in the EIR is based on reasonable assumptions predicated upon facts, and on expert opinion supported by facts. Though the commenter disagrees with the EIR conclusion, no evidence has been presented by the commenter which would require a contrary finding.

Comment 9-6

There is no evidence that the adjacent undeveloped areas connected to the planned avoided areas will remain undeveloped in perpetuity or that they will forever be managed in a manner which does not compromise or eliminate SWH foraging value. The fact that some the adjacent undeveloped area is outside the Urban Service Boundary does not mean that the adjacent undeveloped area will forever remain outside the USB. The County has already initiated a process to expand the Urban Service Boundary in Natomas Basin, and nothing prevents the County from expanding the Urban Service Boundary beyond Cordova Hills in the future. Nothing prevents the County from rezoning the adjacent undeveloped areas to small-parcel agricultural-residential uses outside the Urban Service Boundary.

Response 9-6

See Response 2-15. The EIR is not required to speculate about the potential future rezoning of adjacent lands outside the Urban Services Boundary into smaller agricultural-residential uses, and their impact on the Project and its Avoided Areas. See CEQA Guideline 15144; *Environmental Council of Sacramento v. City of Sacramento* (2006) 142 Cal.App.4th 1018, 48Cal.Rptr.3d 544.

Comment 9-7

Please explain how the avoided area will be managed to retain Swainson's Hawk foraging habitat? Currently, cattle grazing prevents dense overgrowth of weeds that impede SWH foraging access. Will cattle grazing be continued?

What measure will be taken to minimize the “edge effect” of adjacent intensive urban development on SWH foraging habitat in the avoided areas? What will be the vegetative cover?

Experience with open spaces next to other development projects has shown that unless human access is controlled – and enforced - the avoided areas will very likely be used by residents for bicycling (both on-trail and uncontrolled off-trail), running of dogs, kite flying, jogging, and other recreational activities.

How will human or canine (dogs) access be allowed or controlled?

Will there be bicycle or pedestrian trails within the avoided area in addition to the two trails mentioned in the DEIR?

What entity will be responsible for managing the avoided areas, and how will it be funded?

Response 9-7

Edge treatments outlined in the Draft EIR have been designed to minimize impacts from adjacent development and incorporate native plantings as appropriate. Also refer to the CHMP Section 7.6 (“Edge Conditions”). This section of the CHMP describes that there will be post and cable or split rail fencing along the Avoided Area boundaries and along the trail boundaries, educational signage describing the importance of staying outside of the fenced area, plus a swale and native plantings to further define the boundary and to buffer the grasslands from the urban environment. This section also describes that cattle grazing will be continued, as appropriate. The only trails through the primary Avoided Area are the two shown on the Project exhibits. Long-term management will be determined in conjunction with the County and resources agencies, as required by the various biological mitigation measures, and are required to be fully funded.

Comment 9-8

How will the existing undeveloped condition of adjacent lands connected to the “avoided area” be ensured in perpetuity?

Response 9-8

See Response 2-15 and Response 9-6.

Comment 9-9

Mitigation Measure BR-4 is inadequate because it incorrectly assumes that 438 acres of Swainson's Hawk foraging habitat in the project area will retain all its foraging value after project development and because it assumes that a conservation easement on 36 acres on the eastern and southeastern sides of the project area can mitigate for loss of 36 acres within the project area. There is no evidence that California Department of Fish and Game concurs with this measure as mitigating the project impacts to less than significant.

Response 9-9

Refer to responses to prior comment Response 9-5 and Response 9-7. The EIR preparer's disagree with the commenter's opinion that the description of retained habitat is inaccurate. Please see Mitigation Measure BR-4, subsection B, which requires the Swainson's hawk mitigation plan to be prepared and implemented for the protection of Swainson's hawk foraging habitat to the satisfaction of the California Department of Fish and Game. Also, the conservation easement is designed to prevent the loss of the 36 acres which will be within the easement, not to mitigate for other impacts elsewhere.

Comment 9-10

There is a good likelihood that approval of the Cordova Hills would result in the premature commitment of more land to urbanization than can be absorbed. The fact that water and other urban services are not guaranteed for the project further complicates the potential environmental impacts of premature approvals for urbanization. The EIR must analyze and disclose the environmental impacts of such a scenario.

Sacramento County staff, in response to proposals to greatly expand the County Urban Policy Area in its General Plan Update, addressed that issue in a staff report which recommended against the oversized expansion of the County Urban Policy Area. The County staff listed potential undesirable outcomes as follows:

1. Leapfrog development pressure;
2. Imbalance in focus between revitalizing the existing mature communities creating and serving new neighborhoods;
3. Unintended consequences to the partially built-out planned communities and if newer areas out-compete for buyers;
4. Inefficient extension of infrastructure and public services resulting in higher operating costs.
5. Pressure to approve uses that provide near term economic benefits to the developer over a long-term economically sustainable mix of land uses;
6. Impacts to the proposed SSCHCP and to the Connector expressway;
7. Difficulty in meeting State mandates related to climate change initiatives.

A copy of the Sacramento County County's Staff Report (Agenda for 10/13/10, 2030 General Plan Update: Adoption Hearings) with relevant pages 6 - 11, is attached.

Response 9-10

Comment noted. The provision of adequate water and other urban services for the Project is discussed in the Chapters 14 and 15 of the Draft EIR, and all affected agencies participated in the development of an Infrastructure Finance Plan for the Project. Commenter has also raised a number of policy issues related to decisions which were made during the hearings on the 2030 General Plan, which are not required to be addressed in an EIR whose discussion is confined to environmental issues related to this specific Project.

Comment 9-11

The EIR needs to consider the likelihood of occurrence of each of these potential scenarios and the potential environmental consequences, including the physical effects of potential urban decay that may result from prematurely committing more land to urbanization than can be absorbed.

CEQA requires that the EIR describe the environmental effects of potential urban decay that could result from urban development that could foreseeably result from approval of the SOI.

CEQA requires an EIR to disclose and analyze the potential environmental effects of potential urban decay that could result from approval of a project. See *Bakersfield citizens for Local Control v City of Bakersfield* (2004) 124 Cal. App. 4th 1184, 1204-1213. *Bakersfield Citizens*, and other cases cited therein, dealt with potential urban decay that could result from permitting of a major new shopping center where project approval would foreseeably create oversupply of retail capacity beyond market demand, potentially leading to the closure of other retail outlets in the area, resulting urban decay that may have physical effects on the environment. The “shopping center” situation of *Bakersfield Citizens* and the cases cited therein is very analogous to the effects of approving Cordova Hills in a region which is suffering from the detrimental effects of a huge oversupply of vacant housing and retail. The Sacramento region is nationally recognized as a foreclosure “hot spot” with thousands of new or foreclosed homes remaining unsold on the market.

Current real estate sales are often at prices which are less than the cost of new construction. The construction of yet more homes and commercial property on a market suffering from gross oversupply could lead to urban decay and the accompanying physical environmental effects of urban decay, existing homes remain unsold and deteriorate, or are purchased as rentals by absentee landlords who may neglect maintenance and appearance. Local municipal revenues have drastically declined already due to the collapse of home and retail values, leading to major reductions in the staff and budgets of those agencies charged with maintaining parks, sanitation, drainage, and other functions which physically affect the environment.

Won't the approval of the proposed Cordova Hills development compete with existing development and invariably worsen the market for housing and retail activity within the existing urban area, increase the current housing and retail vacancy amount within the existing urban area, and potentially cause yet more urban decay.

Response 9-11

Commenter has not provided any substantial evidence that the Cordova Hills Project would result in or cause urban decay of other areas. See, *Melom v. City of Madera* (2010) 183 Cal.App.4th 41, 106 Cal.Rptr.3d 755. The court cases which have concluded that an urban decay analysis was required were all for project-level proposals, not for multi-decade land use master plans which are not intended to be immediately and fully constructed.

LETTER 10

Donald Kennedy, Pacific Gas and Electric Company; written correspondence; dated February 9, 2012

Comment

Refer to the 2-page letter which begins on page 75 of the “Cordova Hills FEIR: Comment Letters”. The letter explains the services provided by PG&E and explains the processes the developers in the Project area will need to follow in order to develop within utility easements and to develop detailed utility designs.

Response

There will be no improvement plans submitted for areas within the easement as part of this proposal, because it is a land use master plan, not a project-level application. This is essentially a standard comment letter, advising the applicant of the restrictions within the PG&E easement on the property. An evaluation of the Project impacts related to gas transmission facilities was included in the DEIR. Comment noted.

LETTER 11

Tricia Hedahl, Executive Director; Sacramento Area Bicycle Advocates; written correspondence; dated February 22, 2012

Comment 11-1

Thank you for the opportunity to comment on the subject DEIR. The Cordova Hills Master Plan has many positive aspects that will enhance the internal livability for its residents. For example, the compact design for mixed uses shown in the plan is especially demonstrated by Figure 6.9 where nearly all residential areas are within ½ mile of retail and entertainment facilities in the “flex commercial” districts. Such proximity will make walking and bicycling very attractive modes of transportation. However, **the project’s great distance from existing development and infrastructure makes its external connections to the regional circulation system problematic, of uncertain timing, and expensive for local governments to accommodate.**

Response 11-1

The DEIR describes the proposed connections to the regional transportation network, with the costs to be borne by the Cordova Hills Local Service District (for the mass transit portion) and by development fees. The costs and timing of this infrastructure are described in the required Infrastructure Financing Plan. The Project transit system will provide a direct linkage to the Sacramento County Regional Transit District’s light rail system. Furthermore, the internal bike trails network in Cordova Hills will connect to bike commuting routes at two major locations on the west side of the Cordova Hills Project: Chrysanthy Boulevard and the Laguna Creek Trail.

Chrysanthy Boulevard includes a 10’ wide multi-use path and a 5’ Class II bike lane in Cordova Hills and in the City of Rancho Cordova to the west of Grantline Road. (See Cordova Hills SPA, Table 6.1: Cordova Hills Road Summary, page 6-13, and SunCreek Specific Plan (Draft) Figure 4-2 Major Streets Master Plan, page 1.4-5, and Figure 4-4 Minor Arterial Street, page 1.4-7).

The major east-west multi-use trail in Cordova Hills is a central spine that connects to all other trails in the Cordova Hills Project and provides a connection to the west along a 10’ multi-use path parallel to University Boulevard. At the intersection with Grant Line Road, the trail will connect to the Laguna Creek Trail shown in the County Bikeway Master Plan. Options for connection include an undercrossing of Grant Line Road where the road crosses the tributary to Laguna Creek, a signalized at-grade crossing, or a bike path integrated in a future interchange structure constructed as part of the Capital Southeast Connector. This link between the Cordova Hills primary trail network and the Laguna Creek Trail is clearly illustrated in the Cordova Hills Master Plan, Figure 6.12: Potential Links to Conceptual Regional Bike Trail System (Page 6-35).

Comment 11-2

Throughout the DEIR and the underlying Master Plan, the terminology used for bicycle facilities is inconsistent and confusing. Both documents should follow Caltrans' definitions for bikeways which are Class I off-street "bicycle paths", Class II "bicycle lanes" striped on streets, and Class III "bicycle routes" which do not have striped lanes but have signage and pavement markings to alert vehicle operators to the presence of bicyclists. This terminology should be corrected in multiple locations in the documents including pages 1-29, 1-31, and 16-36 of the DEIR and pages 6-32, 6-33, and 6-34 of the Master Plan. For example, page 1-29 and Plate PD-18 of the DEIR should specify and distinguish clearly between Class I paths and on-street Class II lanes. The documents should also acknowledge that other roadway treatments beyond the above 3-level classification are available to further protect bicyclists in special situations (see the NACTO Urban Bikeway Design Guide at <http://nacto.org/cities-for-cycling/design-guide/>).

Response 11-2

The terminology used in both the Cordova Hills Master Plan and the Draft EIR is consistent with the terms in the Sacramento County General Plan Circulation Element (November 9, 2011) and the Sacramento County Bikeway Master Plan (April 2011). The Circulation Element uses the term "multi-use trails" in policies CI-34, CI-35 and CI-37 when addressing the development of trail systems (page 22), but also refers to Class I bike paths in the description of thoroughfares and arterial streets "Bikeways along designated thoroughfares may be Class I, Class II, or Class III facilities" (page 7).

Likewise the Bikeway Master Plan references the County General Plan in noting the policy "Construct and maintain bikeways and multi-use trails to minimize conflicts between bicyclists, pedestrians, and motorists" (page 16) , and uses the hybridized term "Class I- Multi-use Path" in Figure 1 (page 7).

In the Cordova Hills Master Plan, the term "multi-use path" is used consistently to refer to all off-street bike and pedestrian paths. Bicycles will be allowed to use the NEV lanes on arterial streets, but a separate multi-use trail will be located in the corridor adjacent to the street where a dedicated NEV lane is included. The use of the term "Class 1" in the draft Cordova Hills Master Plan was incorrect and was corrected to read "multi-use trail" in the Cordova Hills Master Plan. The correction was made before the Master Plan was forwarded to the Sacramento County Planning Commission.

The term "Class I" describes a very specific standard established by the Highway Design Manual, CHAPTER 1000, BIKEWAY PLANNING AND DESIGN. The design of off-street trail systems in Cordova Hills demands flexibility to accommodate differing terrain, resource avoidance, and other factors that occur in the Cordova Hills Master Plan; thus, not all off-street bike and pedestrian trails could meet strict standards in the Highway Design Manual, therefore the more flexible multi-use path terminology is applied.

In all instances the terms “multi-use path,” is used correctly with respect to the intended character of the bike and pedestrian facility.

Comment 11-3

DEIR page 16-26 states the 3 significance criteria used to assess impacts to bicyclists and pedestrians; according to the 3rd criterion, an impact is significant if it would “result in unsafe conditions for bicyclists . . . including bicycle/pedestrian, [or] bicycle/motor vehicle . . . conflict.” When judging unsafe conditions, we must envision bicyclists of all ages and abilities, from middle-school students to grandparents, and how they would negotiate planned bicycle facilities and crossings. The following paragraphs describe **unsafe and hazardous conditions for bicyclists that therefore constitute significant adverse impacts of the project.**

Response 11-3

The Cordova Hills Project is designed to be consistent with Sacramento County Improvement Standards and was developed with direction and input from the Sacramento County Department of Transportation. The Project entitlements listed in the Draft EIR (including the large lot tentative map, rezoning, and other master plan level entitlements) do not deal with the level of design detail that will be found in subsequent project-level entitlements such as small-lot tentative maps. Consequently, the level of design detail that addresses certain issues such as intersection design can only be addressed in this EIR on the basis of approved County policies and standards that would apply to such improvements. These include the Sacramento County Improvement Standards and the Sacramento County Bicycle Master Plan. The issues of safety on multi-use bike and pedestrian facilities were considered in the design of the plan and the environmental analysis of the project. Subsequent design of specific improvements in the context of small-lot tentative maps and improvement plans will require additional environmental analysis at the level of individual intersection designs.

Comment 11-4

NEVs will be allowed to use Class II bicycle lanes along approximately 4 miles of the 2 major east-west arterials within the project (see Master Plan Figure 6-7). These 2 arterials constitute the sole vehicular access links between the Town Center in the west and the major residential areas to the east. The NEVs will be allowed in the bike lanes because vehicular speed limits on these arterial segments are planned to be 45 mph, excessive for legal NEV operation. NEVs typically operate at 25 – 35 mph while utilitarian bicyclists commonly travel at 8 – 12 mph. Clearly the NEVs will present a hazard for bicyclists when they overtake a bicyclist silently from behind in a bike lane at much greater speed. The greater weight and size of NEVs will make collisions with bicyclists as dangerous as with motor vehicles. Furthermore, the 8-ft width of the shared NEV/bike lanes will make them easily mistaken for vehicle travel lanes, thus requiring protective measures to keep vehicles out of them. Therefore, **NEV use of the Class II bike lanes along these arterials is a significant adverse impact of the project on bicyclists.**

Response 11-4

The comment states that “NEVs will be allowed to use Class II bicycle lanes”, which is a mischaracterization. There are some street sections where bicycles will be allowed to use the 8-foot NEV lanes, and these are designated as NEV/bike lanes. Though mischaracterized, the overall point of this statement is that there are sections where

NEVs and bicycles will be permitted to share the same facility, and this is true (though bicycles will not have to use this pathway – see Response 11-5). Throughout California and elsewhere, bicycles are permitted to share roadways with vehicles. Research has shown that accidents of the type described here – a vehicle striking a bicyclist from behind or swiping alongside – is the least frequent type of accident¹⁰. Research has likewise shown that when vehicle speeds are low, as they will be in the case of a NEV – accidents are rarely severe¹¹. There is also still debate – including amongst bicycling advocates¹² – about whether shared facilities are more or less safe than dedicated bicycle lanes. In this case, the shared facility will involve low vehicle volumes, low speeds, and more than adequate paved width. Bicyclists will have the option of sharing a lane with NEVs or of using the paved side pathway where no vehicles will be present. The comment provides no evidence that allowing bicycles to use the NEV lane would be unsafe.

Comment 11-5

Project proponents have suggested that bicyclists fearful of sharing bike lanes with NEVs can instead use the Class I bicycle paths planned to parallel these arterial segments. These Class I paths are described in the DEIR and Master Plan as “multi-use trails” that will be shared with pedestrians. These trails will be attractive to casual recreational bicyclists but will not be useful to utilitarian bike riders who desire to ride directly and efficiently for several miles or more to locations for shopping, jobs, schools, and other community facilities.

Response 11-5

The comment discounts the 10-foot, paved multi-use trail (for pedestrians and bicycles) which will also be present whenever a shared NEV/bike lane is present. Though the comment states that such a multi-use trail would not be useful to utilitarian riders, there is contrary evidence within Sacramento County. The most classic of these is the American River Bicycle Trail, which is used by large numbers of pedestrians, and yet is also used by large numbers of bicyclists for commuting and race training. The commenter presents no evidence in support of the statement that utilitarian riders will be unwilling to use the multi-use paved trail.

Comment 11-6

We request that the DEIR evaluate possible solutions (i.e. appropriate mitigation) to this hazardous bicycle/NEV conflict including 1) reducing the speed limit on these arterials to 35 mph, 2) demarcating separate NEV and bicycle lanes with protective buffers between them, and 3) allowing NEVs to use the vehicular traffic lanes.

¹⁰ Forrester, J. (1993). *Effective Cycling* (6th ed.). Cambridge, Mass: MIT Press.

¹¹ Cross, K.D. (1978) *Bicycle-Safety Education: Facts and Issues*. Falls Church, VA: AAA Foundation for Traffic Safety.

¹² <http://www.bicyclinginfo.org/faqs/answer.cfm?id=971>

Response 11-6

The design speed for arterial streets is established by the Department of Transportation based on anticipated traffic volumes and level of service standards. The NEV lane width (8 feet) and the vehicle travel lanes on the arterial street configurations (12 feet and 11 feet) were developed in collaboration with the Sacramento County Department of Transportation based on the Sacramento County Development Standards.

Alternative lane configurations would require modification of existing Development Standards. The NEV cannot exceed 25 mph regardless of the lane speed designation (California Vehicle Code Section 385.5), and the street design for the NEV lanes already includes striping with a rumble strip to establish the boundary between the NEV lane and the rest of the roadway. The comment suggests allowing NEV traffic to mix with the higher speed traffic, but this would violate the California Vehicle Code.

Comment 11-7

Class I bicycle paths will parallel the 2 main east-west arterials through approximately 10 intersections. The DEIR and the Master Plan do not describe the design of these intersections or the designs of the Class I paths where they cross side streets. Plate TC-3 of the DEIR shows that some of these intersections will be signaled and some will be roundabouts. Both signaled traditional intersections and roundabouts can be hazardous for bicyclists on the Class I paths because of interactions with vehicular traffic signaling, traffic movement patterns through planned roundabouts, pedestrian movements, and the on-street Class II bike lanes. Until such designs are specified and can be reviewed by experienced bicycle planners, these intersections should be regarded as hazardous to bicyclists and pedestrians. **The arterial intersections therefore pose significant adverse impacts of the project on bicyclists.**

Response 11-7

The Cordova Hills Project entitlements, and thus the level of analysis in the Draft EIR, do not extend to the level of street design that would include intersection designs. Such designs are addressed in the Sacramento County Development Standards that will apply to subsequent applications for street design and small lot tentative maps and will include that more finite level of detail. The Development Standards in Sacramento County have already been designed to consider safety. Intersections that mix various modes of transportation inherently involve potential conflicts not only between the different modes, but between any single mode (car vs. car; bicycle vs. bicycle). Care in designing all intersections to minimize potential conflicts and reduce the potential hazard is inherent in the more refined level of design that will occur in subsequent applications.

Comment 11-8

Figure 6.1 of the Master Plan describes transportation-mode alternatives for the project. The “service radius” for bicyclists is said to be only up to 3-mile radius and the figure also fails to acknowledge that bicyclists may want to use bicycle trips to access jobs; elsewhere the DEIR describes the main Rancho Cordova employment center as approximately 7 miles to the west, a relatively comfortable ride for a moderately experienced bicyclist to work locations with supportive facilities for bicyclists (secure parking, showers, etc.).

Response 11-8

The Cordova Hills Master Plan, Figure 6.1, “Traffic Mode Alternatives” identifies the range of travel mode alternatives within the Cordova Hills area and the description of bicycles being serviceable in a three mile range is consistent with the Plan description because the Plan area is three miles in its greatest dimension. The overall Project analysis does consider the use of alternative modes of transportation off-site as well. The Cordova Hills Project is designed to facilitate bicycle commuters to other employment centers, parks, schools, and shopping in other projects, to link to the regional bike trail network, and to utilize light rail at the Mather/Mills Light Rail Station for extended travel throughout the region. Mitigation Measure TR-7 requires Cordova Hills to fund its fair share of the construction cost of bicycle lanes that connect to Rancho Cordova.

Comment 11-9

Hazardous bike riding conditions increase with widths of streets (i.e. crossing distances), volume and speed of traffic, and complexity of intersection configurations (e.g. numbers and timing of left turn and right turn lanes). Such intersections must be considered barriers to bicycle travel for the average rider. **The DEIR does not assess hazards to bicyclists in trying to cross Grant Line Road at its intersection with Chrysanthy Boulevard or at the intersections of Grant Line Road with the project’s North Loop Road and University Boulevard.** Until such designs are specified and reviewed by experienced bicycle planners, these primary crossing points for accessing Rancho Cordova must be regarded as hazardous to bicyclists and therefore a significant impact of the project.

Response 11-9

The detailed design of intersections is not included in the Cordova Hills Master Plan or Draft EIR analysis because they are premature. However, the intersections of North Loop Boulevard and University Boulevard with Grant Line Road will conform to the Sacramento County Development Standards (unless unique design treatments occur in the context of the Capital Southeast Connector improvements). Based on the County Development Standards, the intersection of Chrysanthy Boulevard with Grant Line Road will also be a conventional intersection with Class II bike lanes. The design of this intersection will not pose an unusually greater risk than other comparable intersections throughout the County. Though not required to mitigate an impact, the applicant has added the following language to the SPA.

“Evaluate and, where feasible, incorporate design features that enhance the safety of bicyclists, pedestrians, NEV operators, and drivers at arterial street intersections such as described in, but not limited to the National Association of City Transportation Officials (NACTO) Urban Bikeway Design Guidelines.”

Comment 11-10

The DEIR's Traffic Analysis identifies significant impacts of the project on many intersections and road segments in the vicinity of the project caused by traffic generated by the project. At 23 of these intersections and segments, the DEIR recommends mitigation measures that include constructing additional traffic lanes (up to 6 lanes in some cases). The DEIR should acknowledge that each of these lane additions will increase the hazards for bicycle riders using those intersections or segments because of increased crossing widths, increased vehicle speeds and volumes, and increased complexity of traffic movements. Therefore, **these lane additions should be considered significant adverse impacts of the project**. The DEIR should further acknowledge that additional mitigation measures to protect bicyclists will be needed (see the NACTO Urban Bikeway Design Guide at <http://nacto.org/cities-for-cycling/design-guide/> for descriptions of intersection treatments to protect bicyclists).

Response 11-10

None of the intersection and roadway widenings identified as mitigation for the Project go beyond what is planned in either the City of Rancho Cordova General Plan or the Sacramento County General Plan. The timing of these impacts is related to the timing of the proposed Project and other reasonably foreseeable projects, but the fact of the actual facility widths were already analyzed and approved as part of the City and County General Plans. Thus, if there is a safety impact associated with allowing these widths – and the comment has provided no substantial evidence that the facility widths are substantially less safe – it was the impact of the General Plans, not of this particular project. At the request of SABA and to enhance the existing safety features of the City and County Improvement Standards, the requested language has been included in the SPA (see Response 11-9).

LETTER 12

Amandeep Singh, P.E.; Sacramento Area Sewer District; written correspondence; dated February 22, 2012

Comment 12-1

It is noted that the proposed project is located in the southeastern portion of Sacramento County on approximately 2,669 acres, adjacent to the City of Rancho Cordova. The area is designated by the Sacramento County General Plan as General Agriculture (80 acres) and is currently zoned for AG-80 agricultural uses. The project is within the Urban Services Boundary, but outside the Urban Policy Area and outside of the Sacramento Area Sewer District. Here are our summary comments.

- SASD's Board of Directors approved a SASD Sewer System Capacity Plan 2010 Update in January 2012. The Plan provides an updated mid-range and long-term plan for sewer service in this area. The sewer service alternatives identified in the subject document should be reviewed for consistency with the System Capacity Plan. Also, note the System Capacity Plan received a "Statutory Exemption" from the County of Sacramento's Division of Environmental Review and Assessment (Control Number 2011-70100).
- Annex the subject property to both the Sacramento Regional County Sanitation District (SRCSD) and the Sacramento Area Sewer District (SASD) prior to recordation of the Final Map or submission of any improvement plans, whichever occurs first. Upon annexation, conditions will apply to this project.

In addition, here are our comments on statements within the Draft Environmental Impact Report:

1. Page 15-4, Para 1: SASD does not construct trunk sewer lines serving new development. The developer constructs trunk facilities to District Standards and is eligible for reimbursement in accordance with the SASD Sewer Ordinance. SASD will own and operate the facilities upon acceptance.
2. Page 15-4, Para 1: SASD is responsible for more than just the maintenance of the lower lateral and mainline pumps.
3. Page 15-7: Remove discussion of SASD's Sewerage Facilities Expansion Master Plan 2006 Update and replace with discussion of System Capacity Plan.

Response 12-1

The relevant sections of the EIR have been updated to reflect the most current adopted plans, and clarifications to the text have been made in response to these comments. The County will require annexation of the Project area into the SRCSD and SASD as part of the Conditions of Approval for the Project's large lot tentative subdivision maps.

Comment 12-2

4. Page 15-38: Under "Regional Infrastructure", clarify the statement "service to Cordova Hills is not constrained." Sewer service alternatives are dependent on capacity availability at the time of development, and could be considered "constrained".

Response 12-2

The EIR preparers acknowledge that various service providers, including sewer service, will not "reserve" capacity for any upcoming project until such time as impact fees have been paid. To this extent, SASD considers service "constrained"; however, this does not mean that there is evidence that capacity will be unavailable. The DEIR uses the term "not constrained" to mean that there is adequate planned capacity to serve the Project, which is correct. As identified on Page 15-49 of the DEIR, the "SRWTP has a permitted average dry weather flow (ADWF) design capacity of 181 mgd and wet weather flow (AWWF) of 392 mgd." Cordova Hills will generate an ADWF of 4.99 mgd at buildout." Therefore, as identified in the Draft EIR, the Project's sewage disposal demand can be met by the existing capacity of the SRWTP. This is the sense in which the DEIR uses the term "not constrained".

Comment 12-3

5. Page 15-38: The statement "All of the regional off-site infrastructure shown is already contemplated in SASD or SRCSD master planning documents, and thus are not impacts of the Project" is not correct. Some of the sewer service alternatives identified in the subject document are not included in SASD's System Capacity Plan (e.g., force mains to the Mather or Bradshaw Interceptors).

Response 12-3

SASD and SRCSD's master planning documents address permanent sewer facilities (both existing and contemplated), their timing of implementation based on sewerage demand, as well as the cost of their implementation. They do not address interim facilities to be constructed by development projects; facilities that may be required to provide sewer service to development areas that cannot yet be served by permanent facilities that have not yet been extended to those new development areas.

Additionally, the District periodically updates its master plans to address changes in the short-, mid-, and long-range development forecasts and associated sewer capacity demands. According to SASD's current planning document, "Since the 2010 SCP is a high level planning document, the expansion trunk projects developed in this study may not be final projects. Expansion project alternatives may be further evaluated and developed through SASD's mid-range planning efforts if necessary." For the Cordova Hills Project, the SASD master plan document prior to the current 2010 SCP Update identified the Mather Interceptor project as one downstream facility capable of providing sewer service to Cordova hills ahead of the expansion of the Laguna Interceptor. Now

that neither of those two interceptors is contemplated any longer, extension of a force main by the Cordova Hills Project to the Mather Interceptor is no longer contemplated either. However, extension of a force main to the existing Bradshaw Interceptor may still be a feasible and practicable alternative, should capacity demands by the Project precede the extension of the Douglas Interceptor as contemplated by the SASD's 2010 SCP. As extension of this interim force main would follow existing road alignments and be located beneath existing pavement, extension of the force main would not cause any facility-specific physical impacts.

Comment 12-4

6. Page 15-49: The statement "SASD and SRCSD did not identify any facility constraints to service" is not correct. See comment 4 above.

Response 12-4

See Response 12-2. It is a correct statement to say that neither SASD nor SRCSD indicated that there would be insufficient planned capacity to serve the Project, which is the sense in which the EIR uses the term "constrained". The Sewer Master Plan prepared for the Project was reviewed and approved by the Sacramento Area Sewer District, and deemed to be adequate to provide service to the Project. Additionally, the SASD comment letter submitted on the Notice of Preparation stated that Project impacts to sewer facilities were expected to be less than significant.

LETTER 13

Kamal Atwal, P.E.; Sacramento County Department of Transportation; written correspondence; dated February 22, 2012

Comment 13-1

1. **Executive Summary. Page 34. Mitigation Measure TR-1.B.** The DEIR states “Mather Boulevard and Douglas Road –Construct a new traffic signal, Provide a shared through-right turn lane on the northbound approach; provide a separate left turn lane and a through lane on the southbound approach; and provide a separate left turn lane and a separate right turn lane on the westbound approach”. It should be noted that since the completion of the traffic study for this project, the Zinfandel Drive extension project has been completed and a new signal has been installed at the Douglas Road and Zinfandel Drive /Eagles Nest Road intersection. We do not see a need for another traffic signal in close proximity to this newly installed signal. We would ask that the Cordova Hills project impact at the Mather Boulevard and Douglas Road intersection be reevaluated and mitigation measure TR-1.B be either deleted or recommend an alternative mitigation measure. If new analysis reveals that a mitigation measure is needed to mitigate the project impact then it should be coordinated with SACDOT staff for consultation and recommendation. Please coordinate with us as necessary.

Response 13-1

Comment noted. Based upon this comment, additional analysis was performed to determine if the signal required by mitigation would still be necessary. As a result, the Final EIR has deleted the requirement for Mitigation Measure TR-1.B. since there is no longer any significant adverse impact from the Project to the intersection of Mather Boulevard and Douglas Road. Refer to the amended Traffic and Circulation chapter.

Comment 13-2

2. **Executive Summary. Page 34. Mitigation Measure TR-1.E.** The DEIR states “Grant Line Road and White Rock Road – Construct a new traffic signal. Provide dual left turn lanes and a separate through lane on the northbound approach; provide a through lane and a separate right turn lane on the southbound approach; and provide separate left turn lane and a separate right turn lane on the eastbound approach. Also an extra westbound departure lane is needed for the dual northbound left turn movement.” Please note that a traffic signal will be installed as part of the White Rock Road Improvements Project which will begin construction this year. But, Cordova Hills project’s need for dual left lane in the northbound direction at the Grant Line Road and White Rock Road intersection is not part of the White Rock Road Improvements Project. Therefore, the Cordova Hills project will be responsible for constructing the dual left turn lane at this intersection and modify the signal to accommodate the lane additions. As result of the dual left turn lane, the westbound receiving lane would also need to be extended for the northbound left turn traffic and northbound thru lanes will shift to east on the approach and departure side. Please update the mitigation measure. SACDOT staff will submit a condition of approval relating to this change.

Response 13-2

In response to this comment, Mitigation Measure TR-1.E. has been revised in the Final EIR to read as follows:

“TR-1: The applicant shall construct or fund, as set forth in the phasing and financing plan approved by the Sacramento County Department of Transportation, the below mitigation measures. The phasing and financing plan shall ensure commencement of construction of traffic improvements prior to degradation of LOS below applicable County standards. This mitigation measure recognizes that should any of the measures below benefit other projects, a reimbursement agreement and/or a fee credit to the applicant may be considered.

...

E. *Grant Line and White Rock Road.* ~~Construct a new~~ **Modify the intersection** **and** traffic signal **to** provide dual left turn lanes and a separate **two** through lanes on the northbound approach; provide a **two** through lane and a separate right turn lane on the southbound approach; and provide separate **two** left turn lanes and a separate right turn lane on the eastbound approach. ~~Also an extra~~ **The** westbound departure lane **shall be extended to accommodate** ~~is needed for the dual northbound left movement.”~~

Comment 13-3

3. **Executive Summary. Page 38 and 39. Mitigation Measure TR-4.A.** Please note that this mitigation measure is in City of Elk Grove and construction responsibility is beyond the control of the County of Sacramento and the project proponent. Therefore, the project should pay its fair share towards this improvement to the City of Elk Grove if a reciprocal agreement between the County of Sacramento and City of Elk Grove is in place at the time of implementation of the Public Facilities Financing Plan. Otherwise, the project is only responsible for paying the fair share of improvements within the control of County of Sacramento.

Response 13-3

In response to this comment, Mitigation Measure TR-4. has been revised in the Final EIR to read as follows:

“TR-4: The applicant shall ~~construct or~~ fund, as set forth in the phasing and financing plan approved by the Sacramento Department of Transportation, and in consultation with the City of Elk Grove **if the City has entered into a reciprocal funding agreement with the County at the time of implementation of the Public Facilities Financing Plan,** the below mitigation measure. **If the City has not entered into such an agreement with the County at the time of implementation of the Public Facilities Financing Plan, then the applicant shall only be responsible for funding its fair share of improvements located in the County of Sacramento.** The phasing and financing plan shall ensure commencement of construction of traffic improvements prior to degradation of LOS below the applicable County or City standards. This mitigation recognizes that should any of the measures benefit other projects, a reimbursement agreement may be considered. Grant Line Road from Sheldon Road to Calvine Road. Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with moderate access control.”

Comment 13-4

4. **Executive Summary. Page 41. Mitigation Measure TR-7.A.** Mitigation measure states “Construct sidewalks and bicycle lanes along Grant Line Road from Douglas Road to White Rock Road and on Douglas Road from Rancho Cordova Parkway to Grant Line Road.” Since the Grant Line Road and Douglas Road would be six lanes ultimately, we understand that curb, gutter and sidewalk cannot be installed at the ultimate location as part of the 4 lane widening as recommended in mitigation measures TR-5.F and TR-5.I. We recommend the mitigation measure be revised to include interim pedestrian and bicycle facilities to the satisfaction of the Department of Transportation. Typically all four lane widening projects would require an appropriate detached AC path for pedestrians. Additionally, the bike lane/shoulder will be 6 feet due to lack of curb and gutter. SACDOT staff will submit a condition of approval to Planning and DERA staff relating to this matter. The mitigation measure should be revised.

Response 13-4

Mitigation Measure TR-7 has been revised in the Final EIR to read as follows:

“TR-7: The Applicant shall be responsible for a fair share of the below mitigation measure. The fair share shall be calculated to the satisfaction of the Sacramento County Department of Transportation any may be up to 100% of the cost of improvements.

Construct interim sidewalk improvements (typically a detached asphaltic concrete path) and bicycle lanes along Grant Line Road from Douglas Road to White Rock Road and on Douglas Road from Rancho Cordova Parkway to Grant Line Road, to the satisfaction of the Sacramento County Department of Transportation."

Comment 13-5

5. **Traffic and Circulation. Page 16-1 to 16-83.** The above four comments will result in changes to this chapter. Please update in the FEIR.

Response 13-5

Changes have been made, as noted in the responses to the comments above.

Comment 13-6

6. **General.** The number of through lanes at mitigated intersections should be consistent with the number of through lanes for mitigated roadway segments. Please update the mitigation measures. Lane drops should be done on departure side of the intersections. The left turn lane will be set up based on the improvement standards for an arterial or thoroughfare. Please revise the intersection mitigation measures as necessary to match with roadway segment mitigation measures.

Response 13-6

The mitigation identified throughout the chapter are those which were determined to be appropriate to avoid impacts to the facility being analyzed. This results in cases where an intersection and roadway segment analysis require different facility sizes in order to effectively mitigate (e.g. a two-lane roadway, but a four-lane intersection). The appropriate place to address this issue is through conditions of approval, not through mitigation. The purpose of a mitigation measure is to identify the minimum facility change required to offset the identified impact, which has been done. A condition of approval would then identify how the County Improvement Standards should be applied in areas where the segment mitigation and the intersection mitigation interface.

Comment 13-7

7. **General.** The standard county left turn pocket length would not be sufficient to store the vehicle queues for intersections that carry more than 600 vehicles per hour for the dual left turn lane. For those locations, a queuing analysis needs to be completed prior to the approval of improvement plans and final maps to determine the appropriate left turn pocket length. A separate condition of approval will also be submitted to address this issue in the future for the Cordova Hills project.

Response 13-7

As stated in this comment, this would be addressed through conditions of approval, which would require the queuing analysis at the time when the more refined maps are submitted and the length of queue can be determined.

Comment 13-8

8. **General.** Please note that left turn pockets at some of these locations carry a lot of traffic compared to standard intersections. At those locations, the left pockets will be extended and analysis would be required to determine the length of these pockets (as discussed in the comment above). The standard sections at the intersections will need to be modified to fit the project needs. SACDOT staff recommends adding a condition of approval on the project for wider median on Grant Line Road as it will have long left turn pockets with a narrow median. To improve the aesthetics of the corridor, we will condition the project to provide landscaping for trees in the median up to cross walks. Please coordinate with SACDOT staff regarding this landscaping requirement and include this change in the draft public facilities financing plan.

Response 13-8

Refer to Response 13-6. As stated in this comment, this would be addressed through conditions of approval.

Comment 13-9

9. **General.** The project applicant should continue to work with SACDOT staff to find an appropriate design for the free right turn lane mitigation measure. The free right turn lane concept design should be submitted to SACDOT staff for preliminary approval.

Response 13-9

Refer to Response 13-6. The measure has identified the type of facility necessary to offset the impact. The detailed design considerations should be carried forward pursuant to the existing County Improvement Standards and through conditions of approval.

Comment 13-10

10. **General.** The applicant shall coordinate with the Capital Southeast Connector JPA and the Sacramento County Department of Transportation in order to develop an alternative access design for the North Loop Road intersection with Grant Line Road. The alternative design must either consist of moving the North Loop Road intersection to create a 4-way intersection with Douglas Road and Grant Line Road or shall consist of another design acceptable to both the Capital Southeast Connector JPA and the Sacramento County Department of Transportation. Any application for Capital Southeast Connector improvements to the relevant segment of Grant Line Road which is submitted for discretionary approval to Sacramento County shall be incorporated into the alternative design.

Response 13-10

Refer to Response 13-6. This comment is in the form of a recommended condition of approval related to detailed design considerations.

LETTER 14

Dave Ghirardelli; Sacramento County Department of Waste Management and Recycling; written correspondence; dated February 21, 2012

Comment 14-1

On page 5-36 the DEIR states “As landfill gas is a major source of odor from a landfill, the active extraction of gases for use in generating electricity is an effective form of limiting odors. Given all of the foregoing – with particular emphasis on the ability of the gas extraction system to reduce the potency and density of landfill odor – and the mitigation incorporated below, odor impacts are not expected to be substantial, and impacts are *less than significant*.” DWMR disagrees with this statement.

The landfill gas (LFG) collection system at Kiefer landfill will not reduce the Cordova Hills project’s odor impacts (bringing sensitive receptors into such close proximity to Kiefer landfill) to the level of *less than significant*. LFG collection system reductions in odor are ancillary, as clearly stated on the website referenced, and generally occur on closed sections of a landfill where an LFG system is installed.

Kiefer landfill generates odors primarily from unloading and spreading municipal solid waste and from unloading and processing greenwaste. The LFG collection system does not reduce those odors at all. Additionally, as the landfill is constructed, the odor generating operations will be closer to the Cordova Hills project. This is described in the Project Description chapter of the Certified (1998) Kiefer Landfill Final Supplemental Environmental Impact Report (Kiefer EIR).

The Cordova Hills project will bring sensitive receptors into close proximity to these operations and doing so is **a significant impact and requires additional mitigation on the part of the Cordova Hills project.**

Response 14-1

Landfill gas collection systems are referenced in many publications as being an important source of odor control. This includes CalRecycle¹³, which specifically states that odor is controlled both through the use of daily cover, which helps address the newly-delivered landfill materials described in this comment, and a landfill gas collection system, which addresses the odors generated by the buried waste. A properly-designed landfill gas capture system can significantly reduce odors from the buried waste, and in that respect is a critical component of landfill odor control. The analysis has used the methodology recommended by SMAQMD, and this comment has not provided any substantial evidence that this analysis was flawed.

¹³ <http://www.calrecycle.ca.gov/Archive/IWMBAR/2000/Enforcement/>

Mitigation has been included requiring disclosures on properties within one mile of the landfill. It is important to realize that CEQA was not enacted to protect people from the environment. Instead, CEQA was enacted to examine the impacts that new projects have on the environment (See, *South Orange County Wastewater Authority v. City of Dana Point* (2011) 127 Cal.Rptr.3d 636, at 646; *Baird v. County of Contra Costa* (1995) 32 Cal.App.4th 1464, 38 Cal.Rptr.2d 93). Buyers of properties within the Project area will have the potential nuisances of landfill proximity fully disclosed, and it is then up to that buyer's discretion to decide whether to purchase. In order to ensure that the disclosure concerns of Sacramento County Department of Waste Management and Recycling (DWMR) are addressed, Environmental Review coordinated with DWMR on modifying the mitigation measure requiring disclosure to list specific design details of the landfill which must be disclosed, as follows:

LU-2. The location and nature of the Kiefer Landfill facility shall be disclosed to all prospective buyers of properties within one mile of the ultimate active landfill boundary. **The disclosure notice shall include:**

- A. **A statement substantially consistent with the following: "The landfill will expand in height and land area over time, and thus the visibility and proximity of the landfill from the property at the time of purchase does not reflect how visible or proximate the landfill will be in the future." This statement shall be supplemented with relevant facts about ultimate landfill design, including the distance of the property to the ultimate planned edge of the landfill waste disposal area (to the nearest 100 feet) and the ultimate planned height of the landfill (as set forth in the Solid Waste Facilities Permit).**
- B. **Notification that the landfill operates under a Solid Waste Facilities Permit and is required to control pests, vectors, litter, and odor to the extent practicable, but that it is not possible to eliminate all of these nuisances. For this reason, property owners may experience some of these nuisance conditions.**
- C. **Notification that the active landfill area is lighted at night.**

Comment 14-2

On page 3-2 the DEIR states "...the property to the south is visually dominated by the Kiefer landfill." Kiefer landfill is currently constructing Module 3 of the 10 modules approved by the Kiefer EIR in 1998. Module three is approximately 4,000 feet from the Sports Park and 4,500 feet from the Living and Learning zone of the campus. Module 3 is currently being constructed at 100 to 150 feet elevation above MSL, approximately.

During approximately 2025 to 2035, module 5 (of 10) will be constructed approximately 1,700 feet from the Sports Park and 2,200 feet from the Living and Learning zone of the campus and to an elevation of 325 feet above MSL.

To understand the visual impacts of the Cordova Hills project, a "Kiefer landfill viewer group (viewpoint 6)" should be included in the Impacts and Analysis section of the Aesthetics chapter of the DEIR. The vantage should be taken from the Living and Learning area of campus or from the Sports Park and show the view residents of the campus or users of the park will have when Module 5 is being constructed. **The Cordova Hills project will have significant aesthetic impacts that will require mitigation.**

Response 14-2

This comment is describing potential aesthetic impacts associated with the cumulative development of the landfill on the Project. The DEIR discusses the visual impacts of Kiefer landfill on the Project in order to inform the land use analysis section on land use incompatibility. The ultimate permitted boundary of the landfill was the reference point for the analysis, not the current boundary – which, as noted by this comment, is currently set farther back. Refer to Response 14-1. Buyers of properties within the Project area will have the potential nuisances of landfill proximity fully disclosed, including features which could negatively impact their views, and it is then up to that buyer's discretion to decide whether to purchase.

Comment 14-3

DWMR maintains that, at a minimum, mitigation is necessary in the form of Restrictive Covenants, or some similar mechanism, recorded in perpetuity on deeds for all parcels created in the Cordova Hills Special Planning Area, stating that property owners acknowledge the preexistence and proximity of the Kiefer Landfill and release rights to seek corrective action to nuisances. Additionally, the Cordova Hills project must establish financial mechanisms to pay for responses to the inevitably increased number of complaints.

Response 14-3

In *South Orange County Wastewater Authority v. City of Dana Point* (2011) 127 Cal.Rptr.3d 636, at 646, the Wastewater Authority requested that an EIR be prepared which would assess the impacts of wastewater odor on the proposed Dana Point development, and further requested mitigation to offset impacts which is similar to the mitigation being requested in this comment. The court declined, on the basis that this was not an impact of the project on the environment. The Dana Point project "contemplated no changes in the sewage plant or in its odor-producing operations". The case is the same here. Also see *Baird v County of Contra Costa County* (1995) 32 Cal.App. 4th 1464, 38 Cal.Rptr. 2d 93. The issues raised within this comment are thus

more properly addressed as a policy matter by the decision-makers, not as a CEQA issue.

LETTER 15

Lea Gibson, Environmental Specialist; Sacramento County Environmental Management Department; written correspondence; dated February 21, 2012

Comment 15-1

- 1) **Aesthetics**, Page 3-21: The DEIR claims that the distance of the project from the landfill renders the impact of lights from Kiefer's operations insignificant. While the current location and size of Kiefer's operations may render the light impact insignificant to the project, the landfill's operations will eventually expand and the active face will move closer to the project site. The projected average daily tonnage in 2035 is nearly double the current permitted average daily tonnage. Also, the maximum permitted elevation of the landfill is 325 feet. Did the DEIR account for the increased amount of lighting required for an expanded landfill operation, as well as the eventual increase in elevation of the landfill, which will increase the visibility of Kiefer's operations from the project site?

Response 15-1

See Response 14-2 and Response 14-3.

Comment 15-2

- 2) **Air Quality**, Pages 5-36—5-37: This section states "with particular emphasis on the ability of the gas extraction system to reduce the potency and density of landfill odor – and the mitigation incorporated below, odor impacts are not expected to be substantial, and impacts are less than significant." Odors are also generated by the delivery and compacting of waste, the processing of green waste at the site, and the operation of the flare. The sub-surface landfill gas extraction system does not control these odors. The EIR should not rely on the landfill gas extraction system to reduce odors to a less-than-significant level. Further, while odors must be controlled under Title 27 of the California Code of Regulations (27 CCR), the generation of odors during routine landfill operation is unavoidable and there is no requirement to reduce the potential for odors to zero. The LEA recommends notifying potential tenants of the increased potential for odor issues associated with the proximity to the landfill.

Response 15-2

See Response 14-1 and Response 14-3.

Comment 15-3

- 3) **Hazards and Hazardous Materials**, Page 10-17: This section includes a mitigation measure stating that continuous landfill gas monitoring will be implemented in any structures within 1,000 feet of buried waste or proposed buried waste. Who will be responsible for implementing and maintaining the landfill gas monitoring equipment? The LEA does not have authority to ensure that landfill gas monitoring is being conducted outside of the permitted boundary of the landfill. Any structures within 1,000 feet of the permitted landfill boundary also ought to adhere to the construction standards contained in 27 CCR 21190 (g). Again, the LEA does not have authority to enforce this standard outside of the permitted boundary of the landfill, so the party responsible for implementing these construction standards should be clearly assigned in the FEIR.

Response 15-3

The vast majority of the Project site is outside the 2,000-foot buffer around the ultimate landfill boundary, so the likelihood of any structure being built within 1,000 feet of the buried waste or proposed buried waste at the Kiefer Landfill is remote. Please see Plate HM-2 on Page 10-18 of the DEIR. Mitigation Measure HM-1 has been revised by the FEIR to read as follows:

“Any structure within the Project boundaries (including but not limited to, buildings, subsurface vaults, utilities, or any other areas where potential landfill gas buildup may cause adverse impacts to the public health or safety of the environment) within 1,000 feet of buried waste or proposed buried waste at Kiefer Landfill (refer to Plate HM-2 of the EIR) shall be continuously monitored by the owner/operator of said structure for landfill gas and be designed and constructed to prevent landfill gas accumulation in those structures.”

As with the other Project mitigation, the enforcement of this Mitigation Measure will be part of the responsibility of the Department of Community Development for overseeing the measures which will be implemented within the SPA.

Comment 15-4

- 4) **Land Use**, Page 12-37, Paragraph 2: This paragraph states that Kiefer Landfill is permitted to accept 10,815 tons per day (tpd) and the average intake is approximately 6,000 tpd. The tonnage cited is the maximum permitted tonnage for the year 2034/35; the current permitted maximum tonnage is 5,598 tpd. The permitted tonnage increases each year according to a schedule referenced in the facility's Solid Waste Facility Permit. The EIR should clarify the permitted tonnage and year used to analyze the impacts of the landfill on the proposed development. This paragraph also states that the estimated remaining capacity is 108 million cubic yards. Per the Solid Waste Facility Permit, the remaining site capacity as of 2006 was 86,559,490 cubic yards.

Response 15-4

The second paragraph in the DEIR description of the Kiefer Landfill on Page 12-37 has been revised for the FEIR consistent with the clarifications provided in the comment.

Comment 15-5

- 5) **Land Use**, Page 12-37, Paragraph 3: This paragraph mentions the upcoming Kiefer Bufferlands Special Planning Area (SPA), which will designate areas around Kiefer Landfill for waste-industry uses; however, the DEIR does not include analysis of the potential impacts of the proposed SPA uses on the Cordova Hills tenants. The DEIR also does not include an analysis of the GreenCycle project, a proposed composting facility adjacent to Kiefer Landfill. The FEIR for the GreenCycle project was released in November 2010 and a Supplemental EIR is due for release in 2012. The addition of waste industries and a large-scale composting facility to the area will exacerbate the potential for nuisance conditions, including vectors/pests, dust, noise, and odors. The FEIR should include an analysis of the potential impacts of the GreenCycle project and the Kiefer SPA on the Cordova Hills project.

Response 15-5

The NOP for the proposed Project was released in June of 2010 while the NOP for the Kiefer Landfill Special Planning Area/GreenCycle was released in July 2011. The existing conditions at the time the NOP was issued normally form the baseline conditions for analysis; the Kiefer SPA/GreenCycle Project was not part of baseline conditions. By the time the Kiefer SPA/GreenCycle NOP was published, most of the major technical studies for the Cordova Hills Project were complete. Based on the fact that the Kiefer SPA/GreenCycle Project NOP was published subsequent to the Cordova Hills NOP, it is the duty of the EIR for the Kiefer SPA/GreenCycle Project to describe impacts to the Cordova Hills Project, not the other way around. *South Orange County Wastewater Authority v. City of Dana Point* (2011) 127 Cal.Rptr.3d 636 and *Baird v County of Contra Costa County* (1995) 32 Cal.App. 4th 1464, 38 Cal.Rptr. 2d 93.

Comment 15-6

- 6) **Land Use**, Page 12-38, Paragraph 2: This paragraph states that “nuisance pests and vectors are typically experienced only in close proximity to the source condition”. What is considered “close proximity”? Per the DEIR, the project abuts Kiefer Landfill and the adjacent area is to be designated as Agricultural land, which could provide additional habitat for pests. The LEA recommends notifying potential tenants of the increased potential for vector and pest issues associated with the proximity to the landfill.

Response 15-6

It is simpler to describe what “close proximity” is not, when it comes to vectors and pests; a distance of ½-mile, which is the minimum distance of all residential and commercial uses proposed within the Project area, is not close proximity (see Plate AQ-1, on page 5-35). The agricultural land within the Project area is all currently grazing land, and will remain grazing land, because it is not suitable for row crops or the other

intensive agricultural uses. It is intensive agriculture, not grazing land, which tends to support higher numbers of rodents.

Comment 15-7

- 7) **Land Use**, Page 12-38, Paragraph 2: This paragraph also states that litter was not observed during any of the site visits to the project area and that litter from the landfill would be caught in the intervening landscape. The active portion of the landfill will eventually move closer to the proposed project site, so the fact that litter was not observed during site visits from 2008-2012 would not be relevant to the future conditions of the landfill. Litter may also enter the proposed development from refuse vehicles delivering waste to the facility. Kiefer Landfill implements litter control measures as required in 27 CCR 20830, but it cannot control for litter blowing off of refuse vehicles. The LEA recommends notifying potential tenants of the increased potential for litter in their neighborhood due to the proximity of the landfill and the refuse vehicles utilizing the roadways.

Response 15-7

This comment cites Title 27, Section 20830, which states that litter shall be controlled and that “control shall prevent the accumulation, or off-site migration, of litter in quantities that create a nuisance or cause other problems”. With regard to the collection trucks, it is a violation of California Vehicle Code Section 23115 for any vehicle transporting garbage, refuse, or trash to be driven or moved upon any highway unless the load is totally covered in a manner that will prevent the load or any part of the load from spilling or falling from the vehicle. There are thus existing regulations in effect which will prevent litter from the landfill from being a substantial impact on the Project.

Comment 15-8

- 8) **Land Use**, Page 12-38, Paragraph 3: This paragraph states that CalRecycle is responsible for verifying compliance with State Minimum Standards. EMD, acting as the LEA in Sacramento County, is certified by CalRecycle to regulate Kiefer Landfill to ensure the facility meets the State Minimum Standards, per 14 CCR 18081 (c). The section of regulation cited in this paragraph, 27 CCR 21685(b)(8), pertains to CalRecycle’s concurrence with the issuance of a Solid Waste Facility permit or permit revision. Kiefer Landfill has already been issued a Solid Waste Facility permit, so the section pertaining to CalRecycle’s concurrence is not relevant to ensuring ongoing compliance with the State Minimum Standards. Another section of regulation cited in this paragraph, 14 CCR 17867 (a), pertains to composting facilities, not disposal sites. Kiefer Landfill is a permitted as a disposal site, so 27 CCR 20760 is the appropriate section to cite for nuisance control.

Response 15-8

The text has been amended in the FEIR consistent with the clarifications provided in the comment.

Comment 15-9

- 9) **Land Use**, Page 12-39: Mitigation measure LU-2 states that the location and nature of Kiefer Landfill will be disclosed to buyers within one mile of the “ultimate active landfill boundary.” What is the definition of the “ultimate active landfill boundary”? Is it the same as the disposal site permitted facility boundary, as specified in Kiefer Landfill’s Solid Waste Facility Permit? If not, what criteria were used to determine the “ultimate active landfill boundary”? Also, who will be responsible for providing the notification to the buyers and what information will be included in the notification?

Response 15-9

Refer to Plate AQ-1, on page 5-35, which shows the location of the ultimate active landfill boundary. This is the ultimate permitted boundary of the active disposal area. As part of real estate transaction, the prospective buyer is by law provided with a series of disclosures about the property under consideration. Standard items which must be disclosed include radon zones, whether a floodplain is present, fire hazard designations, and other items. This mitigation measure would add the Kiefer Landfill disclosure to all parcels created within the SPA, and this would become part of the required real estate disclosures. Additional language has been included in the mitigation measure to specify the minimum information which must be disclosed (see Response 14-1).

Comment 15-10

- 10) **Noise**, p13-39: This section uses a 1989 study to determine the impact of noise on the proposed project. In 1989, Kiefer landfill’s average permitted daily tonnage was approximately 2,700 tpd. In 2012, the average permitted daily tonnage is 3,293 tpd, and, in 2035, it will be 6,362 tpd. The increase in tonnage accepted at the landfill will require additional equipment to handle the waste and there will be additional traffic delivering waste, meaning increased noise levels at the landfill. The FEIR ought to consider future noise levels instead of using 1989 noise levels to determine the impact to the residents of the proposed development.

Response 15-10

Roadway noise analyses used cumulative noise levels, and these are provided in the traffic noise analysis section. The 1989 study was the most recent noise analysis available for the landfill, and was used as a screening tool. As stated on page 13-39, based on the location of the ultimate active landfill boundary, noise levels at the nearest noise-sensitive uses would be 44 dB. This is far below the noise standards. Furthermore, noise on the site itself would need to far exceed the safe limits for workplaces established by California Occupational Health and Safety Administration before noise nearly ½-mile away would exceed General Plan standards. An updated noise study was not necessary in order to conclude that impacts would be less than significant.

Comment 15-11

11) Public Services, p 14-21: This section states that the facility is permitted to accept 10,815 tpd and currently receives 700,000 tons per year. The permitted tonnage cited is the maximum daily tonnage for the year 2035. The facility's current maximum daily tonnage is 5,598 tpd and the projected annual tonnage for this fiscal year is 1,202,000 tons, per the Solid Waste Facility Permit. This section also cites "N. Yeats" of CalRecycle. The CalRecycle permitting contact for Sacramento County is Nevin Yeates, not Yeats.

Response 15-11

The text has been amended in the FEIR consistent with the clarifications provided in the comment.

LETTER 16

Donald J. Lockhart, Assistant Executive Officer; Sacramento Local Agency Formation Commission; written correspondence; dated February 22, 2012

Comment 16-1

Refer to page 92 of the “Cordova Hills FEIR: Comment Letters”. The comment spans slightly more than six pages, and ends with the paragraph preceding the “Recreation” subheading on page 98. This portion of the letter describes various analysis sections within the DEIR, and concurs with those analyses.

Response 16-1

Comment noted.

Comment 16-2**Recreation**

For recreation services, the project area would detach from the Sacramento County Regional Parks Department County Service Area 4B and a newly created Cordova Hills CSD would provide recreation services. Detachment from the Sacramento County CSA 4B would require LAFCo discretionary action.

The DEIR evaluates whether the park facilities distributed throughout the project area would meet Quimby Act and Sacramento County General Plan park standards (page 14-23 thru 14-24). Cordova Hills will generate an estimated population of approximately 21,379 residents, requiring a minimum park dedication requirement of 106.9 acres. The proposed project would include 99.1 acres of formal parkland, and an additional 151 acres of informal parkland. The analysis concludes that with the implementation of parks identified in the Cordova Hills Master Plan Special Planning Area, adequate recreation resources would be provided to meet County standards, and the cost of park maintenance would be fully covered by the proposed CSD special tax assessment (page 14-26). The DEIR concludes that because the project is consistent with the Quimby Act and the General Plan park standards, the project will not increase demand for existing park services.

LAFCo is statutorily required to evaluate whether the County (or proposed CSD) has the service capability and capacity to serve the project area, and also whether they can provide services to the project area without adversely affecting existing service levels elsewhere in their service area.

Additionally, LAFCo must evaluate whether the deletion of territory now served by the Sacramento County Regional Parks Department County Service Area 4B would lead to an adverse impact on current CSA 4B users or facilities resulting from any related loss of tax revenues, thereby diminishing the ability of the County to deliver adequate services within the remaining service area of CSA 4B. Adequate information on any such loss of tax revenue is not presented in the DEIR. The County or project proponents will need to provide sufficient information to LAFCo to evaluate these questions prior to the Commission's consideration of any related detachment or district formation.

Therefore, LAFCo requests the County evaluate whether the deletion of the territory now served by the Sacramento County Regional Parks Department County Service Area 4B would lead to the loss of tax revenues, thereby diminishing the ability of the agency to deliver adequate services within their remaining service areas.

Consideration should be given to the evaluation of regional park resources in the context of the adequacy of regional park resources on a regional basis to serve existing and projected populations, and the project's effect on the adequate provision of such resources. Also, the DEIR should further discuss information that supports the document's environmental conclusion regarding the adequacy of fees or other sources of revenue to support the development of any new needed regional park facilities, and/or the maintenance of existing facilities.

Response 16-2

The current tax revenue to County Service Area 4B ("CSA 4B") is modest and reflects the current low value agricultural use, therefore the impact of detachment from CSA 4B would be modest. Future revenues will be considerably higher with the development of the Cordova Hills Project, but along with that revenue would come the obligation to provide a considerably higher level of recreational services that are beyond CSA 4B's

capacity. Currently, funding for the Sacramento County Regional Parks Department is from a combination of general fund revenues, grants, and access fees. The increased population in Cordova Hills will contribute to the regional parks support through property taxes and by access fees when individuals choose to visit a County park facility. The open space and recreation facilities in Cordova Hills will meet the recreation demand of the Project residents.

Comment 16-3

Schools/Libraries

Neither service is subject to LAFCo purview.

Law Enforcement/Fire Protection

For law enforcement and fire protection services, the Sacramento County Sheriff's Department (SSD) and the California Department of Forestry and Fire Protection (CalFIRE) and the Sacramento Metropolitan Fire District (SMFD) would provide fire protection and emergency services. The proposed project includes a maximum of 8,000 residential units for a population of approximately 21,379 residents. Funding for increased law enforcement services would be provided through the County General Fund and the County Police Services Community Facilities District 2005-1 (CFD 2005-1) annual special tax. Compliance with General Plan goal and policies supporting law enforcement facilities, programs, and neighborhood security measures (page 14-21) would ensure the Sheriff's Department adequately serves new growth. The project includes sites for one or two fire stations to serve the project and adjacent development. It is anticipated that the station will require a truck, engine, and medic company. With adherence to existing regulations and the construction of new fire facilities, impacts associated with fire protection services will be less than significant (page 14-19).

Natural Resources/Open Space – The February 2011 NOP comment requested the DEIR include an evaluation of any open space resources as defined by Government Code §65560 that are located within or adjacent to the project area. While LAFCo had requested a separate evaluation on open space resources, such as a discrete impact statement, there is adequate information in Chapter 6, *Agricultural Resources*, to make findings for our Commission. Therefore, we request no changes to the EIR to address this issue.

Response 16-3

Comment noted.

Comment 16-4

Environmental Justice – State law requires LAFCo to consider the extent to which the project will promote environmental justice. "Environmental justice" means the fair treatment of people of all races, cultures, and incomes with respect to the location of public facilities and the provision of public services. The February 2011 NOP comment letter requested the DEIR evaluate environmental justice effects that could occur as a result of implementing the proposed project. The DEIR does not evaluate potential environmental justice effects related to the project. In order for LAFCo to comply with its statutory responsibilities with respect to environmental justice, we request that this issue area be addressed in the Final EIR.

Response 16-4

Comment noted. It is acknowledged that LAFCo is required to consider environmental justice pursuant to Government Code Section 56668. As defined in that Section, “environmental justice” means the fair treatment of people of all races, cultures, and incomes with respect to the location of public facilities and the provision of public services. Public facilities located in the public areas of the Cordova Hills Project will not have any limitation on access to any individuals regardless of race, color, culture, national origin, income, and educational levels, and will comply with the Americans with Disabilities Act. CEQA analyses may peripherally address environmental justice, simply because of the requirement to identify impacts compared to baseline environmental conditions, but “environmental justice” is not an impact topic requiring analysis under CEQA. So, for instance, the significance criteria for noise impacts recognizes that the louder the existing noise environment, the smaller an increase needs to be in order to result in an impact. In this respect, CEQA significance criteria and the nature of the analysis recognizes that some communities may be more sensitive to impacts than others, but there is no CEQA mandate to determine whether the community in question contains a disproportionate number of minorities or low incomes.

LETTER 17

Larry Greene, Executive Director; Sacramento Metropolitan Air Quality Management District; written correspondence; dated February 22, 2012

Comment 17-1

Thank you for the opportunity to review and comment on the Cordova Hills Draft Environmental Impact Report (DEIR). Staff of the Sacramento Metropolitan Air Quality Management District (District/SMAQMD) thanks the County and applicant for working with us early and often, especially during the development of the 35% Operational Air Quality Mitigation dated June 1, 2011 and Greenhouse Gas Reduction Plan dated May 2011 (AQMP, and GHG Plan, accordingly) that we determined to be technically adequate in June 2011 (documents and determination letters are attached).

District staff applauds the County in its clear presentation in the air quality, land use, and climate change chapters; in particular, the County's GHG thresholds of significance analysis and its explanation that its thresholds were modified mid-stream while the County was preparing the EIR. Also, the District concurs with the County's decision to require an AQMP to reduce ozone precursor emissions by 35%, as opposed to the standard 15%, as feasible mitigation since the emissions from the Cordova Hills project were not included in the State Implementation Plan to achieve the federal health based standards.

The project originally contemplated included the early development of key aspects of the University of Sacramento (University) campus component. As the District has indicated to County staff, as well as the project applicant, the University and its phasing played a pivotal role in the District's determination that the AQMP Plan met 35% mitigation requirement, and that the GHG Plan met the County's thresholds in place at that time. It was the District's understanding, based on discussions with the applicant, that construction of the overall project phases would be conditioned on the early construction of the Campus so that the integrity of the AQMP and GHG Plan analysis and conclusions would be protected.

The DEIR now anticipates development of a "University/College Campus" that appears to conceptually maintain the elements of the original University of Sacramento plan, but the DEIR contains no conditions requiring early development of the Campus, and in fact appears to anticipate that the Campus may not be built for 30 years. A letter from SACOG to Mr. Ron Alvarado representing Cordova Hills (attached) affirms our understanding that the County would require appropriate phasing. The SACOG letter states: "Cordova Hills indicated in a recent discussion that if Sacramento County approves an entitlement for the project it is very likely that it will attach a condition requiring the construction of the university before other substantial construction can occur."¹

If there is no early Campus development commitment, the DEIR should be recirculated with an analysis of project impacts that assumes the Campus is not constructed. Without the Campus, the existing air quality analysis misstates and underestimates the project's emissions because it assumes reductions associated with or generated by the Campus component, and these reductions may never occur.

Absent an early development commitment, the District's determination of technical adequacy for the GHG and AQMP plans is null and void.

The impact of the loss of the Campus component on the GHG Plan is plain. The GHG analysis and GHG Plan are based on the applicant's detailed project description that included 21,379 residents in 8,000 dwellings and over 4,000 students that would live in the 1,010 small, efficient, high density, alternative energy-producing dorm rooms on campus, and that the University would not allow first year students to maintain vehicles on campus. Collectively, these and many other promised features of the University acted to conserve resources and generate fewer GHG emissions than most projects of a comparable population. These detailed characteristics and emission reduction measures were embedded in the calculation that yielded a 5.8 MT CO₂e per capita efficiency. Without a Campus, for example, the density of the project would be reduced from an overall net density of 10.4 dwelling units per acre to 8.9 dwelling units per acre, which would impact the per capita emission calculation and prevent the project from achieving the reductions to which it has committed.

The impact on the AQMP is equally plain. A full 25% of emissions reductions are attributed to the relatively high internal trip capture rate, which was achievable through the diverse mix of uses including the presence of a functioning Campus.

Response 17-1

While the Project exhibits include a conceptual phasing plan showing the university/college campus center within Phase I, a condition to require early

development of the university/college campus center was not part of the Project application, and was not included in the Project description. In fact, the Project Description chapter of the DEIR specifically notes that no phasing was used in the analysis. This information was relayed to SMAQMD, along with the information that an “early development” condition was not required by CEQA and would not be in the EIR, but was being considered by other County staff for inclusion in the Development Agreement. See Response 8-3. That this condition was ultimately not included in the Staff Report or Draft Development Agreement has no bearing on the EIR analyses.

The GHG Plan and the AQMP were both developed based on the cumulative, full-build out development conditions; the analyses ignored the timing of all of the various land uses, and simply looked at the effect of the completed Project, as is appropriate and required by CEQA. The methodology which used full-build out for analysis was deemed technically adequate by SMAQMD, and neither mitigation plan refers to phasing. Exclusion of an “early development” requirement does not constitute a revision of the Project. Also see Response 8-2, Response 8-10, Response 8-24, Response 8-27, and Response 8-31.

Though removal of the university/college campus center could be expected to increase per-capita emissions (while reducing total emissions), the same could be said for the removal of many of the other components of the Project, such as the high density residential uses or commercial uses. The removal of any component of a master planned land use proposal would always result in changes to its trip generation and distribution. An analysis would be required to determine whether impacts would increase or decrease, and to what degree this would occur, and with respect to that, this response has already indicated that such an analysis is not required or even consistent with CEQA.

In addition, phasing or the project’s elements was not included in either the SMAQMD endorsed air quality mitigation plan or the SMAQMD endorsed greenhouse gas reduction plan. The emissions modeling for both plans was based upon emissions at full build out as required by CEQA and SMAQMD’s model, not the emissions generated when any specific phase of the project was developed. Further, the university/college campus center component of the project has always been presented as one of the proposed land use types whose approval is being sought as part of the project. It was never required or included in either plan as a mitigation measure. As stated in the Draft EIR and again at the Planning Commission hearing for the project, the air quality and greenhouse gas impacts of the project will be significant and unavoidable.

Comment 17-2

We make the following recommendations to specific mitigation measures **only if an early Campus development commitment is included in the FEIR and project approval, and an acceptable phasing agreement is developed.**

1. CC-1 should be modified to make it clear that any amendments to the Cordova Special Planning Area must maintain 5.80 MTCO₂e/capita max for the entire project (not just that parcel) and that the parties consult with the District during the amendment process. Our suggested changes appear in red underline:

CC-1. All amendments to the SPA shall include an analysis which quantifies to the extent practicable, the effect of the Amendment on greenhouse gas emissions for the entire project. The amendment shall not increase greenhouse gas emissions above an average 5.80 MT [CO₂e] per capita (including emissions from building energy usage and vehicles) for the entire Cordova Hills project. The proponent shall consult with the SMAQMD on the revised analysis and shall prepare a revised GHG Plan for approval by the County, in consultation with SMAQMD.

Response 17-2

See Response 8-26. CC-1 has been amended in the Final EIR.

Comment 17-3

2. Currently, the Climate Change chapter on page 27 states that GHG reduction measures need not be imposed as a mitigation measure because "they are design features already embedded in the SPA..." Our experience has shown us that well intended mitigation may not be implemented because it gets overlooked or buried as projects build out. So, with the goal of providing a clear path linking the mitigation measures to the MMRP and then to actual implementation by a developer/contractor, we suggest that the County include a mitigation measure specifically requiring compliance with the GHG Plan as well as all other feasible and reasonable mitigation measures to which the applicant has committed. We request that the County include the following new mitigation measure:

CC-2: The GHG Plan, dated May, 2011 shall be consulted and implemented at every phase as the project builds out. The measures are as follows...

Response 17-3

Comment noted. For a master plan such as this, in which much of the development will occur over multiple decades and only after additional discretionary entitlements, it is

typical that an MMRP is not maintained for the life of the master plan. The MMRP on a master plan is usually only maintained until it has been verified that the measures have been included as zoning conditions and/or land use master plan conditions, at which time the MMRP is closed. CEQA Guideline 15097 (b) specifically allows this, stating: “Where the project at issue is the adoption of a general plan, specific plan, community plan, or other plan-level document (zoning, ordinance, regulation, policy) . . . the monitoring plan may consist of policies included in the plan-level documents.” Thus, the mitigation measure would simply require that the GHG Plan be included as part of the SPA. The GHG Plan has already been added as a section of the SPA, but Measure CC-1 has nonetheless been amended to refer to the GHG Plan (See Response 8-26).

Comment 17-4

3. In December 2011, a federal judge granted a preliminary injunction against California's low carbon fuel standard. We suggest that the EIR discuss the possibility that certain statewide greenhouse gas reduction rules may be rescinded, and discuss the potential impact on the emissions reductions efforts of the Cordova Hills project.

Response 17-4

No greenhouse gas reduction credit was given for the use of low carbon fuels in the analysis of the Project. Should the use of low carbon fuels be implemented by the State of California in the future, then the actual greenhouse gas emissions of the Project are likely to be lower than estimated in the Draft EIR.

Comment 17-5

4. The County should include a new mitigation measure requiring a revised AQMP be approved by the County in consultation with the District.

AQ-5: All amendments to the SPA shall include an analysis which quantifies to the extent practicable, the effect of the Amendment on ozone precursor emissions for the entire project. The amendment shall not increase ozone precursor emissions above what was considered in the AQMP for the entire Cordova Hills project. The proponent shall consult with the SMAQMD on the revised analysis and shall prepare a revised AQMP for approval by the County, in consultation with SMAQMD.

Response 17-5

In response to this comment, the FEIR has modified Mitigation Measure AQ-2 to include language which is similar to measure CC-1, to address the effect of a possible future amendment to the Cordova Hills SPA that has the potential to impact the Project's ozone precursor emissions:

- AQ-2. Comply with the provisions of the Air Quality Management Plan dated June 1, 2011, and incorporate the requirements of this plan into the Cordova Hills Special Planning Area conditions. **Also, the following text shall be added to**

the Cordova Hills SPA: “All amendments to the Cordova Hills SPA with the potential to result in a change in ozone precursor emissions shall include an analysis which quantifies, to the extent practicable, the effect of the proposed SPA amendment on ozone precursor emissions. The amendment shall not increase total ozone precursor emissions above what was considered in the AQMP for the entire Cordova Hills project. If the amendment would require a change in the AQMP to meet that requirement, then the proponent of the SPA amendment shall consult with SMAQMD on the revised analysis and shall prepare a revised AQMP for approval by the County, in consultation with SMAQMD.”

Comment 17-6

5. As suggested in underline and strikeout, please clarify the following statement on page 5-20 regarding operational ozone precursor reductions to indicate that emissions reductions have not yet taken place:

~~With the construction of the Campus component during the early phases Emissions reductions were accomplished through the production of an Air Quality Management Plan⁹ (AQMP), which was designed to, the Cordova Hills project will achieve a minimum 35% emissions reduction under the AQMP (per guidance from SMAQMD, indicating that this represents the feasible mitigation that should be applied).~~

Response 17-6

All Project impacts were analyzed by examining the impact of full-build out, and thus the timing of construction of the university/college campus center (or any of the other proposed land uses) is not relevant to the analysis. See Response 8-2, Response 8-3, and Response 8-10. The text has been amended so as not to imply that reductions have already occurred, but the statement about early campus construction has not been included.

Comment 17-7

6. Currently, AQ-1 states that the Special Planning Area will be revised to “include language requiring all individual development projects to implement SMAQMD rules and mitigation pertinent to construction-related ozone precursors, as defined by the most current version of the SMAQMD Guide to Air Quality Assessment.” As a backstop, we suggest including our current construction mitigation language, along with a statement that the project must comply with SMAQMD’s mitigation in force at the time the project goes to build/becomes operational in case the mitigation requirements change.

Response 17-7

Experience with implementation suggests that actually including the language “current” at the time of approval leads to confusion. This project will remain active for decades, and it is certain that the current language will become obsolete during that timeframe. There have been unfortunate circumstances when a County staff member simply uses the “fall-back” language, and fails to check and see whether there are more current standards in place. This experience has led to the conclusion that for multi-decade projects it is more effective to have the mitigation direct staff to look up the most current language, rather than providing a fall-back.

Comment 17-8

7. Finally, the Cordova Hills circulation plan- in particular its access policy- should be carefully crafted in order to support goals of the Capital South East Connector Project.

Response 17-8

Comment noted. This is a policy matter for consideration by the decision-makers, and has been addressed via conditions of approval recommended by the Sacramento County Department of Transportation.

Comment 17-9

In conclusion, the proper phasing of this project and development of a functioning University/College Campus are keys to ensuring that air quality and greenhouse gas mitigations are achieved. If there is no early Campus development commitment, the DEIR should be recirculated with an analysis of project impacts that assumes the Campus is not constructed. In the absence of a condition requiring early development of the Campus, the District will withdraw its approval of the AQMP and GHG Plans, because the revised project constitutes a significant change in the project analyzed in those Plans, and a new GHG and AQMP Plan should be developed in consultation with SMAQMD staff.

Response 17-9

See Response 17-1.

LETTER 18

Sarena Moore; Sacramento Regional County Sanitation District; written correspondence; dated February 21, 2012

Comment 18-1

Sacramento Regional County Sanitation District (SRCSD) has reviewed the Cordova Hills DEIR and determined that the sections on sewer service within this document contain inaccurate or outdated information. Please revise these sections based on the following comments:

The Cordova Hills area is located outside the SRCSD Service Area. This area will need to be annexed into the SRCSD Service Area through the Sacramento Local Agency Formation Commission (LAFCo) in order to receive sewer service from SRCSD. The annexation process is to be initiated by the project proponent, not SRCSD.

Response 18-1

Comment noted. The County will require annexation of the Project area into the SRCSD as set forth in draft Conditions of Approval for the Project's large lot tentative subdivision map. The Project Description chapter also discussed that annexation would be required.

Comment 18-2

Once annexed, local sewer service for the proposed project area will be provided by Sacramento Area Sewer District (SASD). Conveyance from local trunk sewers to the Sacramento Regional Wastewater Treatment Plant (SRWTP) will be provided by SRCSD through large pipelines called interceptors.

SRCSD is in the process of finalizing an Interceptor Sequencing Study that will aid SRCSD in planning and implementing regional conveyance projects and assists SASD in coordinating collection system facilities.

SRCSD sewer systems are designed using predicted wastewater flows that are dependent on land use information provided by each land use authority. Sewer studies, including points of connection and phasing information will need to be completed to fully assess the impacts of any project that has the potential to increase existing or future flow demands. Please remove any reference in this document regarding previous sewer studies, as they will need to be updated to reflect the most current information within the SASD System Capacity Plan and SRCSD planning documents.

Response 18-2

Comment noted. At the time of preparation of the Draft EIR, the Cordova Hills Sewer Facilities Master Plan was consistent with the then-current SASD and SRCSD planning documents. Since then, however, the SASD Board of Directors has, as part of its periodic update of its planning documents, approved the 2010 Sewer Capacity Plan Update. This update eliminates the previously planned future offsite Laguna Interceptor and Mather Interceptor in favor of the proposed Aerojet-2 Interceptor and Douglas Interceptor. Those two newly proposed interceptors will be constructed in the future by SRCSD to provide ultimate sewer service to the East Rancho Cordova sewer shed, which includes Cordova Hills. CEQA review of those two facilities would occur as part of the SRCSD's planning document update and prior to construction. Additional offsite revisions impacting the Cordova Hills Sewer Facilities Master Plan are the elimination of Alternative Points of Connection 4 and 5 associated with elimination of the Laguna and Mather Interceptors. Onsite sewer facility revisions associated with the 2010 Sewer Capacity Plan Update are limited to a downsizing of previously contemplated trunk sewer facilities, including elimination of sewer service provisions to the area north of Cordova Hills via facilities that Cordova Hills would need to construct for its own sewer service requirements. Actual onsite sewer facility alignments have not changed from what was contemplated in the Cordova Hills Sewer Facilities Master Plan. Detailed "Level -3" sanitary sewer studies will be prepared as part of small lot tentative subdivision map preparation, and will reflect the most current SASD and SRCSD planning information available at that time.

Comment 18-3

Customers receiving service from SRCSD are responsible for rates and fees outlined within the latest SRCSD ordinances. SRCSD fees for connecting to the sewer system are set up to recover the capital investment of sewer and treatment facilities that serves new customers.

SRCSD is not a land-use authority. Projects identified within SRCSD planning documents are based on growth projections by land-use authorities. Onsite and offsite impacts associated with constructing sanitary sewers facilities to provide service to the subject project must be included in this environmental impact report.

Response 18-3

Comment noted. Please see the Draft EIR at Pages 15-38 to 15-39, at Page 15-49, and at pages 18-1 through 18-4. Environmental impacts that would arise from the offsite sewer facilities that would be constructed by the project applicant to serve the Cordova Hills Project were examined by the Draft EIR's chapters on Air Quality, Biological Resources and Cultural Resources, and compliance with mitigation measures AQ-1, BR-1, BR-3, BR-4, BR-5, BR-6, BR-7, BR-8, and CR-1 will be required to reduce those environmental impacts. As noted on Page 15-39, the construction of regional sewer infrastructure would result in significant and unavoidable impacts to biological resources, namely significant impacts to wetlands and invertebrates, notwithstanding implementation of mitigation measures BR-1 and BR-7 to reduce those impacts. Any significant impacts to nesting raptors, Swainson's hawks, burrowing owls, tricolored blackbirds and special status vernal pool plants would be mitigated to a less than

significant level by compliance with Mitigation Measures BR-3, BR-4, BR-5, BR-6 and BR-8. Impacts arising from construction activities that could increase NO_x emissions would be avoided and be rendered less than significant by compliance with Mitigation Measure AQ-1. Potentially significant impacts to cultural resources arising from the construction of offsite sewer infrastructure by the applicant would be mitigated to a less than significant level by compliance with Mitigation Measure CR-1.

Comment 18-4

There are incorrect statements regarding the design of the SRWTP within the subject document. The SRWTP provides secondary treatment using an activated sludge process. Incoming wastewater flows through mechanical bar screens through a primary sedimentation process. This allows most of the heavy organic solids to settle to the bottom of the tanks. These solids are later delivered to the digesters. Next, oxygen is added to the wastewater to grow naturally occurring microscopic organisms, which consume the organic particles in the wastewater. These organisms eventually settle on the bottom of the secondary clarifiers. Clean water pours off the top of these clarifiers and is chlorinated, removing any pathogens or other harmful organisms that may still exist. Chlorine disinfection occurs while the wastewater travels through a two mile "outfall" pipeline to the Sacramento River, near the town of Freeport, California. Before entering the river, sulfur dioxide is added to neutralize the chlorine. The design of the SRWTP and collection system was balanced to have SRWTP facilities accommodate some of the wet weather flows while minimizing idle SRWTP facilities during dry weather. The SRWTP was designed to accommodate some wet weather flows while the storage basins and interceptors were designed to accommodate the remaining wet weather flows.

Response 18-4

The EIR description is much simpler than the description included in this comment, but it is not incorrect. The EIR states that the facility is a "high-purity oxygen-activated sludge facility", while this comment describes all the details that make up such a facility. At the request of this comment, these details have been added to the FEIR.

Comment 18-5

A new NPDES Discharge Permit was issued to Sacramento Regional County Sanitation District (SRCSD) by the Central Valley Regional Water Quality Control Board (Water Board) in December 2010. In adopting the new Discharge Permit, the Water Board required SRCSD to meet significantly more restrictive treatment levels over its current levels. SRCSD believes that many of these new conditions go beyond what is reasonable and necessary to protect the environment, and has appealed the permit decision to the State Water Resources Control Board. A decision on that appeal has not yet occurred. In the meantime, SRCSD is required to begin the necessary activities, studies and projects to meet the new permit conditions. All new treatment facilities must be completed by 2020. There are incorrect statements within the subject document regarding the permitted average dry weather flow (ADWF), permitted wet weather flow and the design capacity of the SRWTP. The SRWTP NPDES Permit adopted in December 2010 lists the permitted capacity as 181 mgd ADWF.

Response 18-5

The DEIR indicates that the permitted capacity is 181 mgd ADWF (page 15-6), and uses this figure throughout the analysis. The only place where a larger capacity is referenced is in the description of the 2020 Master Plan, where it states that the Master Plan would increase capacity to 218 mgd ADWF, but that the environmental document was invalidated. It is not clear from this comment where the EIR is felt to be in error. The information about the new NPDES permit has been added to the FEIR.

Comment 18-6

SRCSO currently owns and operates a 5-mgd Water Reclamation (WRF) that has been producing Title 22 tertiary recycled since 2003. The WRF is located within the SRWTP property in Elk Grove. A portion of the recycled water is used by SRCSO at the SRWTP and the rest is wholesaled to the Sacramento County Water Agency (SCWA). SCWA retails the recycled water, primarily for landscape irrigation use, to select customers in the City of Elk Grove.

Response 18-6

The information provided by the commenter has been added to the EIR description of the Water Recycling Program by revising the first paragraph on Page 15-9 of the DEIR.

Comment 18-7

The Cordova Hills DEIR's identified potential "Non-Potable Water" sources that could be used in its project area to meet non-potable water demands, e.g. landscape irrigation. SRCSO was referenced as a potential source of non-potable water, i.e. recycled water, in *the Non-Potable Water Master Plan for Cordova Hills (March 2011)*. It should be noted that SRCSO currently does not have any planned facilities that could provide recycled water to the proposed Cordova Hills project or its vicinity. Additionally, SRCSO is not a water purveyor and any potential use of recycled water in the project area must be coordinated between the key stakeholders, e.g. land use jurisdictions, water purveyors, users, and the recycled water producers.

Response 18-7

Comment noted. The Cordova Hills "Non-potable Water Master Plan" only referred to the SRCSO as a "potential source" of non-potable water, not as "the source" of non-potable water. That reference was based upon the SRCSO's own "Water Recycling Opportunities Study" dated February 2007. It was mentioned as a possible source of recycled water because the SRCSO Study identified "Reclaimed Water Supply facilities" as a conceptual source of reclaimed water that might one day be able to provide reclaimed water in its identified target area", with Cordova Hills being within that target area. It was actually planned that SCWA would be the purveyor of reclaimed water to Cordova Hills, but SCWA has since determined that there are no plans to provide future non-potable water to the Cordova Hills Project area and no funding for the County or the water and sewer agencies to maintain a recycled water distribution system at Cordova Hills until non-potable water could be supplied. Consequently, in conformance with the County's current plans, it was decided that the Cordova Hills Project will not be installing a separate recycled water distribution system.

LETTER 19

Terry Davis, Director; Sierra Club, Mother Lode Chapter; written correspondence; dated February 21, 2012

Comment 19-1

Thank you for the opportunity to briefly comment on the DEIR for the Cordova Hills project. As a general comment, this is fundamentally a flawed project, located as it is on the fringe of the region's urban footprint, seven miles from light rail, surrounded by undeveloped land and outside the county's urban services boundary. Its remote location made it ineligible for inclusion in the Draft MTP/SCS; thus the project would hinder efforts of SACOG to achieve its targets under SB 375. The design of the project is inconsistent with efforts to develop the South Sacramento Habitat Conservation Plan since the proposed project would construct a shopping center in an important vernal pool area that federal agencies have indicated is needed for conservation under the SSHCP. In multiple ways the project fundamentally defies ongoing efforts by the region to achieve landscape level habitat conservation and responsible land use and transportation planning.

Response 19-1

Comment noted. The SCS is discussed on page 7-8 of the DEIR. The applicant did coordinate with the County and Fish and Wildlife to design the preserve in a manner which was consistent with the preserve boundaries contemplated at the time, but the South Sacramento Habitat Conservation Plan (HCP) has not been published at this time and the preserve areas in the conservation plan have not been finalized. Given that the HCP has neither been published nor finalized, it cannot be said that the Project is inconsistent.

Comment 19-2

Much of the project's site is a high-value vernal pool area, a significant portion of which will be impacted by the project. An EIS will be required by USEPA, a 404 permit from the ACOE, and a Section 7 consultation with FWS, which must issue a favorable Biological Opinion. The EIS and these federal permits will dictate the final onsite habitat avoidance and offsite mitigation. While CEQA requires the provision of feasible mitigation, the DEIR defers mitigation for impacts to vernal pool wetlands and to listed species to future federal permits, thus denying key information to decision-makers and the public, violating the very essence of CEQA. A combined EIR/EIS would have presented a complete picture of avoidable and unavoidable impacts and complete information regarding how the project would avoid or mitigate for its impacts to biological resources.

Response 19-2

See Response 3-2 and Response 8-1.

Comment 19-3

The Sacramento Metropolitan Air Quality Management District noted in its letter dated June 2, 2011 that Cordova Hills had provided sufficient mitigation to reduce its emissions to meet the air district's guidelines. That determination was based in part on a university being part of the project, with a resulting positive effect on VMT. However, while the DEIR anticipates construction of the university during the initial phase, there appears to be no requirement that housing and commercial development proceed only if there is a commitment of a university to locate on the site and construction has begun.

In fact there are substantial reasons to doubt that the university component of the project will ever be a reality. A letter from SACOG) dated October 7, 2011 and attached states, *"Finding, financing and constructing a private 6,000 student institution of higher learning rates very high on the degree of difficulty scale, especially in this economic environment. It has never been done in this region."* And the letter goes on to state that, *"Many of the short trips and multimodal trips from the project will turn into longer distance car trips if the university is not constructed early in the project, or at all."*

Given the expressed concerns of SACOG, air quality impacts must be assessed both with and without the university. In order for the project to meet the SMAQMD emissions requirements the project should achieve a 35% reduction in emissions both with and without a university.

Response 19-3

See Response 8-2, Response 8-3, and Response 8-10.

Comment 19-4

For further comments on the DEIR, we incorporate by reference those of the Environmental Council of Sacramento (ECOS), which you have already received. Please keep me on your list of interested parties who will receive notices as the review process for Cordova Hills moves forward.

Response 19-4

Refer to the responses to the ECOS letter.

LETTER 20

Tom Zlotkowski, Executive Director; Capital SouthEast Connector Joint Powers Authority; written correspondence; dated February 22, 2012

Comment 20-1

The first page of this comment letter is not included, because it is not a comment on the DEIR; it is a description of the Connector project. Refer to "Cordova Hills FEIR: Comment Letters" page 122.

As part of that PEIR process, the Connector identified preferred access locations to adjacent roadways and land use in the immediate vicinity of the proposed Cordova Hills Special Planning Area (SPA). In this segment of the Connector, the PEIR analyzed an expressway configuration as the preferred functional cross section to provide for the necessary Level of Service and safety needs of the future corridor. This expressway configuration constitutes four through travel lanes in a 200' wide limited access right of way with very restrictive access allowed only at designated locations. Grade separations have been identified as the means to provide for accommodation of future volumes as noted in Table 16-13 of the PEIR, (copy attached) once planned growth and resulting traffic volumes justify.

Recognizing that the proposed access to the Cordova Hills SPA would not be compatible with the desired intersection/interchange spacing of the proposed expressway configuration of the Connector, JPA staff advised both the applicant and the County of Sacramento in writing, dated December, 2009, that an alternative connection for the northern access point to the Cordova Hills SPA should be reconfigured to eliminate its intersection with Grant Line Road. The letter further stated that if the Grant Line Road alignment was chosen as the preferred route for the Connector, the three major access points in the vicinity of the project would be Douglas Road, Crysanthus Road, and University Road under the planned expressway configuration.

Despite this expressed concern, the Connector project was not considered a "foreseeable project" at the time of the release of the Notice of Preparation (NOP) for the Cordova Hills SPA EIR, and the current Sacramento County General Plan designation for this section of Grant Line Road was used in the existing, existing plus project, cumulative, and cumulative plus project traffic analyses. The JPA feels this failure to recognize the Connector is in error in that activity on the PEIR for the Connector was initiated well in advance of the work on the Cordova Hills EIR and that the NOP for the Connector preceded the release of the NOP for Cordova Hills by six months. It is unclear as to the reasons why there was no mention of even the potential for an access conflict as expressed in the Traffic and Circulation chapter of the Cordova Hills EIR, given the aforementioned notice and understanding by the parties involved of the potential for the incompatibility of this access.

Response 20-1

The Connector was a transportation concept at the time of release of the Cordova Hills NOP and had a number of different conceptual routes. In addition, the Connector is not consistent with the recently adopted 2030 Sacramento County General Plan, and was

not even mentioned in the General Plan. The Cordova Hills Project is required to be consistent with the County's adopted General Plan as a matter of state planning law; the General Plan is the overriding land use document in the County. The County General Plan shows Grant Line Road as a six lane thoroughfare, not the four lane expressway concept now being proposed by the Connector JPA in the PEIR now being considered by the JPA. Insofar as the Connector is not yet approved by Sacramento County, and is not a funded transportation project, the Cordova Hills EIR is not required to speculate about the specific impacts of the Connector on the Cordova Hills Project because they were not reasonably foreseeable at the time the Cordova Hills NOP was issued. See, *Ebbets Pass Forest Watch v. California Department of Forestry & Fire Protection* (2008) 43 Cal.4th 936, 77 Cal.Rptr.3d 239. In order to inform the decision-makers about the potential interface of the Connector concept and the Project, a sensitivity analysis was included in DEIR Chapter 18. In this chapter, the potential access conflicts between the Connector and the Project are described, but these are not impacts of the Project.

Comment 20-2

Although the aforementioned Cordova Hills DEIR traffic analysis does not acknowledge the proposed Connector expressway configuration, it is recognized in Chapter 18 of that DEIR under Cumulative and Growth Inducing Impacts. Under the Traffic and Circulation section on page 18-12, the issue of incompatibility involving the northern access to the project is clearly outlined both in text and in Tables CU-2 and CU-3. Both of these tables indicate that given the high probability that an expressway configured Connector will ultimately be constructed across the project frontage, both the spacing and operating conditions of the current North Loop Road access will result in unacceptable levels of service to both Connector JPA and County of Sacramento standards.

Presently, discussions between the applicant and JPA staff have resulted in only concept designs that require additional analysis to confirm their legitimacy. Some of these solutions may require the support of not only the applicant but of the land use authority(s) adjacent to the preferred Connector corridor. Additional refinement of these alternative accesses is considered essential before one might be considered applicable.

The Connector JPA strongly believes that a mitigation measure that resolves this conflict and improves operating conditions to acceptable levels for both the County of Sacramento and the Connector JPA be fully investigated and required as a part of the environmental process and the project approvals. Only with this assurance can the Connector project advance forward with the certainty that the Cordova Hills SPA will not compromise its viability as a regional transportation asset.

Response 20-2

Should the Board of Supervisors choose to initiate a General Plan Amendment project to adopt the design concepts of the Connector, it would be necessary to adopt improvement standards which would apply to this unique facility. As noted in this comment, environmental analysis would be required – but the analysis would fall to the Connector General Plan Amendment project, not to this Project. At this time, the Connector project has not been initiated by Sacramento County, and thus the analysis

of the Cordova Hills Project is based on the adopted General Plan. No mitigation is required. This issue is a matter of policy, which the Sacramento County Department of Transportation has attempted to address through recommended Conditions of Approval. These recommended Conditions are intended to preserve the ability to consider a Connector project General Plan Amendment in the future.

Oral Comments on the EIR

ORAL COMMENTER 1

Larry Greene, Executive Director; Sacramento Metropolitan Air Quality Management District; Sacramento County Planning Commission dated September 24, 2012

Comment

[The oral comments mostly repeated some of the points made in the comment letter submitted on the Project, and involved discussions with the Planning Commission about the desire to continue to work with County staff to address their concerns. The Planning Commission also asked several questions, including: what kind of condition would you like to see on the Project, how much time would you anticipate discussions with County staff on this issue would take, and can you explain the concept of “per capita” emissions. Only one of the points made was both new and addressed the adequacy of the environmental analysis. That point has been paraphrased below.]

We think that about 15% of the 35% ozone precursor emissions reduction was due to the presence of the University, and this represents the amount which would be unmitigated if the University were never constructed.

Response

The comment that 15% of the emissions reduction would be “lost” if the university/college campus center remained undeveloped could easily be made about any of the other components of the Project. If the Town Center remained undeveloped, a certain proportion of the 35% reduction calculated through the Air Quality Mitigation Plan would be “lost”. We must analyze the whole of the action, and cannot create speculative future scenarios in which the Project did not develop in the manner currently proposed. Given that fact, no attempt has been made to verify whether we agree with the stated 15% loss. Refer to Letter 17.

ORAL COMMENTER 2

Tom Zlotkowski, Executive Director; Capital SouthEast Connector Joint Powers Authority; Sacramento County Planning Commission dated September 24, 2012

Comment

[The oral comments repeated the points made in the comment letter submitted on the Project, and indicated a desire to continue working with the County and the applicant.]

Response

Refer to Letter 20.

ORAL COMMENTER 3

Peter Christiansen; Environmental Council of Sacramento; Sacramento County Planning Commission dated September 24, 2012

Comment

[The oral comments repeated the points made in the comment letter submitted on the Project.]

Response

Refer to Letter 8.

ORAL COMMENTER 4

Sean Worth; Environmental Council of Sacramento and Sierra Club Mother Lode Chapter; Sacramento County Planning Commission dated September 24, 2012

Comment

[The oral comments repeated the points made in the comment letters submitted on the Project.]

Response

Refer to Letter 8 and 19.

ORAL COMMENTER 5

**Keith Roberts; Environmental Council of Sacramento; Sacramento County
Planning Commission dated September 24, 2012**

Comment

[The oral comments repeated the points made in the comment letter submitted on the Project.]

Response

Refer to Letter 8.

ORAL COMMENTER 6

Kristain Heston; Rancho Cordova resident; Sacramento County Planning Commission dated September 24, 2012

Comment

[These comments touched on a wide array of topics, but were not related to the adequacy of the EIR. For this reason, the comments are not paraphrased, but a brief summary is provided within these brackets. The commenter expressed concerns that she and others in her neighborhood did not receive sufficient notice of the hearing, asked a variety of questions about the process for amending the SPA, asked for explanations about the planned transit system use fees for non-residents, expressed that one of the proposed transit routes was preferable to the other, and expressed property value concerns related to the inclusion of affordable housing in the Project.]

Response

Comment noted.

ORAL COMMENTER 7

**Glen Holstein; Environmental Council of Sacramento; Sacramento County
Planning Commission dated September 24, 2012**

Comment

[The oral comments repeated the points made in the comment letter submitted on the Project.]

Response

Refer to Letter 8.

ORAL COMMENTER 8

Betsy Wyland, Land Use Chair; Save the American River Association; Sacramento County Planning Commission dated September 24, 2012

Comment

We oppose this project because it is disorderly development. We wish to comment on the issue of parks. I would hope the Commission would not move forward without talking to the Regional Parks Director to ensure that the project is general-fund-neutral. We are still very loopy-goopy about how the parks within the project are going to be funded and governed, and we do not want the project to impact the regional park system. Sacramento County Regional Parks is faced with a crisis; we are in the process now of dismantling our regional parks. Whatever agreement is put in place had better have the approval of the Regional Parks Director, to be sure that it will not negatively impact the regional parks.

A more specific question is about the bufferlands: will those be managed as open space, and/or are they mitigation for habitat loss, and how does that work with the location of a proposed solar farm there.

On water supply, where is the Zone 40 surface water coming from? If it is the Freeport Project, we need to hear about that. There is the issue of Aerojet contamination, so how much water can we support without drying up our rivers?

Response

The Regional Parks Director, Jeff Leatherman, was one of the speakers during staff presentations at the Planning Commission hearing during which these comments were made. It was indicated that the Project parks plan was adequate, and the Infrastructure Financing Plan describes the funding sources, which have been deemed to be neutral with regard to the general fund.

The bufferlands described in this comment are the lands designated as “Agriculture” in the Project Master Plan, which is not a habitat preserve designation, but would allow a variety of low-intensity uses (including a solar facility). Refer to the Project Description chapter of the EIR, and to the proposed SPA.

With regard to water, the proposed water supply was described in detail within the Public Utilities chapter (Chapter 15). Please refer to that chapter.

ORAL COMMENTER 9

Jim Wiley; Taylor and Wiley; Sacramento County Planning Commission dated September 24, 2012

Comment

I am only coming forward to disclose that we may be submitting a comment letter in a week or so.

Response

Comment noted. No letter was received by the time this FEIR was processed for publication.

DEPARTMENT OF TRANSPORTATION

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LETTER 1

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July 6, 2012

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Cordova Hills

Draft Environmental Impact Report

SCH 2010062069



Ms. Catherine Hack
County of Sacramento
Division of Environmental Review and Assessment
827 7th Street, Room 220
Sacramento, CA 95814

Dear Ms. Hack:

Caltrans has met with several Sacramento County staff and consultants to discuss our March 1, 2012 response letter for the Cordova Hills Draft Environmental Impact Report (DEIR). In those discussions some points of contention were clarified while others still stand unresolved. To that end, this letter is to document our understanding and remaining concerns subsequent to our consultation since our March 1, 2012 letter.

- We disagree with the assertion that there are not “*any funding mechanisms established to collect money to fund such improvements*” listed on page 16-50. Caltrans has established specific mechanisms to collect and retain fair share funding to support the State Highway System (SHS) mitigation related to local development.
- Approximately 10% of the overall trip generation is going to-or-from United States Highway (US) 50. As a result, this segment will degrade from Level of Service (LOS) E to F (Page 16-80). As mitigation for this significant impact, the DEIR has proposed to contribute fair share fees to add a transition lane on US 50 between Sunrise Boulevard (Blvd) and Hazel Avenue (Ave) in both directions. We do not agree with the Traffic Impact Study that adding a transition lane on Eastbound (EB)-50 between Sunrise Blvd and Hazel Ave will improve the LOS on this segment of EB-50 (Page 16-52). The bottle neck is located near the Folsom Blvd interchange due to the lane drop and the vertical/horizontal curves. In order to relieve the congestion on EB-50 between Sunrise Blvd and Hazel Ave, we request a fair share contribution for construction of a transition lane on EB-50 from Folsom Blvd to Scott Road (Rd) in addition to a transition lane from Sunrise Blvd. to Hazel Ave.

Ms. Hack
July 6, 2012
Page 2

- In addition, the following TDM strategies could be considered: hiring a full-time TDM coordinator for the development, providing commute shuttles to nearby Regional Transit/Capitol Corridor stations, coordinating carpools/vanpools, providing on-site satellite office space for telecommuting, incentivizing off-peak commuting, developing an internal job-housing match program, and reducing housing prices or Home Owner Association dues for units with reduced parking provision.

If you have any questions, comments or require further information, please contact the Sacramento County Intergovernmental Review Coordinator, Larry Brohman at (916) 274-0627 or larry_brohman@dot.ca.gov

Sincerely,



for ERIC FREDERICKS, Chief
Office of Transportation Planning –South

COMMENTS ON DRAFT CORDOVA HILLS DEIR

INTRODUCTION TO COMMENTS

Like a Bernie Madoff prospectus, this Cordova Hills DEIR reads like a relic from the Great Bubble that collapsed the world's economy. In 2003 housing starts began exceeding projected demand. By 2005 home sales started falling. By 2006 so did home prices. By 2007 the entire financial industry ground to a halt with worldwide effects (Ritholtz 2009; Zandi 2009). By 2008 when the initial environmental documents for this Cordova Hills project were submitted the party was already over and not coming back. That the project continues in 2012 is bizarre and incredibly dumb. The DEIR is not dumb though. It's like a sophisticated ad campaign to convince consumers Twinkies are health food.

The events that pushed millions around the world into poverty are no mystery. Their epicenter was California and their cause was projects like Cordova Hills. These were encouraged by bipartisan federal programs to make everyone a home owner while other federal policies had suppressed wages and caused incomes of most Americans to remain flat in constant dollars for a long time (Reich 2007). Such conflicting policies created a housing market that was ultimately unsustainable.

Like the irrational exuberance of all bubbles, things did look good for awhile even as speculators were pushing home prices higher and thus more and more out of reach of most potential buyers. Securitization of mortgage debt, which scarcely existed before the early nineties, expanded rapidly during the bubble even as home sales stalled. Soon trillions of dollars from around the world were being invested American real estate markets in general and California markets in particular (Zandi 2009). During the bubble 80 per cent of American GDP growth came from mortgage equity withdrawal as home values soared on paper while traditional elements of GDP like manufacturing declined rapidly relative to the rest of the world. Soon securitized mortgages, especially in California, became our largest export and building houses California's biggest industry (Ritholtz 2009). California and other states boomed as foreign investors bought shares in their mortgages, creating a vast conveyor belt of money that became critical for sustaining their economies. Money from around the world, especially China, flowed to America through investment in its securitized mortgages. The resulting inflated home values provided equity Americans drew on to buy the products from around the world, especially China, they no longer manufactured (Ferguson 2008).

Those were the good times. As in any boom, money flowed freely as long as the conveyor belt worked. And because we all knew it depended on building houses, nobody cared much where they were built as long as they got built. It was a great system while it lasted. What could possibly go wrong? Everybody knew the conventional wisdom that real estate only rises in value.

What could go wrong is that, just like Bernie Madoff's Ponzi scheme, it depended on the number of buyers for those houses constantly increasing. To provide those buyers, credit standards got looser and looser. Before long you could get a mortgage to buy a house with no traditional indications of ability to pay like having a job, assets, or income. As long as the bubble kept inflating, anything was OK. Soon such subprime loans, once again especially in California, became a major element of the home mortgage market. They were deliberate federal policy. In his autobiography written just

before the bubble collapsed Federal Reserve Chairman Alan Greenspan defended them while indicating awareness of their risk as follows:

“I was aware that the loosening of mortgage credit terms for subprime borrowers increased financial risk, and that subsidized home ownership initiatives distort market outcomes. But I believed then, as now, that the benefits of broadened home ownership are worth the risk. (Greenspan 2007, p. 233).”

That risk soon became reality as mortgage loan defaults started growing exponentially in 2006 even before Greenspan’s book was released. It started first in California among subprime borrowers who lacked means to pay but spread across America in subsequent years even among traditional mortgage holders. The conveyor belt had stopped and the entire economy began grinding to a halt as foreign investors learned their investments in the American housing market were now worthless. Jobs and income became increasingly scarce and even those who kept good jobs increasingly found themselves underwater with mortgages larger than their rapidly falling home values. So many of the financial incentives to home ownership were now gone that people began realizing what had been true for a long time: it was cheaper to rent (Zandi 2009).

Other factors were involved in California’s real estate boom and bust. Houses were increasingly built in greenfield locations far distant from employment sites, but few cared while house prices were rising and gas was cheap. The latter didn’t last either. Between 2007 and 2008, just as collapse of the real estate bubble caused the conveyor belt to stop and the global economy to freeze, the price of oil doubled from 61 to 130 dollars per barrel. This was just a brief speculation bubble in a trend of generally rising fuel prices but it was enough to deal the auto industry a nearly fatal blow. Long commutes by car to distant homes also suddenly became much less attractive (Yergin 2011).

Simultaneously it was realized long commutes by car were a significant source of carbon dioxide emissions expected to contribute to catastrophic climate change. Prevention of development involving long vehicle commutes became integral elements of government policies seeking to slow climate change (Yergin 2011) that coincided with earlier smart growth policies concerned with the negative effects of sprawl and loss of open space (Duany et al. 2000).

Cordova Hills is typical of California projects during the real estate bubble in its greenfield location and isolation from employment opportunities. It is natural to hope it will bring back those good times just as pits salted with gold dust once brought hope that the gold rush would come back. But projects like Cordova Hills are what caused the real estate bust and all the misery it brought. It is based on economic fantasies like its claim it has a university site to provide employment. That started with plans by the Catholic congregation Legionaries of Christ to build a college there, but these ended abruptly when the Legionaries were informed of the site’s environmental sensitivity and possibly for other reasons. Now California higher education struggles to survive in a very weak economy. No significant California colleges have been built on greenfield locations since UC Merced in 2005 at the building boom’s peak. To expect a new one at Cordova Hills now is like expecting sales of its projected homes to inhabitants of earth-like planets just now being discovered in distant solar systems light years away.

Once burned twice shy. Burst bubbles rarely if ever re-inflate. Tulips never regained their 1637 price when a single bulb cost thirty per cent more than the most expensive house in Holland (Pavord

1999; Pollan 2001). Cordova Hills is utterly out of sync with today's dominant trend of renting as close as possible to where one works. Fully 5 years after the crash that is evident in the fewest new home sales since relevant statistics began being kept in 1963 despite a vast increase in American population since then (Kravitz 2012). The 8,000 new homes proposed for Cordova Hills would actually exacerbate the recession by adding to the glut of unsold homes. Developing it profitably is consequently infeasible, but much damage can be done before that's confirmed. That is evident in this DEIR. Comments on its specific sections are provided below.

AESTHETICS

Page 3-6 of the DEIR provides color examples of high and low visual quality places. The high quality example looks much like the Cordova Hills site does now except for its lack of oaks, while the low quality example resembles numerous places littering California left half built when the bubble burst and money ran out. The proposed Cordova Hills project promises to provide one more.

Subsequent photos in the aesthetics chapter suggest the project will have little visual impact, but all views are from outside the project site looking in. None examine the visual impact the project would cause inside its 2,669 acres. This is a significant omission since it is theoretically possible to cover the Grand Canyon's walls with condominiums invisible just a few yards from the its rim.

That's relevant to Cordova Hills since its central stream valley and the Grand Canyon share similar origins. Both are incised by erosion into nearly level flat-lying sediments (Twidale 1976). The central stream valley at Cordova Hills is tiny relative to the Grand Canyon, of course, but its relief is a rare and significant aesthetic resource in mostly level Sacramento County equal to 12.5% of total county relief (Suttle 1994). The central stream valley at Cordova Hills may be the last place in the county where natural landscapes free from the works of man can be seen. This place largely hidden from current public view is where the Cordova Hills project proposes to develop most intensively.

AIR QUALITY

At the beginning of the air quality chapter (chapter 5) several air pollutants are defined but in latter parts of this chapter a pollutant category (ROG) appearing often in tables and text is left completely undefined. That kind of editorial carelessness suggests DEIR preparers were more interested in producing large numbers of pages than informing the public. Hidden in this lengthy chapter on Page 5-28 is the important conclusion that the proposed project would "exceed daily emissions thresholds" for NOx and ROG ozone precursors that contribute significantly to unhealthful air pollution. Consequently Page 5-30 concludes that implementation of the project would have a significant and unavoidable impact on implementation of regional air quality plans. The project's distant location from places of employment is also in clear conflict with Sacramento County General Plan Policy EN-5 to "Reduce travel distances and reliance on the automobile and facilitate increased use of public transit through appropriate land use plans and regulations."

BIOLOGICAL RESOURCES: Environmental setting and Sacramento County General Plan policies:

On the very first page of this chapter the DEIR completely mischaracterizes vegetation of the Cordova Hills project site by stating: "The dominant vegetation is non-native grassland comprised of

ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), wild oats (*Avena fatua*), barley (*Hordeum* species), and ryegrass (*Lolium multiflorum*).”

In fact these are only the site’s weeds. Similar areas in the site’s vicinity are native California prairie dominated by the native non-grass species *Holocarpha virgata* (Holstein 2001), and that author found during visits to Cordova Hills it also likely dominates there. Nothing in the DEIR suggests any effort was made to survey the site’s vegetation. Consequently its statement above about dominance by non-native grasses is utterly without supporting evidence.

This is extremely significant because among the 32 Sacramento General Plan policies cited on pages 6-3 to 6-6 are:

CO-59. Ensure mitigation occurs for any loss of or modification to the following types of acreage and habitat function: native vegetative habitat. (California prairie is native vegetative habitat.)

CO-70. Community Plans, Specific Plans, and Master Plans, and development projects shall include the location, extent, proximity, and diversity of existing natural habitats and special status species in order to determine potential impacts, necessary mitigation and opportunities for preservation and restoration.

Most significantly not included among the 32 Sacramento County General Plan policies cited in these pages, however, is the following one perhaps most relevant of them all to Cordova Hills:

CO-135. Protect the ecological integrity of California Prairie habitat.

Since that is unquestionably the actual dominant habitat at Cordova Hills (Burcham 1957, p. 80; Shelford 1963, pp. 354-355; Keeler-Wolf et al. 2007, p. 22; Lulow & Young 2009), the proposed development project there would be a clear and utterly unmitigated violation of this Sacramento County General Plan policy. Cordova Hills is over 2,600 acres of the finest quality California Prairie habitat and is among the largest and most pristine areas of this habitat in Sacramento County. It is exactly what CO-135 intends to protect.

Consequently it violates the major goal outlined in the Conservation Element of the General Plan of management and protection of natural resources for the use and enjoyment of present and future generations while maintaining the long-term ecological health and balance of the environment.

BIOLOGICAL RESOURCES: Wetlands and surface waters.

The United States Fish and Wildlife Service Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon to achieve self-sustaining populations of many species which rely on vernal pools identifies Cordova Hills as part one of its highest priority core areas vital to achieving the plan’s goals (Page 6-26). Despite this the project proposes to eliminate 46% wetlands and 33% vernal pools at Cordova Hills (Page 6-28). Such deliberate destruction of these vital wetlands would be an unconscionable environmental crime exacerbated by the project’s dubious economic prospects.

Despite DEIR discussion of mitigating this net loss, loss of vernal pools especially is essentially unmitigatable because they require specific intact soil profiles with permanent aquacludes to pond water and thus function (Ferren & Gevirtz 1990; Leidy & White 1998). The typical mitigation project of creating artificial vernal pools is also usually done in natural California prairie landscapes. Since such construction of artificial vernal pools violates the ecological integrity of these prairie landscapes it is in direct conflict with Sacramento County General Plan policy CO-135.

BIOLOGICAL RESOURCES: Special status species.

Special status species sections of the DEIR contain numerous errors of fact and interpretation. These errors do not appear to be accidental or random since they consistently minimize the impact of the proposed project on these species. Random errors are expected to be a mixture of those maximizing and minimizing impact. Examples of such errors are:

1. On Page 6-33 Ferruginous Hawk is listed as having moderate potential for occurrence on the site because “the nearest recorded occurrence is just under 6 miles west of the site.” It is well known that the recorded occurrence grid for this and several other highly vagile species is very incomplete. Consequently they must be assumed to at least occasionally use all available good habitat within their range. Since that includes all the Cordova Hills site (Small 1994, Wheeler 2003), Ferruginous Hawks have high rather than moderate potential for occurrence there.
2. On Page 6-33 Golden Eagle is listed as having moderate potential for occurrence on the site because “there are no recorded occurrences of this species within ten miles” although it is acknowledged that the species “could forage on the grassland of the site.” This is another vagile species with a very incomplete occurrence grid. Consequently they must be assumed to at least occasionally use all available good habitat within their range. Since that includes all the Cordova Hills site (Small 1994, Wheeler 2003), Golden Eagles have high rather than moderate potential for occurrence there.
3. On Page 6-33 Grasshopper Sparrow is listed as having moderate potential for occurrence despite being recorded “2.5 miles east of the site [which] contains potential foraging and nesting habitat.” The DEIR thus violates its own criteria for high potential, which Page 6-31 gives as “Habitat is present and the species has been observed within five miles of the site.” The DEIR emphasizes the site’s lack of shrubs in an apparent attempt to minimize its habitat value for Grasshopper Sparrows, but they don’t require habitat with shrubs (Small 1994). Their nests that I’ve personally seen were in areas completely lacking shrubs.
4. On Page 6-34 Loggerhead Shrike is listed as having low potential for occurrence even though “the site contains foraging habitat” and “The nearest recorded occurrence is just over three miles to the west.” Thus by the DEIR’s own criteria given on Page 6-31 Loggerhead Shrike has high rather than low potential to occur on the site.
5. On Page 6-34 Northern Harrier is listed as having moderate potential for occurrence on the site because “no occurrences are recorded within ten miles” even though it is acknowledged that “foraging habitat is present on the site.” This is another vagile species with a very incomplete occurrence grid, but in suitable habitat like Cordova Hills it is seasonally abundant in Sacramento County (Bell et al. 1983). The DEIR emphasizes that the site lacks shrubs sometimes used by the species for nesting, but their use is only occasional since they

- often nest directly on the ground (Wheeler 2003). Since Cordova Hills is excellent habitat for Northern Harriers, their potential for occurrence there is high rather than moderate.
6. On Page 6-34 American Badger is listed as having low potential for occurrence on the site for no apparent reason. Once again the DEIR violates its own criteria since Page 6-34 states that this species occurs in “grasslands” and “The nearest recorded occurrence is approximately 2.5 miles to the west.” According to Page 6-1 of the DEIR “grassland” is the site’s “dominant vegetation type”, and according to Page 6-31 species like American Badger for which “Habitat is present” that have “been observed within five miles of the site” have high, not low, potential for occurrence.
 7. On Page 6-38 Tuolumne Button-celery (*Eryngium pinnatisectum*) is listed as “Not Present” for no apparent reason. Since it is known to occur in vernal pools and in Sacramento County (Tibor 2001), its potential to occur at Cordova Hills is at least moderate and probably is high.
 8. On Pages 6-38 – 6-39 five rare vernal pool annual plants Dwarf Downingia, Bogg’s Lake Hedge Hyssop, Ahart’s Dwarf Rush, Pincushion Navarretia, and Slender Orcutt Grass are listed as not present at Cordova Hills because plant surveys didn’t find them. Such vernal pool annuals may not appear every year, however, even though they are present as seeds undetectable by standard plant surveys (Holland & Jain 1981). One such California annual, although not a vernal pool species, apparently survived exclusively as seeds for 102 years. Long thought extinct, it was rediscovered when its seeds finally germinated (McCune 2005). Many other examples of such rediscoveries are known in California although the duration of their presumed extinction is usually not a century long (Tibor 2001). In all such cases soil profiles have remained intact so seeds could germinate when conditions were favorable. There is at least some potential that any or all of the five rare vernal pool annuals not found by Cordova Hills plant surveys may exist there as seeds. As long as the site’s natural soil conditions are intact they might reappear at any time. The project’s proposal to destroy 33% of the site’s vernal pools significantly diminishes this possibility.
 9. On Pages 6-43 – 6-45 & 6-51 mitigation for Swainson’s Hawk habitat loss is discussed in a mishmash of statements. Some are quite strange like the claim on 6-43 that proposed avoided areas “will be connected to thousands of acres of open space to the north and west.” That conveniently ignores the likelihood of growth inducement by the proposed project that would encourage elimination of this open space. The many potential mitigation measures discussed on 6-44 – 6-45 promise or propose nothing specific. On 6-45, for example, it is stated that “Projects impacting 40 acres or more of foraging habitat must provide land acceptable to CDFG and County.” The proposed project would clearly impact far more than 40 acres but makes no commitment to provide any land at all.
 10. On Page 6-48 a “Fish and Game Life History Account” is listed as a source but not referenced in the DEIR’s bibliography. That may be another careless oversight or deliberate avoidance of sometimes inconvenient information from this source (Zeiner et al. 1990). For example the claim that “since [Ferruginous and Swainson’s hawks] use the same habitats, additional mitigation is unnecessary” is unsupported by either the source or the DEIR. Swainson’s Hawks primarily use cropland while Ferruginous Hawks mostly use rangeland (Zeiner et al. 1990), and the DEIR proposes no specific mitigation for destroying habitat of either species. The DEIR particularly emphasizes a brief and apparently casual statement in Zeiner et al. that Ferruginous Hawks successfully compete with Swainson’s Hawks to clearly imply they threaten them. If this occurs, it is likely very insignificant since in California Swainson’s are mostly present only in summer and confined to cropland while Ferruginous

- are present only in winter and confined to rangeland (Small 1944), and such interaction is unmentioned in modern surveys of western raptors like Wheeler's (2003). Since Cordova Hills is significant as one of the largest remaining intact tracts of ideal wintering habitat for rare Ferruginous Hawks in the region, the DEIR's claim that "The Development of the Project site would not result in substantial negative effects to the sustainability of the species and thus impacts to ferruginous hawk habitat are *less than significant*" is patently absurd.
11. Also on Page 6-48 the DEIR even more blatantly misrepresents the Golden Eagle life history account in Zeiner et al. (1990) than that of Ferruginous Hawk. The DEIR states Zeiner et al. says Golden Eagle "does not occur in the center of the Central Valley." What it actually says is Golden Eagles don't permanently reside in or migrate through that area. It makes quite clear, however, that they forage there in winter at places like Cordova Hills (Zeiner et al. 1990), a widely recognized fact (Wheeler 2003) even the DEIR acknowledges. Its claims that "mitigation for the golden eagle is unnecessary" because "Mitigation for foraging habitat loss has already been required as part of Swainson's hawk impacts" and "The development of the project site would not result in substantial negative effects to the sustainability of the species, and thus impacts to golden eagle habitat are *less than significant*" are once again absurd since Golden Eagles and Swainson's Hawks use completely different habitat and the DEIR identifies no specific mitigation plan for either species. It also fails to even mention Rough-legged Hawk, another raptor species that, like Ferruginous Hawk and Golden Eagle, uses prairie/grassland habitat for winter foraging but is somewhat less uncommon (Bell et al. 1983). Consequently it is likely to use Cordova Hills even more frequently.
 12. On Pages 6-48 – 6-49 the DEIR associates another species, Grasshopper Sparrow, with Swainson's Hawk despite very different habitat requirements. Grasshopper Sparrow, a California Species of Special Concern, is the California passerine species most obligately associated with undisturbed prairie/grassland habitat, and Cordova Hills is among the largest tracts of it in central California. While the species may use shrubs while singing, the DEIR's implication that lack of shrubs at Cordova Hills reduces its habitat value for this species is incorrect (Small 1994, Shuford & Gardali 2008). Once again the DEIR claims that the proposed project won't negatively impact this species because a non-existent mitigation plan for Swainson's Hawk will protect it are completely inaccurate. Large contiguous tracts of prairie/grassland habitat like Cordova Hills are the most important Grasshopper Sparrow habitat requirement, and urbanization by projects like the one now proposed there is the greatest threat to its survival (Shuford & Gardali 2008).
 13. On Page 6-49 the claim is again made that a non-existent mitigation plan for Swainson's Hawk will greatly reduce the impact of development at Cordova Hills on a California Species of Special Concern, the raptor Northern Harrier, despite DEIR acknowledgement that thousands of acres of ideal harrier habitat would be lost. Contrary to the DEIR claim such "impacts to northern harrier are *less than significant*", California Department of Fish and Game states that "The primary threats to breeding harriers are loss and degradation of nesting and foraging habitat" (Shuford & Gardali 2008).
 14. On Pages 6-53 – 6-54 the DEIR claims "Project impacts to western spadefoot toad are *less than significant*" because various "conservation lands" it names are preserved, but it provides no evidence Western Spadefoot actually exists at any of them. Numerous places with apparently suitable habitat lack records of Western Spadefoot, a California Species of Special Concern that requires a specific pattern of wetland and upland habitat and associated fauna to survive (Jennings & Hayes 1994). The thriving population of Western Spadefoot at Cordova

- Hills confirms it has these suitable conditions, but the named “conservation lands” lack its unique wetland/upland geometry or any evidence provided by the DEIR of spadefoot presence. The healthy Western Spadefoot population at Cordova Hills makes it a biological treasure of great value. Wanton destruction of that treasure would be a crime against nature.
15. On Pages 6-54 to 6-55 the DEIR acknowledges that several special status invertebrates are expected to occur in Cordova Hills wetlands. These are three Federal Special Concern Species (California Linderiella, Ricksecker’s Water Scavenger Beetle, and Midvalley Fairy Shrimp) and one Federal Threatened Species (Midvalley Fairy Shrimp). It also acknowledges that the project’s proposal to eliminate 43% of Cordova Hills wetlands providing their habitat would be a “*significant and unavoidable*” impact to them.
 16. On Page 2 of BR-3 (Special Status Plant Survey Reports) the presence of common vetch at the site is mentioned but it is not included in the site plant list (Attachment C). That’s a great rarity for this DEIR, an honest mistake.
 17. On Page 6 of BR-3 it is reported that the earliest rare plant surveys started April 21, 2008, and even later in other years. Starting that late and only including a single year of any April surveys may cause species to be missed, especially in years with early heat waves like 1988 when 90 degrees was recorded on March 28 at Sacramento (The Weather Channel 2012). The latest surveys ended August 9, too early to clearly record the site’s dominance by native *Holocarpha virgata*.
 18. Page 12 of BR-3 states that Tuolumne button-celery was not surveyed for because it occurs in cismontane woodland and conifer forest, which aren’t present at Cordova Hills, but it also occurs in vernal pools and in Sacramento County (Tibor 2001), which makes it a potential Cordova Hills rare species that should have been surveyed for.

CLIMATE CHANGE

This chapter is a vast haystack of information about climate change that’s mostly irrelevant to Cordova Hills, but hidden in that haystack are a few very relevant needles. They are:

1. On Page 7-13 there is very brief reference to the Sacramento County Climate Action Plan goals of “reductions in vehicle miles traveled” and “higher density development”. The proposed Cordova Hills development plan’s great distance from existing communities and realistic employment opportunities is in direct conflict with these goals.
2. On Pages 7-26 – 7-27 it is acknowledged the proposed project would exceed acceptable levels of greenhouse gas emissions because its isolation from existing communities would cause too many long car trips. Consequently “it is concluded that [its] impacts [on greenhouse gas emissions] are *significant and unavoidable*.” The DEIR also suggests the model determining the project would violate greenhouse gas reduction targets is biased against it in various ways, but the model is actually strongly biased in the project’s favor since it assumes a university at Cordova Hills will provide employment and reduce car trips despite lack of evidence or any prospect such a university will ever be built (see above).

The DEIR’s climate change chapter completely ignores an important and very relevant issue regarding its mitigation. The over 2,600 acres of natural California prairie habitat at Cordova Hills currently provides a critical ecological service of sequestering the atmospheric carbon dioxide that primarily contributes to climate change. This habitat has greater and more sustainable capacity to provide this ecological service than the better known contribution made by forests in comparable

climate zones since temperate prairies, grasslands, and steppes sequester an average of 21.2 kilograms of carbon per square meter while temperate forests sequester an average of only 19.8 (Schlesinger 1991). The Cordova Hills development project proposes eliminating the critical climate change mitigation ecological service California prairie currently provides there.

GEOLOGY AND SOILS

Page 9-19 acknowledges Sacramento County General Plan policy AG-28 requires “The County shall actively encourage conservation of soil resources.” That is necessary in general for implementation of policy CO-59 ensuring that mitigation occurs for any loss of native vegetative habitat and in particular for implementation of policies CO-134 to maintain and establish a diversity of native vegetative species in Sacramento County and CO-135 to protect the ecological integrity of California Prairie habitat. Cordova Hills are almost entirely California Prairie habitat and currently support a diversity of native vegetative species highly dependent on soil resources with intact and undisturbed soil profiles (Jackson et al. 2007). The proposed Cordova Hills project thus directly conflicts with Sacramento County General Plan policies AG-28, CO-59, CO-134, and CO-135 because it would eliminate over 2,000 acres of intact soils and native California Prairie vegetation.

LAND USE

This chapter attempts to spin the unspinnable fact that the proposed Cordova Hills project is the opposite of smart growth and violates numerous policies encouraging it. Among them are the following Sacramento County General Plan policies:

1. LU-1 (P. 12-2) – “The County shall not provide urban services beyond the Urban Policy Area.” The proposed project is beyond the Urban Policy Area.
2. LU-12 (P. 12-2) – “The County will prohibit land use projects which are not contiguous to the existing UPA, city boundaries, or existing planned communities or master plan areas (i.e. leapfrog development.” The proposed project is a textbook example of leapfrog development.
3. LU-21 (Pp. 12-2 – 12-3) – “Promote a better balance of employment, neighborhood services, and different housing types by reviewing development projects and the surrounding community and designing new projects wherever feasible so that they maintain or improve the mix of uses in the community.” The proposed project has no surrounding community and depends for employment on a hypothetical university with no realistic prospect of ever existing.
4. LU-22 (P. 12-3) – “Specific Plans and Community Plans should provide a balance of employment, neighborhood services, and different housing types wherever feasible.” The proposed project’s Specific Plan depends on a hypothetical university with no realistic prospect of ever existing for employment.
5. LU-113 (P. 12-4) – The County shall work with SACOG to support implementation of Blueprint’s policies and land use objectives.” The proposed project massively conflicts with those objectives.
6. LU -120 (Pp. 12-4 – 12-5) – “The County shall only consider approval of a proposed UPA expansion and/or Master Plan outside the UPA if the Board finds that the proposed project is planned and will be built in a manner that: meets all the requirements per PC-1 through PC-

- 10 and; meets one of two alternative performance metrics.” The proposed project meets neither all the requirements nor the performance metrics. Among requirements not met are:
7. PC-6 (P. 12-7) – “Inclusion of an infrastructure Master Plan and Financing Plan [is required].” While such a plan is provided, its assumptions are unrealistic as discussed below.
 8. PC-8 (P. 12-8) – “Consistency with all applicable County adopted plans not sought to be amended by the proposed project [is required].” The proposed project is inconsistent with numerous elements of the adopted Sacramento County General Plan as discussed in these comments.
 9. PC-9 (P. 12-8) – “Inclusion of a discussion/analysis of how the proposed UPA expansion/Master Plan relates to broad-based and regional planning efforts, such as SACOG’s adopted Blueprint Vision and Metropolitan Transportation Plan, Sacramento County’s Visioning documents created for the Jackson Highway and Grant Line East Areas, any applicable Habitat Conservation Plan(s), The Sacramento Metropolitan Air Quality Management District’s State Implementation Plan, and Regional Transit’s Master Plan [is required].” While discussion/analysis of how the proposed UPA expansion relates to these broad-based regional planning efforts is present, it clearly shows it violates their spirit and letter as is discussed elsewhere in these comments.
 10. PC-10 (P. 12-8) – “Inclusion of a discussion/analysis of the proposed UPA expansion/Master Plan’s jobs-housing balance [is required]. Master Plans should provide an internal jobs-housing balance and/or improve jobs-housing balance within the project’s vicinity.” The proposed UPA expansion depends for jobs on a hypothetical university with no realistic prospect of ever actually existing.
 11. In Alternative #1 Criteria-based performance metrics the DEIR uses to justify a proposed UPA expansion increase desirable densification by counting group quarters at this entirely unrealistic hypothetical university (P. 12-10).
 12. In Alternative #1 Criteria-based performance metrics “Planned transit service shall be defined as service identified in SACOG’s Metropolitan Transportation Plan (MTP), Regional Transit’s (RT) Short Range Transit Plan (SRTP), and/or service to be provided as part of the Master Plan and funded via a secure financial mechanism (example: CSA 10; North Natomas TMA/developer fees). The MTP has a 20+ year planning horizon and is updated every four years; the SRTP has a 10-year planning horizon and is updated every year. Both the MTP and SRTP must be “financially constrained” in that only transportation projects and programs for which funding is reasonably expected to be available may be included in the plan. Therefore there is high likelihood that transit service identified in these plans will ultimately be provided. Service to be provided as part of a Master Plan and funded via a secure financial mechanism would provide similar assurances that identified service will ultimately be provided. In contrast transit service envisioned in RT’s long range TransitAction Plan cannot be implemented until a significant new revenue source is secured, making such service far more speculative. For example, a new ½ cent sales tax increase would only partially fund transit service envisioned in the TransitAction Plan. Therefore, service(s) identified in the TransitAction Plan and similar visioning documents will not be considered.” As discussed elsewhere in these comments, financing for transit and other services for the proposed project are hypothetical, highly speculative, and ultimately infeasible.
 13. In Alternative #1 Criteria-based performance metrics (P.12-14) “Analysis of existing employment/jobs within a five mile radius of the proposed UPA/Master Plan boundary [is required].” Such employment/jobs are essentially non-existent at Cordova Hills.

14. Low Vehicle Miles Travelled (VMT)/Greenhouse Gas (GHG) Emission metrics are Alternative #2 performance metrics (Pp. 12-14 – 12-15), but the DEIR’s climate change chapter determined the proposed project’s VMT and GHG are “*significant and unavoidable*” impacts on climate change (P. 7-26).
15. Sacramento County General Plan Policy LU-123 (P. 12-15) requires that “Before granting approval of an amendment to the Land Use Diagram, the Board of Supervisors shall find that the request is consistent with the objectives and policies of the General Plan; the request is consistent with the goals and objectives of a Sacramento County adopted Habitat Conservation Plan; approval of the proposal will not adversely affect the fiscal resources of the County; [and] the project will be consistent with the performance standards in this Plan and, for urban uses in urban growth areas, the project complies with the requirements of LU-13.” The proposed plan violates this plan because it is inconsistent with numerous other Sacramento County General Plan policies, there is no adopted Habitat Conservation Plan and it would be inconsistent with the goals and objectives of one if it were adopted, fiscal resources of the County would be adversely affected as discussed below, and financial aspects of LU-13 are not adequately complied with as discussed below.

The proposed Cordova Hills project also directly conflicts with the Sacramento Area Council of Governments (SACOG) Blueprint since it violates at least two of its seven core principles (Pages 12-15, 12-16):

1. Principle 5 is “strengthen and direct development toward existing communities.” The project directs it away from existing communities toward open space.
2. Principle 7 is “preserve open space, farmland, natural beauty, and critical environmental areas. The project is proposed to be sited entirely on open space of great natural beauty and critical environmental importance.

“The ultimate purpose of the ‘smart growth’ concept supported by the principles is sustainable communities, and is a reaction to the recognized health and safety impacts of urban sprawl and vehicle-centric development strategies.” The latter describes the proposed project, which is definitely not smart growth since that “must be consistent with all seven principles” (P. 12-17).

On Page 12-18 the concept of developing in existing communities is explained as follows:

“Directing development toward existing communities is accomplished by building on infill land and urban brownfields before developing greenfields, building on greenfields only after the prime infill and brownfield land is developed and developing greenfields in a logical and phased progression beginning in those areas nearest to existing urban lands.” Much Sacramento infill and brownfield land has not been developed, and the project proposes building on greenfields distant and isolated from existing urban lands (P. 12-30).

Page 12-19 states that the purpose of preserving open space in Principle 7 is to “ensure that a project preserves the most sensitive and prime resources within the area. This is partly accomplished through principle 5, which directs development toward existing communities.” Not only does the project not direct development toward existing communities, even its own inadequate environmental analysis acknowledges it will eliminate 43% of its environmentally critical wetlands. Its even more extensive critical uplands are entirely written off and ignored by being falsely labeled non-native annual grassland (see above)

On Page 12-20 the DEIR acknowledges that “Based on the CEQA guidelines, a land use impact is significant if Project implementation results in ...Substantial conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project.” These comments identify numerous examples of such conflicts.

Other conflicts arise from the DEIR’s internal contradictions. For example in reference to Swainson’s Hawks P. 6-43 states “On the basis of the above research, the 298-acre Avoided Area on the western side of the site, plus two adjacent Avoided Areas to the north and south, will remain suitable habitat; this collective area is 382 acres, which will be connected to thousands of acres of open space to the north and west” while P. 12-24 states that “Although the land to the west of the Project is currently undeveloped open space, some of this area has land use entitlements and is likely to develop in the near-term.” In other words the DEIR wants it both ways. The land to the west is long term open space when the goal is expanding Swainson’s Hawk habitat but soon to be developed urban land when the goal is adjacency to other communities.

On Page 12-26 it is acknowledged that “the [SACOG] Blueprint should be city-centric, focusing growth within the confines of incorporated city boundaries as a logical buildout from existing urban areas...on this basis the Project goes beyond the level of development assumed outside the city areas by the year 2050.” Could there be any more explicit violation of the Blueprint? The same page states “The Project...includes a mass transit system operated by the Cordova Hills Community Services District.” A reasonable person might think that means a significant mass transportation connection to Sacramento, but no. Page 16-82 makes it clear that “Since there are no plans to expand services to the Project site, it must be assumed that extension of existing transit to the Project area will not occur.”

Page 12-28 makes much of planned bicycle and pedestrian paths that “will make non-automotive routes the most direct line of travel in many cases.” An important question is travel to where? The plan is designed around a theoretical university with no realistic prospects of ever being built. Consequently what the project proposes are pedestrian and bicycle paths to nowhere. On the same page the DEIR claims this imaginary university will increase the project’s density and thus its “compact building and community design.”

On Page 12-29 the DEIR acknowledges that the project conflicts with SACOG Blueprint principle 5 since it proposes development directed away from rather than toward existing communities. It thus violates Sacramento County General Plan policies requiring conformance with Blueprint principles. The DEIR identifies the nearest existing communities to the site as being 4 and 6 miles away.

Principle 7 of the SACOG Blueprint is preserve open space, farmland, natural beauty, and critical environmental areas. The Cordova Hills site is 2,669 acres of such open space and has outstanding natural beauty. Its wetland acreage is identified as a critical environmental area of the highest priority in the United States Fish and Wildlife Service (USFWS) Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon. Nevertheless on Page 12-31 the DEIR acknowledges the proposed plan would eliminate 44% of the site’s wetland acreage and 33% of its vernal pool acreage despite its identification by USFWS as a highest priority critical environmental area. The site’s non-wetland open space, also proposed for elimination, is native California prairie habitat of great environmental value to many native plant and animal species, some of which are

discussed elsewhere in these comments. The DEIR consequently concludes correctly that “the land area preserved is insufficient to meet the intent of the principle [7], and thus with General Plan Policy.”

On Page 12-32 the DEIR further concludes correctly that “the Project’s inconsistency with this principle [5] is considered a substantial conflict with the Blueprint and with General Plan policy which supports the Blueprint. Avoidance of this impact would require substantial Project redesign and relocation. Though Alternatives have been considered which would reduce this impact, there is no mitigation available and impacts are *significant and unavoidable*.”

On Pages 12-32 – 12-34 the DEIR claims the proposed Cordova Hills project does not conflict with Sacramento County General Plan Policy LU-120 regarding growth management based on County Planning Division decisions summarized in Tables LA-2 and LA-3. These decisions so blatantly conflict with the plain language information both internal and external to the DEIR that they provide prima facie evidence of conflict of interest on the part of the Planning Division. A kindergartener could tell coal is black, snow is white, and the proposed Cordova Hills plan isn’t smart growth. It takes the willfully blind, the insane, or highly paid advocates to claim otherwise.

Some examples in Tables LA-2 and LA-3 are:

1. Contrary to claims in Table LA-2 PC-1 the DEIR clearly demonstrates the proposed project is not “integrally linked” to existing communities. It is 4 to 6 miles distant from them. In current planning documents like the SACOG Blueprint such linkage is not contemplated until at least 2050. The DEIR also makes clear no significant transit linkage with existing communities is contemplated and public utility linkage is highly problematic.
2. PC-5 is about transit-oriented design, but the proposed project has no significant transit links to employment. Its transit proposal is almost entirely internal and consequently a system to nowhere since no realistic significant employment sources are identified at Cordova Hills.
3. PC-6 is about a Financing Plan. The one provided is utterly unrealistic and impossible to implement (see below).
4. PC-7 is about a Services Plan. The one provided conflicts with a water provider and potentially other service providers and depends on infeasible funding sources (see below).
5. PC-8 is about consistency with County-adopted plans. The project claims to be consistent with all County-adopted plans. In fact these comments identify numerous conflicts with such plans. An example is Sacramento County General Plan Policy CO-135 to protect the ecological integrity of California Prairie habitat. The project site is over 2,600 acres of the habitat this policy concerns, but it isn’t even mentioned in the DEIR, which does, however, acknowledge the proposed project’s conflicts with the County-adopted SACOG Blueprint (see above and below).
6. PC-9 is about consideration of regional planning efforts, but even the DEIR acknowledges the proposed project substantially conflicts with SACOG Principle 5 of directing development toward instead of away from existing communities and Principle 7 of preserving open space. Contrary to project claims, it is also not coordinated with regional transit and water plans (see above and below).
7. PC-10 is consideration of jobs-housing balance. The proposed plan’s claim it will provide 6,548 jobs is patently false. It will provide essentially none beyond initial construction. Jobs claims are based on an imaginary “university” with no prospects of ever existing (see above).

8. On Table LA-2 the County Planning Department assigns the proposed project “points” for LU-120 Criteria in an apparently arbitrary manner. Five points are assigned for CB-1, minimum density. Much of this density is achieved through an imaginary “university” with no prospect of ever existing (see above).
9. Criteria CB-2 is about proximity to amenities. The proposed project claims that at least four of the amenity categories are within one mile but doesn’t say which. In fact all amenities are entirely theoretical and may never exist. The most significant of these is the claim of an employment amenity at an imaginary “university” with no prospect of existing. Real amenities in actually existing communities are four and six miles away (see above).
10. Criteria CB-4a is about transit proximity. Its clear intent is interconnecting the Sacramento Metro area with mass transit. The proposed project’s transit element is a primarily internal system to nowhere with little realistic prospect of connecting the isolated proposed project with the rest of the Metro area (see below).
11. Criteria CB-4b is about transit headway. The proposed project says its transit system will have headways of 15 minutes or less during peak hours, but since it has no realistic destinations and goes nowhere, it will have no peak hours.
12. Criteria CB-5 is about employment proximity. Since the proposed project’s “employment” is based entirely on an imaginary “university” with no prospect of existing, the nearest realistic employment is a minimum of 4 to 6 miles away in existing communities, but is likely to be much farther (see above).

On Pages 12-34 – 12-35 the DEIR claims the proposed Cordova Hills project isn’t growth inducing although its own chapter on Cumulative and Growth Inducing Impacts says it is. It justifies this by claiming to be adjacent to “existing planned communities” to its west. The operable word here is “existing” since on Pages 12-29 – 12-30 the DEIR acknowledges no such communities actually exist. On Page 6-43 the DEIR even claims this area is “thousands of acres of open space to the north and west” that can help mitigate for Swainson’s Hawk habitat the project proposes eliminating. The proposed project clearly is leapfrog development and thus directly violates Sacramento County General Plan Policy LU-12 prohibiting it. As noted above, even a kindergartner can understand leapfrog development. The frog leaps over a pond (open space) to a toadstool (development) but splashes mud (growth inducement) in its path. Only the insane, willfully blind, or well-paid advocates can deny that.

On Page 12-35 the DEIR briefly discusses public services and utilities and acknowledges “the need to ensure that adequate facilities will be constructed and that funding is secured for construction.” It also claims a “facilities financing plan” and “Long term funding sources have been identified for the maintenance of public services.” The DEIR’s Public Services Chapter reveals, however, that the proposed project’s financing plan and long term funding sources are unrealistic and grossly inadequate (see below). Consequently the project violates General Plan policies LU-13, LU-66, LU-110, and LU-123 to ensure minimum standards for public services and utilities are met.

On Pages 12-35 – 12-36 the DEIR lists Sacramento County General Plan Policies LU-34, LU-35, LU-36, and LU-46 but fails to discuss their call for development compatible with a regional transit system interconnecting the Sacramento Metropolitan Area. That’s presumably because the proposed development would be largely distantly isolated from such a system and almost entirely dependent on roads for access. Since the only bone it throws transit concerns is a largely internal system to

nowhere lacking significant destinations, it greatly conflicts with General Plan policies mandating development compatible with regional transit.

PUBLIC SERVICES

On Page 14-3 the DEIR says a new Cordova Hills Community Services District (CHCSD) will provide services for the proposed project, but CHCSD is purely hypothetical at this time since it must be approved by the Sacramento Local Agency Formation Commission (LAFCO). It's acknowledged on the same page that the proposed project is "not in close proximity to any existing public services, and as a result some extensive, costly improvements related to infrastructure and public facilities – discussed in the Public Utilities Chapter – will be required to adequately support the Project."

Pages 14-4 – 14-5 then explain how these "extensive, costly improvements" will be financed since they will cost "approximately \$453 million dollars." The DEIR states that some of this funding will be born by local, state, and federal taxpayers but it will also depend on construction and sale of 7,500 new homes out of the project's planned 8,000.

The 7,500 new homes needed to finance the proposed project are 2.5% of all new homes sold in the United States in 2011 (Kravitz 2012). Since the proposed project covers 0.0001% of U.S. area, that's 25,000 times its share of new American homes by area. Closer to home 14,000 new homes were sold in California in the first 7 months of 2011 (Lazo 1011). If we generously assume an equal number were sold in the last 5 months, that's a total of 28,000 new California homes sold in 2011. The 7,500 new homes needed to finance the proposed project are thus 27% of all new homes sold in California in 2011. The proposed project is 0.003% of California's area, so its 7,500 homes are 9,000 times its share by area in California.

Now of course all acres aren't the same. One in Silicon Valley may be much more desirable than many in the Mojave Desert. Is that the case for Cordova Hills? It may have been when gas was cheap and long commutes popular, but that's changing fast. Generation Y, the largest cohort of 21 to 30 year olds since the Baby Boom, is avoiding cars. They now contribute only 14% of miles driven even though that age group provided 21% of miles in 1995. They're so used to buying on line they consider commuting by car wasting time they could spend with their electronic devices on buses or trains (Ostroff 2010). That trend is evident in fewer young people getting drivers licenses and more moving to big cities where mass transit makes car ownership optional (Terlep 2012). Distantly isolated places with virtually no planned connection to urban areas by mass transit like the proposed Cordova Hills project are consequently becoming increasingly unattractive.

Despite these trends there will probably always be a niche market for rural homes made attractive by personal space provided by their often low density environments. The proposed Cordova Hills project is clearly rural since it is 4 and 6 miles from the nearest communities (DEIR Pages 12-29 – 12-30), but it is planned to be "twice as dense as the [Sacramento] county average (DEIR Page 12-28). High density rural developments certainly do exist like the neighboring Sacramento County Boys Ranch (DEIR Pages 12-36 – 12-37) but residence there tends to be less than voluntary and involve debts to society not paid in cash.

The proposed project's financial plan conflicts with far too many economic trends to be even marginally viable. Expecting the monopolization of 27% of the California new home market it takes to succeed is as realistic as expecting those with no jobs, income, or assets to make their mortgage payments. We know how that worked out. All the project offers is another ugly husk of a half built project like those that began littering the Central Valley after the real estate bubble burst. This would be doubly tragic at Cordova Hills since some of the Sacramento region's most beautiful and biologically critical habitat lands might be eliminated in the process for no good purpose.

The proposed project also increases taxes on the Sacramento region's current residents. For example:

1. On Page 14-18 the DEIR says "new fire stations will be built within the Project area" and that "funding for the construction and operation of the fire facilities will be provided by the District-wide Capital Fire Facilities fee." The district referred to is the Sacramento Metropolitan Fire District.
2. On Page 14-20 the DEIR says the financing plan doesn't call for "construction of additional police facilities" but the Urban Services Plan does.
3. On Page 14-21 the DEIR says "law enforcement services will be funded through the County General Fund" at least partially with the balance provided by the financing plan's shaky assumptions.
4. On Page 14-23 the DEIR says funding for new schools will come from "existing fee programs, state funding, and the [Elk Grove Unified School District] EGUSD" augmented by the financing plan's shaky assumptions.
5. On Page 14-28 the DEIR says "library operating costs will be fully funded through property tax revenue" assessed within the City and County of Sacramento.

PUBLIC UTILITIES

On DEIR Page 15-16 two Sacramento County General Plan policies related to water are incompatible with the proposed project. They are:

1. CO-23 is about "impact on valuable water supported ecosystems". On Page 6-28 the DEIR acknowledges the proposed project would eliminate 46% of its wetlands and 33% of its vernal pools. On Page 6-26 it also acknowledges these wetlands are identified by the U.S. Fish and Wildlife as having their highest environmental protection priority.
2. CO-35 is about new development not being approved and building permits not being issued without sufficient water supply. The proposed project's water supply is highly problematic as discussed below.

On DEIR Pages 15-26 – 15-36 a complex ad hoc system of pipes is proposed to bring water to the proposed project in a plan requiring approval by the Sacramento County Water Agency. On Page 15-34 the DEIR acknowledges that this agency opposes the project's proposed water plan. Page 15-35 also acknowledges that the proposed water plan significantly impacts wetland resources and their species.

On DEIR Pages 15-38 – 15-39 the need for significant new sewer infrastructure facilities to serve the proposed project is discussed. It is acknowledged their construction will have significant impact on biological resources but their financing is not discussed. Presumably Sacramento County Sewer

District ratepayers are expected to fund these new facilities which are estimated to cost \$6.5 million for off-site sewer construction alone.

On DEIR Pages 15-42 – 15-45 construction requirements for extending electric and gas utilities to the proposed project are discussed but not their funding. Presumably Pacific Gas and Electric and Sacramento Municipal Utility District ratepayers are expected to fund these new facilities.

On DEIR Pages 15-45 – 15-46 the DEIR acknowledges the proposed project would violate Sacramento County General Plan policies LU-57 and LU-XX to not extend urban services beyond the Urban Policy Area except to 251 acres near the Kiefer Landfill. Its proponents consequently want these policies changed.

TRAFFIC AND CIRCULATION

On Page 16-5 the DEIR acknowledges there are no transit connections to the proposed project. Without these the proposed project violates Sacramento County General Plan policy CI-4 on Page 16-7 to “provide multiple transportation choices to link housing, recreational, employment, commercial, educational, and social services.” Since the proposed project provides no realistic significant local employment sources and only weak transit connections to those elsewhere, it appears to violate this policy.

The proposed project appears to violate two other Sacramento County General Plan policies presented on DEIR Page 16-7:

1. CI-5 calls for “Land use and transportation planning and development should be cohesive, mutually supportive, and complement the objective of reducing per capita vehicle miles travelled (VMT). Since the project proposes only weak transit connections between Cordova Hills and the Sacramento Metro Area it tends to isolate any residents in a place distant from significant employment centers or other urban amenities. Their only option would be greatly increasing VMT.
2. CI-27 says “Public Facilities Financing Plans shall incorporate capital costs for transit. Infrastructure Master Plans shall include transit planning.” The purpose of such transit is explained in Policy CI-4. It is to “link housing, recreational, employment, commercial, educational, and social services.” Instead the project proposes a primarily internal transit system to nowhere providing no such significant linkage.

DEIR Pages 16-36 – 16-38 confirm the project proposes a local primarily internal transit system only weakly linked to the Sacramento Metro Area. Its only rationale is internal trips to an imaginary college with no prospects of ever being built (see above). Consequently it is a transit system to nowhere also unlikely to viably ever exist since it is dependent on the unrealistic financing plan discussed above. Pages 16-37 and 16-38 in particular demonstrate the proposed transit system’s entire rationale is the imaginary college. Pages 16-81 – 16-82 reiterate the proposed project’s isolation from actually existing mass transit.

Pages 16-78 – 16-83 of the DEIR demonstrate the proposed project will increase VMT so much even assuming the imaginary college will actually exist that traffic congestion will be significantly increased on numerous intersections, roads, freeways, and freeway ramps in the Sacramento area.

CUMULATIVE AND GROWTH INDUCING IMPACTS

The proposed project has numerous cumulative and growth inducing impacts. Among them are:

1. Pages 18-2 – 18-3 acknowledge extending public infrastructure to the proposed project, which would cost an estimated \$6.5 million dollars for off-site sewer construction alone, would greatly facilitate development of its thousands of acres of adjoining open space. Consequently the DEIR states that “a major barrier to growth would be removed.”
2. Page 18-3 acknowledges the project’s proposed expansion of the Urban Policy Area (UPA) would facilitate development of adjacent open space but claims the proposed expansion conforms with General Plan policy LU-120. As discussed above such expansion clearly violates LU-120.
3. Pages 18-3 – 18-4 acknowledge the proposed project includes a General Plan Amendment to extend provision of public water beyond the Urban Services Boundary (USB). It further states that “This action sets a precedent, as Zone 40 water has never been provided outside of the Urban Services Boundary to serve *proposed* uses” and that this “proposal is constrained both by supply and by contribution toward a hazardous condition” because it “could impact groundwater remediation efforts at Kiefer Landfill.”
4. Pages 18-5 – 18-6 acknowledge the proposed project would “contribute to significant and unavoidable cumulative aesthetic impacts.”
5. Page 18-6 acknowledges the proposed project would cause “cumulative loss of farmland” and consequently its “impacts are significant and unavoidable.”
6. Pages 18-6 – 18-7 acknowledge the proposed project’s “cumulative impacts related to construction-level particulate matter, operational particulate matter and ozone precursors, and conflict with implementation of the State [air quality] Implementation Plan will be significant and unavoidable.”
7. Pages 18-8 – 18-9 acknowledge that because of the proposed project “Cumulative loss of grassland habitat (grazing land) [i.e. California prairie] may exceed 10,000 acres [that] support a variety of special status species” and “Project impacts to wetlands and some of the associated species are significant even after the application of mitigation; thus, it can be concluded that cumulative impacts will also be considerable, and that despite the application of mitigation cumulative [biological] impacts will remain significant and unavoidable.”
8. Page 18-9 acknowledges “mitigation may be insufficient to avert substantial climate change, and impacts are significant and unavoidable.” That conclusion doesn’t even consider how loss of California prairie that may exceed 10,000 acres will reduce carbon sequestration.
9. Page 18-11 claims the proposed project’s cumulative land use impacts “would be less than significant”, but this conclusion is contradicted in numerous places throughout the DEIR and in these comments. Since the land use chapter of this DEIR negates the SACOG Blueprint’s plain language regarding regional land use planning, it essentially abolishes this significant regional planning effort. The cumulatively huge negative impact would be giving carte blanche to completely unplanned growth and development.
10. Page 18-11 claims the proposed project’s cumulative impacts on public services are less than significant, but that conclusion is based on assumed taxpayer subsidy and a deeply flawed financial plan as discussed above.

11. Page 18-11 – 18-12 also claim the proposed project’s cumulative impacts on public utilities are less than significant, but that conclusion assumes taxpayer and ratepayer subsidies as discussed above.
12. Pages 18-12 – 18-15 acknowledge the proposed project’s impacts on traffic and circulation “cannot be fully mitigated, and impacts are significant and unavoidable.”

ALTERNATIVES TO THE PROPOSED PROJECT

The No Project alternative presented on Pages 2-14 – 2-15 of the DEIR is recommended because of numerous reasons discussed in these comments.

SUBMITTED BY:

Glen Holstein
Botanist
Sacramento Valley Chapter
California Native Plant Society

BIBLIOGRAPHY

- Bell, Brian.; A. Englis; E. Greaves; E. Harper; T. Holtzclaw; D. Johnson; E. Kimball; T. Manolis; & C. Smith. 1983. Checklist of the Birds of Sacramento County. Sacramento Audubon Society, Sacramento, CA.
- Burcham, L. T. 1957. California Range Land. California Department of Natural Resources, Sacramento.
- Duany, Andres; Elizabeth Plater-Zyberk, & Jeff Speck. 2000. Suburban Nation. North Point Press, NY, NY.
- Ferguson, Niall. 2008. The Ascent of Money. Penguin, NY, NY.
- Ferren, Wayne & Elihu Gevirtz. 1990. Restoration and Creation of Vernal Pools: Cookbook Recipes or Complex Science? Pp. 147-178 *in* D. Ikeda & R. Schlising (eds.), Vernal Pool Plants. California State University, Chico, CA.
- Greenspan, Alan. 2007. The Age of Turbulence. Penguin, NY, NY.
- Holland, R. & S. Jain. 1981. Spatial and Temporal Variation in Plant Species Diversity of Vernal Pools. Pp. 198-209 *in* S. Jain & P. Moyle (eds.), Vernal Pools and Intermittent Streams. UC Davis Institute of Ecology, Davis, CA.
- Holstein, Glen. 2001. Pre-agricultural Grassland in Central California. *Madrono* 48(4): 253-264.

- Jackson, L.: M. Potthoff; K. Steenwerth; A. O'Geen; M. Stromberg; & K. Scow. 2007. Soil Biology and Carbon Sequestration in Grasslands. Pp. 107-118 in M. Stromberg, J. Corbin, & C. D'Antonio (eds.), California Grasslands. UC Press, Berkeley, CA.
- Jennings, Mark & Marc Hayes. 1994. Amphibian and Reptile Species of Special Concern in California. California Department of Fish and Game Sacramento.
- Keeler-Wolf, T.; J. Evens; A. Solomeshch; V. Holland; & M. Barbour. 2007. Community Classification and Nomenclature. Pp. 21-34 in M. Stromberg, J. Corbin, & C. D'Antonio (eds.), California Grasslands. UC Press, Berkeley, CA.
- Kravitz, Derek. 2012. New Home Purchases Fall, 2011 Worst Ever for Sales. Associated Press. (published electronically).
- Lazo, Alejandro. 2011. In California 14,000 New Homes Sold in First Seven Months of 2011. Los Angeles Times (published electronically).
- Leidy, Robert & Elizabeth White. 1998. Toward an Ecosystem Approach to Vernal Pool Compensation and Conservation. Pp. 263-273 in Carol Witham (ed.), Ecology, Conservation, and Management of Vernal Pool Ecosystems. California Native Plant Society, Sacramento.
- Lulow, Megan & Truman Young. 2009. High Native Forb Richness in Central Valley "Grassland" Sites in the Western Sacramento Valley and Adjacent Foothills. Grasslands 19(3): 7-11.
- McCune, Jenny. 2005. The Rediscovery of *Dissanthelium californicum* on Santa Catalina Island. Grasslands 15(3):1-5.
- Ostroff, Jim. 2010. Generation Y Giving Cars a Pass. Kiplinger Letter (published electronically).
- Pavord, Anna. 1999. The Tulip. Bloomsbury, NY, NY.
- Pollan, Michael. 2001. The Botany of Desire. Random House, NY, NY.
- Reich, Robert. 2007. Supercapitalism. Knopf, NY, NY.
- Ritholtz, Barry. 2009. Bailout Nation. John Wiley, Hoboken, NJ.
- Schlesinger, William. 1991. Biogeochemistry, 2nd Edition. Academic Press, NY, NY.
- Shelford, Victor. 1963. The Ecology of North America. University of Illinois, Urbana.
- Shuford, W. & T. Gardali (eds.). 2008. California Bird Species of Special Concern. Western Field Ornithologists and California Department of Fish and Game, Sacramento.
- Small, Arnold. 1994. California Birds: Their Status and Distribution. Ibis Publishing, Vista, CA.

Suttle, Gary. 1994. California County Summits. Wilderness Press, Berkeley, CA.

Terlep, Sharon. 2012. New Reality: Cars Aren't a Must for Kids. Wall Street Journal (published electronically).

The Weather Channel. 2012. Sacramento Weather Records and Averages. (published electronically).

Tibor, David (editor). 2001. California Native Plant Society's Inventory of Rare and Endangered Plants of California, 6th Edition. California Native Plant Society, Sacramento.

Twidale, C. R. 1976. Analysis of Landforms. John Wiley, Milton, Qld. Australia.

Wheeler, Brian. 2003. Raptors of Western North America. Princeton University, Princeton, NJ.

Yergin, Daniel. 2011. The Quest. Penguin, NY, NY.

Zandi, Mark. 2009. Financial Shock. Financial Times Press, Upper Saddle River, NJ.

Zeiner, D.; W. Laudenslayer, Jr.; K. Mayer; & M. White. 1990. California's Wildlife Volume II Birds. California Department of Fish and Game, Sacramento.

California Native Plant Society

LETTER 3

February 22, 2012

Sacramento County Environmental Coordinator
Sacramento County
Division of Environmental Review and Assessment
827 7th Street, Room 220
Sacramento, CA 95814
DERA@saccounty.net & HockerL@saccounty.net

VIA EMAIL

Subject: Draft Environmental Impact Report
Cordova Hills Project
Control Number: 2008-GPB-SDP-ZOB-AHP-00142
State Clearing House Number: 2010062069

Dear Ms. Hocker,

This letter supplements the comments of Dr. Glen Holstein of the Sacramento Valley Chapter of the California Native Plant Society (CNPS). We hereby incorporate Dr. Holstein's comments by reference. CNPS incorporates by reference the comments of the Environmental Council of Sacramento and Habitat 2020 submitted by Sean Wirth. CNPS is highly concerned with the overall level of take, undermining of the South Sacramento Habitat Conservation Plan, and leap frog development resulting in poor urban connectivity. The project also proposes misuse of the proposed Southeast Connector which will set precedence for additional sprawl along this "expressway".

CNPS is a statewide non-profit organization of some 10,000 scientists, educators, and laypeople dedicated to the conservation and understanding of the California native flora. As a science-based conservation organization, we believe that good land use decisions must be accompanied by a thorough assessment of the environmental impacts as required by the state and federal Endangered Species Acts, the Clean Water Act, the National Environmental Policy Act, the California Environmental Quality Act, and other resource protection laws.

The Sacramento Valley Chapter of CNPS has been highly involved in participating in and commenting upon land use decisions at all levels that affect vernal pool ecosystems in Sacramento County. Chapter volunteers serve on the South Sacramento Habitat Conservation Plan steering committee and biological subcommittee. Chapter volunteers serve on a stakeholders group to determine land use planning for the former Mather Air Force Base and its vernal pool grassland ecosystem. Chapter volunteers participated in the General Plan revision and the Visioning exercises for the eastern part of the county. Chapter volunteers serve on local land trust boards, steering committees, and management committees. Chapter volunteers have testified at innumerable planning commission, board of supervisors, and city council meetings on projects that impact vernal pool resources.

The Sacramento Valley Chapter of CNPS has long viewed the region including the area referenced in the Cordova Hills Project as the "Yellowstone" of vernal pool landscapes in Sacramento County. Geospatial analysis independently conducted for the developing South Sacramento Habitat Conservation Plan has confirmed that this region is unique within Sacramento County from the perspective of both density and diversity of vernal pools present, and in listed species presence. The diversity of vernal pool sizes, shapes, and hydroperiods is strongly correlated to high species diversity and a high level of ecosystem supporting function. The density of aquatic resources and listed species indicates that losses of this habitat will not easily be mitigated for elsewhere in the county.



Dedicated to the preservation of California native flora

The following comments are based on our knowledge of the wetland and endangered species resources in the vicinity of the proposed project and our understanding of the resource protection laws and their associated public review process.

GENERAL COMMENTS

Incomplete Environmental Setting and Proposed Project

The Cordova Hills project description *fails to describe the whole of the proposed action*. Specifically, a wetlands mitigation plan will be required to offset destruction of vernal pools and other wetlands within the development. Construction of a minimum of 41.37 acres of mitigation wetlands will have environmental impacts above and beyond those described in the DEIR. Additionally, these impacts will occur on another, undisclosed site for which a baseline biological setting has not been provided. Preparation of a mitigation plan after local entitlements are granted constitutes *improper segmentation or piecemealing* of the project and precludes the public from receiving full disclosure of the environmental impacts of the proposed project in its entirety including any proposed mitigation.

The California Environmental Quality Act (CEQA) requires full disclosure of environmental impacts for the whole project regardless of whether they are detrimental or beneficial. Preparation of an after-the-fact mitigation plan negates CEQA's intended public participation process. For the purposes of informing the public, simply stating that the plan will be approved by the regulatory agencies is also insufficient and lacks transparency.

Inappropriate Deferral of Mitigation

Throughout the DEIR, actual *mitigation measures are being deferred* to the future. The document continually refers to yet-to-be-prepared plans, studies, and reports. In addition to deferring a Wetland Mitigation and Monitoring Plan to some future date outside of the public review process, analyses and mitigation of other environmental impacts are also being deferred. For example, specific mitigation for noise will be determined after some future acoustical analysis and report. This failure to fully disclose impacts and to provide substantive and enforceable mitigation measures occurs throughout the document.

Simply creating a plan or an afterthought mitigation measure is not adequate for the purposes of CEQA disclosure. The DEIR must contain specific and measurable mitigation that demonstrates to both the land use authority and the public that impacts have been reduced through mitigation. The Board of Supervisors cannot make findings of "less than significant after mitigation" if they don't even know what the mitigation measures and success criteria are.

Feasibility of Proposed Wetland Mitigation

Deferral of a Wetland Mitigation and Monitoring Plan is particularly troubling because in its absence the project applicant cannot demonstrate that the mitigation measure(s) are feasible (able to be accomplished). Without sufficient information to determine whether the wetland mitigation is in fact feasible, the public is left with the uncertainty that it may never be accomplished.

The U.S. Army Corps of Engineers' (Corps) Record of Decision (dated 25 January 2011) related to the Sunridge Projects in the City of Rancho Cordova states the following:

- "e. The Corps recognizes the significant cumulative loss of vernal pool wetlands within the Mather Core Recovery Area. For future unavoidable impacts to vernal pools within the Mather Core Recovery Area... compensatory mitigation shall be:
 - 1) based on a method for assessing the functions of all waters of the U.S. on the project site;

- 2) accomplished at a ratio of greater than 1:1, after considering direct and indirect impacts, temporal loss and difficulties creating vernal pool wetlands; and
- 3) located in the Mather Core Recovery Area, unless determined impracticable or inappropriate by the Corps.”

A complete Wetland Mitigation and Monitoring Plan is necessary from two perspectives. First, the public has a right to know the environmental consequences of the proposed mitigation. Second, the Board of Supervisors has a public trust obligation to understand how this mitigation, supposedly to occur within the Mather Core Recovery Unit which is almost entirely within the USB, will impact future development (and mitigation) in the County of Sacramento. Will the mitigation for this project preclude development of a more worthwhile and better designed project in the future?

Revision and Recirculation Required

The incomplete description of the environmental setting, the incomplete description of the proposed project, the inappropriately deferred mitigation measures, and the potential infeasibility of the proposed wetland mitigation all demonstrate that the DEIR is woefully inadequate for the purposes of public disclosure. CNPS requests that these deficiencies be remedied in a Revised DEIR to be recirculated to the public for additional consideration and comments.

SPECIFIC COMMENTS

Mitigation Measure BR-1

As discussed above, a commitment to prepare a (Wetland) Mitigation and Monitoring Plan is not mitigation. Additionally, the impacts of such a plan are not disclosed in the DEIR even though they are clearly an integral part of the proposed project.

Table BR-3: Special Status Species Matrix

Please note the comments of Dr. Glen Holstein on behalf of the Sacramento Valley Chapter of CNPS. In addition to his specific observations, we request the addition of *Lytta molesta* as a potential species of concern on the project site.

Mitigation Measures BR-3 through BR-6

An additional mitigation measure needs to be added to survey for ground nesting birds if construction occurs between March 1 and June 30. Several special status bird species written off as having low potential to occur on the site, actually have a high potential (again see Dr. Holstein’s comment letter) and are ground nesters.

Western Spadefoot

Loss of Western Spadefoot breeding habitat on the Cordova Hills project would be significant. There are less than a handful of extant populations within the Mather Core Recovery Area and these occur on the very periphery of its range. The Mather Specific Plan is also proposing destruction of a breeding pool with no mitigation, so cumulatively the impacts are also significant. The Cordova Hills project should conduct additional surveys to determine the locations and extent of the onsite population and prepare a specific mitigation and monitoring plan for this species in order to reduce the impact to less than significant.

Translocation of Inoculum

Because there is not a Wetland Mitigation and Monitoring Plan included for review as part of this project, it is impossible to speculate on all of the measures that might be incorporated into such a plan. However, language in Mitigation Measure ALT-1 suggests that the project proponents intend to translocate inoculum (soil, seeds and cysts) from the impact site to some yet-to-be-identified mitigation site. Such translocation of materials is inappropriate over any distance. Vernal pool landscapes are very similar to island archipelago biogeography, with near neighbors being more closely related genetically than distant neighbors. The practice of translocating propagules from one area to another could have significant consequences including: i) genetic swamping of closely related species, ii) crossbreeding that leads to mortality/extirpation, or iii) crossbreeding that leads to superweeds.

As an aside, Mitigation Measure ALT-1 also contains language that appropriate success for mitigation of rare plant populations would be a restoration criteria (sic) standard of 60 percent survivorship. Given that the plants are all annuals and subject to precipitation and temperature patterns, this criterion is both nonsensical and immeasurable.

These are examples of why it is important to fully disclose environmental impacts during the public comment phase of CEQA disclosure. Who knows what other ill informed practices and immeasurable criteria might be proposed in the Mitigation and Monitoring Plan? Who knows if the plan will be feasible?

SUMMARY

On behalf of CNPS, I appreciate the opportunity to provide these additional comments on the Draft Environmental Impact Report for Cordova Hills.

As articulated above, we believe that the document fails to comply with the spirit of the California Environmental Quality Act. While the DEIR may satisfy minimum standards, it has unsuccessfully informed the public of the environmental setting and environmental consequences of the project including its offsite mitigation components. Therefore, CNPS requests that a Revised DEIR be prepared for this project that addresses our concerns and that the Revised DEIR be recirculated for an additional round of public comment.

Please keep me informed of activities related to projects in this area that might impact vernal pool grasslands and endangered species habitat.

Sincerely,



Carol W. Witham
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CENTRAL VALLEY FLOOD PROTECTION BOARD

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LETTER 4



February 6, 2012

Ms. Catherine Hack
Sacramento County
827 7th Street, Room 220
Sacramento, California 95814



Subject: Cordova Hills SCH Number: 2010062069 Notice of Completion of a Draft
Environmental Impact Report

Dear Ms. Hack:

Staff for the Central Valley Flood Protection Board has reviewed the subject document and provides the following comments:

The proposed project is located within the jurisdiction of the Central Valley Flood Protection Board. The Board is required to enforce standards for the construction, maintenance, and protection of adopted flood control plans that will protect public lands from floods. The jurisdiction of the Board includes the Central Valley, including all tributaries and distributaries of the Sacramento River and the San Joaquin River, and designated floodways (Title 23 California Code of Regulations (CCR), Section 2).

A Board permit is required prior to starting the work within the Board's jurisdiction for the following:

- The placement, construction, reconstruction, removal, or abandonment of any landscaping, culvert, bridge, conduit, fence, projection, fill, embankment, building, structure, obstruction, encroachment, excavation, the planting, or removal of vegetation, and any repair or maintenance that involves cutting into the levee (CCR Section 6);
- Existing structures that predate permitting or where it is necessary to establish the conditions normally imposed by permitting. The circumstances include those where responsibility for the encroachment has not been clearly established or ownership and use have been revised (CCR Section 6);
- Vegetation plantings that will require the submission of detailed design drawings; identification of vegetation type; plant and tree names (i.e. common name and scientific name); total number of each type of plant and tree; planting spacing and irrigation method that will be utilized within the project area; a complete vegetative management plan for maintenance to prevent the interference with flood control, levee maintenance, inspection and flood fight procedures (Title 23, California Code of Regulations CCR Section 131).

Ms. Catherine Hack
February 6, 2012
Page 2 of 2

In accordance with CEQA Guidelines Section 15130 "Discussion of Cumulative Impacts. (a) An EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable, as defined in section 15065(a)(3). Where a lead agency is examining a project with an incremental effect that is not "cumulatively considerable," the lead agency need not consider that effect significant, but shall briefly describe its basis for concluding that the incremental effect is not cumulatively considerable."

Vegetation requirements in accordance with Title 23, Section 131(c) states, "Vegetation must not interfere with the integrity of the adopted plan of flood control, or interfere with maintenance, inspection, and flood fight procedures."

The accumulation and establishment of woody vegetation that is not managed has a negative impact on channel capacity and increases the potential for levee over-topping and flooding. When a channel develops vegetation that then becomes habitat for wildlife, maintenance to initial baseline conditions becomes more difficult, as the removal of vegetative growth is subject to federal and state agency requirements for on-site mitigation within the floodway.

Hydraulic impacts – Hydraulic impacts due to encroachments could impede flows, reroute flood flows, and/or increase sediment accumulation. The Draft EIR should include mitigation measures for channel and levee improvements and maintenance to prevent and/or reduce hydraulic impacts. Off-site mitigation outside of the State Plan of Flood Control should be used when mitigating for vegetation removed within the project location.

The permit application and Title 23 CCR can be found on the Central Valley Flood Protection Board's website at <http://www.cvfpb.ca.gov/>. Contact your local, federal and state agencies, as other permits may apply.

Should you have any further questions, please contact me by phone at (916) 574-0651, or via email at jherota@water.ca.gov.

Sincerely,



James Herota
Staff Environmental Scientist
Floodway Projects Improvement Branch

cc: Governor's Office of Planning and Research
State Clearinghouse
1400 Tenth Street, Room 121
Sacramento, California 95814



California Regional Water Quality Control Board Central Valley Region

Karl E. Longley, ScD, P.E., Chair

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Edmund G. Brown Jr.
Governor

Matthew Rodriguez
Secretary for
Environmental Protection

LETTER 5

22 February 2012

Catherine Hack, Environmental Coordinator
Sacramento County
Division of Environmental Review and Assessment
827 Seventh Street, Room 220
Sacramento, CA 95814

CERTIFIED MAIL
7010 3090 0000 5045 1197

COMMENTS TO DRAFT ENVIRONMENTAL IMPACT REPORT, CORDOVA HILLS PROJECT, SACRAMENTO COUNTY

Pursuant to the State Clearinghouse's 9 January 2012 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Draft Environmental Impact Report* for the Cordova Hills Project, located in Sacramento County (Proposed Project).

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore our comments will address concerns surrounding those issues.

Hydrology and water quality are discussed in Chapter 11.

1. Regulatory Setting

Basin Plan:

The Water Quality Control Plan (Basin Plan) is not described in Chapter 11 (Hydrology and Water Quality). The Basin Plan is briefly referenced on page 15-11 in Chapter 15 (Public Utilities).

The Central Valley Water Board is required to formulate and adopt Basin Plans for all areas within the Central Valley region under Section 13240 of the Porter-Cologne Water Quality Control Act. Each Basin Plan must contain water quality objectives to ensure the reasonable protection of beneficial uses, as well as a program of implementation for achieving water quality objectives with the Basin Plans. Federal regulations require each state to adopt water quality standards to protect the public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act. In California, the beneficial uses, water quality objectives, and the Antidegradation Policy are the State's water quality standards. Water quality standards are also contained in the National Toxics Rule, 40 CFR Section 131.36, and the California Toxics Rule, 40 CFR Section 131.38.

California Environmental Protection Agency

The Basin Plan is subject to modification as necessary, considering applicable laws, policies, technologies, water quality conditions and priorities. The original Basin Plans were adopted in 1975, and have been updated and revised periodically as required, using Basin Plan amendments. Once the Central Valley Water Board has adopted a Basin Plan amendment in noticed public hearings, it must be approved by the State Water Resources Control Board (State Water Board), Office of Administrative Law (OAL) and in some cases, the United States Environmental Protection Agency (USEPA). Basin Plan amendments only become effective after they have been approved by the OAL and in some cases, the USEPA. Every three (3) years, a review of the Basin Plan is completed that assesses the appropriateness of existing standards and evaluates and prioritizes Basin Planning issues.

For more information on the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins*, please visit our website:

http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/.

The Draft Environmental Impact Report should provide an expanded discussion on the Proposed Project's consistency with the Basin Plan, in terms of protecting surface and ground water quality in, and downstream of, the Proposed Project area.

Statement of Policy With Respect to Maintaining High Quality of Waters in California (State Water Board Resolution 68-16):

State Water Board Resolution 68-16 is briefly described in Chapter 15 (Public Utilities) on page 15-12.

A key policy of California's water quality program is the State's Antidegradation Policy. This policy, formally known as the *Statement of Policy with Respect to Maintaining High Quality Waters in California* (State Water Board Resolution No. 68-16), restricts degradation of surface and ground waters. In particular, this policy protects water bodies where existing quality is higher than necessary for the protection of beneficial uses. Under the Antidegradation Policy, any actions that can adversely affect water quality in all surface and ground waters must:

1. meet Waste Discharge Requirements which will result in the best practicable treatment or control of the discharge necessary to assure that a pollution or nuisance will not occur and the highest water quality consistent with maximum benefit to the people of the State will be maintained;
2. not unreasonably affect present and anticipated beneficial use of the water; and
3. not result in water quality less than that prescribed in water quality plans and policies.

Furthermore, any actions that can adversely affect surface waters are also subject to the Federal Antidegradation Policy (40 CFR Section 131.12) developed under the Clean Water Act.

For more information on this policy, please visit our website at:

http://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/1968/rs68_016.pdf.

The Draft Environmental Impact Report should provide an expanded discussion on the Proposed Project's consistency with the State Board Resolution No. 68-16, in terms of protecting surface and ground water quality in the Proposed Project area.

Clean Water Act 303(d) Listed for Impaired Water Bodies

The Clean Water Act 303(d) List for impaired water bodies is discussed briefly in Chapter 11 (Hydrology and Water Quality), including pages 11-8, 11-10, 11-13, 11-14, and 11-26.

Please use the 2010 Clean Water Act 303(d) list for impaired water bodies, which can be located at

http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml

The Final Environmental Impact Report should provide a comprehensive list of all water bodies located within, and downstream of, the Proposed Project area which are included on the 2010 Clean Water Act 303(d) list for impaired water bodies, and the constituent(s) or parameter(s) each water body or water body segment is listed for.

If Total Maximum Daily Load (TMDL) and implementation plan is under development or completed for any receiving water body or water body segment listed on the Clean Water Act 303(d) list, the Draft Environmental Impact Report should include an expanded discussion on the Proposed Project's compliance with that TMDL and implementation plan.

2. Permitting Requirements

Construction Storm Water General Permit

The Construction Storm Water General Permit is briefly referenced in Chapter 11 (Hydrology and Water Quality) on page 11-9.

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction Activities (Construction General Permit), Construction General Permit Order No. 2009-009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm

Water Pollution Prevention Plan (SWPPP).

For more information on the Construction General Permit, visit the State Water Resources Control Board website at:

http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml

The Final Environmental Impact Report should provide an expanded discussion on the Proposed Project's compliance with this permit, including, but not limited to, the development of a SWPPP.

Municipal Separate Storm Sewer System (MS4) Permit

The MS4 permit is briefly referenced in Chapter 11 (Hydrology and Water Quality) on pages 11-3, 11-4, and 11-9. References to hydromodification and low impact development are made in Chapter 11 (Hydrology and Water Quality) and Chapter 15 (Public Utilities), among others.

The federal Clean Water Act makes municipalities responsible for regulating and managing the quality of storm water runoff throughout their jurisdictions, since municipalities own and operate the storm drain pipes and drainage channels that collect runoff prior to its discharge into creeks, rivers, and other water bodies. Under the Clean Water Act, storm water discharges are regulated through National Pollutant Discharge Elimination System (NPDES) storm water permits.

In California, the State Water Board and its nine Regional Water Boards have been authorized by the USEPA to oversee implementation of the Clean Water Act. The Central Valley Water Board issues and enforces NPDES municipal storm water permits in the Sacramento area. As such, the County of Sacramento and the cities of Sacramento, Citrus Heights, Elk Grove, Folsom, Galt and Rancho Cordova are subject to the Sacramento area wide NPDES Municipal Storm Water Permit (NPDES No. CAS082597; Order NO. R5-2008-0142) (Storm Water Permit). This Storm Water Permit, originally issued in 1990, was re-issued by the Central Valley Water Board in September 2008, covering the period November 2008 –September 2013. The Storm Water Permit (Provision A) states:

1. Discharges from MS4s in a manner causing, or threatening to cause, a condition of pollution, contamination, or nuisance as defined in § 13050 of the California Water Code are prohibited.
2. Discharges from MS4s which cause or contribute to exceedances of receiving water quality standards and water quality objectives (designated beneficial uses of the Basin Plan and water quality objectives developed to protect beneficial uses) for surface water or ground water are prohibited.
3. Discharges from MS4s containing pollutants that have not been reduced to the maximum extent practicable (MEP) are prohibited.

In addition, the Storm Water Permit contains specific requirements related to:

- Reporting and other project management functions
- Reducing specific target pollutants
- Monitoring and conducting special studies
- Reducing storm water impacts from new development projects, construction projects, municipal operations and commercial/industrial businesses
- Conducting public outreach and watershed stewardship
- Preventing illicit discharges
- Assessing program effectiveness

The current Storm Water Permit differs from the prior one in several notable ways:

- Many of the requirements are more general (less prescriptive) than in the prior permit.
- The permit includes requirements pertaining to protecting creeks from erosion and other harm caused by increased runoff volume and flow rate (i.e., hydromodification) due to new development and redevelopment.
- It requires a modest amount of additional monitoring (in addition to the existing extensive monitoring program) to learn more about discharges of pyrethroid insecticides and mercury, which are impairing water quality in various local waterways. The data could lead to new understanding on how to control these pollutants and eventually to additional requirements amended to the Storm Water Permit.

Storm Water Quality Improvement Plan (SQIP)

Another component of the Storm Water Permit is the implementation of the SQIP. The SQIP describes the storm water pollution prevention efforts to be implemented either jointly or individually by the County of Sacramento and the Cities of Sacramento, Citrus Heights, Elk Grove, Folsom, Galt and Rancho Cordova. Those agencies, collectively referred to as the Sacramento Storm Water Quality Partnership (Partnership), developed the SQIP to protect local waterways and fulfill regulatory requirements. The SQIP outlines Partnership priorities and activities planned for the 2008-2013 permit term. It also includes background information to provide readers with an understanding of the environmental and regulatory context as well as the Partnership's past accomplishments. The SQIP, adopted on 29 January 2010, supersedes and replaces all previous management plans developed for the Partnership, including the 1994 Comprehensive Storm Water Management Plan, the 1995 Effectiveness Evaluation Plan, the July 2003 SQIPs and their amendments, and the draft 2007 SQIPs.

The overall goals of the SQIP, as identified in the Storm Water Permit, are to: a) reduce the degradation of waters of the State and waters of the United States by urban runoff and protect their beneficial uses; and b) develop and implement an effective SQIP that

is well understood and broadly supported by regional stakeholders. The core objectives of the SQIP are to:

- Identify and control those pollutants in urban runoff that pose significant threats to the waters of the State and waters of the United States and their beneficial uses;
- Comply with the federal regulations to eliminate or control, to the MEP, the discharge of pollutants from urban runoff associated with the storm drain system;
- Achieve compliance with water quality standards;
- Develop a cost-effective program which focuses on pollution prevention of urban storm water;
- Seek cost-effective alternative solutions where prevention is not a practical solution for a significant problem; and
- Coordinate implementation of control measures with other agencies.

As it relates to the Storm Water Permit, the SQIP proposes compliance activities to be conducted during the five-year term of the Storm Water Permit, and as specified, the SQIP is considered part of the permit and is enforceable as such.

For more information on the MS4 Permit the Proposed Project applies to, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/

The Final Environmental Impact Report should provide an expanded discussion on the Proposed Project's compliance with the MS4 Permit held by Sacramento County, including, but not limited to, the implementation of specific Low Impact Development measures throughout the Proposed Project area and a post-construction hydromodification strategy.

Clean Water Act Section 401 Permit – Water Quality Certification

Water Quality Certifications issued under Section 401 of the Clean Water Act are briefly described under Chapter 6 (Biological Resources) on page 6-8.

If an United States Army Corps of Engineers (USACOE) permit, or any other federal permit, is required for the Proposed Project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification(s) must be obtained from the Central Valley Water Board prior to initiation of Proposed Project activities.

The Final Environmental Impact Report should clarify that (a) there are no waivers for Clean Water Act Section 401 Water Quality Certifications in the State of California; (b) a Clean Water Act Section 401 Water Quality Certification serves as both a certification, in part or in whole, of a federal permit, under Section 401 of the Clean Water Act, and as a Waste Discharge Requirement under the Porter-Cologne Water Quality Control Act; and (c) under Section 401 of the Clean Water Act, the State of California can review and approve, condition, or deny all federal permits that may result in a discharge to waters of the State, including wetlands.

The Central Valley Water Board does not issue Individual 401 Water Quality Certifications and/or Waste Discharge Requirements for Proposed Projects that are not in final design.

Required items for a complete Clean Water Act Section 401 Water Quality Certification application are based on Sections 3836 and 3856 of Title 23 of the California Code of Regulations.

Should one federal permit be issued for the all future individual projects, the Central Valley Water Board may opt to incrementally certify the federal permit according to the project proponent's demonstration of readiness-to-proceed with specific project phases. Should this occur, a sequence of 401 Water Quality Certifications and/or Waste Discharge Requirements may be issued in 5-year increments as specific project phases are ready-to-proceed and implemented.

Please clarify in the Final Environmental Impact Report whether the Project Proponent will be seeking one Water Quality Certification for the Proposed Project based on this environmental document, or a series of Water Quality Certifications for future tiered environmental documents.

Compensatory Mitigation

Mitigation Measure BR-1 should be amended to include a discussion on the Central Valley Water Board's compensatory mitigation requirements. The Central Valley Water Board may require compensatory mitigation for impacts to waters of the State. Compensatory mitigation must comply with the State of California's 1993 Wetlands Conservation Policy, which ensures no overall net loss of wetlands for impacts to waters of the State.

If conservation easements are implemented as part of the compensatory mitigation strategy, the recorded executed conservation easement shall be consistent with California Civil Code Sections 815-816.

Waste Discharge Requirements

If USACOE determines that only non-jurisdictional waters of the State (i.e., "non-federal" waters of the State) are present in the Proposed Project area, the Proposed Project will require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control

Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation.

In the case a Water Quality Certification(s) is issued for the Proposed Project, the Water Quality Certification(s) would serve as to certify the federal permit(s) and as a Waste Discharge Requirement under Porter-Cologne Water Quality Control Act.

For more information on the Water Quality Certification and WDR processes, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/water_issues/water_quality_certification/

3. General

Definition of "Waters of the State"

Page 6-11 Chapter 6 (Biological) of the Draft Environmental Impact Report references "waters of the State" under the discussion of the Porter-Cologne Water Quality Control Act.

The Final Environmental Impact Report should clarify the definition of "waters of the State", as related to "waters of the United States." "Waters of the State" are defined more broadly than "waters of the United States." According to California Water Code Section 13050(e), means "any surface water or groundwater, including saline waters, within the boundaries of the state", and includes all waters within the state's boundaries, whether public or private, including waters in both natural and artificial channels.

"Waters of the State" includes all "waters of the United States", including all federally jurisdictional and non-federally jurisdictional waters, whether hydrologically isolated or not, and territorial seas.

This definition is relevant and central to any action taken by the Central Valley Water Board on the Proposed Project and should be incorporated within the Final Environmental Impact Report accordingly.

Please clarify throughout the Final Environmental Impact Report, including, but not limited to, the discussion provided on page 6-11, in preface to any discussion regarding waters of the United States or federal jurisdictional waters, the definition of "waters of the State." All tables, figures, maps, discussions, and references to "waters of the United States" should be revised to "waters of the State and waters of the United States" throughout the entire Final Environmental Impact Report.

Aerojet Facility Site

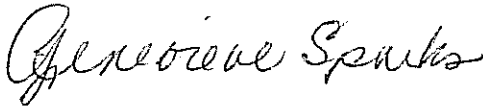
Pages 10-4 through 10-5 and 10-14 of Chapter 10 (Hazardous Materials) provides a discussion on the Aerojet site, as related to the Proposed Project.

The description of the Aerojet site provided on these pages contains numerous errors and does not provide an adequate description of the Aerojet Site. The Central Valley Water Board has the following clarifications:

- On page 10-4 the authors provide a description of the Aerojet facility and discuss underground tanks sites and associated contamination associated with the tanks sites. The tank sites provide an infinitesimal portion of the soil and groundwater contamination at the 8500-acre facility. Rocket manufacturing and testing and chemical manufacturing have led to extensive soil and groundwater contamination, with the groundwater plumes extending over 25 square miles. In fact there are over 350 potential source areas being investigated on the Aerojet Superfund site. Contamination includes solvents, components of liquid and solid rocket fuels, and chemical manufacturing residuals. Investigation of the contamination commenced in the late 1970's.
- On page 10-14, the writer mistakenly talks about both the Inactive Rancho Cordova Test Site (IRCTS) and the Aerojet Superfund site as a single site. In fact, they are two distinct sites. The Aerojet Superfund Site currently comprises the 8500 acre site bounded roughly by US50, the Folsom South Canal, White Rock Road and Prairie City Road, plus Area 39 (portions of the State Highway Off-Road Vehicle Park), Area 40 (area east of Prairie City Road) and the former Cavitt Ranch (400 acres on Scott Road, east of Area 40). This site has significant soil and groundwater pollution and is being investigated and cleaned under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The IRCTS is 4000 acres south of White Rock Road, north of Douglas Road, east of Sunrise and extends about halfway to Grant Line Road. The IRCTS is being investigated and cleaned up under the State hazardous waste site cleanup program.
- On the IRCTS rocket-testing activities have ceased and the site is being cleaned up. The site will be developed as the Rio Del Oro project by Elliot Homes and Aerojet Real Estate. The groundwater pollution at the site and it is migrating to the west and southwest, away from the project site.
- The main groundwater pollution in the area is coming from the Superfund site and consists primarily of volatile organics such as trichloroethylene, perchlorate and n-nitrosodimethylamine. There are several different groundwater plumes associated with the Aerojet site. The main one of concern to this project is the plume emanating from the liquid rocket test-area on the far east side of Aerojet, west of Prairie City Road. This plume is heading south and bit west, and extends as far south as the southern edge of the Teichert processing facility on Grant Line Road. The southern edge of the plume is approximately 1.7 miles north of the project site and moving in the direction of the project. Aerojet is undertaking remedial actions to control the leading edge of the plume, but those actions are not yet complete. Failure of containment will allow the plume to continue to migrate to south and west. There is an additional groundwater plume associated with Area 39, but are in shallow groundwater and not moving very much.

- Not all of the cleanup sites in the vicinity of the project have been included in this section. There is another cleanup site just north of White Rock Road and west of Grant Line Road as is called the White Rock Road North Dump. The contaminants of concern in the groundwater plume are volatile organics and perchlorate. The plume associated with this project extends as far south as the Aerojet plume described above and is on the west side of Grant Line Road.
- Aerojet has had a groundwater extraction and treatment system program operating since 1982, not 2002. The 2002 date is associated with Aerojet's Western Groundwater Operable Unit and the commencement of remediation of that Operable Unit.

If you have questions regarding these comments, please contact me at (916) 464-4745 or gsparks@waterboards.ca.gov.



Genevieve (Gen) Sparks
Environmental Scientist
401 Water Quality Certification Program

cc: State Clearinghouse Unit, Governor's Office of Planning and Research, Sacramento



David Sander
Mayor

LETTER 6

Linda Budge
Vice Mayor

Dan Skoglund
Council Member

Ken Cooley
Council Member

Robert McGarvey
Council Member

February 22, 2012

Brad Hudson
County Executive
Sacramento County
700 H Street, Room 7650
Sacramento, CA 95814

Re: Cordova Hills Environmental Impact Report

Dear Mr. Hudson,

The City of Rancho Cordova is submitting the following comments on the Cordova Hills EIR focusing on two primary areas of concern, municipal services and traffic mitigation. The Cordova Hills project is uniquely situated at the eastern boundary of our city and will rely heavily on City infrastructure and services. We anticipate some level of mutual impacts across jurisdictional boundaries from various development projects within the City and the County, but this project is extremely dependent on Rancho Cordova's urban investments. There are virtually no County services and very limited infrastructure in the Cordova Hills area. While the City generally supports the proposed development, these concerns must be addressed within the EIR prior to certification of the environmental document by the County Board of Supervisors.

Municipal Services

Given Cordova Hills is far removed from other developed unincorporated areas that receive County services, there will be significant additional time and costs of trying to provide quality, timely services to the new development if services to the area are provided by existing County municipal service providers. Adjacent and neighboring service providers, by comparison, could provide more effective and efficient municipal services to Cordova Hills.

With government facing financial challenges into the future, it is critical that the most cost effective and efficient way to provide municipal services to new development be utilized. One such way would be to have Cordova Hills services be provided by the adjacent and neighboring service providers. Another option would be the formation of an additional government organization, such as a community services district (CSD). However this option seems duplicative and inefficient as it would require the additional expenses of its own board, manager, legal, human resources, finance, technology, and other costs for what would remain a small district.

The EIR should consider whether it is feasible for the County to provide all infrastructure and services needed to support the Cordova Hills project and whether providing services to the project in this manner has the potential to adversely affect the City of Rancho Cordova's infrastructure capacities and municipal services.

Traffic Mitigation

The City is in agreement that the majority of the project's off site trips will rely on roadways, transit facilities and bikeways that are within City of Rancho Cordova's jurisdictional boundary. As such, we are concerned about reasonable contributions to the development of our transportation facilities from the Cordova Hills development.

The Cordova Hills EIR identifies mitigation requirements within the City limits and indicates the project's intent to fairly participate in the development of the City's transportation infrastructure. However, we remain concerned that the alternatives analyzed in the traffic study do not adequately represent the actual timing and phasing of infrastructure development.

It is likely that most of the physical transportation improvements identified in the existing plus project scenario will be built once the Cordova Hills development begins to trigger these requirements. We agree that the mitigation trigger should be associated with level of service (LOS) standards, but feel that Rancho Cordova developments or other County projects, such as the Teichert and Stoneridge quarries, will have already triggered many of these requirements. As a result Cordova Hills will rely upon, and benefit from investments by other developing properties. This concern is also evident in the cumulative plus project scenario. The limited number of required improvements in the cumulative scenario is the consequence of very large infrastructure investments provided by other projects. The EIR should include mitigation measures that ensure the Cordova Hills project will pay its fair share of traffic improvements needed to mitigate impacts.

In reality, the expansion and development of new roadways east of Sunrise Boulevard will not resemble either of these two theoretical EIR scenarios. The result of relying on these scenarios is that the EIR does not identify any mitigation requirements on Chrysanthy Boulevard, Americanos Boulevard, Sunrise Boulevard, White Rock Road, or Rancho Cordova Parkway, even though the trip distribution diagrams for Cordova Hills indicate that significant trips will be added to these roadways. Cordova Hills takes advantage of the excess capacity on these roadways that will be created by the City's extensive Capital Improvement Program, yet it does not identify adequate fair share contributions toward these improvements. That means there will be less roadway capacity available for the intended beneficiaries of the City's Capital Improvement Program - future projects within the City. The EIR should include mitigation to address impacts from project trips on these roadways.

I would like to reiterate that the City is not opposed to the proposed Cordova Hills Development. However, the project must mitigate impacts to transportation infrastructure within the limits of the City of Rancho Cordova, and the County must provide an effective strategy to manage municipal services so that the Rancho Cordova is not burdened with additional costs for service.

We appreciate the opportunity to comment on this project and look forward to additional dialogue regarding these concerns.

Sincerely,



Ted A. Gaebler, City manager

Cc: Catherine Hack, Environmental Coordinator, County of Sacramento
Michael Penrose, Director of Transportation, County of Sacramento
Mark Hanson, Project Manager, SBM



Unified School District

Members of the Board:

Jeanette J. Amavisca
Pollyanna Cooper-LeVangie
Priscilla S. Cox
Pamela A. Irely
William H. Lugg, Jr.
Chet Madison, Sr.
Al Rowlett

LETTER 7

Robert Pierce
Associate Superintendent
Facilities and Planning

Robert L. Trigg Education Center
9510 Elk Grove-Florin Road, Elk Grove, CA 95624

(916) 686-7711
FAX: (916) 686-7754

February 27, 2012

Catherine Hack, Environmental Coordinator
Sacramento County Division of Environmental Review and Assessment
827 7th Street, Room 220
Sacramento, CA 95814

SUBJECT: Comments on the Draft Environmental Impact Report for Cordova Hills (Control Number: 2008-GPB-SDP-ZOB-AHP-00142)

Dear Ms. Hack:

The Elk Grove Unified School District (EGUSD) appreciates the opportunity to review and comment on the Draft Environmental Impact Report (EIR) for Cordova Hills. EGUSD requests that the following comment be considered and included in the Final Environmental Impact Report (EIR).

- **Page 1-35, Last paragraph** – EGUSD requests the paragraph entitled “Schools” be reworded as follows:

The Project includes three areas designated as elementary school sites (two of which are approximately ten acres each and one of which is **7 – 10** acres in size, and one area designated as a **middle/high** school (approximately 78 acres). Cordova Hills is within the Elk Grove Unified School District.

EGUSD requests the stated size of the “Town Center” elementary school site be changed from 6 acres to a range of 7 – 10 acres; because, six acres will not be large enough, and a range will allow some flexibility as the plan moves forward. Even with multi-story buildings, providing a complete school program requires a minimum of eight acres. A smaller site may be feasible dependent upon the availability of certain school facilities. For example, a minimum number of parking spaces are required, some of which could possibly be located in adjacent parking facilities. Likewise, required play field areas might be shared on the adjacent park property, if an appropriate joint use agreement is in place.

If you have any questions, please feel free to contact me at wheinick@egusd.net or (916) 686-7711.

Sincerely,

William Heinicke
Director of Planning

G:Development/Cordova Hills/DEIR 2-27-12



LETTER 8

Post Office Box 1526 • Sacramento, CA • 95812 • (916) 444-0022

Via Electronic Mail

21 February 2012

Catherine Hack
Environmental Coordinator
County of Sacramento
Department of Environmental Review and Assessment
827 7th Street, Room 220
Sacramento, CA 95814

**Re: Cordova Hills Draft Environmental Impact Report,
Control Number 2008-GPB-SDP-ZOB-AHP-00142**

Dear Ms. Hack:

These comments are submitted on behalf of the Environmental Council of Sacramento (ECOS) on the Cordova Hills Draft Environmental Impact Report (DEIR), dated 9 January 2012. ECOS is a coalition of environmental and civic organizations with a combined membership of more than 12,000 citizens throughout the Sacramento Region. Our mission is to achieve regional and community sustainability and a healthy environment for existing and future residents.

ECOS was quite dismayed that this DEIR was proceeding without an accompanying EIS, as is typically the situation. We believe there may well be a considerable disparity between these two required documents and that it is highly probable that the EIS may require substantial changes to the Project. It is therefore inappropriate for these two documents to proceed independently.

ECOS remains unequivocally opposed to the Cordova Hills project given the lack of foreseeable demand and lack of demonstrated economic feasibility. We are also opposed to the project due to its negative impacts on biological resources, air quality, climate change and the sustainability of the Sacramento region. We will attempt however to limit our comments here to the adequacy of the draft environmental impact report with respect to land use and growth inducement, transportation, biological resources and climate change.

LAND USE AND GROWTH INDUCEMENT

The primary justification for the original acceptance of this application by the Board of Supervisors was that it would bring the sought after asset of a university to Sacramento. The university initially interested is no longer interested and the likelihood of finding another university, particularly a self-contained university of the type described, is highly unlikely. The Sacramento Council of Governments (SACOG) in its letter to the project proponent dated October 7, 2011 (Attachment 1), states, *"Finding, financing and constructing a private 6,000 student institution of higher learning rates very high on the degree of difficulty scale, especially in this economic environment. It has never been done in this region. Many of the short trips*

and multimodal trips from the project will turn into longer distance car trips if the university is not constructed early in the project, or at all."

The entire environmental analysis is based on the university as an integral part of the Project. Without the university, the Project is inconsistent with numerous additional General Plan policies, particularly the growth management criteria. Consistency with the growth management criteria is a requirement for the Project to be considered for approval. The project proponents are themselves now saying that it is more likely that a combination campus complex would locate here. This type of complex would be made up of a number of educational institutions, with different specialties, locating here and perhaps sharing some facilities. This would much more likely be a commuter college, rather than a self-contained university as currently proposed and analyzed in this document. Given the very remote potential for a university of the type proposed, this document should have also analyzed the project without the university. This would be necessary for the document to be totally adequate and complete.

The phasing of the Project as illustrated in Plate PD-16 is also totally unrealistic. By allowing significant commercial and residential development to occur prior to development of the university, the analysis of impacts in this document is totally compromised. Given the very speculative nature of the university, a "what if" scenario needs to be included which addresses the impacts of the Project without the university. Additionally, **a mitigation measure should be included that requires that 25% of the university complex be completed prior to more than 10 commercial units being issued building permits and 200 residential units being issued building permits for the remainder of the project.**

The document states that *in terms of internal community design, the Project appears to be an excellent example of "smart growth" development...., it must also be acknowledged that the Project conflicts with the principles with respect to preservation of open space and proximity to existing developed communities.* How can a project be considered "smart growth" development when it conflicts with some of the major foundation principles of "smart growth", contiguous development and open space preservation? Also, the remaining "smart growth" aspects of the project would be seriously compromised if a university is not constructed early in the project development, or at all.

The DEIR states that the Project is inconsistent with LU-1 related to growth inducement, but that a General Plan Amendment is included to address this conflict. This General Plan Amendment adds Policy LU-XX to the General Plan. This policy allows for limited public water service beyond the Urban Policy Area/Urban Services Boundary for the 251 acres located with the landfill buffer. What about sewer service? Are all the permitted facilities going to rely on porta-potties? The document goes on to say that this policy is specifically intended to avoid growth-inducing impacts but contains no explanation as to how the policy will actually do that. It does avoid the conflict with the original policy, but it does not avoid growth inducing impacts. By avoiding conflict with the original policy in this instance, it opens the door for future policies LU-XXX and LU-XXXX. As acknowledged in the document, the action of adopting this General Plan Amendment would set a precedent and encourage future amendments and further growth inducement. The Amendment cannot therefore be justified.

If the Amendment is to be approved, the uses and development standards proposed for this area are far too general. A Use Permit should be required for any development in this area to ensure it is appropriate and does not result in additional growth inducement. This should be considered as an additional mitigation measure.

Aside from this General Plan Amendment, the project, in and of itself, will have a significant impact on growth inducement as indicated in the Growth Inducing Impacts Section of the DEIR. Yet, no mitigation is proposed. We believe that feasible mitigation is available, and if not

applied, project applications to the north and south will soon appear. Perhaps more importantly, the Project is proposed immediately adjacent to the Urban Services Boundary (USB). Building up to the USB without providing mitigation for growth inducement beyond the USB is unacceptable. While the applicant has indicated to ECOS the intention to put restrictions on the property east of the project, we can find no reference to this important mitigation in the document.

Interestingly, the Summary of Impacts indicates that growth inducing impacts are less than significant, while the Growth Inducing Impacts Section indicates they are significant. Obviously the Summary of Impacts determination of less than significant needs to be corrected and as required by the California Environmental Quality Act (CEQA), feasible mitigation for growth inducing impacts applied.

The DEIR identifies the project to be in conflict with the Blueprint, the MTP/SCS and the State Implementation Plan, as well as some General Plan policies. ECOS believes that this document underestimates the seriousness of these conflicts. The health and sustainability of the entire region are jeopardized as a result of these conflicts.

TRANSPORTATION

The transportation analysis is seriously flawed because it does not base its significance determinations on the project without university scenario. As noted above, the university component is not realistic, and without it, many of the project characteristics that would have helped to reduce transportation and other impacts are not likely to occur.

Two specific examples of how including the university in the transportation analysis results in flawed impact analyses are 1) unrealistically high non-automobile mode share, and 2) improper trip internalization reduction. First, the DEIR states that a whopping 43 percent of the total university trips that stay within Cordova Hills will use non-automotive modes (DEIR, 16-38). For comparison, the rest of Cordova Hills is expected to have a non-automotive mode share of only 11 percent. Without a university campus with substantial on-campus housing, the project would result in a much higher automotive mode share, and this must be analyzed. Second, the DEIR claims that 36 percent of all vehicle trips will have their origin and destination within the project. Table TC-14 shows how internal trips are used in the traffic analysis to reduce the total vehicle trip rates. For example, single family dwelling units are expected to generate 9.4 trip ends per day, but after adjusting for the internal trips, the rate is reduced to only 7.2 trips per day. It is improper to apply this internalization factor because it is highly dependent on the university. These impacts must be analyzed, and all significance determinations must be based on these more realistic worst-case impacts. Failure to do so could result in unidentified significant impacts, as well as impacts that are more significant than shown in the DEIR.

The proposed limited transit service is not adequate to substantially reduce transportation, air quality, and climate change impacts. The Transit Analysis section of the DEIR (p. 16-81) claims that the project meets transit demand. However, nowhere does the DEIR disclose what the demand actually is. The only specific reference to transit demand is in tables 16 and 30 of the Traffic Impact Study in Appendix TR-1. However, transit demand is aggregated with bicycle and pedestrian demand, so it is impossible to determine if the proposed service actually meets transit demand, or if other options would provide better service. For example, Sacramento Regional Transit (RT) has no current plans to provide service in the area, which is easy to understand since there are no residents in the area now. Why didn't the EIR evaluate the potential for RT or another public transit provider to provide service? Many transit studies show that the need to transfer between services is a common reason that people chose to drive instead of taking transit. Would the proposed transit service require purchase of a transit ticket (for either Cordova Hills residents or the public in general)? Would people who work in Cordova

Hills but live elsewhere be required to purchase a ticket? Would students of elementary or high schools be able to use transit to get to and from school? It is important to note that the proposed service is very limited, with 15 minute headways only during peak commute periods on weekdays. In fact, much of the proposed service is only half hour or hourly headways, which is not sufficient to encourage substantial transit ridership. At a minimum, the DEIR must disclose what the specific transit demand projection is, the ridership assumptions relative to maximum capacity, and the amount of projected demand that can be satisfied by the proposed service. In addition, it is important that transit service is provided as soon as residents occupy the project and establish transportation routines. Therefore, the DEIR should include a mitigation measure that transit service becomes operational no later than completion of the first 200 residential units.

BIOLOGICAL RESOURCES

Environmental Setting

Consultations with the California Native Plant Society biologist Glen Holstein Phd have raised concerns as to the accuracy of the opening statement that: “The dominant vegetation is non-native grassland comprised of ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), wild oats (*Avena fatua*), barley (*Hordeum* species), and ryegrass (*Lolium multiflorum*).” His understanding of the literature, and his personal site visits in the past, suggest that this California prairie ecosystem is dominated by the native species *Holcarpa virgata*, which is not a grass (Holstein 2001). This DEIR needs to substantially support its conclusions with evidence (CEQA 15064(f)(5)). Dr. Holstein further pointed out the omission of Sacramento General Plan policy CO-135, to protect the ecological integrity of California Prairie habitat, in those policies listed in 6-3 to 6-6. The plan preparers need to include all relevant information and policies in order to meet a good faith effort standard for informing the public and decision makers about the true nature of the environmental impacts to be considered (CEQA 15003(i) and 15151). The development of the California prairie habitat in the project area would clearly violate CO-135.

Wetlands and Surface Waters

An important discussion and consideration of the particular vernal pools to be lost is missing from this environmental document. These vernal pool resources are some of the very finest remaining examples of their type within the USB. This project is not merely impacting vernal pool resources, it is impacting some of the very highest quality pools and potentially threatening their connectivity to other vernal pool resources. The Recovery Plan for Vernal Ecosystems of California and Southern Oregon, prepared by the United States Fish and Wildlife Service, clearly identifies Cordova Hills as being within one of its highest priority core areas and as such is integral to attaining the goals set out in the recovery plan. This description of the particular significance of these pools needs to be included in the EIR in order for it to meet its good faith effort standard for informing the public and decision makers about the true nature of the environmental impacts to be considered (CEQA 15003(i) and 15151).

Given the extreme biological value of these vernal pool resources and their associated uplands, it is not made clear what the overall and cumulative impact of their removal will be. Consultations with USFWS and the Army Corps and compliance with the requirements of their permits are presented as mitigations, but no effort is made to address the question of the impact of removal of these pools, and further isolating those to be avoided, from the totality of the conservation effort in the Mather Core Recovery Area. It is

clear that the impact is great based on the effect this project and several others have had on the SSHCP and the creation of viable preserves in the Mather Core Recovery Area. The Plan has been stuck over this

very issue and these very resources. As part of a good faith effort, there needs to be a discussion of the significance of these vernal pool resources in terms of the process of creating viable preserves within the USB that have adequate size, to minimize edge effect, and connectivity, as well as a discussion of the problems this project has posed for the completion of the SSHCP (CEQA 15003(i) and 15151). 33% of the vernal pool resources in this project area are slated for destruction.

As well, there remain serious concerns as to the connectivity of these vernal pool resources to potential vernal pool reserves to the west of Grant Line Road. The formation of these resources west of Grant Line road into a preserve is as of yet unresolved, but flexibility must be retained within the Cordova Hills plan to allow for such connectivity if the preserve materializes, or both vernal pool complexes will be further isolated and have diminished viability. A good faith effort necessitates discussion of this issue (CEQA 15003(i) and 15151).

Special Status Species

The biological resource section misuses the CNDDDB throughout by assuming that the data base is a record of absence (i.e. by assuming that if a species does not show up in the CNDDDB, then it's not there). The CNDDDB has a clear disclaimer for users on this point. This constitutes a bad faith effort (CEQA 15003(i) and 15151).

The abuse of the CNDDDB leads to bizarre results such as the conclusion that, for example, there are no recorded incidences of Ferruginous Hawk within 5 miles of the project area, and no Golden Eagles or Northern Harriers within 10 miles, and so moderate potential for occurrences were provided for them despite the fact that suitable foraging habitat is available and despite the fact that the CNDDDB is notoriously incomplete and often only has incidence listing for nesting birds. The Grasshopper sparrow and Loggerhead Shrike are also given a moderate potential for occurrence even though suitable habitat is available and there are recorded incidences within five miles, the definition of high potential for occurrence provided in this EIR. There is no mention whatsoever of the Rough Legged Hawk that is a likely forager in this project area. American Badgers are listed as having low potential for occurrence despite the recorded incidence within 2.5 miles of the project area and the availability of suitable habitat for this species which has a large home range.

Consultations with Glen Holstein Phd indicated some plant deficiencies as well. Tuolumne Button-celery (*Eryngium pinnatisectum*) is listed as "Not Present" despite the fact that it is known to occur in vernal pools and in Sacramento County (Tibor 2001), and as such its potential to occur at Cordova Hills is at least moderate and probably is high. Furthermore, five rare vernal pool annual plants Dwarf Downingia, Bogg's Lake Hedge Hyssop, Ahart's Dwarf Rush, Pincushion Navarretia, and Slender Orcutt Grass are listed as not present at Cordova Hills because plant surveys didn't find them. Such vernal pool annuals may not appear every year, however, even though they are present as seeds undetectable by standard plant surveys (Holland & Jain 1981). One such California annual, although not a vernal pool species, apparently survived exclusively as seeds for 102 years. Long thought extinct, it was rediscovered when its seeds finally germinated (McCune 2005). Many other examples of such rediscoveries are known in California although the duration of their presumed extinction is usually not a century long (Tibor 2001). In all such cases soil profiles have remained intact so seeds could germinate when conditions were favorable. There is at least some potential that any or all of the five rare vernal pool annuals not found by Cordova Hills plant surveys may exist there as seeds. As long as the site's natural soil conditions are intact they might reappear at any time. The project's proposal to destroy 33% of the site's vernal pools significantly diminishes this possibility.

CLIMATE CHANGE

Analysis is Flawed

1. CalEEMod is the most appropriate and current modeling tool suitable for measuring greenhouse gas (GHG) emissions from a project. Please use CalEEMod and eliminate patchwork analysis.
2. AQMP-2; SMAQMD 29: The Cordova Hills Master Plan requires all buildings to be constructed to at least 20 percent above 2008 Title 24 standards.

This GHG reduction measure is specious and meaningless for any project permitted after 2015, and nearly useless for projects built between 2012 and 2015. Title 24 is updated every three years and is intended to become approximately 15 percent more stringent for each three year cycle.

To remedy this deficiency, please revise the measure as follows:

At the time of building permit issuance, buildings will be designed to be at least 20% more efficient than Title 24 requirements in force at the time of building permit issuance. Construction must start within one year of receiving building permit and construction is to be completed within two years of receiving building permit, or the Title 24 compliance demonstration must be revised relative to the updated requirements.

3. AQMP-2; SMAQMD 33: The TMA is speculative and cannot be counted on for the 5 points. It is difficult to understand whether the proposed transit system is economically justifiable without reviewing the proposed financial plan in parallel with the EIR. AQMP-2; SMAQMD 33 was too general and ECOS could find no specifics elsewhere in the EIR.
 - Will the transit system collapse due to inadequate funding?
 - Will parcels go unsold due to high cost of fees to fund transit?
 - What is guaranteed minimum level of service?
 - What is the definition of a peak-time period?
 - What are the proposed contribution rates for commercial and residential properties?
 - i. How do these compare with other user-financed transit systems?
4. AQMP-2; SMAQMD-99B: The entropy of the Cordova Hills project is low (LUT-3 from CAPCOA Quantification of GHG Measures); this is not a well-mixed project as compared to an urban setting; there are clearly high- medium and low density housing areas with off-site commercial. It is unclear how a 25.32% VMT reduction can be claimed relative to BAU. The DKS analysis claimed approximately 15% VMT reduction and additional CAPCOA measures claimed 10.5% additional VMT reduction. Although AQMP indicates that double counting was not done, it is hard to believe that the interactions between all modeled and estimated measures could achieve a combined 25.32% VMT reduction.
5. AQMP-2; SMAQMD-99B: Table C identifies business as usual conditions and has been replicated as Attachment 2. ECOS has derived proposed project conditions using data on page 8 of AQ-2 and presented in the same format as Table C. There are several notable comments when comparing the 2 tables:
 - a. It is unclear how the 8,006 dwelling units, 7,140 K-12 students in this table relate to the 2.54 people per rented dwelling unit and 2.71 people per owned dwelling unit mesh. ECOS has adjusted conversion factors to try and achieve 25,419 residential population. What are the differences in populations?

- b. It is unclear how the 1,583 employees in Table C relate to the 6,548 employees from Table 3.
 - c. VMT between BAU and proposed drops 12.7% from 239 million mi/yr to 209 million mi/yr; Table D, page 8 indicates that the proposed VMT is 199 million miles
 - i. Why is there a 10 million mile difference? (209 vs. 199)
 - d. VMT/capita per day drops from 29 under BAU conditions (Attachment 1) to 26 under proposed project (Attachment 3), both are high numbers and will make SACOG's effort to meet 2020 and 2035 goals difficult
 - i. ECOS understands that attempting to assist SACOG in meeting their GHG reduction goals is voluntary, but the high VMT per capita calls into question the need for building such a large project on the urban fringe
 - e. The student population stands out as a tremendous VMT and GHG reduction measure, yet the University is a very speculative venture
 - i. Recommend splitting University students into those living on-campus vs. those living off-campus to highlight the VMT differences
6. AQMP-2; SMAQMD-99B: Since the proposed development of a University has become a very speculative item and because the on-campus student population skews VMT and GHG emissions to a very low per capita level, ECOS believes that the GHG analysis is flawed. The analysis must either include:
- a. a complete analysis of what the project would consist of without a University that meets or exceeds Sacramento County suite of thresholds adopted 11/3/11 or
 - b. a mitigation measure that does not allow construction of Cordova Hills to start until a University with a built out population of 6,000 with an on-campus population that is at least 67% shows good faith that it intends to occupy the space. Good faith might consist of [\$147¹] million in escrow that is forfeited to the SMAQMD for climate mitigation if a mutually agreed to timeline is not achieved. Timeline developed is to include input from public.
 - i. 100% commuter type Universities will NOT be consistent with analysis that indicates 67% of students live on-campus and is not a viable option
 - ii. This mitigation measure must be included in AQMP-2.
7. CC-1 below is not acceptable as worded. The 5.80 efficiency metric includes the contribution of a very low per capita University component- say 3.8 or so. The wording of CC-1 could allow the 6,000 person, GHG efficient University to be replaced by a 6,000 person GHG average tenant thus increasing the overall emissions of the project tremendously.
- CC-1.** The following text shall be added to the Cordova Hills SPA: All amendments to the SPA shall include an analysis which quantifies, to the extent practicable, the effect of the Amendment on greenhouse gas emissions. The Amendment shall not increase greenhouse gas emissions above an average 5.80 metric tons per capita (including emissions from building energy usage and vehicles).
8. Cordova Hills proponents indicated at a meeting with ECOS on 2/16/12 that a University will be built at the site or that the land will be surrendered to the County at expiration of 30-year agreement. This is deferred mitigation which has been disallowed by the courts (*Communities for A Better Environment v. Richmond* (2010) 184 Cal.App.4th 70. (CBE).). Liquidated damages (LD) must begin flowing to the SMAQMD Indirect Source program (or other responsible agency) by 2017 if no University with significant on-campus population has not been committed to. Timelines and LD amounts need to be developed with public input.

¹ 147,000 MT/yr*\$20/MT*50years = \$147 million

Mitigation Does Not Include All Feasible Measures

1. ECOS could find nothing in chapters 7, 11, 15 or AQMP-2 on water, sewer, or storm drain efficiency measures that might be employed by the project to reduce loads on off-site water, sewer or storm drain infrastructure and thus also reduce effects on climate change.

Water, sewer, and storm drain infrastructure is very expensive per unit. As an example, the high cost of the regional sewage treatment plant upgrade to tertiary status has been in the papers over the last 2 years. The proposed high sewer hook-up fees and hefty monthly rate increases that correspond to the need for capital cost recovery on the sewer plant upgrade are very costly on a unit basis and existing customers are blanching at the proposals. See http://ecosacramento.net/ClimateChange/?page_id=784 for more information.

In many cases efficiency improvements at the loads (in this case Cordova Hills (CH)) can be achieved at a lower unit cost than upgrading infrastructure.

Because of the disconnect between the economics of supply and demand of commodities (water, sewer and storm), please evaluate above-and-beyond-code water, sewer and storm drain efficiency measures such as:

- gray water
- local scalping plants: (i.e. small plants that take sewage and treat it to recycled water standards and distribute locally)
 - with recycled water to serve non-potable needs
- low-impact storm water management
- water efficiency in new development (would above and beyond Green Code Tier 2 water efficiency measures be cost effective?)
- exemplary effort to keep storm water out of sanitary sewer system

By NOT including water, sewer and storm drain efficiency improvement measures in the project design that are similar to the unit cost of infrastructure, the project is unknowingly forcing utility providers to pass along unnecessary costs to existing ratepayers in the form of unnecessary infrastructure. The ratepayers of the County cannot keep being tapped for higher monthly fees when lower unit cost alternatives such as on-site efficiency can be employed to societies (i.e. rate payers) advantage.

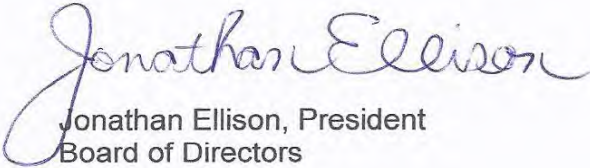
CONCLUSION

As referenced in the preceding sections, this document is deficient in numerous areas. The most basic flaw is associated with the project description, which includes a 6,000 student self-contained university that is unlikely to ever materialize, at least in the form described, making the project description totally unrealistic. By including this hypothetical university the entire analysis is biased, does not represent the project, and therefore is flawed. In order for this document to be accurate and complete, the project needs to be analyzed without the university.

Additionally, we do not believe the necessary findings and statements of overriding considerations can be defensibly made to approve this project. There is no substantial evidence in the record that a self-contained 6,000 student university will ever exist at this location. Given these considerations, the DEIR should be redrafted and recirculated for public review.

If you have any questions regarding these comments please contact Ron Maertz ronmaertz@surewest.net for land use, Sean Wirth wirthsoscrales@yahoo.com for biological resources, Keith Roberts keithroberts@aol.com for climate change or Peter Christensen ecospeter@me.com for transportation.

Yours very truly,



Jonathan Ellison, President
Board of Directors

Attachments

Attachment 1 – SACOG Letter

Attachments 2 & 3 – Climate Change Excel Spreadsheets



October 7, 2011

Ron Alvarado
Partner
Conwy LLC
5241 Arnold Avenue
McClellan, CA 95652

Dear Mr. Alvarado:

We appreciated the opportunity to meet with you again last week to discuss the Cordova Hills project. As we discussed, SACOG has received several letters regarding Cordova Hills—we have identified four letters since 2007. In each case, the letters either followed up on, or resulted in, a meeting between SACOG and members of the Cordova Hills project team. SACOG staff, and I personally, also have had numerous other meetings and telephone calls with the Cordova Hills project team over the last few years. As I think you have acknowledged, SACOG has been willing to meet and discuss the project on all occasions. As a consequence, until last week we did not believe that there were any outstanding requests for information, meetings, or written responses. In fact, as discussed below, based on our conversation in August 2010, I believed that you understood and accepted SACOG's decision not to include Cordova Hills in the three Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) alternatives that were going to be vetted in the public workshop process last fall. In light of the foregoing, I am sending this letter only in response to your specific request last week that we put in writing the issues we have discussed in our many meetings. The letter provides a brief summary of the main questions and concerns we have raised about the suitability of including Cordova Hills in this MTP/SCS update cycle.

I will first say that in our many conversations about Cordova Hills we have noted several elements of the evolving land use plan and transportation system that we thought were consistent with SACOG's priorities, and we have made suggestions for refinements to the plan. The plan in its current form contains many elements that are consistent with principles we encourage our members and members of the development community to follow. We were particularly pleased to learn recently that you intend your project to be consistent with the smart growth criteria in the County draft updated General Plan. Notwithstanding the positive elements in the current plan, for over a year we have indicated that we did not believe Cordova Hills, at this juncture, would meet the criteria for inclusion in the current update to the Metropolitan Transportation Plan, which will for the first time include a Sustainability Communities Strategy that implements SB 375, a new state law.

In June 2010, SACOG published a memorandum titled "Method for Developing MTP Update Growth Projections" to help our members and stakeholders understand the federal and state rules, and SACOG priorities when developing the land use component of the MTP/SCS. Rather than repeat the examples of market and regulatory/policy issues that we address through this process, I am reattaching the memorandum for your information and reference.

Auburn
Citrus Heights
Colusa
Davis
El Dorado County
Elk Grove
Folsom
Galt
Isleton
Lincoln
Live Oak
Loomis
Marysville
Placer County
Placerville
Rancho Cordova
Rocklin
Roseville
Sacramento
Sacramento County
Sutter County
West Sacramento
Wheatland
Winters
Woodland
Yolo County
Yuba City
Yuba County

Many in the development community who read this memorandum indicated that they better understood how we do our best to take into account all of the relevant market and regulatory/policy considerations that together drive the estimate of the likely future growth pattern for the planning period (2035 in this case). Many developers specifically acknowledged the limitations SACOG had including their project in this plan update, but wanted to work with us to develop a clear process for adding more lands to the plan in future updates. As mentioned above, you told me on August 10, 2010, after reading this memorandum that you could not argue with SACOG's decision not to include Cordova Hills in the three alternatives that were going to be vetted in the public workshop process that fall, but instead would work with us and hope to be included in the next update four years hence. Last week you stated that you would not have told me that had you understood the relevance of that decision to the SCS. Although we have tried to be clear about the integral connection between this MTP update and the SCS (a point that is made throughout the memorandum), I understand that SB 375 is a new law and that we are all climbing a learning curve as we implement it for the first time. For that reason, we have tried to make it very clear in our print materials and in the verbal presentations used in dozens of public focus groups and workshops, as well as at regular briefings with our Board and Committees over the last two years, how integrally connected the MTP and SCS would be.

The 2035 MTP/SCS is based on a growth forecast that projects a need to build approximately 300,000 new housing units in the six-county region by 2035. This forecast is lower than the one underpinning the current MTP by 145,000 housing units. This means that SACOG must find that many units to *subtract from* the projected growth pattern in the currently adopted MTP. This is a unique situation in this particular plan cycle, and it creates a very high bar for new projects to be added in this update that are not in the current MTP. The approximately 300,000 new housing units preliminarily identified to be included in the updated plan are located within developing communities, established communities, and centers and corridors. These communities have a planned capacity for approximately 500,000 units, which is nearly 70% of capacity beyond the projected 300,000 units of construction by 2035.

We consider a wide range of variables in trying to answer, to the best of our ability, the straightforward question: At this time, does it appear that Cordova Hills is more likely to be constructed during the 2035 planning horizon than the 300,000 plus units of housing projected to be built in our current draft—but also should it be preferred over the more than 150,000 housing units of additional capacity in other greenfield projects in various stages of planning around the region that also are not included in our draft plan documents? Many of these 150,000 other housing units not presently in the draft plan are in developments that have been included in locally adopted plans for some time, and some have either no, or relatively minor, outstanding federal permit issues.

Beyond the regional market demand and supply issue, the key questions and concerns specific to Cordova Hills that we have raised many times with you are briefly repeated below.

- **Federal Permits.** Both the U.S. Army Corps of Engineers and U.S. Fish and Wildlife Service have jurisdiction on these lands through the Clean Water Act and Endangered Species Act. When asked to characterize the likelihood of securing the necessary federal permits under these two laws, Cordova Hills responded "it's going to be a war." While

that was obviously not to be taken literally, it unfortunately accurately foreshadowed the level of concern those two agencies have about this project. It also partially explains why, when the Blueprint map was adopted by the SACOG Board in December 2004, Sacramento County requested that a significant portion of the Cordova Hills site remaining as open or natural space. Moreover, while the County is working hard on the South Sacramento Habitat Conservation Plan (SSHCP), that document is not completed. One of the primary remaining outstanding issues relates to whether, and how, its resource conservation needs can be met for the Cordova Hills property given the current development plan. SACOG is a strong supporter of the SSHCP and we very much hope that it reaches a successful conclusion soon. However, recent conversations with the federal agencies confirm that there are substantial unresolved issues on the Cordova Hills site, especially that portion showing a planned 900,000 square foot commercial center fronting Grant Line Road and located in the heart of what the federal agencies consider to be a valuable vernal pool complex. The timing of the construction of Cordova Hills will remain in considerable doubt until these federal issues are resolved.

- **Commercial Center and Economic Viability.** While many aspects of the current land use plan have evolved and are now focused on building a self-contained and self-sustaining community (i.e., on-site housing substantially targeted at university students, staff, and faculty, and a series of paths to promote walking, biking, and the use of neighborhood electric vehicles for travel within the site), the large commercial center stands out as the exception. Project representatives repeatedly have said that it is sized and located not only to serve the needs of on-site residents, but a larger regional market, and have acknowledged that this will create longer distance car trips to the site. We have repeatedly raised questions about the market feasibility of a 900,000 square foot regional shopping center at that location, citing our studies showing that the region has an over 70-year supply of retail zoning now, including many other projects in the same general area that are also planning large quantities of retail. Cordova Hills consistently has told us that Cordova Hills is not economically viable without a large, regional shopping center. It has further indicated that because a large, regional shopping center on that site must have direct access to Grant Line Road it cannot be relocated to eliminate or reduce the impacts on the natural resources that the federal agencies are concerned about. Consequently, the retail center design and location creates a kind of double-bind for the project's feasibility. Our data lead us to be skeptical that the needed market demand to serve it will materialize. And it seems far from certain at this time that the project will be able to secure the needed federal permits soon, as long as the location and scale of the shopping center remain unchanged. We have suggested that a shopping center downsized to focus just on the needs of the project's residents would have both a smaller footprint and would not need to be located on Grant Line Road, in the middle of the natural resources. Cordova Hills has consistently maintained that those changes would render the project economically unviable. At the moment, it is not clear how the hard trade-offs related to the retail center are going to be successfully resolved to the mutual satisfaction of all the relevant parties.

- **University.** The planned university is a key component of this project, of course. It would be a wonderful asset to the County and region were it to be built. It is one of the few large-scale, new employers that can realistically create a relatively self-contained community, if planned and designed well. Our concerns about the university have nothing to do with its benefits, but rather, again, the current prospects for its construction given the growth forecast during the planning horizon. Finding, financing, and constructing a private 6,000 student institution of higher learning rates very high on the degree of difficulty scale, especially in this economic environment. It has never been done in this region. Unfortunately, the planned institution, the University of Sacramento, recently withdrew their involvement in the project. We are aware that you are actively soliciting a replacement institution, but that you have not been able to secure a new commitment yet. Many of the short and multi-modal trips from the project will turn into longer distance car trips if the university is not constructed early in the project, or at all. Cordova Hills indicated in a recent discussion that if Sacramento County approves an entitlement for the project it very likely will attach a condition requiring the construction of the university before other substantial construction can occur. However, the uncertainty over whether a commitment from a 6,000 student, private university will be secured any time soon is another reason for us to conclude that, for this MTP/SCS update cycle, Cordova Hills does not meet the requirements we must follow to project a land use pattern that represents the most likely to be constructed for the region.

Given all of the above, SACOG staff has concluded, and continues to believe, that adding Cordova Hills to the MTP/SCS at this time is not justified, and that it would create risks for the timely adoption of the MTP/SCS and certification of the related EIR. I know you also understand that, since Cordova Hills was not included in the alternatives analysis, adding the project now would add several months, at a minimum, to our adoption process, with new public input, technical analysis, etc. required. It is important to emphasize, however, that most of the considerations listed here relate to practical obstacles that affect the suitability of including Cordova Hills in this plan update cycle. We certainly wish Cordova Hills the best in its worthy endeavor to secure a private university, and that it will be able to resolve the financial, transportation, and natural resources issues associated with the shopping center element of the land plan. Sacramento County appears headed towards adopting a new Growth Management Element to their General Plan, which will provide tighter linkage between projects approved according to their smart growth criteria and future MTPs/SCSs. As you know, we have supported the approach the Board of Supervisors tentatively approved last month—in particular, the important variables related to passenger vehicle greenhouse gas emissions and vehicle miles traveled that are so innovatively and effectively addressed through the smart growth criteria in the County draft plan. However, notwithstanding that support, federal and state law requires that the MTP/SCS be consistent with SACOG's regional forecast and its most reasonable estimate of what is likely to be built. We look forward to continuing our constructive discussions and reconsidering this proposal as it evolves and as our future plan updates include capacity for more years of growth, and presumably higher estimates for needed housing capacity in the region.

With regard to that final point, I want to reemphasize with you a portion of our discussion from last week. First, while I think we understand the general nature your concerns about including Cordova Hills in the MTP/SCS, you know that we do not agree with your conclusions about the

consequences of that determination. SB 375 was intended to create CEQA incentives for projects consistent with the MTP/SCS. We understand that Cordova Hills does not intend to avail itself of those benefits. Under those circumstances, SB 375 expressly states that the SCS does not regulate the use of land, does not supersede the exercise of local land use authority, and does not require a local government's land use policies and regulations, including its general plan, to be consistent with the MTP/SCS. Second, and perhaps most importantly, notwithstanding our strong commitment to facts and science, SACOG recognizes the limitations on our forecasting and modeling—we cannot predict market and regulatory forces with absolute certainty over a 20-year plus period. For this reason, the regular four-year updates of the plan are important. For the same reason, we understand that consistency with the MTP/SCS is not the only question regarding any project. Over the last decade, the region has embraced a Blueprint for growth in the region to 2050. We recognize that there are many projects consistent with that vision that, for a multitude and variety of reasons, will not be included in this MTP/SCS. Again, thank you for your time and we look forward to assisting you in the future.

Sincerely,



Mike McKeever
Chief Executive Officer

cc: Greg Thatch

AQ-2 Table C: Estimate of BAU VMTs

Land Use	Units	Conversion	People	Trips/Day 2	VMT/Trip 2	VMT/Day/ Unit	Daily Trips	Daily VMT	calculated	Annual VMTs	Daily VMT
									Annual VMTs		
Single Family1	5,340	1.59	8,464	7.55	6.57	49.6	40,323	264,778	84,728,960		264,883
Multifamily1	2,666	1.59	4,226	6.68	6.05	40.4	17,806	107,730	34,473,600		107,744
Elementary	3,023	1.00	3,023	1.54	8	12.3	4,655	37,243	11,917,760		37,243
Junior High	1,373	1.00	1,373	1.54	8	12.3	2,114	16,915	5,412,800		16,915
High School	2,744	1.00	2,744	1.54	7.65	11.8	4,226	32,327	10,344,640		32,327
University	6,000	0.67	4,002	2.38	7.48	17.8	14,280	106,743	34,157,760		106,814
Park	98	1.00	98	3.32	7.48	24.8	325	2,430	777,600		2,434
Racquetball	37	1.00	37	3.32	7.47	24.8	122	909	290,880		918
Quality Rest.	111	1.00	111	21.47	7.58	162.7	2,375	18,006	5,761,920		18,064
Sit Down Rest	34	1.00	34	21.47	7.47	160.4	730	5,457	1,746,240		5,453
Fast Food	25	1.00	25	21.47	7.48	160.6	526	3,932	1,258,240		4,015
Hotel	200	1.00	200	21.47	7.48	160.6	4,294	32,098	10,271,360		32,119
Discount Store	70	1.00	70	21.47	7.37	158.2	1,503	11,076	3,544,320		11,076
Home Imp Store	85	1.00	85	21.47	7.37	158.2	1,825	13,450	4,304,000		13,450
Strip Mall	257	1.00	257	21.47	7.37	158.2	5,522	40,698	13,023,360		40,666
Supermarket	163	1.00	163	21.47	7.37	158.2	3,495	25,760	8,243,200		25,792
Gas Station	12	1.00	12	21.47	7.37	158.2	258	1,899	607,680		1,899
Bank	41	1.00	41	21.47	7.37	158.2	884	6,518	2,085,760		6,488
Office	135	1.00	135	3.32	8.53	28.3	450	3,832	1,226,240		3,823
Office Park	175	1.00	175	3.32	8.98	29.8	581	5,217	1,669,440		5,217
Movie	43	1.00	43	21.47	7.47	160.4	912	6,821	2,182,720		6,896
Transit Hub	6	1.00	6	3.32	10.73	35.6	20	214	68,480		214
Flex Residential Overlay	91	1.00	91	3.32	7.37	24.5	301	2,216	709,120	238,806,080	2,227
Total			25,415				107,528	746,269	238,805,921		746,677

1Trips/Day and VMT/Trips from URBEMIS except for Residential which is from SACOG - 2035 Sacramento
2.54/du for rentals, 2.71 for owner occupied from Project Description

29.4
VMT/capita-day 320 d/yr

19,830
21,379
-1,549
25419
21379 Res pop, PD p1-27
4040 University on-campus pop; PD p1-27
6548 employees, AQMP-2, Table 3
1,583 employees??
7,140 K-12



717 K Street, Suite 529
 Sacramento, Ca. 95814
 916-447-4956
www.swainsonshawk.org

February 22, 2012

Catherine Hack, Director
 County of Sacramento DERA
 827 -7th Street, 220
 Sacramento, Ca. 95814

Comments of the Friends of the Swainson's Hawk, Inc. on the Draft Environmental Impact Report for Cordova Hills (Control Number 208-GPB-SDP-ZOB-AHP-00142)

Dear Ms Hack:

FOSH is a volunteer group providing grassroots advocacy for wildlife and habitat in the Central Valley. We, along with others, have major concerns about the pending Application to County of Sacramento to develop 2,669 acres along Grant Line Road east of Rancho Cordova. We concur in the comments already submitted by the Environmental Council of Sacramento and the California Native Plant Society.

The EIR determines that the Project will require 2,231 acres of mitigation to compensate for the loss of Swainson's hawk foraging habitat, using the County's mitigation program, another mitigation plan acceptable to CDFG, or the South Sacramento County Habitat Conservation Plan, if it has been approved. The other 438 acres of project area are avoided areas that the EIR claims will retain their foraging value after the project is completed. We have a number of concerns with the analysis and the mitigation measures as presented in the DEIR.

These comments will focus on the Swainson's Hawk impact analysis and mitigation. However, we also have concerns about the environmental impacts of the timing and location of development approvals in Sacramento County for which the necessary infrastructure has not been assured.

We completely agree with the EIR's determination that all of the land within the project area is Swainson's Hawk foraging habitat and that the appropriate mitigation ratio for this area would be 1:1 for loss of foraging habitat.

Improper Reliance on CNDDDB.

The EIR relies on CNDDDB to identify species presence. CNDDDB records are poorly maintained, out of date, and are therefore not complete and often underestimate species presence and recent nesting behavior.

CNDDDB is not intended to provide definitive data for purposes of CEQA review of a project.

The CNDDDB webpage says:

“...we cannot and do not portray the CNDDDB as an exhaustive and comprehensive inventory of all rare species and natural communities statewide. Field verification for the presence or absence of sensitive species will always be an important obligation of our customers.” (http://www.dfg.ca.gov/biogeodata/cnddb/cnddb_info.asp)

CNDDDB is a first stop for biological assessment, indicating where likely rare plants and animals may be found. When assessing Swainson's Hawk impacts, DERA should consult directly with CDFG to determine how well the area has been surveyed in the past, and include all data available at CDFG, not just what is reported in the CNDDDB.

In the attached email from CDFG's CNDDDB manager, Brian Acord, dated September 15, 2011, more information is provided about the backlog in updating the database with nesting site information. Mr. Acord notes: "...we currently have 418 unprocessed source documents for Swainson's hawk in the state." He also notes that these records could be nests, perched or flying birds.

In the case of Swainson's Hawk records, the County had access to recent, high quality data commissioned by the Cities of Elk Grove and Rancho Cordova as well as the Department of Fish and Game. Much of this data had been incorporated into the planning for the South Sacramento County Habitat Conservation Plan and is represented on maps we are submitting with our comments.

The DEIR Ignores Important Available Biological Data on the Swainson's Hawk

The EIR is deficient in identifying the location of nesting Swainson's Hawks in relationship to the project site. Nor has it made a good faith effort to survey the site for Swainson's Hawk nesting territories.

Attached you will find several maps of Swainson's Hawk nesting sites. The map titled "Range of the Swainson's Hawk in the SSHCP Plan Area" was produced by the South Sacramento County Habitat Conservation Plan staff and shows nesting territories known to the County through the CNDDDB, and the surveys conducted for the Cities of Elk Grove and Rancho Cordova by Estep Biological Consulting. Measuring distances using the legend of distances on the Map, the Map shows at least three active SWH nests within one mile of the Project site, and many nesting territories within five and ten miles of the Project site.

We also include Figure 10 of Estep Environmental Consulting, 2006. The distribution, abundance, and habitat associations of Swainson's Hawk (*Buteo swainsoni*) in the City of Rancho Cordova Planning Area. (Prepared for the City of Rancho Cordova, CA.) This map confirms the siting documented in the SSHCP map.

We also attach a map prepared for FOSH by a volunteer which places the project site on the SSCHCP map and places circles around the nearest nesting territories on the map. The attached map shows yellow and purple dots representing known nesting territories identified by County of Sacramento SSCHCP staff in preparation of the attached map "Range of Swainson's Hawk in the SSHCP Plan Area." These include recent surveys done by Cities of Elk Grove and Rancho Cordova. Nesting sites close to the project are indicated with colored circles showing one (orange), two (yellow) and three (blue) mile radii circles around each nest site. Our map indicates that there are two known nesting sites quite close (within a mile) to the northwest corner of the project area, one within a mile of the southwest project boundary, one within a mile of the southeast project boundary and several others within 1 to 3 miles of the project.

These documents amply demonstrate that the EIR is deficient in identifying known nesting territories proximate to the project site and therefore the likely intensity of use of the site for foraging habitat as well as the likelihood of nesting activity within the project area.

The poor Biological Assessment in the EIR does not give public and decision-makers a reasonably accurate picture of the impact of the project on Swainson's Hawks and other raptors.

Potential direct and cumulative impacts on the species range and reproductive activity should be identified, including but not limited to the following:

- a) potential impacts on reproductive activity in nesting sites and nesting success within two miles
- b) potential impacts on reproductive activity and nesting success of other nesting sites within 2 - 5 miles;
- c) cumulative impacts due to urbanization of foraging lands already permitted by the Cities of Rancho Cordova and Elk Grove and the County of Sacramento.
- d) potential impacts on survivability of fledged juveniles from these nesting sites as well as potential impacts on the adequacy of nourishment of SWH needed to provide the strength and energy required to survive the annual SWH Fall migration. (Undernourished birds, especially undernourished first-year birds, are unlikely to survive the rigors of long-distance migration to central Mexico and southward)
- e) the potential for the project to "take" Swainson's Hawks, thus necessitating an incidental take permit from the Department of Fish and Game.

What are the risks of take from the project and how will the project mitigate these risks of take to less than significant?

Measures to Reduce Take Are Inadequate

The EIR mitigation measure to reduce take is unnecessarily vague and defers mitigation to an unknown future time. CEQA does not permit deferred mitigation. DERA should have standard language from DFG on these measures. In this case DERA did not set any minimum standard to meet the "mitigation below a level of significance" standard required of the lead agency. Instead, it defers the required mitigation on to DFG at some future time. We recommend the following language:

In order to avoid take of nesting raptors (including Swainson's hawks), a pre-construction raptor nest survey shall be conducted within 15 days prior to the beginning of construction activities by a California Department of Fish and Game (CDFG) approved biologist in order to identify active nests in the project site vicinity. The results of the survey shall be submitted to CDFG. If active nests are found, a quarter-mile (1320 feet) initial temporary nest disturbance buffer shall be established. If project related activities within the temporary nest disturbance buffer are determined to be necessary during the nesting season, then an on-site biologist/monitor experienced with raptor behavior shall be retained by the project proponent to monitor the nest, and shall along with the project proponent, consult with the CDFG to determine the best course of action necessary to avoid nest abandonment or take of individuals. Work may be allowed to proceed within the temporary nest disturbance buffer if raptors are not exhibiting agitated behavior such as defensive flights at intruders, getting up from a brooding position, or flying off the nest. The designated on-site biologist/monitor shall be on-site daily if necessary while construction related activities are taking place and shall have the authority to stop work if raptors are exhibiting agitated behavior. In consultation with the CDFG and depending on the behavior of the raptors, over time it may be determined that the on-site biologist/monitor may no longer be necessary due to the raptors' acclimation to construction related activities.

The Presumption That Avoided Areas Are Deemed to Remain Foraging Habitat is Unsupported by Substantial Evidence; County Should Seek DFG Guidance

We have reviewed the DEIR discussion of avoided areas and the analysis of whether the avoided areas retain their foraging habitat value. The EIR concludes that 438 acres of the avoided area will not lose its Swainson's Hawk foraging habitat value.

This conclusion is unsupported. Review of the Project map shows that the large contiguous 298 acres of avoided area is largely surrounded by intensive urban development, with the exceptions of two corridors at the northern and southern ends opening onto adjacent undeveloped areas (grassland). Portions of the avoided area within the project site are quite narrow. Normally,

raptors are reluctant to forage on lands adjacent to, or surrounded by, intensive urban uses. For that reason, it appears that a large portion of the 298-acre avoided area within the project would seldom or never be used by SWH.

The DEIR states that two multi-purpose trails will be constructed through the primary avoidance area, and roads will also cross the avoidance area. These impacts will further reduce the SWH foraging value of the avoidance area

CDFG should be asked to make a determination of the amount of the avoided area that would be significantly impacted by adjacent intensive urban development, and accordingly recalculate the SWH habitat that would remain usable by SWH in the avoided areas within the project at build-out of the planned urban development. There is no evidence that such analysis has been done in the preparation of the draft EIR.

There is no evidence that the adjacent undeveloped areas connected to the planned avoided areas will remain undeveloped in perpetuity or that they will forever be managed in a manner which does not compromise or eliminate SWH foraging value. The fact that some the adjacent undeveloped area is outside the Urban Service Boundary does not mean that the adjacent undeveloped area will forever remain outside the USB. The County has already initiated a process to expand the Urban Service Boundary in Natomas Basin, and nothing prevents the County from expanding the Urban Service Boundary beyond Cordova Hills in the future. Nothing prevents the County from rezoning the adjacent undeveloped areas to small-parcel agricultural-residential uses outside the Urban Service Boundary.

Please explain how the avoided area will be managed to retain Swainson's Hawk foraging habitat? Currently, cattle grazing prevents dense overgrowth of weeds that impede SWH foraging access. Will cattle grazing be continued?

What measure will be taken to minimize the “edge effect” of adjacent intensive urban development on SWH foraging habitat in the avoided areas? What will be the vegetative cover?

Experience with open spaces next to other development projects has shown that unless human access is controlled – and enforced - the avoided areas will very likely be used by residents for bicycling (both on-trail and uncontrolled off-trail), running of dogs, kite flying, jogging, and other recreational activities.

How will human or canine (dogs) access be allowed or controlled?

Will there be bicycle or pedestrian trails within the avoided area in addition to the two trails mentioned in the DEIR?

What entity will be responsible for managing the avoided areas, and how will it be funded?

How will the existing undeveloped condition of adjacent lands connected to the “avoided area” be ensured in perpetuity?

Mitigation Measure BR-4 is inadequate because it incorrectly assumes that 438 acres of Swainson’s Hawk foraging habitat in the project area will retain all its foraging value after project development and because it assumes that a conservation easement on 36 acres on the eastern and southeastern sides of the project area can mitigate for loss of 36 acres within the project area. There is no evidence that California Department of Fish and Game concurs with this measure as mitigating the project impacts to less than significant.

Project creates detrimental effects of prematurely committing more land to urbanization than can be absorbed.

There is a good likelihood that approval of the Cordova Hills would result in the premature commitment of more land to urbanization than can be absorbed. The fact that water and other urban services are not guaranteed for the project further complicates the potential environmental impacts of premature approvals for urbanization. The EIR must analyze and disclose the environmental impacts of such a scenario.

Sacramento County staff, in response to proposals to greatly expand the County Urban Policy Area in its General Plan Update, addressed that issue in a staff report which recommended against the oversized expansion of the County Urban Policy Area. The County staff listed potential undesirable outcomes as follows:

1. Leapfrog development pressure;
2. Imbalance in focus between revitalizing the existing mature communities creating and serving new neighborhoods;
3. Unintended consequences to the partially built-out planned communities and if newer areas out-compete for buyers;
4. Inefficient extension of infrastructure and public services resulting in higher operating costs.
5. Pressure to approve uses that provide near term economic benefits to the developer over a long-term economically sustainable mix of land uses;
6. Impacts to the proposed SSCHCP and to the Connector expressway;
7. Difficulty in meeting State mandates related to climate change initiatives.

A copy of the Sacramento County County's Staff Report (Agenda for 10/13/10, 2030 General Plan Update: Adoption Hearings) with relevant pages 6 - 11, is attached.

The EIR needs to consider the likelihood of occurrence of each of these potential scenarios and the potential environmental consequences, including the physical effects of potential urban decay that may result from prematurely committing more land to urbanization than can be absorbed.

CEQA requires that the EIR describe the environmental effects of potential urban decay that could result from urban development that could foreseeably result from approval of the SOI.

CEQA requires an EIR to disclose and analyze the potential environmental effects of potential urban decay that could result from approval of a project. See *Bakersfield citizens for Local Control v City of Bakersfield* (2004) 124 Cal. App. 4th 1184, 1204-1213. *Bakersfield Citizens*, and other cases cited therein, dealt with potential urban decay that could result from permitting of a major new shopping center where project approval would foreseeably create oversupply of retail capacity beyond market demand, potentially leading to the closure of other retail outlets in the area, resulting urban decay that may have physical effects on the environment. The “shopping center” situation of *Bakersfield Citizens* and the cases cited therein is very analogous to the effects of approving Cordova Hills in a region which is suffering from the detrimental effects of a huge oversupply of vacant housing and retail. The Sacramento region is nationally recognized as a foreclosure “hot spot” with thousands of new or foreclosed homes remaining unsold on the market.

Current real estate sales are often at prices which are less than the cost of new construction. The construction of yet more homes and commercial property on a market suffering from gross oversupply could lead to urban decay and the accompanying physical environmental effects of urban decay, existing homes remain unsold and deteriorate, or are purchased as rentals by absentee landlords who may neglect maintenance and appearance. Local municipal revenues have drastically declined already due to the collapse of home and retail values, leading to major reductions in the staff and budgets of those agencies charged with maintaining parks, sanitation, drainage, and other functions which physically affect the environment.

Won't the approval of the proposed Cordova Hills development compete with existing development and invariably worsen the market for housing and retail activity within the existing urban area, increase the current housing and retail vacancy amount within the existing urban area, and potentially cause yet more urban decay.

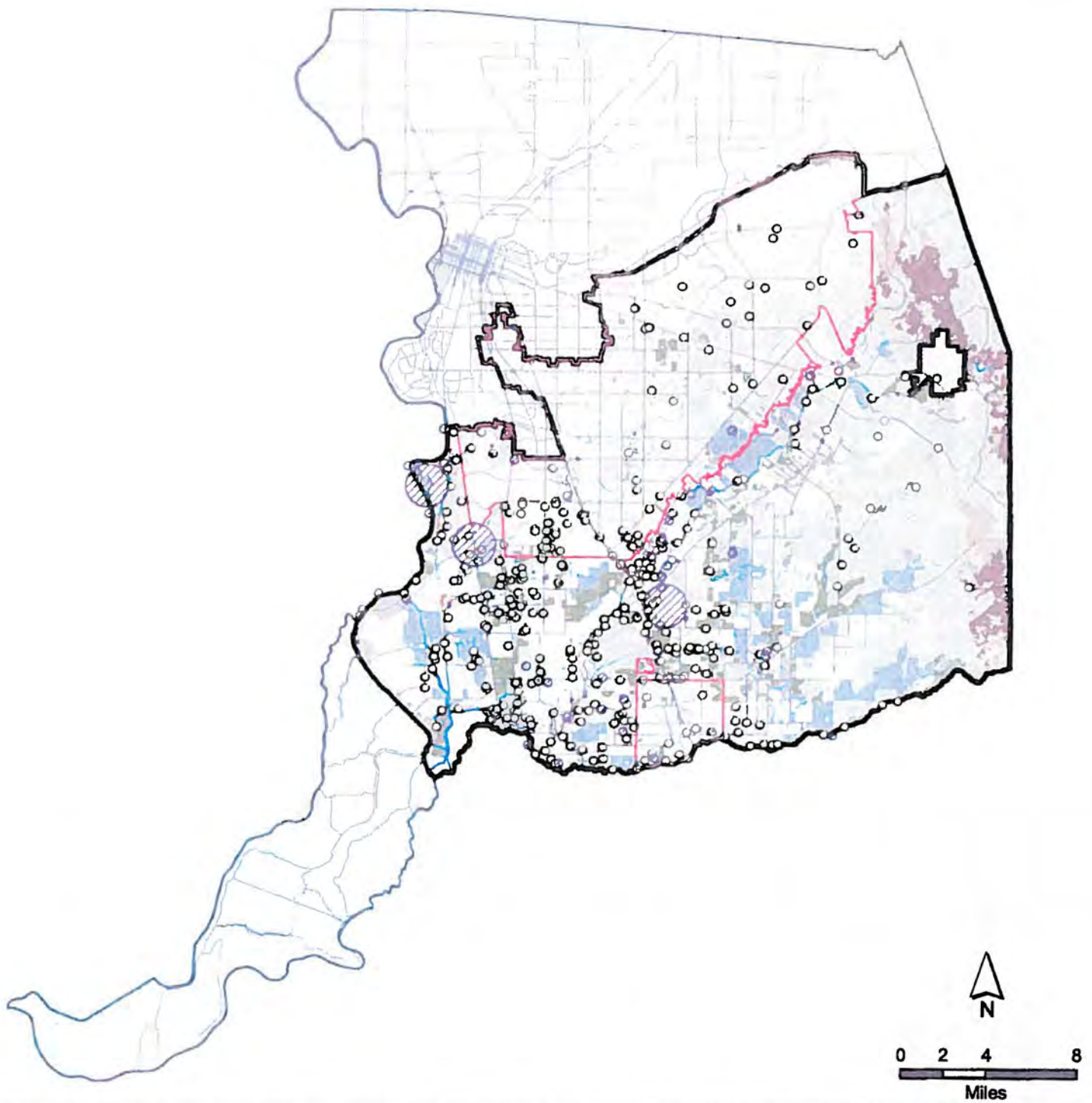
Please keep us informed regarding the availability of a recirculated DEIR, or FEIR, future public review of the proposed application, and public hearings. Thank you for this opportunity to comment.

Judith Lamare, Ph.D. President,
Friends of the Swainson's Hawk
916-447-4956

REFERENCES ATTACHED

Map of Swainson's Hawk range, South Sacramento County Habitat Conservation Plan
Figure 10, Estep Environmental Consulting. 2006. The distribution, abundance, and habitat

associations of Swainson's Hawk (*Buteo swainsoni*) in the City of Rancho Cordova Planning Area. (Prepared for the City of Rancho Cordova, CA.)
Detail Map of Swainson's Hawk nesting territories produced by FOSHEmail from Brian Acord dated September 15, 2011, about CNDDB
Sacramento County County's staff report (Agenda for 10/13/10, 2030 General Plan Update Adoption Hearings) with relevant pages 6 – 11



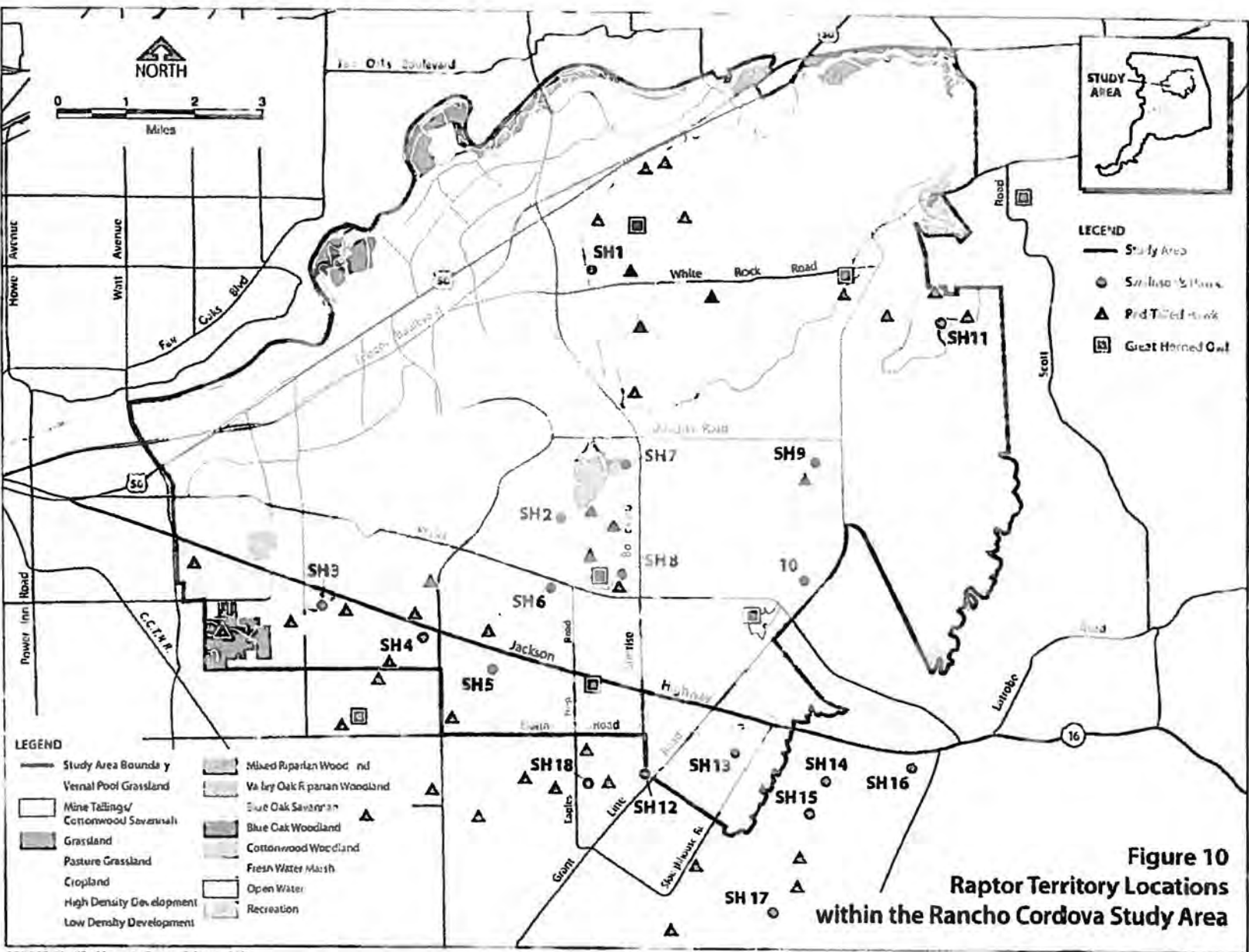
Range of Swainson's Hawk in the SSHCP Plan Area

- Consolidated Species Occurrences*
- ▨ Swainson's Hawk (CNDDDB)
- ▭ Urban Development Area
- ▭ Plan Area
- ▭ Cropland
- ▭ Irrigated Pasture-Grassland
- ▭ Valley Grassland
- ▭ Vineyards
- ▭ Blue Oak Savanna
- ▭ Blue Oak Woodland
- ▭ Mixed Riparian Scrub
- ▭ Mixed Riparian Woodland

*Water Land Cover Types shown represent suitable habitat for Swainson's Hawk based on the Species - Habitat Use Matrix. "Consolidated Occurrence Data" includes data from numerous sources including data from studies conducted specifically for the SSHCP, project-level studies, professional expertise and unconfirmed sightings. This species may occur throughout the Plan Area where suitable habitat is present.

Sources:
California Department of Fish and Game
California Natural Diversity Database
March 2010
ESTEP Environmental Consulting 2008





SOURCE: Modified from EcoSystem Sciences, 2004.

Cordova Hills FOST 1,2,3 mile circles

Swainson's Hawk Territories, S&CTCP Draft Range Map



Available on Supervisor's website, Agenda for
10/13/10 Supervisors' meeting, C.P. item.
COUNTY OF SACRAMENTO
CALIFORNIA

Control No.: 2002-0105

Type: GPB

TO: COUNTY PLANNING COMMISSION
FROM: PLANNING AND COMMUNITY DEVELOPMENT DEPARTMENT
SUBJECT: 2030 GENERAL PLAN UPDATE - ADOPTION HEARINGS
CONTACT: Dave Defanti, Senior Planner, 874-6155

PROJECT DESCRIPTION

Overview

This project proposes adoption of an updated General Plan for the County of Sacramento. The existing General Plan was adopted in 1993 and is approaching the end of its 2010 timeframe. The proposed General Plan will guide growth within the County through the year 2030. Elements with major updates include:

- Land Use Element and Land Use Diagram, including major changes to growth management strategies and a proposal to expand the Urban Policy Area;
- Circulation Element and Transportation Plan, a major rewrite to focus on overall mobility and creation of a multi-modal transportation system;
- Conservation Element, comprehensive update to reflect current regulatory environment and local initiatives including the South Sacramento Habitat Conservation Plan;
- Open Space Element, including new Open Space Vision diagram and policy changes;
- Agricultural Element, including support for agri-tourism and protect important farmland;
- Human Services Element, including support for closer integration with the land use planning process;
- Noise Element, revised to address current noise environment;
- Economic Development Element, a new element; and
- Delta Protection Element, created as a new element from an existing policy document.

Several new growth areas are being considered, including: an area West of Watt Avenue in the North Highlands community plan area; the Jackson Highway Corridor, north and south of Jackson Highway in the Rancho Cordova and Vineyard community plan areas; and the Grant Line East area which is east of the City of Rancho Cordova in the Cosumnes community plan area. The Land Use Element also includes a new Commercial Corridor strategy to revitalize a number of key corridors with strategic improvements and additional development.

four corridor planning areas, well in advance of the General Plan adoption. This program recognizes that in many ways, development within existing urban areas is more difficult than development within new growth areas, partly because of the lack of a coordinated master developer. In addition, parcels may be of odd configurations and difficult to develop within existing zoning requirements, infrastructure may be outdated and undersized, and existing communities may resist change, particularly within established residential neighborhoods. Projects in new growth areas have their own sets of challenges, but because initial land costs are likely lower and comprise much larger quantities of developable land, costs can be easier to allocate. Consequently, excessive capacity in new growth areas is likely to draw development away from the more challenging revitalization project areas and infill sites.

3. *Unintended consequences to the partially built-out planned communities if newer areas out-compete for new buyers*

Three planned communities exist in the Vineyard area, located south of the Jackson Highway Area: Vineyard Springs (generally built-out), North Vineyard Station (approved but with extensive remaining capacity), and Florin-Vineyard Gap (approval pending). Attention should be paid to ensuring that a reasonable pace of buildout is occurring in these master planned communities. While an extremely fast pace of buildout can cause "growth pains", an excessively slow pace can be equally problematic. Essential infrastructure (roads, transit) and amenities (parks, schools) rely on development fees. Opening up competing large tracts of land in amounts well above forecasted demand could result those areas "out-competing" development in Vineyard. Not only would there be a delay in building necessary infrastructure, services and amenities, there may also be a change to the character of the planned community to respond to changing market conditions. If these planned communities are unable to compete due to oversaturation of the market, the quality of these communities may be compromised.

4. *Inefficient extension of infrastructure and public services resulting in higher development fees and/or operating costs*

1. Provision of Infrastructure and Public/Municipal Services: Sacramento County is the municipal services provider to the unincorporated area. As such, the County should address effective and efficient provision of services and associated infrastructure to both existing and new development when exercising its land use authority. This is particularly pertinent when making decisions regarding new growth areas, as how and when they develop can impact (positively or negatively) the County's ability to provide excellent municipal services to these areas. For instance, due to economies of scale, costs of providing such services are generally lower in denser areas that are close to urban centers (Burchell and Mukherji, 2003)¹. In contrast, in the outlying metropolitan area, dispersed development patterns can inflate the costs of new infrastructure by 20 to 40 percent, some of which may be subsidized by local government (HOK, 2005, p. 2). In addition, interim infrastructure and facilities may be necessary if development occurs before and/or inconsistent with planned infrastructure improvements. The resulting higher cost of these

¹ Burchell and Mukherji, (2003), Auckland Regional Growth Forum, 1999.

sustainable mix of land uses (i.e. "complete communities") to ensure that revenue generated by development are sufficient to support necessary municipal services.

6. *Impacts to the South Sacramento Habitat Conservation Plan and the Capital Southeast Connector*

There are two key County-wide efforts currently underway that may affect or be affected by development in the Grant Line East area and in the Jackson Highway area east of Excelsior Road: the \$800 million Capital Southeast Connector (Connector) project and the South Sacramento Habitat Conservation Plan (SSHCP). High-level, multi-jurisdictional discussions are currently underway for both; initiating master planning efforts in these areas before these projects are finalized could affect or be affected by the outcome of these projects.

The SSHCP will require a habitat corridor connecting preserves at Mather to the Sacramento Valley Conservancy area and out to the Cosumnes River. The exact location and extent of this connection is currently unknown but will be defined as part of the ongoing negotiations related to the SSHCP. Additionally, the ultimate alignment and character of the Connector facility has yet to be finalized. Key issues related to the Connector are still being explored, such as location, general access to the facility, spacing between intersections, and the need for grade-separated vs. at-grade intersections. Projects proposing to take access from Grant Line Road (such as those in the Grant Line East area) could influence the alignment or performance of the Connector facility. Approval of projects, especially those proposing development near and/or with direct access to Grant Line Road, could be impacted by noise from traffic along the Connector and complicate efforts to limit access points along the corridor.

Decisions regarding timing of planning and development in any adopted new growth area should ensure that these two important projects reach fruition and can be successfully implemented. As adoption of the SSHCP is not anticipated until 2011 and the timing of the Connector project still unknown, the County should carefully analyze the relationship between the proposed new growth areas and these important projects so as to not impact these critical County-wide efforts.

7. *Difficulty in meeting recent State mandates related to climate change initiatives*

1. AB 32: Executive Order S-3-05 was signed by Governor Schwarzenegger in June 2005. It established emission reduction targets for the state: reduce greenhouse gas (GHG) emissions to 2000 levels by 2010, to 1990 levels by 2020 and to 80% below 1990 levels by 2050. In September 2006, the Governor signed Assembly Bill (AB) 32 which requires California GHG emissions be reduced to 1990 levels by the year 2020, just like Executive Order S-3-05. However, AB 32 is a comprehensive bill that requires the California Air Resources Board (CARB) to adopt regulations requiring the reporting and verification of statewide greenhouse gas emissions, and establishes a schedule of action measures. AB 32 also requires that a list of emission reduction strategies be published to achieve emissions reduction goals.

In October 2008, CARB published its Scoping Plan to describe what local governments and others must do to comply with AB 32. The document recognized that local

As noted in the attached flier (Attachment E), SB 375 requires each Metropolitan Planning Organization (MPO) to include a "Sustainable Communities Strategy" (akin to SACOG's Blueprint) in the regional transportation plan (the MTP) that demonstrates how the region will meet its greenhouse gas emission targets. SB 375 requires that decisions relating to the allocation of transportation funding be consistent with the Sustainable Communities Strategy (SCS). It also provides CEQA streamlining incentives for projects that are consistent with the regional Sustainable Communities Strategy (or the Alternative Planning Strategy if one is required.)


Sacramento County benefits from the fact that SACOG has already prepared a Blueprint Vision for the region and has used the results in their MTP process. It is anticipated that the land use scenario used for the MTP (Attachment F) will likely be used to form the SCS as required by state law. Since SB 375 requires that decisions related to the allocation of transportation funding must be consistent with the Sustainable Communities Strategy (SCS), it is important to note that the County's General Plan as currently scoped is inconsistent with the land use assumptions used in the MTP and therefore may be inconsistent with the future SCS. Potential implications regarding this inconsistency are unknown at this time, although there may be consequences for the County related to transportation funding and ability to take advantage of CEQA streamlining incentives.

It is important to note that the current MTP (and any future MTP/SCS) is based on performance-based decision making. Since transportation funding is a limited resource and needed improvements are essentially limitless, the region must identify transportation improvements that will result in the largest benefit per dollar spent. As such, even if Sacramento County adopts all new growth identified in the Draft 2030 General Plan, there is no guarantee that these areas will be included in the future MTP/SCS if serving the area with an efficient and effective transportation system is found to be financially infeasible or if it is out-competed by other necessary improvements. For example, jurisdictions throughout the region have identified capacity for new growth that is not included in the current MTP. To ensure that the unincorporated County can compete for and efficiently use limited transportation funds, adoption of new growth areas (particularly those with little to no transportation infrastructure like the Grant Line East area) and the strategic planning and buildout of those area should be a key discussion point in the adoption hearings.

Potential Solutions

The Jackson and Grant Line East Visioning Studies touch upon the issue of growth management relative to the Jackson Highway and Grant Line East areas. The final staff report submitted for the studies include a description of the following potential approaches to growth management in these areas (Attachment G), including:

- A. Constrained land supply approach
- B. Project merit-based approach
- C. Proactive management approach
- D. Market-based approach

From: Brian Acord <BACORD@dfg.ca.gov>
Subject: **Re: backlog at CNNDDB?**
Date: September 15, 2011 4:22:57 PM PDT
To: "Friends of the Swainson's Hawk"
<swainsonshawk@sbcglobal.net>
Cc: Frank Gray <fgray4birds@aol.com>, Cynthia Garcia
<garcia4ca@yahoo.com>
1 Attachment, 14.0 KB 

Dear Ms. Lamare,

Thank you for contacting me. I appreciate your passion for Swainson's hawks, and the willingness to be actively involved in their protection and preservation. Before I answer your questions I do have some good news. Yes, you are correct that our data in the California Natural Diversity Database is not as up to date as we would like it to be. We have limited resources to cover such as biologically diverse state as California. Fortunately we have received support and we will be updating our Swainson Hawk records in the near future, but realize this may take several months to complete.

"Can you tell me if it has been submitted, and if it has been added to the database?"

There is not currently a CNDDDB occurrence for Swainson's hawk in the area you described near Sutter's Landing Regional Park. Our raw source data is logged into our raw data database by 24k quadrangle and county for general location fields. The area you describe is on the Sacramento East quad. We have 4 unprocessed documents for this quad. 1 is a Sacramento Bee article referencing a nest near Sutter's Landing (title). It is unknown exactly where or what the other 3 documents may represent. See attachment.

"Can you also tell me how many Swainson's Hawk nest site reports have been submitted to you that have not been included in the Cnddb database?"

First, let me explain our free Quick Viewer:

http://imaps.dfg.ca.gov/viewers/cnnddb_quickviewer/app.asp. This free, online map querying tool allows people to answer similar questions to yours. The tool represented by the icon with an "i" in front of a file drawer will return a list of species that have unprocessed data for that quad. Likewise, the tool immediately to the right will return a list of

species that have unprocessed data for that county. What it won't tell you is how many unprocessed source documents there are.

Your question specifically asks about nest sites. This question can not be answered by looking at our raw data database. Some of these records may represent nest sites that will be mapped into the CNDDDB, but others may represent foraging or perched birds and may or may not be added to the database. Furthermore, some of the documents may represent multiple observations of a single nest, or may be data added to an existing CNDDDB occurrence. It is unknown what source records will be added to the database until they are critiqued and mapped. So, with that caveat in mind, we currently have 418 unprocessed source documents for Swainson's hawk in the state.

Sincerely,
Brian

>> On 9/15/2011 at 3:10 PM, in message <6C2CC870-8AE8-4B97-8AB3-611AD22F53DF@sbcglobal.net>, Friends of the Swainson's Hawk <swainsonshawk@sbcglobal.net> wrote:

Hi Brian:

I am writing to you because you are an expert on CNDDDB. We at FOSH - Friends of the Swainson's Hawk- try to be sure that nesting sites that we are aware of are turned into DFG to include in the CNDDDB. But we are aware that DFG's survey date and date from other researchers, such as Jim Estep's nest surveys of Rancho Cordova, Elk Grove, Natomas Basin, and South Sacramento County, are not included in the CNDDDB, though I believe they have been submitted.

We often review environmental documents and biological assessments that rely heavily on CNDDDB to identify the location of closest nesting Swainson's Hawks. We often comment on these documents in something like the following way:

Assessment. In terms of identifying the impacts on Swainson's Hawk nesting pairs, the biological assessment is inadequate. It apparently is based on outdated CNDDDB records rather than a direct consultation with CDFG or assessment using the recommended nesting survey protocol. CNDDDB records are poorly maintained, out of date, and are therefore not complete and often underestimate species presence.

Unknown

From: Maulit. Justin
Sent: Wednesday, February 22, 2012 8:37 AM
To: Hocker. Lauren
Subject: FW: Cordova Hills Project (Control Number: 2008-GPB-SDP-ZOB-AHP-00142)

LETTER 10

From: Kennedy, Donald [mailto:DLKn@pge.com]
Sent: Thursday, February 09, 2012 11:46 AM
To: DERA (Web Page)
Subject: Cordova Hills Project (Control Number: 2008-GPB-SDP-ZOB-AHP-00142)

Dear Sacramento County Environmental Coordinator,

Thank you for giving PG&E the opportunity to review and comment on the Notice of Availability for the Cordova Hills project (Control Number: 2008-GPB-SDP-ZOB-AHP-00142). PG&E has the following comments to offer.

PG&E operates and maintains a 115kV electric transmission tower line within the project boundaries. Land use is restricted around PG&E's facilities and within PG&E's easement area. To promote the safe and reliable maintenance and operation of utility facilities, the California Public Utilities Commission (CPUC) has mandated specific clearance requirements between utility facilities and surrounding objects or construction activities. One of PG&E's concerns is for continued access to its facilities with heavy equipment for maintenance and repair work. Another is for adequate ground clearance from the overhead electrical wires as set forth in California Public Utilities Commission General Order No. 95 for the proposed improvements. To ensure compliance with these standards, project proponents should coordinate with PG&E early in the development of their project plans. Any proposed development plans should provide for unrestricted utility access and prevent encroachments that might impair the safe and reliable maintenance and operation of PG&E's facilities.

The project proponent for the Cordova Hills project will need to work closely with PG&E in obtaining a "**No Objection**" letter for their project prior to any final approvals are granted by the County or prior to any construction activities taking place around PG&E's high voltage facilities. The project proponent shall work closely with PG&E to minimize potential impacts to existing utilities. Improvement plans should be sent to me at the address in my signature block below, and the plans should show the following information to be submitted for PG&E's review and approval:

PG&E's Easement Area in Relation to Project Area
 Tower Structures
 Wire Shots to determine Wire Heights should their be significant cuts or fills
 Grading Plans (Existing & Proposed)
 Landscape and Lighting Plan
 Any proposed crossings/encroachments within PG&E's Easement area

Any potential conflicts shall be identified as soon as possible because facility relocation's require long lead times and are not always feasible, the requesting party should be encouraged to consult with PG&E as early in their planning stages as possible. The requestor will be responsible for the costs associated with the relocation of PG&E electric transmission facilities to accommodate the proposed improvements.

Relocations of PG&E's electric transmission facilities (50,000 volts and above) could also require formal approval from the California Public Utilities Commission. If required, this approval process could take up to two years to complete. Proponents with development plans which could affect such electric transmission facilities should be referred to PG&E for additional information and assistance in the development of their project schedules.

There appears to be residential and road improvements within the vicinity of PG&E's tower line. Below are a few examples of restrictions within PG&E's Electric Transmission Line Easements, but shall not be limited to the following:

Buildings, Structures, and Wells are prohibited within PG&E's Easement area. This includes, but not limited to trash enclosures and block walls.

Any and all light fixtures located within PG&E's easement area shall not exceed a maximum height of 15 feet above grade, and shall be located a minimum horizontal clearance of 15 feet from the conductor's at rest.

No grading cuts or fills are allowed within PG&E's easement area without prior written approval from PG&E.

With regards to the placement and height of trees, within PG&E Electric Transmission Line Easement, the Project Proponent shall follow the standards as provided in Right-of-Way Diagram in the attached link (you may have to cut and paste the link): http://selectree.calpoly.edu/utilityTree_zones2.lasso. Any deviations from these standards shall be approved by PG&E's Vegetation Management Department.

There are restrictions when operating any equipment or tools in the proximity to the tower line. You must not erect, handle, or operate any such equipment or tools, closer to any of PG&E's overhead high-voltage electric conductors than the minimum clearances set forth in the High-Voltage Electrical Safety Orders of the California Division of Industrial Safety, but in no event closer than 13 feet.

General Order No. 95 of the California Public Utilities Commission sets forth certain clearance requirements for the construction and operation of electric lines. Therefore, you must control your excavations and digging, including spoils, in such a manner as not to decrease the ground-to-conductor clearance below thirty feet.

Continued development will have a cumulative impact on PG&E's gas systems and may require on-site and off-site additions and improvements to the facilities which supply these services. Because utility facilities are operated as an integrated system, the presence of an existing gas transmission or distribution facility does not necessarily mean the facility has capacity to connect new loads. Expansion of distribution and transmission lines and related facilities is a necessary consequence of growth and development. In addition to adding new distribution feeders, the range of gas system improvements needed to accommodate growth may include regulator stations, odorizer stations, valve lots, distribution and transmission lines.

We would like to recommend that environmental documents for your proposed project include adequate evaluation of cumulative impacts to utility systems, the utility facilities needed to serve the project and any potential environmental issues associated with extending utility service, and any possible relocations. This will assure the projects compliance with CEQA and reduce potential delays to the project schedule.

PG&E request's that the County and/or developers dedicate a standard 12.5 foot Public Utility Easement for underground facilities and appurtenances adjacent to all public ways, private drives and/or Irrevocable Offer of Dedication.

Gas service may be available to the area if desired. The project proponent should contact PG&E's Service Planning Department at (800) 743-5000 as soon as possible to coordinate construction with their project so as not to delay the project. We would also appreciate being copied on future correspondence as these various projects develop.

Sincerely,

Donny Kennedy

Pacific Gas & Electric Company
343 Sacramento Street
Auburn, CA 95603
Internal: (8) 732-5089
External: (530) 889-5089
Fax: (530) 889-3392



SACRAMENTO AREA BICYCLE ADVOCATES

February 22, 2012

Sacramento County Environmental Coordinator
Division of Environmental Review and Assessment
827 7th Street, Room 220
Sacramento, CA 95814

Subject: Draft Environmental Impact Report (DEIR) for Cordova Hills Master Plan

Dear Sacramento County Environmental Coordinator:

Thank you for the opportunity to comment on the subject DEIR. The Cordova Hills Master Plan has many positive aspects that will enhance the internal livability for its residents. For example, the compact design for mixed uses shown in the plan is especially demonstrated by Figure 6.9 where nearly all residential areas are within ½ mile of retail and entertainment facilities in the “flex commercial” districts. Such proximity will make walking and bicycling very attractive modes of transportation. However, **the project’s great distance from existing development and infrastructure makes its external connections to the regional circulation system problematic, of uncertain timing, and expensive for local governments to accommodate.**

Throughout the DEIR and the underlying Master Plan, the terminology used for bicycle facilities is inconsistent and confusing. Both documents should follow Caltrans’ definitions for bikeways which are Class I off-street “bicycle paths”, Class II “bicycle lanes” striped on streets, and Class III “bicycle routes” which do not have striped lanes but have signage and pavement markings to alert vehicle operators to the presence of bicyclists. This terminology should be corrected in multiple locations in the documents including pages 1-29, 1-31, and 16-36 of the DEIR and pages 6-32, 6-33, and 6-34 of the Master Plan. For example, page 1-29 and Plate PD-18 of the DEIR should specify and distinguish clearly between Class I paths and on-street Class II lanes. The documents should also acknowledge that other roadway treatments beyond the above 3-level classification are available to further protect bicyclists in special situations (see the NACTO Urban Bikeway Design Guide at <http://nacto.org/cities-for-cycling/design-guide/>).

DEIR page 16-26 states the 3 significance criteria used to assess impacts to bicyclists and pedestrians; according to the 3rd criterion, an impact is significant if it would “result in unsafe conditions for bicyclists . . . including bicycle/pedestrian, [or] bicycle/motor vehicle . . . conflict.” When judging unsafe conditions, we must envision bicyclists of all ages and abilities, from middle-school students to grandparents, and how they would negotiate planned bicycle facilities and crossings. The following paragraphs describe **unsafe and hazardous conditions for bicyclists that therefore constitute significant adverse impacts of the project.**

Neighborhood Electric Vehicles (NEVs)

NEVs will be allowed to use Class II bicycle lanes along approximately 4 miles of the 2 major east-west arterials within the project (see Master Plan Figure 6-7). These 2 arterials constitute the sole vehicular access links between the Town Center in the west and the major residential areas to the east. The NEVs will be allowed in the bike lanes because vehicular speed limits on these arterial segments are planned to be 45 mph, excessive for legal NEV operation. NEVs typically operate at 25 – 35 mph while utilitarian bicyclists commonly travel at 8 – 12 mph. Clearly the NEVs will present a hazard for bicyclists when they overtake a bicyclist silently from behind in a bike lane at much greater speed. The greater weight and size of NEVs will make collisions with bicyclists as dangerous as with motor vehicles. Furthermore, the 8-ft width of the shared NEV/bike lanes will make them easily mistaken for vehicle travel lanes, thus requiring protective measures to keep vehicles out of them. Therefore, **NEV use of the Class II bike lanes along these arterials is a significant adverse impact of the project on bicyclists.**

Project proponents have suggested that bicyclists fearful of sharing bike lanes with NEVs can instead use the Class I bicycle paths planned to parallel these arterial segments. These Class I paths are described in the DEIR and Master Plan as “multi-use trails” that will be shared with pedestrians. These trails will be attractive to casual recreational bicyclists but will not be useful to utilitarian bike riders who desire to ride directly and efficiently for several miles or more to locations for shopping, jobs, schools, and other community facilities.

We request that the DEIR evaluate possible solutions (i.e. appropriate mitigation) to this hazardous bicycle/NEV conflict including 1) reducing the speed limit on these arterials to 35 mph, 2) demarcating separate NEV and bicycle lanes with protective buffers between them, and 3) allowing NEVs to use the vehicular traffic lanes.

Design of Arterial Intersections.

Class I bicycle paths will parallel the 2 main east-west arterials through approximately 10 intersections. The DEIR and the Master Plan do not describe the design of these intersections or the designs of the Class I paths where they cross side streets. Plate TC-3 of the DEIR shows that some of these intersections will be signaled and some will be roundabouts. Both signaled traditional intersections and roundabouts can be hazardous for bicyclists on the Class I paths because of interactions with vehicular traffic signaling, traffic movement patterns through planned roundabouts, pedestrian movements, and the on-street Class II bike lanes. Until such designs are specified and can be reviewed by experienced bicycle planners, these intersections should be regarded as hazardous to bicyclists and pedestrians. **The arterial intersections therefore pose significant adverse impacts of the project on bicyclists.**

Connections to External Bicycle Facilities.

Figure 6.1 of the Master Plan describes transportation-mode alternatives for the project. The “service radius” for bicyclists is said to be only up to 3-mile radius and the figure also fails to acknowledge that bicyclists may want to use bicycle trips to access jobs; elsewhere the DEIR describes the main Rancho Cordova employment center as approximately 7 miles to the west, a relatively comfortable ride for a moderately experienced bicyclist to work locations with supportive facilities for bicyclists (secure parking, showers, etc.).

Hazardous bike riding conditions increase with widths of streets (i.e. crossing distances), volume and speed of traffic, and complexity of intersection configurations (e.g. numbers and timing of left turn and right turn lanes). Such intersections must be considered barriers to bicycle travel for the average rider. **The DEIR does not assess hazards to bicyclists in trying to**

cross Grant Line Road at its intersection with Chrysanthy Boulevard or at the intersections of Grant Line Road with the project's North Loop Road and University Boulevard. Until such designs are specified and reviewed by experienced bicycle planners, these primary crossing points for accessing Rancho Cordova must be regarded as hazardous to bicyclists and therefore a significant impact of the project.

Widening of Intersections in Project Vicinity.

The DEIR's Traffic Analysis identifies significant impacts of the project on many intersections and road segments in the vicinity of the project caused by traffic generated by the project. At 23 of these intersections and segments, the DEIR recommends mitigation measures that include constructing additional traffic lanes (up to 6 lanes in some cases). The DEIR should acknowledge that each of these lane additions will increase the hazards for bicycle riders using those intersections or segments because of increased crossing widths, increased vehicle speeds and volumes, and increased complexity of traffic movements. Therefore, **these lane additions should be considered significant adverse impacts of the project.** The DEIR should further acknowledge that additional mitigation measures to protect bicyclists will be needed (see the NACTO Urban Bikeway Design Guide at <http://nacto.org/cities-for-cycling/design-guide/> for descriptions of intersection treatments to protect bicyclists).

SABA works to ensure that bicycling is safe, convenient, and desirable for everyday transportation. Bicycling is the healthiest, cleanest, cheapest, quietest, most energy efficient, and least congesting form of transportation

Thank you for considering our comments.

Sincerely,

A handwritten signature in black ink, appearing to read 'Tricia Hedahl', with a long horizontal flourish extending to the right.

Tricia Hedahl
Executive Director

CC: Glenda Marsh, Chair of Sacramento City-County Bicycle Advisory Committee Chair

February 22, 2012
E225.000

Lauren Hocker
County of Sacramento
Department of Environmental Review and Assessment
827 7th Street, Room 220
Sacramento, CA 95814

Subject: Cordova Hills Draft Environmental Impact Report

Dear Ms. Hocker,

Sacramento Area Sewer District (SASD) has reviewed the Draft Environmental Impact Report (DEIR) for the subject project. The Sacramento Regional County Sanitation District (SRCSD) has provided comments in a separate letter.

It is noted that the proposed project is located in the southeastern portion of Sacramento County on approximately 2,669 acres, adjacent to the City of Rancho Cordova. The area is designated by the Sacramento County General Plan as General Agriculture (80 acres) and is currently zoned for AG-80 agricultural uses. The project is within the Urban Services Boundary, but outside the Urban Policy Area and outside of the Sacramento Area Sewer District. Here are our summary comments.

- SASD's Board of Directors approved a SASD Sewer System Capacity Plan 2010 Update in January 2012. The Plan provides an updated mid-range and long-term plan for sewer service in this area. The sewer service alternatives identified in the subject document should be reviewed for consistency with the System Capacity Plan. Also, note the System Capacity Plan received a "Statutory Exemption" from the County of Sacramento's Division of Environmental Review and Assessment (Control Number 2011-70100).
- Annex the subject property to both the Sacramento Regional County Sanitation District (SRCSD) and the Sacramento Area Sewer District (SASD) prior to recordation of the Final Map or submission of any improvement plans, whichever occurs first. Upon annexation, conditions will apply to this project.

Board of Directors
Representing:

County of Sacramento
City of Citrus Heights
City of Elk Grove
City of Folsom
City of Rancho Cordova
City of Sacramento

Stan Dean
District Engineer

Christoph Dobson
Director of Operations

Prabhakar Somavarapu
Director of Policy & Planning

Karen Stoyanowski
Director of Internal Services

Joseph Maestretti
Chief Financial Officer

Claudia Goss
Public Affairs Manager

10060 Goethe Road
Sacramento, CA 95827-3553
Tel 916.876.6000
Fax 916.876.6160
www.sacsewer.com

Lauren Hocker
Page 2
February 22, 2012

In addition, here are our comments on statements within the Draft Environmental Impact Report:

1. Page 15-4, Para 1: SASD does not construct trunk sewer lines serving new development. The developer constructs trunk facilities to District Standards and is eligible for reimbursement in accordance with the SASD Sewer Ordinance. SASD will own and operate the facilities upon acceptance.
2. Page 15-4, Para 1: SASD is responsible for more than just the maintenance of the lower lateral and mainline pumps.
3. Page 15-7: Remove discussion of SASD's Sewerage Facilities Expansion Master Plan 2006 Update and replace with discussion of System Capacity Plan.
4. Page 15-38: Under "Regional Infrastructure", clarify the statement "service to Cordova Hills is not constrained." Sewer service alternatives are dependent on capacity availability at the time of development, and could be considered "constrained".
5. Page 15-38: The statement "All of the regional off-site infrastructure shown is already contemplated in SASD or SRCSD master planning documents, and thus are not impacts of the Project" is not correct. Some of the sewer service alternatives identified in the subject document are not included in SASD's System Capacity Plan (e.g., force mains to the Mather or Bradshaw Interceptors).
6. Page 15-49: The statement "SASD and SRCSD did not identify any facility constraints to service" is not correct. See comment 4 above.

If you have any questions regarding these comments please call me at (916) 876-6296.

Sincerely,

A handwritten signature in black ink, appearing to read "Amandeep Singh" followed by a stylized flourish.

Amandeep Singh, P.E.
Sacramento Area Sewer District
Development Services

AS: ms

cc: Ken Giberson, MacKay & Soms (via email)
Steve Norris, SRCSD

Hocker.022212.ltr

Municipal Services Agency

Robert B. Leonard

Chief Deputy County Executive

Department of Transportation

Michael J. Penrose, Director



County Executive

Bradley J. Hudson

County of Sacramento

LETTER 13

February 22, 2012

Ms. Catherine Hack
County of Sacramento
Community Planning & Development Department
Division of Environmental Review and Assessment
827 7th Street, Suite 220
Sacramento, CA 95814

SUBJECT: COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE CORDOVA HILLS SPECIAL PLANNING AREA.

Dear Ms. Hack:

The Department of Transportation (SACDOT) has received a copy of the draft environmental impact report (DEIR) for the Cordova Hills Special Planning Area project. We appreciate the opportunity to review this document and have the following comments to offer:

1. **Executive Summary. Page 34. Mitigation Measure TR-1.B.** The DEIR states “Mather Boulevard and Douglas Road –Construct a new traffic signal. Provide a shared through-right turn lane on the northbound approach; provide a separate left turn lane and a through lane on the southbound approach; and provide a separate left turn lane and a separate right turn lane on the westbound approach”. It should be noted that since the completion of the traffic study for this project, the Zinfandel Drive extension project has been completed and a new signal has been installed at the Douglas Road and Zinfandel Drive /Eagles Nest Road intersection. We do not see a need for another traffic signal in close proximity to this newly installed signal. We would ask that the Cordova Hills project impact at the Mather Boulevard and Douglas Road intersection be reevaluated and mitigation measure TR-1.B be either deleted or recommend an alternative mitigation measure. If new analysis reveals that a mitigation measure is needed to mitigate the project impact then it should be coordinated with SACDOT staff for consultation and recommendation. Please coordinate with us as necessary.
2. **Executive Summary. Page 34. Mitigation Measure TR-1.E.** The DEIR states “Grant Line Road and White Rock Road – Construct a new traffic signal. Provide dual left turn lanes and a separate through lane on the northbound approach; provide a through lane and a separate right turn lane on the southbound approach; and provide separate left turn lane and a separate right turn lane on the eastbound approach. Also an extra westbound departure lane is needed for the dual northbound left turn movement.” Please note that a traffic signal will be installed as part of the



“Leading the Way to Greater Mobility”

Design & Planning: 906 G Street, Suite 510, Sacramento, CA 95814 . Phone: 916-874-6291 . Fax: 916-874-7831
Operations & Maintenance: 4100 Traffic Way, Sacramento, CA 95827 . Phone: 916-875-5123 . Fax: 916-875-5363
www.sacdot.com

White Rock Road Improvements Project which will begin construction this year. But, Cordova Hills project's need for dual left lane in the northbound direction at the Grant Line Road and White Rock Road intersection is not part of the White Rock Road Improvements Project. Therefore, the Cordova Hills project will be responsible for constructing the dual left turn lane at this intersection and modify the signal to accommodate the lane additions. As result of the dual left turn lane, the westbound receiving lane would also need to be extended for the northbound left turn traffic and northbound thru lanes will shift to east on the approach and departure side. Please update the mitigation measure. SACDOT staff will submit a condition of approval relating to this change.

3. **Executive Summary. Page 38 and 39. Mitigation Measure TR-4.A.** Please note that this mitigation measure is in City of Elk Grove and construction responsibility is beyond the control of the County of Sacramento and the project proponent. Therefore, the project should pay its fair share towards this improvement to the City of Elk Grove if a reciprocal agreement between the County of Sacramento and City of Elk Grove is in place at the time of implementation of the Public Facilities Financing Plan. Otherwise, the project is only responsible for paying the fair share of improvements within the control of County of Sacramento.
4. **Executive Summary. Page 41. Mitigation Measure TR-7.A.** Mitigation measure states "Construct sidewalks and bicycle lanes along Grant Line Road from Douglas Road to White Rock Road and on Douglas Road from Rancho Cordova Parkway to Grant Line Road." Since the Grant Line Road and Douglas Road would be six lanes ultimately, we understand that curb, gutter and sidewalk cannot be installed at the ultimate location as part of the 4 lane widening as recommended in mitigation measures TR-5.F and TR-5.I. We recommend the mitigation measure be revised to include interim pedestrian and bicycle facilities to the satisfaction of the Department of Transportation. Typically all four lane widening projects would require an appropriate detached AC path for pedestrians. Additionally, the bike lane/shoulder will be 6 feet due to lack of curb and gutter. SACDOT staff will submit a condition of approval to Planning and DERA staff relating to this matter. The mitigation measure should be revised.
5. **Traffic and Circulation. Page 16-1 to 16-83.** The above four comments will result in changes to this chapter. Please update in the FEIR.
6. **General.** The number of through lanes at mitigated intersections should be consistent with the number of through lanes for mitigated roadway segments. Please update the mitigation measures. Lane drops should be done on departure side of the intersections. The left turn lane will be set up based on the improvement standards for an arterial or thoroughfare. Please revise the intersection mitigation measures as necessary to match with roadway segment mitigation measures.
7. **General.** The standard county left turn pocket length would not be sufficient to store the vehicle queues for intersections that carry more than 600 vehicles per hour for the dual left turn lane. For those locations, a queuing analysis needs to be completed prior to the approval of improvement plans and final maps to determine the appropriate left turn pocket length. A separate condition of approval will also be submitted to address this issue in the future for the Cordova Hills project.

Ms. Hack.

Comments on the DEIR for the Cordova Hills SPA.

Page 3

8. **General.** Please note that left turn pockets at some of these locations carry a lot of traffic compared to standard intersections. At those locations, the left pockets will be extended and analysis would be required to determine the length of these pockets (as discussed in the comment above). The standard sections at the intersections will need to be modified to fit the project needs. SACDOT staff recommends adding a condition of approval on the project for wider median on Grant Line Road as it will have long left turn pockets with a narrow median. To improve the aesthetics of the corridor, we will condition the project to provide landscaping for trees in the median up to cross walks. Please coordinate with SACDOT staff regarding this landscaping requirement and include this change in the draft public facilities financing plan.
9. **General.** The project applicant should continue to work with SACDOT staff to find an appropriate design for the free right turn lane mitigation measure. The free right turn lane concept design should be submitted to SACDOT staff for preliminary approval.
10. **General.** The applicant shall coordinate with the Capital Southeast Connector JPA and the Sacramento County Department of Transportation in order to develop an alternative access design for the North Loop Road intersection with Grant Line Road. The alternative design must either consist of moving the North Loop Road intersection to create a 4-way intersection with Douglas Road and Grant Line Road or shall consist of another design acceptable to both the Capital Southeast Connector JPA and the Sacramento County Department of Transportation. Any application for Capital Southeast Connector improvements to the relevant segment of Grant Line Road which is submitted for discretionary approval to Sacramento County shall be incorporated into the alternative design.

Should you have any questions, please feel free to contact me at (916) 875-2844 or atwalk@sacounty.net.

Sincerely,



Kamal Atwal, P.E.
Department of Transportation

KA

Cc: Mike Penrose – DOT
Dan Shoeman - DOT
Dean Blank – DOT
Matt Darrow – DOT
Kyle Hines – DOT
Melissa Wright – DOT
Tricia Stevens - Planning

Ms. Hack.

Comments on the DEIR for the Cordova Hills SPA.

Page 4

Surinder Singh -- Planning

Lauren Hocker -- DERA

John Long -- DKS

Tom Zlotkowski -- Southeast Connector JPA

Municipal Services Agency

*Department of Waste
Management & Recycling
Paul Philleo, Director*



*Steven C. Szalay, Interim County Executive
Paul J. Hahn, Administrator*

LETTER 14

MEMORANDUM

To: Lauren Hocker, Department of Environmental Review and Assessment

From: Dave Ghirardelli, Department of Waste Management & Recycling

Date: February 21, 2012

Subject: **DWMR comments on Cordova Hills DEIR**

The Sacramento County Department of Waste Management and Recycling (DWMR), which owns the Kiefer Landfill adjacent to the proposed project, has reviewed the Draft Environmental Impact Report and have the following comments:

Odors.

On page 5-36 the DEIR states “As landfill gas is a major source of odor from a landfill, the active extraction of gases for use in generating electricity is an effective form of limiting odors. Given all of the foregoing – with particular emphasis on the ability of the gas extraction system to reduce the potency and density of landfill odor – and the mitigation incorporated below, odor impacts are not expected to be substantial, and impacts are *less than significant*.” DWMR disagrees with this statement.

The landfill gas (LFG) collection system at Kiefer landfill will not reduce the Cordova Hills project’s odor impacts (bringing sensitive receptors into such close proximity to Kiefer landfill) to the level of *less than significant*. LFG collection system reductions in odor are ancillary, as clearly stated on the website referenced, and generally occur on closed sections of a landfill where an LFG system is installed.

Kiefer landfill generates odors primarily from unloading and spreading municipal solid waste and from unloading and processing greenwaste. The LFG collection system does not reduce those odors at all. Additionally, as the landfill is constructed, the odor generating operations will be closer to the Cordova Hills project. This is described in the Project Description chapter of the Certified (1998) Kiefer Landfill Final Supplemental Environmental Impact Report (Kiefer EIR).

The Cordova Hills project will bring sensitive receptors into close proximity to these operations and doing so is **a significant impact and requires additional mitigation on the part of the Cordova Hills project.**

Aesthetics.

On page 3-2 the DEIR states "...the property to the south is visually dominated by the Kiefer landfill." Kiefer landfill is currently constructing Module 3 of the 10 modules approved by the Kiefer EIR in 1998. Module three is approximately 4,000 feet from the Sports Park and 4,500 feet from the Living and Learning zone of the campus. Module 3 is currently being constructed at 100 to 150 feet elevation above MSL, approximately.

During approximately 2025 to 2035, module 5 (of 10) will be constructed approximately 1,700 feet from the Sports Park and 2,200 feet from the Living and Learning zone of the campus and to an elevation of 325 feet above MSL.

To understand the visual impacts of the Cordova Hills project, a "Kiefer landfill viewer group (viewpoint 6)" should be included in the Impacts and Analysis section of the Aesthetics chapter of the DEIR. The vantage should be taken from the Living and Learning area of campus or from the Sports Park and show the view residents of the campus or users of the park will have when Module 5 is being constructed. **The Cordova Hills project will have significant aesthetic impacts that will require mitigation.**

Mitigation.

DWMR maintains that, at a minimum, mitigation is necessary in the form of Restrictive Covenants, or some similar mechanism, recorded in perpetuity on deeds for all parcels created in the Cordova Hills Special Planning Area, stating that property owners acknowledge the preexistence and proximity of the Kiefer Landfill and release rights to seek corrective action to nuisances. Additionally, the Cordova Hills project must establish financial mechanisms to pay for responses to the inevitably increased number of complaints.

Thank you for the opportunity to comment on the DEIR. Please contact me at 875-4557 if you have any additional questions.

C: Paul Philleo
Pat Quinn
Eric Vanderbilt
Keith Goodrich
Lea Gibson

Countywide Services Agency

Environmental Management
Department

Environmental Compliance Division

Elise Rothschild, Chief



County of Sacramento

Bradley J. Hudson, County Executive

Bruce Wagstaff, Chief Deputy County Executive

Val F. Siebal, Department Director

LETTER 15

Lauren Hocker
Division of Environmental Review and Assessment
827 7th Street
Sacramento, CA 95814

Dear Ms. Hocker:



**SUBJECT: REVIEW OF THE CORDOVA HILLS PROJECT DRAFT ENVIRONMENTAL
IMPACT REPORT, CONTROL NUMBER 2008-00142**

The Sacramento County Environmental Management Department (EMD) has reviewed the Draft Environmental Impact Report (DEIR) for the Cordova Hills project. EMD acts as the Local Enforcement Agency (LEA) for the California Department of Resources, Recycling, and Recovery (CalRecycle) in the cities and County of Sacramento. The permitted boundary of Kiefer Landfill is adjacent to the southwest edge of this project.

The LEA's comments focus on concerns about the proximity of the project to an active municipal solid waste landfill, as follows:

- 1) **Aesthetics**, Page 3-21: The DEIR claims that the distance of the project from the landfill renders the impact of lights from Kiefer's operations insignificant. While the current location and size of Kiefer's operations may render the light impact insignificant to the project, the landfill's operations will eventually expand and the active face will move closer to the project site. The projected average daily tonnage in 2035 is nearly double the current permitted average daily tonnage. Also, the maximum permitted elevation of the landfill is 325 feet. Did the DEIR account for the increased amount of lighting required for an expanded landfill operation, as well as the eventual increase in elevation of the landfill, which will increase the visibility of Kiefer's operations from the project site?
- 2) **Air Quality**, Pages 5-36—5-37: This section states "with particular emphasis on the ability of the gas extraction system to reduce the potency and density of landfill odor – and the mitigation incorporated below, odor impacts are not expected to be substantial, and impacts are less than significant." Odors are also generated by the delivery and compacting of waste, the processing of green waste at the site, and the operation of the flare. The sub-surface landfill gas extraction system does not control these odors. The EIR should not rely on the landfill gas extraction system to reduce odors to a less-than-significant level. Further, while odors must be controlled under Title 27 of the California Code of

Regulations (27 CCR), the generation of odors during routine landfill operation is unavoidable and there is no requirement to reduce the potential for odors to zero. The LEA recommends notifying potential tenants of the increased potential for odor issues associated with the proximity to the landfill.

- 3) **Hazards and Hazardous Materials**, Page 10-17: This section includes a mitigation measure stating that continuous landfill gas monitoring will be implemented in any structures within 1,000 feet of buried waste or proposed buried waste. Who will be responsible for implementing and maintaining the landfill gas monitoring equipment? The LEA does not have authority to ensure that landfill gas monitoring is being conducted outside of the permitted boundary of the landfill. Any structures within 1,000 feet of the permitted landfill boundary also ought to adhere to the construction standards contained in 27 CCR 21190 (g). Again, the LEA does not have authority to enforce this standard outside of the permitted boundary of the landfill, so the party responsible for implementing these construction standards should be clearly assigned in the FEIR.
- 4) **Land Use**, Page 12-37, Paragraph 2: This paragraph states that Kiefer Landfill is permitted to accept 10,815 tons per day (tpd) and the average intake is approximately 6,000 tpd. The tonnage cited is the maximum permitted tonnage for the year 2034/35; the current permitted maximum tonnage is 5,598 tpd. The permitted tonnage increases each year according to a schedule referenced in the facility's Solid Waste Facility Permit. The EIR should clarify the permitted tonnage and year used to analyze the impacts of the landfill on the proposed development. This paragraph also states that the estimated remaining capacity is 108 million cubic yards. Per the Solid Waste Facility Permit, the remaining site capacity as of 2006 was 86,559,490 cubic yards.
- 5) **Land Use**, Page 12-37, Paragraph 3: This paragraph mentions the upcoming Kiefer Bufferlands Special Planning Area (SPA), which will designate areas around Kiefer Landfill for waste-industry uses; however, the DEIR does not include analysis of the potential impacts of the proposed SPA uses on the Cordova Hills tenants. The DEIR also does not include an analysis of the GreenCycle project, a proposed composting facility adjacent to Kiefer Landfill. The FEIR for the GreenCycle project was released in November 2010 and a Supplemental EIR is due for release in 2012. The addition of waste industries and a large-scale composting facility to the area will exacerbate the potential for nuisance conditions, including vectors/pests, dust, noise, and odors. The FEIR should include an analysis of the potential impacts of the GreenCycle project and the Kiefer SPA on the Cordova Hills project.

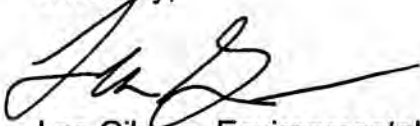
- 6) **Land Use**, Page 12-38, Paragraph 2: This paragraph states that "nuisance pests and vectors are typically experienced only in close proximity to the source condition". What is considered "close proximity"? Per the DEIR, the project abuts Kiefer Landfill and the adjacent area is to be designated as Agricultural land, which could provide additional habitat for pests. The LEA recommends notifying potential tenants of the increased potential for vector and pest issues associated with the proximity to the landfill.
- 7) **Land Use**, Page 12-38, Paragraph 2: This paragraph also states that litter was not observed during any of the site visits to the project area and that litter from the landfill would be caught in the intervening landscape. The active portion of the landfill will eventually move closer to the proposed project site, so the fact that litter was not observed during site visits from 2008-2012 would not be relevant to the future conditions of the landfill. Litter may also enter the proposed development from refuse vehicles delivering waste to the facility. Kiefer Landfill implements litter control measures as required in 27 CCR 20830, but it cannot control for litter blowing off of refuse vehicles. The LEA recommends notifying potential tenants of the increased potential for litter in their neighborhood due to the proximity of the landfill and the refuse vehicles utilizing the roadways.
- 8) **Land Use**, Page 12-38, Paragraph 3: This paragraph states that CalRecycle is responsible for verifying compliance with State Minimum Standards. EMD, acting as the LEA in Sacramento County, is certified by CalRecycle to regulate Kiefer Landfill to ensure the facility meets the State Minimum Standards, per 14 CCR 18081 (c). The section of regulation cited in this paragraph, 27 CCR 21685(b)(8), pertains to CalRecycle's concurrence with the issuance of a Solid Waste Facility permit or permit revision. Kiefer Landfill has already been issued a Solid Waste Facility permit, so the section pertaining to CalRecycle's concurrence is not relevant to ensuring ongoing compliance with the State Minimum Standards. Another section of regulation cited in this paragraph, 14 CCR 17867 (a), pertains to composting facilities, not disposal sites. Kiefer Landfill is a permitted as a disposal site, so 27 CCR 20760 is the appropriate section to cite for nuisance control.
- 9) **Land Use**, Page 12-39: Mitigation measure LU-2 states that the location and nature of Kiefer Landfill will be disclosed to buyers within one mile of the "ultimate active landfill boundary." What is the definition of the "ultimate active landfill boundary"? Is it the same as the disposal site permitted facility boundary, as specified in Kiefer Landfill's Solid Waste Facility Permit? If not, what criteria were used to determine the "ultimate active landfill boundary"? Also, who will be

responsible for providing the notification to the buyers and what information will be included in the notification?

- 10) **Noise**, p13-39: This section uses a 1989 study to determine the impact of noise on the proposed project. In 1989, Kiefer landfill's average permitted daily tonnage was approximately 2,700 tpd. In 2012, the average permitted daily tonnage is 3,293 tpd, and, in 2035, it will be 6,362 tpd. The increase in tonnage accepted at the landfill will require additional equipment to handle the waste and there will be additional traffic delivering waste, meaning increased noise levels at the landfill. The FEIR ought to consider future noise levels instead of using 1989 noise levels to determine the impact to the residents of the proposed development.
- 11) **Public Services**, p 14-21: This section states that the facility is permitted to accept 10,815 tpd and currently receives 700,000 tons per year. The permitted tonnage cited is the maximum daily tonnage for the year 2035. The facility's current maximum daily tonnage is 5,598 tpd and the projected annual tonnage for this fiscal year is 1,202,000 tons, per the Solid Waste Facility Permit. This section also cites "N. Yeats" of CalRecycle. The CalRecycle permitting contact for Sacramento County is Nevin Yeates, not Yeats.

Thank you for the opportunity to comment on the DEIR for the proposed Cordova Hills project. Please contact me at (916) 875-8468, if you have any questions or concerns about the LEA's comments.

Sincerely,



Lea Gibson, Environmental Specialist
Environmental Compliance Division

LG:se

c: Nevin Yeates, CalRecycle

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February 22, 2012

Ms. Catherine Hack, Sacramento County Environmental Coordinator
Division of Environmental Review and Assessment
827 7th Street, Room 220, Sacramento, CA 95814

SUBJECT: CORDOVA HILLS DEIR (LAFC #M-2010-008)

Thank you for the opportunity to review and provide comments on the Draft Environmental Impact Report (DEIR) for the Cordova Hills project regarding the Sacramento Local Agency Formation Commission (LAFCo). These comments should be considered in the context of those provided as a responsible agency under the California Environmental Quality Act, on February 21, 2011, regarding the Notice of Preparation (NOP.) Those earlier comments clarified that LAFCo will be a responsible agency for this project because LAFCo will conduct various project related proceedings, including annexation to the Sacramento Area Sewer District (SASD) for the collection of wastewater and the Sacramento Regional County Sanitation District (SRCSD) for conveyance and treatment of wastewater. Additionally, project implementation will require detachment from the Sacramento County Regional Parks Department County Service Area 4B and County Service Area 10, and formation of the Cordova Hills Community Services District (CSD). Thus, LAFCo will be a responsible agency and will rely on the County's environmental document with respect to the project.

To assist in review of the proposed project, it was requested that the DEIR include analyses of several specific topics of interest: describing the role of LAFCo in the approval and CEQA processes in the EIR Project Description; and evaluating potential effects to affordable housing, public services and utilities (both on and off-site,) agricultural lands, open space, and environmental justice. This review consists of identifying whether the environmental issues cited in the NOP comment letter were comprehensively addressed consistent with state and local LAFCo requirements. During this review of the DEIR, LAFCo has not conducted an independent analysis of the County's or affected special districts' capacity to provide various services to the project site, as that will more appropriately be analyzed during subsequent LAFCo proceedings, as will any potential adverse economic effects to other service providers.

The review of the Cordova Hills DEIR indicates that many of the specific topics of interest to LAFCo were addressed or are acknowledged by the County as necessary actions that need to occur prior to LAFCo taking action on any subsequent annexation requests. This letter sets forth our understanding of the project's compliance with the CEQA process as documented in the County's DEIR, and the adequacy of that document to serve LAFCo as a responsible agency when conducting subsequent discretionary proceedings regarding the project.

Specific comments on the DEIR include:

1. **Project Description** (DEIR, Chapter 1, Project Description) – This chapter adequately sets forth LAFCo's role in the entitlement process, including all required LAFCo proceedings and actions, such as

annexation of the project site to the SRCSD and SASD service areas, detachment from the Sacramento County Regional Parks Department County Service Area 4B and County Service Area 10, and the formation of a CSD (pages 1-8 thru 1-9). The description includes a discussion of the role of LAFCo, as a responsible agency in the decision-making process to process the application and supporting documentation (Municipal Services Review) for the creation of the CSD.

The DEIR clearly and adequately addressed the following issues of statutory concern, unless otherwise stated, to permit LAFCo to use the County's environmental documentation in the Commission's consideration of the proposed annexation to the SASD and SRCSD, detachment from the County Service Areas 4B and 10, and the formation of the CSD.

2. **Population, Employment and Housing** (DEIR, Chapter 1, Project Description) – LAFCo is required to ensure that there will be no net loss of targeted housing resources on a countywide basis, both in incorporated and unincorporated areas. The project description states the proposed project site is currently used for cattle grazing and does not contain any structures or development (page 1-6). Because there is no existing residential zoning, nor housing located within the proposed project area, it would not result in the loss of affordable housing.

Prior to LAFCo considering any annexation request within the project area, the County must demonstrate compliance with the SACOG Regional Housing Needs Allocation (RHNA) and obtain confirmation of compliance from the California Department of Housing and Community Development that the County is meeting its Regional Share Housing goals for all income levels through its adopted General Plan Housing Element. The DEIR summarizes the proposed housing mix and includes an affordable housing plan (page 1-8). Plate PD-12 shows the locations of proposed affordable housing units (page 1-17).

3. **Utilities & Service Systems** (DEIR, Chapter 1, Project Description; Chapter 15, Public Utilities) – LAFCo requested that the public utilities evaluation focus on whether any physical facilities would need to be constructed to serve the project, including those outside of the project site, whose construction potentially could result in environmental effects. The following summarizes the information provided in the DEIR on the proposed physical facilities that would need to be constructed to serve the Cordova Hills project.

Proposed Utility Infrastructure

Proposed public infrastructure and service connections include physical facilities, whose construction could result in potential environmental effects. Physical facilities proposed to be constructed within the project site include a corporation yard, solar facility, district energy plant, schools, and new public utility infrastructure (page 1-34 thru 1-37). Public utility infrastructure includes water supply distribution, wastewater conveyance and treatment, and storm drainage improvements.

Water Supply: The Sacramento County Water Agency (SCWA) would provide water supply. Connection would occur outside of the Urban Services Boundary (USB) and outside the SCWA service area via off-site water line extensions. The project involves the extension of water to a 241-acre portion of the project site outside the USB, which requires a General Plan amendment (page 1-36).

Sanitary Sewer/Wastewater Treatment: The proposed project would need to be annexed into the SASD and the SRCSD in order to connect to public wastewater conveyance and treatment infrastructure services. The SASD owns and operates the sewer trunk and collection system

throughout Sacramento County. SRCSD owns and operates the Sacramento Regional Wastewater Treatment Plant (SWRTP) and interceptor system in the County. The proposed project is within the Sphere of Influence (SOI) for both the SASD and SRCSD (page 1-37). The SOI is coterminous with the USB. Connection to the SASD sewer lines would require off-site extensions and on-site transmission lines.

Storm Drainage: Storm drainage features include on-site detention basins, open stormwater swales, and an underground pipe system. Water quality measures include features such as, grassy swales, settling basins, and natural filters to be incorporated into the open space corridors and parks (page 1-37). LAFCo requested that the secondary effects of constructing and operating these facilities be evaluated in the DEIR. LAFCo also requested the evaluation assess whether the SRCSD and SASD have (1) the service capability and capacity to serve the project area, and (2) whether they can provide services to the project area without adversely affecting existing service levels elsewhere in their service areas.

Chapter 15, Public Utilities evaluates the project's potential impacts related to infrastructure improvements. The DEIR states that with the exception of a few facilities that may involve off-site construction, most of the public utility infrastructure construction has either been evaluated as part of other infrastructure projects, or is within the boundaries of the project site. Below is a summary of the public utilities and services impacts evaluated in the DEIR:

Potable & Non-Potable Water Supply: Infrastructure. For potable water supply, the proposed project would not result in new infrastructure outside the project area. The project is within the Zone 40 service area of the SCWA. The Vineyard Surface Water Treatment Plant (VSWTP) and the North Service Area Pipeline (NSAP) would provide potable water to the existing and future development (page 15-26). Project infrastructure would include pipelines and facilities that already exist or have already been approved by the SCWA (page 15-28).

None of the regional infrastructure options would result in new significant adverse environmental effects (page 15-34). All infrastructure and pipelines would be located in areas where such facilities already exist, with the exception of a 30-inch transmission pipeline from the North Douglas Storage Tanks to the intersection of Grant Line Road and Glory Lane. This alignment will occur within an existing private unpaved roadway (page 15-35). Portions of the pipeline would occur in areas known to contain biological resources, such as wetlands and protected species habitat (page 15-35). As an alternative, construction of pipeline infrastructure of the currently undeveloped, off-site Cordova Hills storage tank site will also impact biological resources. Therefore, the local water line and the storage tanks would result in a significant and unavoidable impact to wetland resources and species supported by those wetlands. Mitigation BR-1 thru BR-9 is provided in Chapter 6, Biological Resources (page 6-28 thru 6-29; page 6-51 thru 6-52; 6-57; 6-61) to reduce impacts.

For non-potable water supply, the proposed project will involve an interim connection to an on-site non-potable water system. When the County's future reclaimed water transmission system becomes available, the project connection to the on-site non-potable system will be terminated and the reclaimed water will be distributed through the separate non-potable pipe network. Construction activities associated with the non-potable pipe network will take place within the project boundaries. The reclaimed water system will be laid out within arterial and collector streets and connect to irrigated land uses within the project area (page 15-25). Infrastructure impacts would not occur outside the project boundary (page 15-26).

Capacity: A Water Supply Master Plan (WSMP) was prepared for the project to determine whether project water demands would be met by the SCWA. The projected annual water demand for the entire project is 6,549.9 acre-feet per year (AFY) (pages 15-46 thru 15-47, Table PU-3). As identified in the Water Forum Agreement and the WSMP, the SWCA has appropriative rights to 40,900 AFY in the underlying groundwater in the Central Basin and from three sources of surface water totaling up to 61,251 AFY (page 15-46; page 15-51). Approximately 102,151 AFY would be supplied to Zone 40. While the project would add to the overall demand for water within the Zone 40 services area, it would not require water beyond the service area's projected supplies (page 15-46). Demands will be met by a combination of groundwater and surface water delivered by SCWA through the North Vineyard Well Field, the NSAP, and the Anatolia Raw Water Pipeline Conversion (page 15-28 thru 15-34).

Sewer Conveyance/Treatment: Infrastructure. For sewer conveyance and treatment, the proposed project will rely on annexation into both the SASD and SRCSD service boundaries. The SRCSD 2000 Master Plan included a 20 million gallons per day (mgd) regional interceptor pump station to collect flows from the Upper Deer Creek (DCU) shed, which includes the Cordova Hills area. A 2.02 mgd pump station is proposed to serve the first phase of the project. It is sited in the southwestern portion of the project site (page 15-38). Because this pump station would be located in an area already impacted by the project development, and the construction of all other pump stations and lines would be built within the project area, no adverse utility-related impacts would result. All other local on-site infrastructure would occur within the project boundary (page 15-39.)

With the exception of one on-site regional line, (POC-4 shown on Plate PU-8, Sewer Infrastructure Plan) all other regional lines are located in areas designated for developed uses. One regional line is being routed through an off-site area, but wetland delineations, cultural resource surveys, and other resources studies have not been conducted for the area. Although impacts would vary depending on the chosen alignment, it is assumed construction of this line can avoid cultural resources impacts, but may result in wetland impacts that are significant and unavoidable. Mitigation BR-1, BR-3, BR-4, BR-5, BR-7, BR-8, and CR-1 are provided in Chapter 6, Biological Resources (pages 6-28 thru 6-57) and Chapter 8, Cultural Resources (page 8-29) to reduce impacts.

Capacity. On an interim basis, the proposed project would utilize capacity at existing facilities. According to the SRCSD 2000 Master Plan, the 2006 CSD-1 Sewerage Facilities Expansion Master Plan, and the SASD/SRCSD Strategic Plan, service to Cordova Hills is not constrained. The SRWTP has a permitted average dry weather flow design capacity of 181 mgd and wet weather flow of 392 mgd. There is sufficient treatment capacity to accommodate sewage from the project without the need for facility expansion (page 15-38 and 15-49). The project will not exceed existing or planned disposal and conveyance capacity, and it not expected to impact the SRCSD's service levels.

Electrical/Natural Gas: Infrastructure. For energy services and dry utilities, the Sacramento Municipal Utility District (SMUD) would provide service. The majority of all on-site electrical transmission line construction would occur within road right-of-ways already impacted by the project. Off-site electrical lines would occur along public right-of-ways and within public utility easements. Off-site impacts may occur because some impacts have not been evaluated as part of the SMUD master plan. Construction activities would occur at existing electrical line poles and near wetlands located along the eastern side of Grant Line Road. Because environmental studies have not been conducted, it is possible that impacts will occur as part of the line upgrades (page 15-43). SMUD would act as the lead agency on the utility upgrades and would evaluate impacts in a separate environmental analysis, consistent with CEQA. Therefore, there is the potential that off-site

electrical line construction would result in impacts to biological resources that are significant and unavoidable. These impacts are described in more detail in Chapter 6, Biological Resources.

For natural gas, services would be provided by Pacific Gas & Electric Company (PG&E;) an investor owned utility, not subject to LAFCo purview.

Capacity. Energy usage for the project indicates the estimated annual residential and commercial electricity demand for the project will be 122,903,000-kilowatt hours. Because the estimated energy usage of the project is substantially less than the annual energy production for SMUD, the electrical energy service provider will have sufficient capacity to serve the project.

4. **Agricultural Lands** – (DEIR, Chapter 4, Agricultural Resources) As noted in our February 21, 2011 comment letter, the analysis should include a discussion of current agricultural uses and activities within and adjacent to the project area. LAFCo is required to make findings regarding five tests of “prime agricultural land” as defined by Government Code §56064. The DEIR needs to provide information regarding such lands to permit LAFCo to make these findings as a responsible agency. The DEIR correctly notes that no high value agricultural resources are located within the project area, and that no adverse effects to such resources would result. The following summarizes the project area agricultural uses and the information supporting the five tests that determine the presence of “prime agricultural land.”

Agricultural Uses

The impact analysis discusses whether the proposed project would conflict with existing agricultural use and zoning. The Sacramento County General Plan designates the project site as General Agriculture (80 acres). It is zoned for AG-80 agricultural uses (page 4-1 thru 4-2, Plate AR-1). The site consists of grassland, used for cattle grazing. There was a small eucalyptus grove on the southwest quadrant of the site that was cut down several years ago. That portion of the site was designated as Unique Farmland. The remainder of the site is classified as Grazing land, as displayed on Plate AR-2, Farmland Classifications. There are no other intensive agricultural uses on the site (page 4-1). Surrounding land uses to the north, east, and south of the site are zoned for agricultural uses (AG-80 and AG-20). The project requests a Zoning Ordinance and General Plan amendment to ensure the proposed land uses are consistent with the County’s General Plan and Zoning Ordinance.

Williamson Act Land: The DEIR addresses the presence of any lands protected by a Williamson Act contract. Approximately 480 acres in the southeastern quadrant of the site are under a Williamson Act contract (Plate AR-4, Williamson Act Contracts in Vicinity). The landowner initiated the non-renewal process for the contract in February 2007. Under the non-renewal process, the contract is expected to expire in 2016 (page 4-1). At that time, the land would no longer be subject to the Williamson Act contract.

The project includes a large-lot subdivision map that would create parcels that range from less than one acre to approximately 35 acres. Pursuant to the Subdivision Map Act, subdivision maps involving parcels less than 40 acres in size cannot be approved on contracted lands unless the contract is three years from nonrenewal or findings are made. Because the on-site contract will expire in 2016, approval of the subdivision map could occur in early 2013. If the Board of Supervisors makes findings pertinent to the subdivision proposal, defers the effective date of the rezone until contract expiration, and grazing is continued until the expiration date, the project would not result in significant conflicts with the Williamson Act (page 4-16). Mitigation AG-2 would further reduce these impacts to a less than significant level.

Important Farmlands: The DEIR discusses the FMMP classification according to the Department of Conservation (DOC) Important Farmlands Map. The majority of the project area consists of Grazing Land, but includes a small area within the project site classified as Unique Farmland. The small area was designated Unique Farmland because a small eucalyptus grove used to be planted at the location. Because the grove no longer exists, the DOC may redesignate this portion of the site during the next farmland mapping update (page 4-11). While the project would not result in the loss of prime agricultural land or protected agricultural lands, the DEIR did evaluate the countywide trend of agricultural loss in Chapter 18, Cumulative and Growth-Inducing Impacts. The cumulative analysis discusses the loss of 2,660 acres of Grazing Land and nine acres of Unique Farmland (page 18-6).

Soil Types: The DEIR summarizes the types of soils found within the project area according to the Natural Resource Conservation Service (NRCS) land use capability classification and Storie Index rating from the DOC, Soil Survey of Sacramento County. This analysis determines the presence or absence of “prime agricultural land” as defined by Government Code §56064. As shown on Plate AR-5 (page 4-13), there are 16 different soil types within the project boundaries. Four soils on the site are listed as prime soils (i.e. 132, 158, 160, 192), if irrigated. These soils are hatch-marked on Plate AR-5. The Storie Index rating for these soils are 66, 61, 46, and 51. The Storie Index expresses the relative suitability of soil for general intensive agricultural or rangeland uses on a scale of zero to 100, with 100 being the best soil suitability (page 4-12). Therefore, only four of the sixteen soil types are considered prime, if irrigated. While there are wells on the site to provide water for cattle, the site has not been irrigated; thus, none of the soils would qualify as a prime soil. All four soil types exhibit moderate soil suitability.

Irrigated Capability Classes: The land use capability classes are listed according to Roman numerals I thru VIII, with the first four representing land suitable for crops and the last four representing land suitable for pasture or rangeland uses. Within the project area, the land use capability classes range from III, IIIw, to IIIe (page 4-12). The limitations on use increase as the Roman numeral increases. The letter “e” indicates that the soils are subject to erosion, the letter “s” indicates that soils are shallow and/or rocky, and the letter “w” indicates excess wetness. The four soil classes described are only considered prime farmland, if they are irrigated. As discussed above, the site has not been irrigated. The topography of the site is highly varied (i.e. slopes of 30% – 50%), which would make installation of an irrigation system expensive and difficult to operate. Also, the area containing prime soils is small relative to the site as a whole; approximately 170 acres out of 2,669, or 6% (page 4-12).

Agricultural Economic Value: Because some historical agricultural uses are present within the project area, for each use or operation the DEIR determined if the use supports, at a minimum, one Animal Unit (AU)/acre or has returned, or would return if planted with fruit or nut bearing trees, an agricultural value of at least \$400/acre for 3 of the last 5 years. With the exception of the small eucalyptus grove, there are no agricultural crops harvested within the project site. This indicates the site was mainly used for cattle grazing and supports one head of cattle for every 15 acres. Cattle grazing is not considered an intensive agricultural investment because the cattle are not densely concentrated.

5. **Public Services** – (DEIR Chapters 14, Public Services) – LAFCo requires the public services evaluation to focus on whether any physical facilities would need to be constructed to serve the project, including those outside of the project site, whose construction could have environmental effects. The majority of

the project area is located within the USB. The portion of the project that occurs outside the USB does not include any residential or retail uses, but it does include the sports parks and corporation yard. None of the project area is within the UPA. In order to receive public services, the project must be within both the UPA and USB. Therefore, the project includes a General Plan Amendment to move the UPA to include approximately 2,366 acres of the project site (page 14-1). The following discusses the overall impacts that could result from construction new facilities, such as parks, schools, libraries, sheriff stations, fire stations, and solid waste facilities that would be needed to serve the Cordova Hills project.

Recreation

For recreation services, the project area would detach from the Sacramento County Regional Parks Department County Service Area 4B and a newly created Cordova Hills CSD would provide recreation services. Detachment from the Sacramento County CSA 4B would require LAFCo discretionary action.

The DEIR evaluates whether the park facilities distributed throughout the project area would meet Quimby Act and Sacramento County General Plan park standards (page 14-23 thru 14-24). Cordova Hills will generate an estimated population of approximately 21,379 residents, requiring a minimum park dedication requirement of 106.9 acres. The proposed project would include 99.1 acres of formal parkland, and an additional 151 acres of informal parkland. The analysis concludes that with the implementation of parks identified in the Cordova Hills Master Plan Special Planning Area, adequate recreation resources would be provided to meet County standards, and the cost of park maintenance would be fully covered by the proposed CSD special tax assessment (page 14-26). The DEIR concludes that because the project is consistent with the Quimby Act and the General Plan park standards, the project will not increase demand for existing park services.

LAFCo is statutorily required to evaluate whether the County (or proposed CSD) has the service capability and capacity to serve the project area, and also whether they can provide services to the project area without adversely affecting existing service levels elsewhere in their service area.

Additionally, LAFCo must evaluate whether the deletion of territory now served by the Sacramento County Regional Parks Department County Service Area 4B would lead to an adverse impact on current CSA 4B users or facilities resulting from any related loss of tax revenues, thereby diminishing the ability of the County to deliver adequate services within the remaining service area of CSA 4B. Adequate information on any such loss of tax revenue is not presented in the DEIR. The County or project proponents will need to provide sufficient information to LAFCo to evaluate these questions prior to the Commission's consideration of any related detachment or district formation.

Therefore, LAFCo requests the County evaluate whether the deletion of the territory now served by the Sacramento County Regional Parks Department County Service Area 4B would lead to the loss of tax revenues, thereby diminishing the ability of the agency to deliver adequate services within their remaining service areas.

Consideration should be given to the evaluation of regional park resources in the context of the adequacy of regional park resources on a regional basis to serve existing and projected populations, and the project's effect on the adequate provision of such resources. Also, the DEIR should further discuss information that supports the document's environmental conclusion regarding the adequacy of fees or other sources of revenue to support the development of any new needed regional park facilities, and/or the maintenance of existing facilities.

Schools/Libraries

Neither service is subject to LAFCo purview.

Law Enforcement/Fire Protection

For law enforcement and fire protection services, the Sacramento County Sheriff's Department (SSD) and the California Department of Forestry and Fire Protection (CalFIRE) and the Sacramento Metropolitan Fire District (SMFD) would provide fire protection and emergency services. The proposed project includes a maximum of 8,000 residential units for a population of approximately 21,379 residents. Funding for increased law enforcement services would be provided through the County General Fund and the County Police Services Community Facilities District 2005-1 (CFD 2005-1) annual special tax. Compliance with General Plan goal and policies supporting law enforcement facilities, programs, and neighborhood security measures (page 14-21) would ensure the Sheriff's Department adequately serves new growth. The project includes sites for one or two fire stations to serve the project and adjacent development. It is anticipated that the station will require a truck, engine, and medic company. With adherence to existing regulations and the construction of new fire facilities, impacts associated with fire protection services will be less than significant (page 14-19).

6. **Natural Resources/Open Space** – The February 2011 NOP comment requested the DEIR include an evaluation of any open space resources as defined by Government Code §65560 that are located within or adjacent to the project area. While LAFCo had requested a separate evaluation on open space resources, such as a discrete impact statement, there is adequate information in Chapter 6, *Agricultural Resources*, to make findings for our Commission. Therefore, we request no changes to the EIR to address this issue.
7. **Environmental Justice** - State law requires LAFCo to consider the extent to which the project will promote environmental justice. "Environmental justice" means the fair treatment of people of all races, cultures, and incomes with respect to the location of public facilities and the provision of public services. The February 2011 NOP comment letter requested the DEIR evaluate environmental justice effects that could occur as a result of implementing the proposed project. The DEIR does not evaluate potential environmental justice effects related to the project. In order for LAFCo to comply with its statutory responsibilities with respect to environmental justice, we request that this issue area be addressed in the Final EIR.

We look forward to continuing our coordination with all interested parties regarding this project. Please contact me if you have any questions.

Very truly yours,

SACRAMENTO LOCAL AGENCY FORMATION COMMISSION



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Larry Greene

AIR POLLUTION CONTROL OFFICER

Hand-Delivered and Via Email

February 22, 2012

Ms. Lauren Hocker
Sacramento County
Department of Environmental Review and Assessment
827 7th Street, 3rd Floor
Sacramento, CA 95814

Subject: Cordova Hills Draft Environmental Impact Report
SMAQMD #: SAC200600987

Dear Ms. Hocker:

Thank you for the opportunity to review and comment on the Cordova Hills Draft Environmental Impact Report (DEIR). Staff of the Sacramento Metropolitan Air Quality Management District (District/SMAQMD) thanks the County and applicant for working with us early and often, especially during the development of the 35% Operational Air Quality Mitigation dated June 1, 2011 and Greenhouse Gas Reduction Plan dated May 2011 (AQMP, and GHG Plan, accordingly) that we determined to be technically adequate in June 2011 (documents and determination letters are attached).

District staff applauds the County in its clear presentation in the air quality, land use, and climate change chapters; in particular, the County's GHG thresholds of significance analysis and its explanation that its thresholds were modified mid-stream while the County was preparing the EIR. Also, the District concurs with the County's decision to require an AQMP to reduce ozone precursor emissions by 35%,

as opposed to the standard 15%, as feasible mitigation since the emissions from the Cordova Hills project were not included in the State Implementation Plan to achieve the federal health based standards.

The project originally contemplated included the early development of key aspects of the University of Sacramento (University) campus component. As the District has indicated to County staff, as well as the project applicant, the University and its phasing played a pivotal role in the District's determination that the AQMP Plan met 35% mitigation requirement, and that the GHG Plan met the County's thresholds in place at that time. It was the District's understanding, based on discussions with the applicant, that construction of the overall project phases would be conditioned on the early construction of the Campus so that the integrity of the AQMP and GHG Plan analysis and conclusions would be protected.

The DEIR now anticipates development of a "University/College Campus" that appears to conceptually maintain the elements of the original University of Sacramento plan, but the DEIR contains no conditions requiring early development of the Campus, and in fact appears to anticipate that the Campus may not be built for 30 years. A letter from SACOG to Mr. Ron Alvarado representing Cordova Hills (attached) affirms our understanding that the County would require appropriate phasing. The SACOG letter states: "Cordova Hills indicated in a recent discussion that if Sacramento County approves an entitlement for the project it is very likely that it will attach a condition requiring the construction of the university before other substantial construction can occur."¹

If there is no early Campus development commitment, the DEIR should be recirculated with an analysis of project impacts that assumes the Campus is not constructed. Without the Campus, the existing air quality analysis misstates and underestimates the project's emissions because it assumes reductions associated with or generated by the Campus component, and these reductions may never occur. *Absent an early development commitment, the District's determination of technical adequacy for the GHG and AQMP plans is null and void.*

¹ McKeever, Mike. Letter to Ron Alvarado. October 7, 2011.

The impact of the loss of the Campus component on the GHG Plan is plain. The GHG analysis and GHG Plan are based on the applicant's detailed project description that included 21,379 residents in 8,000 dwellings and over 4,000 students that would live in the 1,010 small, efficient, high density, alternative energy-producing dorm rooms on campus, and that the University would not allow first year students to maintain vehicles on campus. Collectively, these and many other promised features of the University acted to conserve resources and generate fewer GHG emissions than most projects of a comparable population. These detailed characteristics and emission reduction measures were embedded in the calculation that yielded a 5.8 MT CO₂e per capita efficiency. Without a Campus, for example, the density of the project would be reduced from an overall net density of 10.4 dwelling units per acre to 8.9 dwelling units per acre, which would impact the per capita emission calculation and prevent the project from achieving the reductions to which it has committed.

The impact on the AQMP is equally plain. A full 25% of emissions reductions are attributed to the relatively high internal trip capture rate, which was achievable through the diverse mix of uses including the presence of a functioning Campus.

We make the following recommendations to specific mitigation measures **only if an early Campus development commitment is included in the FEIR and project approval, and an acceptable phasing agreement is developed.**

1. CC-1 should be modified to make it clear that any amendments to the Cordova Special Planning Area must maintain 5.80 MTCO₂e/capita max for the entire project (not just that parcel) and that the parties consult with the District during the amendment process. Our suggested changes appear in red underline:

CC-1. All amendments to the SPA shall include an analysis which quantifies to the extent practicable, the effect of the Amendment on greenhouse gas emissions for the entire project. The amendment shall not increase greenhouse gas emissions above an average 5.80 MT [CO₂e] per capita (including emissions from building energy usage and vehicles) for the entire Cordova Hills project. The proponent shall consult with the SMAQMD on the revised analysis and shall prepare a revised GHG Plan for approval by the County, in consultation with SMAQMD.

2. Currently, the Climate Change chapter on page 27 states that GHG reduction measures need not be imposed as a mitigation measure because “they are design features already embedded in the SPA...” Our experience has shown us that well intended mitigation may not be implemented because it gets overlooked or buried as projects build out. So, with the goal of providing a clear path linking the mitigation measures to the MMRP and then to actual implementation by a developer/contractor, we suggest that the County include a mitigation measure specifically requiring compliance with the GHG Plan as well as all other feasible and reasonable mitigation measures to which the applicant has committed. We request that the County include the following new mitigation measure:

CC-2: The GHG Plan, dated May, 2011 shall be consulted and implemented at every phase as the project builds out. The measures are as follows...

3. In December 2011, a federal judge granted a preliminary injunction against California’s low carbon fuel standard. We suggest that the EIR discuss the possibility that certain statewide greenhouse gas reduction rules may be rescinded, and discuss the potential impact on the emissions reductions efforts of the Cordova Hills project.
4. The County should include a new mitigation measure requiring a revised AQMP be approved by the County in consultation with the District.

AQ-5: All amendments to the SPA shall include an analysis which quantifies to the extent practicable, the effect of the Amendment on ozone precursor emissions for the entire project. The amendment shall not increase ozone precursor emissions above what was considered in the AQMP for the entire Cordova Hills project. The proponent shall consult with the SMAQMD on the revised analysis and shall prepare a revised AQMP for approval by the County, in consultation with SMAQMD.

5. As suggested in underline and strikeout, please clarify the following statement on page 5-20 regarding operational ozone precursor reductions to indicate that emissions reductions have not yet taken place:

~~With the construction of the Campus component during the early phases Emissions reductions were accomplished through the production of an Air Quality Management Plan⁹ (AQMP), which was designed to, the Cordova Hills project will achieve a minimum 35% emissions reduction under the AQMP (per guidance from SMAQMD, indicating that this represents the feasible mitigation that should be applied).~~

6. Currently, AQ-1 states that the Special Planning Area will be revised to "include language requiring all individual development projects to implement SMAQMD rules and mitigation pertinent to construction-related ozone precursors, as defined by the most current version of the SMAQMD Guide to Air Quality Assessment." As a backstop, we suggest including our current construction mitigation language, along with a statement that the project must comply with SMAQMD's mitigation in force at the time the project goes to build/becomes operational in case the mitigation requirements change.
7. Finally, the Cordova Hills circulation plan- in particular its access policy- should be carefully crafted in order to support goals of the Capital South East Connector Project.

In conclusion, the proper phasing of this project and development of a functioning University/College Campus are keys to ensuring that air quality and greenhouse gas mitigations are achieved. If there is no early Campus development commitment, the DEIR should be recirculated with an analysis of project impacts that assumes the Campus is not constructed. In the absence of a condition requiring early development of the Campus, the District will withdraw its approval of the AQMP and GHG Plans, because the revised project constitutes a significant change in the project analyzed in those Plans, and a new GHG and AQMP Plan should be developed in consultation with SMAQMD staff.

Again, we would like to thank the County and applicant for working with us early and often. We look forward to working in future to ensure greenhouse and ozone precursor reductions are achieved.

Sincerely,



Larry Greene
Executive Director
Sacramento Metropolitan Air Quality Management District

C: Tricia Stevens, Sacramento County Planning
Surinder Singh, Sacramento County Planning

Attachments:

Cordova Hills Greenhouse Gas Reduction Plan (May 2011)
Letter of Technical Adequacy for the Greenhouse Gas Reduction Plan (June 2, 2011)
Cordova Hills Operational Air Quality Mitigation Plan (June 1, 2011)
Letter of Endorsement for the Operational Air Quality Mitigation Plan (June 2, 2011)
Correspondence from Mike McKeever of SACOG to Ron Alvarado Representing Cordova Hills
(October 7, 2011)

June 2, 2011

Ms. Lauren Hocker
Sacramento County
Department of Environmental Review and Assessment
827 7th Street, 2nd Floor
Sacramento, CA 95814

**Subject: Cordova Hills Greenhouse Gas Mitigation Plan- determination of technical adequacy
SAC200600987**

Dear Ms. Hocker:

SMAQMD has reviewed the May 2011 Cordova Hills Greenhouse Gas Mitigation Plan (GHG Plan, version received June 1, 2011) as well as its accompanying technical analysis. The GHG Plan narrative sufficiently describes the commitments which will allow Cordova Hills to meet the greenhouse gas CEQA threshold expectations that the County currently requires of the project. In addition, SMAQMD finds the GHG Plan technical analysis suitable for CEQA purposes. SMAQMD wishes to thank the County, and particularly the proponent, for their close consultation with SMAQMD throughout the development of the Plan.

SMAQMD would like to note that the County released revised greenhouse gas CEQA thresholds in mid-April 2011. Because this GHG Plan was developed over a long period of time, the County has allowed the proponent to use the previous thresholds. We would like to point out that the project would not meet the new thresholds, nor does it meet three thresholds currently required individually (instead, the project meets a threshold that combines all three into one). These facts are clearly and satisfactorily disclosed in the GHG Plan narrative.

In order for the Cordova Hills development to achieve the actual reductions committed to in this GHG Plan, each measure and policy must be codified in one or more of the following documents: development agreement, master plan, mitigation and monitoring report, urban services plan, financing plan, etc. Successful implementation will be verified by site visits and lead agency consultation. If any measure becomes obsolete or are no longer applicable, please contact us for assistance in identifying replacements.

Again, we thank the County and proponent for working so closely with us. Please do not hesitate to contact me if you have any questions or comments.

Sincerely,



Rachel DuBose
Air Quality Planner/Analyst
Sacramento Metropolitan Air Quality Management District (SMAQMD)

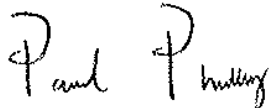
C: Mark Hanson, SBM Corp
Cathy Baranger, William Hezmalhalch Architects, Inc.
Larry Robinson, Sacramento Metropolitan Air Quality Management District (SMAQMD)
Jeane Berry, Sacramento Metropolitan Air Quality Management District (SMAQMD)

Statement of Endorsement

The above operational Air Quality Mitigation Plan for the project known as Cordova Hills (SAC200600987) has been found by the Sacramento Metropolitan Air Quality Management District to be consistent with the District's *Recommended Guidance for Land Use Emission Reductions v2.5* and meets the recommended level of emissions reduction for this type of project.

The District anticipates that implementation of the Mitigation Measures described in the plan will lead to a 35.32 percent or greater reduction in operational criteria emissions from the project.

Endorsed this 2nd day of June, 2011



Paul Philley, Associate Air Quality Planner | Analyst
Sacramento Metropolitan Air Quality Management District
777 12th Street, 3rd Floor
Sacramento, CA 95814
pphilley@airquality.org
916-874-4882

October 7, 2011

Ron Alvarado
Partner
Conwy LLC
5241 Arnold Avenue
McClellan, CA 95652

Dear Mr. Alvarado:

We appreciated the opportunity to meet with you again last week to discuss the Cordova Hills project. As we discussed, SACOG has received several letters regarding Cordova Hills—we have identified four letters since 2007. In each case, the letters either followed up on, or resulted in, a meeting between SACOG and members of the Cordova Hills project team. SACOG staff, and I personally, also have had numerous other meetings and telephone calls with the Cordova Hills project team over the last few years. As I think you have acknowledged, SACOG has been willing to meet and discuss the project on all occasions. As a consequence, until last week we did not believe that there were any outstanding requests for information, meetings, or written responses. In fact, as discussed below, based on our conversation in August 2010, I believed that you understood and accepted SACOG's decision not to include Cordova Hills in the three Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) alternatives that were going to be vetted in the public workshop process last fall. In light of the foregoing, I am sending this letter only in response to your specific request last week that we put in writing the issues we have discussed in our many meetings. The letter provides a brief summary of the main questions and concerns we have raised about the suitability of including Cordova Hills in this MTP/SCS update cycle.

I will first say that in our many conversations about Cordova Hills we have noted several elements of the evolving land use plan and transportation system that we thought were consistent with SACOG's priorities, and we have made suggestions for refinements to the plan. The plan in its current form contains many elements that are consistent with principles we encourage our members and members of the development community to follow. We were particularly pleased to learn recently that you intend your project to be consistent with the smart growth criteria in the County draft updated General Plan. Notwithstanding the positive elements in the current plan, for over a year we have indicated that we did not believe Cordova Hills, at this juncture, would meet the criteria for inclusion in the current update to the Metropolitan Transportation Plan, which will for the first time include a Sustainability Communities Strategy that implements SB 375, a new state law.

In June 2010, SACOG published a memorandum titled "Method for Developing MTP Update Growth Projections" to help our members and stakeholders understand the federal and state rules, and SACOG priorities when developing the land use component of the MTP/SCS. Rather than repeat the examples of market and regulatory/policy issues that we address through this process, I am reattaching the memorandum for your information and reference.

Many in the development community who read this memorandum indicated that they better understood how we do our best to take into account all of the relevant market and regulatory/policy considerations that together drive the estimate of the likely future growth pattern for the planning period (2035 in this case). Many developers specifically acknowledged the limitations SACOG had including their project in this plan update, but wanted to work with us to develop a clear process for adding more lands to the plan in future updates. As mentioned above, you told me on August 10, 2010, after reading this memorandum that you could not argue with SACOG's decision not to include Cordova Hills in the three alternatives that were going to be vetted in the public workshop process that fall, but instead would work with us and hope to be included in the next update four years hence. Last week you stated that you would not have told me that had you understood the relevance of that decision to the SCS. Although we have tried to be clear about the integral connection between this MTP update and the SCS (a point that is made throughout the memorandum), I understand that SB 375 is a new law and that we are all climbing a learning curve as we implement it for the first time. For that reason, we have tried to make it very clear in our print materials and in the verbal presentations used in dozens of public focus groups and workshops, as well as at regular briefings with our Board and Committees over the last two years, how integrally connected the MTP and SCS would be.

The 2035 MTP/SCS is based on a growth forecast that projects a need to build approximately 300,000 new housing units in the six-county region by 2035. This forecast is lower than the one underpinning the current MTP by 145,000 housing units. This means that SACOG must find that many units to *subtract from* the projected growth pattern in the currently adopted MTP. This is a unique situation in this particular plan cycle, and it creates a very high bar for new projects to be added in this update that are not in the current MTP. The approximately 300,000 new housing units preliminarily identified to be included in the updated plan are located within developing communities, established communities, and centers and corridors. These communities have a planned capacity for approximately 500,000 units, which is nearly 70% of capacity beyond the projected 300,000 units of construction by 2035.

We consider a wide range of variables in trying to answer, to the best of our ability, the straightforward question: At this time, does it appear that Cordova Hills is more likely to be constructed during the 2035 planning horizon than the 300,000 plus units of housing projected to be built in our current draft—but also should it be preferred over the more than 150,000 housing units of additional capacity in other greenfield projects in various stages of planning around the region that also are not included in our draft plan documents? Many of these 150,000 other housing units not presently in the draft plan are in developments that have been included in locally adopted plans for some time, and some have either no, or relatively minor, outstanding federal permit issues.

Beyond the regional market demand and supply issue, the key questions and concerns specific to Cordova Hills that we have raised many times with you are briefly repeated below.

- **Federal Permits.** Both the U.S. Army Corps of Engineers and U.S. Fish and Wildlife Service have jurisdiction on these lands through the Clean Water Act and Endangered Species Act. When asked to characterize the likelihood of securing the necessary federal permits under these two laws, Cordova Hills responded “it’s going to be a war.” While

that was obviously not to be taken literally, it unfortunately accurately foreshadowed the level of concern those two agencies have about this project. It also partially explains why, when the Blueprint map was adopted by the SACOG Board in December 2004, Sacramento County requested that a significant portion of the Cordova Hills site remaining as open or natural space. Moreover, while the County is working hard on the South Sacramento Habitat Conservation Plan (SSHCP), that document is not completed. One of the primary remaining outstanding issues relates to whether, and how, its resource conservation needs can be met for the Cordova Hills property given the current development plan. SACOG is a strong supporter of the SSHCP and we very much hope that it reaches a successful conclusion soon. However, recent conversations with the federal agencies confirm that there are substantial unresolved issues on the Cordova Hills site, especially that portion showing a planned 900,000 square foot commercial center fronting Grant Line Road and located in the heart of what the federal agencies consider to be a valuable vernal pool complex. The timing of the construction of Cordova Hills will remain in considerable doubt until these federal issues are resolved.

- **Commercial Center and Economic Viability.** While many aspects of the current land use plan have evolved and are now focused on building a self-contained and self-sustaining community (i.e., on-site housing substantially targeted at university students, staff, and faculty, and a series of paths to promote walking, biking, and the use of neighborhood electric vehicles for travel within the site), the large commercial center stands out as the exception. Project representatives repeatedly have said that it is sized and located not only to serve the needs of on-site residents, but a larger regional market, and have acknowledged that this will create longer distance car trips to the site. We have repeatedly raised questions about the market feasibility of a 900,000 square foot regional shopping center at that location, citing our studies showing that the region has an over 70-year supply of retail zoning now, including many other projects in the same general area that are also planning large quantities of retail. Cordova Hills consistently has told us that Cordova Hills is not economically viable without a large, regional shopping center. It has further indicated that because a large, regional shopping center on that site must have direct access to Grant Line Road it cannot be relocated to eliminate or reduce the impacts on the natural resources that the federal agencies are concerned about. Consequently, the retail center design and location creates a kind of double-bind for the project's feasibility. Our data lead us to be skeptical that the needed market demand to serve it will materialize. And it seems far from certain at this time that the project will be able to secure the needed federal permits soon, as long as the location and scale of the shopping center remain unchanged. We have suggested that a shopping center downsized to focus just on the needs of the project's residents would have both a smaller footprint and would not need to be located on Grant Line Road, in the middle of the natural resources. Cordova Hills has consistently maintained that those changes would render the project economically unviable. At the moment, it is not clear how the hard trade-offs related to the retail center are going to be successfully resolved to the mutual satisfaction of all the relevant parties.

- **University.** The planned university is a key component of this project, of course. It would be a wonderful asset to the County and region were it to be built. It is one of the few large-scale, new employers that can realistically create a relatively self-contained community, if planned and designed well. Our concerns about the university have nothing to do with its benefits, but rather, again, the current prospects for its construction given the growth forecast during the planning horizon. Finding, financing, and constructing a private 6,000 student institution of higher learning rates very high on the degree of difficulty scale, especially in this economic environment. It has never been done in this region. Unfortunately, the planned institution, the University of Sacramento, recently withdrew their involvement in the project. We are aware that you are actively soliciting a replacement institution, but that you have not been able to secure a new commitment yet. Many of the short and multi-modal trips from the project will turn into longer distance car trips if the university is not constructed early in the project, or at all. Cordova Hills indicated in a recent discussion that if Sacramento County approves an entitlement for the project it very likely will attach a condition requiring the construction of the university before other substantial construction can occur. However, the uncertainty over whether a commitment from a 6,000 student, private university will be secured any time soon is another reason for us to conclude that, for this MTP/SCS update cycle, Cordova Hills does not meet the requirements we must follow to project a land use pattern that represents the most likely to be constructed for the region.

Given all of the above, SACOG staff has concluded, and continues to believe, that adding Cordova Hills to the MTP/SCS at this time is not justified, and that it would create risks for the timely adoption of the MTP/SCS and certification of the related EIR. I know you also understand that, since Cordova Hills was not included in the alternatives analysis, adding the project now would add several months, at a minimum, to our adoption process, with new public input, technical analysis, etc. required. It is important to emphasize, however, that most of the considerations listed here relate to practical obstacles that affect the suitability of including Cordova Hills in this plan update cycle. We certainly wish Cordova Hills the best in its worthy endeavor to secure a private university, and that it will be able to resolve the financial, transportation, and natural resources issues associated with the shopping center element of the land plan. Sacramento County appears headed towards adopting a new Growth Management Element to their General Plan, which will provide tighter linkage between projects approved according to their smart growth criteria and future MTPs/SCSs. As you know, we have supported the approach the Board of Supervisors tentatively approved last month—in particular, the important variables related to passenger vehicle greenhouse gas emissions and vehicle miles traveled that are so innovatively and effectively addressed through the smart growth criteria in the County draft plan. However, notwithstanding that support, federal and state law requires that the MTP/SCS be consistent with SACOG's regional forecast and its most reasonable estimate of what is likely to be built. We look forward to continuing our constructive discussions and reconsidering this proposal as it evolves and as our future plan updates include capacity for more years of growth, and presumably higher estimates for needed housing capacity in the region.

With regard to that final point, I want to reemphasize with you a portion of our discussion from last week. First, while I think we understand the general nature your concerns about including Cordova Hills in the MTP/SCS, you know that we do not agree with your conclusions about the

consequences of that determination. SB 375 was intended to create CEQA incentives for projects consistent with the MTP/SCS. We understand that Cordova Hills does not intend to avail itself of those benefits. Under those circumstances, SB 375 expressly states that the SCS does not regulate the use of land, does not supersede the exercise of local land use authority, and does not require a local government's land use policies and regulations, including its general plan, to be consistent with the MTP/SCS. Second, and perhaps most importantly, notwithstanding our strong commitment to facts and science, SACOG recognizes the limitations on our forecasting and modeling—we cannot predict market and regulatory forces with absolute certainty over a 20-year plus period. For this reason, the regular four-year updates of the plan are important. For the same reason, we understand that consistency with the MTP/SCS is not the only question regarding any project. Over the last decade, the region has embraced a Blueprint for growth in the region to 2050. We recognize that there are many projects consistent with that vision that, for a multitude and variety of reasons, will not be included in this MTP/SCS. Again, thank you for your time and we look forward to assisting you in the future.

Sincerely,

A handwritten signature in blue ink, appearing to read "Mike McKeever", with a stylized flourish at the end.

Mike McKeever
Chief Executive Officer

cc: Greg Thatch



February 21, 2012

LETTER 18

Lauren Hocker
Department of Environmental Review
827 7th Street, Room 220,
Sacramento, California, 95814

Subject: Cordova Hills Draft Environmental Impact Report (CN# 2008-GPB-SDP-ZOB-AHP-00142)

Dear Ms. Hocker:

Sacramento Regional County Sanitation District (SRCSD) has reviewed the Cordova Hills DEIR and determined that the sections on sewer service within this document contain inaccurate or outdated information. Please revise these sections based on the following comments:

The Cordova Hills area is located outside the SRCSD Service Area. This area will need to be annexed into the SRCSD Service Area through the Sacramento Local Agency Formation Commission (LAFCo) in order to receive sewer service from SRCSD. The annexation process is to be initiated by the project proponent, not SRCSD.

Once annexed, local sewer service for the proposed project area will be provided by Sacramento Area Sewer District (SASD). Conveyance from local trunk sewers to the Sacramento Regional Wastewater Treatment Plant (SRWTP) will be provided by SRCSD through large pipelines called interceptors.

SRCSD is in the process of finalizing an Interceptor Sequencing Study that will aid SRCSD in planning and implementing regional conveyance projects and assists SASD in coordinating collection system facilities.

SRCSD sewer systems are designed using predicted wastewater flows that are dependent on land use information provided by each land use authority. Sewer studies, including points of connection and phasing information will need to be completed to fully assess the impacts of any project that has the potential to increase existing or future flow demands. Please remove any reference in this document regarding previous sewer studies, as they will need to be updated to reflect the most current information within the SASD System Capacity Plan and SRCSD planning documents.

Customers receiving service from SRCSD are responsible for rates and fees outlined within the latest SRCSD ordinances. SRCSD fees for connecting to the sewer system are set up to recover the capital investment of sewer and treatment facilities that serves new customers.

SRCSD is not a land-use authority. Projects identified within SRCSD planning documents are based on growth projections by land-use authorities. Onsite and offsite impacts associated with constructing sanitary sewers facilities to provide service to the subject project must be included in this environmental impact report.

There are incorrect statements regarding the design of the SRWTP within the subject document. The SRWTP provides secondary treatment using an activated sludge process. Incoming wastewater flows through mechanical bar screens through a primary sedimentation process. This allows most of the heavy organic solids to settle to the bottom of the tanks. These solids are later delivered to the digesters. Next, oxygen is added to the wastewater to grow naturally occurring microscopic organisms, which consume the organic particles in the

RECEIVED

FEB 27 2012

DEPARTMENT OF ENVIRONMENTAL
REVIEW AND ASSESSMENT

Main Office

10060 Granite Road

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Sacramento Regional Wastewater

Treatment Plant

8521 Laguna Station Road

Elk Grove, CA 95758-0330

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Fax: (916) 873-9068

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Representing:**

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Director of Internal ServicesJoseph Maestretti
Chief Financial OfficerClaudia Goss
Public Affairs Manager

wastewater. These organisms eventually settle on the bottom of the secondary clarifiers. Clean water pours off the top of these clarifiers and is chlorinated, removing any pathogens or other harmful organisms that may still exist. Chlorine disinfection occurs while the wastewater travels through a two mile "outfall" pipeline to the Sacramento River, near the town of Freeport, California. Before entering the river, sulfur dioxide is added to neutralize the chlorine. The design of the SRWTP and collection system was balanced to have SRWTP facilities accommodate some of the wet weather flows while minimizing idle SRWTP facilities during dry weather. The SRWTP was designed to accommodate some wet weather flows while the storage basins and interceptors were designed to accommodate the remaining wet weather flows.

A new NPDES Discharge Permit was issued to Sacramento Regional County Sanitation District (SRCSD) by the Central Valley Regional Water Quality Control Board (Water Board) in December 2010. In adopting the new Discharge Permit, the Water Board required SRCSD to meet significantly more restrictive treatment levels over its current levels. SRCSD believes that many of these new conditions go beyond what is reasonable and necessary to protect the environment, and has appealed the permit decision to the State Water Resources Control Board. A decision on that appeal has not yet occurred. In the meantime, SRCSD is required to begin the necessary activities, studies and projects to meet the new permit conditions. All new treatment facilities must be completed by 2020. There are incorrect statements within the subject document regarding the permitted average dry weather flow (ADWF), permitted wet weather flow and the design capacity of the SRWTP. The SRWTP NPDES Permit adopted in December 2010 lists the permitted capacity as 181 mgd ADWF.

SRCSD currently owns and operates a 5-mgd Water Reclamation (WRF) that has been producing Title 22 tertiary recycled since 2003. The WRF is located within the SRWTP property in Elk Grove. A portion of the recycled water is used by SRCSD at the SRWTP and the rest is wholesaled to the Sacramento County Water Agency (SCWA). SCWA retails the recycled water, primarily for landscape irrigation use, to select customers in the City of Elk Grove.

The Cordova Hills DEIR's identified potential "Non-Potable Water" sources that could be used in its project area to meet non-potable water demands, e.g. landscape irrigation. SRCSD was referenced as a potential source of non-potable water, i.e. recycled water, in the *Non-Potable Water Master Plan for Cordova Hills (March 2011)*. It should be noted that SRCSD currently does not have any planned facilities that could provide recycled water to the proposed Cordova Hills project or its vicinity. Additionally, SRCSD is not a water purveyor and any potential use of recycled water in the project area must be coordinated between the key stakeholders, e.g. land use jurisdictions, water purveyors, users, and the recycled water producers.

If you have any questions regarding these comments, please contact me at 916-876-9994

Sincerely,



Sarena Moore
SRCSD/SASD
Policy and Planning

Cc: SRCSD Development Services, SASD Development Services, Michael Meyer, Dave Ocnosak, Prabhakar Somavarapu



Mother Lode Chapter

801 K Street, Suite 2700

Sacramento, CA 95814

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info@mlc.sierraclub.org — www.motherlode.sierraclub.org

Sent Via Email 2/22/12 2:45 p.m.

February 22, 2012

LETTER 19

Delta Sierra Group

Catherine Hack

Sacramento County Environmental Coordinator

Maidu Group

Department of Environmental Review and Assessment

827 7th Street, Room 220

Sacramento, CA 95814

Placer Group

Subject: Comments on the Cordova Hills Draft Environmental Impact Report

Sacramento Group

Dear Ms. Hack,

Shasta Group

Thank you for the opportunity to briefly comment on the DEIR for the Cordova Hills project. As a general comment, this is fundamentally a flawed project, located as it is on the fringe of the region's urban footprint, seven miles from light rail, surrounded by undeveloped land and outside the county's urban services boundary. Its remote location made it ineligible for inclusion in the Draft MTP/SCS; thus the project would hinder efforts of SACOG to achieve its targets under SB 375. The design of the project is inconsistent with efforts to develop the South Sacramento Habitat Conservation Plan since the proposed project would construct a shopping center in an important vernal pool area that federal agencies have indicated is needed for conservation under the SSHCP. In multiple ways the project fundamentally defies ongoing efforts by the region to achieve landscape level habitat conservation and responsible land use and transportation planning.

Sierra Nevada Group

Tahoe Group

Tuolumne Group

Yahi Group

Biological Resources

Yokuts Group

Much of the project's site is a high-value vernal pool area, a significant portion of which will be impacted by the project. An EIS will be required by USEPA, a 404 permit from the ACOE, and a Section 7 consultation with FWS, which must issue a favorable Biological Opinion. The EIS and these federal permits will dictate the final onsite habitat avoidance and offsite mitigation. While CEQA requires the provision of feasible mitigation, the DEIR defers mitigation for impacts to vernal pool wetlands and to listed species to future federal permits, thus denying key information to decision-makers and the public, violating the very essence of CEQA. A combined EIR/EIS would have presented a complete picture of avoidable and unavoidable impacts and complete information regarding how the project would avoid or mitigate for its impacts to biological resources.

Yolano Group

Representing 17,000 members in 24 counties in Northern and Central California

Alpine - Amador - Butte - Calaveras - Colusa - El Dorado - Glenn - Lassen - Modoc - Nevada - Placer - Plumas
Sacramento - San Joaquin - Shasta - Sierra - Siskiyou - Solano - Stanislaus - Sutter - Tehama - Tuolumne - Yolo - Yuba

Air Quality

The Sacramento Metropolitan Air Quality Management District noted in its letter dated June 2, 2011 that Cordova Hills had provided sufficient mitigation to reduce its emissions to meet the air district's guidelines. That determination was based in part on a university being part of the project, with a resulting positive effect on VMT. However, while the DEIR anticipates construction of the university during the initial phase, there appears to be no requirement that housing and commercial development proceed only if there is a commitment of a university to locate on the site and construction has begun.

In fact there are substantial reasons to doubt that the university component of the project will ever be a reality. A letter from SACOG dated October 7, 2011 and attached states, *"Finding, financing and constructing a private 6,000 student institution of higher learning rates very high on the degree of difficulty scale, especially in this economic environment. It has never been done in this region."* And the letter goes on to state that, *"Many of the short trips and multimodal trips from the project will turn into longer distance car trips if the university is not constructed early in the project, or at all."*

Given the expressed concerns of SACOG, air quality impacts must be assessed both with and without the university. In order for the project to meet the SMAQMD emissions requirements the project should achieve a 35% reduction in emissions both with and without a university.

For further comments on the DEIR, we incorporate by reference those of the Environmental Council of Sacramento (ECOS), which you have already received. Please keep me on your list of interested parties who will receive notices as the review process for Cordova Hills moves forward.

Sincerely,



Terry Davis | Director
Mother Lode Chapter Sierra Club
(916) 557-1100 ext. 108
terry.davis@sierraclub.org

Attachment: SACOG Letter of October 7, 2011

October 7, 2011

Ron Alvarado
Partner
Conwy LLC
5241 Arnold Avenue
McClellan, CA 95652

Dear Mr. Alvarado:

We appreciated the opportunity to meet with you again last week to discuss the Cordova Hills project. As we discussed, SACOG has received several letters regarding Cordova Hills—we have identified four letters since 2007. In each case, the letters either followed up on, or resulted in, a meeting between SACOG and members of the Cordova Hills project team. SACOG staff, and I personally, also have had numerous other meetings and telephone calls with the Cordova Hills project team over the last few years. As I think you have acknowledged, SACOG has been willing to meet and discuss the project on all occasions. As a consequence, until last week we did not believe that there were any outstanding requests for information, meetings, or written responses. In fact, as discussed below, based on our conversation in August 2010, I believed that you understood and accepted SACOG's decision not to include Cordova Hills in the three Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) alternatives that were going to be vetted in the public workshop process last fall. In light of the foregoing, I am sending this letter only in response to your specific request last week that we put in writing the issues we have discussed in our many meetings. The letter provides a brief summary of the main questions and concerns we have raised about the suitability of including Cordova Hills in this MTP/SCS update cycle.

I will first say that in our many conversations about Cordova Hills we have noted several elements of the evolving land use plan and transportation system that we thought were consistent with SACOG's priorities, and we have made suggestions for refinements to the plan. The plan in its current form contains many elements that are consistent with principles we encourage our members and members of the development community to follow. We were particularly pleased to learn recently that you intend your project to be consistent with the smart growth criteria in the County draft updated General Plan. Notwithstanding the positive elements in the current plan, for over a year we have indicated that we did not believe Cordova Hills, at this juncture, would meet the criteria for inclusion in the current update to the Metropolitan Transportation Plan, which will for the first time include a Sustainability Communities Strategy that implements SB 375, a new state law.

In June 2010, SACOG published a memorandum titled "Method for Developing MTP Update Growth Projections" to help our members and stakeholders understand the federal and state rules, and SACOG priorities when developing the land use component of the MTP/SCS. Rather than repeat the examples of market and regulatory/policy issues that we address through this process, I am reattaching the memorandum for your information and reference.

Auburn
Citrus Heights
Colfax
Davis
El Dorado County
Elk Grove
Folsom
Galt
Isleton
Lincoln
Live Oak
Loomis
Marysville
Placer County
Placerville
Rancho Cordova
Rocklin
Roseville
Sacramento
Sacramento County
Sutter County
West Sacramento
Wheatland
Winters
Woodland
Yolo County
Yuba City
Yuba County

Many in the development community who read this memorandum indicated that they better understood how we do our best to take into account all of the relevant market and regulatory/policy considerations that together drive the estimate of the likely future growth pattern for the planning period (2035 in this case). Many developers specifically acknowledged the limitations SACOG had including their project in this plan update, but wanted to work with us to develop a clear process for adding more lands to the plan in future updates. As mentioned above, you told me on August 10, 2010, after reading this memorandum that you could not argue with SACOG's decision not to include Cordova Hills in the three alternatives that were going to be vetted in the public workshop process that fall, but instead would work with us and hope to be included in the next update four years hence. Last week you stated that you would not have told me that had you understood the relevance of that decision to the SCS. Although we have tried to be clear about the integral connection between this MTP update and the SCS (a point that is made throughout the memorandum), I understand that SB 375 is a new law and that we are all climbing a learning curve as we implement it for the first time. For that reason, we have tried to make it very clear in our print materials and in the verbal presentations used in dozens of public focus groups and workshops, as well as at regular briefings with our Board and Committees over the last two years, how integrally connected the MTP and SCS would be.

The 2035 MTP/SCS is based on a growth forecast that projects a need to build approximately 300,000 new housing units in the six-county region by 2035. This forecast is lower than the one underpinning the current MTP by 145,000 housing units. This means that SACOG must find that many units to *subtract from* the projected growth pattern in the currently adopted MTP. This is a unique situation in this particular plan cycle, and it creates a very high bar for new projects to be added in this update that are not in the current MTP. The approximately 300,000 new housing units preliminarily identified to be included in the updated plan are located within developing communities, established communities, and centers and corridors. These communities have a planned capacity for approximately 500,000 units, which is nearly 70% of capacity beyond the projected 300,000 units of construction by 2035.

We consider a wide range of variables in trying to answer, to the best of our ability, the straightforward question: At this time, does it appear that Cordova Hills is more likely to be constructed during the 2035 planning horizon than the 300,000 plus units of housing projected to be built in our current draft—but also should it be preferred over the more than 150,000 housing units of additional capacity in other greenfield projects in various stages of planning around the region that also are not included in our draft plan documents? Many of these 150,000 other housing units not presently in the draft plan are in developments that have been included in locally adopted plans for some time, and some have either no, or relatively minor, outstanding federal permit issues.

Beyond the regional market demand and supply issue, the key questions and concerns specific to Cordova Hills that we have raised many times with you are briefly repeated below.

- **Federal Permits.** Both the U.S. Army Corps of Engineers and U.S. Fish and Wildlife Service have jurisdiction on these lands through the Clean Water Act and Endangered Species Act. When asked to characterize the likelihood of securing the necessary federal permits under these two laws, Cordova Hills responded “it’s going to be a war.” While

that was obviously not to be taken literally, it unfortunately accurately foreshadowed the level of concern those two agencies have about this project. It also partially explains why, when the Blueprint map was adopted by the SACOG Board in December 2004, Sacramento County requested that a significant portion of the Cordova Hills site remaining as open or natural space. Moreover, while the County is working hard on the South Sacramento Habitat Conservation Plan (SSHCP), that document is not completed. One of the primary remaining outstanding issues relates to whether, and how, its resource conservation needs can be met for the Cordova Hills property given the current development plan. SACOG is a strong supporter of the SSHCP and we very much hope that it reaches a successful conclusion soon. However, recent conversations with the federal agencies confirm that there are substantial unresolved issues on the Cordova Hills site, especially that portion showing a planned 900,000 square foot commercial center fronting Grant Line Road and located in the heart of what the federal agencies consider to be a valuable vernal pool complex. The timing of the construction of Cordova Hills will remain in considerable doubt until these federal issues are resolved.

- **Commercial Center and Economic Viability.** While many aspects of the current land use plan have evolved and are now focused on building a self-contained and self-sustaining community (i.e., on-site housing substantially targeted at university students, staff, and faculty, and a series of paths to promote walking, biking, and the use of neighborhood electric vehicles for travel within the site), the large commercial center stands out as the exception. Project representatives repeatedly have said that it is sized and located not only to serve the needs of on-site residents, but a larger regional market, and have acknowledged that this will create longer distance car trips to the site. We have repeatedly raised questions about the market feasibility of a 900,000 square foot regional shopping center at that location, citing our studies showing that the region has an over 70-year supply of retail zoning now, including many other projects in the same general area that are also planning large quantities of retail. Cordova Hills consistently has told us that Cordova Hills is not economically viable without a large, regional shopping center. It has further indicated that because a large, regional shopping center on that site must have direct access to Grant Line Road it cannot be relocated to eliminate or reduce the impacts on the natural resources that the federal agencies are concerned about. Consequently, the retail center design and location creates a kind of double-bind for the project's feasibility. Our data lead us to be skeptical that the needed market demand to serve it will materialize. And it seems far from certain at this time that the project will be able to secure the needed federal permits soon, as long as the location and scale of the shopping center remain unchanged. We have suggested that a shopping center downsized to focus just on the needs of the project's residents would have both a smaller footprint and would not need to be located on Grant Line Road, in the middle of the natural resources. Cordova Hills has consistently maintained that those changes would render the project economically unviable. At the moment, it is not clear how the hard trade-offs related to the retail center are going to be successfully resolved to the mutual satisfaction of all the relevant parties.

- **University.** The planned university is a key component of this project, of course. It would be a wonderful asset to the County and region were it to be built. It is one of the few large-scale, new employers that can realistically create a relatively self-contained community, if planned and designed well. Our concerns about the university have nothing to do with its benefits, but rather, again, the current prospects for its construction given the growth forecast during the planning horizon. Finding, financing, and constructing a private 6,000 student institution of higher learning rates very high on the degree of difficulty scale, especially in this economic environment. It has never been done in this region. Unfortunately, the planned institution, the University of Sacramento, recently withdrew their involvement in the project. We are aware that you are actively soliciting a replacement institution, but that you have not been able to secure a new commitment yet. Many of the short and multi-modal trips from the project will turn into longer distance car trips if the university is not constructed early in the project, or at all. Cordova Hills indicated in a recent discussion that if Sacramento County approves an entitlement for the project it very likely will attach a condition requiring the construction of the university before other substantial construction can occur. However, the uncertainty over whether a commitment from a 6,000 student, private university will be secured any time soon is another reason for us to conclude that, for this MTP/SCS update cycle, Cordova Hills does not meet the requirements we must follow to project a land use pattern that represents the most likely to be constructed for the region.

Given all of the above, SACOG staff has concluded, and continues to believe, that adding Cordova Hills to the MTP/SCS at this time is not justified, and that it would create risks for the timely adoption of the MTP/SCS and certification of the related EIR. I know you also understand that, since Cordova Hills was not included in the alternatives analysis, adding the project now would add several months, at a minimum, to our adoption process, with new public input, technical analysis, etc. required. It is important to emphasize, however, that most of the considerations listed here relate to practical obstacles that affect the suitability of including Cordova Hills in this plan update cycle. We certainly wish Cordova Hills the best in its worthy endeavor to secure a private university, and that it will be able to resolve the financial, transportation, and natural resources issues associated with the shopping center element of the land plan. Sacramento County appears headed towards adopting a new Growth Management Element to their General Plan, which will provide tighter linkage between projects approved according to their smart growth criteria and future MTPs/SCSs. As you know, we have supported the approach the Board of Supervisors tentatively approved last month—in particular, the important variables related to passenger vehicle greenhouse gas emissions and vehicle miles traveled that are so innovatively and effectively addressed through the smart growth criteria in the County draft plan. However, notwithstanding that support, federal and state law requires that the MTP/SCS be consistent with SACOG's regional forecast and its most reasonable estimate of what is likely to be built. We look forward to continuing our constructive discussions and reconsidering this proposal as it evolves and as our future plan updates include capacity for more years of growth, and presumably higher estimates for needed housing capacity in the region.

With regard to that final point, I want to reemphasize with you a portion of our discussion from last week. First, while I think we understand the general nature your concerns about including Cordova Hills in the MTP/SCS, you know that we do not agree with your conclusions about the

consequences of that determination. SB 375 was intended to create CEQA incentives for projects consistent with the MTP/SCS. We understand that Cordova Hills does not intend to avail itself of those benefits. Under those circumstances, SB 375 expressly states that the SCS does not regulate the use of land, does not supersede the exercise of local land use authority, and does not require a local government's land use policies and regulations, including its general plan, to be consistent with the MTP/SCS. Second, and perhaps most importantly, notwithstanding our strong commitment to facts and science, SACOG recognizes the limitations on our forecasting and modeling—we cannot predict market and regulatory forces with absolute certainty over a 20-year plus period. For this reason, the regular four-year updates of the plan are important. For the same reason, we understand that consistency with the MTP/SCS is not the only question regarding any project. Over the last decade, the region has embraced a Blueprint for growth in the region to 2050. We recognize that there are many projects consistent with that vision that, for a multitude and variety of reasons, will not be included in this MTP/SCS. Again, thank you for your time and we look forward to assisting you in the future.

Sincerely,



Mike McKeever
Chief Executive Officer

cc: Greg Thatch

February 22, 2012

LETTER 20

Catherine Hack, Environmental Coordinator
Sacramento County Division of Environmental Review
827 7th Street, Room 220
Sacramento, California 95814

RE: Cordova Hills Draft Environmental Impact Report

Dear Ms. Hack:

Thank you for the opportunity to provide comments on the Cordova Hills Draft Environmental Impact Report. These comments are submitted on behalf of the Capital SouthEast Connector Joint Powers Authority (Connector JPA).

The Capital SouthEast Connector (Connector) is a proposed multi-modal transportation project within a 35 - mile service area that spans two Counties (Sacramento and El Dorado) and links the Cities of Elk Grove, Rancho Cordova, Folsom and the community of El Dorado Hills. These communities and the contiguous study area define the Connector corridor. The project is intended to be developed and operated as a local facility (non Caltrans) but to provide a higher degree of mobility, safety, and mode choice than most local area roadways.

The Connector project will link residential areas and employment centers in the Corridor, serve both local and regional travel, and relieve congestion on the heavily congested existing roadways, all while preserving open space and habitat. The Connector Project will also provide new options for bicycle, pedestrian, transit, and automobile mobility throughout the corridor to address the increased travel demand. This project was included in the 2004 voter approved Measure A half cent sales tax renewal expenditure plan.

The Connector corridor extends from the Hood-Franklin Road interchange on I-5 in Sacramento County on the west, through the City of Elk Grove, unincorporated Sacramento County, the City of Rancho Cordova, the southern sphere of influence of the City of Folsom (mostly in Sacramento County), then through El Dorado County, terminating in the east at U.S. Highway 50 (U.S. 50) in the vicinity of Silva Valley Parkway.

In October, 2011, the Connector JPA Board of Directors selected the Grant Line Road alignment as its preferred alignment for the project and certified the Program Environmental Impact Report (PEIR) for that route. That alignment utilizes mostly existing roadway right of ways that include Kammerer Road, Grant Line Road, and White Rock Road. A technical clarification initiated a recirculation in December, 2011, but the PEIR is expected to be recertified in March, 2012 adopting that same alignment.

As part of that PEIR process, the Connector identified preferred access locations to adjacent roadways and land use in the immediate vicinity of the proposed Cordova Hills Special Planning Area (SPA). In this segment of the Connector, the PEIR analyzed an expressway configuration as the preferred functional cross section to provide for the necessary Level of Service and safety needs of the future corridor. This expressway configuration constitutes four through travel lanes in a 200' wide limited access right of way with very restrictive access allowed only at designated locations. Grade separations have been identified as the means to provide for accommodation of future volumes as noted in Table 16-13 of the PEIR, (copy attached) once planned growth and resulting traffic volumes justify.

Recognizing that the proposed access to the Cordova Hills SPA would not be compatible with the desired intersection/interchange spacing of the proposed expressway configuration of the Connector, JPA staff advised both the applicant and the County of Sacramento in writing, dated December, 2009, that an alternative connection for the northern access point to the Cordova Hills SPA should be reconfigured to eliminate its intersection with Grant Line Road. The letter further stated that if the Grant Line Road alignment was chosen as the preferred route for the Connector, the three major access points in the vicinity of the project would be Douglas Road, Crysanthus Road, and University Road under the planned expressway configuration.

Despite this expressed concern, the Connector project was not considered a "foreseeable project" at the time of the release of the Notice of Preparation (NOP) for the Cordova Hills SPA EIR, and the current Sacramento County General Plan designation for this section of Grant Line Road was used in the existing, existing plus project, cumulative, and cumulative plus project traffic analyses. The JPA feels this failure to recognize the Connector is in error in that activity on the PEIR for the Connector was initiated well in advance of the work on the Cordova Hills EIR and that the NOP for the Connector preceded the release of the NOP for Cordova Hills by six months. It is unclear as to the reasons why there was no mention of even the potential for an access conflict as expressed in the Traffic and Circulation chapter of the Cordova Hills EIR, given the aforementioned notice and understanding by the parties involved of the potential for the incompatibility of this access.

Although the aforementioned Cordova Hills DEIR traffic analysis does not acknowledge the proposed Connector expressway configuration, it is recognized in Chapter 18 of that DEIR under Cumulative and Growth Inducing Impacts. Under the Traffic and Circulation section on page 18-12, the issue of incompatibility involving the northern access to the project is clearly outlined both in text and in Tables CU-2 and CU-3. Both of these tables indicate that given the high probability that an expressway configured Connector will ultimately be constructed across the project frontage, both the spacing and operating conditions of the current North Loop Road access will result in unacceptable levels of service to both Connector JPA and County of Sacramento standards.

Presently, discussions between the applicant and JPA staff have resulted in only concept designs that require additional analysis to confirm their legitimacy. Some of these solutions may require the support of not only the applicant but of the land use authority(s) adjacent to the preferred Connector corridor. Additional refinement of these alternative accesses is considered essential before one might be considered applicable.

The Connector JPA strongly believes that a mitigation measure that resolves this conflict and improves operating conditions to acceptable levels for both the County of Sacramento and the Connector JPA be fully investigated and required as a part of the environmental process and the project approvals. Only with this assurance can the Connector project advance forward with the certainty that the Cordova Hills SPA will not compromise its viability as a regional transportation asset.

Sincerely,



Tom Zlotkowski
Executive Director
Capital SouthEast Connector JPA
916-876-9095

TJZ: plk
Attachments

Revised Table 16-13. Assumed Travel Lanes and Access to Connector for Proposed Project

Connector Roadway	Cross Street	Future without Project			Future with Project			
		Lanes - Facility Type	Traffic Signal	Comments on Assumed Access	Lanes - Facility Type	Traffic Signal	Interchange	Comments on Assumed Access ¹
White Rock Road	US 50 EB Ramps	4-T	1		4-T	1		
	Vine/Valley View Pkwy		1			1		
	Sunset			Right in/out				Right in/out
	Keables Lane							
	Monte Verde Dr							
	Post St			Left in/Right out				Left in/Right out
	Latrobe Road		1			1		
	Windfield Way		1			1		
	Manchester Drive		1			1		
	Bailey Circle			Right in/out				Right in/out
	Stonebriar/ Four Seasons		1			1		
	Carson Crossing		1			1		
	Empire Ranch Road	4-T	1		4-E		1	
	Placerville Rd/Payen Rd		1					Right in/out
	RR Crossing			At-Grade Crossing				At-Grade Crossing
	Scott Road (E)		1				1	
	Collector	6-T		Right in/out	4 + 2 HOV - E			No connection
	Oak Avenue Pkwy		1			1		Acceptable 2035 LOS as signalized intersection
	Scott Rd (W)		1					Existing access eliminated and realigned with Prairie City Rd Interchange
	Collector			Right in/out				No connection
	Prairie City Rd		1				1	
	OHV Park East Ent			Right in/out (except events)				Connected to realigned Scott Rd (W) with access to Prairie City Rd Interchange
	OHV Park West Ent/ Aerojet Rd		1				1	

¹ Other connections will only be allowed along the Proposed Project if the JPA determines that the design would ensure an acceptable LOS and meet performance standards for the Connector.

Revised Table 16-13. Continued

Connector Roadway	Cross Street	Future without Project			Future with Project			
		Lanes - Facility Type	Traffic Signal	Comments on Assumed Access	Lanes - Facility Type	Traffic Signal	Interchange	Comments on Assumed Access ¹
Grant Line Road	Grant Line Rd	4-T	1		4-E		1	
	Teichert Entrance			Realign across from either North Douglas access or White Rock Rd				No access between White Rock Rd and Centennial
	North Douglas Access (future Centennial)		1	Centennial extension post-2035		1		Future interchange with interim signal
	Douglas Rd		1				1	Potential Right in/out access for residence north of Douglas Rd
	Glory Lane			Access through Cordova Hills or Right in/out				Frontage road to Douglas Road, or other potential design option that ensures an acceptable LOS and meets performance standards for the Connector, as determined by the JPA)
	Cordova Hills		1					
	Chrysanthy Blvd		1				1	
	University		1				1	
	Kiefer Blvd		1				1	
	Rancho Cordova Pkwy		1	Rt in/RT out to driveways		1		Acceptable 2035 LOS as signalized intersection
	Jackson Rd		1				1	Frontage road to Michlen Ct for driveway access north of Jackson Rd
			1				1	Frontage road connecting existing six driveways on SE side to single right in/ out access; access to residence near Sunrise Blvd via frontage road
	Sunrise Blvd							
Eagles Nest Rd/ Sloughhouse Rd	1		1		Right in/out for residence			

Revised Table 16-13. Continued

Connector Roadway	Cross Street	Future without Project			Future with Project			
		Lanes - Facility Type	Traffic Signal	Comments on Assumed Access	Lanes - Facility Type	Traffic Signal	Interchange	Comments on Assumed Access ¹
Grant Line Road	Calvine Rd	4-T	1	Rt in/RT out to driveways	4-T	1		Three field entrances connected via frontage road with one access point; Residence access Calvine Rd via frontage road; North private drive access via frontage road to Sloughhouse Rd
	Farm Road						High Access Roadway: Maintain access to all driveways and local roads with Right in/ out with signals at same locations as Baseline	
	Richert Lane							
	Poppy Seed Lane							
	Spanish Grant Rd							
	Public Road							
	Bradley Ranch Rd							
	Beitzel Rd							
	Graybill Lane							
	Oak Pond Lane							
	Sheldon Woods Way							
	Sheldon Rd		1			1		Reduced Access Roadway: Reduce the number of driveways and local road connections along Grant Line Road and provide access to properties via alternative access
	Mooney Rd							
	Siefker Ct		1					
	Aleilani Lane		1	1				
	Wilton Road		1	1				
	Pleasant Grove School Rd			Right in/out				Deer Creek Causeway: No access on causeway. Maintain access to all driveways and local roads along Grant Line Road
	De Souza Lane			Realign with Sherman Oaks				
	Sherman Oaks Ct		1	Right in/out for all driveways and local roads				
	Upton Ct							
	Menlo Oaks Ct							
	Clark Lake Lane							
	Bond Road		1			1		

Revised Table 16-13. Continued

Connector Roadway	Cross Street	Future without Project			Future with Project				
		Lanes - Facility Type	Traffic Signal	Comments on Assumed Access	Lanes - Facility Type	Traffic Signal	Interchange	Comments on Assumed Access ¹	
Grant Line Road	Equestrian Dr	4-T		All driveways and local roads remain open				Cul-de-sac; access to Wrangler Dr.	
	Pavich Lane						Right in/out		
	Freeman Rd				4-T		Right in/out		
	Jetmar Way						Realigned to Elk Grove Blvd		
	Elk Grove Blvd		1		1	Driveway access via frontage roads to Bradshaw Rd and Elk Grove Blvd			
	Bradshaw Rd		1		1				
	Mosher Rd	6-T	1	Left in (no LT out) could be considered at some local roads	6-T	1	One access for 2 residents on NW side; frontages roads to Mosher & Bradshaw		
	Waterman Road		1					1	
	UPRR					Grade separated			Grade separated
	E. Stockton Blvd		1				1	Driveways routed to E. Stockton/Survey	
	SR 99 NB Ramps		1				1		
	SR 99 SB Ramps		6-T			1		6-T	1
W Stockton Blvd	1	3 existing right in/ out access points		1		Existing right in/out access points maintained			
Lent Ranch Pkwy	1			1					
Lotz Pkwy	1	3 existing right in/ out access points		1		Existing right in/ out access points maintained			
Collector	1			1					
Big Horn Blvd	1			1					
Rau Road		Right in/out				Frontage road to Bruceville or Big Horn			
Collector 2	1			1		No access to Kammerer Bypass Option			
Bruceville Rd	4-T	1			4-E	1			
Willard Pkwy		1				1			
UPRR				Grade separated					Grade separated
Franklin Blvd		1				1			
Hood Franklin Rd			Right in/out				Right in/out		
I-5 NB Ramps		1		1					
Red = Future Roadways		Total	49		Total	34-36	10	Bold = Major Cross-Streets	
Source: DKS Associates 2010.		T = Thoroughfare E = Expressway			3 additional signals with Sheldon No Build Option				

**RECORDING REQUESTED BY
AND WHEN RECORDED
MAIL TO:**

**NAME: Department of
Community Development,
Planning and Environmental
Review Division**

COUNTY MAIL CODE: 01-220

**No Fee--For the Benefit of
Sacramento County (Code
6103)**

SPACE ABOVE THIS LINE RESERVED FOR RECORDER'S USE

**COUNTY OF SACRAMENTO
DEPARTMENT OF COMMUNITY DEVELOPMENT
PLANNING AND ENVIRONMENTAL REVIEW DIVISION**

MITIGATION MONITORING AND REPORTING PROGRAM

CONTROL NUMBER: PLNP2008-GPB-SDP-ZOB-AHP-00142

NAME: Cordova Hills

LOCATION: The project site is located in the southeastern portion of Sacramento County on approximately 2,669 acres on the eastern side of Grant Line Road, and south of Glory Lane.

ASSESSOR'S PARCEL NUMBER: 073-0040-020 through -026, 073-0040-029, 073-0050-023, and 073-0050-052

OWNER:

Conwy, LLC; Cielo LLC; and Grantline
LLC
Attn: Ron Alvarado

APPLICANT:

Cordova Hills Ownership Group
Attn: Ron Alvarado

PROJECT DESCRIPTION:

1. A **General Plan Amendment** to move the Urban Policy Area (UPA) boundary east to include approximately 2,366.3 acres of the Cordova Hills site.

2. A **General Plan Amendment** to amend the Land Use Diagram from General Agriculture to Low Density Residential, Medium Density Residential, Commercial and Office, Recreation, Natural Preserve, and Public/Quasi Public for approximately 2,366.3 acres.
3. A **General Plan Amendment** to include a new policy in the Land Use Element to address the provision of limited public water service to serve uses potentially allowed by the Cordova Hills Special Planning Area for 251 acres located in proximity to the Kiefer Landfill, and an Amendment to LU-1 to reference this exception.
4. **Amend the General Plan Transportation Plan** to show new thoroughfares, arterials and collectors as shown in the Transportation General Plan Amendment Diagram dated October 17, 2011.
5. **Amend the Bikeway Master Plan to add on- and off-street bikeways** as shown in the Bikeways Master Plan Amendment Diagram dated October 17, 2011.
6. A **Zoning Ordinance Amendment** to adopt the Cordova Hills Special Planning Area (SPA) to incorporate a Master Plan including Design Guidelines and Development Standards. The SPA consists of a total of 2,668.7 acres in three distinct areas:
 - a. Cordova Hills urban areas – 2,119.7 acres
 - b. University/College Campus Center – 246.6 acres
 - c. Buffer lands and floodplain outside the Urban Policy Area – 302.4 acres. The areas will be designated Agriculture, Recreation (sports park), and Avoidance in the SPA.
7. A **Large Lot Tentative Subdivision Map** to create 155 large parcels for the purpose of creating legal parcels corresponding to villages within Cordova Hills SPA and within the approximately 2,668.7-acre SPA.
8. An **Affordable Housing Plan** consisting of on-site construction of affordable units and/or land dedication.
9. A **Development Agreement** by and between the County of Sacramento and the landowners.
10. **Adoption of a Public Facilities Financing Plan** for Cordova Hills that includes a Capital Improvement Program and Financing Plan.
11. A **Street Resolution** to allow certain County streets within the Cordova Hills Land Use Master Plan to be based on less than a 40-foot right-of-way, pursuant to the State Streets and Highways Code Section 906.
12. **Zone 40 Boundary:** Amend Zone 40 boundary to include the 251 +/- acres of the Cordova Hills project which lies outside of the Urban Services Boundary.
13. **Zone 41 Boundary:** Amend Zone 41 boundary to include 251 +/- acres of the Cordova Hills project which lies outside of the Urban Services Boundary.

14. Adoption of the Cordova Hills Water Supply Master Plan Amendment:

Amends the existing Zone 40 Water Supply Master Plan to include provision of water service to Cordova Hills.

TYPE OF ENVIRONMENTAL DOCUMENT:

☐ Negative Declaration

☐ Prior Negative Declaration

☒ Environmental Impact Report

☐ Prior Environmental Impact Report

☐ Supplemental Environmental Impact Report

PREPARED BY: Sacramento County Department of Community Development
Planning and Environmental Review Division
827 7th Street, Room 220
Sacramento, CA 95814

PHONE: (916) 874-7914

MITIGATION MONITORING AND REPORTING PROGRAM

ADOPTED BY:

DATE:

ATTEST: _____

SECRETARY/CLERK

**State of California
County of Sacramento**

On _____ before me, _____ (name, title of officer),
personally appeared:

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature

DECLARATION OF AGREEMENT

This Mitigation Monitoring and Reporting Program applies to certain real property, a Legal Description of which is attached as Exhibit A. I (We) the undersigned agree that this Mitigation Monitoring and Reporting Program applies to the real property described in Exhibit A. I (We) the undersigned am (are) the legal owner(s) of that property, and agree to comply with the requirements of this Mitigation Monitoring and Reporting Program (Summary and Mitigation Measures attached).

IN WITNESS WHEREOF, this declaration is hereby executed by the undersigned named legal owner(s) of the subject property on this ____ day of _____, 20____.

OWNER(S):

(Print company, corporation, or organization name, if applicable)

(Print name and/or title above)

(Signature above)

ALL PURPOSE ACKNOWLEDGEMENT

<p>State of California County of Sacramento</p> <p>On _____ before me, _____(name, title of officer), personally appeared:</p> <p>_____,</p> <p>who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or entity upon behalf of which the person(s) acted, executed the instrument.</p> <p>I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.</p> <p style="text-align: right;">WITNESS my hand and official seal.</p> <p style="text-align: right;">_____ <i>Signature</i></p>	<p>CAPACITY CLAIMED BY SIGNER</p> <p><input type="checkbox"/> INDIVIDUAL(S) SIGNING FOR ONESELF/THEMSELVES</p> <p><input type="checkbox"/> CORPORATE OFFICER(S) _____ TITLE(S) _____ COMPANY _____</p> <p><input type="checkbox"/> PARTNER(S) _____ PARTNERSHIP _____</p> <p><input type="checkbox"/> ATTORNEY-IN-FACT _____ PRINCIPAL(S) _____</p> <p><input type="checkbox"/> TRUSTEE(S) _____ TRUST _____</p> <p><input type="checkbox"/> OTHER _____ TITLE(S) _____ TITLE(S) _____ ENTITY(IES) REPRESENTED _____ ENTITY(IES) REPRESENTED _____</p>
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TABLE OF MEASURES

<input type="checkbox"/>	MITIGATION MEASURE AE-1: LIGHTING	12
<input type="checkbox"/>	MITIGATION MEASURE AG-1: RIGHT-TO-FARM NOTICE	13
<input type="checkbox"/>	MITIGATION MEASURE AG-2: CONTINUANCE OF AGRICULTURE.....	14
<input type="checkbox"/>	MITIGATION MEASURE AG-3: AGRICULTURAL LAND REPLACEMENT.....	15
<input type="checkbox"/>	MITIGATION MEASURE AQ-1: CONSTRUCTION AIR QUALITY	16
<input type="checkbox"/>	MITIGATION MEASURE AQ-2: OPERATIONAL AIR QUALITY.....	17
<input type="checkbox"/>	MITIGATION MEASURE AQ-3: BUFFERS FOR SENSITIVE USES	18
<input type="checkbox"/>	MITIGATION MEASURE AQ-4: LANDSCAPING BUFFER FROM KIEFER	19
<input type="checkbox"/>	MITIGATION MEASURE BR-1: WETLAND COMPENSATION.....	20
<input type="checkbox"/>	MITIGATION MEASURE BR-2: WETLAND PROTECTION	21
<input type="checkbox"/>	MITIGATION MEASURE BR-3: RAPTOR SURVEYS.....	22
<input type="checkbox"/>	MITIGATION MEASURE BR-4: SWAINSON’S HAWK.....	23
<input type="checkbox"/>	MITIGATION MEASURE BR-5: BURROWING OWL	24
<input type="checkbox"/>	MITIGATION MEASURE BR-6: TRICOLORED BLACKBIRD.....	26
<input type="checkbox"/>	MITIGATION MEASURE BR-7: VERNAL POOL INVERTEBRATES.....	28
<input type="checkbox"/>	MITIGATION MEASURE BR-8: WETLAND WATER QUALITY	30
<input type="checkbox"/>	MITIGATION MEASURE BR-9: INVASIVE SPECIES CONTROL.....	31
<input type="checkbox"/>	MITIGATION MEASURE CC-1: GREENHOUSE GAS REDUCTION.....	32
<input type="checkbox"/>	MITIGATION MEASURE CR-1: CULTURAL RESOURCES PROTECTION.....	33
<input type="checkbox"/>	MITIGATION MEASURE HM-1: LANDFILL GAS MONITORING	35
<input type="checkbox"/>	MITIGATION MEASURE LU-1: BOY’S RANCH DISCLOSURE	36
<input type="checkbox"/>	MITIGATION MEASURE LU-2: KIEFER LANDFILL DISCLOSURE	37
<input type="checkbox"/>	MITIGATION MEASURE NO-1: NOISE AFFECTING RESIDENTIAL EXTERIOR.....	38
<input type="checkbox"/>	MITIGATION MEASURE NO-2: NOISE AFFECTING RESIDENTIAL INTERIOR	39
<input type="checkbox"/>	MITIGATION MEASURE NO-3: NOISE AFFECTING NON-RESIDENTIAL.....	40
<input type="checkbox"/>	MITIGATION MEASURE NO-4: NOISE AFFECTING PARKS.....	41
<input type="checkbox"/>	MITIGATION MEASURE NO-5: NOISE ANALYSIS FOR NON-RESIDENTIAL.....	42
<input type="checkbox"/>	MITIGATION MEASURE NO-6: MATHER AIRPORT DISCLOSURE	43
<input type="checkbox"/>	MITIGATION MEASURE TR-1: COUNTY INTERSECTIONS.....	44
<input type="checkbox"/>	MITIGATION MEASURE TR-2: RANCHO CORDOVA INTERSECTIONS.....	45
<input type="checkbox"/>	MITIGATION MEASURE TR-3: COUNTY ROADWAY.....	47

<input type="checkbox"/>	MITIGATION MEASURE TR-4: ELK GROVE ROADWAY	48
<input type="checkbox"/>	MITIGATION MEASURE TR-5: RANCHO CORDOVA ROADWAYS	49
<input type="checkbox"/>	MITIGATION MEASURE TR-6: CALTRANS MAINLINE FACILITIES.....	51
<input type="checkbox"/>	MITIGATION MEASURE TR-7: PEDESTRIAN/BICYCLE FACILITIES	52
<input type="checkbox"/>	MITIGATION MEASURE TR-8: COUNTY INTERSECTIONS (CUMULATIVE).....	53
<input type="checkbox"/>	MITIGATION MEASURE TR-9: RANCHO CORDOVA INTERSECTIONS (CUMULATIVE) .	54
<input type="checkbox"/>	MITIGATION MEASURE TR-10: COUNTY ROADWAY (CUMULATIVE)	55
<input type="checkbox"/>	MITIGATION MEASURE TR-11: RANCHO CORDOVA ROADWAYS (CUMULATIVE)	56

IMPLEMENTATION

The project applicant/owner shall create a “Mitigation Monitoring and Reporting Program” section in the Cordova Hills SPA Master Plan, which includes all of the mitigation measures, along with all numbered implementation and verification measures. The following mitigation measures contained within the EIR specified that changes should be made to the policy language of the SPA: AE-1, AQ-1, AQ-2, AQ-3, AQ-4, and CC-1. It is important to ensure that the measures are immediately implemented (i.e. that the changes to the SPA occur) and to provide a mechanism to verify that the actions required by those measures occur (e.g. that appropriate fixtures pursuant to measure AE-1 are installed). To this end, the list below provides the changes which must be made to the SPA prior to recordation of the MMRP, while the Mitigation Measures AE-1, etc which will be incorporated into the Mitigation Monitoring and Reporting Program section of the SPA do not contain the direction to amend the SPA.

The following policies shall be incorporated into the Cordova Hills SPA Master Plan prior to recordation of the MMRP, to the satisfaction of the Environmental Coordinator:

- All lighting applications subject to the 2008 Building Efficiency Standards Section 147 shall use fixtures approved by the International Dark Sky Association.
- All individual development projects shall implement Sacramento Metropolitan Air Quality Management District rules and mitigation pertinent to construction-related ozone precursor emissions, as defined by the most current version of the Sacramento Metropolitan Air Quality Management District Guide to Air Quality Assessment.
- All amendments to the Cordova Hills SPA with the potential to result in a change in ozone precursor emissions shall include an analysis which quantifies, to the extent practicable, the effect of the proposed SPA amendment on ozone precursor emissions. The amendment shall not increase total ozone precursor emissions above what was considered in the AQMP for the entire Cordova Hills project. If the amendment would require a change in the AQMP to meet that requirement, then the proponent of the SPA amendment shall consult with SMAQMD on the revised analysis and shall prepare a revised AQMP for approval by the County, in consultation with SMAQMD.
- Buffers shall be established on a project-by-project basis and incorporated during permit or project review to provide for buffer separations between sensitive land uses and sources of air pollution or odor. The California Air Resources Board’s “Air Quality and Land Use Handbook: A Community Health Perspective”, or more current document, shall be utilized when establishing these buffers. Sensitive uses include schools, daycare facilities, congregate care facilities, hospitals, or other places of long-term residency for people (this includes both single- and multiple-family). The buffers shall be applied to the source of air pollution or odor, and shall be established based either on proximity to existing sensitive

uses or proximity to the property boundary of land designated for sensitive uses. Buffers current at the time of the establishment of this SPA indicate that sensitive uses should be:

- A. A least 500 feet from auto body repair services.
 - B. At least 50 feet from existing gasoline dispensing stations with an annual throughput of less than 3.6 million gallons and 300 feet from existing gasoline dispensing stations with an annual throughput at or above 3.6 million gallons.
 - C. At least 300 feet from existing land uses that use methylene chloride or other solvents identified as a TAC, including furniture manufacturing and repair services.
- The western perimeter of the Sports Park and University/College Campus Center (where these are within 2,000 feet of the Kiefer landfill) include a minimum 25-foot-wide landscaping area. This landscaping area shall include a dense mix of trees and shrubs, to screen the uses from the landfill. Acceptable tree species include those expected to reach minimum heights of 40 feet.
 - All amendments to the SPA with the potential to change SPA-wide GHG emissions shall include an analysis which quantifies, to the extent practicable, the effect of the Amendment on SPA-wide greenhouse gas emissions. The Amendment shall not increase SPA-wide greenhouse gas emissions above an average 5.80 metric tons per capita (including emissions from building energy usage and vehicles). If the SPA amendment would require a change in the approved GHG Reduction Plan in order to meet the 5.80 MT CO₂e threshold, then the proponent of the SPA amendment shall consult with the SMAQMD on the revised analysis and shall prepare a revised GHG Reduction Plan for approval by the County, in consultation with SMAQMD.

In addition to the above policies, the requirements of the Air Quality Mitigation Plan dated June 1, 2011 shall also be incorporated into the Cordova Hills SPA, and Appendix NO-1 of the November 2012 FEIR for the Project shall be incorporated as an Appendix of the Cordova Hills SPA. The Environmental Coordinator will review the Cordova Hills SPA Master Plan and ensure that the above language has been appropriately incorporated prior to recordation of the MMRP.

PURPOSE AND PROCEDURES

Pursuant to Section 21081.6 of the Public Resources Code and Chapter 20.02 of the Sacramento County Code, a Mitigation Monitoring and Reporting Program has been established for the project entitled Cordova Hills **(Control Number: PLNP2008-GPB-SDP-ZOB-AHP-00142)**.

PURPOSE

The purpose of this program is to assure diligent and good faith compliance with the Mitigation Measures which have been recommended in the environmental document, and adopted as part of the project or made conditions of project approval, in order to avoid or mitigate potentially significant effects on the environment.

NOTIFICATION AND COMPLIANCE

It shall be the responsibility of the project applicant/owner to provide written notification to the Environmental Coordinator, in a timely manner, of the completion of each Mitigation Measure as identified on the following pages. The Environmental Coordinator will verify that the project is in compliance with the adopted Mitigation Monitoring and Reporting Program (MMRP). Any non-compliance will be reported to the project applicant/owner, and it shall be the project applicant's/owner's responsibility to rectify the situation by bringing the project into compliance and re-notifying the Environmental Coordinator. Any indication that the project is proceeding without good-faith compliance could result in the imposition of administrative, civil and/or criminal penalties upon the project applicant/owner in accordance with Chapter 20.02 of the Sacramento County Code.

PAYMENT

It shall be the responsibility of the project applicant/property owner to reimburse the County for all expenses incurred in the implementation of the Mitigation Monitoring and Reporting Program (MMRP), including any necessary enforcement actions. The applicant/property owner shall pay an initial deposit of **\$15,000.00**. This deposit includes administrative costs of **\$800.00**, which must be paid to the Department of Community Development, Planning and Environmental Review Division **prior to recordation of the MMRP and prior to recordation of any final parcel or subdivision map. The remaining balance will be due prior to review of any plans by the Environmental Coordinator or issuance of any building or grading permits.** Over the course of the project, Department of Community Development, Planning and Environmental Review Division will regularly conduct cost accountings and submit invoices to the applicant/property owner when the County monitoring costs exceed the initial deposit.

RECORDATION

In order to record the adopted Mitigation Monitoring and Reporting Program with the County Recorder as required by Section 20.02.050(b)(2) of the Sacramento County Code, the project applicant/owner shall provide to the Environmental Coordinator a Legal Description for the real property that is the subject of the project.

COMPLETION

Pursuant to Section 20.02.060 of the Sacramento County Code, upon the determination of the Environmental Coordinator that compliance with the terms of the approved Mitigation Monitoring and Reporting Program has been achieved, and that there has been full payment of all fees for the project, the Environmental Coordinator shall record and issue a Program Completion Certificate for the project.

PROPERTY TRANSFER

The requirements of this adopted Program run with the real property that is the subject of the project, as described in Exhibit A. Successive owners, heirs and assigns of this real property are bound to comply with all of the requirements of the adopted Program.

Prior to any lease, sale, transfer or conveyance of any portion of the real property that is the subject of the project, the record owner(s) at the time of the application for the project, or his or her successor's in interest, shall provide a copy of the adopted Program to the prospective lessee, buyer, transferee, or one to whom the conveyance is made.

PENALTIES

Chapter 20.02 of the Sacramento County Code permits civil remedies and criminal penalties to be imposed in the event of non-compliance with an adopted Mitigation Monitoring and Reporting Program. The civil remedies, which are found in Section 20.02.090 of the Sacramento County Code, include injunctive relief, stop work orders, revocation of any special permit granted concurrently with the approval of a Program, and the abatement of any resulting nuisance. The criminal penalties, which are found in Section 20.02.080 of the Sacramento County Code, include a fine not to exceed five hundred dollars or imprisonment in the County jail not to exceed six months, or both.

Plans that are inconsistent with the adopted Mitigation Measures will not be approved.

In the event of an ongoing, serious non-compliance issue, the Environmental Coordinator may call for a "stop work order" on the project or phase.

STANDARD PROVISIONS

Page one of all Project Plans within the Cordova Hills boundaries must include the following statement in a conspicuous location:

“All Plans associated with this project are subject to the conditions of Mitigation Monitoring and Reporting Program 2008-GPB-SDP-ZOB-AHP-00142. For any questions regarding compliance with the MMRP document, contact MMRP staff at (916) 874-7914.”

All Project Plans and any revisions to those Plans shall be in full compliance with the adopted Mitigation Monitoring and Reporting Program (MMRP). The project applicant/owner shall submit one copy of all such Plans and any revisions to the Environmental Coordinator prior to final approval by the Sacramento County Building Permits and Inspection Division (BPID) or Site Improvement and Permit Section (SIPS). If the Environmental Coordinator determines that the Plans are not in full compliance with the adopted MMRP, the Plans shall be returned to the project applicant/owner with a letter specifying the items of non-compliance, and instructing the applicant/owner to revise the Plans, and then resubmit one copy of the revised Plans to the Environmental Coordinator, for determination of compliance, prior to final approval by BPID or SIPS.

Additionally, the project applicant/owner shall notify the Environmental Coordinator **no later than 48 hours** prior to the start of construction and no later than 24 hours after its completion. The applicant/owner shall notify the Environmental Coordinator no later than 48 hours prior to any/all Final Inspection(s) by the County of Sacramento.

☐ MITIGATION MEASURE AE-1: LIGHTING

All lighting applications subject to the 2008 Building Efficiency Standards Section 147 shall use fixtures approved by the International Dark Sky Association.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.
2. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).
3. Submit a list of proposed fixtures along with documentation indicating that they are approved by the International Dark Sky Association to the Planning and Environmental Review Division for approval. Once approved and the fixtures have been purchased, submit receipts or other proofs of purchase to the Planning and Environmental Review Division.

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans and other submitted documentation prior to the start of construction. Approve Project Plans and other documentation that are determined to be in compliance with all required mitigation.
2. Participate in any Final Inspection(s) as necessary.

☐ MITIGATION MEASURE AG-1: RIGHT-TO-FARM NOTICE

The applicant shall disclose to all prospective buyers of properties within 500 feet of the northern property boundary that they could be subject to inconvenience or discomfort resulting from accepted farming practices as per provisions of the County Right-To-Farm Ordinance and shall include a Note on all final maps disclosing the Right-To-Farm Ordinance.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.
2. Submit documentation which demonstrates that notification has been given consistent with this measure.

Verification (Action by the Environmental Coordinator):

1. Review the final maps for consistency with this measure, along with any other submitted documentation, and approve final maps which are compliant.

☐ MITIGATION MEASURE AG-2: CONTINUANCE OF AGRICULTURE

The applicant shall enter into an agreement with an agricultural operator to maintain grazing use, or other more intensive use, on the land which is subject to Williamson Act contract 72-AP-109. Agricultural use shall be maintained until Williamson Act contract expiration. Documentation of this agreement shall be submitted to the Environmental Coordinator prior to approval of the zoning agreement for the Williamson Act contracted property.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.
2. If for any reason the agreement with the agricultural operator is terminated or the operator violates the agreement by failure to maintain agricultural use, the condition shall be remedied within 30 days. If circumstances are such that the applicant finds this timeframe to be infeasible, then the applicant shall submit documentation which demonstrates infeasibility, to the satisfaction of the Environmental Coordinator. The applicant shall concurrently submit documentation which demonstrates a good faith effort to remedy the situation in as short a timeframe as possible.

Verification (Action by the Environmental Coordinator):

1. Review submitted documentation for compliance with the measure, and approve the documentation if deemed sufficient. This measure may be deleted after the Williamson Contract expires (in February 2016).

☐ MITIGATION MEASURE AG-3: AGRICULTURAL LAND REPLACEMENT

Prior to the approval of improvement plans, building permits, or recordation of the final map, whichever occurs first, the applicant shall offset the loss of 8.6 acres of Unique Farmland and 242.4 acres of Grazing Land through 1:1 preservation of farmland within a permanent conservation easement. Preservation land must be in-kind or of similar resource value.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.
2. Submit documentation which demonstrates measure compliance to the Environmental Coordinator for review and approval.

Verification (Action by the Environmental Coordinator):

1. Review submitted documentation and, if deemed sufficient, approve project plans/maps which are consistent with the measure.

☐ MITIGATION MEASURE AQ-1: CONSTRUCTION AIR QUALITY

All individual development projects shall implement Sacramento Metropolitan Air Quality Management District rules and mitigation pertinent to construction-related ozone precursor emissions, as defined by the most current version of the Sacramento Metropolitan Air Quality Management District Guide to Air Quality Assessment.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.
2. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.
2. Monitor compliance during periodic site inspections of the construction work, and coordinate with SMAQMD, as necessary, to verify compliance.
3. Participate in any Final Inspection(s) as necessary.

☐ MITIGATION MEASURE AQ-2: OPERATIONAL AIR QUALITY

Comply with the provisions of the Air Quality Mitigation Plan dated June 1, 2011. All amendments to the Cordova Hills SPA with the potential to result in a change in ozone precursor emissions shall include an analysis which quantifies, to the extent practicable, the effect of the proposed SPA amendment on ozone precursor emissions. The amendment shall not increase total ozone precursor emissions above what was considered in the AQMP for the entire Cordova Hills project and shall achieve the original 35% reduction in total overall project emissions. If the amendment would require a change in the AQMP to meet that requirement, then the proponent of the SPA amendment shall consult with SMAQMD on the revised analysis and shall prepare a revised AQMP for approval by the County, in consultation with SMAQMD.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure, including submittal of documentation which may be requested by the Environmental Coordinator in order to demonstrate compliance.
2. Upon submittal of an SPA Amendment application, supply all technical information requested by the Environmental Coordinator in order to determine whether a revised AQMP is required.

Verification (Action by the Environmental Coordinator):

1. Review all project plans for compliance with the Air Quality Management Plan.
2. Review all proposed SPA Amendments for compliance with this measure, and coordinate with SMAQMD on a revised analysis if necessary.
3. Review and approve any revised AQMP, if one is prepared which is deemed satisfactory, and amend Measure AQ-2 to reflect the new AQMP date, as appropriate, as part of the SPA Amendment.

☐ MITIGATION MEASURE AQ-3: BUFFERS FOR SENSITIVE USES

Buffers shall be established on a project-by-project basis and incorporated during permit or project review to provide for buffer separations between sensitive land uses and sources of air pollution or odor. The California Air Resources Board's "Air Quality and Land Use Handbook: A Community Health Perspective", or more current document, shall be utilized when establishing these buffers. Sensitive uses include schools, daycare facilities, congregate care facilities, hospitals, or other places of long-term residency for people (this includes both single- and multiple-family). The buffers shall be applied to the source of air pollution or odor, and shall be established based either on proximity to existing sensitive uses or proximity to the property boundary of land designated for sensitive uses. Buffers current at the time of the establishment of this SPA indicate that sensitive uses should be:

- A. At least 500 feet from auto body repair services.
- B. At least 50 feet from existing gasoline dispensing stations with an annual throughput of less than 3.6 million gallons and 300 feet from existing gasoline dispensing stations with an annual throughput at or above 3.6 million gallons.
- C. At least 300 feet from existing land uses that use methylene chloride or other solvents identified as a TAC, including furniture manufacturing and repair services.

Implementation and Notification (Action by Project Applicant):

- 1. Comply fully with the above measure.
- 2. Incorporate the above measure into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

Verification (Action by the Environmental Coordinator):

- 1. Review submitted improvement plans or other maps to ensure compliance with this measure, and approve all plans determined to be in compliance.

☐ MITIGATION MEASURE AQ-4: LANDSCAPING BUFFER FROM KIEFER

The western perimeter of the Sports Park and University/College Campus Center (where these are within 2,000 feet of the Kiefer landfill) shall include a minimum 25-foot-wide landscaping area. This landscaping area shall include a dense mix of trees and shrubs, to screen the uses from the landfill. Acceptable tree species include those expected to reach minimum heights of 40 feet.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.
2. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.
2. Monitor compliance during periodic site inspections of the construction work.
3. Participate in any Final Inspection(s) as necessary.

☐ MITIGATION MEASURE BR-1: WETLAND COMPENSATION

To compensate for the permanent loss of wetlands, the applicant shall perform one or a combination of the following prior to issuance of building permits, and shall also obtain all applicable permits from the Army Corps of Engineers, the U.S. Fish and Wildlife Service, the Central Valley Regional Water Quality Control Board, and the California Department of Fish and Game:

- A. Where a Section 404 Permit has been issued by the Army Corps of Engineers, or an application has been made to obtain a Section 404 Permit, the Mitigation and Management Plan required by that permit or proposed to satisfy the requirements of the Corps for granting a permit may be submitted for purposes of achieving a no net-loss of wetlands. The required Plan shall be submitted to the Sacramento County Environmental Coordinator, U.S. Army Corps of Engineers, and U.S. Fish and Wildlife Service for approval prior to its implementation.
- B. If regulatory permitting processes result in less than a 1:1 compensation ratio for loss of wetlands, the Project applicant shall demonstrate that the wetlands which went unmitigated/uncompensated as a result of permitting have been mitigated through other means. Acceptable methods include payment into a mitigation bank or protection of off-site wetlands through the establishment of a permanent conservation easement, subject to the approval of the Environmental Coordinator.
- C. The Project applicant may participate in the South Sacramento Habitat Conservation Plan if it is adopted, and if the Project area and activities are covered. The applicant shall prepare Project plans in accordance with that Plan and any and all fees or land dedications shall be completed prior to construction.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.
2. Submit documentation which demonstrates compliance with this measure to the Environmental Coordinator.

Verification (Action by the Environmental Coordinator):

1. Review submitted documentation and Project Plans prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.
2. Monitor compliance during periodic site inspections of the construction work.
3. Participate in any Final Inspection(s) as necessary.

☐ MITIGATION MEASURE BR-2: WETLAND PROTECTION

Prior to issuance of building permits, all areas designated within the SPA as Avoided shall be placed within a permanent conservation easement, which shall be reviewed and approved by the Environmental Coordinator. At a minimum, the permanent conservation easements must cover all areas which are required to be preserved as part of the Section 404 and Section 401 wetland permits.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.
2. Submit documentation which demonstrates that the easements have been established to the Environmental Coordinator.
3. All Project Plans must show conservation easements if they are located adjacent to the project construction site, along with a Construction Note indicating that all construction activity is prohibited in these areas (including stockpiling, storing equipment/vehicles, driving of vehicles, and other disturbance activities).

Verification (Action by the Environmental Coordinator):

1. Review the submitted documentation and Project Plans prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.
2. Monitor compliance during periodic site inspections of the construction work.
3. Participate in any Final Inspection(s) as necessary.

☐ MITIGATION MEASURE BR-3: RAPTOR SURVEYS

If construction, grading, or Project-related improvements are to occur between March 1 and September 15, a focused survey for tree- or ground-nesting raptors within 500 feet of the construction site (1/2-mile for Swainson's hawk) and for ground-nesting grasshopper sparrow shall be conducted by a qualified biologist within 14 days prior to the start of construction work (including clearing and grubbing). If active nests are found, the California Department of Fish and Game shall be contacted to determine appropriate protective measures. If no active nests are found during the focused survey, no further mitigation will be required.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.
2. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).
3. Submit a nesting survey report, prepared by a qualified biologist, to the Environmental Coordinator for review and approval prior to the start of construction work. In the event that nests are found and consultation with Fish and Game is initiated, submit documentation describing the outcome of the coordination to the Environmental Coordinator prior to the start of construction work. This documentation must include the name(s) of Fish and Game staff members who were contacted and a description of the protective measures or other actions which were scoped and agreed to by the agency.

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans and other documentation prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.
2. Monitor compliance during periodic site inspections of the construction work.
3. Participate in any Final Inspection(s) as necessary.

☐ MITIGATION MEASURE BR-4: SWAINSON'S HAWK

Prior to the approval of improvement plans, building permits, or recordation of the final map, whichever occurs first, implement one of the options below to mitigate for the loss of Swainson's hawk foraging habitat on the Project site; based on current Project designs this is 2,267 acres. Based on current designs, this can be reduced to 2,231 acres of mitigation if the applicant establishes a permanent conservation easement over the areas designated Agriculture on the eastern and southeastern sides of the site (these are areas outside of the Urban Services Boundary). Foraging habitat preserved shall consist of grassland or similar habitat open habitat, not cropland, because this mitigation measure also offsets impacts to other species that do not use cropland habitat.

- A. The project proponent shall utilize one or more of the mitigation options (land dedication and/or fee payment) established in Sacramento County's Swainson's Hawk Impact Mitigation Program (Chapter 16.130 of the Sacramento County Code).
- B. The Project proponent shall, to the satisfaction of the California Department of Fish and Game, prepare and implement a Swainson's hawk mitigation plan that will include preservation of Swainson's hawk foraging habitat.
- C. Should the County Board of Supervisors adopt a new Swainson's hawk mitigation policy/program (which may include a mitigation fee payable prior to issuance of building permits) prior to the implementation of one of the measures above, the Project proponent may be subject to that program instead.

If the design of the primary avoided area on the western plateau (currently 382 acres in size) is increased in size in response to Section 404 wetland permitting requirements, the total amount of mitigation land required may be adjusted downward to reflect this increased avoidance, at the discretion of the Environmental Coordinator.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.
2. Submit documentation which demonstrates compliance to the Environmental Coordinator.

Verification (Action by the Environmental Coordinator):

1. Review submitted Project Plans and other documentation and consult with Fish and Game as necessary, in order to determine compliance.
2. Participate in any Final Inspection(s) as necessary.

☐ MITIGATION MEASURE BR-5: BURROWING OWL

Prior to construction activity (including site improvements, and building construction) focused surveys shall be conducted by a qualified biologist for burrowing owls in the construction area and within 500 feet of the construction area. Surveys shall be conducted no less than 14 days and no more than 30 days prior to commencement of construction activities. Surveys shall be conducted in accordance with "Burrowing Owl Survey Protocol and Mitigation Guidelines" published by The California Burrowing Owl Consortium (April 1993). The following shall also apply:

- A. If no occupied burrows are found in the survey area, a letter report documenting survey methods and findings shall be submitted to the County and no further mitigation is necessary.
- B. If an occupied burrow is found the applicant shall contact the Environmental Coordinator and consult with the California Department of Fish (CDFG), prior to construction, to determine if avoidance is possible or if burrow relocation will be required.
- C. If owls are to remain on-site, a minimum of 6.5 acres of foraging habitat for each occupied burrow needs to be permanently preserved according to California Department of Fish and Game guidelines. In addition, no activity shall take place within 160 feet of an active burrow from September 1 to January 31 (wintering season) or 250 feet from February 1 through August 31 (breeding season). Protective fencing shall be placed, at the distances above, around the active burrows and no activity shall occur within the protected buffer areas. Permanent improvements shall be a minimum of 250 feet from an occupied burrow.
- D. Any impact to active owl burrows, relocation of owls, or mitigation for habitat loss shall be done in accordance with the Fish and Game "Staff Report on Burrowing Owl Mitigation" (October 17, 1995) or the version current at the time of construction. Written evidence from Fish and Game staff shall be provided to the Environmental Coordinator attesting to the permission to remove burrows, relocate owls, or mitigate for lost habitat, and shall include a plan to monitor mitigation success.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.
2. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).
3. Submit the required documentation to the Environmental Coordinator for review and approval prior to the start of construction work. In the event that owls are

found and consultation with Fish and Game is initiated, submit documentation describing the outcome of the coordination to the Environmental Coordinator prior to the start of construction work. This documentation must include the name(s) of Fish and Game staff members who were contacted and a description of the protective measures or other actions which were scoped and agreed to by the agency.

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans and other documentation prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.
2. Monitor compliance during periodic site inspections of the construction work.
3. Participate in any Final Inspection(s) as necessary.

☐ MITIGATION MEASURE BR-6: TRICOLORED BLACKBIRD

If construction occurs between March 1 and July 31 pre-construction surveys for nesting tricolored blackbirds shall be performed by a qualified biologist. Surveys shall include the construction site and areas of appropriate habitat within 300 feet of the construction site. The survey shall occur no longer than 14 days prior to the start of construction work (including clearing, grubbing or grading). The biologist shall supply a brief written report (including date, time of survey, survey method, name of surveyor and survey results) to the Environmental Coordinator prior to ground disturbing activity. If no tricolored blackbird were found during the pre-construction survey, no further mitigation would be required. If an active tricolored blackbird colony is found on-site or within 300 feet of the construction site the project proponent shall do the following:

- A. Consult with the California Department of Fish and Game to determine if project activity will impact the tricolored blackbird colony(s), and implement appropriate avoidance and impact minimization measures if so directed. Provide the Environmental Coordinator with written evidence of the consultation or a contact name and number from the California Department of Fish and Game.
- B. The applicant may avoid impacts to tricolored blackbird by establishing a 300-foot temporary setback with fencing that prevents any project activity within 300 feet of the colony. A qualified biologist shall verify that setbacks and fencing are adequate and will determine when the colonies are no longer dependent on the nesting habitat (i.e. nestlings have fledged and are no longer using habitat), which will determine when the fencing may be removed. The breeding season typically ends in July.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.
2. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).
3. Submit the required documentation to the Environmental Coordinator for review and approval prior to the start of construction work. In the event that nests are found and consultation with Fish and Game is initiated, submit documentation describing the outcome of the coordination to the Environmental Coordinator prior to the start of construction work. This documentation must include the name(s) of Fish and Game staff members who were contacted and a description of the protective measures or other actions which were scoped and agreed to by the agency.

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans and other documentation prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.
2. Monitor compliance during periodic site inspections of the construction work.
3. Participate in any Final Inspection(s) as necessary.

☐ MITIGATION MEASURE BR-7: VERNAL POOL INVERTEBRATES

Presence of California linderiella, midvalley fairy shrimp, vernal pool fairy shrimp and vernal pool tadpole shrimp shall be assumed unless determinate surveys that comply with U.S. Fish and Wildlife protocol conclude that the species are absent. If the protocol surveys are performed and all listed crustacean species are absent, Ricksecker's water scavenger beetle may also be presumed absent, and no further mitigation shall be required for listed vernal pool invertebrates. If species are found, one or a combination of the following shall apply:

- A. *Total Avoidance: Species are present or assumed to be present.* Unless a smaller buffer is approved through formal consultation with the Fish and Wildlife Service, construction fencing shall be installed a minimum of 250 feet from all delineated vernal pool margins. All construction activities are prohibited within this buffer area. For all vernal pools where total avoidance is achieved, no further action is required.
- B. *Compensate for habitat removed.* Obtain all applicable permits from the U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, California Department of Fish and Game, and the Central Valley Regional Water Quality Control Board for any proposed modifications to vernal pools and mitigate for habitat loss in accordance with the Biological Opinion and Section 404 permits obtained for the Project. At a minimum, mitigation ratios shall be consistent with County General Plan Policy, which requires no net loss of wetland resources. Any vernal pool loss not mitigated through the permitting process shall be mitigated for by payment into a mitigation bank or protection of off-site wetlands through the establishment of a permanent conservation easement, subject to the approval of the Environmental Coordinator.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.
2. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).
3. Submit the required documentation (including any permits) to the Environmental Coordinator for review and approval. In the event that a smaller buffer is requested, submit documentation which demonstrates that Fish and Wildlife has approved the smaller buffer to the Environmental Coordinator prior to the start of construction work. This documentation must include the name(s) of Fish and Wildlife staff members who were contacted and a description of the protective measures or other actions which were scoped and agreed to by the agency.

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans and other documentation prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.
2. Monitor compliance during periodic site inspections of the construction work.
3. Participate in any Final Inspection(s) as necessary.

☐ MITIGATION MEASURE BR-8: WETLAND WATER QUALITY

If construction activities encroach within the 250-foot buffer for vernal pools 358, 363, 370, 426 or 511 the applicant shall prepare a pesticide and pollution prevention plan. The plan shall include measures to reduce pollution run-off, pesticide drift, and other similar potential contaminants, to protect surrounding preserve areas from urban contaminants. Measures shall include the implementation of best management practices (e.g. straw wattles, silt fencing, and soil stabilization) for stormwater control. The plan shall be incorporated in the Operations and Management Plan which is a requirement of the Section 404 permit process.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.
2. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).
3. Submit all required documentation to the Environmental Coordinator for review and approval prior to construction activities within the 250-foot buffer.

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans and other documentation prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.
2. Monitor compliance during periodic site inspections of the construction work.
3. Participate in any Final Inspection(s) as necessary.

☐ MITIGATION MEASURE BR-9: INVASIVE SPECIES CONTROL

The project applicant shall prepare an invasive species removal and prevention plan. The plan shall provide methods to remove invasive species from preservation areas and to restore the affected wetland features. The plan shall include methods for the prevention of the introduction of new invasive species from landscapes associated with the development. Minimum components of such a plan shall include: mapping of existing invasive plant populations within the avoided areas, with the map being updated a minimum of every five years; a description of acceptable methods for removing invasive species, examples of which include hand removal or biological controls (e.g. natural parasites); and a prohibition on the use of non-native plants within either the avoided areas or the Recreation-2 areas. The plan shall be incorporated in the Operations and Management Plan which is a requirement of the Section 404 permit process.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.
2. Submit the required plan to the Environmental Coordinator for review and approval prior to the start of construction work, and submit the updated invasive plant populations map every five years thereafter.

Verification (Action by the Environmental Coordinator):

1. Review the submitted documentation prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.
2. Ensure that the documentation is updated as required. If an updated map is due but has not been submitted, do not approve further Project Plans until such time as the update is submitted and approved. This verification action may be superseded should an alternative timeframe or pathway for compliance be approved by the United States Fish and Wildlife Service.

☐ MITIGATION MEASURE CC-1: GREENHOUSE GAS REDUCTION

All amendments to the SPA with the potential to change SPA-wide GHG emissions shall include an analysis which quantifies, to the extent practicable, the effect of the Amendment on SPA-wide greenhouse gas emissions. The Amendment shall not increase SPA-wide greenhouse gas emissions above an average 5.80 metric tons per capita (including emissions from building energy usage and vehicles). If the SPA amendment would require a change in the approved GHG Reduction Plan in order to meet the 5.80 MT CO₂e threshold, then the proponent of the SPA amendment shall consult with the SMAQMD on the revised analysis and shall prepare a revised GHG Reduction Plan for approval by the County, in consultation with SMAQMD.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.
2. Prepare a revised GHG analysis, as necessary, which accounts for plan-wide changes in GHG emissions and submit the analysis to the Environmental Coordinator for review and approval. Concurrently, the analysis must also be submitted to SMAQMD for review.
3. If necessary, prepare and submit a revised GHG Reduction Plan to the Environmental Coordinator for review and approval. Concurrently, the analysis must also be submitted to SMAQMD for review.

Verification (Action by the Environmental Coordinator):

1. Review all proposed SPA Amendment applications to determine whether the project has the potential to change SPA-wide greenhouse gas emissions. Examples include projects which would change the average housing density of the plan area and projects which could change the distribution of vehicle trips.
2. Review any revised GHG analysis for adequacy, and consult with SMAQMD on the analysis.
3. Review any revised GHG Reduction Plan, and approve the plan if found to be adequate. Ensure that the revised Plan is incorporated into the Cordova Hills SPA Master Plan, which will replace to any prior Plan.

☐ MITIGATION MEASURE CR-1: CULTURAL RESOURCES PROTECTION

If subsurface deposits believed to be cultural or human in origin are discovered during construction, then all work must halt within a 200-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeology, shall be retained at the Applicant's expense to evaluate the significance of the find. If it is determined due to the types of deposits discovered that a Native American monitor is required, the Guidelines for Monitors/Consultants of Native American Cultural, Religious, and Burial Sites as established by the Native American Heritage Commission shall be followed, and the monitor shall be retained at the Applicant's expense.

Work cannot continue within the 200-foot radius of the discovery site until the archaeologist conducts sufficient research and data collection to make a determination that the resource is either 1) not cultural in origin; or 2) not potentially eligible for listing on the National Register of Historic Places or California Register of Historical Resources.

If a potentially-eligible resource is encountered, then the archaeologist, the Environmental Coordinator, and project proponent shall arrange for either 1) total avoidance of the resource, if possible; or 2) test excavations or total data recovery as mitigation. The determination shall be formally documented in writing and submitted to the Environmental Coordinator as verification that the provisions of CEQA for managing unanticipated discoveries have been met.

In addition, pursuant to Section 5097.97 of the State Public Resources Code and Section 7050.5 of the State Health and Safety Code, in the event of the discovery of human remains, all work is to stop and the County Coroner shall be immediately notified. If the remains are determined to be Native American, guidelines of the Native American Heritage Commission shall be adhered to in the treatment and disposition of the remains.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.
2. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.
2. Monitor compliance during periodic site inspections of the construction work.

3. Participate in any Final Inspection(s) as necessary.

☐ MITIGATION MEASURE HM-1: LANDFILL GAS MONITORING

Any structure within the project boundaries (including but not limited to, buildings, subsurface vaults, utilities, or any other areas where potential landfill gas buildup may cause adverse impacts to the public health or safety or the environment) within 1,000 feet of buried waste or proposed buried waste at Kiefer Landfill shall be continuously monitored by the owner/operator of said structure for landfill gas and be designed and constructed to prevent landfill gas accumulation in those structures.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.
2. Under the circumstances described by this measure, submit a plan for landfill gas monitoring to the Environmental Coordinator for review and approval. Also submit documentation which verifies that the proposed building design complies with the measure.

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans and other documentation prior to the start of construction. Approve Project Plans and other documentation that is determined to be in compliance with all required mitigation.
2. Participate in any Final Inspection(s) as necessary.

☐ MITIGATION MEASURE LU-1: BOY'S RANCH DISCLOSURE

The location and nature of the Sacramento County Boys Ranch facility shall be disclosed to all prospective buyers of estate-residential properties.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.
2. Prior to recordation of any small-lot subdivision map within the Estate Residential area (which is the only land use along the easternmost portion of the site where properties are most proximate to the facility), submit the proposed notice to the Environmental Coordinator, along with a description of the means by which the notice will be given.
3. Submit documentation certifying that the appropriate notice was given.

Verification (Action by the Environmental Coordinator):

1. Prior to recordation of any small-lot subdivision map within the Estate Residential area (which is the only land use along the easternmost portion of the site where properties are most proximate to the facility), review the proposed notice and the means of conveying the notice to ensure that it will comply with the measure.

☐ MITIGATION MEASURE LU-2: KIEFER LANDFILL DISCLOSURE

The location and nature of the Kiefer Landfill facility shall be disclosed to all prospective buyers of properties within one mile of the ultimate active landfill boundary. The disclosure notice shall include:

- A. A statement substantially consistent with the following: “The landfill will expand in height and land area over time, and thus the visibility and proximity of the landfill from the property at the time of purchase does not reflect how visible or proximate the landfill will be in the future.” This statement shall be supplemented with relevant facts about ultimate landfill design, including the distance of the property to the ultimate planned edge of the landfill waste disposal area to the nearest 100 feet and the ultimate planned height of the landfill (as set forth in the Solid Waste Facilities Permit).
- B. Notification that the landfill operates under a Solid Waste Facilities Permit and is required to control pests, vectors, litter, and odor to the extent practicable, but that it is not possible to eliminate all of these nuisances. For this reason, property owners may experience some of these nuisance conditions.
- C. Notification that the active landfill area is lighted at night.

Implementation and Notification (Action by Project Applicant):

- 1. Comply fully with the above measure.
- 2. Prior to recordation of any subdivision map, submit the proposed notice to the Environmental Coordinator, along with a description of the means by which the notice will be given.
- 3. Submit documentation certifying that the appropriate notice was given.

Verification (Action by the Environmental Coordinator):

- 1. Prior to recordation of any subdivision map, review the proposed notice and the means of conveying the notice to ensure that it will comply with the measure.

☐ MITIGATION MEASURE NO-1: NOISE AFFECTING RESIDENTIAL EXTERIOR

All residential development projects exposed to greater than 65 dB L_{dn} (as identified in Appendix NO-1) at the property line shall be designed and constructed to reduce noise levels to within General Plan Noise Element standards for exterior activity areas.

Potential options for achieving compliance with noise standards include, but are not limited to, noise barriers, increased setbacks, and/or strategic placement of structures. An acoustical analysis substantiating the required noise level reduction, prepared by a qualified acoustical consultant shall be submitted to and verified by the Environmental Coordinator prior to the issuance of any building permits for affected sites.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.
2. Refer to Appendix NO-1 of the November 2012 FEIR prepared for the Cordova Hills SPA project (Control Number 2008-00142), which has also been included as an Appendix of the SPA, and if applicable, submit an acoustical analysis to the Environmental Coordinator for review and approval. The analysis may use updated noise data or calculation methodologies, subject to the approval of the Environmental Coordinator.

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans and other documentation prior to the start of construction. Approve Project Plans and other documentation that is determined to be in compliance with all required mitigation.
2. Participate in any Final Inspection(s) as necessary.

☐ MITIGATION MEASURE NO-2: NOISE AFFECTING RESIDENTIAL INTERIOR

All residential development projects exposed to greater than 70 dB L_{dn} (as identified in Appendix NO-1) at the property line shall be designed and constructed to achieve an interior noise level of 45 dB L_{dn} or less. Potential options for achieving compliance with noise standards include, but are not limited to, noise barriers, increased setbacks, strategic placement of structures and/or enhanced building construction techniques. An acoustical analysis substantiating the required noise level reduction, prepared by a qualified acoustical consultant, shall be submitted to and verified by the Environmental Coordinator prior to the issuance of any building permits for the site.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.
2. Refer to Appendix NO-1 of the November 2012 FEIR prepared for the Cordova Hills SPA project (Control Number 2008-00142), which has also been included as an Appendix of the SPA, and if applicable, submit an acoustical analysis to the Environmental Coordinator for review and approval. The analysis may use updated noise data or calculation methodologies, subject to the approval of the Environmental Coordinator.

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans and other documentation prior to the start of construction. Approve Project Plans and other documentation that is determined to be in compliance with all required mitigation.
2. Participate in any Final Inspection(s) as necessary.

☐ MITIGATION MEASURE NO-3: NOISE AFFECTING NON-RESIDENTIAL

Non-residential development projects such as churches, libraries, meeting halls, and schools exposed to greater than 60 dB L_{dn} , and all non-residential development projects such as transient lodging, hospitals and nursing homes, and office buildings exposed to greater than 65 dB L_{dn} (as identified in Appendix NO-1) at the property line shall demonstrate that interior noise volumes will not exceed General Plan Noise Element standards for non-residential uses exposed to traffic noise. This may be accomplished by providing documentation that the type of use is within acceptable limits based on the location of the identified noise contours and assuming standard exterior-to-interior attenuation of 25 dB. If this cannot be demonstrated, an acoustical analysis substantiating the required noise level reduction, prepared by a qualified acoustical consultant, shall be submitted to and verified by the Environmental Coordinator prior to the issuance of any building permits for affected sites. Potential options for achieving compliance with noise standards include, but are not limited to, noise barriers, increased setbacks, strategic placement of structures and/or enhanced building construction techniques. The measure does not apply to commercial uses.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.
2. Refer to Appendix NO-1 of the November 2012 FEIR prepared for the Cordova Hills SPA project (Control Number 2008-00142), which has also been included as an Appendix of the SPA, and if applicable, submit an acoustical analysis or other documentation to the Environmental Coordinator for review and approval. The analysis may use updated noise data or calculation methodologies, subject to the approval of the Environmental Coordinator.

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans and other documentation prior to the start of construction. Approve Project Plans and other documentation that is determined to be in compliance with all required mitigation.
2. Participate in any Final Inspection(s) as necessary.

☐ MITIGATION MEASURE NO-4: NOISE AFFECTING PARKS

All parks exposed to noise volumes in excess of 70 dB (as identified in Appendix NO-1) at the property line shall be designed and constructed to reduce noise levels within park activity areas (benches, play structures, etc) to within General Plan Noise Element standards for parks. Potential options for achieving compliance with noise standards include, but are not limited to, noise barriers, increased setbacks, and/or strategic placement of structures. For barrier and other structural options, an acoustical analysis substantiating the required noise level reduction, prepared by a qualified acoustical consultant shall be submitted to and verified by the Environmental Coordinator prior to the issuance of any building permits for affected sites.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.
2. Refer to Appendix NO-1 of the November 2012 FEIR prepared for the Cordova Hills SPA project (Control Number 2008-00142), which has also been included as an Appendix of the SPA, and if applicable, submit an acoustical analysis or other documentation to the Environmental Coordinator for review and approval. The analysis may use updated noise data or calculation methodologies, subject to the approval of the Environmental Coordinator.

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans and other documentation prior to the start of construction. Approve Project Plans and other documentation that is determined to be in compliance with all required mitigation.
2. Participate in any Final Inspection(s) as necessary.

☐ MITIGATION MEASURE NO-5: NOISE ANALYSIS FOR NON-RESIDENTIAL

All non-residential development projects located adjacent to residentially designated properties shall be designed and constructed to ensure that noise levels generated by the uses do not result in General Plan Noise Element standards being exceeded on adjacent properties. An acoustical analysis substantiating the required noise level reduction, prepared by a qualified acoustical consultant shall be submitted to and verified by the Environmental Coordinator prior to the issuance of any building permits for the non-residential projects with the potential to generate substantial noise (e.g. car wash, auto repair, or buildings with heavy-duty truck loading docks) if those uses are adjacent to residentially designated properties. The acoustical analysis shall include, but not be limited to, consideration of potential noise conflicts due to operation of the following items:

- Outdoor playing fields;
- Mechanical building equipment, including HVAC systems;
- Loading docks and associated truck routes;
- Refuse pick up locations; and
- Refuse or recycling compactor units.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.
2. Submit an acoustical analysis or other documentation to the Environmental Coordinator for review and approval. The analysis may use updated noise data or calculation methodologies, subject to the approval of the Environmental Coordinator.

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans and other documentation prior to the start of construction. Approve Project Plans and other documentation that is determined to be in compliance with all required mitigation.
2. Participate in any Final Inspection(s) as necessary.

☐ MITIGATION MEASURE NO-6: MATHER AIRPORT DISCLOSURE

The following conditions will be required to ensure adequate disclosure of Mather Airport operations:

- A. Notification in the Public Report prepared by the California Department of Real Estate shall be provided disclosing to prospective buyers that the parcel is located within the applicable Airport Planning Policy Area and that aircraft operations can be expected to overfly that area at varying altitudes less than 3,000 feet above ground level.
- B. Avigation Easements prepared by the Sacramento County Counsel's Office shall be executed and recorded with the Sacramento County Recorder on each individual residential parcel contemplated in the development in favor of the County of Sacramento. All Avigation Easements recorded pursuant to this policy shall, once recorded, be copied to the director of Airports and shall acknowledge the property location within the appropriate Airport Planning Policy Area and shall grant the right of flight and obstructed passage of all aircraft into and out of the appropriate airport.

Implementation and Notification (Action by Project Applicant):

- 1. Comply fully with the above measure.
- 2. Prior to recordation of any subdivision map, submit the proposed notice to the Environmental Coordinator.
- 3. Submit documentation certifying that the appropriate notice was given.

Verification (Action by the Environmental Coordinator):

- 1. Prior to recordation of any subdivision map, review the proposed notice to ensure that it will comply with the measure.

☐ MITIGATION MEASURE TR-1: COUNTY INTERSECTIONS

The applicant shall construct or fund, as set forth in the phasing and financing plan approved by the Sacramento County Department of Transportation, the below mitigation measures. The phasing and financing plan shall ensure commencement of construction of traffic improvements prior to degradation of LOS below applicable County standards. This mitigation recognizes that should any of the measures below benefit other projects, a reimbursement agreement and/or a fee credit to the applicant may be considered.

- A. *Bradshaw Road and Jackson Road* – Provide a second westbound through lane.
- B. *Eagles Nest Road and Jackson Road* – Construct a new traffic signal. Provide a left turn lane and a through-right turn shared lane on the northbound and southbound approaches.
- C. *Grant Line Road and Sunrise Boulevard* – Provide a separate southbound right turn lane so the southbound approach has one left turn lane, one through lane and one right turn lane.
- D. *Grant Line Road and White Rock Road* – Modify the intersection and traffic signal to provide dual left turn lanes and two through lanes on the northbound approach; provide two through lanes and a separate right turn lane on the southbound approach; and provide two left turn lanes and a separate right turn lane on the eastbound approach. On the western leg of the intersection, two westbound departure lanes are required.
- E. *School Access and North Loop Road* – Provide dual eastbound left turn lanes. The applicant shall be responsible for a focused access study addressing the internal circulation of the Cordova Hills project to finalize the design of intersection geometries and length of left turn pockets. The scope of work for the analysis shall be submitted to the Sacramento County DOT staff. Upon completion, the analysis shall be submitted to the Sacramento County DOT for approval and recommendations.

Implementation and Notification (Action by Project Applicant):

- 1. Comply fully with the above measure and the implementing Conditions of Approval which stipulate the timing of the improvements, in coordination with the Sacramento County Department of Transportation.

Verification (Action by the Environmental Coordinator):

- 1. Prior to approval of any Project Plans, coordinate with the Sacramento County Department of Transportation to determine compliance.

☐ MITIGATION MEASURE TR-2: RANCHO CORDOVA INTERSECTIONS

The applicant shall construct or fund, as set forth in the phasing and financing plan approved by the Sacramento County Department of Transportation, and in consultation with the City of Rancho Cordova, the below mitigation measures. The phasing and financing plan shall ensure commencement of construction of traffic improvements prior to degradation of LOS below the applicable County or City standards. This mitigation recognizes that should any of the measures below benefit other projects, a reimbursement agreement may be considered.

- A. *Zinfandel Drive and White Rock Road* – The applicant shall be responsible for a fair share of this measure. Provide separate dual right turns on the westbound approach so the westbound approach has two left turn lanes, two through lanes and two right turn lanes. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation and may be up to 100% of the cost of the improvements.
- B. *Sunrise Boulevard and White Rock Road* – Provide overlap phasing on the eastbound and westbound approaches.
- C. *Sunrise Boulevard and Douglas Road* – Provide overlap phasing on the westbound approach.
- D. *Sunrise Boulevard and Jackson Road* – Provide an eastbound through lane, and eastbound through-right turn shared lane, and an eastbound left turn lane; a northbound left turn lane and a northbound through-right turn shared lane; two westbound through lanes, a westbound right turn lane, and a westbound left turn lane; a southbound through lane, a southbound left turn lane, and a southbound right turn lane.
- E. *Grant Line Road and Jackson Road* – The applicant shall be responsible for a fair share of this measure. Provide a left turn lane and a through-right shared turn lane on the eastbound and westbound approaches. Provide a separate left turn lane, a through lane and a separate right turn lane on the northbound and southbound approaches. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation and may be up to 100% of the cost of the improvements.
- F. *Grant Line Road and Kiefer Boulevard* – Construct a new traffic signal. Provide a left turn lane, a through lane and a through-right turn shared lane on the northbound and southbound approaches; provide a left turn lane and a through-right turn shared lane on the eastbound and westbound approaches.
- G. *Grant Line Road and Douglas Road* – Construct a new traffic signal. Provide dual left turn lanes and a separate through lane on the northbound, a through lane and a through-right turn shared lane on the southbound approach, and a separate left turn lane and a free-right turn lane on the eastbound approach. Also

an extra southbound departure lane is needed for the eastbound free-right movement. To be consistent with the segment mitigations a second northbound through lane is included.

- H. *Grant Line Road and North Loop Road* – Construct a new traffic signal. Provide two through lanes and a separate right turn lane on the northbound approach, dual left turn lanes and one through on the southbound approach, and one left turn lane and one free-right turn lane on the westbound approach. Also an extra northbound departure lane is needed for the westbound free-right movement. To be consistent with the segment mitigations a second southbound through lane is included.
- I. *Grant Line Road and Chrysanthy Boulevard* – Construct a new traffic signal. Provide a through lane and a separate right turn lane on the northbound approach, dual left turn lanes and a through lane on the southbound approach, and dual left turn lanes and one right turn lane on the westbound approach. To be consistent with the segment mitigations a second northbound and southbound through lane is included. Also provide two westbound through lanes for when Chrysanthy Boulevard is connected through Rancho Cordova.
- J. *Grant Line Road and University Boulevard* – Construct a new traffic signal. Provide a through lane and a separate free-right turn lane on the northbound approach, dual left turn lanes and one through lanes on the southbound approach, and dual left turn lanes and a right turn lane on the westbound approach. Also an extra eastbound departure lane is needed for the northbound free-right movement. To be consistent with the segment mitigations a second northbound and southbound through lane is included.

Implementation and Notification (Action by Project Applicant):

- 1. Comply fully with the above measure and the implementing Conditions of Approval which stipulate the timing of the improvements, in coordination with the Sacramento County Department of Transportation.

Verification (Action by the Environmental Coordinator):

- 1. Prior to approval of any Project Plans, coordinate with the Sacramento County Department of Transportation to determine compliance.

☐ MITIGATION MEASURE TR-3: COUNTY ROADWAY

The applicant shall construct or fund, as set forth in the phasing and financing plan approved by the Sacramento County Department of Transportation, the below mitigation measures. The phasing and financing plan shall ensure commencement of construction of traffic improvements prior to degradation of LOS below applicable County standards. This mitigation recognizes that should any of the measures below benefit other projects, a reimbursement agreement and/or a fee credit to the applicant may be considered.

- A. *Prairie City Road from US 50 to White Rock Road* – Increase roadway capacity by upgrading the capacity class for this segment from a rural highway without shoulders to a rural highway with shoulders.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure and the implementing Conditions of Approval which stipulate the timing of the improvements, in coordination with the Sacramento County Department of Transportation.

Verification (Action by the Environmental Coordinator):

1. Prior to approval of any Project Plans, coordinate with the Sacramento County Department of Transportation to determine compliance.

☐ MITIGATION MEASURE TR-4: ELK GROVE ROADWAY

The applicant shall construct or fund, as set forth in the phasing and financing plan approved by the Sacramento County Department of Transportation, and in consultation with the City of Elk Grove, the below mitigation measures. The phasing and financing plan shall ensure commencement of construction of traffic improvements prior to degradation of LOS below the applicable County or City standards. This mitigation recognizes that should any of the measures below benefit other projects, a reimbursement agreement may be considered.

- A. *Grant Line Road from Sheldon Road to Calvine Road* – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with moderate access control.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure and the implementing Conditions of Approval which stipulate the timing of the improvements, in coordination with the Sacramento County Department of Transportation.

Verification (Action by the Environmental Coordinator):

1. Prior to approval of any Project Plans, coordinate with the Sacramento County Department of Transportation to determine compliance.

☐ MITIGATION MEASURE TR-5: RANCHO CORDOVA ROADWAYS

The applicant shall construct or fund, as set forth in the phasing and financing plan approved by the Sacramento County Department of Transportation, and in consultation with the City of Rancho Cordova, the below mitigation measures. The phasing and financing plan shall ensure commencement of construction of traffic improvements prior to degradation of LOS below the applicable County or City standards. This mitigation recognizes that should any of the measures below benefit other projects, a reimbursement agreement may be considered.

- A. *Grant Line Road from Jackson Road to Kiefer Boulevard* – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with moderate access control.
- B. *Grant Line Road from Kiefer Boulevard to University Boulevard* – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with moderate access control.
- C. *Grant Line Road from University Boulevard to Chrysanthy Boulevard* – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with moderate access control.
- D. *Grant Line Road from Chrysanthy Boulevard to North Loop* – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with moderate access control.
- E. *Grant Line Road from North Loop to Douglas Road* – Increase roadway capacity by widening this segment to 6 lanes and upgrading the capacity class to an arterial with moderate access control.
- F. *Grant Line Road from Douglas Road to White Rock Road* – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with moderate access control.
- G. *Jackson Road from Sunrise Boulevard to Grant Line Road* – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with moderate access control.
- H. *Douglas Road from Rancho Cordova Parkway to Grant Line Road* – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with moderate access control between Americanos Boulevard and Grant Line Road, and by adding two westbound travel lanes to Douglas between Rancho Cordova Parkway to Americanos Boulevard. Construct interim sidewalk improvements (typically a detached asphaltic concrete path) and bicycle lanes.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure and the implementing Conditions of Approval which stipulate the timing of the improvements, in coordination with the Sacramento County Department of Transportation.

Verification (Action by the Environmental Coordinator):

1. Prior to approval of any Project Plans, coordinate with the Sacramento County Department of Transportation to determine compliance.

☐ MITIGATION MEASURE TR-6: CALTRANS MAINLINE FACILITIES

The applicant shall be responsible for funding a fair share of the construction costs of the below mitigation measures. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation, in consultation with Caltrans.

- A. *Westbound US 50 from Hazel Avenue to Sunrise Boulevard* – Add an auxiliary lane.
- B. *Eastbound US 50 from Sunrise Boulevard to Hazel Avenue* – Add an auxiliary lane.

Implementation and Notification (Action by Project Applicant):

- 1. Comply fully with the above measure and the implementing Conditions of Approval which stipulate the timing of the improvements, in coordination with the Sacramento County Department of Transportation.

Verification (Action by the Environmental Coordinator):

- 1. Prior to approval of any Project Plans, coordinate with the Sacramento County Department of Transportation to determine compliance.

☐ MITIGATION MEASURE TR-7: PEDESTRIAN/BICYCLE FACILITIES

The applicant shall be responsible for a fair share of the below mitigation measures. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation and may be up to 100% of the cost of the improvements.

- A. Construct interim sidewalk improvements (typically a detached asphaltic concrete path) and bicycle lanes along Grant Line Road from Douglas Road to White Rock Road and on Douglas Road from Rancho Cordova Parkway to Grant Line Road, to the satisfaction of the Sacramento County Department of Transportation.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure and the implementing Conditions of Approval which stipulate the timing of the improvements, in coordination with the Sacramento County Department of Transportation.

Verification (Action by the Environmental Coordinator):

1. Prior to approval of any Project Plans, coordinate with the Sacramento County Department of Transportation to determine compliance.

☐ MITIGATION MEASURE TR-8: COUNTY INTERSECTIONS (CUMULATIVE)

The applicant shall be responsible for a fair share of the below mitigation measures. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation and may be up to 100% of the cost of the improvements.

- A. *School Access and North Loop Road* – Provide dual eastbound left turn lanes.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure and the implementing Conditions of Approval which stipulate the timing of the improvements, in coordination with the Sacramento County Department of Transportation.

Verification (Action by the Environmental Coordinator):

1. Prior to approval of any Project Plans, coordinate with the Sacramento County Department of Transportation to determine compliance.

☐ MITIGATION MEASURE TR-9: RANCHO CORDOVA INTERSECTIONS
(CUMULATIVE)

The applicant shall be responsible for a fair share of the below mitigation measures. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation, in consultation with the City of Rancho Cordova, and may be up to 100% of the cost of the improvements.

- A. *Sunrise Boulevard and Douglas Road* – Provide overlap phasing on the eastbound and westbound right turns.
- B. *Grant Line Road and Douglas Road* – Provide a third southbound through lane and overlap phasing on the eastbound right turn lane. To be consistent with the segment mitigations a third northbound through lane is included.
- C. *Grant Line Road and North Loop Road* – Provide a westbound free-right turn lane. Also an extra northbound departure lane is needed for the westbound free-right movement.
- D. *Grant Line Road and University Boulevard* – Provide a northbound free-right turn lane. Also an extra eastbound departure lane is needed for the northbound free-right movement.

Implementation and Notification (Action by Project Applicant):

- 1. Comply fully with the above measure and the implementing Conditions of Approval which stipulate the timing of the improvements, in coordination with the Sacramento County Department of Transportation.

Verification (Action by the Environmental Coordinator):

- 1. Prior to approval of any Project Plans, coordinate with the Sacramento County Department of Transportation to determine compliance.

☐ MITIGATION MEASURE TR-10: COUNTY ROADWAY (CUMULATIVE)

The applicant shall be responsible for a fair share of the below mitigation measures. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation and may be up to 100% of the cost of the improvements.

- A. *North Loop Road from Street D to Street F* – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with low access control.

Implementation and Notification (Action by Project Applicant):

- 1. Comply fully with the above measure and the implementing Conditions of Approval which stipulate the timing of the improvements, in coordination with the Sacramento County Department of Transportation.

Verification (Action by the Environmental Coordinator):

- 1. Prior to approval of any Project Plans, coordinate with the Sacramento County Department of Transportation to determine compliance.

☐ MITIGATION MEASURE TR-11: RANCHO CORDOVA ROADWAYS
(CUMULATIVE)

The applicant shall be responsible for a fair share of the below mitigation measures. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation, in consultation with the City of Rancho Cordova, and may be up to 100% of the cost of the improvements.

- A. *Grant Line Road from Rancho Cordova Parkway to Kiefer Boulevard* – Increase roadway capacity by widening this segment to a 6 lane arterial with moderate access control.
- B. *Grant Line Road from Kiefer Boulevard to University Boulevard* – Increase roadway capacity by widening this segment to a 6 lane arterial with moderate access control.
- C. *Grant Line Road from North Loop to Douglas Road* – Increase roadway capacity by widening this segment to a 6 lane arterial with moderate access control.
- D. *Grant Line Road from Douglas Road to White Rock Road* – Increase roadway capacity by widening this segment to a 6 lane arterial with moderate access control.

Implementation and Notification (Action by Project Applicant):

- 1. Comply fully with the above measure and the implementing Conditions of Approval which stipulate the timing of the improvements, in coordination with the Sacramento County Department of Transportation.

Verification (Action by the Environmental Coordinator):

- 1. Prior to approval of any Project Plans, coordinate with the Sacramento County Department of Transportation to determine compliance.

ACKNOWLEDGEMENTS

EIR PREPARERS

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EIR CONSULTANTS

Sacramento County Department of Transportation

Sacramento County Department of Water Resources

DKS Transportation Solutions

Atkins (formerly PBS&J)

ECORP Consulting, Inc.

APPLICANT

Cordova Hills Ownership Group

RESOLUTION NO. LAFC 2013-05-0807-02-13

THE SACRAMENTO LOCAL AGENCY FORMATION COMMISSION

***ADOPTING FINDINGS OF FACT AND A STATEMENT OF OVERRIDING
CONSIDERATIONS FOR THE FORMATION OF COUNTY SERVICE AREA No. 13,
DETACHMENT OF CSA No. 4B, ANNEXATION TO SACRAMENTO REGIONAL COUNTY
SANITATION DISTRICT, AND SACRAMENTO AREA SEWER DISTRICT
FOR THE COUNTY OF SACRAMENTO (LAFC 02-13)
(State Clearinghouse # 2010062069)***

WHEREAS, on June 18, 2013, the County of Sacramento (County) submitted an application to the Sacramento Local Agency Formation Commission ("Commission") for the formation of a County Service Area (CSA) and detachment from CSA No 4B (CSA 4B);

WHEREAS, the landowners have concurrently submitted a petition to annex Sacramento Regional County Sanitation District and Sacramento Area Sewer District into the Cordova Hills project territory to provide sewer service to the Cordova Hills Development Project;

WHEREAS, a Draft EIR and Final EIR were prepared and circulated for public review and comment by the County of Sacramento for the project known as Cordova Hills;

WHEREAS, Sacramento Local Agency Formation Commission (LAFCo) is a Responsible Agency under CEQA;

WHEREAS, LAFCo reviewed and provided comments as a Responsible Agency;

WHEREAS, the County of Sacramento certified the Final EIR, adopted a Mitigation, Monitoring, and Reporting Program, and adopted Findings of Fact and Statement of Overriding Considerations for the Cordova Hills Development Project;

WHEREAS, the Commission as a Responsible Agency must consider the following:

- Prior to reaching a decision on the project, the responsible agency must consider the environmental effects of the project as shown in the EIR or Negative Declaration.
- In considering the environmental conclusions of the EIR or Negative Declaration, the responsible agency must evaluate whether any of the conditions set forth in Sections 15162 or 15163 of the CEQA Guidelines requiring preparation of a subsequent or supplemental environmental document exist.
- When considering alternatives and mitigation measures, a responsible agency is more limited than a Lead Agency. A responsible agency has responsibility for mitigating or avoiding only the direct or indirect environmental effects of those parts of the project which it decides to carry out, finance, or approve.
- When an EIR has been prepared for a project, the responsible agency shall not approve the project as proposed if the agency finds any feasible alternative or feasible mitigation measures within its powers that would substantially lessen or avoid any significant effect the project would have on the environment.

- The responsible agency shall make the findings required by Section 15091 for each significant effect of the project and shall make the findings in Section 15093 if necessary.
- The responsible agency should file a Notice of Determination in the same manner as a lead agency under Section 15075 or 15094 except that the responsible agency does not need to state that the EIR or Negative Declaration complies with CEQA. The responsible agency should state that it considered the EIR or Negative Declaration as prepared by a lead agency.

WHEREAS, the Commission has considered the statutory CEQA requirements set forth above;

WHEREAS, the Commission held a Public Hearing on August 7, 2013, and considered all public comments and the Executive Officers Report, and all other information related to the LAFCo action;

WHEREAS, the Commission has considered the EIR (**State Clearinghouse # 2010062069**) and has determined that it was prepared in accordance with the requirements of the California Environmental Quality Act;

NOW, THEREFORE, THE SACRAMENTO LOCAL AGENCY FORMATION COMMISSION RESOLVES AS FOLLOWS:

1. The Commission hereby approves and adopts the Findings of Fact and Statement of Overriding Consideration attached hereto as Exhibit "A", which are incorporated herein, pursuant to CEQA Guidelines § 15162 and § 15163.

2. The Commission declares that it has considered the Final EIR prepared by the Lead Agency (County of Sacramento Final EIR SCH 2010062069) that has been presented to the Commission. The Commission has reviewed the Final EIR and has considered the information contained in the Final EIR prior to acting on the County's application for the formation of CSA No. 13, detachment from CSA No. 4B, annexation to Sacramento Regional County Sanitation District, and Sacramento Area Sewer District, together with the respective Sphere of Influence Amendments, and that the Final EIR reflects the Commission's independent judgment and analysis.

3. The Commission finds that the County of Sacramento did adopt all of the mitigation measures set forth in the Final EIR and has adopted the Mitigation, Monitoring and Reporting Program as required by CEQA.

4. LAFCo finds that it is imperative to balance competing goals in approving the Project and the remaining environmental impacts resulting from the Project. Not every policy or environmental concern has been fully satisfied because of the need to satisfy competing concerns to a certain extent. Accordingly, in some instances LAFCo has chosen to accept certain environmental impacts because to eliminate them would unduly compromise some other important economic, social, environmental, educational or other goal. LAFCo finds and determines that the Project and the supporting environmental documentation provide for a positive balance of the competing goals and that the economic, fiscal, social, environmental, educational and other

benefits to be obtained by the Project outweigh any environmental and related potential detriments from the Project.

Any remaining significant effects on the environment attributable to the Project that are found to be unavoidable, irreversible or not substantially mitigated to a less-than-significant level are acceptable due to the overriding considerations set forth above. LAFCo has concluded that with all the environmental trade-offs of the Project taken into account, the Project's implementation will represent a net positive impact on the County, and based upon such considerations after a comprehensive analysis of all the underlying planning and environmental documentation, LAFCo has approved the Project.

5. The Commission directs that, upon approval of the County's application for the Formation of CSA No 13, the detachment of CSA No. 4B, the annexation of Sacramento Regional County Sanitation District, and the annexation of Sacramento Area Sewer District the Executive Officer is directed to file a Notice of Determination with the County Clerk of Sacramento County

6. Pursuant to CEQA Guideline § 15091(e), the documents and other materials that constitute the Record of Proceedings upon which the Commission has based its decision are located in and may be obtained from the Commission Clerk at 1112 I Street Suite No.100, Sacramento, California.

BE IT FURTHER RESOLVED that Resolution No. ***LAFC 2013-05-0807-02-13*** was adopted by the ***SACRAMENTO LOCAL AGENCY FORMATION COMMISSION***, on the ***7th day of August 2013***, by the following vote, to wit:

	Motion	2nd	Aye	No	Absent	Abstain
Susan Peters			_____	_____	_____	_____
Christopher Tooker			_____	_____	_____	_____
Kevin McCarty			_____	_____	_____	_____
Mike Singleton			_____	_____	_____	_____
Jimmie Yee			_____	_____	_____	_____
Ron Greenwood			_____	_____	_____	_____
Gay Jones			_____	_____	_____	_____
Commission Vote Tally			Aye _____	No _____	Absent _____	Abstain _____
Passed			Yes _____	No _____		

By: _____

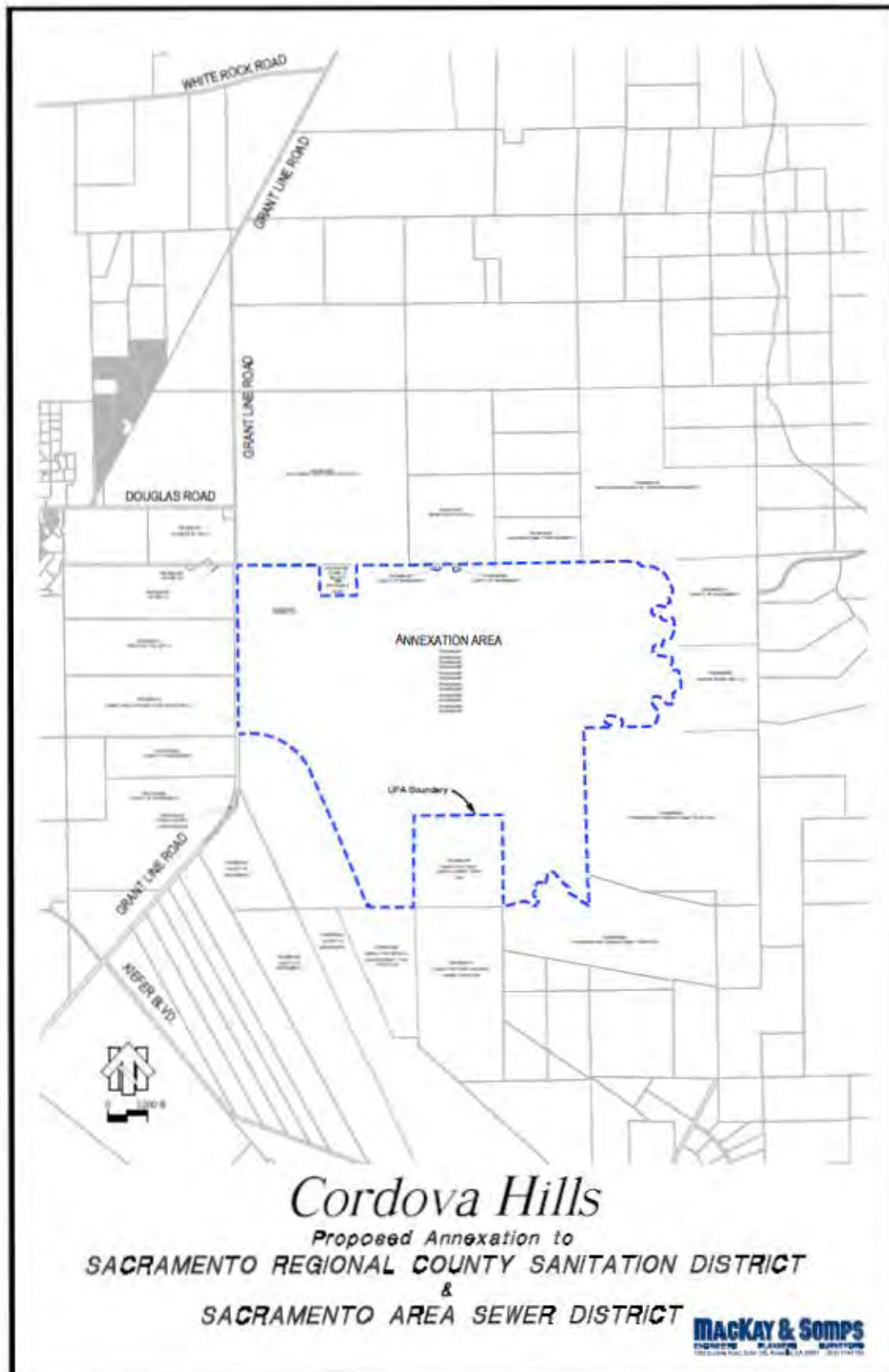
Jimmie Yee, Chair

SACRAMENTO LOCAL AGENCY FORMATION COMMISSION

ATTEST:

Diane Thorpe

Commission Clerk



CORDOVA HILLS PROPERTY

Legal Description for CSA Formation and CSA-4B Detachment

Being a portion of Sections 13, 14, 22, & 23, Township 8 North, Range 7 East & a portion of Section 18, Township 8 North, Range 8 East, Mount Diablo Meridian, County of Sacramento, State of California, being more particularly described as follows:

Beginning at the Northwest corner of said Section 14, said corner being the **TRUE POINT OF BEGINNING**;

1. thence South 89°53'53" East along the North line of said Section 14 a distance of 2648.35 feet;
2. thence leaving said North line South 00°41'41" East along the West line of the Kellett property a distance of 987.11 feet;
3. thence North 89°43'47" East along the South line of said Kellett property a distance of 932.73 feet;
4. thence North 00°42'22" West along the East line of said Kellett property a distance of 981.05 feet to a point on the North line of said Section 14;
5. thence South 89°53'53" East along said North line a distance of 1694.42 feet to the Northeast corner of said Section 14;
6. thence North 89°04'12" East along the North line of said Section 13 a distance of 1706.57 feet;
7. thence leaving said North line South 00°55'48" East along the West line of Well Site #4 as described in Book 20090205, Page 0974 Official Records Sacramento County a distance of 200.00 feet;
8. thence North 89°04'12" East along the South line of said Well Site #4 a distance of 100.00 feet;
9. thence North 00°55'48" West along the East line of said Well Site #4 a distance of 200.00 feet to the North line of said Section 13;
10. thence North 89°04'12" East along said North line a distance of 839.33 feet to the North ¼ corner of said Section 13;
11. thence continuing along said North line North 89°06'59" East a distance of 2630.68 feet to the Northeast corner of Said Section 13;
12. thence North 88°53'52" East along the North line of said Section 18 a distance of 2933.82 feet ;
13. thence leaving said North line South 01°14'05" East along the West line of that certain real property as described in Book 3660, Page 633 Official Records Sacramento County a distance of 2639.82 feet to the Southwest corner of said property;
14. thence continuing South 01°14'05" East along the West line of that certain real property as described in Book 20080930, Page 0331, Official Records Sacramento county a distance of 2641.07 feet to the Southwest corner of said property coincident with the South line of said Section 18;
15. thence South 88°53'27" West along said South line a distance of 2917.90 feet to the southwest corner of said Section 18;

16. thence leaving said South line South 00°43'33" East along the East line of said Section 24 a distance of 5297.55 feet to the Southeast corner of said Section 24;
17. thence South 89°42'30" West along the South line of said Section 24 a distance of 2656.25 feet to the South ¼ corner of said Section 24;
18. thence North 00°48'17" West along the West line of the Southeast ¼ of said Section 24 a distance of 2634.97 feet to the Northwest corner of said Southeast 1/4;
19. thence South 89°49'29" West along the South line of the northwest ¼ of said Section 24 a distance of 2662.82 feet to the West ¼ corner of said Section 24;
20. thence South 00°56'45" East along the East line of said Section 23 a distance of 2640.45 to the southeast corner of said Section 23;
21. thence South 89°34'49" West a distance of 2542.76 feet to the South ¼ corner of said Section 23;
22. thence South 89°32'16" West a distance of 1128.58 feet;
23. thence North 23°48'54" West a distance of 1525.00 feet;
24. thence North 23°24'29" West a distance of 875.00 feet;
25. thence North 23°37'04" West a distance of 1345.77 feet;
26. thence South 40°32'21" West a distance of 246.75 feet;
27. thence North 00°35'59" West a distance of 73.89 feet;
28. thence North 71°23'31" West a distance of 118.02 feet;
29. thence in a northerly direction with a non-tangent curve turning to the left with a radius of 2540.00 feet, having a chord bearing of North 13°20'05" East and a chord distance of 462.81, having a central angle of 10°27'16" and an arc length of 463.46;
30. thence North 00°35'59" West a distance of 1479.04 feet;
31. thence North 00°52'14" West a distance of 5273.59 feet; to the point of beginning.

Containing 2667.835 acres, more or less..

CEQA FINDINGS OF FACT

AND

STATEMENT OF OVERRIDING CONSIDERATIONS

OF THE

SACRAMENTO LOCAL AGENCY FORMATION COMMISSION

FOR THE

FORMATION OF COUNTY SERVICE AREA 13 AND
ESTABLISHMENT OF A COTERMINOUS SPHERE OF
INFLUENCE; DETACHMENT FROM COUNTY SERVICE AREA
4B; AND ANNEXATION TO THE SACRAMENTO REGIONAL
COUNTY SANITATION DISTRICT (SRCSD) AND THE
SACRAMENTO AREA SEWER DISTRICT (SASD)

FOR THE

CORDOVA HILLS PROJECT

ENVIRONMENTAL IMPACT REPORT

July 2013

I. INTRODUCTION

The Final Environmental Impact Report (“FEIR”) prepared for the Cordova Hills Project (the “Project”) as adopted by Sacramento County addresses the environmental effects associated with construction and operation of the proposed Cordova Hills Special Planning Area. As part of the implementation process of the Cordova Hills project, the Sacramento Local Agency Formation Commission (“LAFCo”) would approve the formation of the County Service Area No. 13 (CSA) to serve the Cordova Hills Community, detachment from the Sacramento County Regional Parks Department County Service Area 4B, and annexation to the Sacramento Area Sewer District (SASD) for the collection of wastewater and the Sacramento Regional County Sanitation District (SRCSD) for conveyance and treatment of wastewater. These LAFCo actions are part of the larger Cordova Hills project described below and is the “LAFCo Project” subject to these findings.

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These CEQA Findings of Fact and Statement of Overriding Considerations have been prepared to comply with the requirements of the California Environmental Quality Act (“CEQA”) (Public Resources Code, Section 21000 *et seq.*) and the CEQA Guidelines (Cal. Code of Regulations, Title 14, Section 15000 *et seq.*) These findings refer to the Final EIR (“FEIR”) where the material appears in that document. Otherwise, references are to the Draft EIR (“DEIR”).

CEQA generally requires that a lead agency must take reasonable efforts to mitigate or avoid significant environmental impacts when approving a project. For the Cordova Hills, the lead agency is Sacramento County. In order to effectively evaluate any potentially significant environmental impacts of a proposed project, an environmental impact report (“EIR”) must be prepared. The EIR is an informational document that serves to inform the agency decision-making body and the public in general of any potentially significant environmental impacts. The preparation of an EIR also serves as a medium for identifying possible methods of minimizing any significant effects and assessing and describing reasonable alternatives to the project.

~~The Cordova Hills EIR has been prepared as a Project EIR pursuant to CEQA Guidelines Section 15161. The purpose of a project-level EIR is to provide environmental review of the planning, construction, and operational impacts of a project.~~

~~All other agencies with jurisdiction over aspects of the Cordova Hills project are considered to be “responsible agencies” for purposes of CEQA. As specified by Section 15096 of the CEQA Guidelines, the duties of a responsible agency in using an environmental document prepared by the lead agency include:~~

- ~~•Prior to reaching a decision on the project, the responsible agency must consider the environmental effects of the project as shown in the EIR or Negative Declaration.~~
- ~~•In considering the environmental conclusions of the EIR or Negative Declaration, the responsible agency must evaluate whether any of the conditions set forth in Sections 15162 or 15163 of the CEQA Guidelines requiring preparation of a subsequent or supplemental environmental document exist.~~
- ~~•When considering alternatives and mitigation measures, a responsible agency is more limited than a Lead Agency. A responsible agency has responsibility for mitigating or~~

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~~avoiding only the direct or indirect environmental effects of those parts of the project which it decides to carry out, finance, or approve.~~

- ~~•When an EIR has been prepared for a project, the responsible agency shall not approve the project as proposed if the agency finds any feasible alternative or feasible mitigation measures within its powers that would substantially lessen or avoid any significant effect the project would have on the environment.~~
- ~~•The responsible agency shall make the findings required by Section 15091 for each significant effect of the project and shall make the findings in Section 15093 if necessary.~~
- ~~•The responsible agency should file a Notice of Determination in the same manner as a lead agency under Section 15075 or 15094 except that the responsible agency does not need to state that the EIR or Negative Declaration complies with CEQA. The responsible agency should state that it considered the EIR or Negative Declaration as prepared by a lead agency.~~

~~For the proposed formation of CSA No. 13, detachment from the Sacramento County Regional Parks Department County Service Area 4B, and annexation to the SASD and the SRCSD, the responsible agency is LAFCo. As a responsible agency, Project consideration by LAFCo is governed by the requirements of CEQA Guidelines Section 15096 as set forth above.~~

II. TERMINOLOGY OF FINDINGS

Section 15091 of the CEQA Guidelines requires that, for each significant environmental effect identified in an EIR for a proposed project, the approving agency must issue a written finding reaching one or more of three allowable conclusions. As a responsible agency, the Sacramento LAFCo ("LAFCo") is required to make these findings for the proposed project (CEQA Guidelines Section 15096(h)). Once an EIR has been completed which identifies one or more potentially significant environmental impacts, the approving agency must make one or more of the following findings for each identified area of impact:

1. Changes or alterations which avoid or mitigate the significant environmental effects as identified in the EIR have been required or incorporated into the project; or,
2. Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency; or,
3. Specific economic, legal, social, technological, or other considerations, including consideration for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the EIR. (Public Resources Code Section 21081)

For purposes of these findings, the terms listed below will have the following definitions:

- The term "mitigation measures" shall constitute the "changes or alterations" discussed above.
- The term "avoid or substantially lessen" will refer to the effectiveness of one or more of the mitigation measures or alternatives to reduce the severity of an environmental effect.

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- The term “feasible,” pursuant to the CEQA Guidelines, means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.

When LAFCo finds a measure is not feasible, it will provide evidence for its decision and may adopt substitute mitigation that is feasible, and designed to reduce the magnitude of the impact. In other cases, LAFCo may decide to modify the proposed mitigation. Modifications generally update, clarify, streamline, or revise the measure to comport with current engineering practices, budget conditions, market conditions or existing LAFCo or Sacramento County policies, practices, and/or goals. Modifications achieve the intent of the proposed mitigation without reducing the level of protection. Thus, LAFCo may have modified the language of some of the mitigation measures set forth herein for purposes of clarification and consistency, to enhance enforceability, to defer more to the expertise of agencies with jurisdiction over the affected resources, to summarize or strengthen their provisions, and/or make the mitigation measures more precise and effective, all without making any substantive changes to the mitigation measures.

III. DEFINITIONS

“APN” means Assessor’s Parcel Number.

“Applicants” collectively means Cordova Hills, LLC; Grant Line, LLC; and Cielo, LLC.

“Board” means the Board of Supervisors of the County of Sacramento.

“CAAQ” means the California Ambient Air Quality Standard.

“CARB” means the California Air Resources Board.

“CEQA” means the California Environmental Quality Act.

“CEQA Findings” means these CEQA Findings of Fact and Statement of Overriding Considerations for the Cordova Hills Project.

“CO₂e” means carbon dioxide equivalent.

“Commission” means Sacramento Local Agency Formation Commission

“Condition” or “Condition of Approval” means a condition of approval adopted by the County in connection with approval of the Project.

“Cordova Hills LSD” or “Cordova Hills Local Services District” means a county service area formed to provide municipal services to the Project area.

“County” means the County of Sacramento.

“County Planning Commission” means the County Planning Commission of the County of Sacramento.

“CPAC” means Community Planning Advisory Council.

“CSA” means County Service Area

“dB” means decibels.

“DEIR” or “Draft EIR” means the Draft Environmental Impact Report for the Project (January 9, 2012).

“DERA” means the County of Sacramento Community Development Department’s Planning and Environmental Review Division.

“DOT” means the County of Sacramento Department of Transportation.

“EIR” means Environmental Impact Report, consisting of both the DEIR and FEIR.

“Environmental Coordinator” means the person within the County of Sacramento’s Community Development Department designated to act as the Environmental Coordinator for DERA.

“FEIR” or “Final EIR” means the Final Environmental Impact Report for the Project (November 2012).

“GHG” means greenhouse gases.

“lbs./day” means pounds per day.

“Ldn” means Day-Night Equivalent Noise Level.

“LAFCo” means Sacramento Local Agency Formation Commission

“LOS” means level of service.

“MMRP” means Mitigation Monitoring and Reporting Program.

“MT” means metric tons.

“NOP” means Notice of Preparation.

“NOx” means oxides of nitrogen.

“Planning Department” means the County of Sacramento Department of Community Development.

“PM10” means fine particulate matter 10 microns in diameter or less.

“PM2.5” means fine particulate matter 2.5 microns in diameter or less.

“Project” means the Cordova Hills Project.

“ROG” means reactive organic gases.

“SACOG” means the Sacramento Area Council of Governments.

“SASD” means Sacramento Area Sewer District

“SMAQMD” means the Sacramento Metropolitan Air Quality Management District.

“SRCSD” means Sacramento Regional County Sanitation District

“Staff Report” means the Sacramento County Staff Report to the Board of Supervisors for the Project for the Agenda of December 12, 2012.

“Staff Report Addendum #12” means Addendum #12 to the Sacramento County Staff Report, for the Agenda of January 29, 2013.

“Staff Report Addendum B” means Addendum #B to the Sacramento County Staff Report, for the Agenda of March 12, 2013.

“TAC” means toxic air contaminants.

“USB” means Urban Services Boundary

“U.S. 50” means United States Highway 50.

“V/C” means volume-to-capacity ratio.

“VMT” means vehicle miles travelled.

IV. PROJECT DESCRIPTION

PROJECT LOCATION AND SETTING

The Project site is located in the southeastern portion of Sacramento County on approximately 2,669 acres, adjacent to the east side of the City of Rancho Cordova. Grant Line Road extends along the Project’s western boundary. The eastern side of the Project site abuts Carson Creek. The northern boundary of the Project site is Glory Lane, an unimproved two-lane gravel road that intersects Grant Line Road just south of Douglas Road. The Kiefer Landfill and the Landfill’s 2,000 ft. buffer zone are southwest of the Project site. The Property that contains the Project site consists of APNs 073-0040-020 through -026, 073-0040-029, 073-0050-023, and 073-0050-052. As identified on the U.S. Geological Survey “Buffalo Creek, California” 7.5’ topographic quadrangle map, the project site consists of portions of Sections 13, 14, and most of Section 23 in Township 8 North, Range 7 East, and the western half of Section 18 in Township 8 North, Range 8 East, Mount Diablo Base and Meridian.

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PROJECT DESCRIPTION

The Project includes a mix of residential uses from high density residential along the western edge of the Project to low density residential along the eastern boundary approaching the Urban Services Boundary (USB). The Project includes a Town Center commercial area adjacent to Grant Line Road. Just southeast of the Town Center is the proposed location of a university/college campus center. The Project includes mixed uses consisting of residential, office, retail, a university/college campus center, schools, parks, and a trail network. Cordova Hills is organized into six distinct districts/villages (Town Center, University Village, Ridgeline, East Valley, Creekside, and Estates). The proposed Project includes a maximum of 8,000 residential units and 1.3 million square feet of commercial uses, approximately 70 acres of formal parkland and 150 acres of passive recreation land, 26 miles of Community Class II on-street bicycle paths and 22 miles of off-street trails and paths, three designated school sites, and plans for a transit system.

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The Project will require amendments to the Sacramento County General Plan in order to include the site within the Urban Policy Area and recognize the proposed land uses, streets, and bikeways on the Land Use Diagram, Transportation Plan, and Bikeway Master Plan. The entire site will be rezoned from Agriculture (AG-80) to Special Planning Area (SPA). The adopted SPA will then become the primary land use document that stipulates uses and designs allowable within the Project area. There are 485 acres in the southeastern portion of the site that are under Williamson Act contract. The contract is in non-renewal and is expected to expire in 2016. The Project will also require an amendment of the Zone 40 Water Supply Master Plan, as the Project area is not included in the existing planning document, and includes a General Plan Amendment to allow limited water service outside of the Urban Services Boundary.

PROJECT OBJECTIVES

The proponent's Project objectives are as follows:

- Develop a mixed use community that is designed in a manner that provides compatible land uses and reduces overall internal vehicle trips.
- Develop an economically feasible master planned community that reasonably minimizes its impact on biologically sensitive natural resources with feasible onsite wetland avoidance and preservation.
- Develop a sustainable, multi-service town center that promotes walkability and alternative transit modes including but not limited to Neighborhood Electric vehicles (NEVs), light rail, shuttle bus, and carpool facilities.
- Provide uses for two underserved markets in the southeast Sacramento region:
 - Provide for development of a major private university/college campus center in Sacramento County.
 - Provide residential neighborhoods that are age restricted in order to serve seniors and larger lot sizes for executive housing to serve corporate executives.
- Develop internal Project infrastructure and circulation networks of multiple modes that provide efficient connections to various land use components throughout the Project; specifically, trail opportunities to enhance the integration between the university/college

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campus center, town center, schools, and preserves/open space corridors surrounding the Project.

- Develop recreational and open space opportunities that include neighborhood and community parks that are fully integrated into the Project through adequate trail connections and provide critical regional trail connections associated with adjacent trail systems.
- Allow for the inclusion of alternative energy sources to serve the mixed use community.

The objective of the LAFCo Project is to support orderly and systematic regional development, including adequate provision of services.

DISCRETIONARY ACTIONS

Under the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000, LAFCo has the power to approve or disapprove applications, modify boundaries of a proposal, and impose reasonable conditions of approval (Government Code Section 560000, et. seq.). As a responsible agency for the Cordova Hills EIR, LAFCo complies with CEQA by considering the EIR and reaching its own conclusions regarding the environmental effects of the project. As part of the implementation of the Cordova Hills project, LAFCo would take the following actions:

- Approve formation of the County Service Area No. 13 and its coterminous Sphere of Influence
- Approve detachment from the Sacramento County Regional Parks Department County Service Area 4B
- Annex the Project area into the SASD for the collection of wastewater and the SRCSD for conveyance and treatment of wastewater.

The County has taken the following actions as part approval of the Cordova Hills project:

- Certification of the Environmental Impact Report
- Adoption of a Mitigation Monitoring Program for the Project
- Approval of the Cordova Hills project, which includes the following entitlements to permit its physical development:
 - 1) A **General Plan Amendment** to move the Urban Policy Area (UPA) boundary east to include approximately 2,366.3 \pm acres of the Project Area.
 - 2) A **General Plan Amendment** to amend the Land Use Diagram from General Agriculture to Low Density Residential, Medium Density Residential, Commercial and Office, Recreation, Natural Preserve, and Public/Quasi Public for approximately 2,366.3 \pm acres.
 - 3) A **General Plan Amendment** to include a new policy in the Land Use Element to address the provision of limited public water service to serve uses potentially allowed by the Cordova Hills Special Planning Area and currently allowed in the County of Sacramento Permanent Agricultural Zone designation for 251 acres located in proximity to the Kiefer Landfill, and an Amendment to LU-1 to reference this exception.
 - 4) Amend the **General Plan Transportation Diagram** to show new thoroughfares,

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arterials and collectors as shown in the Transportation General Plan Amendment Diagram dated October 17, 2011.

- 5) Amend **the Bikeway Master Plan to add on-street and off-street bikeways** as shown in the Bikeways Master Plan Amendment Diagram dated October 17, 2011.
- 6) A **Zoning Ordinance Amendment** to adopt the Cordova Hills Special Planning Area (SPA) to incorporate the Cordova Hills Master Plan including Design Guidelines and Development Standards. The SPA consists of a total of approximately 2,668.7 \pm acres.
- 7) A **Large Lot Tentative Subdivision Map** to create 155 large lot parcels for the purpose of creating legal parcels corresponding to villages within the Cordova Hills SPA and within the approximately 2,669 \pm acre SPA. Included on the Map are requests for abandonment of easements.
- 8) An **Affordable Housing Plan** with two options as presented in the Plan consisting of on-site construction of multi-family units or land dedication.
- 9) A **Development Agreement** by and between the County of Sacramento and Property Owners.
- 10) Adoption of a **Public Facilities Financing Plan** for the Cordova Hills Project that includes a Capital Improvement Program and Financing Plan.
- 11) A **Street Resolution** to allow certain County streets within the Cordova Hills Land Use Master Plan to be based on less than a 40-foot right-of-way, pursuant to State of California Streets and Highways Code Section 906.
- 12) **Zone 40 Boundary:** Amend Zone 40 boundary to include the 251 \pm acres of the Cordova Hills Project which lies outside of the Urban Services Boundary.
- 13) **Zone 41 Boundary:** Amend Zone 41 boundary to include the 251 \pm acres of the Cordova Hills Project which lies outside of the Urban Services Boundary.
- 14) Adoption of the **Cordova Hills Water Supply Master Plan Amendment:** Amends the existing Zone 40 Water Supply Master Plan to include provision of water service to Cordova Hills.

| The discretionary action required of the Sacramento County Board of Supervisors (Board) to approve the Project was the adoption of all of those requested entitlements in order to allow the development of the Project, with the exception of the Zone 40 and Zone 41 Boundary amendments and the Cordova Hills Water Supply Master Plan Amendment, which are to be adopted by the Board of the Sacramento County Water Agency in connection with the Project.

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V. BACKGROUND

| On July 1, 2008, the Applicants submitted an application for the Project (Control #2008-GBP-SDP-ZOB-AHP-00142). Previously, on May 14, 2008, the Board of Supervisors voted to accept an application to amend the Urban Policy Area boundary and to accept an application for the future development of the Project.

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| On June 22, 2010, the County issued a Notice of Preparation (NOP) of an EIR for the Project. The NOP for the Project was distributed to the State Clearinghouse, responsible agencies, interested groups and individuals, and surrounding property owners. The NOP was circulated for a 30-day

comment period, which ended on July 22, 2010. Fifteen (15) letters were received in response to the NOP.

- | On August 3, 2010, the County held a public scoping meeting for the Project at the offices of the Sacramento County Department of Transportation, 9630 Conservation Way, Sacramento, California. A notice of the scoping meeting was sent to all individuals and agencies on the NOP mailing list, counties and cities surrounding the area, property owners within 500 feet of the Project site and other interested parties known to the County. The purpose of the scoping meeting was to solicit comments regarding the scope of the EIR.
- | On January 9, 2012, the Draft Environmental Impact Report (DEIR) for the Project was released for public review. The DEIR was circulated through the State Clearinghouse for a 45-day public review period, which ended on February 22, 2012.
- | On March 18, 2010, the Cordova Community Planning Advisory Council (CPAC) considered the Project as an informational item with a Project overview and introduction to the Project given by the Applicants and received public comments regarding the Project. No action was taken.
- | On June 23, 2010, the Cosumnes Community Planning Advisory Council (CPAC) considered the Project as an informational item with a Project overview and introduction to the Project given by the Applicants and received public comments regarding the Project. No action was taken.
- | On January 19, 2012, the Cordova CPAC held a public hearing on the Project. After receiving public comments regarding the Project and DEIR, the CPAC voted in favor of recommending approval of the Applicants' requested General Plan Amendment and all other requested land use entitlements.
- | On January 25, 2012, the Cosumnes CPAC held a public hearing on the Project. After receiving public comments regarding the Project and DEIR, the CPAC voted in favor of recommending approval of the Applicants' requested General Plan Amendment and all other requested land use entitlements.
- | On September 24, 2012, the Planning Commission held a public hearing on the Project and DEIR. After receiving public comments regarding the Project and DEIR, the Planning Commission closed the public comment period, directed staff to prepare the Final EIR and recommended approval of the project to the Board on a 4-0 (with 1 absent) vote.
- | On November 28, 2012, the Final EIR (FEIR) for the Project was released for public review by the County.
- | On December 12, 2012 the Board of Supervisors held a public hearing regarding the Project. After receiving public comments on the Project, the Board closed the public comment period and continued the Project to January 29, 2013.
- | On December 12, 2012 the Board of Supervisors held a public hearing regarding the Project. After receiving public comments on the Project, the Board closed the public comment period and continued the Project to January 29, 2013.

On January 29, 2013 the Board of Supervisors opened the continued hearing regarding the Project. The Board took action on several entitlements associated with the project and continued the Project to March 12, 2013.

On March 12, 2013, the Board of Supervisors opened the continued hearing regarding the Project. The Board approved a Zoning Code Amendment to adopt the Cordova Hills Special Planning Area and Master Plan, a Public Facilities Financing Plan, and an Urban Services and Governance Plan.

LAFCo is making findings that the relevant CEQA issues of the potential environmental impacts from the reorganization actions that have been included in the Cordova Hills project EIR and are described in Section III of these findings. These findings will focus on those impacts and respective mitigation measures that are relevant to LAFCo actions. The impacts not relevant to these actions will be identified.

VI. RECORD OF PROCEEDINGS

For purposes of CEQA and these Findings, the record of proceedings for the Project consists of the following documents, at a minimum:

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- The Project application package for the Cordova Hills Project (Sacramento County Project Control Number 2008-GPB-SDP-ZOB-AHP-00142, including all written documentation, maps, and subsequent amendments and submittals;
- The Notice of Preparation and other public notices issued by the County in conjunction with the Project;
- The Draft Environmental Impact Report for the Project (January 9, 2012);
- All comments submitted by agencies or members of the public during the comment period on the Draft EIR and responses to those comments;
- The Final EIR prepared for the Project (November 28, 2012), including comments received on the Draft EIR and responses to those comments;
- All comments and correspondence submitted to the County with respect to the Project, in addition to timely comments on the Draft EIR;
- The Mitigation, Monitoring and Reporting Program for the Project;
- All findings and resolutions adopted by LAFCo, Sacramento County, and the Sacramento County Water Agency decision-makers in connection with the Project, and all documents cited or referred to therein;
- All reports, studies, memoranda, maps, staff reports, and other planning documents relating to the Project prepared by LAFCo, consultants to LAFCo, Sacramento County, and the Sacramento County Water Agency, and responsible or trustee agencies with respect to LAFCo's, Sacramento County's, and the Sacramento County Water Agency's compliance with the requirements of CEQA and with respect to LAFCo, Sacramento County, and the Sacramento County Water Agency actions on the Project;
- All minutes and verbatim transcripts of all information sessions, public meetings, and public hearings held by LAFCo, Sacramento County, and the Sacramento County Water Agency in connection with the Project;

- Any documentary or other evidence submitted to LAFCo, Sacramento County, and the Sacramento County Water Agency at such information sessions, public meetings and public hearings;
- Matters of common knowledge to LAFCo, Sacramento County, and the Sacramento County Water Agency, including, but not limited to, the following:

- 1) Federal, state, and local laws and regulations;
- 2) The County General Plan (2011);
- 3) The Zoning Code of Sacramento County;
- 4) The Sacramento County Code;
- 5) Other formally adopted policies and ordinances.

- Any documents expressly cited in these CEQA Findings, in addition to those cited above; and
- Any other materials required for the record of proceedings by Public Resources Code Section 21167.6, subdivision (e).

The custodian of LAFCo documents comprising the record of proceedings is **Peter Brundage**, LAFCo Executive Officer, whose office is located at 1112 I Street, Suite 100, Sacramento, CA 95814.

LAFCo has relied on all of the documents listed above in reaching its decision on the Cordova Hills project, even if not every document was formally presented to LAFCo as part of the LAFCo and County files generated in connection with the Project. Without exception, any documents set forth above not found in the Project files fall into one of two categories. Many of them reflect prior planning or legislative decisions with which LAFCo was aware in approving the project. (See City of Santa Cruz v. Local Agency Formation Commission (1978) 76 Cal.App.3d 381, 391-392; Dominey v. Department of Personnel Administration (1988) 205 Cal.App.3d 729, 738, fn. 6.) Other documents influenced the expert advice provided to LAFCo or consultants. For that reason, such documents form part of the underlying factual basis for the Commission's decisions relating to the formation of the CSA and concurrent detachment of the project area from the Sacramento County County Service Area 4B and County Service Area 10, and annexation to the SASD and SRCSD. (See Pub. Resources Code, Section 21167.6, subd. (e)(10); Browning-Ferris Industries v. City Council of City of San Jose (1986) 181 Cal.App.3d 852, 866; Stanislaus Audubon Society, Inc. v. County of Stanislaus (1995) 33 Cal.App.4th 144, 153, 155.)

VII. FINDINGS REQUIRED UNDER CEQA

Public Resources Code Section 21002 provides that "public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would *substantially lessen* the significant environmental effects of such projects" (emphasis added). The procedures required by CEQA "are intended to assist public agencies in systematically identifying both the significant effects of projects and the feasible alternatives or feasible mitigation measures which will *avoid* or *substantially lessen* such significant effects" (emphasis added). Section 21002 goes on to state that "in the event [that] specific economic, social, or other conditions make infeasible such project alternatives or such mitigation measures, individual projects may be approved in spite of one or more significant effects thereof."

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| The mandate and principles announced in Public Resources Code Section 21002 are implemented, in part, through the requirement that agencies must adopt findings before approving projects for which EIRs are required (see Public Resources Code Section 21081, subd. (a); CEQA Guidelines Section 15091, subd. (a)). For each significant environmental effect identified in an EIR for a proposed project, the approving agency must issue a written finding reaching one or more of three permissible conclusions. The first such finding is that “[c]hanges or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the final EIR” (CEQA Guidelines Section 15091, subd. (a)(1)). The second permissible finding is that “[s]uch changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency” (CEQA Guidelines Section 15091, subd. (a)(2)). The third potential conclusion is that “[s]pecific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the final EIR” (CEQA Guidelines Section 15091, subd. (a)(3)). Public Resources Code Section 21061.1 defines “feasible” to mean “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social and technological factors.” CEQA Guidelines Section 15364 adds another factor: “legal” considerations (see also Citizens of Goleta Valley v. Board of Supervisors (“Goleta II”) (1990) 52 Cal.3d 553, 565).

| The concept of “feasibility” also encompasses the question of whether a particular alternative or mitigation measure promotes the underlying goals and objectives of a project (City of Del Mar v. City of San Diego (1982) 133 Cal.App.3d 410, 417). “[F]easibility” under CEQA encompasses ‘desirability’ to the extent that desirability is based on a reasonable balancing of the relevant economic, environmental, social, and technological factors” (*Ibid.*; see also Sequoyah Hills Homeowners Assn. v. City of Oakland (1993) 23 Cal.App.4th 704, 715). Further, alternatives are to be selected based on the “rule of reason”, and there is not an established directive that dictates the scope or nature of the alternative (Citizens for Open Government v. City of Lodi (2012) 205 Cal.App.4th 296).

| The CEQA Guidelines do not define the difference between “avoiding” a significant environmental effect and merely “substantially lessening” such an effect. LAFCo must therefore glean the meaning of these terms from the other contexts in which the terms are used. Public Resources Code Section 21081, on which CEQA Guidelines Section 15091 is based, uses the term “mitigate” rather than “substantially lessen.” The CEQA Guidelines therefore equate “mitigating” with “substantially lessening.” Such an understanding of the statutory term is consistent with the policies underlying CEQA, which include the policy that “public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would *substantially lessen* the significant environmental effects of such projects” (Public Resources Code Section 21002, emphasis added).

| For purposes of these findings, the term “avoid” refers to the effectiveness of one or more mitigation measures to reduce an otherwise significant effect to a less-than-significant level. In contrast, the term “substantially lessen” refers to the effectiveness of such measure or measures to substantially reduce the severity of a significant effect, but not to reduce that effect to a less-than-significant level. These interpretations appear to be mandated by the holding in Laurel Hills Homeowners Association v. City Council (1978) 83 Cal.App.3d 515, 519-527, in which the Court of Appeal held that an agency had satisfied its obligation to substantially lessen or avoid significant

effects by adopting numerous mitigation measures, not all of which rendered the significant impacts in question less than significant.

- | Although CEQA Guidelines Section 15091 requires only that approving agencies specify that a particular significant effect is “avoid[ed] *or* substantially lessen[ed],” these findings, for purposes of clarity, in each case will specify whether the effect in question has been reduced to a less-than-significant level, or has simply been substantially lessened but remains significant.
- | Moreover, although Section 15091 of the CEQA Guidelines, read literally, does not require findings to address environmental effects that an EIR identifies as merely “potentially significant,” these findings will nevertheless fully account for all such effects identified in the EIR.
- | CEQA requires that the lead agency adopt mitigation measures or alternatives, where feasible, to substantially lessen or avoid significant environmental impacts that would otherwise occur. Project modification or alternatives are not required, however, where such changes are infeasible or where the responsibility for modifying the project lies with some other agency (CEQA Guidelines Section 15091, subd. (a), (b)).
- | With respect to a project for which significant impacts are not avoided or substantially lessened either through the adoption of feasible mitigation measures or feasible environmentally superior alternative, a public agency, after adopting proper findings, may nevertheless approve the project if the agency first adopts a statement of overriding considerations setting forth the specific reasons why the agency found that the project’s “benefits” rendered “acceptable” its “unavoidable adverse environmental effects” (CEQA Guidelines Sections 15093, 15043, subd. (b); see also Public Resources Code Section 21081, subd. (b)). The California Supreme Court has stated that, “[t]he wisdom of approving . . . any development project, a delicate task which requires a balancing of interests, is necessarily left to the sound discretion of the local officials and their constituents who are responsible for such decisions. The law as we interpret and apply it simply requires that those decisions be informed, and therefore balanced” (Goleta II, 52 Cal.3d 553, 576).
- | In seeking to effectuate the substantive policy of CEQA to substantially lessen or avoid significant environmental impacts to the extent feasible, a public agency, in adopting findings, need not necessarily address the feasibility of both mitigation measures and environmentally superior alternatives when contemplating approval of a project with significant impacts. Where a significant impact can be mitigated to an “acceptable” level solely by the adoption of feasible mitigation measures, the public agency, in drafting its findings, has no obligation to also consider the feasibility of any environmentally superior alternative that could also mitigate or substantially lessen that same impact – even if the alternative would render the impact less severe than would the proposed project as mitigated. (Laurel Hills Homeowners Association v. City Council (1978) 83 Cal.App.3d 515,521, see also Kings County Farm Bureau v. City of Hanford (1990) 221 Cal.App.3d 692, 730-731; and Laurel Heights Improvement Association v. Regents of the University of California (“Laurel Heights I”) (1998) 47 Cal.3d 376, 400-403.)
- | These findings reflect the independent judgment of LAFCo and constitute its best efforts to set forth the rationales and support for its decision under the requirements of CEQA.

VIII. LEGAL EFFECTS OF FINDINGS

To the extent that these findings conclude that various proposed mitigation measures outlined in the Final EIR are feasible and have not been modified, superseded or withdrawn, LAFCo hereby finds that such measures are within the jurisdiction of another public agency and not that of LAFCo, and that such other agency has adopted such measures. These measures have been adopted by the County through the preparation and adoption of the MMRP as described below.

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The mitigation measures are referred to in the Mitigation Monitoring and Reporting Plan (MMRP) adopted by the County in conjunction with its own findings, and will be effectuated through the process of constructing and implementing the Project.

IX. MITIGATION MONITORING AND REPORTING PROGRAM

A Mitigation Monitoring and Reporting Program (MMRP) has been prepared for the Project and has been adopted in conjunction with Findings made by the Board of Directors of Sacramento County. (See Pub. Resources Code, Section 21081.6, subd. (a)(1).) The County will use the MMRP to track compliance with Project mitigation measures. Implementation of the mitigation measures is outside the jurisdiction of LAFCo.

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X. SIGNIFICANT EFFECTS AND MITIGATION MEASURES

The Draft EIR identified several significant environmental effects (or “impacts”) that adoption and implementation of the Cordova Hills project would cause. Many significant effects were avoided altogether because the proposed Project, as adopted, contains requirements that prevent the occurrence of significant effects in the first place. Such provisions are identified as mitigation in the DEIR and FEIR. Some significant impacts of implementation of the Project, however, cannot be avoided by the adoption of feasible mitigation measures or feasible alternatives; these effects are outweighed by overriding considerations set forth in Section XII below. This Section (X) presents in greater detail LAFCo’s findings with respect to the environmental effects of the Project.

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A. LESS-THAN-SIGNIFICANT IMPACTS/NO MITIGATION.

These CEQA Findings do not address impacts that were determined to be less than significant or beneficial prior to mitigation. Therefore, these Findings do not address the following impacts because they were determined to be either less than significant or beneficial in the Final EIR:

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- **Air Quality / Project Operation Would Generate CO Emissions** – Eighteen intersections would either be subject to degradation of LOS to a level of service E or worse, or add vehicles to an intersection already operating at an LOS of E or worse. Examining these facilities as compared to the SMAQMD screening methodology for CO impacts, Project traffic would not cause threshold exceedance.
- **Geology and Soils** – Multiple topics were examined: soil erosion, expansive soils, naturally occurring asbestos, mineral resources, and geologic hazards. The Project has the potential to increase soil erosion due to disturbance of onsite soils, and some of the

soils in the Project area have a high shrink-swell potential. There are existing regulations in place to address both of these issues, including the Sacramento County Land Grading and Erosion Control Ordinance, the Uniform Building Code, and the California Building Code. The Project site is not considered likely to include asbestos-containing soils, and soil testing found no evidence of naturally occurring asbestos. There are no mapped mineral resources on the site, and furthermore, the Project includes a plan to use whatever suitable rock deposits are found on the site to serve Project construction needs; the Project will not obstruct access to mineral resources. Seismic ground-shaking hazards are low in Sacramento County, and existing building codes require adherence to seismic design standards.

- **Hydrology and Water Quality / Hydrology** – The Project included a Drainage Master Plan which evaluated the on- and off-site floodplains, the potential for hydromodification of stream channels, and the adequacy of existing and planned stormwater infrastructure. The existing floodplains on the site will be within the Avoided Areas where no development will occur, and detention basins have been included to ensure that the post-Project flow rates do not exceed pre-Project rates. Put in general terms, the design to prevent hydromodification is typically a detention basin outlet control structure which retains all stormwater runoff generated up to a 10-year event and slowly releases the runoff through a very small outlet. The Project also includes stormwater infrastructure which is sufficient to handle flows.
- **Hydrology and Water Quality / Water Quality** – Compliance with adopted Ordinances and standards will ensure that future development projects implemented as a result of Project approval will not cause violation of a water quality standard or waste discharge requirement, result in substantial erosion or siltation, and will not result in substantial increases to polluted runoff associated with construction. Compliance with the County Stormwater Ordinance, implementation of Low impact Development Standards, and implementation of the Drainage Master Plan will ensure that development of the site will not alter the course of local waterways in a manner that results in substantial erosion or siltation, will not cause violation of a water quality standard or waste discharge requirement, and will not result in substantial increases to polluted runoff.
- **Land Use / Conflict with Adopted Land Use Plans** – The Project uses are compatible with the surrounding existing and proposed land use plans, and would not result in substantial conflicts with land use plans designed to avoid environmental effects.
- **Land Use / Conflict with General Plan Growth Management Policy** – General Plan Policy LU-120 is intended to reduce impacts of many different types – such as growth inducement, unacceptable operating conditions on roadways, poor air quality, and lack of appropriate infrastructure – by establishing design criteria for all amendments to the Urban Policy Area. A project must be consistent with LU-120 before it may be considered for approval. The Planning Division has reviewed the Project for consistency with LU-120 and has found in the affirmative. The Project has been deemed consistent with criteria PC-1 through PC-10, and has achieved a total of 21 points in the criteria-based standards (CB-1 through CB-5). A total of 18 points is required and 24 points are possible. Given that the Project has been deemed consistent, Project impacts related to conflict with growth management policy are less than significant.

- **Land Use / Conflict with General Plan Policies related to Growth Inducement** – The Project is inconsistent with Policy LU-1, and includes a General Plan Amendment to address this inconsistency. The General Plan Amendment includes language specifically intended to avoid growth-inducing impacts.
- **Land Use / Conflict with General Plan Policies related to Public Services and Utilities** - Compliance with General Plan Policies LU-13, LU-66, LU-110, and LU-123 is intended to ensure that minimum service standards for public services and utilities are met. The Project includes a facilities financing plan that was submitted to all of the applicable service entities for review and approval. Long-term funding sources have been identified for the maintenance of public services. The Project will not result in any substantial environmental impacts related to conflict with General Plan policies that pertain to public services or utilities.
- **Land Use / Conflict with General Plan Policies related to Air Quality and Transportation** – The Project results in significant impacts related to both transportation and air quality, but these impacts are not due to General Plan Policy inconsistency. The Project is consistent with policies intended to alleviate air quality and transportation impacts.
- **Land Use / Division or Disruption of an Established Community - The division or disruption** of an established community is an impact considered by CEQA. Case law has established that a project must create physical barriers within the established community in order to be considered under this impact category. There is no existing development on the project site, nor are there developments north, south, or east of the site that could be divided or disrupted by the project. Furthermore, the Project includes stub streets so that if there ever is development north or south of the site in the future as indicated in the City of Rancho Cordova General Plan, those uses could connect into the Project. The project will not disrupt or divide an established community.
- **Land Use / Displacement of Housing** – There is no existing housing on the Project site that could be displaced by the Project, nor would the Project uses cause the displacement of nearby housing. The site is not included in the affordable housing inventory as part of implementation of the Sacramento County General Plan Housing Element.
- **Noise / Construction Noise** – it is acknowledged that construction related noise could be a nuisance to sensitive receptors; however, this increase in noise is short term, and noise standards are intended to address long term sources of noise. Construction related noise would not result in a permanent increase in ambient noise. Though noise volumes would undergo short term increases, the existing construction ordinance is designed to avoid significant community effects through the restriction of nighttime and weekend disturbance.
- **Noise / Kiefer Landfill Noise** – All sensitive uses are located a sufficient distance from the landfill to avoid substantial noise exposure. Noise at the university/college campus center (the nearest area where residences would be located) would be 44 dB, which is well within standards.
- **Public Services / Fire Protection** – The Project site is located within an area of Sacramento County designated as a State Responsibility Area (SRA) by the California Department of Forestry and Fire Protection (CAL FIRE), and has been assigned a moderate fire hazard severity risk rating (the lowest fire hazard rating applied to SRAs).

The site will be served by the Sacramento Metropolitan Fire District, which will need up to two fire stations on the site. The Project will be subject to the building standards and regulations of the County of Sacramento Building Code, and these regulations will be sufficient to ensure adequate protection.

- **Public Services / Police Protection** – The Project is within the service area of the Sacramento County Sheriff's Department (SSD) and will increase the demand for SSD services. According to SSD, the development of the Project will “not likely necessitate the construction of additional police facilities.” In order to meet staffing ratios, SSD would need to add 16 staff members. Law enforcement services will be funded through the County General Fund and through County Police Services Community Facilities District 2005-1 (CFD 2005-1) annual special tax, which will be levied on each new home. Existing funding mechanisms, policies and regulations will ensure that the Sheriff's Department can adequately serve the new growth.
- **Public Services / Solid Waste** – An annual total of 18,592 tons of waste will require landfill disposal, and a total of 25,241 tons of construction debris will need to be disposed of in the Kiefer Landfill. The Sacramento County Department of Waste Management and Recycling has indicated that landfill capacity is adequate to support the waste disposal needs generated by the Project.
- **Public Services/ Schools** – Student enrollment resulting from the Project will be approximately 4,686 total students, with approximately 2,553 of these in grades K – 6 (elementary school), 748 in grades 7 – 8 (middle school), and 1,384 in grades 9-12 (high school). The Project will generate the need for three elementary schools but only about 63% of a middle/high school; the land use plan includes these school sites. Elk Grove Unified School District (EGUSD) Facilities and Planning Department staff (K. Williams) has indicated that EGUSD has been working with the Project proponents to be sure that adequate school facilities can be accommodated within the Project area and is satisfied with the proposed development and financing plans for the needed schools.
- **Public Services / Parks and Recreation** – The Project area is located within CSA 4b, which is staffed by the Sacramento County Regional Parks Department (Parks Department). The Project area will be detached from CSA 4b, and will be provided park and recreation services under the proposed Cordova Hills LSD; discretionary action by LAFCO is required for the detachment and formation actions. The Project generates a need for approximately 106.9 acres of parkland, and provides 99.1 acres of formal parkland that will be developed. In addition to the formal parks, the Project includes approximately 151 acres of R-2 open space areas that will include trails, informal play areas, picnic areas, and paseos. The informality of these areas precludes full park credit for these areas, but partial Quimby Act credit may be given. If 5% of the R-2 areas received Quimby Act credit, that would be sufficient to achieve the full requirement of 106.9 acres of credited parkland. The Parks Department has reviewed the plans and deemed them adequate.
- **Public Services / Libraries** – The Cordova Hills SPA indicates that a new full service, 15,000 square foot branch library is planned within the proposed Town Center to serve the Cordova Hills community as well as residents in the surrounding area. According to the Sacramento Public Library Authority Facility Master Plan 2007 – 2015 (Library Master Plan), the proposed library size is adequate to serve the demands generated by the Project at buildout. The Project includes a funding mechanism for a new library that

is of sufficient size to accommodate the expected population of the Project, which has been developed in coordination with the Sacramento Public Library System.

- **Public Utilities / Adequacy of Water Supply** – The projected annual water demand for the entire Project is 6,549.9 acre feet per year (AFY), including system losses. The Project will be served by the Sacramento County Water Agency (SCWA) Zone 40, which has a total maximum water supply to Zone 40 of 102,151 AFY. There is sufficient capacity to serve the Project.
- **Public Utilities / Adequacy of Sewage Disposal** – The Project will result in an average dry weather flow of 4.99 million gallons per day (mgd). The peak wet weather flow for Project buildout is 10.41 mgd. The Sacramento Regional Wastewater Treatment Plant has a permitted average dry weather flow (ADWF) design capacity of 181 mgd and wet weather flow (AWWF) of 392 mgd. The plant receives and treats approximately 141 ADWF (Seyfried, 2008). The Project disposal demand can be met by this existing capacity.
- **Public Utilities / Adequacy of Energy Services** – The estimated annual residential and commercial electricity demand for the Project will be 122,903,000 kilowatt hours and that the estimated annual residential and commercial natural gas demand for the Project will be 4,201,494 therms. The California Energy Commission's Energy Consumption Data Management System reports that 10,691.67 million kilowatt hours of energy and 315.57 million therms were consumed within Sacramento County in the year 2010. The estimated energy usage of the Project is substantially less than the annual energy production for either SMUD or PG&E.
- **Public Utilities / Exceed Sustainable Groundwater Yield** – A long-term average annual yield of 40,900 AFY of groundwater has been identified in both the Water Forum Agreement (WFA) and Water Supply Master Plan for SCWA in the Central Basin. Additionally, as a signatory to the WFA and a member of the Sacramento Central Groundwater Authority (Groundwater Authority), SCWA recognizes the Water Forum-defined long-term sustainable average annual yield of the underlying groundwater basin of 273,000 AFY. The additional groundwater draw caused from implementation of the proposed Project will not result in exceedance of the agreed-upon sustainable yield of 273,000 AFY.
- **Public Utilities – Groundwater Recharge** – The central intermittent drainage on the site is mapped as an area of high groundwater recharge potential. This area is being retained within open space in the Project, and will not be subject to direct impacts.

The Project's impacts to the above listed environmental issues are less than significant. Therefore, the EIR did not identify or require any mitigation measures to lessen or avoid those environmental impacts.

B. LESS-THAN-SIGNIFICANT IMPACTS/ MITIGATION SUGGESTED.

With regard to impacts that were found by the EIR to be less-than-significant, there were several of them where the EIR nonetheless recommended mitigation to ensure that the impact would remain less-than-significant. These impacts and their suggested mitigation measures were as follows:

- **Agricultural Resources** – The proposed land uses are permitted with approval of the Zoning Ordinance Amendment adopting the Cordova Hills SPA. There are no lands

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designated as Prime Farmland on the site, and the land does not support intensive agricultural investment. Though there are soils that are considered prime when irrigated, the site is not irrigated. The Project will result in the loss of 8.6 acres of Unique Farmland (a former eucalyptus grove that has been removed) and 242.4 acres of Grazing Land, which exceeds the 50-acre threshold established by the County; mitigation is required. The Project will not result in substantial conflicts with existing agricultural use of adjacent lands, though mitigation requiring deed notices is recommended. There is one existing Williamson Act contract (72-AP-109) within the Project limits. The landowner initiated the non-renewal process for this contract in February 2007. Under the nonrenewal process the contract will expire in the year 2016, and the land will no longer be subject to Williamson Act contract restrictions. The Project proposal includes a large-lot subdivision map which would create parcels that range from less than an acre in size to approximately 35 acres, and also includes a rezone from an agricultural to an urban designation. In order to approve the subdivision map, the approval action would either need to be deferred until February 2013 (within three years of contract nonrenewal) or the Board of Supervisors would need to make findings that the parcels can maintain agricultural use. In order to approve the rezoning, the approval action would need to stipulate that the zoning agreement will not become effective until 2016. Mitigation is included to ensure agricultural activities are maintained until expiration. Provided these actions take place the Project would be consistent with the provisions of the Williamson Act. Required Mitigation: **AG-1:** "The applicant shall provide all prospective buyers of properties within 500 feet of the northern property boundary with written notice that they could be subject to inconvenience or discomfort resulting from accepted farming activities as per provisions of the County Right-To-Farm Ordinance and shall include a Note on all final maps disclosing the Right-To-Farm Ordinance." **AG-2:** "The applicant shall enter into an agreement with an agricultural operator to maintain grazing use, or other more intensive use, on the land which is subject to Williamson Act contract 72-AP-109. Agricultural use shall be maintained until Williamson Act contract expiration. Documentation of this agreement shall be submitted to the Environmental Coordinator prior to approval of the zoning agreement for the Williamson Act contracted property." **AG-3:** "Prior to the approval of improvement plans, building permits, or recordation of the final map, whichever occurs first, the applicant shall offset the loss of 8.6 acres of Unique Farmland and 242.6 acres of Grazing Land through 1:1 preservation of farmland within a permanent conservation easement. Preservation land must be in-kind or similar resource value."

- **Biological Resources – Amphibians.** The Project site contains suitable habitat and suitable upland habitat for the western spadefoot. The latter species has been observed within the site. The Project will result in loss of approximately 19 acres of seasonal wetlands and vernal pools which are potential breeding habitat for the species, for which 1:1 mitigation is required pursuant to County policies regarding wetland loss. Western spadefoot, a Species of Concern, has been observed in several counties across the state, and a number of sites with suitable habitat for western spadefoot are already being protected. Additionally, 23 vernal pool species are federally protected; preservation efforts for those species and associated habitats will contribute to the conservation of the western spadefoot. While a localized population of the western spadefoot may be reduced through development of the Project site, the regional population will not be reduced significantly for the reasons stated above. Required Mitigation: **BR-1:** "To

compensate for the permanent loss of wetlands, the applicant shall perform one or a combination of the following prior to issuance of building permits, and shall also obtain all applicable permits from the Army Corps of Engineers, the U.S. Fish and Wildlife Service, the Central Valley Regional Water Quality Control Board, and the California Department of Fish and Game: A. Where a Section 404 Permit has been issued by the Army Corps of Engineers, or an application has been made to obtain a Section 404 Permit, the Mitigation and Management Plan required by that permit or proposed to satisfy the requirements of the Corps for granting a permit may be submitted for purposes of achieving a no net-loss of wetlands. The required Plan shall be submitted to the Environmental Coordinator, U.S. Army Corps of Engineers, and U.S. Fish and Wildlife Service for approval prior to its implementation. B. If regulatory permitting processes result in less than a 1:1 compensation ratio for loss of wetlands, the Project applicant shall demonstrate that the wetlands which went unmitigated/uncompensated as a result of permitting have been mitigated through other means. Acceptable methods include payment into a mitigation bank or protection of off-site wetlands through the establishment of a permanent conservation easement, subject to the approval of the Environmental Coordinator. C. The Project applicant may participate in the South Sacramento Habitat Conservation Plan if it is adopted and if the Project area and activities are covered. The applicant shall prepare Project plans in accordance with that Plan and any and all fees or land dedications shall be completed prior to construction.”

- **Land Use / Conflict with General Plan Policies related to Land Use Compatibility.** Policy LU-19 states that appropriate buffers should be placed between incompatible uses, and Policy LU-94 states that new development should be compatible with existing development. The Project is adjacent to two existing uses, the Boys Ranch and Kiefer Landfill, with potential to result in conflicts. For the Boys Ranch, the distance from the majority of the site and the topographical changes between the site and the Boys Ranch acts as a natural barrier. For the Kiefer Landfill, distance from the site combined with existing regulations for landfills will prevent substantial impacts. For both facilities, there remains the potential for nuisance impacts. For this reason, mitigation is included requiring disclosure of the facilities to prospective buyers. **Required Mitigation:** **LU-1:** “The location and nature of the Sacramento County Boys Ranch facility shall be disclosed to all prospective buyers of estate-residential properties. **LU-2:** The location and nature of the Kiefer Landfill facility shall be disclosed to all prospective buyers of properties within one mile of the ultimate active landfill boundary. The disclosure notice shall include: A. A statement substantially consistent with the following: ‘The landfill will expand in height and land area over time, and thus the visibility and proximity of the landfill from the property at the time of purchase does not reflect how visible or proximate the landfill will be in the future.’ This statement shall be supplemented with relevant facts about ultimate landfill design, including the distance of the property to the ultimate planned edge of the landfill waste disposal area to the nearest 100 feet and the ultimate planned height of the landfill (as set forth in the Solid Waste Facilities Permit). B. Notification that the landfill operates under a Solid Waste Facilities Permit and is required to control pests, vectors, litter, and odor to the extent practicable, but that it is not possible to eliminate all of these nuisances. For this reason, property owners may experience some of these nuisance conditions. C. Notification that the active landfill area is lighted at night.”

- **Noise / Mather Airport.** The Project site is located approximately four miles east of Mather Airport. Although the Project site is located outside the 60 dB CNEL contour of Mather Airport, the Project site is located within the overflight path of approaching and departing aircraft that fly below 3,000 feet above ground level. During an average one-month time period, a very small percentage of total departure (two percent) and arrival (eight percent) flights are passing over the Project site and there are less than 15 percent of the total touch-and-go flights passing over the Project site. Though the Project will not expose people to excessive aircraft noise, continued and future use of Mather Airport has the potential to be a nuisance and generate objections by residents and other sensitive receptors. An Avigation Easement to inform future potential residential buyers will be required to help reduce the impact to Mather Airport from new complaints by future residents or other sensitive receptors of the proposed Project; these various conditions are included as mitigation. Required Mitigation: NO-6: “The following conditions will be required to ensure adequate disclosure of Mather Airport operations: 1. Notification in the Public Report prepared by the California Department of Real Estate shall be provided disclosing to prospective buyers that the parcel is located within the applicable Airport Planning Policy Area and that aircraft operations can be expected to overfly that area at varying altitudes less than 3,000 feet above ground level. 2. Avigation Easements prepared by the Sacramento County Counsel’s Office shall be executed and recorded with the Sacramento County Recorder on each individual parcel contemplated in the development in favor of the County of Sacramento. All Avigation Easements recorded pursuant to this policy shall, once recorded, be copied to the director of Airports and shall acknowledge the property location within the appropriate Airport Planning Policy Area and shall grant the right of flight and unobstructed passage of all aircraft into and out of the appropriate airport.”

C. SIGNIFICANT AND POTENTIALLY SIGNIFICANT IMPACTS/ MITIGATION REQUIRED.

The EIR also identified a number of significant or potentially significant environmental effects or impacts that the Project will or may cause. Some of those significant effects can be fully avoided through the adoption of feasible mitigation measures. Other effects cannot be avoided or substantially lessened by the adoption of feasible mitigation measures or alternatives and are, therefore, considered significant and unavoidable. However, for the reasons set forth below in Section X.C, LAFCo has determined that those significant, unavoidable effects of the Project are outweighed by overriding economic, social and other considerations.

It has been found that the Project would result in significant or potentially significant environmental effects that can be fully avoided through the adoption of feasible mitigation measures with respect to the following issues or resources:

- **Air Quality / Construction Activities Would Increase NO_x Emissions** – The Project has the potential to result in significant impacts throughout most of the life of the Project, even after implementation of the Basic Construction Emissions Control Practices and Enhanced Construction Emission Control Practices which are required by rule through the Sacramento Metropolitan Air Quality District (SMAQMD). Mitigation is included (which is in addition to the rules) to ensure that all subsequent projects which

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occur within the Project area conform to the SMAQMD mitigation and abatement requirements which are in effect at the time. This will offset Project emissions.

- **Air Quality / Project Operation Would result in TAC Emissions** – Using the published California Air Resources Board siting criteria for sources of toxic air contaminants (TAC) and sensitive receptors, there are no off-site TAC sources proximate to the sensitive receptors of the Project, and the Project will not generate TAC that would impact off-site sensitive receptors. The Project could result in exposure of proposed on-site uses to proposed on-site stationary source TAC, but mitigation is included to ensure that the siting of new uses conforms to ARB recommendations.
- **Air Quality / Project Operation May Result in Exposure to Objectionable Odors** – The Project is proximate to both the Boys Ranch and the Kiefer Landfill. The former facility is specifically prohibited from causing a nuisance odor condition, and nuisance odor is fully controllable through maintenance of aerated conditions in the ponds. Though based on historic operation of wastewater facilities in general and of this facility in particular it can be expected that there will be events when aeration fails (a pump malfunctions, for instance), it can also be expected that these will be infrequent events of short duration. Only considering meteorological conditions and the proximity of the Project to the landfill, it would be likely that some significant odor impacts to the Project could occur; however, the SMAQMD Guide does not provide further information regarding factors that can reduce odor impacts, if present. Kiefer Landfill has established an active gas-to-energy system that employs active gas extraction from the landfill for use in electrical generation. As landfill gas is a major source of odor from a landfill, the active extraction of gases for use in generating electricity is an effective form of limiting odors. Given the foregoing and the mitigation incorporated below, odor impacts are not expected to be substantial.
- **Biological Resources / Special Status Species / Bird Species** – The following special status bird species are identified as having potential to occur on or near the Project site: burrowing owl, Cooper's hawk, ferruginous hawk, golden eagle, grasshopper sparrow, northern harrier, Swainson's hawk, tricolored blackbird, and white-tailed kite. Excluding the large avoided area and two adjacent smaller avoided areas on the western side of the site, the Project will result in the conversion of 2,120 acres of grassland habitat to urban uses (note that the central linear avoided area is not considered preserved for the purposes of Swainson's hawk habitat, which is why the mitigation requirement in BR-4 is higher than the total grassland lost). Except the tricolored blackbird, all of the species listed above use grasslands for foraging and/or nesting and will be impacted by Project development. The Swainson's hawk is the only threatened species, and mitigation is included requiring 1:1 habitat mitigation. Mitigation of habitat for the benefit of the Swainson's hawk will also provide habitat compensation for other bird species. The Project site does not contain any trees for nesting, but there are offsite trees nearby; pre-construction nesting surveys have been included for tree-nesting raptors. Pre-construction nesting surveys are also included for burrowing owl (which is ground-nesting), and are also included for tricolored blackbird (for those areas which are within 300 feet of suitable habitat, such as cattail or blackberry).
- **Biological Resources / Special Status Species / Plants** – The Project site was surveyed for special status plant species in May 2007, April and June 2008, and May and July 2010 by ECORP Consulting Inc. The special status plant surveys revealed two special status species present on the Project site: legenere and Sacramento Orcutt grass.

The wetlands containing those plants are located within Avoided Areas, but given the proximity of these wetlands to development areas, mitigation requires additional measures be implemented to control invasive species and to avoid pollution runoff from urban activities.

- **Cultural Resources** - The Project area contains three historic era sites, and a fourth historical site that is included in a multi-component site. One prehistoric bedrock mortar station site and one prehistoric component of a multi-component site were discovered in the project area. None of the sites are associated with any important persons or events in California or national history. They are not considered to be unique and do not represent the work of a master or possess high artistic values. In all cases, the historic sites lack sufficient cultural material to address research questions. All of the historic sites were evaluated as not eligible under any criteria for the National Register of Historic Places or the California Register of Historical Resources and are not considered a historical resource or unique archeological resource as defined by CEQA. There always remains a potential to encounter buried or as yet undiscovered resources during land clearing and construction work. Mitigation is included to ensure that such resources are treated appropriately if discovered.
- **Hazards and Hazardous Materials** - The site was assessed for on-site hazardous conditions, and this assessment concluded that there is no evidence of any recognized hazardous conditions that may have a significant adverse effect on the development of the Project site. There are three agency-listed contaminated sites within approximately one mile of the Project site. These include the Sacramento County Boys Ranch (a juvenile correction facility within 1,000 feet of the eastern Project boundary), Aerojet (located just over a mile to the northwest), and the Kiefer Landfill (located approximately 2,000 feet to the south). The Boys Ranch hazardous condition was remediated and the case closed. Aerojet remediation activities are ongoing. Contaminated soils from Aerojet would not affect the Project, as these are off-site, while the groundwater contamination plumes are migrating away from the Project area. Groundwater contamination at Kiefer Landfill is likewise migrating away from the Project site. The Project will also be using public water provided through the Sacramento County Water Agency, not groundwater. Landfill gas migration from Kiefer Landfill also appears not to affect the site, but a mitigation measure is nonetheless included for the small portion of the site outside of the Urban Services Boundary that is within the 2,000 foot buffer established around the Kiefer Landfill.
- **Noise / Traffic Noise** – Traffic on the internal Project roadways and on Grant Line Road will generate noise that has the potential to exceed General Plan noise standards related to both residential and non-residential uses. Mitigation is included to ensure that future subdivisions and non-residential developments are constructed in a manner that achieves compliance with General Plan standards.
- **Noise / On-site Stationary and Community Noise** - The Project includes uses which include noise-generating sources such as playing fields, loading docks, a corporation yard, and other uses. Mitigation is included to require that all such uses located adjacent to residential lands be designed so as not to cause the General Plan standards to be exceeded.

D. SIGNIFICANT AND UNAVOIDABLE IMPACTS.

The Final EIR identified mitigation measures that would reduce the above significant impacts to a less-than-significant level. The Project was determined in the Final EIR to result in significant and unavoidable environmental effects with respect to the following impacts regardless of whether all feasible mitigation was required:

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- **Aesthetics / Degradation of Existing Views and Visual Quality** – The Project will remove the illusion of continuity – that is, the illusion that the grasslands continue unbroken up to the foothills – both due to the introduction of the structures themselves, and because of the substantial changes in the color and texture of the viewshed. The Project will introduce hard, angled shapes into an area that previously appeared smooth, and will introduce a wider array of color into an area that was previously quite uniform. Though this will increase the diversity of the view, the loss of continuity and the partial obstruction of views of the Sierra Nevada significantly and negatively impacts the quality of the views. These impacts are due to the placement of a large urban development in an area currently dominated by open space; the impact is not due to any particular feature or features that could be changed. The Project will substantially degrade the existing visual character and quality of the site.
- **Aesthetics / New Source of Light or Glare** - Project lighting will not result in sleep disruption or significant wildlife impacts, but will nonetheless introduce a substantial new source of light. This impact is not due to any individual feature or features, but due to the result of introducing a large urban development within a rural landscape. Though the impact cannot be made less than significant, usage of lighting fixtures that minimize glare and light trespass can reduce the impact to some degree.
- **Air Quality / Operational Emissions of Ozone Precursors** - The Project will result in worst-case NOx and ROG emissions of 415.22 pounds per day and 857.40 pounds per day, respectively, which is significantly above the threshold of 65 pounds per day. A mitigation plan is included to reduce emissions by 35%, but emissions will still exceed the threshold.
- **Air Quality / Construction Activities Would Increase Particulate Matter Emissions** – Modeling conducted by SMAQMD has indicated that applying basic construction rules will ensure that impacts will not be significant provided that construction is limited to no more than 15 acres of active grading per day. On a project of this size, it is unreasonable to assume that construction will be limited to such a small area. The Project will generate particulate matter emissions that exceed the SMAQMD thresholds.
- **Air Quality / Conflict With or Obstruct Air Quality Plans** - The current State Implementation Plan (SIP) did not assume that the land east of Grant Line Road would develop, and thus even if the Project's emissions of ozone precursors were not significant, the Project would still conflict with implementation of the SIP.
- **Biological Resources / Wetlands and Surface Waters** – In total, there are approximately 89.11 acres of wetland resources on the Project site. The Project will result in the fill or dredge of 41.37 acres of wetlands on the site, which includes approximately 16 acres of vernal pool; three acres of seasonal wetland; 15 acres of seasonal wetland swale; six acres of intermittent drainage; and less than one acre of seep, stock pond, and creek. Mitigation is required to offset these direct impacts, but given

the extent of wetland loss (46% of the wetlands on the site) and the fact that this is in a Rank 1 Vernal Pool Recovery Plan area the mitigation is not sufficient to reduce impacts. Future development within the SPA could include amendments to the SPA which would modify the Avoided Area boundaries. This could result in additional incremental losses of needed uplands and/or wetlands, increasing the severity of what is already a significant impact in an area noted as vital to the recovery of vernal pool resources. For this reason, mitigation is also included which would require the establishment of a permanent conservation easement over all areas designed as Avoided.

- **Biological Resources / Special Status Species / Invertebrates** - The site contains wetlands suitable for the California linderella, midvalley fairy shrimp, Ricksecker's water scavenger beetle, vernal pool fairy shrimp, and vernal pool tadpole shrimp. Published protocols for the vernal pool fairy shrimp and vernal pool tadpole shrimp contain survey requirements for determining absence, and mitigation to be applied in case of presence or if presence is being assumed. These same measures are applied to the Species of Concern, California linderella and midvalley fairy shrimp as well. Mitigation being required for these species will also serve to provide mitigation for the Ricksecker's water scavenger beetle, which uses the same habitats. Though in-kind mitigation will be required for the loss of habitat on the site, the loss of 46% of the wetlands on the site within an area identified as vital to the recovery for vernal pool habitats and their dependent species is significant even with mitigation.
- **Climate Change** - In concert with state and federal activities, the design features of the SPA are intended to offset the Project climate change impact. Ideally, this mitigation would reduce the Project emissions and climate change impacts to levels that are not cumulatively significant, but there are many unknown variables and implementation challenges. Given the substantial emissions which will result from the Project and the uncertainties related to target-setting and the current state of modeling this analysis concludes that Project impacts may remain significant. The effects of climatic changes on the Sacramento region are potentially significant, and can only be mitigated through both adaptation and reduction strategies. By requiring mitigation of projects that may result in significant greenhouse gas emissions, and by adopting County programs and changes in government operations, the County is implementing all feasible strategies to reduce the effects of climate change on the region. Nonetheless, it is probable that these strategies will not be sufficient to offset all of the impacts of climate change, and that some of these impacts will be significant.
- **Land Use / Conflict With the SACOG Blueprint and General Plan Policy** - The Project includes a wide variety of transportation choices, an array of housing choices, a mix of uses, compact community design, and fosters a sense of place. While acknowledging that in terms of internal community design the Project appears to be an excellent example of "smart growth" development and is consistent with relevant General Plan policies, it must also be acknowledged that the Project conflicts with the principles with respect to the preservation of open space and the proximity to existing developed communities. In terms of open space preservation, the analysis is somewhat subjective, and the Project has directed preservation toward the most sensitive vernal pool areas of the site. In terms of directing development toward existing communities, the conflict is more clear. Though projected for future development, the Blueprint envisions growth occurring from the existing city centers outward rather than the

reverse. This is a fundamental underpinning to the Blueprint, and as a result, the Project's inconsistency with this principle is considered substantial.

- **Noise / Substantial Increase in Existing Ambient Noise** - The Project would result in a substantial increase in existing ambient noise for multiple roadway segments, but only two of these include receptors which would be impacted: Sunrise Boulevard and Douglas Boulevard. Noise volumes would be increased by 2 dB on Sunrise Boulevard and by 7 dB and 10 dB along Douglas Boulevard. Based on the existing noise environments, these are substantial increases. On Sunrise Boulevard, a noise barrier is not appropriate because businesses rely on visibility to attract customers, and on Douglas Road a barrier is already present. Thus, no further improvements can be made to reduce impacts.
- **Public Utilities / Construction Impacts** - Water, sewer, and dry utility lines constructed within the Project boundaries would not cause any additional utility-specific construction impacts, as utility construction will occur within areas that will already urbanize as part of the Project. Most of the off-site utility lines are shown within areas already proposed for utility construction as part of service provider master planning documents. There are some improvement areas that have not already been studied or approved, and which are likely to contribute to wetland impacts and impacts to associated species.
- **Traffic and Circulation / Existing Plus Project** - The Project results in significant impacts to six County intersections, ten City of Rancho Cordova intersections, the Zinfandel and US 50 freeway ramp intersection, two County roadway segments, one City of Elk Grove roadway segment, eleven City of Rancho Cordova roadway segments, two US 50 freeway segments, and bicycle and pedestrian facilities. Mitigation is included which will improve operating conditions to acceptable levels for most of these facilities, but there are some impacts for which no feasible mitigation exists. These are: the Zinfandel and US 50 freeway ramp intersection and Sunrise Boulevard from US 50 to White Rock Road. Furthermore, the County does not have land use authority in other jurisdictions, and cannot guarantee that non-County facilities will be constructed.
- **Traffic and Circulation / Cumulative Plus Project** - The Project results in significant impacts to five City of Rancho Cordova intersections, the Zinfandel and US 50 freeway ramp intersection, one new Project roadway segment, four City of Rancho Cordova roadway segments, six Caltrans freeway segments, and four Caltrans freeway ramps. Mitigation is included which will improve operating conditions to acceptable levels for most of these facilities, but there are some impacts for which no feasible mitigation exists. These are: the Zinfandel and US 50 freeway ramp intersection, the intersection of Sunrise Boulevard and International Drive, Grant Line Road from North Loop Road to Douglas Road, eastbound US 50 from Watt Avenue to Bradshaw Road, eastbound US 50 from Rancho Cordova Parkway to Hazel Avenue, westbound US 50 from Hazel Avenue to Rancho Cordova Parkway, westbound US 50 from Mather Field Road to Power Inn/Howe Avenue, eastbound US 50 Exit Ramp to Watt Avenue, eastbound US 50 Slip Ramp Entrance from Watt Avenue, westbound US 50 Exit Ramp to Watt Avenue, and westbound US 50 Slip Ramp Entrance from Watt Avenue.

E. IMPACTS AND REQUIRED MITIGATION MEASURES:

AESTHETICS

Impact: Degradation of Existing Views and Visual Quality.

The Project will remove the illusion of continuity – that is, the illusion that the grasslands continue unbroken up to the foothills – both due to the introduction of the structures themselves, and because of the substantial changes in the color and texture of the viewshed. The Project will introduce hard, angled shapes into an area that previously appeared smooth, and will introduce a wider array of color into an area that was previously quite uniform. Though this will increase the diversity of the view, the loss of continuity and the partial obstruction of views of the Sierra Nevada significantly and negatively impacts the quality of the views. These impacts are due to the placement of a large urban development in an area currently dominated by open space; the impact is not due to any particular feature or features that could be changed. The Project will substantially degrade the existing visual character and quality of the site. (Significant)

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Finding: The EIR did not identify any changes or alterations that could be required in, or incorporated into, the Project to substantially reduce the significant environmental effect identified in the EIR. The Project will introduce hard, angled shapes into an area that previously appeared smooth and uniform. The Project's impact on visual quality or character is considered significant and unavoidable because the Project site will no longer present its current natural state. LAFCo has been presented with no evidence to contradict its conclusion in this regard.

Mitigation: The EIR determined that no mitigation measures were available to substantially lessen this impact.

Level of Significance After Mitigation: Since there is no feasible mitigation, this impact will remain Significant and Unavoidable.

Findings on Adopted Mitigation. LAFCo finds that this impact remains significant and unavoidable. (Pub. Resources Code, Section 21002; CEQA Guidelines, Sections 15091, 15126.4, subd. (a)(2).) LAFCo has been presented with no evidence to contradict its conclusion in this regard.

Impact: New Source of Light and Glare.

Project lighting will not result in sleep disruption or significant wildlife impacts, but will nonetheless introduce a substantial new source of light. This impact is not due to any individual feature or features, but due to the result of introducing a large urban development within a rural landscape. Though the impact cannot be made less than significant, usage of lighting fixtures that minimize glare and light trespass can reduce the impact to some degree. (Significant)

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Finding: Changes or alterations have been required in, or incorporated into, the Project which substantially reduce the significant environmental effect as identified in the EIR. While the proposed aesthetics mitigation measure requires all lighting to be subject to the 2008 Building Efficiency Standards Section 147 and to use only fixtures approved by the International Dark Sky Association to reduce the Project's impact on the nighttime sky, this impact is significant and

unavoidable because the Project site will still be a source of urban nighttime light and glare in an area where there is no other light pollution. LAFCo has been presented with no evidence to contradict its conclusion in this regard.

Mitigation: The following mitigation measure has been incorporated into the Project to substantially lessen this impact, but not to a less-than-significant level:

Mitigation Measure AE-1. The SPA shall be amended to require all lighting applications subject to the 2008 Building Efficiency Standards Section 107 to use fixtures approved by the International Dark Sky Association.

Level of Significance After Mitigation: Significant and Unavoidable.

Findings on Adopted Mitigation: LAFCo finds that the adoption of the above-stated measure is within the purview of Sacramento County and not that of LAFCo. LAFCo additionally finds that the measures are feasible, and could and should be adopted by Sacramento County. LAFCo further finds that the impacts would still be considered significant, even with the imposition of measures identified above. Implementation of the foregoing mitigation measures would reduce the severity of this impact, but not to a less than significant level. (Pub. Resources Code, Section 21002; CEQA Guidelines, Sections 15091, 15126.4, subd. (a)(2).) LAFCo has been presented with no evidence to contradict its conclusion in this regard.

AIR QUALITY

Impact: *Construction Activities Would Increase NO_x Emissions.*

The Project has the potential to result in significant impacts throughout most of the life of the Project, even after implementation of the Basic Construction Emission Control Practices and Enhanced Construction Emission Control Practices that are required by rule through the Sacramento Metropolitan Air Quality District (SMAQMD). Mitigation is included (which is in addition to the rules) to ensure that all subsequent projects that occur within the Project area conform to the SMAQMD mitigation and abatement requirements that are in effect at the time. This will offset Project emissions. (Significant)

Finding: Changes or alterations have been required in, or incorporated into, the Project which substantially reduce the significant environmental effect as identified in the EIR by requiring all individual development projects in the Project Area to implement SMAQMD rules and mitigation pertinent to construction-related ozone precursor emissions, as defined by the most current version of the SMAQMD Guide to Air Quality Assessment. LAFCo has been presented with no evidence to contradict its conclusion in this regard.

Mitigation Measures: The following mitigation measure has been incorporated into the Project to avoid this impact and reduce it to a less-than-significant level:

Mitigation Measure AQ-1. The following language shall be added to the SPA:

All individual development projects shall implement Sacramento Metropolitan Air Quality Management District rules and mitigation pertinent to construction-related ozone precursor

emissions, as defined by the most current version of the Sacramento Metropolitan Air Quality Management District Guide to Air Quality Assessment.

Level of Significance After Mitigation: Less-than-Significant.

Findings on Adopted Mitigation: LAFCo finds that the adoption of the above-stated measure is within the purview of Sacramento County and not that of LAFCo. LAFCo further finds that the above measure is appropriate and feasible; would substantially lessen or avoid the adverse impacts with the Cordova Hills project to a less than significant level; and that Sacramento County could and should adopt the above mitigation. (Pub. Resources Code, Section 21002; CEQA Guidelines, Sections 15091, 15126.4, subd. (a)(2).) LAFCo has been presented with no evidence to contradict its conclusion in this regard.

Impact: Operational Emissions of Ozone Precursors.

The Project will result in worst-case NO_x and ROG emissions of 415.22 pounds per day and 857.40 pounds per day, respectively, which is significantly above the threshold of 65 pounds per day. A mitigation plan is included to reduce emissions by 35%, but emissions will still exceed the threshold. (Significant)

Finding: Changes or alterations have been required in, or incorporated into, the Project that substantially lessen the significant environmental effects from operational emissions of ozone precursors identified in the EIR by requiring compliance with the provisions of the Air Quality Management Plan dated June 1, 2011, as updated March 2012 (errata) and as amended January 2013; these measures will reduce the emissions of ozone precursors by requiring the incorporation of the requirements of that plan into the Cordova Hills SPA conditions. However, those measures will not completely avoid this impact or reduce it below the 65 pounds per day threshold, and the impact will still remain significant and unavoidable. LAFCo has been presented with no evidence to contradict its conclusion in this regard.

Mitigation Measure: The following mitigation measure has been incorporated into the Project to substantially lessen this impact, but not to a less-than-significant level:

Mitigation Measure AQ-2. Comply with the provisions of the Air Quality Management Plan dated June 1, 2011, as updated March 2012 (errata) and as amended January 2013, and incorporate the requirements of this plan into the Cordova Hills Special Planning Area conditions. Also the following text shall be added to the Cordova Hills SPA:

“All amendments to the Cordova Hills SPA with the potential to result in a change in ozone precursor emissions shall include an analysis which quantifies, to the extent practicable, the effect of the proposed SPA amendment on ozone precursor emissions. The amendment shall not increase total ozone precursor emissions above what was considered in the AQMP for the entire Cordova Hills project and shall achieve the original 35% reduction in total overall project emissions. If the amendment would require a change in the AQMP to meet that requirement, then the proponent of the SPA amendment shall consult with SMAQMD on the revised analysis and shall prepare a revised AQMP for approval by the County, in consultation with SMAQMD.”

Level of Significance After Mitigation: Significant and Unavoidable.

Findings on Adopted Mitigation: LAFCo finds that the adoption of the above-stated measure is within the purview of Sacramento County and not that of LAFCo. LAFCo additionally finds that the measure is feasible, and could and should be adopted by Sacramento County. LAFCo further finds that the impacts would still be considered significant, even with the imposition of measures identified above. Implementation of the foregoing mitigation measures would reduce the severity of this impact, but not to a less than significant level. (Pub. Resources Code, Section 21002; CEQA Guidelines, Sections 15091, 15126.4, subd. (a)(2).) LAFCo has been presented with no evidence to contradict its conclusion in this regard.

Impact: Construction activities Would Increase Particulate Matter Emissions.

Modeling conducted by SMAQMD has indicated that applying basic construction rules will ensure that impacts will not be significant provided that construction is limited to no more than 15 acres of active grading. On a project of this size, it is unreasonable to assume that construction will be limited to such a small area. The Project will generate particulate matter emissions that exceed thresholds. (Significant)

Finding: The EIR did not identify any changes or alterations that could be required in, or incorporated into, the Project to substantially reduce the particulate matter emissions from construction activities because it would be unreasonable to expect that construction activities could be limited to 15 acres of active grading per day in a project of this size. LAFCo has been presented with no evidence to contradict its conclusion in this regard.

Mitigation Measures: There were no feasible mitigation measures identified in the EIR that could avoid or substantially lessen this impact.

Level of Significance After Mitigation: Significant and Unavoidable.

Findings on Adopted Mitigation. LAFCo finds that this impact remains significant and unavoidable. (Pub. Resources Code, Section 21002; CEQA Guidelines, Sections 15091, 15126.4, subd. (a)(2).) LAFCo has been presented with no evidence to contradict its conclusion in this regard.

Impact: Conflict With or Obstruct Air Quality Plans.

The current State Implementation Plan (SIP) did not assume that the land east of Grant Line Road would develop, and thus even if the Project's emissions of ozone precursors were not significant, the Project would still conflict with implementation of the SIP. (Significant)

Finding: Aside from requiring compliance with Mitigation Measure AQ-2, the EIR did not identify any other changes or alterations that could be required in, or incorporated into, the Project to substantially reduce this impact. LAFCo has been presented with no evidence to contradict its conclusion in this regard.

Mitigation Measure: The following mitigation measure has been incorporated into the Project to substantially lessen this impact, but not to a less-than-significant level:

Mitigation Measure AQ-2. Comply with the provisions of the Air Quality Management Plan dated June 1, 2011, as updated March 2012 (errata) and as amended January 2013, and incorporate the requirements of the amended AQMP into the Cordova Hills Special Planning Area conditions. Also the following text shall be added to the Cordova Hills SPA:

“All amendments to the Cordova Hills SPA with the potential to result in a change in ozone precursor emissions shall include an analysis which quantifies, to the extent practicable, the effect of the proposed SPA amendment on ozone precursor emissions. The amendment shall not increase total ozone precursor emissions above what was considered in the AQMP for the entire Cordova Hills project and shall achieve the original 35% reduction in total overall project emissions. If the amendment would require a change in the AQMP to meet that requirement, then the proponent of the SPA amendment shall consult with SMAQMD on the revised analysis and shall prepare a revised AQMP for approval by the County, in consultation with SMAQMD.”

Level of Significance After Mitigation: Significant and Unavoidable.

Findings on Adopted Mitigation. LAFCo finds that this impact remains significant and unavoidable. (Pub. Resources Code, Section 21002; CEQA Guidelines, Sections 15091, 15126.4, subd. (a)(2).) LAFCo has been presented with no evidence to contradict its conclusion in this regard.

Impact: Project Operation Would result in TAC Emissions.

Using the published California Air Resources Board siting criteria for sources of toxic air contaminants (TAC) and sensitive receptors, there are no off-site TAC sources proximate to the sensitive receptors of the Project, and the Project will not generate TAC that would impact off-site sensitive receptors. The Project could result in exposure of proposed on-site uses to proposed on-site stationary source TAC, but mitigation is included to ensure that the siting of new uses conforms to ARB recommendations. (Potentially Significant)

Finding: Changes or alterations have been required in, or incorporated into, the Project which substantially avoid the potentially significant impacts from the TAC emissions that would result from project operation by requiring buffers to be established on a project-by-project basis between sources that emit TACs or odors and sensitive receptors, such as schools, daycare facilities, congregate care facilities, hospitals, or other places of long-term residency (including single and multi-family). LAFCo has been presented with no evidence to contradict its conclusion in this regard.

Mitigation Measure: The following mitigation measure has been incorporated into the Project to avoid this impact and reduce it to a less-than-significant level:

Mitigation Measure AQ-3. The following language shall be added to the SPA:

Buffers shall be established on a project-by-project basis and incorporated during permit or project review to provide for buffer separations between sensitive land uses and sources of air pollution or odor. The California Air Resources Board’s “Air Quality and Land Use Handbook: A Community Health Perspective”, or more current document, shall be utilized when establishing these buffers. Sensitive uses include schools, daycare facilities, congregate care facilities, hospitals, or other places of long-term residency for people (this includes both single-

and multiple-family). The buffers shall be applied to the source of air pollution or odor, and shall be established based either on proximity to existing sensitive uses or proximity to the property boundary of land designated for sensitive uses. Buffers current at the time of the establishment of this SPA indicate that sensitive uses should be:

- A. A least 500 feet from auto body repair services.
- B. At least 50 feet from existing gasoline dispensing stations with an annual throughput of less than 3.6 million gallons and 300 feet from existing gasoline dispensing stations with an annual throughput at or above 3.6 million gallons.
- C. At least 300 feet from existing land uses that use methylene chloride or other solvents identified as a TAC, including furniture manufacturing and repair services.

Level of Significance After Mitigation: Less-than-Significant.

Findings on Adopted Mitigation: LAFCo finds that the adoption of the above-stated measure is within the purview of Sacramento County and not that of LAFCo. LAFCo further finds that the above measure is appropriate and feasible; would substantially lessen or avoid the adverse impacts with the Cordova Hills project to a less than significant level; and that Sacramento County could and should adopt the above mitigation. (Pub. Resources Code, Section 21002; CEQA Guidelines, Sections 15091, 15126.4, subd. (a)(2).) LAFCo has been presented with no evidence to contradict its conclusion in this regard.

Impact: Project Operation May Result in Exposure to Objectionable Odors.

The Project is proximate to both the Boys Ranch and the Kiefer Landfill. The former facility includes wastewater treatment ponds. The Boys Ranch is specifically prohibited from causing a nuisance odor condition, and nuisance odor is fully controllable through maintenance of aerated conditions in the ponds. Though based on historic operation of wastewater facilities in general and of the Boys Ranch facility in particular, it can be expected that there will be events when aeration fails (a pump malfunctions, for instance), but it can also be expected that these will be infrequent events of short duration. Considering the meteorological conditions and the proximity of the Project to the Kiefer Landfill, it would be likely that some significant odor impacts to the Project also could occur; however, the SMAQMD Guide does provide further information regarding factors that can reduce odor impacts, if present. Kiefer Landfill has established an active gas-to-energy system that employs active gas extraction from the landfill for use in electrical generation. As landfill gas is a major source of odor from a landfill, the active extraction of gases for use in generating electricity is an effective form of limiting odors. Given the foregoing and the mitigation incorporated below, odor impacts are not expected to be substantial. (Potentially Significant)

Finding: Changes or alterations have been required in, or incorporated into, the Project which substantially avoid the potentially significant impacts during Project operation that may arise from exposure to objectionable odors from the Boys Ranch water treatment ponds or the Kiefer Landfill. Those changes include adding a requirement to the SPA that the western perimeter of the Sports Park and University/College Campus Center that are within 2,000 feet of the Kiefer Landfill include a minimum 25-foot wide landscaping area with a dense mix of trees that will grow to at least 40 feet in height to reduce odors and the uses from the Landfill. LAFCo has been presented with no evidence to contradict its conclusion in this regard.

Mitigation Measure: The following mitigation measure has been incorporated into the Project to avoid this impact and reduce it to a less-than-significant level:

Mitigation Measure AQ-4: Include in the SPA a requirement that the western perimeter of the Sports Park and University/College Campus Center (where these are within 2,000 feet of the Kiefer landfill) include a minimum 25-foot-wide landscaping area. This landscaping area shall include a dense mix of trees and shrubs, to screen the uses from the landfill. Acceptable tree species include those expected to reach minimum heights of 40 feet.

Level of Significance After Mitigation: Less-than-Significant.

Findings on Adopted Mitigation: LAFCo finds that the adoption of the above-stated measure is within the purview of Sacramento County and not that of LAFCo. LAFCo further finds that the above measure is appropriate and feasible; would substantially lessen or avoid the adverse impacts with the Cordova Hills project to a less than significant level; and that Sacramento County could and should adopt the above mitigation. (Pub. Resources Code, Section 21002; CEQA Guidelines, Sections 15091, 15126.4, subd. (a)(2).) LAFCo has been presented with no evidence to contradict its conclusion in this regard.

BIOLOGICAL RESOURCES

Impact: Wetlands and Surface Waters.

In total, there are approximately 89.11 acres of wetland resources on the Project site. The Project could result in the fill or dredge of approximately 39.63 acres of wetlands on the site, which includes approximately 16 acres of vernal pools; three acres of seasonal wetlands; 15 acres of seasonal wetland swales; six acres of intermittent drainages; and less than one acre of seep, stock pond, and creek. However, it is possible that the Project could impact up to a total of approximately 41.37 acres of wetlands if a 50-foot buffer is applied to non-linear wetland impacts, as well as taking into account possible impacts that might arise to off-site wetlands associated with the construction of water tanks and other utilities on adjacent lands. However, the offsite water tanks and associated utilities will not be designed until later Project phases, so it is likely that 41.37 acres is an overestimate of the total Project wetland impacts. Mitigation is required to offset these direct impacts, but given the extent of wetland loss (46% of the wetlands on the site) and the fact that this is in a Rank 1 Vernal Pool Recovery Plan area the mitigation is not sufficient to reduce impacts. Future development within the SPA could include amendments to the SPA that would modify the Avoided Area boundaries. This could result in additional incremental losses of needed uplands and/or wetlands, increasing the severity of what is already a significant impact in an area noted as vital to the recovery of vernal pool resources. For this reason, mitigation is also included which would require the establishment of a permanent conservation easement over all areas designed as Avoided. (Significant)

Finding: Changes or alterations have been required in, or incorporated into, the Project that substantially lessen the potential environmental impacts on wetlands and surface waters identified in the EIR. In order to substantially lessen the impacts, the EIR proposed mitigation measures requiring the Applicants to obtain and comply with the requirements of Clean Water Act Section 404 and Section 401 Permits prior to issuance of any building permits at the Project, and to the extent the required mitigation did not require 1:1 compensation for the loss of wetlands, the mitigation measures will require mitigation to be provided by the Applicants through other means,

such as by the purchase of mitigation credits at a mitigation bank for the shortfall, protecting offsite wetlands via a conservation easement to make up the shortfall, or participation in the South Sacramento Habitat Conservation Plan (if it should be adopted) in order to ensure there is no net loss of wetlands. In addition, the EIR's mitigation measures required all Avoided Areas at the Project site to be placed under a permanent conservation easement in order to protect the wetlands and surface waters in those Avoided Areas. LAFCo has been presented with no evidence to contradict its conclusion in this regard.

Mitigation: The following mitigation measures have been incorporated into the Project as conditions of approval to substantially lessen this impact, but the impact will nonetheless remain significant and unavoidable:

Mitigation Measure BR-1: To compensate for the permanent loss of wetlands, the Applicants shall perform one or a combination of the following prior to issuance of building permits and shall also obtain all applicable permits from the Army Corps of Engineers, the U.S. Fish and Wildlife Service, the Central Valley Regional Water Quality Control Board, and the California Department of Fish and Game:

- A. Where a Section 404 Permit has been issued by the Army Corps of Engineers, or an application has been made to obtain a Section 404 Permit, the Mitigation and Management Plan required by that permit or proposed to satisfy the requirements of the Corps for granting a permit may be submitted for purposes of achieving a no net-loss of wetlands. The required Plan shall be submitted to the Environmental Coordinator, U.S. Army Corps of Engineers, and U.S. Fish and Wildlife Service for approval prior to its implementation.
- B. If regulatory permitting processes result in less than a 1:1 compensation ratio for loss of wetlands, the Project applicant shall demonstrate that the wetlands which went unmitigated/uncompensated as a result of permitting have been mitigated through other means. Acceptable methods include payment into a mitigation bank or protection of off-site wetlands through the establishment of a permanent conservation easement, subject to the approval of the Environmental Coordinator.
- C. The Project applicant may participate in the South Sacramento Habitat Conservation Plan if it is adopted, and if the Project area and activities are covered. The Applicant shall prepare Project plans in accordance with that Plan and any and all fees or land dedications shall be completed prior to construction.

Mitigation Measure BR-2: Prior to issuance of building permits, all areas designated within the SPA as Avoided shall be placed within a permanent conservation easement, which shall be reviewed and approved by the Environmental Coordinator. At a minimum, the permanent conservation easements must cover all areas which are required to be preserved as part of the Section 404 and Section 401 wetland permits.

Level of Significance After Mitigation: Significant and Unavoidable.

Findings on Adopted Mitigation: LAFCo finds that the adoption of the above-stated measures are within the purview of Sacramento County and not that of LAFCo. LAFCo additionally finds that the measures are feasible, and could and should be adopted by Sacramento County. LAFCo further finds that the impacts would still be considered significant, even with the imposition of measures identified above. Implementation of the foregoing mitigation measures would reduce the severity of

this impact, but not to a less than significant level. (Pub. Resources Code, Section 21002; CEQA Guidelines, Sections 15091, 15126.4, subd. (a)(2).) LAFCo has been presented with no evidence to contradict its conclusion in this regard.

Impact: Special Status Species / Bird Species.

The following special status bird species are identified as having potential to occur on or near the Project site: burrowing owl, Cooper's hawk, ferruginous hawk, golden eagle, grasshopper sparrow, northern harrier, Swainson's hawk, tricolored blackbird, and white-tailed kite. Excluding the large avoided area and two adjacent smaller avoided areas on the western side of the site, the Project will result in the conversion of 2,120 acres of grassland habitat to urban uses (note that the central linear Avoided Area is not considered preserved for the purposes of Swainson's hawk habitat, which is why the mitigation requirement in BR-4 is higher than the total grassland lost). Except for the tricolored blackbird, all of the species listed above use grasslands for foraging and/or nesting and will be impacted by Project development. The Swainson's hawk is the only Threatened Species, and mitigation is included requiring 1:1 habitat mitigation. Mitigation of habitat for the benefit of the Swainson's hawk will also provide habitat compensation for other bird species. The Project site does not contain any trees for nesting, but there are offsite trees nearby; pre-construction nesting surveys have been included for tree-nesting raptors. Pre-construction nesting surveys are also included for burrowing owl (which is ground-nesting), and are also included for tricolored blackbird (for those areas which are within 300 feet of suitable habitat, such as cattail or blackberry). (Significant)

Finding: Changes or alterations have been required in, or incorporated into, the Project that avoid the significant environmental effects identified in the EIR to a less than significant level. The mitigation measures will require a focused tree survey by a qualified biologist within 14 days prior to the start of any construction work between March 1 and September 15 to detect active raptor nests. If active nests are found, protective measures determined by the California Dept. of Fish and Game will be implemented to protect the nests. Mitigation for the loss of Swainson's hawk foraging habitat will also be required in the form of placing permanent conservation easements over agricultural lands providing foraging habitat to the satisfaction of the California Dept. of Fish and Game, complying with the County's Swainson's Hawk Impact Mitigation Program, or complying with a new Swainson's Hawk mitigation policy/program adopted by the County Board of Supervisors. Mitigation must be provided prior to the approval of improvement plans, building permits or the recordation of final maps, whichever occurs first. The foraging habitat provided must consist of grassland or similar habitat, not cropland, because this mitigation measure also compensates for impacts to species that do not use cropland habitat. The total mitigation habitat area required is 2,267 acres, but may be reduced to 2,231 acres if the areas designated for continued agricultural uses on the eastern and southeastern sides of the Project outside of the Urban Services Boundary are placed under a permanent conservation easement to preserve their availability as foraging habitat. Further adjustments in the amount of replacement foraging habitat may be made at the discretion of the Environmental Coordinator if the avoided area on the western plateau at the Project is increased in size as a result of the Section 404 Permit's requirements. Significant impacts to burrowing owls will also be avoided because the mitigation requires focused burrowing owl surveys within 500 feet of a construction area by a qualified biologist prior to any construction activities. Surveys must be conducted between 14 and 30 days prior to the commencement of construction and be in accordance with the "Burrowing Owl Survey Protocol and Mitigation

Guidelines” of the DFG. If no burrows are found, then a letter report shall be submitted to the County and no further mitigation will be necessary. If an occupied burrow is found, then the applicants shall contact the Environmental Coordinator and consult with DFG to determine if burrow avoidance is possible or if burrow relocation is necessary. If burrows are to remain, then a minimum of 6.5 acres of foraging habitat per burrow must be permanently preserved and all construction activity within 160 feet of an occupied burrow will be prohibited between September 1 and January 31, and prohibited within 250 feet between February 1 and August 31. Protective fencing must also be placed around active burrows to protect those buffer zones, and any permanent improvements located at least 250 feet from an occupied burrow being avoided. All mitigation for impacts to burrowing owls, whether they are relocated or their burrows are preserved onsite, must be conducted in accordance with the DFG’s “Staff Report on Burrowing Owl Mitigation (October 17, 1995)”, and any current updates. In order to avoid significant impacts to tricolored blackbird and their nesting habitat, the Applicants will be required to have a qualified biologist conduct preconstruction surveys for any work undertaken between March 1 and July 31 for nesting tricolored blackbirds. Such surveys will include the construction site and 300 ft., surrounding the site, and will be performed between 14 days and 30 days before work begins. A written report of survey results must be submitted to the Environmental Coordinator prior to any ground disturbing activity taking place. If nesting tricolored blackbird are present, then further mitigation will be required that includes consultation with the DFG to implement avoidance and impact minimization measures as directed by the DFG. Impacts to tricolored blackbirds are to be avoided by establishing a 300 foot temporary fenced setback from any nesting colony until the nesting colony is no longer dependent on the nesting habitat, as determined by a qualified biologist. LAFCo has been presented with no evidence to contradict its conclusion in this regard.

Mitigation: The following mitigation measures have been incorporated into the Project as conditions of approval to avoid this impact to special status bird species:

Mitigation Measure BR-3. If construction, grading, or Project-related improvements are to occur between March 1 and September 15, a focused survey for tree- or ground-nesting raptors within 500 feet of the construction site (1/2 mile for Swainson’s hawk) and for ground-nesting grasshopper sparrow shall be conducted by a qualified biologist within 14 days prior to the start of construction work (including clearing and grubbing). If active nests are found, the California Department of Fish and Game shall be contacted to determine appropriate protective measures. If no active nests are found during the focused survey, no further mitigation will be required.

Mitigation Measure BR-4. Prior to the approval of improvement plans, building permits, or recordation of the final map, whichever occurs first, implement one of the options below to mitigate for the loss of Swainson’s hawk foraging habitat on the Project site; based on current Project designs this is 2,267 acres. Based on current designs, this can be reduced to 2,231 acres of mitigation if the Applicant establishes a permanent conservation easement over the areas designated Agriculture on the eastern and southeastern sides of the site (these are areas outside of the Urban Services Boundary). Foraging habitat preserved shall consist of grassland or similar habitat open habitat, not cropland, because this mitigation measure also offsets impacts to other species that do not use cropland habitat.

A. The project proponent shall utilize one or more of the mitigation options (land dedication and/or fee payment) established in Sacramento County’s Swainson’s Hawk Impact Mitigation Program (Chapter 16.130 of the Sacramento County Code).

- B. The Project proponent shall, to the satisfaction of the California Department of Fish and Game, prepare and implement a Swainson's hawk mitigation plan that will include preservation of Swainson's hawk foraging habitat.
 - C. Should the County Board of Supervisors adopt a new Swainson's hawk mitigation policy/program (which may include a mitigation fee payable prior to issuance of building permits) prior to the implementation of one of the measures above, the Project proponent may be subject to that program instead.
- If the design of the primary Avoided Area on the western plateau (currently 382 acres in size) is increased in size in response to Section 404 wetland permitting requirements, the total amount of mitigation land required may be adjusted downward to reflect this increased avoidance, at the discretion of the Environmental Coordinator.

Mitigation Measure BR-5. Prior to construction activity (including site improvements, and building construction) focused surveys shall be conducted by a qualified biologist for burrowing owls in the construction area and within 500 feet of the construction area. Surveys shall be conducted no less than 14 days and no more than 30 days prior to commencement of construction activities. Surveys shall be conducted in accordance with "Burrowing Owl Survey Protocol and Mitigation Guidelines" published by The California Burrowing Owl Consortium (April 1993). The following shall also apply:

- A. If no occupied burrows are found in the survey area, a letter report documenting survey methods and findings shall be submitted to the County and no further mitigation is necessary.
- B. If an occupied burrow is found the applicant shall contact the Division of Environmental Review and Assessment and consult with the California Department of Fish (CDFG), prior to construction, to determine if avoidance is possible or if burrow relocation will be required.
- C. If owls are to remain on-site, a minimum of 6.5 acres of foraging habitat for each occupied burrow needs to be permanently preserved according to California Department of Fish and Game guidelines. In addition, no activity shall take place within 160 feet of an active burrow from September 1 to January 31 (wintering season) or 250 feet from February 1 through August 31 (breeding season). Protective fencing shall be placed, at the distances above, around the active burrows and no activity shall occur within the protected buffer areas. Permanent improvements shall be a minimum of 250 feet from an occupied burrow.
- D. Any impact to active owl burrows, relocation of owls, or mitigation for habitat loss shall be done in accordance with the Fish and Game "Staff Report on Burrowing Owl Mitigation" (October 17, 1995) or the version current at the time of construction. Written evidence from Fish and Game staff shall be provided to the Environmental Coordinator attesting to the permission to remove burrows, relocate owls, or mitigate for lost habitat, and shall include a plan to monitor mitigation success.

Mitigation Measure BR-6. If construction occurs between March 1 and July 31 pre-construction surveys for nesting tricolored blackbirds shall be performed by a qualified biologist. Surveys shall include the construction site and areas of appropriate habitat within 300 feet of the construction site. The survey shall occur no longer than 14 days prior to the start of construction work (including clearing, grubbing or grading). The biologist shall supply a brief written report (including date, time of survey, survey method, name of surveyor and survey

results) to the Environmental Coordinator prior to ground disturbing activity. If no tricolored blackbird were found during the pre-construction survey, no further mitigation would be required. If an active tricolored blackbird colony is found on-site or within 300 feet of the construction site the project proponent shall do the following:

- A. Consult with the California Department of Fish and Game to determine if project activity will impact the tricolored blackbird colony(s), and implement appropriate avoidance and impact minimization measures if so directed. Provide the Environmental Coordinator with written evidence of the consultation or a contact name and number from the California Department of Fish and Game.
- B. The applicant may avoid impacts to tricolored blackbird by establishing a 300-foot temporary setback with fencing that prevents any project activity within 300 feet of the colony. A qualified biologist shall verify that setbacks and fencing are adequate and will determine when the colonies are no longer dependent on the nesting habitat (i.e. nestlings have fledged and are no longer using habitat), which will determine when the fencing may be removed. The breeding season typically ends in July.

Level of Significance After Mitigation: Less-than-Significant.

Findings on Adopted Mitigation: LAFCo finds that the adoption of the above-stated measures are within the purview of Sacramento County and not that of LAFCo. LAFCo further finds that the above measure is appropriate and feasible; would substantially lessen or avoid the adverse impacts with the Cordova Hills project to a less than significant level; and that Sacramento County could and should adopt the above mitigation. (Pub. Resources Code, Section 21002; CEQA Guidelines, Sections 15091, 15126.4, subd. (a)(2).) LAFCo has been presented with no evidence to contradict its conclusion in this regard.

Impact: Special Status Species – Invertebrates.

The site contains wetlands suitable for the California linderella, midvalley fairy shrimp, Ricksecker's water scavenger beetle, vernal pool fairy shrimp, and vernal pool tadpole shrimp. Published protocols for the vernal pool fairy shrimp and vernal pool tadpole shrimp contain survey requirement for determining absence, and mitigation to be applied in case of presence or if presence is being assumed. These same measures are applied to the Species of Concern, California linderella and midvalley fairy shrimp as well. Mitigation being required for these species will also serve to provide mitigation for the Ricksecker's water scavenger beetle, which uses the same habitats. Though in-kind mitigation will be required for the loss of habitat on the site, the loss of 46% of the wetlands on the site within an area identified as vital to the recovery for vernal pool habitats and their dependent species is significant even with mitigation. (Significant)

Finding: Changes or alterations have been required in, or incorporated into, the Project which substantially lessen the significant environmental impacts as identified in the EIR, but not to a less-than-significant level. The presence of California linderella, midvalley fairy shrimp, vernal pool shrimp and vernal pool tadpole shrimp will be assumed, unless USFWS protocol surveys are performed to determine that those species are not present. If those species are absent, then the Ricksecker's water scavenger may also be presumed to be absent, and no further mitigation will be required. If the species are present or their presence is being assumed, then the vernal pools to be avoided shall have a 250 ft. buffer established where no construction will be allowed. Where vernal pools are being filled, then all applicable permits must be obtained from the USFWS, Army Corps

of Engineers, DFG and Central Valley California Regional Water Quality Control Board and mitigation provided as required by the permits. At a minimum, the mitigation ratios shall be consistent with County General Plan Policy of no net loss of wetland resources. Any vernal pool loss not mitigated for through the permit process shall be mitigated for by purchase of credits at a mitigation bank or by the protection of offsite wetlands with a permanent conservation easement approved by the Environmental Coordinator. LAFCo has been presented with no evidence to contradict its conclusion in this regard.

Mitigation: The following mitigation measures have been incorporated into the Project as conditions of approval to lessen and reduce the Project's significant and unavoidable impacts on the identified special status invertebrates:

Mitigation Measure BR-7: Presence of California linderella, midvalley fairy shrimp, vernal pool fairy shrimp and vernal pool tadpole shrimp shall be assumed unless determinate surveys that comply with U.S. Fish and Wildlife protocols conclude that the species are absent. If the protocol surveys are performed and all listed crustacean species are absent, Ricksecker's water scavenger beetle may also be presumed absent, and no further mitigation shall be required for listed vernal pool invertebrates. If species are found, one or a combination of the following shall apply:

- A. *Total Avoidance: Species are present or assumed to be present.* Unless a smaller buffer is approved through formal consultation with the Fish and Wildlife Service, construction fencing shall be installed a minimum of 250 feet from all delineated vernal pool margins. All construction activities are prohibited within this buffer area. For all vernal pools where total avoidance is achieved, no further action is required.
- B. *Compensate for habitat removed.* Obtain all applicable permits from the U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, California Department of Fish and Game, and the Central Valley Regional Water Quality Control Board for any proposed modifications to vernal pools and mitigate for habitat loss in accordance with the Biological Opinion and Section 404 permits obtained for the Project. At a minimum, mitigation ratios shall be consistent with County General Plan Policy, which requires no net loss of wetland resources. Any vernal pool loss not mitigated through the permitting process shall be mitigated for by payment into a mitigation bank or protection of off-site wetlands through the establishment of a permanent conservation easement, subject to the approval of the Environmental Coordinator.

Level of Significance After Mitigation: Significant and Unavoidable.

Findings on Adopted Mitigation: LAFCo finds that the adoption of the above-stated measures are within the purview of Sacramento County and not that of LAFCo. LAFCo additionally finds that the measures are feasible, and could and should be adopted by Sacramento County. LAFCo further finds that the impacts would still be considered significant, even with the imposition of measures identified above. Implementation of the foregoing mitigation measures would reduce the severity of this impact, but not to a less than significant level. (Pub. Resources Code, Section 21002; CEQA Guidelines, Sections 15091, 15126.4, subd. (a)(2).) LAFCo has been presented with no evidence to contradict its conclusion in this regard.

Impact: Special Status Species – Plants.

The Project site was surveyed for special status plant species in May 2007, April and June 2008, and May and July 2010 by ECORP Consulting Inc. The special status plant surveys revealed two special status species present on the Project site: legumens and Sacramento Orcutt grass. The wetlands containing these plants are located within Avoided Areas, but given the proximity of these wetlands to development areas, mitigation requires additional measures be implemented to control invasive species and to avoid pollution runoff from urban activities. (Potentially Significant)

Finding: Changes or alterations have been required in, or incorporated into, the Project which avoid the potentially significant environmental impacts to the identified special status plant species identified in the EIR and will make the impact less-than-significant. In order to ensure that the potentially significant impact is reduced to a less-than-significant level, the mitigation measures require the Applicants to prepare a pesticide and pollution prevention plan for any construction activities that might encroach within the 250 ft. buffer around vernal pools 358, 363, 370, 426 or 511 in order to reduce pollution run-off, pesticide drift and other similar contaminants from impacting those vernal pools and their plants, and to protect the preserve areas from urban contaminants. Such a plan will have to be incorporated into the Operations and Management Plan for the preserves required by the Section 404 Permit process. In addition, to further protect the special status plant species in the preserve areas, the Applicants will be required to prepare an invasive species removal and prevention plan to remove invasive species from preserve areas and to restore the affected wetland features. This plan will also have to be incorporated into the operations and Management Plan required as part of the Section 404 permit process and thereby protect the special status plant species from harm by invasive species. LAFCo has been presented with no evidence to contradict its conclusion in this regard.

Mitigation: The following mitigation measures have been incorporated into the Project to substantially lessen the Project's significant and unavoidable impacts to the special status plant species identified in the EIR:

Mitigation Measure BR-8: If construction activities encroach within the 250-foot buffer for vernal pools 358, 363, 370, 426 or 511 the applicant shall prepare a pesticide and pollution prevention plan. The plan shall include measures to reduce pollution run-off, pesticide drift, and other similar potential contaminants, to protect surrounding preserve areas from urban contaminants. Measures shall include the implementation of best management practices (e.g. straw wattles, silt fencing, and soil stabilization) for stormwater control. The plan shall be incorporated in the Operations and Management Plan, which is a requirement of the Section 404 permit process.

Mitigation Measure BR-9: The project applicant shall prepare an invasive species removal and prevention plan. The plan shall provide methods to remove invasive species from preservation areas and to restore the affected wetland features. The plan shall include methods for the prevention of the introduction of new invasive species from landscapes associated with the development. Minimum components of such a plan shall include: mapping of existing invasive plant populations within the avoided areas, with the map being updated a minimum of every five years; a description of acceptable methods for removing invasive species, examples of which include hand removal or biological controls (e.g. natural parasites); and a prohibition on the use of non-native plants within either the avoided areas or the Recreation-2 areas. The plan shall be

incorporated in the Operations and Management Plan, which is a requirement of the Section 404 permit process.

Level of Significance After Mitigation: Less-than-Significant.

Findings on Adopted Mitigation: LAFCo finds that the adoption of the above-stated measures are within the purview of Sacramento County and not that of LAFCo. LAFCo further finds that the above measure is appropriate and feasible; would substantially lessen or avoid the adverse impacts with the Cordova Hills project to a less than significant level; and that Sacramento County could and should adopt the above mitigation. (Pub. Resources Code, Section 21002; CEQA Guidelines, Sections 15091, 15126.4, subd. (a)(2).) LAFCo has been presented with no evidence to contradict its conclusion in this regard.

CLIMATE CHANGE

Impact: Climate Change.

In concert with state and federal activities, the design features of the SPA are intended to offset the Project climate change impact. Ideally, this mitigation would reduce the Project emissions and climate change impacts to levels that are not cumulatively significant, but there are many unknown variables and implementation challenges. Given the substantial emissions which will result from the Project and the uncertainties related to target-setting and the current state of modeling the analysis in the EIR concluded that the Project impacts on climate change may remain significant. The effects of climatic changes on the Sacramento region are potentially significant, and can only be mitigated through both adaptation and reduction strategies. By requiring mitigation of projects that may result in significant greenhouse gas emissions, and by adopting County programs and changes in government operations, the County is implementing all feasible strategies to reduce the effects of climate change on the region. Nonetheless, it is probable that these strategies will not be sufficient to offset all of the impacts of climate change, and that some of these impacts will continue to be significant. (Significant)

Finding: Changes or alterations have been required in, or incorporated into, the Project which substantially lessen the significant environmental impact as identified in the EIR, but not to a less-than-significant level. While climate change mitigation measure CC-1 will reduce and lessen the climate change impacts generated by the Project by requiring all amendments to the SPA to include an analysis of the effect of the amendment on greenhouse gas emissions so as not to exceed an average of 5.80 metric tons per capita (including emissions from building energy usage and vehicles) the cumulative contribution to greenhouse gas emissions will nonetheless remain significant and unavoidable. LAFCo has been presented with no evidence to contradict its conclusion in this regard.

Mitigation: The following mitigation measure has been incorporated into the Project to substantially lessen the Project's significant and unavoidable impacts on climate change:

Mitigation Measure CC-1. The following text shall be added to the Cordova Hills SPA:

“All amendments to the SPA with the potential to change the SPA-wide GHG emissions shall include an analysis which quantifies, to the extent practicable, the effect of the Amendment on SPA-wide greenhouse gas emissions. The Amendment shall not increase SPA-wide greenhouse gas emissions above an average 5.80 metric tons per capita (including emissions from building energy usage and vehicles). If the SPA amendment would require a change in the approved GHG Reduction Plan in order to meet the 5.80 MT CO₂e threshold, then the proponent of the SPA amendment shall consult with the SMAQMD on the revised analysis and shall prepare a revised GHG Reduction Plan for approval by the County, in consultation with SMAQMD.”

Level of Significance After Mitigation: Significant and Unavoidable.

Findings on Adopted Mitigation: LAFCo finds that the adoption of the above-stated measure is within the purview of Sacramento County and not that of LAFCo. LAFCo additionally finds that the measure is feasible, and could and should be adopted by Sacramento County. LAFCo further finds that the impacts would still be considered significant, even with the imposition of measures identified above. Implementation of the foregoing mitigation measures would reduce the severity of this impact, but not to a less than significant level. (Pub. Resources Code, Section 21002; CEQA

Guidelines, Sections 15091, 15126.4, subd. (a)(2).) LAFCo has been presented with no evidence to contradict its conclusion in this regard.

CULTURAL RESOURCES

Impact: Cultural Resources.

The Project area contains three historic era sites, and a fourth historical site that is included in a multi-component site. One prehistoric bedrock mortar station site and one prehistoric component of a multi-component site were discovered in the Project area. None of the sites are associated with any important persons or events in California or national history. They are not considered to be unique and do not represent the work of a master or possess high artistic values. In all cases, the historic sites lack sufficient cultural material to address research questions. All of the historic sites were evaluated as not eligible under any criteria for the National Register of Historic Places or the California Register of Historical Resources and are not considered a historical resource or unique archeological resource as defined by CEQA. There always remains a potential to encounter buried or as yet undiscovered resources during land clearing and construction work. Mitigation is included to ensure that such resources are treated appropriately if discovered. (Potentially Significant)

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Finding: Mitigation measures require that the Applicants halt all work within a 200 ft. radius of the discovery and have a qualified archeologist evaluate the significance of the find. If a resource is found that is potentially eligible for listing on the National Register or California Register or is cultural in origin, then the Applicants shall either arrange for total avoidance or test excavations or total data recovery as mitigation. A determination of how to treat the resource shall be made by the archeologist, DERA and the Applicants, and shall be documented in writing and submitted to DERA. If human remains are discovered, then work will stop and the County Coroner shall be notified. If the remains are determined to be Native American in origin, then the guidelines of the Native American Heritage Commission shall be followed in the treatment and disposition of the remains. LAFCo has been presented with no evidence to contradict its conclusion in this regard.

Mitigation: The following mitigation measure has been incorporated into the Project to avoid the potentially significant impacts to cultural resources identified in the EIR:

Mitigation Measure CR-1. If subsurface deposits believed to be cultural or human in origin are discovered during construction, then all work must halt within a 200-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeology, shall be retained at the Applicant's expense to evaluate the significance of the find. If it is determined due to the types of deposits discovered that a Native American monitor is required, the Guidelines for Monitors/Consultants of Native American Cultural, Religious, and Burial Sites as established by the Native American Heritage Commission shall be followed, and the monitor shall be retained at the Applicant's expense. Work cannot continue within the 200-foot radius of the discovery site until the archaeologist conducts sufficient research and data collection to make a determination that the resource is either 1) not cultural in origin; or 2) not potentially eligible for listing on the National Register of Historic Places or California Register of Historical Resources. If a potentially-eligible resource is encountered, then the archaeologist, the Environmental Coordinator, and project proponent shall arrange for either 1) total avoidance of the resource, if

possible; or 2) test excavations or total data recovery as mitigation. The determination shall be formally documented in writing and submitted to the Environmental Coordinator as verification that the provisions of CEQA for managing unanticipated discoveries have been met. In addition, pursuant to Section 5097.97 of the State Public Resources Code and Section 7050.5 of the State Health and Safety Code, in the event of the discovery of human remains, all work is to stop and the County Coroner shall be immediately notified. If the remains are determined to be Native American, guidelines of the Native American Heritage Commission shall be adhered to in the treatment and disposition of the remains.

Level of Significance After Mitigation: Less-than-Significant.

Findings on Adopted Mitigation: LAFCo finds that the adoption of the above-stated measure is within the purview of Sacramento County and not that of LAFCo. LAFCo further finds that the above measure is appropriate and feasible; would substantially lessen or avoid the adverse impacts with the Cordova Hills project to a less than significant level; and that Sacramento County could and should adopt the above mitigation. (Pub. Resources Code, Section 21002; CEQA Guidelines, Sections 15091, 15126.4, subd. (a)(2).) LAFCo has been presented with no evidence to contradict its conclusion in this regard.

HAZARDS AND HAZARDOUS MATERIALS

Impact: Hazards and Hazardous Materials

The Project area was assessed for on-site hazardous conditions, and this assessment concluded that there is no evidence of any recognized hazardous conditions that may have a significant adverse effect on the development of the Project. There are three agency-listed contaminated sites within approximately one mile of the Project. These include the Sacramento County Boys Ranch (a juvenile correction facility within 1,000 feet of the eastern Project boundary), Aerojet (located just over a mile to the northwest), and the Kiefer Landfill (located approximately 2,000 feet to the south). The Boys Ranch hazardous condition was remediated and the case closed. Aerojet remediation activities are ongoing. Contaminated soils from Aerojet would not affect the Project, as these are off-site, while the groundwater contamination plumes are migrating away from the Project area. Groundwater contamination at Kiefer Landfill is likewise migrating away from the Project. The Project will also be using public water provided through the Sacramento County Water Agency, not groundwater. Landfill gas migration from Kiefer Landfill also appears not to affect the site, but a mitigation measure is nonetheless included for the small portion of the site outside of the Urban Services Boundary that is within the 2,000 foot buffer established around the Kiefer Landfill. (Potentially Significant)

Finding: Changes or alterations have been required in, or incorporated into, the Project that avoid the potentially significant environmental effects of hazardous materials on the Project area from landfill gas generated by buried waste at the Kiefer Landfill. Those measures require any structure within the Project area that is within 1,000 feet of buried waste at Kiefer Landfill to be continuously monitored for the landfill gas and designed and constructed to prevent landfill gas accumulation within the structure in order to prevent adverse impacts from the landfill gas. LAFCo has been presented with no evidence to contradict its conclusion in this regard.

Mitigation: The following mitigation measure has been incorporated into the Project to avoid the potentially significant impacts arising from landfill gas generated by buried waste at the Kiefer Landfill on people and structures in the Project area identified in the EIR:

Mitigation Measure HM-1. Any structure within the Project boundaries (including but not limited to, buildings, subsurface vaults, utilities, or any other areas where potential landfill gas buildup may cause adverse impacts to the public health or safety or the environment) within 1,000 feet of buried waste or proposed buried waste at Kiefer Landfill (refer to Plate HM-2 of the EIR) shall be continuously monitored by the owner/operator of said structure for landfill gas and be designed and constructed to prevent landfill gas accumulation in those structures.

Level of Significance After Mitigation: Less-than-Significant.

Findings on Adopted Mitigation: LAFCo finds that the adoption of the above-stated measure is within the purview of Sacramento County and not that of LAFCo. LAFCo further finds that the above measure is appropriate and feasible; would substantially lessen or avoid the adverse impacts with the Cordova Hills project to a less than significant level; and that Sacramento County could and should adopt the above mitigation. (Pub. Resources Code, Section 21002; CEQA Guidelines, Sections 15091, 15126.4, subd. (a)(2).) LAFCo has been presented with no evidence to contradict its conclusion in this regard.

LAND USE

Impact: *Conflict with SACOG Blueprint and General Plan Policy.*

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The Project includes a wide variety of transportation choices, an array of housing choices, a mix of uses, compact community design, and fosters a sense of place. While acknowledging that in terms of internal community design the Project appears to be an excellent example of “smart growth” development and is consistent with relevant General Plan policies, it must also be acknowledged that the Project conflicts with the principles with respect to the preservation of open space and the proximity to existing developed communities. In terms of open space preservation, the analysis is somewhat subjective, and the Project has directed preservation toward the most sensitive vernal pool areas of the site. In terms of directing development toward existing communities, the conflict is more clear. Though projected for future development, the Blueprint envisions growth occurring from the existing city centers outward rather than the reverse and did not forecast growth taking place in the Project area until the Year 2050. This is a fundamental underpinning to the Blueprint, and as a result, the Project’s inconsistency with this principle is considered substantial. (Significant and Unavoidable)

Finding: There are no mitigation measures that would lessen the Project’s conflict with the SACOG Blueprint. While the Project is adjacent to areas within the City of Rancho Cordova that are zoned and fully entitled for urban development, the nearest developed area with housing and infrastructure is approximately one mile away from the Project site. As stated in the SACOG Blueprint, it is not intended to be applied or implemented in a literal, parcel-level manner and was not intended to indicate that a specific parcel should or should not be developed in a particular manner. That level of planning is the responsibility of local governments and is beyond the specificity appropriate for regional scale, long-term scenario planning. (See, SACOG, *Blueprint Growth Principles*, 2004.) The Project’s conflict with the SACOG Blueprint is one of timing and differences in principle interpretation, insofar as the Blueprint did not estimate growth taking place

in the Project area until the Year 2050. LAFCo has been presented with no evidence to contradict its conclusion in this regard.

Mitigation: There is no mitigation available.

Level of Significance After Mitigation: Significant and Unavoidable.

Findings on Adopted Mitigation. LAFCo finds that this impact remains significant and unavoidable. (Pub. Resources Code, Section 21002; CEQA Guidelines, Sections 15091, 15126.4, subd. (a)(2).) LAFCo has been presented with no evidence to contradict its conclusion in this regard.

NOISE

Impact: Traffic Noise.

Traffic on the internal Project roadways and on Grant Line Road will generate noise that has the potential to exceed General Plan noise standards related to both residential and non-residential uses. Mitigation is included to ensure that future subdivisions and non-residential developments are constructed in a manner that achieves compliance with General Plan standards. (Significant)

Finding: Changes or alterations have been required in, or incorporated into, the Project that will avoid the potentially significant environmental effects arising from traffic noise that could exceed General Plan noise standards related to residential uses and non-residential uses. Those measures require any residential uses that would be exposed to a noise level greater than 65 dB Ldn at the property line to be designed to reduce noise levels for exterior activity areas in compliance with the standards stated in the General Plan's Noise Element. Residential projects exposed to noise levels greater than 70 dB Ldn at the property line must be designed and constructed to achieve an interior noise level of 45 dB Ldn or less. Non-residential development projects, such as churches, libraries, meeting halls, and schools exposed to greater than 60 dB Ldn, and all non-residential development projects such as transient lodging, hospitals and nursing homes, and office buildings exposed to greater than 65 dB Ldn at the property line must demonstrate that the interior noise level will not exceed the standards in the General Plan's Noise Element. Those standards may be satisfied by use of noise barriers, increased setbacks, enhanced building construction techniques, or the strategic placement of structures. Non-residential projects may demonstrate compliance by documenting that the location of the noise contours and assuming a standard exterior-to-interior noise attenuation of 25 dB. In all other cases the noise reduction must be substantiated by an acoustical analysis performed by a qualified acoustical consultant that is submitted to and verified by DERA prior to the issuance of any building permits for residential areas. All parks exposed to noise levels in excess of 70 dB Ldn must be designed and constructed to reduce noise levels in park activity areas to comply with General Plan Noise Element standards by means of noise barriers, setbacks and strategic placement of play structures, and substantiate the reduction by way of an acoustical analysis prepared by a qualified acoustical consultant and verified by DERA prior to issuance of building permits for the park sites in order to demonstrate compliance with the mitigation requirements. LAFCo has been presented with no evidence to contradict its conclusion in this regard.

Mitigation: The following mitigation measures have been incorporated into the Project to avoid the significant impacts from noise on residential uses, non-residential uses and park sites within the Project, as identified in the EIR:

NO-1. All residential development projects exposed to greater than 65 dB L_{dn} (as identified in Appendix NO-1) at the property line shall be designed and constructed to reduce noise levels to within General Plan Noise Element standards for exterior activity areas. Potential options for achieving compliance with noise standards include, but are not limited to, noise barriers, increased setbacks, and/or strategic placement of structures. An acoustical analysis substantiating the required noise level reduction, prepared by a qualified acoustical consultant shall be submitted to and verified by the Environmental Coordinator prior to the issuance of any building permits for affected sites.

NO-2. All residential development projects exposed to greater than 70 dB L_{dn} (as identified in Appendix NO-1) at the property line shall be designed and constructed to achieve an interior noise level of 45 dB L_{dn} or less. Potential options for achieving compliance with noise standards include, but are not limited to, noise barriers, increased setbacks, strategic placement of structures and/or enhanced building construction techniques. An acoustical analysis substantiating the required noise level reduction, prepared by a qualified acoustical consultant, shall be submitted to and verified by the Environmental Coordinator prior to the issuance of any building permits for the site.

NO-3. Non-residential development projects such as churches, libraries, meeting halls, and schools exposed to greater than 60 dB L_{dn} , and all non-residential development projects such as transient lodging, hospitals and nursing homes, and office buildings exposed to greater than 65 dB L_{dn} (as identified in Appendix NO-1) at the property line shall demonstrate that interior noise volumes will not exceed General Plan Noise Element standards for non-residential uses exposed to traffic noise. This may be accomplished by providing documentation that the type of use is within acceptable limits based on the location of the identified noise contours and assuming standard exterior-to-interior attenuation of 25 dB. If this cannot be demonstrated, an acoustical analysis substantiating the required noise level reduction, prepared by a qualified acoustical consultant, shall be submitted to and verified by the Environmental Coordinator prior to the issuance of any building permits for affected sites. Potential options for achieving compliance with noise standards include, but are not limited to, noise barriers, increased setbacks, strategic placement of structures and/or enhanced building construction techniques. The measure does not apply to commercial uses.

NO-4. All parks exposed to noise volumes in excess of 70 dB (as identified in Appendix NO-1) at the property line shall be designed and constructed to reduce noise levels within park activity areas (benches, play structures, etc.) to within General Plan Noise Element standards for parks. Potential options for achieving compliance with noise standards include, but are not limited to, noise barriers, increased setbacks, and/or strategic placement of structures. For barrier and other structural options, an acoustical analysis substantiating the required noise level reduction, prepared by a qualified acoustical consultant shall be submitted to and verified by the Environmental Coordinator prior to the issuance of any building permits for affected sites.

Level of Significance After Mitigation: Less than Significant.

Findings on Adopted Mitigation: LAFCo finds that the adoption of the above-stated measure is within the purview of Sacramento County and not that of LAFCo. LAFCo further finds that the above measure is appropriate and feasible; would substantially lessen or avoid the adverse impacts with the Cordova Hills project to a less than significant level; and that Sacramento County could and should adopt the above mitigation. (Pub. Resources Code, Section 21002; CEQA Guidelines,

Sections 15091, 15126.4, subd. (a)(2).) LAFCo has been presented with no evidence to contradict its conclusion in this regard.

Impact: Onsite Stationary and Community Noise.

The Project includes uses that include noise-generating sources such as playing fields, loading docks, a corporation yard, and other uses. Mitigation is included to require that all such uses located adjacent to residential lands be designed so as not to cause the General Plan standards to be exceeded. (Significant)

Finding: Changes or alterations have been required in, or incorporated into, the Project which will avoid the significant environmental effects arising from noise generated from onsite stationary and community sources that could exceed General Plan noise standards by requiring non-residential development adjacent to residential properties to be constructed so as to ensure that noise levels generated by the non-residential use does not exceed the standards in the General Plan Noise Element and requiring the noise level reduction is substantiated by an acoustical analysis prepared by a qualified acoustical consultant and submitted to the Environmental Coordinator prior to issuance of any building permits for the non-residential uses that have the potential to generate substantial noise levels if located adjacent to residential uses. LAFCo has been presented with no evidence to contradict its conclusion in this regard.

Mitigation: The following mitigation measures have been incorporated into the Project to avoid the significant impacts from noise generated from onsite stationary sources and community noise sources on residential uses at the Project, as identified in the EIR:

NO-5. All non-residential development projects located adjacent to residentially designated properties shall be designed and constructed to ensure that noise levels generated by the uses do not result in General Plan Noise Element standards being exceeded on adjacent properties. An acoustical analysis substantiating the required noise level reduction, prepared by a qualified acoustical consultant shall be submitted to and verified by the Environmental Coordinator prior to the issuance of any building permits for the non-residential projects with the potential to generate substantial noise (e.g. car wash, auto repair, or buildings with heavy-duty truck loading docks) if those uses are adjacent to residentially designated properties. The acoustical analysis shall include, but not be limited to, consideration of potential noise conflicts due to operation of the following items:

- Outdoor playing fields;
- Mechanical building equipment, including HVAC systems;
- Loading docks and associated truck routes;
- Refuse pick up locations; and
- Refuse or recycling compactor units.

Level of Significance After Mitigation: Less than Significant.

Findings on Adopted Mitigation: LAFCo finds that the adoption of the above-stated measure is within the purview of Sacramento County and not that of LAFCo. LAFCo further finds that the above measure is appropriate and feasible; would substantially lessen or avoid the adverse impacts

with the Cordova Hills project to a less than significant level; and that Sacramento County could and should adopt the above mitigation. (Pub. Resources Code, Section 21002; CEQA Guidelines, Sections 15091, 15126.4, subd. (a)(2).) LAFCo has been presented with no evidence to contradict its conclusion in this regard.

Impact: Substantial Increase in Existing Ambient Noise.

The Project would result in a substantial increase in existing ambient noise for multiple roadway segments, but only two of these include receptors which would be impacted: Sunrise Boulevard and Douglas Boulevard. Noise volumes would be increased by 2 dB on Sunrise Boulevard and by 7 dB and 10 dB along Douglas Boulevard. Based on the existing noise environments, these are substantial increases. On Sunrise Boulevard, a noise barrier is not appropriate because businesses rely on visibility to attract customers, and on Douglas Road a barrier is already present. Thus, no further improvements can be made to reduce impact. (Significant and Unavoidable)

Finding: There are no mitigation measures that would lessen the substantial increase in the ambient noise level that would result from the noise generated on Sunrise Boulevard and Douglas Boulevard by Project-generated traffic. A noise barrier is already present on Douglas Road and there is no other feasible mitigation possible. A noise barrier would not be appropriate and feasible mitigation along Sunrise Boulevard because the commercial uses along it depend on visibility from the roadway to attract their customers. LAFCo has been presented with no evidence to contradict its conclusion in this regard.

Mitigation: There is no mitigation available.

Level of Significance After Mitigation: Significant and Unavoidable.

Findings on Adopted Mitigation. LAFCo finds that this impact remains significant and unavoidable. (Pub. Resources Code, Section 21002; CEQA Guidelines, Sections 15091, 15126.4, subd. (a)(2).) LAFCo has been presented with no evidence to contradict its conclusion in this regard.

PUBLIC UTILITIES

Impact: Construction Impacts.

Water, sewer, and dry utility lines constructed within the Project boundaries would not cause any additional utility-specific construction impacts, as utility construction will occur within areas that will already urbanize as part of the Project. Most of the off-site utility lines are shown within areas already proposed for utility construction as part of service provider master planning documents. There are some improvement areas which have not already been studied or approved, and which are likely to contribute to wetland impacts and impacts to associated species. (Significant and Unavoidable)

Finding: There are no mitigation measures that would lessen the impacts from construction related to providing public utilities to the project site to a less-than-significant level. While mitigation measures AQ-1, BR-1, BR-3, BR-4, BR-5, BR-7, BR-8, and CR-1 described above all would apply to the construction of public utilities at the Project site, they would not reduce the construction

impacts to a less than significant level. LAFCo has been presented with no evidence to contradict its conclusion in this regard.

Mitigation: There is no mitigation available in addition to Mitigation Measures AQ-1, BR-1, BR-3, BR-4, BR-5, BR-7, BR-8, and CR-1 that have already been required at the Project to lessen its environmental impacts.

Level of Significance After Mitigation: Significant and Unavoidable.

Findings on Adopted Mitigation. LAFCo finds that this impact remains significant and unavoidable. (Pub. Resources Code, Section 21002; CEQA Guidelines, Sections 15091, 15126.4, subd. (a)(2).) LAFCo has been presented with no evidence to contradict its conclusion in this regard.

TRAFFIC AND CIRCULATION

Mitigation Measures in the EIR being implemented through Conditions of Approval.

The Board considered each of the proposed Mitigation Measures in the EIR for the Project's Traffic and Circulation impacts. In most circumstances, the Board determined that it would be appropriate to implement the proposed Mitigation Measures with Conditions of Approval that were adopted for the Project in order to better accomplish the mitigation. In the instances when the Board has done so, it was determined that the Condition of Approval was more specific and better designed to implement the mitigation for the identified impact described in the FEIR.

With regard to Mitigation Measure TR-1.B, it was determined in the FEIR that due to the completion of construction of the Zinfandel Drive extension project and the installation of a new traffic signal at the Douglas Road and Zinfandel Drive/Eagles Nest Road intersection, Mitigation Measure TR-1.B is no longer needed. Mitigation Measure TR-1.F was deleted because the County is currently constructing this improvement. Mitigation Measure TR-5.H was deleted because the improvement has been constructed by others. The timing for the implementation of Condition of Approval #61 that is being used to implement Mitigation Measure TR-2.D has also been changed by Condition of Approval No. 61 to require them at 500 DUEs, instead of at 3,200 DUEs.

Also note that the language of Mitigation Measure TR-2.D has changed. The reasoning for the change was dual: the Board desired a measure which would succeed in reducing the impact while also improving the north-south flow conditions at this intersection (though not necessary due to a Project impact) and because Measure TR-2.D. would have required more extensive roadway work. County DOT performed further analysis of the mitigation measure and found that there was an alternative reconfiguration which would reduce the amount of reconstruction needed, which would improve north-south flow, and would also result in an equivalent LOS as measure TR-2.D. The revised lane reconfigurations consist of the following: two eastbound through lanes, an eastbound right turn lane, and an eastbound left turn lane; a northbound left turn lane, two northbound through lanes and a northbound right turn lane; a westbound through lane, a westbound right turn lane and a westbound left turn lane; a southbound through lane, a southbound left turn lane, and a southbound right turn lane. The threshold for construction of the above intersection improvements has also been changed by Condition of Approval No. 61 to require them at 500 DUEs, instead of at 3,200 DUEs.

LAFCo finds that the Conditions of Approval identified below will implement the roadway and intersection improvements needed by the corresponding Mitigation Measure for the identified impacts and therefore implements the revised Mitigation Measures in the FEIR with the identified Conditions of Approval. LAFCo further finds that while those referenced Conditions of Approval would substantially lessen the Project's significant and unavoidable impacts on transportation and circulation arising from the Project in the "Cumulative Plus Project" scenario, they would not reduce the impacts to a less than significant level. In addition, the Board determined that because many of the traffic improvements would be needed in jurisdictions beyond the County's control and authority, the traffic impacts on those roadway segments and intersections identified in the EIR to be significant and unavoidable. Within the Cordova Hills Project Area, the impacts to North Loop Road from Street D to Street F would not be addressed by any of those Conditions of Approval, so Mitigation Measure TR-10 proposed in the EIR will continue to be required to substantially reduce the Cumulative Plus Project traffic impact, although it would not do so to a less than significant level. As noted in the EIR, because the County does not have exclusive jurisdiction over roadways and intersections situated partly or wholly within the boundaries of another government jurisdiction, the County cannot be assured that the recommended improvements situated wholly or partly in those other jurisdictions will be constructed, and must therefore conclude that the below identified impacts would remain significant and unavoidable for purposes of CEQA.

Impact: Existing Plus Project.

The Project results in significant impacts to six County intersections, ten City of Rancho Cordova intersections, the Zinfandel and US 50 freeway ramp intersection, two County roadway segments, one City of Elk Grove roadway segment, eleven City of Rancho Cordova roadway segments, two US 50 freeway segments, and bicycle and pedestrian facilities. Mitigation is included which will improve operating conditions to acceptable levels for most of these facilities, but there are some impacts for which no feasible mitigation exists. These are: the Zinfandel and US 50 freeway ramp intersection and Sunrise Boulevard from US 50 to White Rock Road. Furthermore, the County does not have land use authority in other jurisdictions, and cannot guarantee that non-County facilities will be constructed. The following intersections and roadway segments would be significantly impacted under the "Existing Plus Project" scenario:

- Bradshaw Road and Jackson Road – intersection.
- Mather Boulevard and Douglas Road – intersection.
- Eagles Nest Road and Jackson Road – intersection.
- Grant Line Road and Sunrise Boulevard – intersection.
- Grant Line Road and White Rock Road – intersection.
- Prairie City Road and White Rock road – intersection.
- School Access and North Loop Road – intersection.
- Zinfandel Drive and White Rock Road – intersection.
- Sunrise Boulevard and White Rock Road – intersection.
- Sunrise Boulevard and Douglas Road – intersection.
- Sunrise Boulevard and Jackson Road – intersection.
- Grant Line Road and Jackson Road – intersection.
- Grant Line Road and Kiefer Boulevard – intersection.
- Grant Line Road and Douglas Road – intersection.

- Grant Line Road and North Loop Road – intersection.
- Grant Line Road and Chrysanthy Boulevard – intersection.
- Grant Line Road and University Boulevard – intersection.
- Prairie City Road from US 50 to White Rock Road – roadway.
- Grant Line Road from Sheldon Road to Calvine Road – roadway.
- Grant Line Road from Jackson Road to Kiefer Boulevard – roadway.
- Grant Line Road from Kiefer Boulevard to University Boulevard – roadway.
- Grant Line Road from University Boulevard to Chrysanthy Boulevard – roadway.
- Grant Line Road from Chrysanthy Boulevard to North Loop Road – roadway.
- Grant Line Road from North Loop Road to Douglas Road – roadway.
- Grant Line Road from Douglas Road to White Rock Road – roadway.
- Jackson Road from Sunrise Boulevard to Grant Line Road – roadway.
- Douglas Road from Sunrise Boulevard to Rancho Cordova Parkway – roadway.
- Douglas Road from Rancho Cordova Parkway to Grant Line Road – roadway.
- Westbound US 50 from Hazel Avenue to Sunrise Boulevard – freeway.
- Eastbound US 50 from Sunrise Boulevard to Hazel Avenue – freeway.

Finding: Specific economic, legal, social, technological, or other considerations make infeasible the project alternatives identified in the EIR. There are a number of mitigation measures that would avoid the impacts from traffic generated by the Project in the “Existing Plus Project” scenario to a less than significant level, but due to the fact that many of the mitigation measures described in the EIR would need to be implemented in adjacent jurisdictions, the County cannot guarantee that the suggested traffic improvements would ever get funded and constructed. Consequently, LAFCo must find that because many of the traffic improvements would be needed in jurisdictions beyond the County’s control and authority, LAFCo must find that the Project’s traffic impacts on those roadways segments and intersections identified in the EIR to be significant and unavoidable. In other cases, even if the suggested traffic mitigation improvement were to get built, it would still not result in a level of service that would allow LAFCo to reach a conclusion that the Project’s impacts are less-than-significant. LAFCo has been presented with no evidence to contradict its conclusion in this regard.

Mitigation: The following mitigation measures or agency recommendations/requirements have been incorporated into the Project as conditions of approval to substantially lessen the Project’s traffic and circulation impacts, but not to a less than significant level:

Mitigation Measure TR-1. The applicant shall construct or fund, as set forth in the phasing and financing plan approved by the Sacramento County Department of Transportation, the below mitigation measures. The phasing and financing plan shall ensure commencement of construction of traffic improvements prior to degradation of LOS below applicable County standards. This mitigation recognizes that should any of the measures below benefit other projects, a reimbursement agreement and/or a fee credit to the applicant may be considered.

- A. *Bradshaw Road and Jackson Road* – Provide a second westbound through lane.
- B. *Mather Boulevard and Douglas Road* – Deleted because a traffic signal at Douglas Road/Zinfandel Drive was constructed during preparation of the Final EIR and additional analysis showed that another signal is no longer needed.

- C. *Eagles Nest Road and Jackson Road* – Construct a new traffic signal. Provide a left turn lane and a through-right turn shared lane on the northbound and southbound approaches.
- D. *Grant Line Road and Sunrise Boulevard* – Provide a separate southbound right turn lane so the southbound approach has one left turn lane, one through lane and one right turn lane.
- E. *Grant Line Road and White Rock Road* – Modify the intersection and traffic signal To provide dual left turn lanes and two through lanes on the northbound approach; provide two through lanes and a separate right turn lane on the southbound approach; and provide two left turn lanes and a separate right turn lane on the eastbound approach. On the western leg of the intersection, two westbound departure lanes are required.
- F. *Prairie City Road and White Rock Road* – Deleted because this improvement is in the process of being completed by a County DOT project.
- G. *School Access and North Loop Road* – Provide dual eastbound left turn lanes. The applicant shall be responsible for a focused access study addressing the internal circulation of the Cordova Hills project to finalize the design of intersection geometries and length of left turn pockets. The scope of work for the analysis shall be submitted to the Sacramento County DOT staff. Upon completion, the analysis shall be submitted to the Sacramento County DOT for approval and recommendations.

Implementation of Mitigation Measure TR-1 will be accomplished by satisfaction of the following Conditions of Approval requiring the identified transportation improvements:

- Condition 41. As part of intersection improvements, provide dual eastbound left turn lanes at the intersection of North Loop Road and the proposed school access pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation. (Mitigation Measures TR-1.G and TR-8.A)
- Condition 59. Modify the existing intersection of Bradshaw Road and Jackson Road (State Route 16) to provide a second westbound through lane pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation and Caltrans. Note: The additional westbound through lane shall be carried through the intersection. (Mitigation Measure: TR-1.A) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 2,000 DUEs within the Cordova Hills SPA)
- Condition 60. Commence reconstruction and widening of the existing intersection of Grant Line Road and White Rock Road pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation. Improvements shall include dual northbound left turn lanes and two northbound through lanes; two southbound through lanes and one southbound right turn lane; two eastbound left turn lanes, and one eastbound right turn lane. On the western leg of the intersection, two westbound departure lanes are required. Note: A project to widen White Rock Road from two lanes to four lanes between Grant Line Road and Prairie City Road is currently (2012) under construction. (Mitigation Measure: TR-1.E) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 3,200 DUEs within the Cordova Hills SPA)
- Condition 67. Commence reconstruction and widening of the existing intersection of Eagles Nest Road at Jackson Road (State Route 16) to a signalized intersection pursuant to the

Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation and Caltrans. Improvements shall include a left turn lane and a through-right turn shared lane on the all approaches. (Mitigation Measure: TR-1.C) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 4,500 DUEs within the Cordova Hills SPA)

Condition 68. Commence reconstruction and widening of the existing intersection of Grant Line Road at Sunrise Boulevard to provide a separate southbound right turn lane so the southbound approach has one left turn lane, one through lane, and one right turn lane pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation. (DEIR Mitigation Measure: TR-1.D) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 5,800 DUEs within the Cordova Hills SPA)

Mitigation Measure TR-2. The applicant shall construct or fund, as set forth in the phasing and financing plan approved by the Sacramento County Department of Transportation, and in consultation with the City of Rancho Cordova, the below mitigation measures. The phasing and financing plan shall ensure commencement of construction of traffic improvements prior to degradation of LOS below the applicable County or City standards. This mitigation recognizes that should any of the measures below benefit other projects, a reimbursement agreement may be considered.

- A. *Zinfandel Drive and White Rock Road* – The applicant shall be responsible for a fair share of this measure. Provide separate dual right turns on the westbound approach so the westbound approach has two left turn lanes, two through lanes and two right turn lanes. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation and may be up to 100% of the cost of the improvements.
- B. *Sunrise Boulevard and White Rock Road* – Provide overlap phasing on the eastbound and westbound approaches.
- C. *Sunrise Boulevard and Douglas Road* – Provide overlap phasing on the westbound approach.
- D. *Sunrise Boulevard and Jackson Road* – Provide an eastbound through lane, an eastbound through-right turn shared lane, and an eastbound left turn lane; a northbound left turn lane, two northbound through lanes, and a right turn lane; one westbound through lane, a westbound right turn lane, and a westbound left turn lane; a southbound through lane, a southbound left turn lane, and a southbound right turn lane.
- E. *Grant Line Road and Jackson Road* – The applicant shall be responsible for a fair share of this measure. Provide a left turn lane and a through-right shared turn lane on the eastbound and westbound approaches. Provide a separate left turn lane, a through lane and a separate right turn lane on the northbound and southbound approaches. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation and may be up to 100% of the cost of the improvements.
- F. *Grant Line Road and Kiefer Boulevard* – Construct a new traffic signal. Provide a left turn lane, a through lane and a through-right turn shared lane on the northbound and southbound approaches; provide a left turn lane and a through-right turn shared lane on the eastbound and westbound approaches.
- G. *Grant Line Road and Douglas Road* – Construct a new traffic signal. Provide dual left turn lanes and a separate through lane on the northbound, a through lane and a through-right turn shared lane on the southbound approach, and a separate left turn lane and a free-right turn lane on the eastbound approach. Also an extra southbound departure lane is

needed for the eastbound free-right movement. To be consistent with the segment mitigations a second northbound through lane is included.

- H. *Grant Line Road and North Loop Road* – Construct a new traffic signal. Provide two through lanes and a separate right turn lane on the northbound approach, dual left turn lanes and one through on the southbound approach, and one left turn lane and one free-right turn lane on the westbound approach. Also an extra northbound departure lane is needed for the westbound free-right movement. To be consistent with the segment mitigations a second southbound through lane is included.
- I. *Grant Line Road and Chrysanthy Boulevard* – Construct a new traffic signal. Provide a through lane and a separate right turn lane on the northbound approach, dual left turn lanes and a through lane on the southbound approach, and dual left turn lanes and one right turn lane on the westbound approach. To be consistent with the segment mitigations a second northbound and southbound through lane is included. Also provide two westbound through lanes for when Chrysanthy Boulevard is connected through Rancho Cordova.
- J. *Grant Line Road and University Boulevard* – Construct a new traffic signal. Provide a through lane and a separate free-right turn lane on the northbound approach, dual left turn lanes and one through lanes on the southbound approach, and dual left turn lanes and a right turn lane on the westbound approach. Also an extra eastbound departure lane is needed for the northbound free-right movement. To be consistent with the segment mitigations a second northbound and southbound through lane is included.

Implementation of Mitigation Measure TR-2 will be accomplished by satisfaction of the following Conditions of Approval requiring the identified transportation improvements:

Condition 49. Commence reconstruction and widening of the intersection of University Boulevard and Grant Line Road pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of such improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. Improvements shall include modification of the existing traffic signal, providing a u-turn lane, two through lanes, and a free right turn lane on the northbound approach; two left turn lanes and two through lanes on the southbound approach; and two left turn lanes and a right turn lane on the westbound approach. Note: The two westbound left turn lanes shall be extended to a length based on the queuing analysis and to the satisfaction of the Department of Transportation. For the free-right turn movement, provide sufficient acceleration lane and taper length and grant the right of direct vehicular access to the County of Sacramento along the acceleration/taper lane length to the satisfaction of the Department of Transportation. Bus turnouts will be required on Grant Line Road and University Boulevard. (Mitigation Measures TR-2.J and TR-9.D) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 3,200 DUEs within the Cordova Hills SPA)

Condition 51. Commence reconstruction and widening of the intersection of North Loop Road and Grant Line Road pursuant to the latest Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached an agreement for construction of the portion of such improvements within the City's jurisdiction. Performance of this condition shall be held in

abeyance pending such agreement and development may continue. Improvements shall include modification to the traffic signal, providing a u-turn lane, three through lanes, and a right turn lane on the northbound approach; two left turn lanes and a free right turn lane on the westbound approach; and two left turn lanes and three through lanes on the southbound approach. Note: The two southbound left turn lanes shall be extended to a length based on the queuing analysis and to the satisfaction of the Department of Transportation. For the free-right turn movement, provide sufficient acceleration lane and taper length and grant the right of direct vehicular access to the County of Sacramento along the acceleration/taper lane length to the satisfaction of the Department of Transportation. Bus turnouts will be required on Grant Line Road and North Loop Road. (Mitigation Measures TR-2.H and TR-9.C) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 6,500 DUEs within the Cordova Hills SPA)

| Condition 52. Commence reconstruction and widening of the intersection of Chrysanthy Boulevard and Grant Line Road pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of such improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. Improvements shall include modification to the traffic signal, providing a u-turn lane, two through lanes, and a right turn lane on the northbound approach; two left turn lanes and two through lanes on the southbound approach; and two left turn lanes, pavement for two future through lanes, and a right turn lane on the westbound approach. Note: The two southbound left turn lanes shall be extended to a length based on a queuing analysis and to the satisfaction of the Department of Transportation. Bus turnouts will be required on Grant Line Road and Chrysanthy Boulevard. (Mitigation Measure TR-2.I) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 7,500 DUEs within the Cordova Hills SPA)

| Condition 54a. Commence reconstruction and widening of the existing intersection of Sunrise Boulevard at Jackson Road (State Route 16) pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation and Caltrans, provided that the County, Caltrans and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Improvements shall include an eastbound through lane, an eastbound through-right turn shared lane,, and an eastbound left turn lane; a northbound left turn lane, two northbound through lanes and a right turn lane; one westbound through lane, a westbound right turn lane and a westbound left turn lane; a southbound through lane, a southbound left turn lane, and a southbound right turn lane. Note: The two eastbound and northbound through lanes shall be carried through the intersection. (Mitigation Measure: TR-2.D) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 500 DUEs within the Cordova Hills SPA).

| Condition 62. Commence reconstruction and widening of the existing intersection of Grant Line Road at Jackson Road (State Route 16) pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation and Caltrans, provided that the County, Caltrans and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue.

Improvements shall include a traffic signal modification to accommodate dual eastbound left turn lanes, an eastbound through lane, and an eastbound through-right turn shared lane; a westbound left turn lane, westbound through lane and a westbound through-right turn shared lane; a northbound left turn lane, a northbound through lane, and a northbound through-right turn shared lane; and a southbound shared through-right turn lane, a southbound through lane and a southbound left turn lane. (Mitigation Measure: TR-2.E) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 3,200 DUEs within the Cordova Hills SPA).

Condition 63. Commence reconstruction and widening of the existing intersection of Grant Line Road at Kiefer Boulevard to a signalized intersection pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. Improvements shall include a northbound left turn lane, a northbound through lane, and a northbound through-right turn shared lane; a westbound left turn shared lane and a westbound through-right turn shared lane; a southbound left turn lane and a southbound through-right turn shared lane; and a southbound through-right turn shared lane; and an eastbound left turn lane and an eastbound through-right turns shared lane. (Mitigation Measure: TR-2.F) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 3,200 DUEs within the Cordova Hills SPA).

Condition 56. Commence reconstruction and widening of the Grant Line Road at Douglas Road intersection to modify a signalized intersection pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. Improvements shall include a southbound u-turn lane, two southbound through lanes and a southbound right turn lane; an eastbound left turn lane and an eastbound free right turn lane; and dual northbound left turn lane and two through lanes. For the free-right turn movements, provide sufficient acceleration lane length and grant the right of direct vehicular access to the County of Sacramento along the acceleration lane length to the satisfaction of the Department of Transportation. Note: Bus turnouts will be required on Grant Line Road and Douglas Road. The through lanes in the northbound and southbound directions shall be carried through the intersection. Prior to the time of issuance of the first building permit, and again before the issuance of the building permit for the 1,000th DUE, updated intersection analyses shall be performed by County that include this intersection. The timing of this intersection improvement may be revised to preserve the County's LOS E standard, and may increase or decrease the DUE trigger for the construction of this improvement, but shall not require the improvement any sooner than 250 DUEs. If the DUE trigger for the construction of the foregoing intersection improvements is lowered, then Developer shall make commercially reasonable efforts to commence the improvements prior to the lower DUE being exceeded; however, the development of the Cordova Hills Project shall not be suspended or delayed so long as Developer has made reasonable efforts to commence construction prior to exceeding the lower DUE trigger. Developer shall make a contribution to the costs of each updated intersection analyses to be conducted for this and three other intersections in an amount not to exceed \$2,000, with the total Developer contribution for both exceed \$4,000. (Mitigation

Measure TR-2.G) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 1,800 DUEs within the Cordova Hills SPA)

| Condition 55. Commence reconstruction and widening of the Grant Line Road at Douglas Road intersection to modify a signalized intersection pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. Improvements shall include dual northbound left turn lanes and a northbound through lane; a southbound u-turn lane, a southbound through lane and an eastbound right turn lane. Note: Bus turnouts will be required on Grant Line Road and Douglas Road. The through lanes in the northbound and southbound directions shall be carried through the intersection. Prior to the time of issuance of the first building permit, and again before the issuance of the building permit for the 1,000th DUE, updated intersection analyses shall be performed by County that include this intersection. The timing of this intersection improvement may be revised to preserve the County's LOS E standard, and may increase or decrease the DUE trigger for the construction of this improvement, but shall not require the improvement any sooner than 250 DUEs. If the DUE trigger for the construction of the foregoing intersection improvements is lowered, then Developer shall make commercially reasonable efforts to commence the improvements prior to the lower DUE being exceeded; however, the development of the Cordova Hills Project shall not be suspended or delayed so long as Developer has made reasonable efforts to commence construction prior to exceeding the lower DUE trigger. Developer shall make a contribution to the costs of each updated intersection analyses to be conducted for this and three other intersections in an amount not to exceed \$2,000, with the total Developer contribution for both exceed \$4,000. (Mitigation Measure TR-2.G) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 850 DUEs within the Cordova Hills SPA)

| Condition 81. Pay a fair share (18%) contribution towards the modification and associated improvements to the intersection of Sunrise Boulevard and White Rock Road pursuant to the City of Rancho Cordova Improvement Standards to provide overlap phasing on the eastbound and westbound approaches. (Mitigation Measure TR-2.B)

| Condition 84. Pay a fair share (16%) contribution towards the modification and associated improvements at the intersection of Zinfandel Drive and White Rock Road pursuant to the City of Rancho Cordova Improvement Standards and to the satisfaction of the Department of Transportation in order to provide separate dual right turns on the westbound approach so the westbound approach has two left turn lanes, two through lanes and two right turn lanes. (Mitigation Measure TR-2.A)

| Condition 85. Pay a fair share (16%) contribution towards the modification and associated improvements at the intersection of Sunrise Boulevard and Douglas Road pursuant to the City of Rancho Cordova Improvement Standards and to the satisfaction of the Department of Transportation to provide overlap phasing on the westbound approach. (Mitigation Measure TR-2.C)

| **Mitigation Measure TR-3.** The applicant shall construct or fund, as set forth in the phasing and financing plan approved by the Sacramento County Department of Transportation, the below

mitigation measures. The phasing and financing plan shall ensure commencement of construction of traffic improvements prior to degradation of LOS below applicable County standards. This mitigation recognizes that should any of the measures below benefit other projects, a reimbursement agreement and/or a fee credit to the applicant may be considered.

| *A. Prairie City Road from US 50 to White Rock Road* – Increase roadway capacity by upgrading the capacity class for this segment from a rural highway without shoulders to a rural highway with shoulders.

| **Implementation of Mitigation Measure TR-3 will be accomplished by satisfaction of the following Condition of Approval requiring the identified transportation improvements:**

| Condition 70. Commence reconstruction and widening of Prairie City Road from a rural highway without shoulders to a rural highway with shoulders from U.S. 50 to White Rock Road pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Folsom have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. (Mitigation Measure: TR-3.A) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 6,500 DUEs within the Cordova Hills SPA)

| **Mitigation Measure TR-4.** The applicant shall construct or fund, as set forth in the phasing and financing plan approved by the Sacramento County Department of Transportation, and in consultation with the City of Elk Grove, the below mitigation measures. The phasing and financing plan shall ensure commencement of construction of traffic improvements prior to degradation of LOS below the applicable County or City standards. This mitigation recognizes that should any of the measures below benefit other projects, a reimbursement agreement may be considered.

| *A. Grant Line Road from Sheldon Road to Calvine Road* – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with moderate access control.

| **Implementation of Mitigation Measure TR-4 will be accomplished by satisfaction of the following Condition of Approval requiring the identified transportation improvements:**

| Condition 80. Pay a fair share (9%) contribution towards the reconstruction and widening of Grant Line Road from an existing two-lane road section to a four-lane thoroughfare center road section from Sheldon Road to Calvine Road pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation. (Mitigation Measure TR-4.A)

| **Mitigation Measure TR-5.** The applicant shall construct or fund, as set forth in the phasing and financing plan approved by the Sacramento County Department of Transportation, and in consultation with the City of Rancho Cordova, the below mitigation measures. The phasing and financing plan shall ensure commencement of construction of traffic improvements prior to degradation of LOS below the applicable County or City standards. This mitigation recognizes that should any of the measures below benefit other projects, a reimbursement agreement may be considered.

- A. *Grant Line Road from Jackson Road to Kiefer Boulevard* – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with moderate access control.
- B. *Grant Line Road from Kiefer Boulevard to University Boulevard* – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with moderate access control.
- C. *Grant Line Road from University Boulevard to Chrysanthy Boulevard* – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with moderate access control.
- D. *Grant Line Road from Chrysanthy Boulevard to North Loop* – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with moderate access control.
- E. *Grant Line Road from North Loop to Douglas Road* – Increase roadway capacity by widening this segment to 6 lanes and upgrading the capacity class to an arterial with moderate access control.
- F. *Grant Line Road from Douglas Road to White Rock Road* – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with moderate access control.
- G. *Jackson Road from Sunrise Boulevard to Grant Line Road* – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with moderate access control.
- H. *Douglas Road from Sunrise Boulevard to Rancho Cordova Parkway* – Deleted because this improvement was constructed by others.
- I. *Douglas Road from Rancho Cordova Parkway to Grant Line Road* – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with moderate access control. Construct interim sidewalk improvements (typically a detached asphaltic concrete path) and bicycle lanes.

Implementation of Mitigation Measure TR-5 will be accomplished by satisfaction of the following Conditions of Approval requiring the identified transportation improvements:

- Condition 64. Commence reconstruction and widening of Grant Line Road from an existing two-lane road section to a four-lane thoroughfare center section with an interim raised center median (with Type 4 curbs, but no root barrier), interim AC paths (refer to Standard Detail 4-5 for separation requirements of AC path from right-of-way) and six-foot bike lanes from Jackson Road (State Route 16) to Kiefer Boulevard based on a 96-foot standard thoroughfare pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. (Mitigation Measure: TR-5.A) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 3,200 DUEs within the Cordova Hills SPA)
- Condition 65. Commence reconstruction and widening of Grant Line Road from an existing two-lane road section to a four-lane thoroughfare center section with an interim raised center median (with Type 4 curbs, but no root barrier), interim AC paths (refer to Standard Detail 4-5 for separation requirements of AC path from right-of-way) and six-foot bike lanes from Kiefer

Boulevard to University Boulevard based on a 96-foot standard thoroughfare pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. Note: Bus turnouts will be required on Grant Line Road. Refer to Condition 49 that requires improvements to the intersection of University Boulevard and Grant Line Road. (Mitigation Measure: TR-5.B) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 3,200 DUEs within the Cordova Hills SPA)

| Condition 66. Commence reconstruction and widening of Grant Line Road from an existing two-lane road section to four-lane thoroughfare center section with an interim raised center median (with Type 4 curbs, but no root barrier), interim AC paths (refer to Standard Detail 4-5 for separation requirements of AC path from right-of-way) and six-foot bike lanes from Douglas Road to White Rock Road based on a 96-foot standard thoroughfare pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. (Mitigation Measures: TR-5.F and TR-7.A) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 3,200 DUEs within the Cordova Hills SPA)

| Condition 71. Commence reconstruction and widening of Grant Line Road from a four-lane road section to a six-lane thoroughfare section from North Loop Road to Douglas Road based on a 96-foot standard thoroughfare pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. (Note: Bus turnouts will be required on Grant Line Road. Condition number 51 requires improvements to the intersection of North Loop Road and Grant Line Road and Condition number 69 requires improvements to the intersection of Douglas Road and Grant Line Road.) (Mitigation Measures TR-5.E and TR-11.C) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 6,500 DUEs within the Cordova Hills SPA)

| Condition 72. Commence reconstruction and widening of Jackson Road (State Route 16) from an existing two-lane road section to four-lane thoroughfare center section with an interim raised center median (with Type 4 curbs, but no root barrier), interim AC paths (refer to Standard Detail 4-5 for separation requirements of AC path from right-of-way) and six-foot bike lanes from Sunrise Boulevard to Grant Line Road based on a 96-foot standard thoroughfare pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. (Mitigation Measure: TR-5.G) (Prior to the recordation of the final

maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 6,900 DUEs within the Cordova Hills SPA)

Condition 73. Commence reconstruction and widening of Grant Line Road from an existing two-lane road section to a four-lane thoroughfare center road section with an interim raised center median (with Type 4 curbs, but no root barrier), interim AC paths (refer to Standard Detail 4-5 for separation requirements of AC path from right-of-way) and six-foot bike lanes from University Boulevard to Chrysanthy Boulevard based on a 96-foot standard thoroughfare pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. (Mitigation Measure: TR-5.C) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 7,500 DUEs within the Cordova Hills SPA)

Condition 74. Commence reconstruction and widening of Grant Line Road from an existing two-lane road section to a four-lane thoroughfare center road section with an interim raised center median (with Type 4 curbs, but no root barrier), interim AC paths (refer to Standard Detail 4-5 for separation requirements of AC path from right-of-way) and six-foot bike lanes from Chrysanthy Boulevard to North Loop Road based on a 96-foot standard thoroughfare pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. (Mitigation Measure: TR-5.D) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 7,500 DUEs within the Cordova Hills SPA)

Condition 83. Pay a fair share (58%) contribution towards the reconstruction and widening of Douglas Road from an existing two-lane road section to a four-lane arterial section from Americanos Boulevard to Grant Line Road, including a raised center median, interim AC paths and six-foot bike lanes pursuant to the City of Rancho Cordova Improvement Standards. Also, pay a fair share (58%) contribution towards construction of a landscape median, two westbound travel lanes (any turn lanes at major intersections as applicable), a westbound six foot bike lane, and a westbound interim AC path for 5,030 feet on Douglas Road from Rancho Cordova Parkway to Americanos Boulevard. (Mitigation Measures TR-5.I and TR-7.A)

Mitigation Measure TR-6. The applicant shall be responsible for funding a fair share of the construction costs of the below mitigation measures. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation, in consultation with Caltrans.

- A. Westbound US 50 from Hazel Avenue to Sunrise Boulevard – Add an auxiliary lane.
- B. Eastbound US 50 from Sunrise Boulevard to Hazel Avenue – Add an auxiliary lane.

Implementation of Mitigation Measure TR-6 will be accomplished by satisfaction of the following Conditions of Approval requiring the identified transportation improvements:

Condition 78. Pay a fair share (4%) contribution towards the addition of an auxiliary lane on westbound U.S. 50 from Hazel Avenue to Sunrise Boulevard. (Mitigation Measure TR-6.A)

Condition 79. Pay a fair share (9%) contribution towards the addition of an auxiliary lane on eastbound U.S. 50 from Sunrise Boulevard to Hazel Avenue. (Mitigation Measure TR-6.B)

Mitigation Measure TR-7. The applicant shall be responsible for a fair share of the below mitigation measures. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation and may be up to 100% of the cost of the improvements.

A. Construct interim sidewalk improvements (typically a detached asphaltic concrete path) and bicycle lanes along Grant Line Road from Douglas Road to White Rock Road and on Douglas Road from Rancho Cordova Parkway to Grant Line Road, to the satisfaction of the Sacramento County Department of Transportation.

Implementation of Mitigation Measure TR-7 will be accomplished by satisfaction of the following Conditions of Approval requiring the identified transportation improvements:

Condition 66. Commence reconstruction and widening of Grant Line Road from an existing two-lane road section to four-lane thoroughfare center section with an interim raised center median (with Type 4 curbs, but no root barrier), interim AC paths (refer to Standard Detail 4-5 for separation requirements of AC path from right-of-way) and six-foot bike lanes from Douglas Road to White Rock Road based on a 96-foot standard thoroughfare pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. (Mitigation Measures: TR-5.F and TR-7.A) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 3,200 DUEs within the Cordova Hills SPA)

Condition 83. Pay a fair share (58%) contribution towards the reconstruction and widening of Douglas Road from an existing two-lane road section to a four-lane arterial section from Americanos Boulevard to Grant Line Road, including a raised center median, interim AC paths and six-foot bike lanes pursuant to the City of Rancho Cordova Improvement Standards. Also, pay a fair share (58%) contribution towards construction of a landscape median, two westbound travel lanes (any turn lanes at major intersections as applicable), a westbound six foot bike lane, and a westbound interim AC path for 5,030 feet on Douglas Road from Rancho Cordova Parkway to Americanos Boulevard. (Mitigation Measures TR-5.I and TR-7.A)

Level of Significance After Mitigation: Significant and Unavoidable.

Findings on Adopted Mitigation: LAFCo finds that the adoption of the above-stated measures are within the purview of Sacramento County or other agencies and not that of LAFCo. LAFCo additionally finds that the measures are feasible, and could and should be adopted by said agencies. LAFCo further finds that the impacts would still be considered significant, even with the imposition of measures identified above. Implementation of the foregoing mitigation measures would reduce the severity of this impact, but not to a less than significant level. (Pub. Resources Code, Section 21002; CEQA Guidelines, Sections 15091, 15126.4, subd. (a)(2).) LAFCo has been presented with no evidence to contradict its conclusion in this regard.

Impact: Cumulative Plus Project.

The Project results in significant impacts to five City of Rancho Cordova intersections, the Zinfandel and US 50 freeway ramp intersection, one new Project roadway segment, four City of Rancho Cordova roadway segments, six Caltrans freeway segments, and four Caltrans freeway ramps. Mitigation is included which will improve operating conditions to acceptable levels for most of these facilities, but there are some impacts for which no feasible mitigation exists. These are: the Zinfandel and US 50 freeway ramp intersection, the intersection of Sunrise Boulevard and International Drive, Grant Line Road from North Loop Road to Douglas Road, eastbound US 50 from Watt Avenue to Bradshaw Road, eastbound US 50 from Rancho Cordova Parkway to Hazel Avenue, westbound US 50 from Hazel Avenue to Rancho Cordova Parkway, westbound US 50 from Mather Field Road to Power Inn/Howe Avenue, eastbound US 50 Exit Ramp to Watt Avenue, eastbound US 50 Slip Ramp Entrance from Watt Avenue, westbound US 50 Exit Ramp to Watt Avenue, and westbound US 50 Slip Ramp Entrance from Watt Avenue. The following intersections and roadway segments would be significantly impacted under the “Cumulative Plus Project” scenario:

- School Access and North Loop Road – intersection.
- Sunrise Boulevard and Douglas Road – intersection.
- Grant Line Road and Douglas Road – intersection.
- Grant Line Road and North Loop Road – intersection.
- Grant Line Road and University Boulevard – intersection.
- North Loop Road from Street D to Street F – roadway.
- Grant Line Road from Rancho Cordova Parkway to Kiefer Boulevard – roadway.
- Grant Line Road from Kiefer Boulevard to University Boulevard – roadway.
- Grant Line Road from North Loop Road to Douglas Road – roadway.
- Grant Line Road from Douglas Road to White Rock Road – roadway.

Finding: Specific economic, legal, social, technological, or other considerations make infeasible the project alternatives identified in the EIR. There are a number of mitigation measures that would avoid the impacts from traffic generated by the Project in the “Cumulative Plus Project” scenario to a less than significant level, but due to the fact that many of the mitigation measures described in the EIR would need to be implemented in adjacent jurisdictions, the County cannot guarantee that the suggested traffic improvements would ever get funded and constructed. Consequently, LAFCo must find that because many of the traffic improvements would be needed in jurisdictions beyond the County’s control and authority, LAFCo must find that the traffic impacts on those roadways segments and intersections identified in the EIR to be significant and unavoidable. In other cases, even if the suggested traffic mitigation improvement were to get built, it would still not result in a level of service that would allow LAFCo to reach a conclusion that the Project’s impacts are less-than-significant. LAFCo has been presented with no evidence to contradict its conclusion in this regard.

Mitigation: The following mitigation measures or agency recommendations/requirements have been incorporated into the Project as conditions of approval to substantially lessen the Project’s traffic and circulation impacts, but not to a less than significant level:

Mitigation Measure TR-8. The applicant shall be responsible for a fair share of the below mitigation measures. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation and may be up to 100% of the cost of the improvements.

A. School Access and North Loop Road – Provide dual eastbound left turn lanes.

Implementation of Mitigation Measure TR-8 will be accomplished by satisfaction of the following Condition of Approval requiring the identified transportation improvements:

Condition 41. As part of intersection improvements, provide dual eastbound left turn lanes at the intersection of North Loop Road and the proposed school access pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation. (Mitigation Measures TR-1.G and TR-8.A)

Mitigation Measure TR-9. The applicant shall be responsible for a fair share of the below mitigation measures. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation, in consultation with the City of Rancho Cordova, and may be up to 100% of the cost of the improvements.

A. Sunrise Boulevard and Douglas Road – Provide overlap phasing on the eastbound and westbound right turns.

B. Grant Line Road and Douglas Road – Provide a third southbound through lane and overlap phasing on the eastbound right turn lane. To be consistent with the segment mitigations a third northbound through lane is included.

C. Grant Line Road and North Loop Road – Provide a westbound free-right turn lane. Also an extra northbound departure lane is needed for the westbound free-right movement.

D. Grant Line Road and University Boulevard – Provide a northbound free-right turn lane. Also an extra eastbound departure lane is needed for the northbound free-right movement.

Implementation of Mitigation Measure TR-9 will be accomplished by satisfaction of the following Conditions of Approval requiring the identified transportation improvements:

Condition 49. Commence reconstruction and widening of the intersection of University Boulevard and Grant Line Road pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of such improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. Improvements shall include modification of the existing traffic signal, providing a u-turn lane, two through lanes, and a free right turn lane on the northbound approach; two left turn lanes and two through lanes on the southbound approach; and two left turn lanes and a right turn lane on the westbound approach. Note: The two westbound left turn lanes shall be extended to a length based on the queuing analysis and to the satisfaction of the Department of Transportation. For the free-right turn movement, provide sufficient acceleration lane and taper length and grant the right of direct vehicular access to the County of Sacramento along the acceleration/taper lane length to the satisfaction of the Department of Transportation. Bus turnouts will be required on Grant Line Road and University Boulevard. (Mitigation Measures TR-2.J and TR-9.D) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 3,200 DUEs within the Cordova Hills SPA)

Condition 51. Commence reconstruction and widening of the intersection of North Loop Road and Grant Line Road pursuant to the latest Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached an agreement for construction of the portion of such improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. Improvements shall include modification to the traffic signal, providing a u-turn lane, three through lanes, and a right turn lane on the northbound approach; two left turn lanes and a free right turn lane on the westbound approach; and two left turn lanes and three through lanes on the southbound approach. Note: The two southbound left turn lanes shall be extended to a length based on the queuing analysis and to the satisfaction of the Department of Transportation. For the free-right turn movement, provide sufficient acceleration lane and taper length and grant the right of direct vehicular access to the County of Sacramento along the acceleration/taper lane length to the satisfaction of the Department of Transportation. Bus turnouts will be required on Grant Line Road and North Loop Road. (Mitigation Measures TR-2.H and TR-9.C) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 6,500 DUEs within the Cordova Hills SPA)

Condition 69. Commence reconstruction and widening of the Grant Line Road at Douglas Road intersection to a signalized intersection pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. Improvements shall include dual northbound left turn lanes (length of northbound left turn lanes to be determined based on future analysis) and three northbound through lanes; a southbound u-turn lane, three southbound through lanes and a southbound right turn lane; and an eastbound left turn lane and an eastbound free right turn lane. For the free-right turn movements, provide sufficient acceleration lane length to the satisfaction of the Department of Transportation. Note: The through lanes in the northbound and southbound directions shall be carried through the intersection. (Mitigation Measures TR-2.G and TR-9.B) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 6,500 DUEs within the Cordova Hills SPA)

Condition 82. Pay a fair share (16%) contribution towards the modification and associated improvements at the intersection of Sunrise Boulevard and Douglas Road pursuant to the City of Rancho Cordova Improvement Standards and to the satisfaction of the Department of Transportation to provide overlap phasing on the eastbound and westbound right turns. (Mitigation Measure TR-9.A)

Mitigation Measure TR-10. The applicant shall be responsible for a fair share of the below mitigation measures. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation and may be up to 100% of the cost of the improvements.

A. North Loop Road from Street D to Street F – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with low access control.

Mitigation Measure TR-11. The applicant shall be responsible for a fair share of the below mitigation measures. The fair share shall be calculated to the satisfaction of Sacramento County

Department of Transportation, in consultation with the City of Rancho Cordova, and may be up to 100% of the cost of the improvements.

- A. *Grant Line Road from Rancho Cordova Parkway to Kiefer Boulevard* – Increase roadway capacity by widening this segment to a 6 lane arterial with moderate access control.
- B. *Grant Line Road from Kiefer Boulevard to University Boulevard* – Increase roadway capacity by widening this segment to a 6 lane arterial with moderate access control.
- C. *Grant Line Road from North Loop to Douglas Road* – Increase roadway capacity by widening this segment to a 6 lane arterial with moderate access control.
- D. *Grant Line Road from Douglas Road to White Rock Road* – Increase roadway capacity by widening this segment to a 6 lane arterial with moderate access control.

Implementation of Mitigation Measure TR-11 will be accomplished by satisfaction of the following Conditions of Approval requiring the identified transportation improvements:

Condition 71. Commence reconstruction and widening of Grant Line Road from a four-lane road section to a six-lane thoroughfare section from North Loop Road to Douglas Road based on a 96-foot standard thoroughfare pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. (Note: Bus turnouts will be required on Grant Line Road. Condition number 51 requires improvements to the intersection of North Loop Road and Grant Line Road and Condition number 69 requires improvements to the intersection of Douglas Road and Grant Line Road.) (Mitigation Measures TR-5.E and TR-11.C) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 6,500 DUEs within the Cordova Hills SPA)

Condition 75. Pay a fair share (21%) contribution towards the reconstruction and widening of Grant Line Road from an existing four-lane thoroughfare center road section to a six-lane thoroughfare section from Douglas Road to White Rock Road pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation. (Mitigation Measure: TR-11.D)

Condition 76. Pay a fair share (34%) contribution towards the reconstruction and widening of Grant Line Road from an existing four-lane thoroughfare center road section to a six-lane thoroughfare section from Rancho Cordova Parkway to Kiefer Boulevard. (Mitigation Measure: TR-11.A)

Condition 77. Pay a fair share (54%) contribution towards the reconstruction and widening of Grant Line Road from an existing four-lane thoroughfare center road section to a six-lane thoroughfare section from Kiefer Boulevard to University Boulevard. (Mitigation Measure: TR-11.B)

Level of Significance After Mitigation: Significant and Unavoidable.

Findings on Adopted Mitigation: LAFCo finds that the adoption of the above-stated measure is within the purview of Sacramento County or other agencies and not that of LAFCo. LAFCo additionally finds that the measure is feasible, and could and should be adopted by said agencies. LAFCo further finds that the impacts would still be considered significant, even with the imposition

of measures identified above. Implementation of the foregoing mitigation measures would reduce the severity of this impact, but not to a less than significant level. (Pub. Resources Code, Section 21002; CEQA Guidelines, Sections 15091, 15126.4, subd. (a)(2).) LAFCo has been presented with no evidence to contradict its conclusion in this regard.

XI. PROJECT ALTERNATIVES

Where an agency has determined that, even after the adoption of all feasible mitigation measures, a project as proposed will still cause one or more significant environmental effects that cannot be substantially lessened or avoided, the agency, prior to approving the project as mitigated, must first determine whether, with respect to such impacts, there remain any project alternatives that are both environmentally superior and feasible within the meaning of CEQA. As noted earlier, in Sections II and VII of these Findings, an alternative may be “infeasible” if it fails to fully promote the lead agency’s underlying goals and objectives with respect to the project. Thus, “ ‘feasibility’ under CEQA encompasses ‘desirability’ to the extent that desirability is based on a reasonable balancing of the relevant economic, environmental, social, and technological factors” of a project. (*City of Del Mar*, *supra*, 133 Cal.App.3d at 417; see also *Sequoyah Hills*, *supra*, 23 Cal.App.4th at 715.)

The detailed discussion in Section X demonstrates that many significant environmental effects of the Project have been either substantially lessened or avoided through the imposition of existing policies or regulations or by the adoption of additional, formal mitigation measures recommended in the FEIR.

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However, even with mitigation in the form of the application of existing policies and, where feasible, the addition of formal mitigation measures, the Project will cause unavoidable significant environmental effects to aesthetics, air quality, biological resources, climate change, land use, noise, public utilities, and traffic and circulation, though they have been substantially lessened.

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LAFCo can fully satisfy its CEQA obligations by determining whether any alternatives identified in the EIR are both feasible and environmentally superior with respect to these impacts. (*Laurel Hills*, *supra*, 83 Cal.App.3d at pp. 520-521 and pp. 526-527); *Kings County Farm Bureau v. City of Hanford*, *supra*, 221 Cal.App.3d at pp. 730-731; and *Laurel Heights I*, *supra*, 47 Cal.3d at pp. 400-403; see also Pub. Resources Code, § 21002.) As the succeeding discussion will show, no identified alternative is both feasible and environmentally superior with respect to the unmitigated impacts.

To fully account for these unavoidable significant effects, and the extent to which particular alternatives might or might not be environmentally superior with respect to them, these Findings will not focus solely on these impacts, but instead will address the environmental merits of the alternatives with respect to all impacts. The Findings will also assess whether each alternative is feasible in light of the proponent’s objectives for the Project.

The degree of specificity required in an EIR “will correspond to the degree of specificity involved in the underlying activity which is described in the EIR.” (Guidelines, § 15146.) *Al Larson Boat Shop, Inc. v. Board of Harbor Commissioners* (1993) 18 Cal. App. 4th 729, 746.) LAFCo’s evaluation of alternatives is limited to those alternatives within LAFCo’s statutory ability to approve or implement

pursuant to CEQA Guidelines §15096. In LAFCo's case, these would be limited to approving or disapproving the proposed reorganization actions.

As noted above in these CEQA Findings, the Project will result in significant and unavoidable environmental effects with respect to aesthetics, air quality, biological resources, climate change, land use, noise, public utilities, and traffic and circulation. The EIR examined alternatives to the Project to determine whether an alternative could meet the Project's objectives, while avoiding or substantially lessening the significant unavoidable impacts of the Project. The EIR examined in detail the following alternatives to the Project:

- No Project Alternative
- Expanded Preserves Alternative
- Expanded Footprint Alternative

LAFCo's review of project alternatives is guided primarily by the need to reduce potential impacts associated with the Project, while still achieving the basic objectives of the Project. As stated in the EIR, the Project has the following objectives, as provided by the Applicant for the Project (DEIR, page 1-38):

- Develop a mixed use community that is designed in a manner that provides compatible land uses and reduces overall internal vehicle trips.
- Develop an economically feasible master-planned community that reasonably minimizes its impact on biologically sensitive natural resources with feasible onsite wetland avoidance and preservation.
- Develop a sustainable, multi-service town center that promotes walkability and alternative transit modes including but not limited to Neighborhood Electric Vehicles (NEVs), light rail, shuttle bus, and carpool facilities.
- Provide uses for two underserved markets in the southeast Sacramento region:
 - Provide for the development of a major private university facility in Sacramento County.
 - Provide residential neighborhoods that are age restricted in order to serve seniors and larger lot sizes for executive housing to serve corporate executives.
- Develop internal Project infrastructure and circulation networks of multiple modes that provide efficient connections to various land use components throughout the Project; specifically, trail opportunities to enhance the integration between the university/college campus center, town center, schools, and preserves/open space corridors surrounding the Project.
- Develop recreational and open space opportunities that include neighborhood and community parks that are fully integrated into the project through adequate trail connections and provide critical regional trail connections associated with adjacent trail systems.
- Allow for inclusion of alternative energy sources to serve the mixed use community.

A. NO PROJECT ALTERNATIVE

DESCRIPTION OF NO PROJECT ALTERNATIVE

With respect to the analysis of a “no project” alternative, Section 15126.6(e)(2) of the CEQA Guidelines provides:

The “no project” analysis shall discuss the existing conditions at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.

Consistent with that direction, the EIR’s analysis of the No Project Alternative assumes no changes to the site’s existing land use designation and zoning. The No Project Alternative would continue the existing agricultural use for cattle grazing or other uses allowed under the existing General Plan land use designation and zoning. The site is zoned AG-80 (Agriculture – 80 acre minimum lot size). Some of the allowed uses other than the existing uses include single family dwellings and farm employee housing. The No Project Alternative was analyzed as if up to ten (10) homes would be constructed under the AG-80 zoning, and conservatively assumed that each home would involve taking one acre of land out of agricultural uses. That assumption included access roads, the homes, and appurtenant improvements.

ENVIRONMENTAL IMPACTS OF NO PROJECT ALTERNATIVE

Aesthetics. The No Project Alternative would avoid any significant and unavoidable aesthetic impacts. While the project site would continue in agricultural uses, up to ten (10) houses could be built on it but they would have minimal visual impacts. There would be no significant impacts associated with glare or nighttime lighting. Consequently, there would be no contribution to cumulative aesthetic impacts by the No Project Alternative.

Agricultural Resources. Under the No Project Alternative, the Project site would continue in agricultural uses; therefore, all impacts to agricultural uses would be less than significant. However, because of its AG-80 zoning, the site could be subdivided into with up to ten lots of 80-acres each that could each contain a single family dwelling. The No Project Alternative would not conflict with the existing agricultural designations or use, conflict with a Williamson Act contract, or convert agricultural lands to a non-agricultural use.

Air Quality. There could be an increase in construction NOx emissions over the existing agricultural activities with the potential construction of up to ten homes under the No Project Alternative. However, that construction would be regarded as less than significant under SMAQMD thresholds. Operational impacts from ozone precursors (NOx and ROG) would also be considered less than significant from ten homes under SMAQMD guidelines. While the construction of up to ten homes would generate increased particulate matter emissions, it would not be likely to disturb more than 15 acres at the same time. Consequently, the No Project Alternative is not considered to exceed the screening threshold for particulate matter emissions and would have less than significant impacts. The No Project Alternative would not exceed the SMAQMD thresholds of 65 lbs./day of NOx or ROG during operational activities, so it would conflict or obstruct implementation of an Air Quality

Plan. While the No Project Alternative would generate CO emissions, they would not exceed ambient standards and would have a less than significant impact. The No Project Alternative would not expose sensitive receptors to toxic air contaminants (TACs). Although three of the parcels under the No Project Alternative are situated within one mile of Kiefer Landfill and one parcel is proximate to the Sacramento County Boys Ranch, this Alternative would not expose a substantial number of people to objectionable odors.

| Biological Resources. Under the No Project Alternative, agricultural activities would continue at the site, but the construction of up to ten homes could result in some minimal losses of habitat if each home was on a one acre site. Existing regulations for the protection of wetlands and special status species prohibit direct impacts without obtaining appropriate permits and satisfying applicable permit mitigation requirements. Thus, while some impacts to wetlands might occur, these would be minimal and most of the site's approximately 89 acres of wetlands would be retained. It was also assumed that no take of special status species would occur in the No Project Alternative.

| Climate Change. Under the No Project Alternative the current agricultural land use would not significantly contribute to greenhouse gas emissions. Even if the site were developed with ten homes, the total emissions from the No Project Alternative would only be a tiny fraction (0.005%) of total County emissions. In sum, the No Project Alternative's climate change impacts were determined to be less than significant.

| Cultural Resources. Under the No Project Alternative, there would not be any impacts to cultural resources. There are no known historical resources on the site as defined by CEQA. Because the Alternative has a much smaller construction footprint than the proposed Project, there is a much lower probability of discovering unknown subsurface deposits. The EIR determined that the impacts on cultural resources would be less than significant.

| Geology and Soils. There are existing regulations in place to assure that construction on the site does not cause soil erosion, and will avoid substantial risk to life and property associated with expansive soils or geological hazards, such as seismicity. The site is not likely to have asbestos-containing soils and soil testing found no evidence of naturally occurring asbestos. There are no mapped mineral resources on the site, and the construction of up to ten homes would not preclude the site's future mining. Impacts to soils and geology were therefore found to be less than significant.

| Hazards and Hazardous Materials. While the No Project Alternative would involve the use of wells as a source of potable water, the groundwater contamination from the Aerojet facility and the Kiefer Landfill properties is migrating away from the site, so the wells would not be negatively impacted by contamination. Impacts from hazards and hazardous materials are less than significant.

| Hydrology and Water Quality. The No Project Alternative would impact less than 1% of the watershed area on the site. This would not result in substantial hydrologic changes to the site. County regulations and ordinances would preclude building any homes in the 100-year floodplain or impeding or redirecting flood flows. The No Project Alternative either would require appropriate erosion controls through permitting requirements, or would be too small to generate substantial polluted runoff. Consequently, the No Project Alternative would have less than significant impacts on hydrology and water quality.

| Land Use. There would be no change in the land use designations under the No Project Alternative. The site would remain AG-80 and be consistent with the SACOG Blueprint, inasmuch as urbanization of the site was not contemplated under the Blueprint until the cumulative planning horizon. This Alternative would not displace an existing community or displace housing elsewhere. The Land Use impacts are less than significant.

| Noise. The construction of up to ten homes would not have significant construction noise impacts. The homes would not generate significant traffic noise, nor be sources of significant stationary source noise. Since the Alternative would not result in the exposure of people to a substantial noise source or exceed a noise standard, the noise impacts are less than significant.

| Public Services. The addition of up to ten new homes with this Alternative would not result in substantial demands for public services, increased staffing or additional facilities. The impacts to public services from the No Project Alternative would be less than significant.

| Public Utilities. The No Project Alternative would not have a public water or public sewer, but would rely on private wells and septic systems that have to be installed in compliance with County ordinances and requirements. Electrical and gas lines would have to be extended to home sites, but SMUD and PG&E have the ability to supply services. Impacts from public utilities would be less than significant.

| Traffic and Circulation. Traffic volumes generated by up to ten new homes under the No Project Alternative would be too low to require a traffic impact analysis. This Alternative would not cause any level of significance threshold to be exceeded, nor would the existing deficiencies in bicycle and pedestrian facilities on Grant Line and Douglas Road be significantly impacted. The Alternative would not conflict with any adopted transit plan or non-automotive master plan. Impacts to traffic and circulation would be less than significant.

RELATIONSHIP TO PROJECT OBJECTIVES

| The No Project Alternative would not meet any of the Project objectives because the Project would not be constructed.

FINDING

| LAFCo rejects the No Project Alternative as infeasible for each and every reason listed, each reason being a separate and independent basis upon which LAFCo finds the alternative to be infeasible.

- | (a) The No Project Alternative would not develop a mixed use community that was designed with compatible land uses to reduce overall internal vehicle trips when compared to a “business-as-usual” development;
- | (b) The No Project Alternative would not result in an economically feasible master-planned community;
- | (c) The No Project Alternative would not create a sustainable, multi-service town center that promotes walkability and alternative transit modes, including but not limited to Neighborhood Electric Vehicles, light rail, shuttle bus, and carpool facilities.
- | (d) The No Project Alternative would not provide for land uses that would allow for the development of a major private university in Sacramento County or provide for land uses that

allow residential neighborhoods that are age restricted in order to serve seniors, nor would the No Project Alternative create large lot sizes suitable for executive housing to serve corporate executives;

- | (e) The No Project Alternative would not create any internal Project infrastructure and circulation networks of multiple modes that provide efficient connections to various land use components in the Project;
- | (f) The No Project Alternative would not develop any neighborhood and community parks or provide connections to adjacent trail systems or regional trail systems; and
- | (g) The No Project Alternative would not provide any alternative energy sources to serve a mixed use community.

| In light of the foregoing, the LAFCo further finds that the No Project Alternative would not meet any of the Project Objectives. To the extent that any environmental impacts might be less significant under the No Project Alternative, the rejection of this alternative is appropriate for the reasons stated above and in the statement of overriding considerations. LAFCo has been presented with no evidence to contradict its conclusion in this regard.

B. EXPANDED PRESERVES ALTERNATIVE

DESCRIPTION OF EXPANDED PRESERVES ALTERNATIVE

| Under the Expanded Preserves Alternative, the Project would be significantly changed by placing approximately 1,142 acres into preserves, primarily by expanding the preserve on the western plateau of the site, compared to the Project that would avoid only 493 acres. The expanded preserve size would remove any development along Grant Line Road north of the University Boulevard intersection. Overall, it would reduce the non-residential square footage to only 382,640 sq.ft. compared to the Project's 1,349,419 sq.ft. of non-residential uses. It would also reduce the area of urban development at the site to only 1,527 acres. These changes are highlighted on Plate ALT-5 in the Draft EIR. An Expanded Preserves Alternative would remove the Town Center from the western side of the site and result in the loss of its mixed use retail and commercial center along a major roadway. No replacement of the Town Center land use was included in this Alternative.

| The Expanded Preserves Alternative would avoid nearly all impacts to vernal pools by significantly expanding the avoidance areas to 1,142 acres, although impacts would still occur due to construction of access roads across the expanded preserve at the western side of the site. Expansion of the preserves would not only result in the loss of the Town Center area, but also result in reducing the size of other land uses, such as removing 23 acres of the Academic Zone at the University/College Campus Center, losing 20 acres of the Sports Park, 9 acres of medium density residential in Ridgeline Village, 10 acres of high density residential in Ridgeline Village, 3 acres of low density residential in Ridgeline Village, 29 acres of medium density residential in University Village, 31 acres of low density residential in East Valley Village, and 39 acres of public/quasi-public uses in East Valley Village. As a result of the losses in developed area the Expanded Preserves Alternative would contain only 6,845 housing units compared to the Project's 9,010 total units.

ENVIRONMENTAL IMPACTS OF EXPANDED PRESERVES ALTERNATIVE

| Aesthetics. The Expanded Preserves Alternative would preclude any development of the western plateau area along Grant Line Road, and allow development in portions of the site that area not

currently visible from Grant Line Road or by the Douglas Road/Rancho Cordova viewer groups. This would maintain the continuity of most of the existing views. Consequently, the degradation of views and visual quality would be less than significant for those viewer groups.

| The impacts to viewers along Kiefer Road and Latrobe Road would be similar to the impacts from the Proposed Project, but due to distance from the site and the intervening landforms, the impacts to these existing views would be less than significant as well. However, the existing views for the viewer group north of the Project site would still have their visual quality reduced from moderately high to moderately low by the Expanded Preserved Alternative, resulting in aesthetic impacts from the Expanded Preserves Alternative that would be significant and unavoidable. This Alternative would also introduce new sources of light and glare at the site from the more than 6,000 new homes and nearly 400,000 square feet of commercial uses it would create. That would be a substantial new source of nighttime lighting, and while application of Mitigation Measure AE-1 could lessen this impact, the impact would remain significant and unavoidable for this Alternative.

| Agricultural Resources. While the Expanded Preserves Alternative would result in less urbanization of the existing grazing lands at the site, its impacts would be similar to that of the Proposed Project. Mitigation Measure AG-1 would reduce conflicts with neighboring offsite agricultural uses. This Alternative's impacts on Williamson Act contracts would be the same as those for the Proposed Project, and would require Mitigation Measure AG-2 in order to reduce them to a less than significant level. In the Expanded Preserve Alternative, the 8.6 acres of Unique Farmland would be situated within a Preserve, as would some of the grazing land now situated outside of the USB. Placing existing farmland within a preserve would preclude unrestricted farming activities. Consequently, those 255.6 acres of impacted farmland also would require mitigation by Mitigation Measure AG-3 in order to reduce this Alternative's impact on agricultural resources to a less than significant level.

| Air Quality. Changes made by the Expanded Preserves Alternative would be unlikely to reduce the impact of the worst-case NOx emissions scenario from construction activities. Its impacts would be similar to the proposed Project, and require implementation of Mitigation Measure AQ-1 in order to reduce the impact of construction period NOx emissions to a less than significant level. Operational emissions of ozone precursors (NOx and RPG) would be less, but would still exceed the SMAQMD's thresholds and therefore require preparation and implementation of an air quality mitigation plan. However, even with an air quality mitigation plan that required a 35% reduction in ozone precursor emissions, the operational emissions impacts of the Expand Preserves Alternative would remain significant and unavoidable.

| Construction of the Expanded Preserves Alternatives would generate particulate matter emissions of PM2.5 and PM10. While compliance with existing rules and regulations would be required, construction is likely to exceed 15 acres per day at any given time, and this Alternative would have significant and unavoidable impacts relating to PM2.5 and PM10 from construction activities. Because the Expanded Preserves Alternative would be expected to have construction emissions that exceeded 85 lbs./day of NOx and ROG and operational activities that would exceed 65 lbs./day of NOx and ROG, the Alternative has the potential to conflict with or obstruct the implementation of the regional ozone attainment plan and would have a significant and unavoidable impact on Air Quality. CO emissions from this Alternative are not expected to exceed ambient standards or create any CO hotspots, so its impacts on CO emissions would be less than significant.

| The Expanded Preserves Alternative has the same potential for producing toxic air contaminants (TACs) as does the proposed Project. However, with implementation of Mitigation Measure AQ-3, the siting of new uses would conform with CARB recommendations and the impact from exposure to TACs would be less than significant. This Alternative would place sensitive land uses in close proximity to the Kiefer Landfill and the Sacramento County Boys' Ranch, and the same mitigation would apply in order to reduce this impact from odors they generate to a less than significant level.

| Biological Resources. The Expanded Preserves Alternative would create 1,142 acres of preserves to protect 72 acres of wetlands and place an additional 37.3 acres of agricultural lands under a conservation easement. Thus, 81% of the site's wetlands would be in a preserve. Mitigation Measure BR-1 would apply to reduce the impacts on wetlands to an estimated 17 acres, and with mitigation the impact would be considered less than significant since 99% of the vernal pools would be preserved and 81% of the total wetlands preserved.

| As a result of the increased preserves and agricultural areas protected from future development by way of conservation easements, the area where impacts to special status species are avoided increases to 1,179 acres and the impacted areas are reduced to 1,490 acres. Mitigation Measures BR-3, BR-5 and BR-6 would reduce impacts to birds to a less than significant level. Impacts to amphibians, such as the western spadefoot, would be less than significant since more wetlands and more upland areas are being preserved. Impacts to invertebrates, such as the listed species of shrimp, would be less than significant once mitigation is provided as required by the state and federal permits and the County's requirement for no net loss of wetlands. Similarly, impacts to special status plants, such as those found around vernal pools, would similarly be reduced to a less than significant level due to the increased preservation and mitigation requirements of existing regulations and ordinances that assure no net loss of wetlands.

| Climate Change. With the Expanded Preserves Alternative, the reduction in size of the developed area is not expected to alter the per capita and per square foot energy sector GHG emissions from those of the proposed Project which were 1.18 MT per capita for residential uses and 5.75 MT per 1,000 sq.ft. of commercial uses. Total GHG emissions from the energy usage of the Expanded Preserves Alternative was estimated as 8,460 MT annually. Transportation GHG emissions for this Alternative were estimated at 4.48 MT per capita annually, that would be reduced to 3.77 MT per capita with implementation of the GHG Reduction Plan. Because the Expanded Preserves Alternative would have transportation sector GHG emissions that are above the current County thresholds now in effect, the Alternative's GHG emissions would be considered to have significant and unavoidable impacts.

| Cultural Resources. There are no known historic resources on the site. There would be a slightly reduced likelihood of discovering unknown subsurface cultural resources when compared to the proposed Project because this Alternative has a smaller construction footprint. Mitigation Measure CR-1 would apply and reduce this Alternative's impacts on cultural resources to a less than significant level.

| Geology and Soils. As with the proposed Project, the observance of existing regulations would ensure that construction does not cause substantial soil erosion and will avoid substantial risk to life and property associated with expansive soils or geological hazards. The site is not likely to have asbestos-containing soils and there is no naturally occurring asbestos. There are no mapped mineral

resources on the site. Consequently, the Expanded Preserves Alternative would have less than significant impacts on geology and soils.

| Hazards and Hazardous Materials. The Expanded Preserves Alternative would have the same less-than-significant impacts from hazards and hazardous materials as would the proposed Project and the No Project Alternative. Mitigation Measure HM-1 would assure that no impacts arise.

| Land Use. The impacts of the Expanded Preserves Alternative are the same as the proposed Project with regard to conflicts with adopted land use plans, and are therefore less than significant. The Expanded Preserves Alternative has similar conflicts with the SACOG Blueprint as does the proposed Project, and they are therefore significant and unavoidable. This Alternative would have less than significant impacts related to General Plan policies regarding growth inducement, public services and utilities, transportation and air quality, land use compatibility, disruption of an existing community, and displacement of housing.

| Noise. The noise impacts of the Expanded Preserves Alternative are similar to the proposed Project with regard to construction noise levels, onsite traffic noise, onsite community and stationary noise, Mather Airport noise, and noise due to Kiefer Landfill activities, all of which are less-than-significant. There would be significant and unavoidable noise impacts from this Alternative due to the substantial increase it would cause in the ambient noise level at the site.

| Public Services. The Expanded Preserves Alternative would result in an estimated population of 19,690 residents including the university/college campus center. The demand for public services is reduced as a result of the smaller population, with only an additional 13 Sheriff's Department staff members being needed, only 14,292 tons of waste being produced annually and 19,436 tons of construction waste, only 79 acres of parkland being needed, library remaining the same, and schools remaining the same. As a result, the impacts to public services would remain less-than-significant.

| Public Utilities. As with the proposed Project, the Expanded Preserves Alternative would have similar impacts to those of the proposed Project. Impacts from the construction of infrastructure would be significant and unavoidable since the regional and offsite improvements are still needed to serve the site. Energy efficiency impacts would remain less than significant, as would water demand and sewer disposal demand. Impacts to groundwater yield and groundwater recharge would be less-than-significant.

| Traffic and Circulation. A reduction in the number of access points along Grant Line Road would result from the Expanded Preserves Alternative from three to two points, and a number of internal roadways also would be eliminated. Six offsite intersections would experience significant impacts in the absence of any mitigation to add improvements to them: Bradshaw Road and Jackson Road; Mather Boulevard and Douglas Road; Eagles Nest Road and Jackson Road; Grant Line Road and Sunrise Boulevard; Grant Line Road and White Rock Road; and Prairie City Road and White Rock Road. There will be no adverse impacts to any intersections in the City of Elk Grove with this Alternative. In the City of Rancho Cordova, the Expanded Preserves Alternative would have significant impacts to the following intersections if no mitigation improvements are provided: Sunrise Boulevard and White Rock Road; Sunrise Boulevard and Douglas Road; Sunrise Boulevard and Jackson Road; Grant Line Road and Jackson Road; Grant Line Road and Kiefer Boulevard; Grant Line Road and Douglas Road; Grant Line Road and North Loop Road; and Grant Line Road and University Boulevard. No Caltrans state freeway intersection impacts would arise from this

Alternative. Impacts to Sacramento County roadway segments would be less than significant. In the City of Elk Grove, roadway impacts to Grant Line Road between Sheldon Road and Calvine Road would be significant without the implementation of Mitigation Measure TR-4 that would reduce them to less-than-significant if it were to be implemented. Ten roadway segments in the City of Rancho Cordova would be impacted by the Expanded Preserves Alternative, and all but one of them could be reduced to less-than-significant if Mitigation Measure TR-5 could be implemented. However the roadway segment on Sunrise Boulevard from Folsom Boulevard to White Rock Road would remain at an unacceptable LOS of E even with Mitigation Measure TR-5's implementation. Caltrans freeway segments impacted by this Alternative are those on Westbound US 50 from Hazel to Sunrise and Eastbound US 50 from Sunrise to Hazel that would remain significant and unavoidable impacts, even with Mitigation Measure TR-6. With the implementation of Mitigation Measure TR-7, impacts to bicycles and pedestrians would be less-than-significant from the Expanded Preserves Alternative.

In the Cumulative Plus Project scenario, the Expanded Preserves alternative would have less-than-significant impacts on County intersections, City of Folsom intersections, City of Elk Grove intersections and Caltrans freeway intersections. In the City of Rancho Cordova, this Alternative would have significant and unavoidable impacts to the intersections of Sunrise Boulevard and Douglas Road that could not be mitigated to achieve a level of service above LOS E; Grant Line Road and Douglas Road that could be mitigated to LOS C; Grant Line Road and North Loop Road that could be mitigated to LOS C; and Sunrise Boulevard and International Drive that could not be mitigated above LOS E. Even where mitigation could improve some of the intersections in Rancho Cordova, there is no guarantee that it would be implemented, so the impacts must be considered significant and unavoidable. Under the Cumulative Plus Project scenario, roadway segment impacts in Sacramento County and the City of Elk Grove with the Expanded Preserves Alternative would be less than significant. Impacts to roadway segments in the City of Rancho Cordova could be improved by Mitigation Measures TR-10.C. and TR-10.D. to less than significant levels if implemented, otherwise the impacts would be significant and unavoidable. Impacts of this Alternative in the Cumulative Plus Project scenario on Caltrans freeway segments and ramp junctions would be significant and unavoidable at the following locations: Eastbound US 50 from Watt Avenue to Bradshaw Road; Eastbound US 50 from Rancho Cordova Parkway to Hazel Avenue; Westbound US 50 from Hazel to Rancho Cordova Parkway; Westbound US 50 from Bradshaw Road to Watt Avenue; Westbound US 50 from Watt Avenue to Power Inn Road/Howe Avenue; Eastbound US 50 Slip Ramp Entrance from Watt Avenue; Westbound US 50 Exit Ramp to Watt Avenue; and Westbound US 50 Slip Ramp Entrance from Watt Avenue. Impacts to bicycles, pedestrians and transit with the Expanded Preserves Analysis would be less-than-significant.

RELATIONSHIP TO PROJECT OBJECTIVES

The Expanded Preserves Alternative would meet most of the basic Project objectives, but not all of them. It would not provide any land along Grant Line Road for a sustainable, multi-service Town Center. It would substantially reduce the square footage of non-residential land uses to only 382,640 sq.ft. when compared to the Project's 1,349,419 sq.ft, and would remove the ability to locate any of those types of non-residential uses along Grant Line Road. The ability to create a sustainable, multi-service town center is questionable. In addition, it would reduce the number of dwelling units to only 6,845 compared to the 9,010 dwelling units the Project could provide.

FINDING

LAFCo finds that the Expanded Preserves Alternative is the environmentally superior alternative because it will result in fewer significant and unavoidable impacts in several categories, most notably in wetland loss due to the larger preserves/avoided areas and in impacts to invertebrate species. It will result in the least amount of land being urbanized at 1,490 acres, the lowest water demand at 5,484 AFY, the least amount of pollutants such as NOx at 319.72 tons and 660.20 tons of ROG, the least amount of impacts to wetlands and other habitat losses due to placing 43% of the site in preserves and avoided areas, and would have lower utility demands for electricity of 72,003,00 kWh and 2,988,810 therms of natural gas when compared to the proposed Project.

LAFCo rejects the Expanded Preserves Alternative as infeasible for each and every reason listed, each reason being a separate and independent basis upon which LAFCo finds the alternative to be infeasible.

- (a) The Expanded Preserves Alternative would not create a sustainable, multi-service town center that promotes walkability and alternative transit modes, including but not limited to Neighborhood Electric Vehicles, light rail, shuttle bus, and carpool facilities
- (b) The Expanded Preserves Alternative would substantially reduce land uses that would allow for the development of a major private university in Sacramento County or provide for land uses that allow residential neighborhoods that are age restricted in order to serve seniors, or create large lot sizes suitable for executive housing to serve corporate executives
- (c) The Expanded Preserves Alternative would substantially reduce neighborhood and community parks and would interfere with connections to adjacent trail systems or regional trail systems

In light of the foregoing, the LAFCo further finds that the Expanded Preserves Alternative would not meet any of the Project Objectives. To the extent that any environmental impacts might be less significant under the Expanded Preserves Alternative, the rejection of this alternative is appropriate for the reasons stated above and in the statement of overriding considerations. LAFCo has been presented with no evidence to contradict its conclusion in this regard.

C. EXPANDED FOOTPRINT ALTERNATIVE

DESCRIPTION

The Expanded Footprint Alternative is composed of the Expanded Preserves Alternative together with another 862 acres of land added to the north of the Project site referred to as “Grant Line Pilatus.” The total area of this Alternative is 3,531 acres. It would designate 2,016 acres for development and preserve 1,515 acres. Plate ALT-8 in the Draft EIR shows a potential land use plan for the Expanded Footprint Alternative. Within this Alternative, a modified Town Center could be relocated into the Ridgeline Village area, while the displaced housing from Ridgeline Village could be moved to the Grant Line Pilatus property on the north. This still creates a problem, since the Town Center would not be directly accessible from Grant Line Road. The Town Center would be smaller than the proposed Project, and the ability to support a viable commercial land use with 1,032,640 sq.ft. of non-residential uses would be questionable since reduced vehicle access and reduced visibility from Grant Line Road would result in less traffic at the site. However, the commercial and residential land uses of this Alternative would be more in balance than with the Expanded Preserves Alternative, which had only 382,640 sq.ft. of non-residential land uses. The

Grant Line Pilatus property contains wetlands and linear waterways; as a result, a system of preserves for it was created based upon the standard 250 ft. buffer. This resulted in 373 acres of the total 862 acre Grant Line Pilatus property being placed into preserves, only leaving 489 acres for potential development.

The Town Center use that could be provided in the Expanded Footprint Alternative is only 150 acres, versus over 200 acres at the proposed Project. In addition, the smaller Town Center of this Alternative could not serve as a significant retail/commercial center because of its location in the Project site's interior, rather than along Grant Line Road, a major regional transportation corridor. Access and exposure to the traffic along Grant Line Road for the commercial uses would be significantly compromised. This Alternative would result in approximately 8,045 dwelling units, a reduction to 1,032,640 sq.ft. of non-residential uses, and have an estimated population of 22,850 persons.

ENVIRONMENTAL IMPACTS OF THE EXPANDED FOOTPRINT ALTERNATIVE

Aesthetics. Under the Expanded Footprint Alternative, there would be similar views and visual quality for the Grant Line Road and Douglas Road / Rancho Cordova viewer groups as there would be for the proposed Project, which was a less than significant impact. View and visual quality impacts to the Kiefer Road and Latrobe Road viewer groups would also be less than significant. There would be no impacts to the residents to the north, because the residences would exist on land that would be developed. A new viewer group on Scott Road would be impacted, but that impact would be less than significant. As with the proposed Project, this Alternative would introduce new nighttime light and glare into the area, and such an impact would be significant and unavoidable.

Agricultural Resources. The added northern properties in the Expanded Footprint Alternative have the same AG-80 zoning and uses as the proposed Project area. Mitigation Measure AG-1 would be applied to reduce any impacts to adjacent agricultural uses to a less than significant level.

Impacts to lands under Williamson Act contracts would be similar to the proposed Project. Since the lands in the added northern area are now in a Williamson Act contract non-renewal status, approval of a subdivision map for the northern area would need to be deferred until February 2013 (within 3 years of nonrenewal). A rezone of the northern area would need to specify that the rezoning was not effective until 2016, and Mitigation Measure AG-2 would be included to ensure the continued agricultural use of the northern area until 2016. These actions would make the Expanded Footprint Alternative consistent with the Williamson Act.

The Expanded Footprint Alternative would convert 255.6 acres of protected farmland to non-agricultural uses. Mitigation Measure AG-3 would require mitigation for that conversion, and thereby reduce this impact to a less than significant level.

Air Quality. Although the number of residential units and size of the commercial development that would be constructed with the Expanded Footprint Alternative is less than with the proposed Project, the production of NOx emissions by construction activities would still exceed significance thresholds. Mitigation Measure AQ-1 would need to be implemented in order to make these impacts less than significant.

| Operational emissions of ozone precursors, such as NOx and ROG, would be less than for the proposed Project, they would still exceed the thresholds of significance. An air quality mitigation plan would be required, and the same plan as used for the proposed Project could be implemented to reduce emissions by 35%. However, the reduction in emissions would still be above the threshold, so this impact would be significant and unavoidable.

| The northern area of the Expanded Footprint Alternative has the potential to expose people to offsite emissions of particulate matter due to the existence of an active aggregate mining operation on adjacent property. However, the area of the mine nearest the northern area is scheduled to be the deposit that is mined first, while the northern area is the one assumed to be developed last due to the need to extend infrastructure to serve it. Consequently, this impact could be reduced to a less than significant level by requiring mitigation that would prohibit development within 2,500 feet of an active or approved and planned mining operation, as suggested in the Draft EIR.

| Construction activities at the Expanded Footprint Alternative would increase particulate matter emissions of PM2.5 and PM10. Because those construction activities are likely to involve more than 15 acres per day at any given time, it will result in significant emissions. In spite of the mitigation measures that would be imposed by existing rules and regulations to reduce this particulate matter impact, the Expanded Footprint Alternative will result in significant and unavoidable PM2.5 and PM10 emissions.

| The Expanded Footprint Alternative would exceed SMAQMD thresholds of 85 lbs./day for NOx during construction and 65 lbs./day of NOx or ROG during its operation. That would have the potential for interfering with the success of regional ozone attainment plans, and would be a significant and unavoidable impact of this Alternative. Traffic would increase on a cumulative basis with this Alternative, but to a lesser degree than with the proposed Project. Since localized CO concentrations near major vehicular access routes were not found to exceed ambient standards with the proposed Project's traffic, this Alternative's CO emissions would have a less than significant impact.

| As with the proposed Project, there are no existing sources of toxic air contaminants (TACs) in proximity to the Expanded Footprint Alternative. Mitigation Measure AQ-3 would apply to ensure that new uses in the Alternative would not expose sensitive receptors to TACS from the new uses, such as gasoline stations. Impacts of this Alternative relating to exposure to TACs would therefore be less than significant. The Expanded Footprint Alternative will result in the placement of sensitive uses in proximity to the Kiefer Landfill and the Sacramento County Boys' Ranch, with the same potential for exposure to objectionable odors. Implementation of the same mitigation as required for the proposed Project would result in this being a less than significant impact.

| Biological Resources. The Expanded Footprint Alternative would have a total of 1,552 acres of preserves and avoided areas, and 1,979 acres of development. 89 acres of vernal pools and other wetlands would be placed in preserves, resulting in 81% of the total wetland acres being preserved. Of the 54.09 acres of vernal pools onsite, a total of 51.44 acres would be preserved, which results in the preservation of 95% of all vernal pools. The impacts from roadways on the preserves for this Alternative would be increased due to three crossings of the central preserve on the Grant Line Pilatus property in the northern area. In addition, there would be unknown impacts to offsite wetlands on adjacent properties through which the northern access road to the Project site would have to travel. That offsite area contains dense concentrations of vernal pools, but no jurisdictional

wetland delineation has been performed. Nonetheless, the wetland impacts of the Expanded Footprint Alternative would be less than significant for the same reasons as stated above for the Expanded Preserves Alternative. With the implementation of Mitigation Measures BR-3, BR-4, BR-5 and BR-6, impacts to special status bird species would be reduced to less than significant. Impacts to special status amphibians, such as the western spadefoot, would also be less than significant, just as they were for the proposed Project. Impacts to vernal pool crustaceans would be less than significant due to compliance with the County's no net loss of wetlands policy and the permitting requirements of other agencies when a wetland area is filled. The Grant Line Pilatus property contains a single elderberry plant that could provide habitat for the valley elderberry longhorn beetle. That plant would be placed within a preserve area, so impacts would be less than significant. Surveys for special status plants were not conducted at the Grant Line Pilatus property. However, with the implementation of mitigation requiring a rare plant survey and mitigation if any rare plants are found, the impacts of this Alternative would be reduced to less than significant.

| Climate Change. While there would be fewer homes and businesses with the Expanded Footprint Alternative, the per capita and per square foot energy emissions of GHGs would be essentially unchanged at 1.18 MT per capita for residential and 5.75 MT per 1,000 sq.ft. for commercial. Total GHG emissions from energy usage in this Alternative were estimated at 10,526 MT annually. GHG emissions from the transportation sector for this Alternative were estimated at 3.78 MT per capita. Because these emissions, even with mitigation, are above current County GHG thresholds, this Alternative would have significant and unavoidable climate change impacts.

| Cultural Resources. The cultural resources impacts for that portion of this Alternative that is the same as the Expanded Preserves Alternative would be the same. The northern area has not had a cultural resources survey conducted, but a record search showed six historical isolates within or adjacent to it that consisted of miscellaneous farming equipment, a tractor, and an oil can. Isolates lack historical context and are not considered significant historical resources. Thus, there are no known significant cultural resources at the northern area. Because there has never been a survey of the northern area and because it is unknown what subsurface resources may exist, a mitigation measure requiring a survey by a qualified professional should be adopted that in combination with Mitigation Measure CR-1 will ensure that any impacts to cultural resources would be less than significant.

| Geology and Soils. The impacts to geology and soils would be the same as for the Expanded Preserves Alternative and be less than significant. The northern area has the same geologic characteristics as the proposed Project.

| Hazards and Hazardous Materials. Under the Expanded Footprint Alternative, the impacts related to this topic would be virtually the same as for the proposed Project. Mitigation Measure HM-1 would apply and reduce any impacts to a less than significant level.

| Hydrology and Water Quality. While the Expanded Footprint Alternative includes more land overall, it results in the conversion of less land to urban development than does the proposed Project. It also includes the same watershed areas, though its drainage master plan would have to be revised to take in the northern area. It is expected that this will still result in the Alternative's development having a less than significant impact. Construction related and operational water quality impacts of this Alternative would be the same as those for the proposed Project, and with observance of existing regulations, the impacts are expected to be less than significant.

Land Use. The Expanded Footprint Alternative would not conflict with any adopted County or city land use plans that avoids environmental impacts, consequently its impact in this regard is less than significant. This Alternative uses the same basic internal designs as the proposed Project, so the conclusions as to providing a variety of transportation choices, compact building and community design, a range of housing, as well as fostering a sense of place apply. While it provides more open space than the proposed Project, it still conflicts with the SACOG Blueprint because it does not direct growth toward an existing urban core. The portion of the Expanded Footprint Alternative north of the proposed Project does not have frontage on Grant Line Road in contrast to the proposed Project which abuts actively planned urban development in the City of Rancho Cordova along the Grant Line Road frontage. Consequently, this portion of the alternative does not have direct contact with existing urban development or land currently in planning by the City of Rancho Cordova. This is a significant and unavoidable impact of the Alternative. Its growth inducing impacts are less than significant. Impacts related to General Plan policies concerning public services and utilities are similar to those for the proposed Project and are less than significant. Impacts related to the General Plan policies for air quality are also less than significant, just as for the proposed Project. General Plan policies require new development to be compatible with existing development. The proposed mitigation for reducing this Alternative's particulate matter exposure impacts that would require a 2,500 ft. buffer from active mining operations at the nearby Teichert mining company property would reduce any land use compatibility impacts to a less than significant level. This Alternative would not divide or disrupt an existing community, and would not displace any housing, so its impacts in these areas are less than significant.

Noise. Construction of the Expanded Footprint Alternative would increase noise levels, but remain less than significant, just as for the proposed Project. With implementation of mitigation measures, impacts from onsite traffic would be less than significant. Onsite sources of community and stationary noise would have less than significant impacts, just as for the proposed Project. Noise impacts from the Kiefer Landfill would be less than significant, just as for the proposed Project. Ambient noise levels at the site of this Alternative would increase and be a significant and unavoidable impact, just as they would be for the proposed Project. Mather Airport noise would have a less than significant impact on this Alternative.

Public Services. The estimated population for this Alternative is 22,850 persons, which is about 90% of the population of the proposed Project. Existing regulations, ordinances, codes and fee mechanisms would ensure that the necessary facilities are constructed and funded to provide the public services needed for this Alternative's population. Impacts on public services would be less than significant.

Public Utilities. The water supply master plan and sewer master plan would all need to be amended to serve this Alternative, as fewer supply lines would be needed on the main Cordova Hills section and new lines would be needed to serve the northern area added by this Alternative. The same regional and offsite improvements would be needed, so the impacts are similar to the infrastructure construction impacts of the proposed Project and would therefore be significant and unavoidable. In terms of energy efficiency, this Alternative will not result in the wasteful, inefficient and unnecessary consumption of energy, and its demand for energy will not exceed the available supply, so its impacts in this regard are less than significant. Its demand for water and sewer services will also be less than significant. The Alternative will not use groundwater to the extent that it would exceed the sustainable yield, so its impacts are less than significant. Nor will it adversely impact groundwater recharge.

| Traffic and Circulation. The Expanded Footprint Alternative would reduce the number of access points at Grant Line Road to only two points, and the inclusion of larger preserves would also eliminate several internal roadways from the proposed Project. Under existing plus project conditions, the implementation of Mitigation Measure ALT -5 in the Draft EIR would ensure that the Expanded Footprint Alternative has less than significant impacts on the intersections situated in Sacramento County. Impacts of this Alternative on intersections in the City of Elk Grove would be less than significant as well. However, impacts to intersections in the City of Rancho Cordova would be significant and unavoidable because the County cannot ensure that Mitigation Measure ALT-6 in the Draft EIR and any other mitigation improvements to roadways suggested in the EIR would be implemented by the City of Rancho Cordova. Any Caltrans state highway intersection impacts from this Alternative would be less than significant.

| Implementation of Mitigation Measures TR-3A and TR-4 for the proposed Project would result in the roadway segment impacts from the Expanded Footprint Alternative being less than significant in Sacramento County. Impacts to roadway segments in the City of Rancho Cordova, City of Folsom and City of Elk Grove from the Expanded Footprint Alternative would be significant and unavoidable because the County cannot be certain that the suggested roadway segment improvements proposed as mitigation would be implemented by the cities. In addition, in some cases within Rancho Cordova there is no mitigation available to restore the LOS to an acceptable level on certain roadway segments, such as along Sunrise Boulevard from US 50 to White Rock Road. Along the Caltrans US 50 freeway, implementation of Mitigation Measure TR-6 would reduce traffic impacts of the Expanded Footprint Alternative to a less than significant level in the existing plus project scenario. There would be less than significant impacts to Caltrans ramp junctions with this Alternative in the existing plus project scenario. Impacts of this Alternative on bicycles and pedestrians would be the same as those of the proposed Project. Implementation of Mitigation Measure TR-7 would reduce impacts of this Alternative to less than significant in the existing plus project condition. This Alternative would have less than significant impacts on transit service in the existing plus project condition, assuming the same internal transit system is adopted as would be used for the proposed Project.

| In the cumulative plus project scenario, the Expanded Footprint Alternative requires the implementation of Mitigation Measure ALT-7 in the Draft EIR in order to reduce impacts on Sacramento County intersections to a less than significant level. In this scenario, the Alternative would not require any mitigation in order for its impacts on intersections in the City of Elk Grove and in the City of Folsom to be less than significant. However, under the cumulative plus project condition, impacts to intersections in the City of Rancho Cordova would be significant and unavoidable, because the County cannot be certain that the suggested mitigation would be implemented in the City. In addition, in some cases there is no mitigation available to reduce impacts on Rancho Cordova intersections to an acceptable level of service. With regard to Caltrans intersections, this Alternative does not have any significant impacts in the cumulative plus project condition.

| With implementation of Mitigation Measure ALT-9 suggested in the Draft EIR, the Expanded Footprint Alternative's impacts on Sacramento County roadway segments in the cumulative plus project condition would be reduced to a less than significant level. Impacts to roadway segments in the City of Elk Grove for this Alternative in the cumulative plus project scenario would also be less than significant. However, impacts to a number of roadway segments in the City of Rancho Cordova and City of Folsom would be significant and unavoidable in the cumulative plus project

condition with this Alternative. That conclusion was reached because the County cannot be certain that the City of Rancho Cordova and City of Folsom would implement the suggested mitigation in order to improve the LOS to acceptable levels. Significant impacts from the Expanded Footprint Alternative would also be caused to a number of freeway segments along US 50 in the cumulative plus project condition. Caltrans has no plans or funding to make further improvements to those segments of US 50 and to the impacted US 50 ramp junctions, so there is no feasible mitigation available to lessen the impacts of this Alternative on US 50.

| In the cumulative plus project scenario, the Expanded Footprint Alternative would have nearly identical impacts as would the proposed Project on bicycles, pedestrians and the transit system. All of those impacts would be less than significant and would not require any additional mitigation for this scenario.

RELATIONSHIP TO PROJECT OBJECTIVES

| The Expanded Footprint Alternative would only partially meet the basic Project objectives for the same reasons as the Expanded Preserve Alternative fails to meet them. It would not provide any land along Grant Line Road for a sustainable, multi-service Town Center. Relocating the Town Center uses into the interior of the Project site would deny them any visibility to the users on Grant Line Road.

FINDING

| While the Expanded Footprint Alternative results in one fewer significant impact to Aesthetics compared to the Expanded Preserves Alternative, the Expanded Preserves Alternative results in the least amount of land being urbanized, the least amount of pollutants such as NOx and ROG, the least amount of impacts to wetlands and other habitat loss, and the least utility demand. When the expanded Footprint Alternative is compared to the proposed Project, the Expanded Footprint Alternative results in fewer impacts to Aesthetics, and fewer significant impacts to wetlands and invertebrate species when mitigation is performed. Consequently, the Expanded Footprint Alternative would not be the environmentally superior alternative when compared to the Expanded Preserves Alternative. However, it would have fewer significant and unavoidable impacts than the proposed Project. LAFCo rejects the Expanded Footprint Alternative as infeasible for each and every reason listed, each reason being a separate and independent basis upon which LAFCo finds the alternative to be infeasible.

| (a) The Expanded Footprint Alternative would not create a sustainable, multi-service town center that promotes walkability and alternative transit modes, including but not limited to Neighborhood Electric Vehicles, light rail, shuttle bus, and carpool facilities

| In light of the foregoing, the LAFCo further finds that the Expanded Footprint Alternative would not meet one of the Project Objectives. To the extent that any environmental impacts might be less significant under the Expanded Footprint Alternative, the rejection of this alternative is appropriate for the reason stated above and in the statement of overriding considerations. LAFCo has been presented with no evidence to contradict its conclusion in this regard.

D. ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The Draft EIR concluded that the Expanded Preserves Alternative would be the environmentally superior alternative. Although this alternative does not reduce many of the identified significant and unavoidable impacts of the Project to a less-than-significant level, it does reduce the impacts on wetlands and on invertebrate species (vernal pool crustaceans) to a less than significant level with mitigation when compared to the proposed Project. The proposed Project's impacts on wetland loss and on invertebrate species are significant and unavoidable, even with mitigation. As a result, the LAFCo finds the Expanded Preserves Alternative to be the environmentally superior alternative.

XII. STATEMENT OF OVERRIDING CONSIDERATIONS

A. INTRODUCTION

As set forth in the preceding sections, LAFCo's approval of the Project will result in significant adverse impacts that cannot be substantially lessened or avoided even with the adoption of all feasible mitigation measures or Project alternatives. Despite these impacts, however, LAFCo chooses to approve the Project because, in its view, the economic, social, and other benefits that the Project will produce will render the significant effects acceptable. To do so, LAFCo must first adopt this Statement of Overriding Considerations. (Pub. Resources Code Section 21081; CEQA Guidelines, Section 15093.)

LAFCo recognizes that approval of the Project will result in significant adverse environmental impacts on: aesthetics; air quality; biological resources; climate change; land use; noise; public utilities; and traffic and circulation that cannot be avoided or reduced to a less-than-significant level even with the adoption of all feasible mitigation measures. In LAFCo's judgment and acting pursuant to Section 15093 of the CEQA Guidelines, LAFCo finds that the project and its benefits outweigh its unavoidable significant effects.

The following statement identifies the reasons why, in LAFCo's judgment, the benefits of the Project as approved outweigh its unavoidable significant effects and remaining residual impacts. The EIR described certain environmental impacts that cannot be avoided if the Project is implemented. In addition, the EIR described certain impacts that, although substantially mitigated or lessened, are potentially not mitigated to a point of being less than significant.

This Statement of Overriding Considerations applies specifically to those impacts found to be significant and unavoidable, as well as to any residual impacts. Such significant impacts include, but are not limited to:

- Aesthetics: Degradation of existing views and visual quality.
- Aesthetics: New source of light or glare.
- Air Quality: Operational emissions of ozone precursors.
- Air Quality: Construction activities would increase particulate matter emissions.
- Air Quality: Conflict with or obstruct air quality plans.
- Biological Resources: Wetlands and surface waters.
- Biological Resources: Special status species – invertebrates

- Climate Change: Given the substantial emissions which will result from the Project and the uncertainties related to target-setting and the current state of modeling this analysis concludes that Project impacts may remain significant.
- Land Use: Conflict with the SACOG Blueprint and General Plan Policy.
- Noise: Substantial increase in existing ambient noise.
- Public Utilities: Construction impacts.
- Traffic and Circulation: Existing Plus Project. The project results in significant impacts to six County intersections, ten City of Rancho Cordova intersections, one City of Folsom intersection, one City of Folsom intersection, the Zinfandel and US 50 freeway ramp intersection, two County roadway segments, one City of Elk Grove roadway segment, eleven City of Rancho Cordova roadway segments, two US 50 freeway segments, and bicycle and pedestrian facilities.
- Traffic and Circulation: Cumulative Plus Project. The Project results in significant impacts to five City of Rancho Cordova intersections, the Zinfandel and US 50 freeway ramp intersection, one new Project roadway segment, four City of Rancho roadway segments, six Caltrans freeway segments, and four Caltrans freeway ramps.

In addition to the above impacts, this Statement of Overriding Considerations applies to any residual impacts that have been substantially lessened or avoided, but not necessarily to a level of less than significant.

LAFCo believes that many of the unavoidable and irreversible environmental effects, as well as many of the environmental effects which have not been mitigated to a less than significant level, will be substantially reduced by the mitigation measures for the Project. LAFCo recognizes that the implementation of the Project will result in certain potentially irreversible environmental effects.

In reaching LAFCo's decision to approve the Project and all related documentation, LAFCo has carefully considered each of the unavoidable impacts, each of the impacts that have not been substantially mitigated to a less than significant level, as well as each of the residual impacts over which there is a dispute concerning the impact's significance after mitigation. Notwithstanding the identification and analysis of impacts which are identified as significant and unavoidable, LAFCo, acting consistent with Section 15093 of the CEQA Guidelines, hereby determines that the benefits of the Project outweigh the unavoidable adverse impacts and remaining residual impacts, and that the Project should be approved.

The following statement identifies the reasons why, in LAFCo's judgment, the benefits of the Project as approved outweigh its significant and unavoidable effects. Any one of the reasons for approval cited below is sufficient to justify approval of the Project. Thus, even if a Court were to conclude that not every reason is supported by substantial evidence, LAFCo will stand by its determination that each individual reason is sufficient. The substantial evidence supporting the various benefits can be found in the preceding findings, which are incorporated by reference into this Section, and in the documents found in the Record of Proceedings.

B. SPECIFIC FINDINGS.

1. The Project's Benefits Outweigh Unavoidable Impacts. The remaining unavoidable and irreversible impacts of the Project are acceptable in light of the economic, fiscal, social, public

safety, environmental, land use, and other considerations set forth herein because LAFCo finds that the benefits of the Project outweigh any significant and unavoidable or irreversible adverse environmental impacts of the Project, as well as outweighing any residual impacts over which a controversy exists concerning the impacts' significance following mitigation.

| 2. Rejected or Deleted Mitigation Measures. Any of the mitigation measures that were suggested in the DEIR and FEIR but not incorporated into the Project due to their infeasibility are infeasible in part because such measures would impose limitations and restrictions on the Project so as to prohibit the attainment of economic, social, and other benefits of the Project which LAFCo finds outweigh the unmitigated impacts of the Project. In addition, several proposed mitigation measures were deleted because the suggested roadway/intersection improvements had already been constructed by others or the proposed roadway/intersection improvements were determined not to be necessary in light of other nearby improvements built by others.

| As a result of comments received during the public hearing on the Project concerning its potential air quality impacts and ability to achieve a 35% reduction in those impacts, the Applicant has amended the Project's AQMP. The County and SMAQMD have worked together to reach a consensus on additional feasible mitigation to reduce the Project's operational air quality impacts and have determined that the additional mitigation is equivalent or more effective at reducing those air quality impacts. As a result, SMAQMD provided a verification of the Amended AQMP on January 17, 2013. The Amended AQMP has added the following new feasible mitigation requirements, in addition to those found in the original endorsed AQMP:

- | • The Project will provide low-emission furnaces and electrical outlets for appliances. (SMAQMD 99C)
- | • The Project will exceed the Year 2013 Title 24 requirements by 20%, and will include energy star cool roofs and tankless water heaters. (SMAQMD 99D)
- | • The Project will provide on-site renewable energy systems for at least 20% of the Project's energy needs. (SMAQMD 99E)

| In regard to rejected mitigation measures, LAFCo finds that the Conditions of Approval Numbers 40 through 85 relating to traffic and circulation improvements (listed beginning on page 50 of these Findings) to be constructed or funded by the Applicants and/or their successors are necessary to implement proposed Mitigation Measures TR-1 through TR-9 and TR-11 in the EIR; these measures have not been rejected or modified (except as described in paragraphs which follow) but will be implemented via the Conditions of Approval. LAFCo has determined that the Conditions of Approval are more specific and better designed to implement the roadway improvements needed to mitigate for the identified transportation and circulation impacts described in the EIR.

| Mitigation Measure TR-1.E. was modified and replaced with Condition of Approval 60 because a portion of the required roadway/intersection improvement is currently being constructed by the County as part of the County's White Rock Road Improvement Project. TR-1.E would have required the Applicant to install two eastbound left turn lanes. That portion of the mitigation measure has been deleted, since the dual eastbound left turn lanes are being constructed by the County.

| Mitigation Measure TR-1.F. was deleted in its entirety because the County also is currently making the proposed roadway/intersection improvements to the intersection of White Rock Road and

Prairie City Road as part of the County's White Rock Road Improvement Project. Consequently, this mitigation measure is no longer required and was deleted.

Implementation of the specific lane modifications to the Sunrise Boulevard and Jackson Highway (State Route 16) intersection recommended by Mitigation Measure TR-2.D. have been revised, as reflected in Condition of Approval No. 61. The reasoning for the change was dual: the Board desired a measure which would succeed in reducing the impact while also improving the north-south flow conditions at this intersection (though not necessary due to a Project impact) and because Measure TR-2.D. would have required more extensive roadway work. County DOT performed further analysis of the mitigation measure and found that there was an alternative reconfiguration which would reduce the amount of reconstruction needed, which would improve north-south flow, and would also result in an equivalent LOS as measure TR-2.D. The revised lane reconfigurations consist of the following: two eastbound through lanes, an eastbound right turn lane, and an eastbound left turn lane; a northbound left turn lane, two northbound through lanes and a northbound right turn lane; a westbound through lane, a westbound right turn lane and a westbound left turn lane; a southbound through lane, a southbound left turn lane, and a southbound right turn lane. The threshold for construction of the above intersection improvements has also been changed by Condition of Approval No. 61 to require them at 500 DUEs, instead of at 3,200 DUEs.

Mitigation Measure TR-5.H. was deleted in its entirety because the widening of Douglas Road to a four lane arterial between Sunrise Boulevard and Rancho Cordova Parkway has already been completed by others, so there is no need for the Project to contribute funding for the construction of this roadway segment.

Mitigation Measure TR-1.B. also has been deleted in its entirety because the roadway/intersection improvements proposed in the EIR at Douglas Road and Mather Boulevard subsequently were determined by the County Department of Transportation to no longer be necessary due to other traffic improvements built at the Douglas Road and Zinfandel Drive intersection, as described in the FEIR.

Some mitigation measures were rejected or their implementation revised because they sought to implement a level of service ("LOS") on roadways or intersections shared with an adjacent jurisdiction, or entirely within an adjacent jurisdiction, that conflicted with and was more stringent than the County's policy of maintaining a LOS "E" on roadways and intersections in urban areas. For policy reasons, as well as for economic ones, the County has declined to apply a LOS standard established by a neighboring jurisdiction that was in direct conflict with the County's own policies and standards. LAFCo finds that use of a more stringent level of service standard from another jurisdiction would impede the achievement of the Project's goals and objectives and interfere with the County's inherent police power and discretion to control land use decisions within the County's jurisdiction. County General Plan Policy CI-9 provides that the County should:

"Plan and design the roadway system in a manner that meets Level of Service (LOS) D on rural roadways and LOS E on urban roadways, unless it is infeasible to implement project alternatives or mitigation measures that would achieve LOS D on rural roadways or LOS E on urban roadways. The urban areas are those areas within the Urban Service Boundary as shown on the Land Use Element of the Sacramento County General Plan. The areas outside the Urban Service Boundary are considered rural."

In addition, the County General Plan contains Policy LU-65 that specifies:

“Level of service shall be consistent with policies in this Plan, or where none are applicable, shall use Federal and State environmental standards and commonly accepted industry norms and standards as guidelines.”

For those reasons, the County has rejected proposed mitigation measures in the EIR that were based on maintaining LOS “D” on roads shared with another jurisdiction which conflicted with the County’s own policy of maintaining an LOS “E” standard for urban roadways. However, in order to ameliorate the decline in the level of service on such shared roadways, the triggers for commencement of the required roadway improvements have been adjusted so that they fall between an LOS D and LOS E threshold.

In a related vein, LAFCo has also found it infeasible to require the implementation of proposed mitigation measures that would have required the Applicants and/or their successors to construct many substantial improvements to Grant Line Road without there being any reasonable expectation of receiving a reimbursement for those construction costs that exceeded the Project’s fair share of the Grant Line Road improvements. LAFCo finds that other developments in adjacent jurisdictions not only benefit from those roadway improvements, but also trigger the need for such improvements. Instead of requiring the Applicants to build such physical improvements in another jurisdiction, LAFCo finds that it is more feasible to simply require the Project to pay its fair share of the cost to construct the Grant Line Road improvements or to construct only Grant Line Road improvements situated within the boundary of the County.

3. Balance of Competing Goals. LAFCo finds that it is imperative to balance competing goals of protecting the environment while allowing new economic development to take place in approving the Project and certifying the EIR for the Project. Not every policy or environmental concern has been fully satisfied because of the need to satisfy competing concerns to a certain extent. Accordingly, in some instances LAFCo has chosen to accept certain environmental impacts because to eliminate them would unduly compromise some other important economic, social, environmental or other goals, such as providing a site designated for future university/college campus uses, encouraging people to walk or bicycle, promoting a new community that is designed for the use of neighborhood electric vehicles (NEVs) from the very outset. LAFCo further finds and determines that the design of the Project provides for a positive balance of competing goals and that the economic, fiscal, social, environmental, land use and other benefits to be provided by the Project outweigh any environmental and related potential detriment from the Project.

C. OVERRIDING CONSIDERATIONS.

Based upon the above enumerated objectives and the comprehensive vision developed by the County through extensive public participation, LAFCo has determined that the Project should be approved and that any remaining unmitigated environmental impacts attributable to the Project are outweighed by the following specific economic, fiscal, social, environmental, land use and other overriding considerations.

1. Economic Considerations.

LAFCo finds that substantial evidence is included in the administrative record demonstrating the economic benefits that the County would derive from implementation of the Project, including, but not limited to the following:

- LAFCo finds that employment opportunities within the County will be provided at the Project by creating construction jobs and jobs at the regional retail/commercial uses, neighborhood-serving retail uses, business-professional office uses, research and development uses, public service facilities and university/college campus center. LAFCo further finds that at build-out, the Project is estimated to provide a total of 6,669 new jobs.
- LAFCo finds that the Project's 223-acre university/college campus area provides the opportunity to attract a major employer of highly trained and educated workers such as university professors, school administrators, researchers and teaching assistants. LAFCo finds that there is demand for such an institution in California, and in the Sacramento region. In making this finding, LAFCo has determined that it is beneficial to have land already designated in a manner compatible with the use being sought; the need to go through a lengthy entitlement and permit process before construction can begin can be an important deterrent for major employers of this kind. Thus, the Project will attract and incentivize a higher-learning institution.
- LAFCo finds that the 966,779 sq.ft. of commercial uses proposed at the Town Center area of the Project have the potential to generate substantial sales tax revenue for the County that can be used to support numerous important County public safety and health services and programs. LAFCo further finds that the Project represents a significant capital investment in the County and will generate substantial property tax revenue. In addition, LAFCo finds that businesses locating in the Project will provide substantial employment opportunities in a variety of jobs in the retail, office and educational environments, and that such employment provides steady income, thus supporting other businesses and provides stable employment and income that in turn enhances the local economy.

2. Environmental, Educational and Land Use Considerations.

Substantial evidence is included in the record that the implementation of the Project will have beneficial as well as potential adverse impacts relating to environmental and land use considerations. In reaching that conclusion, the Board has relied upon the following factors:

- LAFCo finds that the Project is within an area that has already been designated as being within a future urban development area, because the Project is within the Urban Services Boundary (with the exception of the 251 acres known as the "bufferlands" and the agricultural/floodplain areas along the eastern boundary, which will remain in agricultural zoning). The Urban Services Boundary of the County General Plan defines the limits of future urban development, and was first established in 1993. LAFCo further finds that Project is located immediately adjacent to the City of Rancho Cordova and to areas within the City that are approved for development and in which development is now taking place.

- The Board has found as part of the adopted Sacramento County General Plan that future development should include a variety of housing types, have a pedestrian- and transit-oriented design, and be higher density (minimum 7 or 9.3 homes to the acre, depending on the methodology), as established through Policy LU-121. It is recognized that these goals compete with the goal to preserve habitat. LAFCo finds that the Project has achieved a reasonable balance between these competing goals. Specifically, the project has provided the desired designs as follows:
 - LAFCo finds that the Project provides the County with a high quality mixed use community containing a variety of housing types, a 223+ acre site designated for a university/college campus center, school sites, a 50-acre sports park, community parks, large retail and commercial centers, and neighborhood-serving retail uses on vacant property located in the southeastern area of the County that meets current and future needs for those types of land uses in the County.
 - LAFCo finds that the Project is consistent with the County General Plan Policies LU-21 and LU-22 because of the Project's balance of employment, neighborhood services and housing types. LAFCo further finds that the Project complies with Policy LU-23 by providing a compact and mixed use development in a new growth area. The Cordova Hills SPA Ordinance provides a commercial-flex zone with mixed use residential and commercial uses in certain areas, thereby promoting home-work and small business activities and avoiding additional commute trips.
 - LAFCo finds that the Project, through implementation of the SPA Ordinance and the Cordova Hills Master Plan's Design Guidelines and Development Standards, incorporates strong architectural and design features that are compatible with adjacent land uses, while providing a unique identity for the Project as a whole.
 - LAFCo finds that the Project's 223-acre site for a campus of higher education benefits the County by addressing both regional and state-wide current and long-term deficiencies in local options for students seeking a college education.
 - LAFCo finds that the Project's 223-acre university/college center site implements County General Plan Policy ED-68 by serving to attract "additional institutions of higher education to Sacramento County." In addition, the Project supports the continued integration of regional institutions of higher education into the local and regional economies, as set forth in General Plan Policy ED-69.
 - LAFCo finds that the Project accommodates a mix of new and traditional housing types ranging from single-family to multi-family to high-density residential units in order to serve all income levels.
 - LAFCo finds that the Project provides for the long-term preservation of the Urban Services Boundary by recording a deed restriction precluding urban development along the eastern boundary within the Project site, and by securing a conservation easement on off-site land to the east of the Project (known as the East Carson Creek property).

While achieving the above desired designs, LAFCo also finds the following:

- LAFCo finds that the Project creates approximately 538 acres of open space and avoidance areas, which is 20 percent of the land within the approximately 2,669-acre Project site. The Project preserves 56 percent of the wetlands on the site and preserves 67 percent of its vernal pool acreage, and preserves the most sensitive vernal pool areas.

The open space areas at the Project connect with existing and proposed open space areas outside the boundaries of the Project to the north, east and south.

- LAFCo finds that the Project provides for large, contiguous habitat conservation with its avoidance and preserve areas that total approximately 538 acres at the Project. Those areas assist the County with successfully designing and implementing the South Sacramento Habitat Conservation Plan.
- LAFCo finds that the Project's design will provide neighborhood serving retail uses that reduce the length and number of vehicle trips and the resulting global climate change impacts when compared to a "business-as-usual" development in this same location, and has included all feasible mitigation in this regard.
- LAFCo finds that the Cordova Hills SPA Ordinance is a plan for sustainable, greenfield planning and development through its enhanced environmental designs. Examples include the potential solar farm within the Project area's "bufferlands" and a commitment that 20 percent of all electricity required by the Project area will come from renewable onsite energy sources.
- LAFCo finds that the Project conserves energy and reduces GHG emissions by requiring all commercial and residential development to achieve a 20 percent energy efficiency above that required by the 2013 Title 24 energy efficiency regulations.
- LAFCo finds that the Project's land use pattern integrates a multi-modal circulation system with a trail network, a locally funded transit system that connects to the regional transit network with an internal transit loop, and contains a street system that serves the requirements of neighborhood electric vehicles (NEVs). All of these features reduce the production of greenhouse gases and reduce the use of fossil fueled motor automobiles for short trips at the Project compared to a conventional community in the Sacramento region. There will be no need for the County to retrofit or modify the Project's roadway system in order to allow the use of NEVs or incorporate a transit system within the Project area. The Board further finds that the above features meet the goals in General Plan Policy LU-27 to provide safe, interesting and convenient environments for pedestrians and bicyclists; Policy LU-37 to provide support and the development of pedestrian and bicycle connections between transit stations and nearby uses; Policy LU-39 to implement the ADA Transitional Plan and Pedestrian Master Plan; Policy CI-3 to interconnect travel modes and form an integrated, coordinated and balanced multi-modal transportation system consistent with the land uses being served; Policy CI-4 to provide multiple transportation choices to link housing, recreational, employment, commercial, educational, and social services; Policy CI-32 to provide a comprehensive, safe, convenient and accessible bicycle and pedestrian system; Policy AQ-1 that requires new development to be designed to promote pedestrian/bicycle access and circulation; and Policy CI-34 to construct and maintain bikeways and multi-use trails to minimize conflicts between bicyclists, pedestrians and motorists.
- LAFCo finds that the Project's design reduces its climate change impacts, when compared to a "business-as-usual" development, by promoting pedestrian uses, providing retail and residential uses adjacent to employment opportunities, by requiring the planting of numerous trees along the Project's roadways, trails, paseos and parking areas, and by providing a fully Project-funded internal transit shuttle bus system that will reduce vehicle miles travelled and motor vehicle emissions. LAFCo further finds that the Project contains a pedestrian and bike trail loop system with off-road and on-road routes

that link the homes with recreation areas, open space areas, shopping areas and the university/college campus facilities, resulting in reduced VMTs and automobile use.

- LAFCo finds that the Project's dedicated neighborhood electric vehicle (NEV) lanes on the Project's internal streets promote and encourage the use of NEVs as an environmentally sound alternative to the use of the automobile for destinations within the Project site.
- LAFCo finds that the Project's transportation system includes an internal transit system loop that also connects outside of the Project area to the Highway 50 corridor, including Regional Transit's bus and light rail facilities at the Mather/Mills light rail station and thereby promotes the use of public transit instead of the automobile.
- LAFCo finds that the Project creates a safe and efficient network of inter-connected streets with public bike and pedestrian trails. The Project contains approximately 27.6 miles of Community Class II on-street bicycle paths and approximately 27.8 miles of off-street trails and 20 miles of paseos for a total of 75 miles of trails, paseos, and class II bicycle paths that result in enhanced walkability because no home will be more than ¼ mile from one of the trails, paths, or other open space.
- LAFCo finds that the Project provides a total of approximately 75 miles of trails, bike lanes and paseos, and is required to dedicate a trail easement to the County for an off-site connection to a potential future County-wide trail system.
- LAFCo finds that the Project's transit system and its connection to Regional Transit's light rail system implements County General Plan Policy CI-26 by expanding neighborhood shuttle services in unincorporated areas and implements Policy CI-30 by collaborating with transit service providers to promote phased implementation of transit services to all growth areas as development occurs.
- LAFCo finds that the Project benefits the County by providing land at no cost to the County with an irrevocable offer of dedication in order to accommodate traffic improvements along Grant Line Road outlined in the current County General Plan, as well as provide land needed by the County for a potential future expansion of Grant Line Road as a limited access expressway.
- LAFCo finds that while the Project has substantial impacts related to transportation, air quality and climate change, those impacts are not due to any significant conflicts with the County's General Plan.

Based upon the above land use and environmental considerations, LAFCo has determined that any environmental detriment caused by the Project has been minimized to the extent feasible. Where not feasible, the environmental detriment is outweighed and counterbalanced by the significant economic, fiscal, educational, environmental and land use benefits to be generated for the County.

3. Other Related Overriding Considerations.

In addition to the economic, environmental, educational, and land use considerations identified above, LAFCo has considered various factors in arriving at its decision to approve the Project. Although economic, fiscal, environmental, educational, and land use benefits to be derived by the County are the primary reasons for LAFCo's decision to approve the Project, other factors have been considered by the County in the planning process and add to the benefits of the Project when weighed against any unavoidable environmental impacts identified in the EIR. Among these factors

include the prospect of creating a development plan with substantial open space for vacant, underutilized land which will serve as a model for future environmentally sensitive development.

CONCLUSION

~~LAFCo finds that it is imperative to balance competing goals in approving the Project and the remaining environmental impacts resulting from the Project. Not every policy or environmental concern has been fully satisfied because of the need to satisfy competing concerns to a certain extent. Accordingly, in some instances LAFCo has chosen to accept certain environmental impacts because to eliminate them would unduly compromise some other important economic, social, environmental, educational or other goal. LAFCo finds and determines that the Project and the supporting environmental documentation provide for a positive balance of the competing goals and that the economic, fiscal, social, environmental, educational and other benefits to be obtained by the Project outweigh any environmental and related potential detriments from the Project.~~

~~Any remaining significant effects on the environment attributable to the Project that are found to be unavoidable, irreversible or not substantially mitigated to a less than significant level are acceptable due to the overriding considerations set forth above. LAFCo has concluded that with all the environmental trade-offs of the Project taken into account, the Project's implementation will represent a net positive impact on the County, and based upon such considerations after a comprehensive analysis of all the underlying planning and environmental documentation, LAFCo has approved the Project.~~

LAFCo hereby approves and adopts the foregoing CEQA Findings and Statement of Overriding Considerations for the Project.

Date: _____, 2013

By: _____

RESOLUTION NO. LAFC 2013-06-0807-02-13

THE SACRAMENTO LOCAL AGENCY FORMATION COMMISSION

***MAKING DETERMINATIONS FOR THE MUNICIPAL SERVICES REVIEW AND
APPROVING THE ESTABLISHMENT OF THE SPHERE OF INFLUENCE FOR
COUNTY SERVICE AREA No. 13 (LAFC 02-13)***

WHEREAS, the Sacramento Local Agency Formation Commission (“Commission” or “LAFCo”) is the sole entity authorized to approve a Sphere of Influence pursuant to the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000;

WHEREAS, pursuant to Government Code section 56425(a), in order to carry out its purposes and responsibilities for planning and shaping the logical and orderly development and coordination of local governmental agencies so as to advantageously provide for the present and future needs of the county and its communities, the Commission shall develop and determine the Sphere of Influence of each local governmental agency within the county;

WHEREAS, the Commission is required to update the Sphere of Influence for each local government agency within the county every five years, as necessary;

WHEREAS, in determining the Sphere of Influence of each local governmental agency, the Commission shall consider and prepare a written statement of its determinations with respect to its approval of the Sphere of Influence;

WHEREAS, on June 18, 2013 the County of Sacramento (COUNTY) submitted an application to the Commission requesting the Formation of County Service Area No. 13 and Detachment from County Service Area No. 4B for the Cordova Hills Development Project;

WHEREAS, the landowners of the Cordova Hills Development Project also submitted a petition to annex Sacramento Regional County Sanitation District and Sacramento Area Sewer District into the boundaries of the Cordova Hills Development Project;

WHEREAS, LAFCo is required to complete a Municipal Service Review and establish a Sphere of Influence prior to formation and/or annexations;

WHEREAS, the County of Sacramento was the Lead Agency under CEQA to prepare an Environmental Impact Report for the Cordova Hills Development Project. LAFCo is a Responsible Agency;

WHEREAS, the County of Sacramento certified the EIR, prepared Statement of Facts and Overriding Considerations, and adopted a Mitigation, Monitoring, and Reporting Program as required by CEQA;

WHEREAS, the Commission held a noticed public meeting on August 7, 2013, to receive public comments, and consider the Executive’s Officer Report;

WHEREAS, a Municipal Services Review (“MSR”), the Cordova Hills Special Planning Area Urban Services and Governance Plan, and Public Facilities Financing Plan was prepared and submitted by the County/landowner on March, 2013 as part of the Cordova Hills Development Project;

WHEREAS, the Commission discussed the Municipal Service Review, SOI, and Final EIR during its meeting on August 7, 2013, and heard public comments on the SOI, Municipal Service Review, and Final EIR;

WHEREAS, the Commission has, by means of Resolution No. LAFC 2013-05-0807-02-13, concurrently considered and determined that the Final EIR has been prepared in full compliance with the terms of the California Environmental Quality Act (“CEQA”);

WHEREAS, the Commission has, by means of Resolution No. LAFC 2013-05-0807-02-13 approved the Findings of Fact and Statement of Overriding Considerations as a Responsible Agency in accordance with CEQA;

WHEREAS, the Commission has undertaken a comprehensive analysis of the Cordova Hills’ CSA No.13 SOI establishment;

WHEREAS, the SOI evaluation and review process involved public participation and public hearings at which both written and oral comments were received from concerned citizens;

WHEREAS, local jurisdictions, community groups, businesses, and other interested parties were able to provide testimony throughout the planning and evaluation process;

WHEREAS, public agencies have reviewed and commented upon the SOI, MSR, and Final EIR;

NOW, THEREFORE, THE SACRAMENTO LOCAL AGENCY FORMATION COMMISSION does hereby find, determine, resolve and order as follows:

1. Notice as required by law has been given.
2. The boundaries of the SOI for County Service Area No. 13 are represented in Exhibit “A” attached hereto and incorporated herein. The SOI boundary is coterminous with the CSA No. 13 service boundary, the attached map and legal description set forth the boundary;
3. The SOI for CSA No. 13 as set forth in the respective applications is approved.
4. The Commission concurrently adopts Resolution No. LAFC 2013-05-0807-02-13, adopting Findings of Fact and a Statement of Overriding Considerations as required by CEQA;
5. Surrounding land uses include agriculture to the north and east, and urban, commercial, and residential uses to west within the City of Rancho Cordova;
6. The Commission determines that the proposed SOI is consistent with the Commission’s purpose and responsibility for planning, shaping and coordinating the logical and

orderly development of local governmental agencies so as to advantageously provide for the present and future needs of the county and its communities. In making this determination, the Commission has considered:

- a. The Executive Officer's report;
- b. The MSR and Public Facilities Financing Plan and Cordova Hills Special Planning Area Urban Services and Governance Plan, dated March, 2013;
- c. The Final EIR and Mitigation and Monitoring Plan prepared and certified by the County of Sacramento;
- d. All oral and written public comments; and
- e. Public agency comments, staff reports and other pertinent information in the Commission's Record of Proceedings, as defined in the Findings of Fact and Statement of Overriding Considerations adopted concurrently herewith.

7. The Commission makes the following determinations and findings in approving the SOI. The Commission considered the policies set forth in Government Code section 56425. Pursuant to Government Code section 56425, and based upon the entire record, the Commission makes the following determinations:

The Present and Planned Land Uses in the Area, Including Agricultural and Open-Space Lands

The Cordova Hills Development Project is currently undeveloped. The County of Sacramento has adopted a land use plan that includes residential, commercial, and a proposed university that contains approximately 2,669 acres in the eastern portion of the unincorporated county.

The service area proposed for the CSA No. 13 is coterminous with the boundary of the Project. If, at some time in the future, the Project area is amended to include additional territory, then an SOI boundary change must be considered, before any related annexation could be approved.

Currently, there are minimal services being provided to this area. The proposed County Service Area No. 13, together with existing special districts, and the County of Sacramento will provide urban and municipal services needed for development of this project.

The Cordova Hills Special Planning Area (Cordova Hills or Project) is located in the unincorporated area of Sacramento County on 2,668 acres just east of the approved Sunridge Specific Plan and the proposed Suncreek Specific Plan in the City of Rancho Cordova bordered to the west by Grant Line Road, to the north by Glory Lane (about one-third mile south of Douglas Road), and to the east by Carson Creek. The Kiefer Landfill and its associated buffer lands are southwest of the Project, and the required buffer lands extend into the southwest portion of Cordova Hills. Planned development in Cordova

Hills consists of a maximum of 8,000 residential units on approximately 1,089 acres, and approximately 103 acres of commercial and office development

The Project will include a mix of uses consisting of residential, office, retail, university/college campus center, schools, parks, trails, open space, and public uses. The Project includes six distinct villages, the proposed university/college campus center, a large preservation (avoided) area, and other permanent open space that serves to separate villages. The Project includes a wide mix of residential uses, from high-density residential along the western edge, to low-density residential along the eastern edge. The majority of the commercial development is planned for the Town Center Village in the western part of the Project adjacent to Grant Line Road. A 223-acre university/college campus center is planned just southeast of the Town Center. The land uses and estimated development, population, and employees in this report are obtained from the Public Review Final Cordova Hills Public Facilities Financing Plan (Financing Plan).

The Present and Probable Need for Public Facilities and Services in the Area

a. The SOI is a plan for the CSA No. 13 future probable physical and service area boundaries for the Cordova Hills Development project. The SOI may be subject to terms and conditions imposed by the Commission to ensure orderly and planned growth is tempered by the need to preserve open space, habitat for species and agricultural land. No objections to the SOI have been raised by affected agencies, jurisdictions, or the public.

The CSA would be authorized to provide the following services:

- b. Parks and recreation.
- c. Open space and trails.
- d. Habitat operations and maintenance.
- e. Enhanced levels of landscaping.
- f. Supplemental road maintenance.
- g. Transit operations and maintenance.
- h. Transportation systems management.
- i. Administration and community communications.
- j. Solid Waste.

The Final EIR identifies the probable impacts that may occur from future development based on the proposed land use designations. The Commission has considered the EIR as a Responsible Agency and adopted Statement of Facts and Overriding considerations in accordance with CEQA;

The SOI is consistent with County General Plan and the Cordova Hills Development Plan approved by the County of Sacramento;

The SOI does not split parcels and does not create any areas that are difficult to serve. This finding is based on the Record of Proceedings, the Boundary Map, and the Executive Officer's report.

The SOI does not pose a threat to public health and safety. This finding is based on the Record of Proceedings, the Boundary Map, the Executive Officer's report, the Final EIR, and the MSR.

The Present Capacity of Public Facilities and Adequacy of Public Services Which the Agency Provides or is Authorized to Provide

The SOI will not result in significant unmitigable adverse effects upon other service recipients or other agencies serving the affected area. This finding is based on the Record of Proceedings, the MSR, and the comments of affected agencies. The Commission is required to consider the EIR as a Responsible Agency and has adopted Statements of Fact and Overriding Considerations.

Currently, the County and affected Special Districts have the capacity to provide public services to area residents and commercial/industrial customers.

At this time, minimal services are provided to this area because of its rural character.

The Existence of any Social or Economic Communities of Interest in the Area

The territory within the SOI area is mostly rural and agricultural and has economic and social communities of interest similar to the existing characteristics of the County.

In many cases the territory within the SOI area directly benefits from the services provided by the County and indirectly benefits from the County's economic and social community, such as businesses, social clubs, recreational activities, churches, and other community organizations.

The County and landowner have provided information and data in the MSR concluding that development will not adversely affect adjacent communities of interest.

The SOI does not divide any existing communities or other areas having identifiable social and economic homogeneity.

FURTHERMORE, the Commission makes the following determinations and findings in approving the SOI. The Commission considered its own Policies, Standards and Procedures, and based upon the entire record, the Commission makes the following determinations:

8. The SOI area to be added does not overlap the SOI of any other municipality.
9. The MSR for the SOI identifies types and adequacy of municipal services to be provided.
10. The MSR for the SOI identifies existing land uses and reasonable projection of land uses that may occur.

11. The MSR for the proposed SOI identifies existing and proposed facilities.

12. The County's projected population growth and development patterns indicate that the SOI Amendment will provide future economic development opportunities for the County and improve the jobs/housing balance.

13. The SOI Amendment area to be added, although currently largely agricultural lands, is in the logical path of urban development and adjacent to developing land within the City of Rancho Cordova, which promotes orderly growth and discourages sprawl.

FURTHERMORE, in accepting the MSR, the Commission has considered the policies set forth in Government Code section 56430. Pursuant to Government Code section 56430, the Commission finds and determines that:

14. The Executive Officer presented the MSR on August 7, 2013, to the Commission, and the Commission accepted it.

15. Growth and population projections for the SOI area have been provided by the affected entities, as set forth in the MSR and the Record of Proceedings.

16. The County has provided for its infrastructure needs and this determination is based upon the MSR, the Executive Officer's report, and the Record of Proceedings.

17. The County operates at an efficient level and utilizes cost avoidance opportunities when available, as demonstrated in the MSR and the Record of Proceedings.

18. The County's rates and fees are reasonable compared to other comparable cities and demonstrates efficient management of its rate structuring opportunities, as set forth in the MSR and the Record of Proceedings.

19. The County maximizes its opportunities to share facilities where possible, as set forth in the MSR and the Record of Proceedings.

20. The County's organizational structure allows for reorganization of service providers as demonstrated by the MSR and the Record of Proceedings.

21. Based upon its current fees, rates, and management structure, the County has demonstrated management efficiencies.

22. The County is governed by five locally elected Board of Supervisors members.

23. The MSR and supporting documents are current as it was submitted.

24. In the MSR, the County demonstrated a projected need for service based upon growth and population projections. The MSR is consistent with the County's development policies and its General Plan. These findings are based upon this Resolution, the Record of Proceedings, the Executive Officer's report, and the MSR.

25. The MSR includes determinations with respect to each of the following: (1) growth and population projections for the SOI Amendment area; (2) infrastructure needs or deficiencies; (3) financing constraints and opportunities; (4) cost avoidance opportunities; (5) opportunities for rate restructuring; (6) opportunities for shared facilities; (7) government structure options, including advantages and disadvantages of consolidation or reorganization of service providers; (8) evaluation of management efficiencies; and (9) local accountability and governance.

26. In the MSR, the Commission comprehensively reviewed all of the agencies that provide the identified service or services within the designated geographic area.

27. The MSR includes statements for each existing district specifying the functions or classes of services provided by those districts. The MSR also establishes the nature, location, and extent of any functions or classes of service provided by existing districts.

28. The County is the subject agency that will be the most logical and efficient provider of services to the SOI Amendment area. This finding is based the Record of Proceedings, the Executive Officer's report, and the MSR.

29. The MSR prepared by the County/landowner and the Commission includes an assessment of services and providers and states how providers will implement the proposed development contemplated by the proposed SOI. Through this analysis, the Commission concludes that there are no Spheres of Influence of overlapping jurisdictions.

30. The MSR concludes that adequate services, including water, wastewater, drainage and flood control, solid waste, circulation and roadways, fire protection, police services, animal control, code enforcement, parks and recreation, libraries, and electricity and natural gas will be provided within the timeframe needed by the inhabitants of the SOI area. A finance plan demonstrates that services will be phased in as development occurs.

31. Existing land use and a reasonable projection of land uses which would occur if services were provided consistent with the MSR.

32. Maps indicating existing and proposed facilities and the timing of proposed facilities are included in the MSR and Public Facilities Financing Plan.

33. The nature of each service to be provided is discussed in detail in the MSR and Public Facilities Financing Plan. It discusses how water, wastewater, drainage and flood control, solid waste, circulation and roadways, fire protection, police services, animal control, code enforcement, parks and recreation, libraries, and electricity and natural gas will be provided within the timeframe needed by the inhabitants of the SOI area.

34. The service level capacity to be provided is discussed in the MSR.

35. All actions, improvements, or construction necessary to reach required service levels, including costs and financing methods, is discussed in detail in the MSR and Public Facilities Financing Plan.

36. The Commission has reviewed and continued to have access to all district enabling legislation pertinent to the provision of services and annexations, including the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (Government Code §§ 56000 – 57550) and the Municipal Utilities District Act (Pub. Utilities Code §§ 11501 – 14403.5).

37. Based upon the conclusions in the MSR, the Record of Proceedings, and the Executive Officer's report, the Commission concludes that the County will be able to efficiently ensure reliable services at an acceptable cost to the new residents.

FURTHERMORE, the Commission makes the following determinations for the Municipal Service Review:

1. Infrastructure needs or deficiencies.

There is no infrastructure in Cordova Hills. Construction of the infrastructure will be controlled by the Project conditions of approval, the Development Agreement with the County, and the EIR. The infrastructure funding program is detailed in the Public Facilities Financing Plan. The CSA would be responsible for construction of park and recreation facilities and landscaping in the open space corridors and in certain streetscape areas outside the public ROW. This will include some signage, lighting, and transit support facilities including bus shelters and bus parking. These facilities may be funded by a variety of sources, including direct developer funding, development impact fees, and a Cordova Hills Mello-Roos CFD.

2. Growth and population projections for the affected area.

There is no present population within the boundaries of the Project area. The maximum build out population is estimated at 21,379.

3. Financing constraints and opportunity.

A Mello-Roos CFD special tax is planned to pay for the costs of services not funded directly through user fees/charges or other revenue sources. Special taxes will be established to pay for the costs of services not funded directly through user fees/charges or other revenue sources. Special taxes on undeveloped property would cover shortfalls in the early years until the tax base has grown to a sufficient level to fund needed services.

4. Cost avoidance opportunities.

The annual CSA budget would be evaluated by a County BOS appointed advisory committee to provide the highest level of service for the least cost. Because the CSA would be a new entity, it could implement many "best practices" techniques as it begins to provide services.

5. Rate restructuring.

Because the CSA would be a new special district, it would have the opportunity to set the appropriate rate structure to pay for the necessary services. The rate structure would have a built-in cost-of-living escalation factor.

6. Opportunities for shared cost.

The goals of the Project include partnerships with other public entities. The most likely arrangement would be shared park and recreation facilities with the EGUSD. Another opportunity may be a joint partnership with the SMFD and Regional Transit for a transit link.

7. Government structure options, including advantages and disadvantages of consolidation or reorganization.

The Urban Services and Governance Plan has been designed to minimize the need for new government organizations. Many of the services are planned to be provided by existing service providers.

The proposed services that would be provided by the CSA are more comprehensive than the authorized services for any other service provider. The CSA would be designed to be the community organizing vehicle that brings together all elements of the community. The communication, recreation, and transportation functions of the CSA would form the basis of the community network.

One advantage of a CSA is the efficiencies in the cost of providing the multiple services proposed. Where a multitude of single-purpose agencies would have administrative and other overhead costs associated with each agency, a CSA would have a single unified administration. Where a multitude of single purpose agencies would require individual employees with limited skill sets, the CSA would facilitate use of cross-trained, multifunctional personnel who can be allocated to diverse tasks efficiently. For example, park maintenance staff also could maintain the open space and trails network, signage, streetscape, and bus shelters. The cost savings because of efficiencies in administrative overhead, continuing use of maintenance equipment, and staffing flexibility is one of the chief attributes of a multi-service CSA. In addition, the creation of a locally controlled advisory Board could significantly rectify the limited representation that Cordova Hills' residents and businesses would have in other organizations that could provide a similar set of services.

8. Evaluation of management efficiencies.

As a new entity, the CSA would be designed to promote management efficiencies. It would be funded adequately through the levy of a special tax without burdening other special districts. The CSA would have the advantage of starting out with a highly efficient network communications system, which should produce substantial savings in day-to-day operations. The CSA services plan would provide the option of contracting out many of the maintenance functions, which could provide cost effective delivery of these services.

9. Local accountability and governance.

A CSA would be planned to start out as a dependent district governed ex-officio by the County BOS. It would be managed by a five-member advisory board of directors appointed by the County BOS. At some point in the future, the residents of Cordova Hills could decide to become an independent district and elect their own Board of Directors. Outreach would be provided by the communications services function of the CSA. The CSA would establish and operate a

communitywide intranet as the key component of a communications network that would distribute information about community activities and services and provide transportation management services such as ride-sharing bulletins, real-time bus location information, and transit system routing and schedules, as well as provide emergency information. Community meetings would be held in the CSA administrative building or other community meeting spaces.

BE IT FURTHER RESOLVED by the Commission that the Executive Officer:

38. Mail a certified copy of this Resolution to the affected governmental agencies whose boundaries are affected by the Resolution;

39. File a certified copy of this Resolution with the Clerk of the Board of Supervisors of the County of Sacramento; and

BE IT FURTHER RESOLVED that Resolution No. ***LAFC 2013-06-0807-02-13*** was adopted by the ***SACRAMENTO LOCAL AGENCY FORMATION COMMISSION***, on the ***7th day of August 2013***, by the following vote, to wit:

	Motion	2nd	Aye	No	Absent	Abstain
Susan Peters			_____	_____	_____	_____
Christopher Tooker			_____	_____	_____	_____
Kevin McCarty			_____	_____	_____	_____
Mike Singleton			_____	_____	_____	_____
Jimmie Yee			_____	_____	_____	_____
Ron Greenwood			_____	_____	_____	_____
Gay Jones			_____	_____	_____	_____

Commission Vote Tally	Aye	_____	No	_____	Absent	_____	Abstain	_____
Passed	Yes	_____	No	_____				

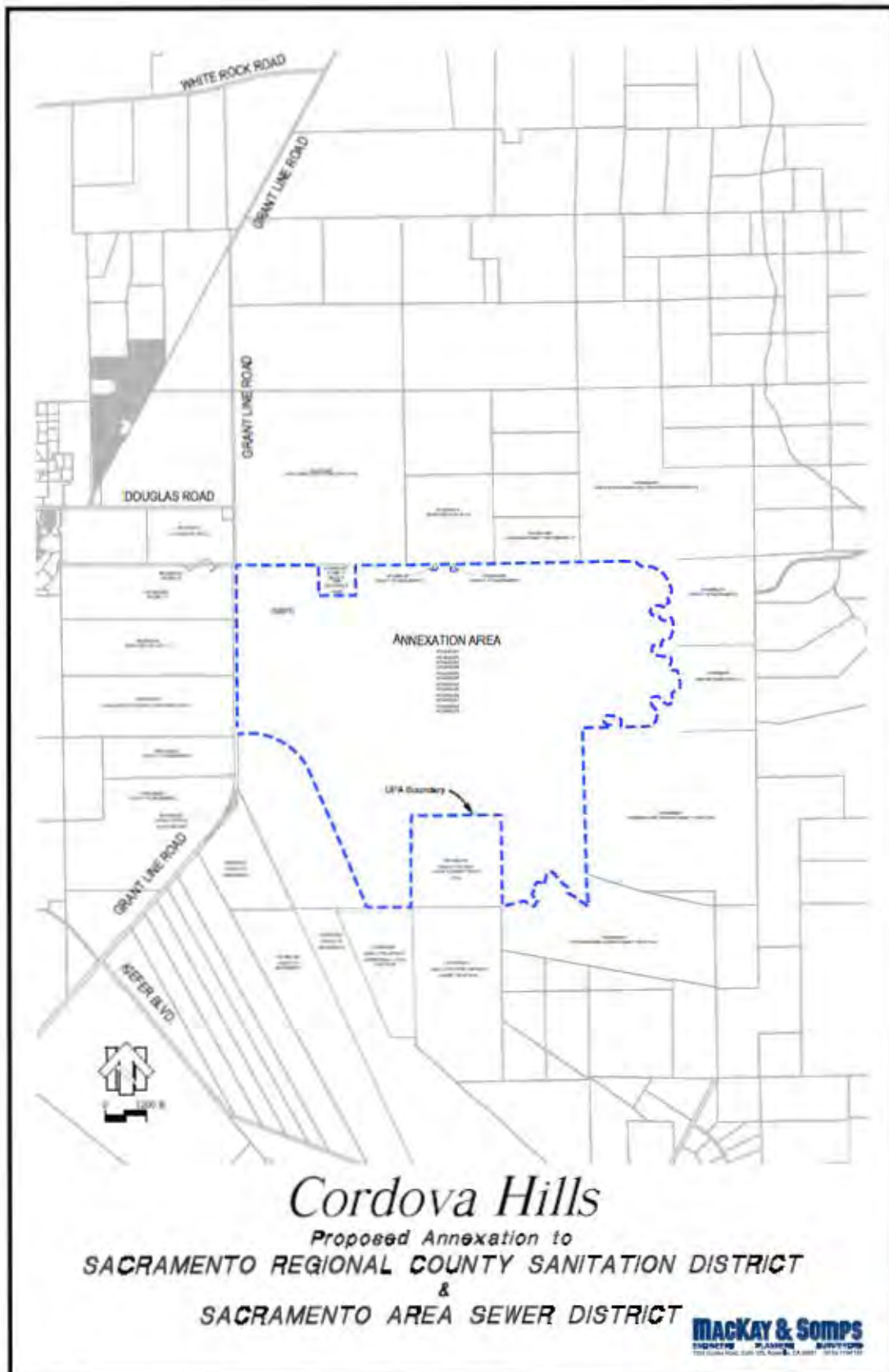
By: _____

Jimmie Yee, Chair

SACRAMENTO LOCAL AGENCY FORMATION COMMISSION

ATTEST:

Diane Thorpe
Commission Clerk



CORDOVA HILLS PROPERTY

Legal Description for CSA Formation and CSA-4B Detachment

Being a portion of Sections 13, 14, 22, & 23, Township 8 North, Range 7 East & a portion of Section 18, Township 8 North, Range 8 East, Mount Diablo Meridian, County of Sacramento, State of California, being more particularly described as follows:

Beginning at the Northwest corner of said Section 14, said corner being the **TRUE POINT OF BEGINNING**;

1. thence South 89°53'53" East along the North line of said Section 14 a distance of 2648.35 feet;
2. thence leaving said North line South 00°41'41" East along the West line of the Kellett property a distance of 987.11 feet;
3. thence North 89°43'47" East along the South line of said Kellett property a distance of 932.73 feet;
4. thence North 00°42'22" West along the East line of said Kellett property a distance of 981.05 feet to a point on the North line of said Section 14;
5. thence South 89°53'53" East along said North line a distance of 1694.42 feet to the Northeast corner of said Section 14;
6. thence North 89°04'12" East along the North line of said Section 13 a distance of 1706.57 feet;
7. thence leaving said North line South 00°55'48" East along the West line of Well Site #4 as described in Book 20090205, Page 0974 Official Records Sacramento County a distance of 200.00 feet;
8. thence North 89°04'12" East along the South line of said Well Site #4 a distance of 100.00 feet;
9. thence North 00°55'48" West along the East line of said Well Site #4 a distance of 200.00 feet to the North line of said Section 13;
10. thence North 89°04'12" East along said North line a distance of 839.33 feet to the North ¼ corner of said Section 13;
11. thence continuing along said North line North 89°06'59" East a distance of 2630.68 feet to the Northeast corner of Said Section 13;
12. thence North 88°53'52" East along the North line of said Section 18 a distance of 2933.82 feet ;
13. thence leaving said North line South 01°14'05" East along the West line of that certain real property as described in Book 3660, Page 633 Official Records Sacramento County a distance of 2639.82 feet to the Southwest corner of said property;
14. thence continuing South 01°14'05" East along the West line of that certain real property as described in Book 20080930, Page 0331, Official Records Sacramento county a distance of 2641.07 feet to the Southwest corner of said property coincident with the South line of said Section 18;
15. thence South 88°53'27" West along said South line a distance of 2917.90 feet to the southwest corner of said Section 18;
16. thence leaving said South line South 00°43'33" East along the East line of said Section 24 a distance of 5297.55 feet to the Southeast corner of said Section 24;

17. thence South 89°42'30" West along the South line of said Section 24 a distance of 2656.25 feet to the South ¼ corner of said Section 24;
18. thence North 00°48'17" West along the West line of the Southeast ¼ of said Section 24 a distance of 2634.97 feet to the Northwest corner of said Southeast 1/4;
19. thence South 89°49'29" West along the South line of the northwest ¼ of said Section 24 a distance of 2662.82 feet to the West ¼ corner of said Section 24;
20. thence South 00°56'45" East along the East line of said Section 23 a distance of 2640.45 to the southeast corner of said Section 23;
21. thence South 89°34'49" West a distance of 2542.76 feet to the South ¼ corner of said Section 23;
22. thence South 89°32'16" West a distance of 1128.58 feet;
23. thence North 23°48'54" West a distance of 1525.00 feet;
24. thence North 23°24'29" West a distance of 875.00 feet;
25. thence North 23°37'04" West a distance of 1345.77 feet;
26. thence South 40°32'21" West a distance of 246.75 feet;
27. thence North 00°35'59" West a distance of 73.89 feet;
28. thence North 71°23'31" West a distance of 118.02 feet;
29. thence in a northerly direction with a non-tangent curve turning to the left with a radius of 2540.00 feet, having a chord bearing of North 13°20'05" East and a chord distance of 462.81, having a central angle of 10°27'16" and an arc length of 463.46;
30. thence North 00°35'59" West a distance of 1479.04 feet;
31. thence North 00°52'14" West a distance of 5273.59 feet; to the point of beginning.

Containing 2667.835 acres, more or less..

RESOLUTION NO. LAFC 2013-07-0807-02-13

THE SACRAMENTO LOCAL AGENCY FORMATION COMMISSION

***APPROVING THE FORMATION OF COUNTY SERVICE AREA NO. 13, DETACHMENT
FROM CSA No. 4B, ANNEXATION TO SACRAMENTO REGIONAL COUNTY
SANITATION DISTRICT AND SACRAMENTO AREA SEWER DISTRICT
(LAFC 02-13)***

WHEREAS, Sacramento County Resolution No. 2013-0386, Resolution of Application by the Board of Supervisors of the County of Sacramento Requesting the Sacramento Local Agency Formation Commission Commence Proceedings to Form a County Service Area and detachment of CSA No. 4B Wilton-Cosumnes Recreation and Park Area, adopted on the date of June 18, 2013, was received by the Executive Officer of this Commission, and the Executive Officer has examined said Resolution and has determined that said filing is sufficient; and

WHEREAS, the Executive Officer also received an application from landowners petitioning the Sacramento Local Agency Formation Commission to annex affected territory into Sacramento Regional County Sanitation District and Sacramento Area Sewer District.

WHEREAS, the Executive Officer has merged both applications into one project;

WHEREAS, the Commission has considered the merits of the proposal and held a Public Hearing on August 7, 2013 for this proposal;

NOW THEREFORE, the SACRAMENTO LOCAL AGENCY FORMATION COMMISSION HEREBY RESOLVES AND DETERMINES AS FOLLOWS:

1. The Commission adopted LAFC Resolution 2013-05-0807-02-13 as a Responsible Agency as required under CEQA. LAFCo considered, approves and adopts the CEQA Findings and Statement of Overriding Considerations adopted by the Lead Agency, the County of Sacramento.
2. The Commission approves the Formation of County Service Area No. 13 to provide the following miscellaneous extended services:
 - ✓ Parks and recreation
 - ✓ Open space and trails
 - ✓ Habitat
 - ✓ Enhanced levels of landscaping
 - ✓ Road maintenance
 - ✓ Transit
 - ✓ Transportation systems management
 - ✓ Community communications
 - ✓ Solid Waste

The Commission approves the Detachment from CSA No. 4B Wilton-Cosumnes Recreation and Park Area;

The Commission approves the annexation of subject territory into Sacramento Regional County Sanitation District; and

The Commission approves the annexation of subject territory into Sacramento Area Sewer District.

The Commission finds that the Reorganization proposal is consistent with the Commission's purposes and responsibility of providing efficient governmental services and encouraging the logical and orderly development of local governmental agencies so as to advantageously provide for the present and future needs of the County and its communities.

3. As approved, the proposed County Service Area No. 13, the detachment of CSA No. 4B, the annexation of Sacramento Regional County Sanitation District, and the annexation of Sacramento Area Sewer District is in conformity with the applicable General and Community Specific Plans adopted by the County Board of Supervisors.
4. The Commission hereby approves the Formation of County Service Area No. 13, the detachment of CSA No. 4B, the annexation of Sacramento Regional County Sanitation District, and the annexation of Sacramento Area Sewer District subject to the following terms and conditions:
 - a. The effective date of said formation will be upon the filing of the Certificate of Completion by the Executive Officer of the Sacramento Local Agency Formation Commission subject to landowner approval of assessments, charges, fees, or special taxes to fund services provided by CSA No. 13.
 - b. The name of the County Service Area shall be COUNTY SERVICE AREA No. 13, and it shall have the following miscellaneous extended services:
 - i. Recreation and Parks
 - ii. Open Space and Trails
 - iii. Habitat Operations and Maintenance
 - iv. Landscape Corridors
 - v. Road Maintenance
 - vi. Transit Operations and Maintenance
 - vii. Transportation Demand Management
 - viii. Administration and Communications
 - ix. Solid Waste
 - c. The service boundary of the CSA No. 13 is set forth in the attached legal description.
 - d. Formation is dependent upon the landowner voter adoption of assessments, fees, charges and any Special Taxes as provided under Proposition 218 to fund services to be provided by CSA No. 13.

7. Adopt a Sphere of Influence for County Service Area No. 13 which is coterminous with the CSA No. 13 boundary.
8. Pursuant to provisions of the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000, your Commission may waive the Conducting Authority Hearing (protest hearings) since it is uninhabited and there is 100 percent landowner consent and no agency protest has been received.
9. Order the formation of CSA No. 13 subject to approval by the voters of a Special Tax, the approval by the property owners of a Benefit Assessment, or the approval of property related fees or charges, as required by law. The County Board of Supervisors shall conduct the necessary election(s).
10. Authorize your Chair to sign the Resolution making these determinations.

BE IT FURTHER RESOLVED that Resolution No. ***LAFC 2013-07-0807-02-13*** was adopted by the ***SACRAMENTO LOCAL AGENCY FORMATION COMMISSION***, on the ***7th day of August 2013***, by the following vote, to wit:

	Motion	2nd	Aye	No	Absent	Abstain
Susan Peters	_____	_____	_____	_____	_____	_____
Christopher Tooker	_____	_____	_____	_____	_____	_____
Kevin McCarty	_____	_____	_____	_____	_____	_____
Mike Singleton	_____	_____	_____	_____	_____	_____
Jimmie Yee	_____	_____	_____	_____	_____	_____
Ron Greenwood	_____	_____	_____	_____	_____	_____
Gay Jones	_____	_____	_____	_____	_____	_____
Commission Vote Tally			Aye _____	No _____	Absent _____	Abstain _____
Passed			Yes _____	No _____		

By: _____

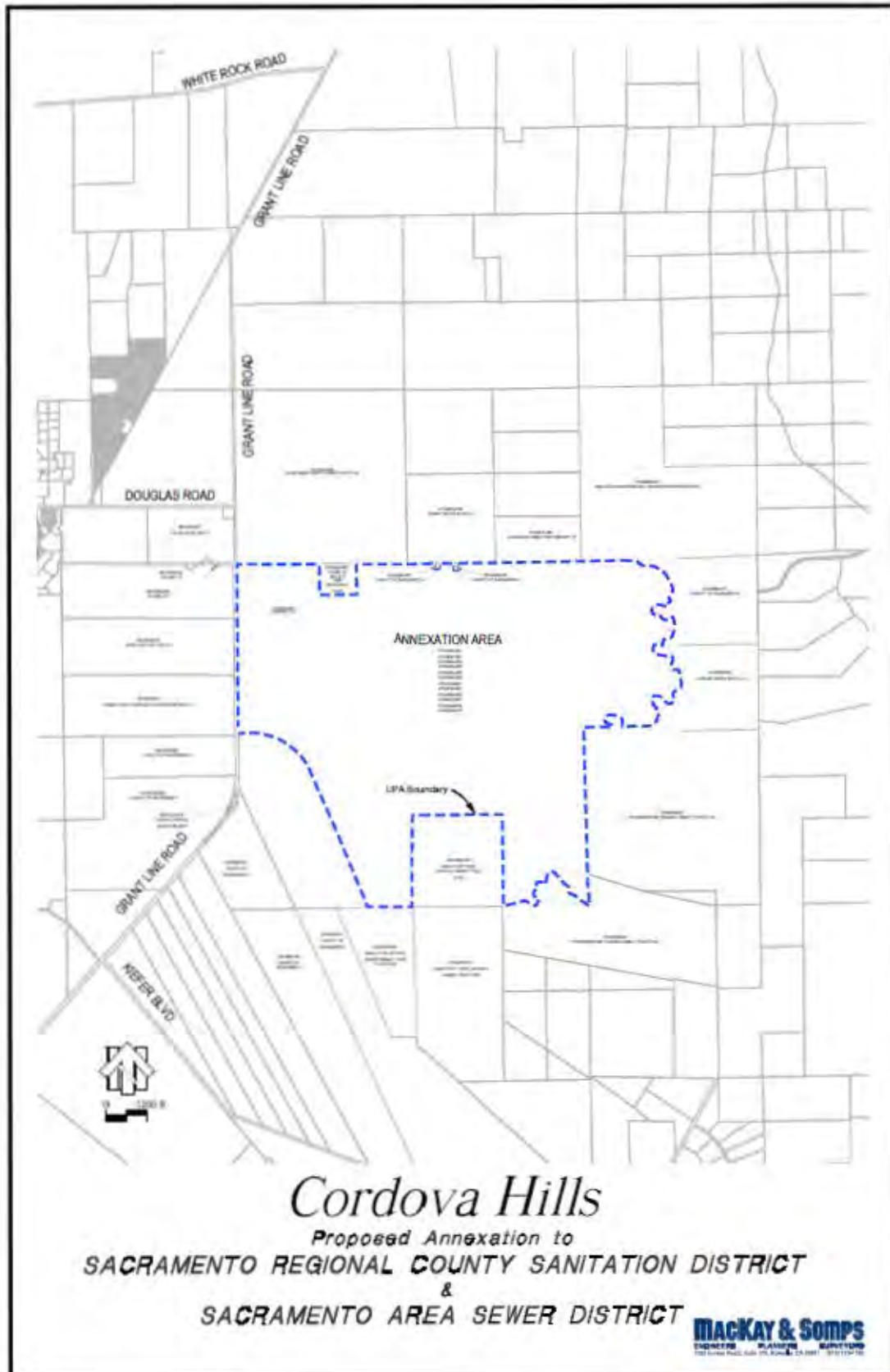
Jimmie Yee, Chair

SACRAMENTO LOCAL AGENCY FORMATION COMMISSION

ATTEST:

Diane Thorpe
Commission Clerk

Attachments: Exhibit A – CSA 12 Service Area Boundary and SOI



CORDOVA HILLS PROPERTY

Legal Description for CSA Formation and CSA-4B Detachment

Being a portion of Sections 13, 14, 22, & 23, Township 8 North, Range 7 East & a portion of Section 18, Township 8 North, Range 8 East, Mount Diablo Meridian, County of Sacramento, State of California, being more particularly described as follows:

Beginning at the Northwest corner of said Section 14, said corner being the **TRUE POINT OF BEGINNING**;

1. thence South 89°53'53" East along the North line of said Section 14 a distance of 2648.35 feet;
2. thence leaving said North line South 00°41'41" East along the West line of the Kellett property a distance of 987.11 feet;
3. thence North 89°43'47" East along the South line of said Kellett property a distance of 932.73 feet;
4. thence North 00°42'22" West along the East line of said Kellett property a distance of 981.05 feet to a point on the North line of said Section 14;
5. thence South 89°53'53" East along said North line a distance of 1694.42 feet to the Northeast corner of said Section 14;
6. thence North 89°04'12" East along the North line of said Section 13 a distance of 1706.57 feet;
7. thence leaving said North line South 00°55'48" East along the West line of Well Site #4 as described in Book 20090205, Page 0974 Official Records Sacramento County a distance of 200.00 feet;
8. thence North 89°04'12" East along the South line of said Well Site #4 a distance of 100.00 feet;
9. thence North 00°55'48" West along the East line of said Well Site #4 a distance of 200.00 feet to the North line of said Section 13;
10. thence North 89°04'12" East along said North line a distance of 839.33 feet to the North ¼ corner of said Section 13;
11. thence continuing along said North line North 89°06'59" East a distance of 2630.68 feet to the Northeast corner of Said Section 13;
12. thence North 88°53'52" East along the North line of said Section 18 a distance of 2933.82 feet ;
13. thence leaving said North line South 01°14'05" East along the West line of that certain real property as described in Book 3660, Page 633 Official Records Sacramento County a distance of 2639.82 feet to the Southwest corner of said property;
14. thence continuing South 01°14'05" East along the West line of that certain real property as described in Book 20080930, Page 0331, Official Records Sacramento county a distance of 2641.07 feet to the Southwest corner of said property coincident with the South line of said Section 18;
15. thence South 88°53'27" West along said South line a distance of 2917.90 feet to the southwest corner of said Section 18;

16. thence leaving said South line South 00°43'33" East along the East line of said Section 24 a distance of 5297.55 feet to the Southeast corner of said Section 24;
17. thence South 89°42'30" West along the South line of said Section 24 a distance of 2656.25 feet to the South ¼ corner of said Section 24;
18. thence North 00°48'17" West along the West line of the Southeast ¼ of said Section 24 a distance of 2634.97 feet to the Northwest corner of said Southeast 1/4;
19. thence South 89°49'29" West along the South line of the northwest ¼ of said Section 24 a distance of 2662.82 feet to the West ¼ corner of said Section 24;
20. thence South 00°56'45" East along the East line of said Section 23 a distance of 2640.45 to the southeast corner of said Section 23;
21. thence South 89°34'49" West a distance of 2542.76 feet to the South ¼ corner of said Section 23;
22. thence South 89°32'16" West a distance of 1128.58 feet;
23. thence North 23°48'54" West a distance of 1525.00 feet;
24. thence North 23°24'29" West a distance of 875.00 feet;
25. thence North 23°37'04" West a distance of 1345.77 feet;
26. thence South 40°32'21" West a distance of 246.75 feet;
27. thence North 00°35'59" West a distance of 73.89 feet;
28. thence North 71°23'31" West a distance of 118.02 feet;
29. thence in a northerly direction with a non-tangent curve turning to the left with a radius of 2540.00 feet, having a chord bearing of North 13°20'05" East and a chord distance of 462.81, having a central angle of 10°27'16" and an arc length of 463.46;
30. thence North 00°35'59" West a distance of 1479.04 feet;
31. thence North 00°52'14" West a distance of 5273.59 feet; to the point of beginning.

Containing 2667.835 acres, more or less..

Sacramento Local Agency Formation Commission

Cordova Hills Project

Application

The attached Urban Services Plan, which describes urban services that will be required to serve the Cordova Hills project, shall serve as the Master Services Element for purposes of the LAFCo application.

Final Report

**Cordova Hills Special Planning Area
Urban Services and Governance
Plan**

The Economics of Land Use



Prepared for:

Conwy, LLC

Prepared by:

Economic & Planning Systems, Inc.

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March 2013

EPS #16586

The Economics of Land Use



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Table of Contents

1.	INTRODUCTION AND SUMMARY	1-1
	Project Description	1-1
	Urban Service Requirements	1-4
	Cordova Hills Governance Plan	1-6
	CHLSD.....	1-6
	Report Layout.....	1-8
2.	CORDOVA HILLS LAND USES	2-1
	Overview	2-1
	Development Phasing	2-1
3.	COUNTY SERVICES.....	3-1
	Introduction	3-1
	Domestic Water	3-1
	Sanitary Sewer	3-1
	Roads in the Public Right-of-Way	3-2
	Safety Lighting and Street Lighting	3-2
	Storm Drainage	3-3
	Solid Waste.....	3-6
	Law Enforcement	3-6
	Animal Control.....	3-6
	Code Enforcement.....	3-8
	General Government	3-8
4.	INDEPENDENT AGENCY SERVICES.....	4-1
	Introduction	4-1
	Fire Protection	4-1
	Library Services.....	4-7
	Electricity.....	4-9
	Natural Gas.....	4-9

5.	CORDOVA HILLS LOCAL SERVICES DISTRICT URBAN SERVICES.....	5-1
	Introduction	5-1
	Summary.....	5-2
	Costs and Cost Allocations by Service Type	5-9
6.	URBAN SERVICE FINANCING STRATEGY	6-1
	New Local Funding Mechanisms	6-1
	Urban Services Costs and Special Tax/Assessment for Services	6-3
	Urban Services Funding Feasibility	6-5
7.	CORDOVA HILLS GOVERNANCE PLAN	7-1
	Introduction	7-1
	Governance Objectives	7-1
	Governance Options	7-2
	Cordova Hills Governance Plan	7-3
	LAFCo Considerations (CSD Only)	7-6
	Formation of a CSA	7-10
	Formation of a CSD	7-11
	Implementation of the Governance Plan	7-13

Appendix A: Cordova Hills Phasing Analysis

List of Tables and Figure

Table 1-1	Organization of Urban Services.....	1-5
Table 2-1	Estimated Acres by Land Use	2-5
Table 2-2	Projected Community Dwelling Units, Building Square Feet, Population, and Employees	2-7
Table 2-3	Projected University/College Campus Center Dwelling Units, Building Square Feet, Students, and Employees.....	2-8
Table 2-4	Projected Buildout Development and Population Comparison	2-9

Table 3-1	Estimated CSA-1 Lighting Revenue	3-4
Table 3-2	Estimated Annual SCWA Zone 12 Drainage Fee Revenue	3-5
Table 3-3	Estimated Annual Police Services CFD 2005–1 Revenue.....	3-7
Table 4-1	Estimated Annual Fire Services Costs and Revenues.....	4-2
Table 4-2	Estimated Annual Property Tax Revenue for Fire and Library Services	4-3
Table 4-3	Estimated Annual Property Taxes.....	4-4
Table 4-4	Property Tax Allocation for Cordova Hills Tax Rate Areas	4-5
Table 4-5	Library Services Costs	4-8
Table 5-1	Summary of Annual CHLSD Urban Services Costs	5-4
Table 5-2	Proposed CHLSD Maximum Special Tax/Assessment Revenue	5-5
Table 5-3	Persons Served.....	5-6
Table 5-4	Annual Phase 1 CHLSD Service Costs per Dwelling Unit and Building Square Foot	5-7
Table 5-5	Annual Buildout CHLSD Service Costs per Dwelling Unit and Building Square Foot	5-8
Table 5-6	Annual CHLSD Recreation Services Cost	5-11
Table 5-7	Annual CHLSD Recreation Services Cost Allocation (2 pages)	5-12
Table 5-8	Annual CHLSD Parks Maintenance Cost.....	5-16
Table 5-9	Annual CHLSD Parks Maintenance Cost Allocation (2 pages).....	5-17
Table 5-10	Annual CHLSD Open Space and Trails Maintenance Cost Summary	5-20
Table 5-11	Annual CHLSD Open Space and Trails Maintenance Cost	5-21
Table 5-12	Annual CHLSD Open Space and Trails Maintenance Cost Allocation (2 pages)	5-22
Table 5-13	Annual CHLSD Habitat Operations and Maintenance Cost.....	5-25
Table 5-14	Annual CHLSD Habitat Operations and Maintenance Cost Allocation (2 pages)	5-26
Table 5-15	Annual CHLSD Landscape Corridor Maintenance Cost Summary.....	5-31
Table 5-16	Annual CHLSD Landscaping Maintenance Cost (2 pages).....	5-32
Table 5-17	Annual CHLSD Sidewalk and Sound Wall Maintenance Costs.....	5-34
Table 5-18	Linear Feet of Sidewalks Maintained by CHLSD	5-35
Table 5-19	Annual CHLSD Landscape Corridor Maintenance Cost Allocation (2 pages)	5-36
Table 5-20	Annual CHLSD Road Maintenance Cost Allocation (2 pages)	5-39

Table 5-21	Annual CHLSD Transit Operations and Maintenance Cost	5-44
Table 5-22	Buses Required for Transit Service	5-45
Table 5-23	Transit Revenue and Cost Comparison.....	5-46
Table 5-24	Annual CHLSD Transit Operations and Maintenance Cost Allocation (2 pages)	5-47
Table 5-25	Annual CHLSD Transportation Management Services Cost.....	5-51
Table 5-26	Annual CHLSD Transportation Management Services Cost Allocation (2 pages)	5-52
Table 6-1	Summary of Estimated CHLSD Max. Special Taxes/Assessments.....	6-4
Table 6-2	Estimated Residential Annual Taxes/Assessments as a Percentage of Home Price	6-6
Figure 7-1	Summary of Cordova Hills Governance Proposal	7-5
Table 7-1	Cordova Hills Governance Proposal Process: CSA Formation.....	7-14
Table 7-2	Cordova Hills Governance Proposal Process: CSD Formation.....	7-15

List of Maps

Map 1-1	Cordova Hills Vicinity Map	1-3
Map 2-1	Cordova Hills Village Concept Map.....	2-2
Map 2-2	Cordova Hills Land Use Plan	2-3
Map 2-3	Cordova Hills Development Phasing.....	2-4
Map 4-1	Cordova Hills TRAs.....	4-6
Map 5-1	Landscape Type Exhibit	5-30

1. INTRODUCTION AND SUMMARY

This Urban Services and Governance Plan (Urban Services Plan) provides a description of the urban services that will be required to serve the Cordova Hills Community, along with how and by whom these services will be provided. This plan is consistent with the policies and programs included in the Cordova Hills Master Plan, the public services analysis contained in the Cordova Hills Draft Environmental Impact Report (EIR), and service cost and revenue information contained in the Cordova Hills Fiscal Analysis. Going forward, the Urban Services and Governance Plan will provide a framework for extending or creating the urban services needed as the Cordova Hills Community is developed and grows and matures in the coming years. As a framework document, it is likely that what actually develops over time may vary from what is reflected herein, while remaining consistent with the overarching policies, plans, and agreements establishing the Cordova Hills Community.

A key aspect of this process will be the formation of a County Service Area (CSA) or Community Services District (CSD) to serve the Cordova Hills Community. It is expected that, following consideration of the entitlement documents by the Sacramento County (County) Board of Supervisors (BOS), application will be made to the Sacramento Local Agency Formation Commission (LAFCo) regarding CSA or CSD formation. The Urban Services and Governance Plan contains information needed to support this LAFCo application and the related technical studies that will be required, including completion of a Plan for Services, creation of a coterminous sphere of influence for the CSA or CSD, and other documentation deemed appropriate by the LAFCo Executive Officer.

Throughout this document, these two governance options will be collectively referred to as the Cordova Hills Local Services District (CHLSD). The CHLSD means the government arrangement used to provide the municipal services to the Cordova Hills Community. The CHLSD could be either a CSA formed pursuant to the County Service Area Law contained in Government Code Sections 25210 et. seq., a CSD formed pursuant to the Community Services District Law found in Government Code Sections 61000, et. seq., a combination of both, or some other governance structure to the mutual satisfaction of property owners and the County.

During the Project approval hearings, it was determined that the governance structure for the CHLSD should be a CSA. This was memorialized in the Development Agreement as presented to the Sacramento County Board of Supervisors on January 29th, 2013 which indicates “the governance structure utilized to provide the municipal services to the Project Area will be a county service area formed for the Project pursuant to the County Service Area Law contained in Government Code Sections 25210 et. Seq.” Since this report was written prior to the Project approval hearings, there is discussion throughout it about varying requirements should a CSA or a CSD be formed.

Project Description

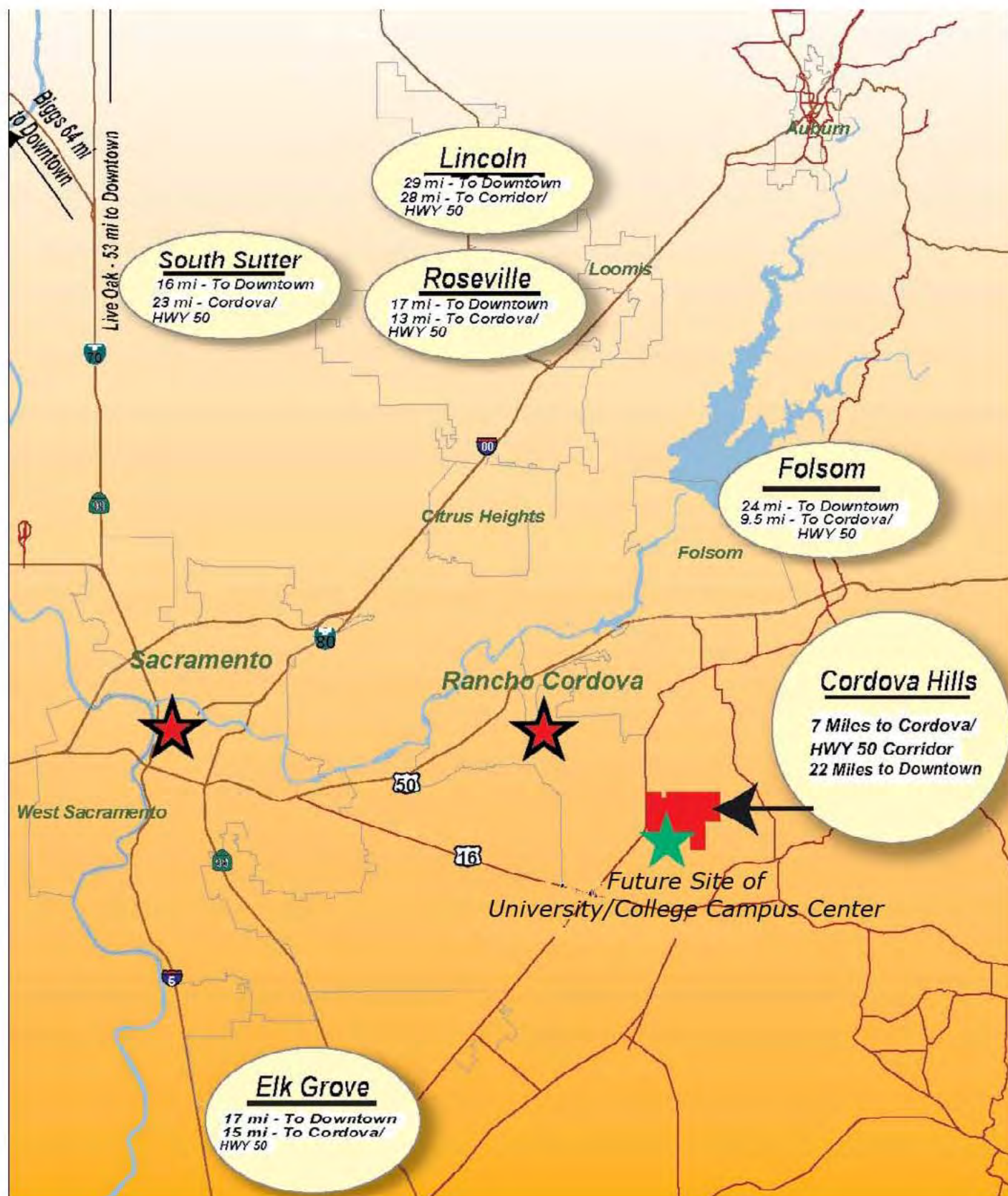
The Cordova Hills Special Planning Area (Cordova Hills or Project) is vacant and located in the unincorporated area of Sacramento County on 2,668 acres just east of the approved Sunridge Specific Plan and the proposed Suncreek Specific Plan in the City of Rancho Cordova. It is

bordered to the west by Grant Line Road, to the north by Glory Lane (about one-third mile south of Douglas Road), and to the east by Carson Creek. The Kiefer Landfill and its associated bufferlands are southwest of the Project, and the required bufferlands extend into the southwest portion of Cordova Hills. **Map 1-1** shows the regional location of the Project.

Planned development in Cordova Hills consists of a maximum of 8,000 residential units on approximately 1,089 acres, approximately 103 acres of commercial and office development, and

Map 1-1

Cordova Hills Vicinity



223 acres that will accommodate a university or other institution of higher learning (hereafter referred to as “university/college campus center”). The remaining acreage will be used for parks, recreation, open space, trails, agriculture, schools, and other public facility improvements, such as roadways. The Project is divided into six separate villages and a university/college campus center area. Development of the Town Center Village and a portion of the university/college campus center area, both located on the west side of the Project, comprise the first phase of development. The Town Center Village includes 23 percent of the proposed residential units and more than half of the commercial and office development.

Urban Service Requirements

Overview of Urban Services

The Urban Services and Governance Plan describes the urban services, service levels, and funding of the urban services that will be provided to the Project’s residents, businesses, and employees. The urban services provided in the Cordova Hills Community will include continuation or extension of existing services provided by the County and independent agencies, as well as new or enhanced services to be provided by the CHLSD. The Cordova Hills Sphere of Influence and CHLSD will be coterminous with the Cordova Hills boundary as described in the Cordova Hills Master Plan. **Table 1-1** shows the urban services to be provided by the County, independent agencies, and the CHLSD. For the services provided by the County and independent agencies, the service provider also is shown. If a CSA is formed, the County, under direction of the County BOS, will be the service administrator, although some of the services may be contracted to outside public or private entities. If a CSD is formed, the CSD will be the service administrator and, similar to the CSA, some of the services may be contracted to outside public or private entities. The County, independent agencies, and CHLSD services are detailed in **Chapters 3, 4, and 5**, respectively.

Funding of Services

The services provided by independent agencies and the County will be funded, as is the case with other urbanized portions of the unincorporated County, from the County General Fund, user fees, and property tax allocations to special districts (e.g., for fire and library services). The services provided by the CHLSD will be funded through user fees and special taxes or assessments, applied only in the CHLSD.

The introduction of urban services will generally be phased-in over time to match urban service costs with revenue sources as they increase with the Cordova Hills Community’s growth. For some services, however, a higher level of service will be necessary than can be funded by the development in the early years. An example is landscaping maintenance, which must be provided once the landscaping has been established, whether or not development is great enough to generate the necessary revenue. If available revenue from developed property is insufficient to meet minimum service levels, then special taxes/assessments will be levied against undeveloped property to pay for the service costs. It is projected, based on the phasing plan set forth in this report, that General Fund revenue, user fees, property tax allocations, and special taxes or assessments on developed property will be adequate to fund service costs before the end of the first phase of development, so the special tax/assessment on undeveloped property would no longer be needed.

Table 1-1
Cordova Hills Urban Services Plan
Organization of Urban Services

Sacramento County		Independent Agencies		Cordova Hills Local Services District (CHLSD) [1]
Service	Provider	Service	Provider	Service
Domestic Water	SCWA Zone 41	Fire Protection	Sac. Metropolitan Fire District	Recreation
Sanitary Sewer	SRCS	Electricity	SMUD	Operations and Maintenance
	SASD	Natural Gas	PG&E	Parks
Safety and Street Lighting	CSA-1	Library	Sac. Public Library Authority	Open Space and Trails
Storm Drainage	SCWA Zone 12			Habitat Maintenance
Roads within Public ROW	County Department of Transportation			Landscape Corridors
Solid Waste [2]	County Dept. of Waste Management and Recycling			Road Maintenance
Law Enforcement	County Sheriff Department			Transit
Animal Control	County Dept. of Animal Care and Regulation			Transportation Management Association
Code Enforcement	County Code Enforcement Division			Administration and Communications (Intranet site)
General Government	County			Solid Waste [2]

providers

[1] The CHLSD may contract out for some functions.

[2] The CHLSD may provide solid waste services.

Funding of Infrastructure

This report addresses only the financing of the ongoing services needed for Cordova Hills. The financing of the backbone infrastructure and other public facilities required to serve Cordova Hills is presented in the Cordova Hills Public Facilities Financing Plan (Financing Plan).

Cordova Hills Governance Plan

The Governance Plan included in this report envisions a mix of urban service providers, including the County, independent agencies, and either a proposed new dependent special district (CSA) or proposed new independent special district (CSD). In addition to describing the proposed structure of governance, the Governance Plan describes the procedures needed to implement the required urban services, including formation of the CHLSD.

The Governance Plan provides a basis for further discussions with the County, other affected public agencies, and LAFCo staff regarding the provision of urban services and governance for Cordova Hills. The formal reorganization application to LAFCo will follow County action on the Master Plan and other entitlement documents.

CHLSD

The CHLSD is proposed to provide certain urban services that are not or cannot be efficiently delivered by existing service providers. The CHLSD is envisioned for two reasons. First, there are no special districts currently providing the type or level of services the Project will require during its initial phases of development and throughout buildout. Second, and most importantly, the Cordova Hills Community is envisioned as a highly sustainable development in which water, soil, air, and habitat are carefully managed as integral components of the urban development. A locally governed entity with coordinated service responsibilities will be more efficient at achieving this sustainable vision than several overlapping single purpose districts. The CHLSD will reduce the need for citizens to coordinate with numerous organizations.

The CHLSD would provide services not provided by the County or independent agencies and enhanced levels of services from the level typically provided by the County. These services ultimately would be funded through an annual services special tax or assessment, although, initially, additional funding, such as developer funding, may be required (see discussion above).

The CHLSD will be designed to provide the following services for the residents and businesses located in Cordova Hills:

- Parks and recreation
- Open space and trails
- Habitat
- Enhanced levels of landscaping
- Road maintenance
- Transit
- Transportation systems management
- Community communications

The level of service delivered by the CHLSD will be established each year by the Advisory Board of Directors based on the goals for public services set out in the Cordova Hills Master Plan and on input from the community. The estimated total annual service costs to be funded by the special tax or assessment at the completion of Phase 1 development and at buildout are summarized below.

Development Phase	Estimated CHLSD Annual Service Costs Funded by Special Taxes/Assessments (2011\$)
Phase 1	\$1.70 Million
Buildout	\$6.75 Million

The CHLSD costs were allocated to the various land uses, and a cost per dwelling unit or per 1,000 building square feet at completion of Phase 1 and at buildout was estimated for each land use. Adjustments were made to the buildout cost allocations to arrive at maximum special tax or assessment rates by land use. The adjustments reduced the tax burden on affordable and high density housing. The estimated maximum special tax or assessment rates by land use are summarized below.

Land Use [1]	Estimated CHLSD Maximum Annual Special Tax (2011\$)	
	<i>(rounded)</i>	
Residential		
Estates Residential	\$ 1,400	per dwelling unit
Low Density Residential	\$ 1,400	per dwelling unit
Medium Density Residential	\$ 1,100	per dwelling unit
Residential 20 - Owner-Occupied	\$ 1,000	per dwelling unit
Residential 20 - Renter-Occupied	\$ 850	per dwelling unit
HDR - Owner-Occupied & Market Rate	\$ 850	per dwelling unit
HDR - Renter-Occupied & Market Rate	\$ 720	per dwelling unit
HDR - Renter-Occupied & Affordable	\$ 250	per dwelling unit
Nonresidential		
Commercial	\$ 160	per 1,000 bldg.sq.ft
Office	\$ 240	per 1,000 bldg.sq.ft

[1] No service costs have been estimated or allocated to the university/college campus center at this time, but it is possible that future draft reports will include university/college campus center cost allocations for some services.

Report Layout

The remainder of this report is organized into the following chapters:

- **Chapter 2** provides a summary of the proposed land uses and phasing plan.
- **Chapter 3** details the Cordova Hills urban services to be provided by the County.
- **Chapter 4** details the Cordova Hills urban services to be provided by independent agencies.
- **Chapter 5** details the Cordova Hills urban services to be provided by the CHLSD.
- **Chapter 6** discusses the urban services financing strategy and evaluates the financial feasibility of the services taxes/assessments.
- **Chapter 7** presents the Cordova Hills Governance Plan for providing the required urban services.

This report also contains one appendix, **Appendix A**, which provides a phasing analysis for services provided by the CHLSD.

2. CORDOVA HILLS LAND USES

Overview

The 2,668-acre Cordova Hills site is vacant. The Project will include a mix of uses consisting of residential, office, retail, university/college campus center, schools, parks, trails, open space, and public uses. As shown on **Map 2-1**, the Project includes six distinct villages, the proposed university/college campus center, a large preservation (avoided) area, and other permanent open space that serves to separate villages.

The Project includes a wide mix of residential uses, from high-density residential along the western edge, to low-density residential along the eastern edge. The majority of the commercial development is planned for the Town Center Village in the western part of the Project adjacent to Grant Line Road. A 223-acre university/college campus center is planned just southeast of the Town Center. **Map 2-2** shows the Project land use plan.

The land uses and estimated development, population, and employees in this report are obtained from the Public Review Draft Cordova Hills Public Facilities Financing Plan (Financing Plan). These estimates are detailed in the remainder of this chapter.

Development Phasing

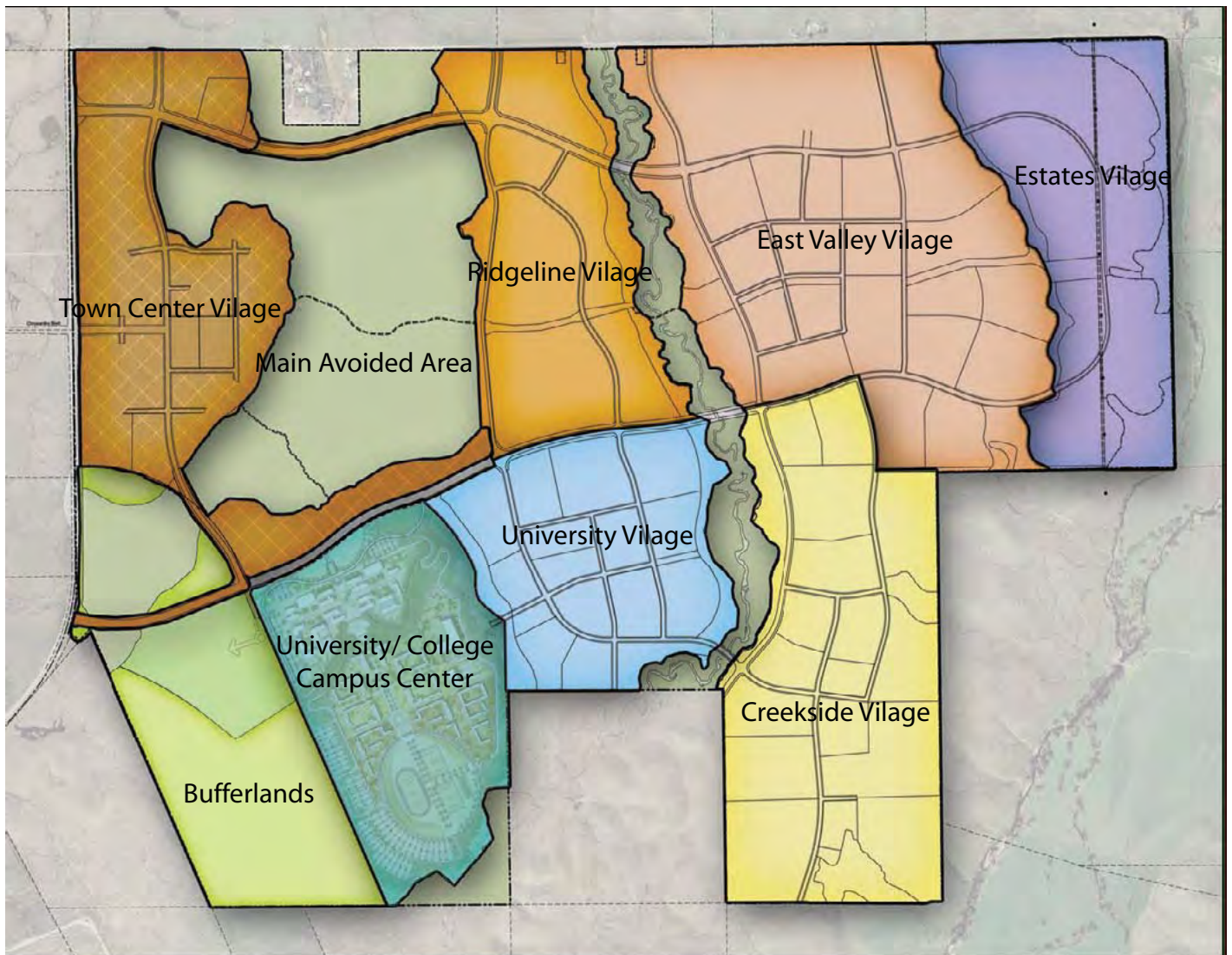
Summary

The Project is expected to develop in phases beginning in the western part of the Project and continuing eastward. **Map 2-3** shows the illustrative Project phasing. The map includes three phases. Phase 1 includes development of the Town Center and part of the university/college campus center. Phase 2 includes completion of the university/college campus center and development of Ridgeline Village and University Village, which are located in the center of the Project. Phase 3 includes development of the remaining three villages. This Urban Services Plan focuses on Phase 1 and Project buildout. Phase 1 initiates the Project and includes development of infrastructure needed to provide essential services. After initiation of the Project, development will respond to market conditions, will occur in multiple smaller phases, and will not necessarily follow the phasing shown in **Map 2-3**.

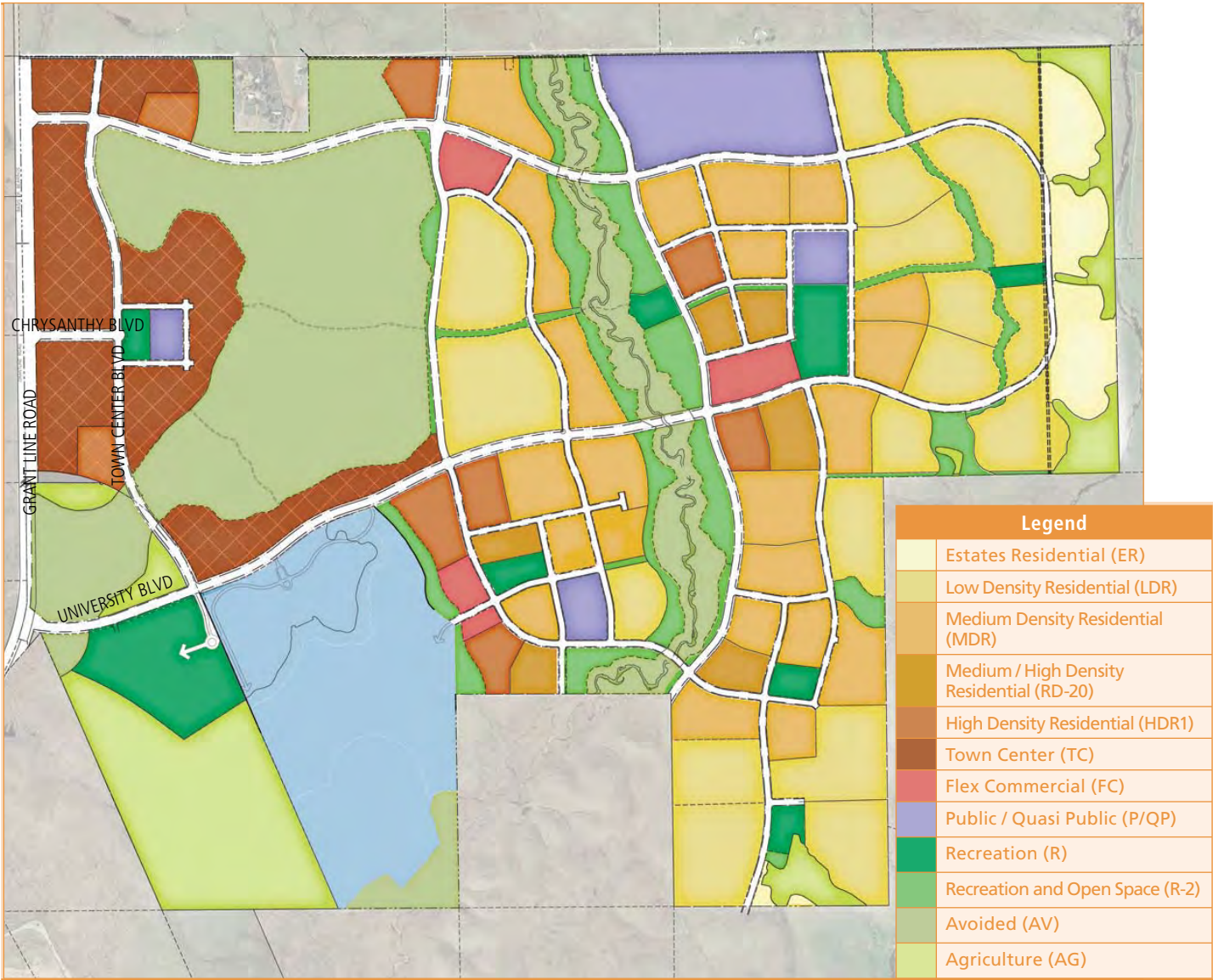
Acres

Table 2-1 summarizes the acres by land use at completion of Phase 1 and at buildout. The acres shown in **Table 2-1** are based on the March 2011 Land Use Plan, prepared by William Hezmalhalch Architects, Inc. (WHA). Please note that the acres by land use reflected in the recent April 2012 Revised Public Review Draft of the Cordova Hills Master Plan (Cordova Hills Master Plan) were modified slightly from the acres in the 2011 Land Use Plan. In particular, the April 2012 Cordova Hills Master Plan includes 3.2 fewer residential and commercial acres and 3.2 more public use acres. Because the recent acres change was so minor, and because the land

Map 2-1 Cordova Hills Village Concept



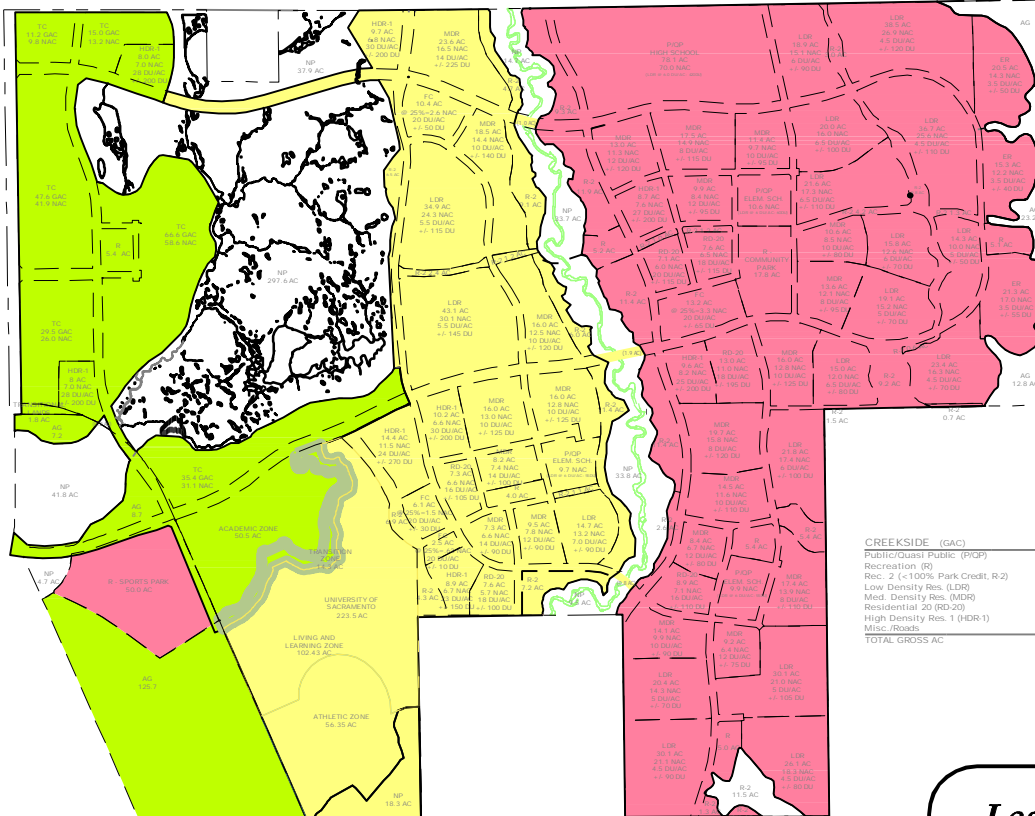
Map 2-2
Cordova Hills Land Use Plan



TOWN CENTER (GAC)	
Recreation (R)	55.4 AC
Natural Preserve (NP)	382.0 AC
Town Center (TC)	205.3 AC
High Density Res. (HDR-1)	16.0 AC
Transitional Lands	1.8 AC
Agricultural Lands (AG)	141.8 AC
Misc./Roads	84.0 AC
TOTAL GROSS AC	886.3 AC

RIDGE LINE (GAC)	
Rec. 2 (<100% Park Credit, R-2)	29.9 AC
Low Density Res. (LDR)	78.0 AC
Med. Density Res. (MDR)	58.1 AC
High Density Res. (HDR-1)	9.7 AC
Flex Commercial (FC)	10.4 AC
Misc./Roads	39.0 AC
TOTAL GROSS AC	218.1 AC

EAST VALLEY (GAC)	
Public/Quasi Public (P/QP)	88.7 AC
Recreation (R)	23.0 AC
Rec. 2 (<100% Park Credit, R-2)	49.7 AC
Low Density Res. (LDR)	110.4 AC
Med. Density Res. (MDR)	92.0 AC
Residential 20 (RD-20)	14.7 AC
High Density Res. (HDR-1)	8.7 AC
Flex Commercial (FC)	13.2 AC
Misc./Roads	56.0 AC
TOTAL GROSS AC	456.4 AC



ESTATES (GAC)	
Recreation (R)	5.1 AC
Rec. 2 (<100% Park Credit, R-2)	15.4 AC
Estates Residential (ER)	57.1 AC
Low Density Res. (LDR)	112.9 AC
Agricultural Lands (AG)	36.0 AC
Misc./Roads	10.2 AC
TOTAL GROSS AC	236.7 AC

CREEKSIDE (GAC)	
Public/Quasi Public (P/QP)	9.9 AC
Recreation (R)	10.4 AC
Rec. 2 (<100% Park Credit, R-2)	33.2 AC
Low Density Res. (LDR)	128.5 AC
Med. Density Res. (MDR)	83.3 AC
Residential 20 (RD-20)	21.9 AC
High Density Res. 1 (HDR-1)	9.4 AC
Misc./Roads	34.2 AC
TOTAL GROSS AC	331.0 AC

CORDOVA HILLS LAND USE SUMMARY	
PUBLIC/QUASI PUBLIC (P/QP)	108.3 AC
RECREATION (R)	97.9 AC
REC. 2 (<100% PARK CREDIT, R-2)	159.1 AC
NATURAL PRESERVE (NP)	492.0 AC
ESTATES RES. (ER) 1 - 4 DU/AC	57.1 AC
LOW DENSITY RES. (LDR) 4 - 7 DU/AC	444.5 AC
MED. DENSITY RES. (MDR) 7 - 15 DU/AC	290.4 AC
RESIDENTIAL - 20, (RD-20) 15 - 23 DU/AC	51.5 AC
HIGH DENSITY RES. 1 (HDR-1) 23 - 30 DU/AC	77.5 AC
FLEX COMMERCIAL (FC)	32.2 AC
TOWN CENTER (TC)	205.3 AC
TRANSITIONAL LANDS	1.8 AC
UNIVERSITY OF SACRAMENTO	223.5 AC
AGRICULTURE	177.8 AC
MISC. ROADS & OPEN SPACE	249.6 AC
TOTAL GROSS ACREAGE	2,668.5 AC

UNIVERSITY VILLAGE	
Public/Quasi Public (P/QP)	9.7 AC
Recreation (R)	4.0 AC
Rec. 2 (<100% Park Credit, R-2)	30.9 AC
Low Density Res. (LDR)	14.7 AC
Med. Density Res. (MDR)	57.0 AC
Residential 20 (RD-20)	14.9 AC
High Density Res. 1 (HDR-1)	33.5 AC
Flex Commercial (FC)	8.6 AC
University of Sacramento	223.5 AC
Misc./Roads	29.1 AC
TOTAL GROSS AC	425.9 AC

Legend

- Phase 1**
- Phase 2**
- Phase 3**

Map 2-3

DEVELOPMENT PHASING

Proposed Project

Revised L.U.P. November 24, 2009

Cordova Hills

Sacramento County,

California

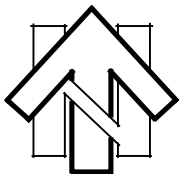
Scale: 1"=2500'

April 16, 2010

MACKAY & SOMPS

CIVIL ENGINEERS, INC.
ROSEVILLE, CALIFORNIA (916) 773-1189

7968-10



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SCALE: 1" = 2500'

Table 2-1
Cordova Hills Urban Services Plan
Estimated Acres by Land Use

Land Use	Original Acres		Acres After Distribution of Mixed Use [1]	
	Phase 1 [2]	Buildout	Phase 1 [2]	Buildout
Residential Land Uses				
Estates Residential (1-7 units/acre)	0.0	64.7	0.0	64.7
Low Density Residential (4-7 units/acre)	0.0	442.8	48.3	491.1
Medium Density Residential (7-15 units/acre)	0.0	310.5	63.3	386.8
Residential 20 (15-23 units/acre)	0.0	54.0	7.5	61.5
High Density Residential (23-30 units/acre)	16.0	79.6	21.0	84.6
Total Residential Land Uses	16.0	951.6	140.1	1,088.6
Nonresidential Land Uses				
Commercial	0.0	0.0	13.3	72.6
Office	0.0	0.0	0.0	30.7
Total Commercial	0.0	0.0	13.3	103.3
Undeveloped Commercial	0.0	0.0	68.3	0.0
Mixed Use				
Town Center	205.7	205.7	0.0	0.0
Flex Commercial	0.0	34.6	0.0	0.0
Total Mixed Use	205.7	240.3	0.0	0.0
Public Uses				
Public/Quasi Public	6.0	105.8	6.0	105.8
Recreation	15.0	99.1	15.0	99.1
Rec 2	3.0	150.6	3.0	150.6
Avoided Area	381.2	493.2	381.2	493.2
Agriculture	145.1	194.0	145.1	194.0
Misc. Roads & Open Space	74.0	210.4	74.0	210.4
Total Public Uses	624.3	1,253.1	624.3	1,253.1
University/College Campus Center				
Academic Zone	54.8	54.8	54.8	54.8
Transition Zone	0.0	42.3	0.0	42.3
Living and Learning Zone	0.0	39.7	0.0	39.7
Athletic Zone	0.0	86.7	0.0	86.7
Total University/College Campus Center	54.8	223.5	54.8	223.5
Total	900.8	2,668.5	832.5	2,668.5

acres sum

Source: EPS and WHA Land Use Summary (6/21/10)

[1] Acres with "Town Center" and "Flex Commercial" land uses were distributed to residential and commercial uses.

[2] Phase 1 is equivalent to the Town Center, the surrounding ag and avoided area, and part of the University/College Campus Center.

use mix is likely to change again before implementation of the Project, both the Financing Plan and this Urban Services Plan continue to reflect the March 2011 Land Use Plan acres, consistent with many of the other technical studies.

Table 2-1 shows both the original acres from the 2011 Land Use Plan and the acres after distributing the mixed use acres (defined as “Town Center” and “Flex Commercial” uses) to the various residential and nonresidential uses. The mixed use acres contain a mix of residential and nonresidential uses and were distributed to residential and nonresidential uses for the purposes of properly allocating costs to the different land uses.

Development, Population, and Employees

Table 2-2 shows the projected dwelling units, building square feet, population, and employees for Phase 1 and buildout of the community portion of the Project. These development projections are equivalent to the projections in the Financing Plan and are based on estimates prepared by WHA for use in the Cordova Hills Master Plan. The university/college campus center projections are shown separately in **Table 2-3**.

The mix of Phase 1 dwelling units and nonresidential building square feet is approximate and represents a possible development scenario in the Town Center Village. There is flexibility in the mix of Town Center development, so the relative amount of commercial and residential development could be different. In addition, density bonus dwelling units could be built, increasing the amount of residential development.

In the Financing Plan (and this report), the buildout dwelling units were reduced from the maximum 8,000 dwelling units to 7,500 dwelling units, and the buildout nonresidential building square feet were reduced from 1.3 million square feet to 851,000 square feet. **Table 2-4** compares the Financing Plan and Master Plan dwelling units and building square feet at buildout. The Master Plan projections are higher because they are used to estimate maximum Project impacts. The more conservative projections used in the Financing Plan help ensure that costs per dwelling unit or building square foot are not understated if actual development occurs at levels below the maximum authorization.

In addition, for purposes of developing fair share cost allocations, the persons per household factors used in the Financing Plan (and this report) to project population are different from those used in the Master Plan. The Financing Plan differentiates between factors for different residential uses while the Master Plan assumes only two factors: one for single-family uses and one for multifamily uses. Because of the difference in assumed dwelling units, the total projected population in the Financing Plan (20,110 people) is less than in the Master Plan (21,379 people). This lower population estimate does not affect the projected requirement for parks, schools, or other population-based facilities identified in the Master Plan because these requirements were based on the Master Plan population estimate.

Table 2-2
Cordova Hills Urban Services Plan
Projected Community Dwelling Units, Building Square Feet, Population, and Employees

Land Use	Financing Plan Land Use Assumptions [1]						
	FAR	Persons per Household [2]	Phase 1			Buildout	
			Acres	Dwelling Units/ Bldg. Sq. Ft.	Population/ Employees	Acres	Dwelling Units/ Bldg. Sq. Ft. Employees
Residential Land Uses		<u>PPH</u>		<u>Units</u>	<u>Population</u>		<u>Units</u> <u>Population</u>
Estates Residential		3.25	0.0	0	0	64.7	138 448
Low Density Residential		3.10	48.3	290	899	491.1	1,809 5,609
Medium Density Residential		2.80	63.3	760	2,128	386.8	3,061 8,571
Residential 20 [3]		2.20	7.5	150	330	61.5	833 1,832
High Density Residential [3]		2.20	21.0	550	1,210	84.6	1,659 3,651
Subtotal			140.1	1,750	4,567	1,088.6	7,500 20,110
Nonresidential Land Uses		<u>Bldg. Sq. Ft./Emp.</u>		<u>Sq. Ft.</u>	<u>Employees</u>		<u>Sq. Ft.</u> <u>Employees</u>
Commercial	0.21	500	13.3	120,000	240	72.6	654,860 1,310
Office	0.15	275	0.0	0	0	30.7	196,540 715
Subtotal			13.3	120,000	240	103.3	851,400 2,024

pop

Source: Wade & Assoc., WHA Inc. (4/9/10), EPS

[1] The persons per household, buildout dwelling units, and buildout sq.ft. differ from those in the Draft Cordova Hills Master Plan. See Table 2-4 for a comparison.

[2] Persons per household and building square feet per employee differ from the Master Plan. For details on calculations, refer to Table A-3 of the Cordova Hills Fiscal Impact Analysis and Table 2-1 of the Cordova Hills Financing Plan.

[3] Residential 20 and High Density Residential land uses comprise the following subcategories:

Land Use	Phase 1			Buildout		
	Acres	Dwelling Units	Population	Acres	Dwelling Units	Population
Residential 20						
Owner-Occupied	3.8	75	165	30.8	416	916
Renter-Occupied	3.8	75	165	30.8	416	916
High Density Residential						
Owner-Occupied & Market Rate	6.3	161	354	16.9	341	750
Renter-Occupied & Market Rate	6.3	161	354	16.9	341	750
Renter-Occupied & Affordable	8.4	228	502	50.7	978	2,152

Table 2-3
Cordova Hills Urban Services Plan
Projected University/College Campus Center Dwelling Units, Building Square Feet, Students, and Employees

**University/
College Campus Center**

Land Use	Population Factor	Phase 1			Buildout		
		Acres	Dwelling Units/ Bldg. Sq. Ft.	Students/ Employees	Acres	Dwelling Units/ Bldg. Sq. Ft.	Students/ Employees
University/College Campus Center			<u>Sq. Ft.</u>			<u>Sq. Ft.</u>	
Academic Zone		54.8			54.8		
Transition Zone		0.0			42.3		
Living and Learning Zone		0.0			39.7		
Athletic Zone		0.0			86.7		
Subtotal		54.8	344,000		223.5	1,870,000	
University/College Campus Center Students, Employees, and Residents			<u>Units</u>			<u>Units</u>	
Students				600			6,000
Faculty				TBD			685
Non-Student Staff				TBD			TBD
Subtotal University/College Campus Center Students and Employees				600			6,685
Student Residents (90% of undergrads, 10% of grads)	4.00		115	460		1,010	4,040
Other Residents (100 temporary)	1.00		0	0		100	100
Subtotal Housing Units/Residents			115	460		1,110	4,140

univ pop

Source: Cordova Hills Administrative Draft Master Plan (September 2010) -- Table 5-1

Table 2-4
Cordova Hills Urban Services Plan
Projected Buildout Development and Population Comparison

Land Use	Persons per Household [1]	Financing Plan		Persons per Household [2]	Master Plan	
		Dwelling Units/ Bldg. Sq. Ft.	Population		Dwelling Units/ Bldg. Sq. Ft.	Population
<hr/>						
Residential Land Uses		<u>Units</u>			<u>Units</u>	
Flex Commercial [2]	-	0	0	2.71	155	420
Estates Residential (1-4 units/acre)	3.25	138	448	2.71	147	398
Low Density Residential (4-7 units/acre)	3.10	1,809	5,609	2.71	1,930	5,230
Medium Density Residential (7-15 units/acre)	2.80	3,061	8,571	2.71	3,110	8,428
Residential 20 (15-23 units/acre)	2.20	833	1,832	2.71	888	2,406
High Density Residential (23-30 units/acre)	2.20	1,659	3,651	2.54	1,620	4,115
High Density Residential (30-40 units/acre) [3]	-	0	0	2.54	150	381
Subtotal	2.68	7,500	20,110	2.67	8,000	21,379
<hr/>						
Nonresidential Land Uses		<u>Bldg. Sq. Ft.</u>			<u>Bldg. Sq. Ft.</u>	
		851,400			1,349,419	

pop2

Source: Cordova Hills Administrative Draft Master Plan (September 2010) -- Table 3-1 and 11/20/09 Land Use Plan

- [1] Persons per household factors that differ from the factors in the Master Plan were established for use in the Financing Plan cost allocation. The average factor across all land uses and the population generated by 8,000 units remains virtually the same. The total estimated units in the Financing Plan, however, were reduced from a maximum of 8,000 to 7,500, resulting in a lower population.
- [2] Master Plan persons per household factors are from the Administrative Draft Cordova Hills Master Plan (September 2010).
- [3] For cost allocation purposes, the Financing Plan does not include separate categories for High Density (30-40 units/acre) or Flex Commercial units. High Density (30-40 units/acre) units have been included with High Density (23-30 units/acre). Flex Commercial units have been included with Medium Density.

3. COUNTY SERVICES

Introduction

This chapter summarizes the Cordova Hills urban services that will be administered by County agencies. These services and the providers are listed below:

Service	Provider
Domestic Water	Sacramento County Water Agency—Zone 41
Sanitary Sewer	Sacramento Regional County Sanitation District and Sacramento Area Sewer District
Roads in Public ROW	Sacramento County Department of Transportation
Safety and Street Lighting	Sacramento County Service Area 1
Storm Drainage	Sacramento County Water Agency—Zone 12
Solid Waste	Sacramento County Department of Waste Management and Recycling
Law Enforcement	Sacramento County Sheriff Department
Animal Control	Sacramento County Department of Animal Care and Regulation
Code Enforcement	Sacramento County Code Enforcement Division
General Government	Sacramento County

Note that although solid waste services are shown as being administered by the County, these services also could be provided by the CHLSD, as discussed later in this chapter.

Domestic Water

Potable Water

Zone 41 of the Sacramento County Water Agency (SCWA) provides potable water to its various service areas in the unincorporated County and the Cities of Elk Grove and Rancho Cordova. The majority of Cordova Hills is located in the Zone 41 service area. Only the bufferlands in the southwest area of the Project are not currently in Zone 41, and it is proposed that they be annexed into Zone 41.

Cordova Hills ultimately will be served by a conjunctive-use water system operated by Zone 41. On-site transmission mains will be connected to an extension of SCWA's existing transmission system in the Sunrise Douglas area, and a large water storage tank will be located in Cordova Hills to distribute water throughout Cordova Hills. Domestic water service is funded through user service charges.

Non-Potable Water

The Cordova Hills developer has the option of constructing a non-potable water system to provide irrigation water to parks, open spaces, schools, roadway medians, and non-residential irrigation uses. If the developer decides to construct the non-potable system, funding will be

provided to SCWA through the CHLSD for the maintenance of the non-potable water facilities in the Project. This funding will allow for appropriate maintenance of the additional, non-potable water supply infrastructure constructed by the project that is connected to the SCWA potable system. Funding through the CHLSD for reclaimed water facility maintenance in the Project will continue until such time as the non-potable water facilities are disconnected from the potable water system and concurrently connected to and operated by a non-potable water supply service provider. The Project would then be subject to the applicable rates as adopted by that non-potable water service provider.

Sanitary Sewer

Cordova Hills will be annexed into the Sacramento Area Sanitation District (SASD) and the Sacramento Regional County Sanitation District (SRCSD). SASD owns and operates sewer trunk and collection systems throughout the County. SRCSD owns and operates the Sacramento Regional Wastewater Treatment Plant (SRWTP) and interceptor system throughout the County. Sanitary sewer service is funded through user service charges.

Roads in the Public Right-of-Way

The County Department of Transportation (DOT) will maintain the roads and adjacent facilities in the public street right-of-way (ROW), consisting of paved section, curb, and gutter. The only exception is that the CHLSD will maintain all landscaping in the medians. In addition, the CHLSD may provide supplemental street sweeping and litter control on all public streets. These CHLSD road maintenance responsibilities are discussed in **Chapter 5**. County road maintenance is funded through the County General Fund.

Safety Lighting and Street Lighting

Cordova Hills will receive safety lighting and street lighting services from County Service Area 1 (CSA-1), which encompasses the entire County. For the purpose of determining benefit and the associated levy on the property tax bill, the light fixtures maintained by CSA-1 are defined as either street lights or safety lights. Safety lights are lights located at intersections on major streets and along the rear of properties that abut major streets. All other lights are designated as street lights. There are two service standards in CSA-1: enhanced and decorative. Cordova Hills will select design standard options from the decorative standards defined by CSA-1 throughout buildout of the Project.

CSA-1 will provide maintenance service to all safety lights and streets lights located along all streets and intersections that are part of the public ROW. Park-and-Ride lots also are maintained by CSA-1. Cordova Hills will pay a supplemental fee for CSA-1 to maintain the safety lights located along trails, paths, and paseos that are not adjacent to streets or intersections and are outside the public ROW.

CSA-1 levies an annual service charge for safety and street lighting maintenance. The rates on which the annual charge is based vary depending on the service standard (enhanced or decorative) and type of lights (street and/or safety) maintained. The service charge for single-

family parcels is a flat rate per parcel per year. The service charge for multifamily and nonresidential parcels is calculated by multiplying the applicable rate per frontage foot by the length of the parcel's public street frontage. **Table 3-1** estimates the CSA-1 revenue generated by Cordova Hills development assuming all development pays for decorative street and safety lights. Under these assumptions, Cordova Hills would generate an estimated annual amount of \$56,000 at the completion of Phase 1 development and \$248,000 at buildout.

Storm Drainage

Overview

Cordova Hills is in two major watersheds. The western portion of the Project (Phase 1) includes intermittent drainages tributary to the headwaters of Laguna Creek, whereas the remaining eastern portion of the Project (Phases 2 and 3) drains into the Paseo Central in the center of the Project and Carson Creek, both tributaries to Deer Creek and ultimately the Consumes River.

The SCWA currently provides drainage services to various service areas of the unincorporated County, including Cordova Hills, and will continue to provide all drainage maintenance services to Cordova Hills. There are three SCWA drainage zones that will serve Cordova Hills as summarized below:

- **Zone 12:** Provides operations and maintenance services, the subject of this report.
- **Zone 11A:** Provides funds for the construction of major drainage facilities. This zone is discussed in the Draft Financing Plan.
- **Zone 13:** Funds comprehensive long-range planning and engineering studies of flood control, water resources development, water supply management, and water conservation beneficial to the zone, which includes Cordova Hills.

Zone 12 Operations and Maintenance

The County Stormwater Utility (SWU) provides drainage operation and maintenance services in the geographic area defined by Zone 12 of the SCWA. The SWU was created to fund the operation and maintenance of storm drainage facilities, the construction of remedial storm drainage improvement projects, the preparation of storm drainage master plans, and the implementation of stormwater quality programs.

The SWU is funded through the standard collection of bimonthly fees. Cordova Hills is not in Zone 12 and will need to annex into this maintenance district for drainage maintenance of the entire Project. **Table 3-2** estimates that the Zone 12 fee revenue generated by Cordova Hills development will total \$98,000 annually at the completion of Phase 1 development and \$501,000 annually at buildout.

Table 3-1
Cordova Hills Urban Services Plan
Estimated CSA-1 Lighting Revenue (2011\$)

Land Use	Annual Service Charge [1]	Linear Feet per Unit [2]	Phase 1			Buildout		
			Dwelling Units	Estimated Linear Feet	Annual Revenue	Dwelling Units	Estimated Linear Feet	Annual Tax Revenue
Residential Land Uses	<i>per parcel</i>							
Estates Residential	\$ 45.06		0	N/A	\$ 0	138	N/A	\$ 6,210
Low Density Residential	\$ 45.06		290	N/A	\$ 13,067	1,809	N/A	\$ 81,530
Medium Density Residential	\$ 45.06		760	N/A	\$ 34,246	3,061	N/A	\$ 137,926
Total Residential			1,050	N/A	\$ 47,313	5,008	N/A	\$ 225,666
Multifamily and Commercial Land Uses [2]	<i>per linear foot</i>							
Residential 20	\$ 0.8958	4.49	150	674	\$ 604	833	3,742	\$ 3,352
High Density Residential	\$ 0.8958	4.49	550	2,472	\$ 2,214	1,659	7,458	\$ 6,681
Commercial	\$ 0.8958		N/A	7,076	\$ 6,339	N/A	14,170	\$ 12,693
Total Multifamily and Commercial			700	10,222	\$ 9,157	2,492	25,370	\$ 22,726
Total Annual Revenue			1,750	10,222	\$ 56,470	7,500	25,370	\$ 248,393

csa1

Source: Sacramento County

[1] Assumes decorative street and safety light rates.

[2] Rough estimates for multifamily and commercial linear feet. Commercial linear feet estimated as linear feet of roadways fronting commercial sites (Landscape Type B-1 -- See Map 5-1). Multifamily linear feet per unit estimated as follows:

Multifamily Sites at Buildout:	<i>a</i>	14
Estimated Linear Feet per Site:	<i>b</i>	800
Total Estimated Multifamily Linear Feet:	<i>c=a*b</i>	11,200
Projected Multifamily Units at Buildout:	<i>d</i>	2,492
Estimated Linear Feet Per Multifamily Unit	<i>c/d</i>	4.49

Table 3-2
Cordova Hills Urban Services Plan
Estimated Annual SCWA Zone 12 Drainage Fee Revenue (2011\$)

Land Use	Impervious Factor	Estimated Monthly Fee	Phase 1		Buildout	
			Dwelling Units/Acres	Annual Fee Revenue	Dwelling Units/Acres	Annual Fee Revenue
<i>Formula</i>		<i>A</i>	<i>B</i>	<i>A*B*12</i>	<i>C</i>	<i>A*C*12</i>
Residential Land Uses						
Single Family		<u>per unit</u>	<u>units</u>		<u>units</u>	
Estates Residential		\$ 5.85	0	\$ 0	138	\$ 9,674
Low Density Residential		\$ 5.85	290	\$ 20,358	1,809	\$ 127,018
Medium Density Residential		\$ 5.85	760	\$ 53,352	3,061	\$ 214,878
Subtotal Single Family			1,050	\$ 73,710	5,008	\$ 351,570
Multifamily [1]		<u>per acre</u>	<u>acres</u>		<u>acres</u>	
Residential 20	0.60	\$ 43.98	7.5	\$ 3,959	61.5	\$ 32,461
High Density Residential	0.60	\$ 43.98	21.0	\$ 11,062	84.6	\$ 44,631
Subtotal Multifamily			28.5	\$ 15,021	146.1	\$ 77,092
Nonresidential Land Uses [1]		<u>per acre</u>	<u>acres</u>		<u>acres</u>	
Commercial	0.80	\$ 58.55	13.3	\$ 9,344	72.6	\$ 50,989
Office	0.80	\$ 58.55	0.0	\$ 0	30.7	\$ 21,555
Total Commercial			13.3	\$ 9,344	103.3	\$ 72,544
Total				\$ 98,074		\$ 501,206

zone 12

Source: Sacramento County Storm Drainage Fee Code

[1] Monthly fee per acre = \$0.30 admin. charge per parcel + (\$5.85 / 3,500 sq. ft. * 43,560 sq. ft./acre * impervious factor)
 Impervious factor from Sacramento County Storm Drainage Fee Code.

Solid Waste

Although discussed in this chapter, solid waste collection and disposal services in Cordova Hills could be provided either by the County Department of Waste Management and Recycling, the current provider for the Project area, or by the CHLSD. The County Department of Waste Management and Recycling has planned for adequate disposal capacity to account for the growth in its service area because of planned development projects, including Cordova Hills. User fees paid by new development would allow maintenance of adequate service levels throughout the service area.

The solid waste services also could be provided by the CHLSD. If the CHLSD is the provider, it would contract the services out to a third party and charge this third-party contractor a franchise fee. The franchise fee revenue could be used to expand on its services provided to the community or to reduce monthly solid waste fees to the community.

Law Enforcement

The County Sheriff's Department currently provides, and will continue to provide, law enforcement services to Cordova Hills once the community has developed. The Sheriff's Department has expressed interest in a potential substation in the Cordova Hills Town Center. It is too early to determine if a substation will be required in Cordova Hills, but if one is required, then the Sheriff's Department has indicated the Town Center would be an ideal location. Law enforcement services will include service to the university/college campus center in the initial stages of development. However, as the university/college campus center builds out, it may elect to provide its own security protection for the campus separately from, or as a supplement to, the Sheriff's Department services. The university/college campus center will provide a safety/security plan to the Sheriff's Department detailing systems that the applicant intends on installing or implementing to protect patrons, visitors, employees, students, and company property/assets on site.

Police services will be funded through the County General Fund and through the County Police Services Community Facilities District 2005-1 (CFD 2005-1) annual special tax. **Table 3-3** shows the estimated CFD 2005-1 revenue generated by Cordova Hills. This annual revenue is an estimated \$529,000 at completion of Phase 1 development and \$2.3 million at buildout.

Participation in CFD 2005-1, along with the payment of property taxes, a portion of which are allocated to the County General Fund and used for sheriff services, will fund the costs to provide Sheriff's Department patrol services to Cordova Hills, including the university/college campus center.

Animal Control

The County Department of Animal Care and Regulation currently serves the Project area and will continue to be the animal control service provider. The County will continue to provide adequate service as Cordova Hills develops.

Table 3-3
Cordova Hills Urban Services Plan
Estimated Annual Police Services CFD 2005-1 Revenue (2011\$)

Land Use	Special Tax Rate per Unit	Phase 1		Buildout	
		Dwelling Units	Annual Tax Revenue	Dwelling Units	Annual Tax Revenue
Residential Land Uses					
Estates Residential	\$ 338.62	0	\$ 0	138	\$ 46,666
Low Density Residential	\$ 338.62	290	\$ 98,200	1,809	\$ 612,691
Medium Density Residential	\$ 338.62	760	\$ 257,351	3,061	\$ 1,036,495
Residential 20	\$ 248.32	150	\$ 37,248	833	\$ 206,726
High Density Residential	\$ 248.32	550	\$ 136,576	1,659	\$ 412,056
Nonresidential Land Uses [1]					
Commercial	\$ 0.00	N/A	\$ 0	N/A	\$ 0
Office	\$ 0.00	N/A	\$ 0	N/A	\$ 0
Total		1,750	\$ 529,375	7,500	\$ 2,314,634

police

Source: Sacramento County CFD 2005-1 rates for 2010-11

[1] Residential tax only; no tax on commercial and office uses.

Code Enforcement

The County's Code Enforcement Division currently serves the Project area and will continue to provide County code enforcement services to Cordova Hills as it develops. Cordova Hills development will require the provision of additional officers in the long term, although immediate needs can be met with existing personnel.

General Government

Cordova Hills is in the County's jurisdiction. The County will continue to provide general government services to Cordova Hills as it develops. General government services include land use planning, administrative services, and fiscal and regulatory oversight.

4. INDEPENDENT AGENCY SERVICES

Introduction

This chapter summarizes the Cordova Hills urban services that are administered by independent special districts, joint powers authorities, or private companies. These services and the providers are listed below:

Service	Provider
Fire Protection	Sacramento Metropolitan Fire District (SMFD)
Library Services	Sacramento Public Library Authority
Electricity	Sacramento Municipal Utility District (SMUD)
Natural Gas	Pacific Gas and Electric (PG&E)

Fire Protection

The SMFD is the service provider for the area and will continue to provide services once the community has developed. This service will include service to the university/college campus center in the initial stages of development. However, as the university/college campus center builds out, it may elect to provide its own fire services for the campus separately from the SMFD or to supplement the SMFD services.

The university/college campus center will be zoned to accommodate the tallest buildings in Cordova Hills, which have a maximum building height of six stories. As such, a truck company will be needed for Cordova Hills to accommodate these building heights. Cordova Hills also will require an engine company, which is required in all service areas. In addition to the engine company and truck company for fire protection services, Cordova Hills will require a medic company (an ambulance with two paramedics). The SMFD services will be funded through property tax revenue. **Table 4-1** summarizes the approximate annual costs to provide fire and medical services to Cordova Hills, annual property tax revenue available for SMFD services, and annual surplus of revenues over costs. Based on the revenue and cost estimates at buildout, there will be an approximately \$3.0 million annual surplus of revenues over costs.

The estimated annual operating costs were provided by the SMFD, and the estimated revenues are calculated in **Table 4-2** through **Table 4-4**. **Table 4-2** estimates the annual property tax allocation to the SMFD from Cordova Hills development at the completion of Phase 1 and at buildout. The SMFD will receive property tax revenues of approximately \$1.5 million annually for Phase 1 development and \$6.8 million annually at buildout. The estimates in **Table 4-2** are based on the estimated annual property taxes generated by Cordova Hills development (see **Table 4-3**) and the percentage of the property tax allocated to the SMFD from development in the Cordova Hills tax rate areas (TRAs) (see **Table 4-4**). **Map 4-1** shows the location of the TRAs in Cordova Hills.

Table 4-1
Cordova Hills Urban Services Plan
Estimated Annual Fire Services Costs and Revenues (2011\$)

Item	Annual Total (2011\$)	
	Phase 1	Buildout
Annual SMFD Fire Service Revenues		
Annual SMFD Property Tax Revenue (Rounded) [1]	\$ 1,500,000	\$ 6,800,000
Annual Measure Q Parcel Tax Revenue [2]	\$ 105,000	\$ 501,000
Subtotal Annual Fire Service Revenues	\$ 1,605,000	\$ 7,301,000
Annual SMFD Fire Service Operating Costs [3]		
Engine Company	NA	\$ 1,500,000
Truck Company	NA	\$ 2,000,000
Medic Company	NA	\$ 800,000
Subtotal Annual Fire Service Costs	NA	\$ 4,300,000
Fire Service Surplus/(Shortfall)	NA	\$ 3,001,000

fire sum

Source: SMFD; Sacramento County; EPS.

[1] Estimated in Table 4-2.

[2] Measure Q authorized a \$100 parcel tax on all parcels within the Project. For the purpose of this analysis, revenue from the Measure Q parcel tax is based on the assumption that all single-family homes (Estates Residential, Low Density Residential, and Medium Density Residential) are constructed on their own parcel. In actuality, more revenue would be generated from remaining land uses in the Project. However, it is unknown at this time how many parcels will be attributable to the High Density Residential (including Residential 20) and commercial and office land uses.

[3] Operating costs provided by the Sacramento Metropolitan Fire District (SMFD).

Table 4-2
Cordova Hills Urban Services Plan
Estimated Annual Property Tax Revenue for Fire and Library Services (2011\$)

Item	Percentage [1]	Phase 1	Buildout
Estimated Annual Property Taxes [2]		\$ 5,490,223	\$ 25,678,674
Sacramento Metropolitan Fire Portion	26.59%	\$ 1,459,738	\$ 6,827,436
Sacramento Public Library Authority Portion	1.93%	\$ 105,775	\$ 494,729

fire lib

[1] See Table 4-4.

[2] See Table 4-3.

Table 4-3
Cordova Hills Urban Services Plan
Estimated Annual Property Taxes (2011\$)

Item	Estimated Assessed Value per Dwelling Unit/ Bldg. Sq. Ft. [1]	Phase 1		Buildout	
		Dwelling Units/ Bldg. Sq. Ft.	Estimated Annual Property Taxes	Dwelling Units/ Bldg. Sq. Ft.	Estimated Annual Property Taxes
Residential [1]	<i>per unit</i>	<i>dwelling units</i>		<i>dwelling units</i>	
Estates Residential	\$ 500,000	0	\$ 0	138	\$ 679,416
Low-Density	\$ 445,000	290	\$ 1,270,200	1,809	\$ 7,925,063
Medium-Density	\$ 345,000	760	\$ 2,568,800	3,061	\$ 10,345,969
High-Density					
Residential 20 - Owner-Occupied	\$ 275,000	75	\$ 201,000	416	\$ 1,115,550
Residential 20 - Renter-Occupied	\$ 234,000	75	\$ 170,250	416	\$ 944,888
HDR - Owner-Occupied & Market Rate	\$ 250,000	161	\$ 390,987	341	\$ 827,871
HDR - Renter-Occupied & Market Rate	\$ 213,000	161	\$ 331,454	341	\$ 701,816
HDR - Renter-Occupied & Affordable	\$ 133,000	228	\$ 287,532	978	\$ 1,232,280
Subtotal High-Density		700	\$ 1,381,223	2,492	\$ 4,822,404
Subtotal		1,750	\$ 5,220,223	7,500	\$ 23,772,851
Nonresidential [2]	<i>per bldg. sq. ft.</i>	<i>bldg. sq. ft.</i>		<i>bldg. sq. ft.</i>	
Commercial	\$ 225	120,000	\$ 270,000	654,860	\$ 1,473,435
Office	\$ 220	0	\$ 0	196,540	\$ 432,388
Subtotal		120,000	\$ 270,000	851,400	\$ 1,905,823
Total			\$ 5,490,223		\$ 25,678,674

prop tax

[1] Est. property taxes = (assessed value per unit - \$7,000 homeowners' exemption) * dwelling units * 1%

[2] Est. property taxes = assessed value per bldg. sq. ft. * bldg. sq. ft. * 1%

Table 4-4
Cordova Hills Urban Services Plan
Property Tax Allocation for Cordova Hills Tax Rate Areas

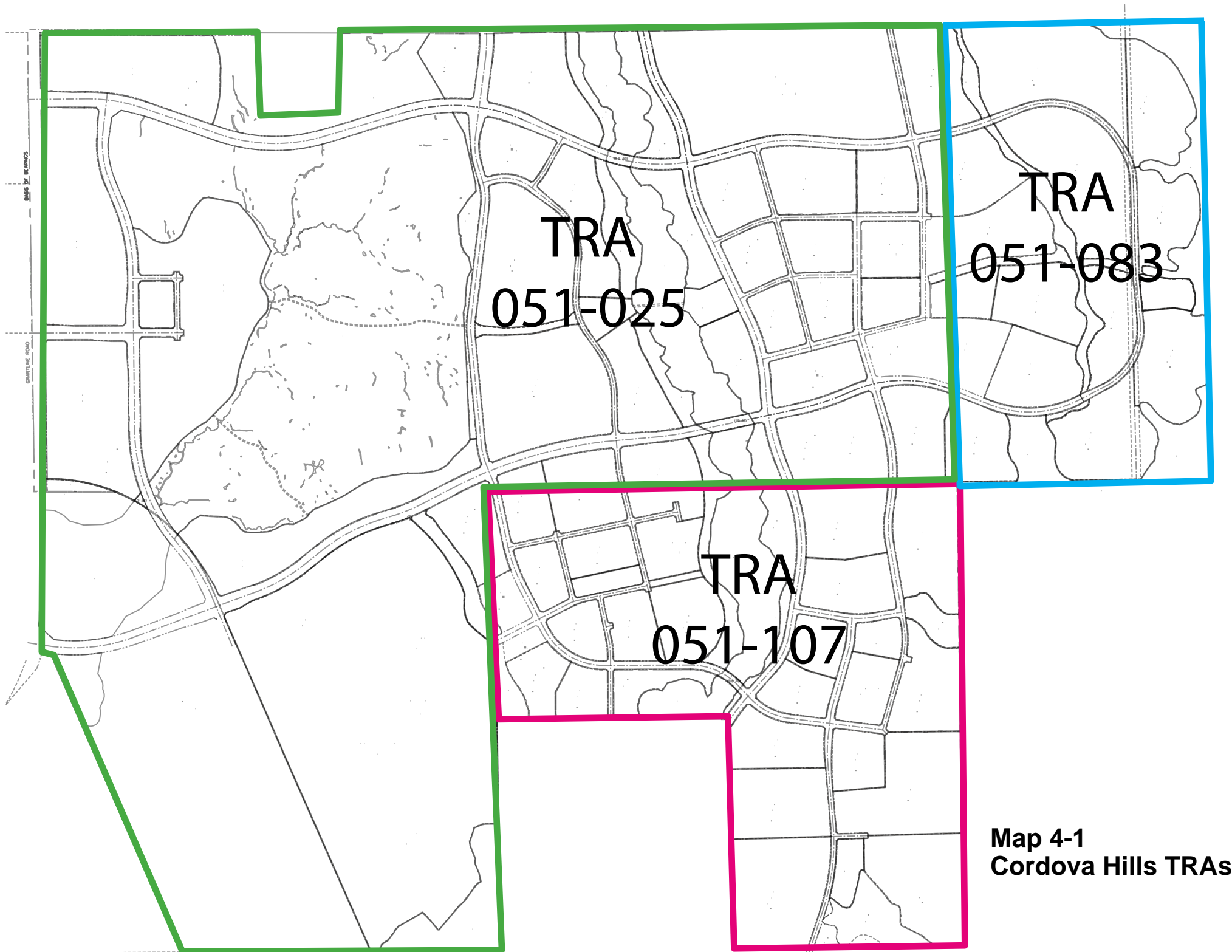
Fund	TRA 51-025	TRA 51-083	TRA 51-107	Average [1]	ERAF Adjustment [2]	Post-ERAF Allocation
Percent of Total Assessed Value [1]	58.2%	12.8%	29.0%			
Taxing Entities Subject to ERAF Adjustment						
COUNTY GENERAL	37.8552	39.7692	49.5064	41.4841	52.3742%	19.7571
Other Taxing Entities						
LOS RIOS COMM COLLEGE	3.1425	3.3014	4.1097	3.4437		3.4437
ELK GROVE UNIFIED	21.9999	23.1122	28.7710	24.1088		24.1088
COUNTY WIDE EQUALIZ	0.1129	0.1186	0.1476	0.1237		0.1237
COUNTY ROADS	0.0853	0.0896	0.1115	0.0934		0.0934
COUNTY LIBRARY	1.7581	1.8470	2.2992	1.9266		1.9266
SACRAMENTO METRO FIRE	33.0098	29.6227	12.3914	26.5880		26.5880
SLOUGHHOUSE RESOURCE	0.0176	0.0184	0.0230	0.0192		0.0192
JUVENILE HALL	0.0477	0.0501	0.0623	0.0522		0.0522
REGIONAL OCCUP CENTER	0.0828	0.0870	0.1082	0.0907		0.0907
PHYS HAND-UNIFIED	0.3963	0.4163	0.5182	0.4342		0.4342
INFANT DEV-PHYS HANDIC	0.0050	0.0053	0.0066	0.0055		0.0055
INFANT DEV-MENTALLY HA	0.0050	0.0053	0.0066	0.0055		0.0055
CHILDREN'S INST	0.3862	0.4058	0.5051	0.4233		0.4233
COUNTY SUPT-ADMIN	0.2232	0.2345	0.2919	0.2446		0.2446
SACTO-YOLO MOSQUITO	0.7474	0.7852	0.9774	0.8190		0.8190
DEV CENTER HANDICAPPED	0.1254	0.1317	0.1640	0.1374		0.1374
Subtotal (not including ERAF)	100.0000	100.0000	100.0000	100.0000		78.2730
ERAF Allocation						21.7270
Total	100.0000	100.0000	100.0000	100.0000		100.0000

prop tax alloc

Source: Sacramento County Assessor's Office.

[1] This analysis uses a weighted average of the AB 8 allocation for each of the three tax rate areas (TRAs) in which the project is located based on the estimated percent of total assessed value for each TRA. These percents were estimated by estimating the assessed value by village and the percent of each village in each TRA.

[2] Based on the County's FY 2010-11 estimated ERAF share.



**Map 4-1
Cordova Hills TRAs**

With respect to capital improvements, Cordova Hills (including the university/college campus center) will be subject to the district-wide fire facilities fee to cover the cost of new fire station real property acquisition, development, and equipment. Table 8-2 of the Draft Financing Plan estimates that Cordova Hills will generate approximately \$9.7 million in fee revenue. The SMFD has indicated that development in the Cordova Hills area will require that at least one new fire station be located in the Project. In a January 14, 2011, comment letter from the SMFD regarding the Financing Plan, the SMFD noted that \$9.7 million would be adequate to construct and equip at least one fire station. An additional station could be located in Cordova Hills, depending on how stations are located to best serve both Cordova Hills and surrounding areas. In this case, the \$9.7 million in Cordova Hills fee revenue would be sufficient to fund the share of capital fire costs attributable to Cordova Hills and the university/college campus center.

Library Services

The Sacramento Public Library Authority is the fourth largest library system in California, serving the public in the City and County of Sacramento, as well as the Cities of Citrus Heights, Elk Grove, Galt, Isleton, and Rancho Cordova. The Sacramento Public Library operates 28 libraries, which includes a Central Library in downtown Sacramento. More than 600,000 residents have a library card, and more than 7 million items are circulated annually.

A branch library is planned in the Town Center to serve the Cordova Hills community, as well as residents in the surrounding area. The branch library may be phased in over time by locating first in a leased space in a commercial setting and ultimately in a permanent facility. The library will serve as a center of public activity and will be located adjacent to a public space such as a plaza and near shops, restaurants, and entertainment venues in the Town Center.

It is estimated that library services will be fully funded through property tax revenue, so an additional assessment will not be necessary. **Table 4-5** summarizes the analysis used to arrive at this conclusion. As shown in this table, Cordova Hills will require approximately 53 percent of a 15,000-square-foot branch library, using a standard of 0.4 square feet per resident. The Library Authority has estimated that a branch library of this size requires an annual operations budget of approximately \$800,000. Thus, the annual cost to serve Cordova Hills residents at buildout is approximately 53 percent of this amount, or \$427,000. Cordova Hills property tax revenue to be allocated to the Library Authority is estimated at \$495,000 at buildout.

Tables 4-2 through 4-4 (discussed above in the Fire Protection section) detail the estimate of the library property tax allocation. Because the estimated Cordova Hills property tax allocated to the Library Authority exceeds the estimated library services cost attributable to Cordova Hills, no funding in addition to property taxes will be needed for library services at buildout.

A similar analysis for Phase 1 development results in an estimated annual Cordova Hills library services cost of \$107,000 versus a property tax allocation of \$106,000. This is a breakeven situation, given the assumptions used to model costs and revenues. Thus, this analysis concludes that no funding, in addition to property taxes, will be needed for Cordova Hills library services for Phase 1. This analysis also is summarized in **Table 4-5** with details provided in **Tables 4-2 through 4-4**.

Table 4-5
Cordova Hills Urban Services Plan
Library Services Costs (2011\$)

Item	Formula	Phase 1	Buildout
Persons Served	<i>a</i>	4,567	20,110
Library Square Feet per Capita	<i>b</i>	0.4	0.4
Library Square Feet to Serve Cordova Hills	$c=a*b$	2,000	8,000
Branch Library Square Feet	<i>d</i>	2,000	15,000
Annual Services Cost of Branch Library [1]	<i>e</i>	\$ 106,667	\$ 800,000
Average Annual Cost per Square Foot		\$ 53	\$ 53
Cordova Hills Portion	$f=c/d$	100%	53%
Cordova Hills Annual Library Services Cost	$g=e*f$	\$ 106,667	\$ 426,667
Estimated Property Tax Revenue [2]	<i>h</i>	\$ 105,775	\$ 494,729
Surplus/(Shortfall) [3]	$h-g$	(\$ 891)	\$ 68,062
Cordova Hills Net Annual Library Services Cost to be Funded by Urban Services Fee		\$ 0	\$ 0

lib cost

Source: Sacramento County Library

[1] Buildout cost based on Sacramento County budget for large County branches that operates 6 days a week (See Table 4-5). Phase 1 cost estimated as buildout cost per sq. ft. * sq. ft. required to serve Phase 1 development.

[2] See Table 4-2.

[3] This result is essentially a breakeven position, where costs and revenues are within 1% of each other.

Electricity

SMUD is the current service provider for the area and will remain as the service provider once the Project develops. SMUD has indicated that the energy demand for Cordova Hills will require 1 to 2 neighborhood substations. Electricity service is funded through user service charges.

Natural Gas

PG&E is the current service provider for the area and will remain as the service provider once the Project develops. Natural gas service is funded through user service charges.

5. *CORDOVA HILLS LOCAL SERVICES DISTRICT URBAN SERVICES*

Introduction

This chapter focuses on estimating the costs and funding for the urban services to be provided and administered by the Cordova Hills Local Services District (CHLSD).¹ These services are divided into the following categories:

- Recreation
- Operations and Maintenance
 - Parks
 - Open Space and Trails
 - Habitat
 - Landscape Corridors
 - Road Maintenance
 - Transit
- Transportation Demand Management (TDM) Services
- Administration and Communications

These services will be funded through a combination of the following sources:

- Special taxes implemented through a Mello-Roos Community Facilities District (CFD) formed by the CHLSD to fund authorized services.
- Special taxes implemented by a CSA or CSD under the provisions of Government Code Section 25210 et. seq. or Government Code Section 50075, respectively.
- Special assessments implemented through a special assessment district formed by the CHLSD, such as a landscape and lighting assessment district.
- User charges.

If a CSA is chosen as the most effective governance option, the CSA will be created through a resolution of the County BOS. As a dependent district, the CSA also would be governed by the County BOS. The creation of a CSA also could institute a Local Advisory Board (CSA Board) comprising local representatives. This CSA Board could be endowed with management and contracting oversight and could make recommendations to the County BOS on policy and procedures; final decisions ultimately would be at the discretion of the County BOS. The CSA

¹ Refer to **Appendix A** for a listing of service levels and associated service costs for the Project by phase.

could have a permanent director or executive officer to oversee the provision of services, retain institutional memory, and represent the interests of the CSA and its constituents in interactions with service providers and other government entities.

If a CSD is chosen as the most effective governance option, LAFCo will be responsible for evaluating and approving its creation. An evaluation of a CSD using the criteria established by LAFCo to analyze proposed new special districts is provided in Chapter 7. In the event of LAFCo approval, the County BOS will serve ex officio as the CSD Board of Directors (CSD Board). As an early step, they will retain or appoint a General Manager who will be charged with establishing a budget for the CSD and beginning organizing service capabilities. As it will be several years before significant service responsibilities exist, the initial phase of the CSD will focus mainly on organizational efforts. For example, it is likely that the CSD will enter into various contracts and other institutional arrangements that define and assure the desired service levels as reflected in the Urban Services and Governance Plan, the Fiscal Impact Analysis, and the Final EIR.

Summary

CHLSD Costs

Urban services standards were researched and cost estimates were developed for each service type to be provided by the CHLSD. The Project's urban services standards were obtained from a variety of sources, including these:

- Available Project documents.
- Interviews with Project consultants.
- County staff.
- EPS's past experience on similar projects.

The service levels and cost estimates detailed in this chapter are preliminary. When necessary, EPS developed cost estimates using cost data derived in comparable past Specific Plan projects on which EPS has worked. The annual cost estimate for each service type is assumed to have an administrative component built into it that would provide funds for administration of the particular service. In addition, a separate CHLSD administration service category has been included for administration of the overall program and coordination of the various services.

Service levels are described in terms of the qualitative descriptions of services provided. As the Project moves forward in the approvals process, service level standards may be revised or more precisely defined. Estimated annual operations and maintenance costs also may be updated and refined as more detailed information becomes available.

A major update of the Urban Services and Governance Plan and estimated costs will be prepared by the CHLSD before formation of a special tax or assessment district (as discussed earlier in this chapter) or approval of special taxes or assessments. As part of this implementation update, special attention will be directed to estimating the start-up costs for administration of the CHLSD. The actual special tax rates or assessments will be finalized during the formation process for any special financing district. The Developer will be responsible for funding any shortfall in start-up costs and shortfalls in the early years that are not covered by the special

taxes or assessments. These shortfall payments may be funded through Developer advances or undeveloped land taxes as set forth in the Development Agreement (DA) between the County and Master Developer.

Table 5-1 summarizes the cost estimates for each CHLSD urban service category at the completion of Phase 1 and at buildout. For each service type, **Table 5-1** shows the Phase 1 and buildout gross annual cost, offsetting revenues such as user fees, and remaining net annual costs. This Urban Services Plan proposes the use of a CSA or CSD services special tax/assessment to cover the net annual costs.

Appendix A provides a phasing analysis for the services proposed to be provided by the CHLSD. The tables contained in the appendix demonstrate that annual development of the Project and service levels are reasonably balanced through buildout of the Project.

Maximum Special Tax/Assessment

The estimated annual maximum services special tax/assessment rates by land use are summarized in **Table 5-2**. These rates are expressed per dwelling unit for each residential use and per 1,000 building square feet for each nonresidential use. **Table 5-2** also shows the estimated Phase 1 and buildout annual revenue generated by the maximum special taxes/assessments and compares this revenue to the total annual CHLSD services cost across all service categories.

The maximum tax/assessment rates are based on the service costs and allocations detailed later in this chapter. For each land use, the total service cost per unit (per dwelling unit for residential uses and per building square foot for nonresidential units) was estimated at completion of Phase 1 and at buildout. These per unit costs were adjusted to estimate the maximum tax/assessment rates. Adjustments were necessary to reduce the tax burden on affordable and high density housing. In addition, to assure adequate funding at all Project phases, the rates were estimated so that no overall deficit occurred at completion of Phase 1 or at bailout. The rates will be subject to annual inflation adjustments.

Tables 5-3 through **5-5** provide detail for the maximum tax/assessment rates shown in **Table 5-2**. **Table 5-3** shows "persons served" on which the cost allocations were based (see discussion below). **Tables 5-4** and **5-5** summarize the cost allocation by land use and service category at completion of Phase 1 and at buildout, respectively.

Additional Funding

Initially, where possible, CHLSD services will be phased to match the special tax/assessment revenue, while increasing service levels to desired standards over time. For some services, however, a higher level of service will be necessary than can be funded by the special tax/assessment revenue in the early years of development. An example is landscaping maintenance, which must be provided once the landscaping has been established, whether or not development is great enough to generate the necessary revenue. If available special tax/assessment revenue from developed property is insufficient to meet minimum service levels, then the special tax/assessment will be levied against undeveloped property to pay for the service costs.

Table 5-1
Cordova Hills Urban Services Plan
Summary of Annual CHLSD Urban Services Costs (2011\$) [1]

Services Component	Phase 1				Buildout			
	Gross Annual Cost	Offsetting Revenue	Net Annual Cost	Percent of Total	Gross Annual Cost	Offsetting Revenue	Net Annual Cost	Percent of Total
Recreation	\$ 228,000	(\$ 114,000)	\$ 114,000	7%	\$ 1,305,000	(\$ 503,000)	\$ 802,000	12%
Operations and Maintenance								
Parks	\$ 263,000	\$ 0	\$ 263,000	15%	\$ 1,432,000	\$ 0	\$ 1,432,000	21%
Open Space and Trails	\$ 129,000	\$ 0	\$ 129,000	8%	\$ 935,000	\$ 0	\$ 935,000	14%
Habitat	\$ 211,000	\$ 0	\$ 211,000	12%	\$ 211,000	\$ 0	\$ 211,000	3%
Landscape Corridors	\$ 74,000	\$ 0	\$ 74,000	4%	\$ 340,000	\$ 0	\$ 340,000	5%
Road Maintenance	\$ 34,000	\$ 0	\$ 34,000	2%	\$ 224,000	\$ 0	\$ 224,000	3%
Transit	\$ 463,000	(\$ 83,000)	\$ 380,000	22%	\$ 2,085,000	(\$ 704,000)	\$ 1,381,000	20%
Subtotal Maintenance	\$ 1,174,000	(\$ 83,000)	\$ 1,091,000	64%	\$ 5,227,000	(\$ 704,000)	\$ 4,523,000	67%
Transportation Management Services	\$ 94,000	\$ 0	\$ 94,000	6%	\$ 426,000	\$ 0	\$ 426,000	6%
Subtotal	\$ 1,496,000	(\$ 197,000)	\$ 1,299,000	76%	\$ 6,958,000	(\$ 1,207,000)	\$ 5,751,000	85%
Administration and Communications [2]			\$ 400,000	24%			\$ 1,000,000	15%
TOTAL			\$ 1,699,000	100%			\$ 6,751,000	100%

sum2

[1] All amounts rounded to nearest \$1,000.

[2] Covers administration of overall program and coordination of the services. In addition, the cost for each service type is assumed to include an administrative component for daily administration of the particular service.

Table 5-2
Cordova Hills Urban Services Plan
Estimated CHLSD Maximum Special Tax/Assessment Revenue (2011\$)

Item	Estimated Max. Special Tax/ Assessment [1]	Dwelling Units/Bldg Sq. Ft. [2]		Maximum Revenue [3]	
		Phase 1	Buildout	Phase 1	Buildout
Net Annual Revenue per Dwelling Unit					
Estates Residential	\$ 1,400	0	138	\$ 0	\$ 192,938
Low Density Residential	\$ 1,400	290	1,809	\$ 406,000	\$ 2,533,125
Medium Density Residential	\$ 1,100	760	3,061	\$ 836,000	\$ 3,367,031
Residential 20 - Owner-Occupied [4]	\$ 1,000	75	416	\$ 75,000	\$ 416,250
Residential 20 - Renter-Occupied [4]	\$ 850	75	416	\$ 63,750	\$ 353,813
HDR - Owner-Occupied & Market Rate [4]	\$ 850	161	341	\$ 136,765	\$ 289,584
HDR - Renter-Occupied & Market Rate [4]	\$ 720	161	341	\$ 115,848	\$ 245,295
HDR - Renter-Occupied & Affordable [4] [5]	\$ 250	228	978	\$ 57,050	\$ 244,500
Subtotal		1,750	7,500	\$ 1,690,413	\$ 7,642,536
Net Annual Revenue per 1,000 Square Feet					
Commercial	\$ 160	120,000	654,860	\$ 19,200	\$ 104,778
Office	\$ 280	0	196,540	\$ 0	\$ 55,031
Subtotal		120,000	851,400	\$ 19,200	\$ 159,809
Total Revenue				\$ 1,709,613	\$ 7,802,344
Total Revenue (Rounded)				\$ 1,710,000	\$ 7,802,000
Total Annual CHLSD Service Costs				\$ 1,699,000	\$ 6,729,000
Total Annual Revenue (Rounded) Less Annual Costs				\$ 11,000	\$ 1,073,000

sum3

- [1] Estimated maximum special taxes/assessments per dwelling unit and 1,000 square feet of nonresidential established to cover Phase 1 and Buildout annual service costs and not to exceed total taxes and assessments of 1.8% of projected homes sales prices.
- [2] Based on dwelling units and building square feet shown in Table 2-2.
- [3] Max. Special Tax/Assessment * units or 1,000 building sq. ft. (from Table 2-2).
- [4] For purposes of this analysis, Residential 20 and High Density Residential - Market Rate are estimated to be 50% owner-occupied and 50% renter-occupied. Renter-occupied values are discounted by 15% to reflect the lower price points of rental housing.
- [5] Based on the project's affordable housing plan. Weighted average unit value calculated in Table D-3 in the Fiscal Impact Analysis.

Table 5-3
Cordova Hills Urban Services Plan
Persons Served

Item	Persons Served -- Phase 1			Persons Served -- Buildout		
	Population & Employees	Population Based Services [1]	Population and Employee Based Services [2]	Population & Employees	Population Based Services [1]	Population and Employee Based Services [2]
Resident Weighting		100%	100%		100%	100%
Residential Land Uses	<u>population</u>			<u>population</u>		
Estates Residential	0	0	0	448	448	448
Low Density Residential	899	899	899	5,609	5,609	5,609
Medium Density Residential	2,128	2,128	2,128	8,571	8,571	8,571
Residential 20	330	330	330	1,832	1,832	1,832
High Density Residential	1,210	1,210	1,210	3,651	3,651	3,651
Total Residential	4,567	4,567	4,567	20,110	20,110	20,110
Employee Weighting [3]		0%	50%		0%	50%
Nonresidential Land Uses	<u>employees</u>			<u>employees</u>		
Commercial	240	0	120	1,310	0	655
Office	0	0	0	715	0	357
Total Nonresidential	240	0	120	2,024	0	1,012
Total Persons Served		4,567	4,687		20,110	21,122

persons

Source: Conwy and EPS.

[1] Population based services: Recreation, Parks, Open Space and Trails.

[2] Population and employee based services: Habitat, Landscape Corridors, Roads, Transit, TMA.

[3] The employee weighting represents an employee's demand for services as compared to a resident's demand.

Table 5-4
Cordova Hills Urban Services Plan
Annual Phase 1 CHLSD Service Costs per Dwelling Unit and Building Square Foot (2011\$)

Service Type	Net Annual Cost	Cost per Dwelling Unit					Cost per 1,000 Bldg. Sq. Ft.	
		Estates Residential	Low Density	Medium Density	Residential 20	High Density	Commercial	Office
Recreation	\$ 114,000	\$ 0	\$ 77	\$ 70	\$ 55	\$ 55	\$ 0	\$ 0
Maintenance								
Parks	\$ 263,000	\$ 0	\$ 179	\$ 161	\$ 127	\$ 127	\$ 0	\$ 0
Open Space and Trails	\$ 129,000	\$ 0	\$ 88	\$ 79	\$ 62	\$ 62	\$ 0	\$ 0
Habitat	\$ 211,000	\$ 0	\$ 140	\$ 126	\$ 99	\$ 99	\$ 45	\$ 0
Transit	\$ 380,000	\$ 0	\$ 251	\$ 227	\$ 178	\$ 178	\$ 81	\$ 0
Roads	\$ 34,000	\$ 0	\$ 22	\$ 20	\$ 16	\$ 16	\$ 7	\$ 0
Landscape Corridors	\$ 74,000	\$ 0	\$ 49	\$ 44	\$ 35	\$ 35	\$ 16	\$ 0
Subtotal Maintenance	\$ 1,091,000	\$ 0	\$ 728	\$ 658	\$ 517	\$ 517	\$ 149	\$ 0
Transportation Management Services	\$ 94,000	\$ 0	\$ 62	\$ 56	\$ 44	\$ 44	\$ 20	\$ 0
Subtotal	\$ 1,299,000	\$ 0	\$ 868	\$ 784	\$ 616	\$ 616	\$ 169	\$ 0
Administration and Communications	\$ 400,000	\$ 0	\$ 267	\$ 241	\$ 190	\$ 190	\$ 52	\$ 0
TOTAL	\$ 1,699,000	\$ 0	\$ 1,135	\$ 1,025	\$ 806	\$ 806	\$ 221	\$ 0

sum1 ph1

Table 5-5
Cordova Hills Urban Services Plan
Annual Buildout CHLSD Service Costs per Dwelling Unit and Building Square Foot (2011\$)

Service Type	Net Annual Cost	Cost per Dwelling Unit					Cost per 1,000 Bldg. Sq. Ft.	
		Estates Residential	Low Density	Medium Density	Residential 20	High Density	Commercial	Office
Recreation	\$ 803,000	\$ 130	\$ 124	\$ 112	\$ 88	\$ 88	\$ 0	\$ 0
Maintenance								
Parks	\$ 1,432,000	\$ 231	\$ 221	\$ 199	\$ 157	\$ 157	\$ 0	\$ 0
Open Space and Trails	\$ 935,000	\$ 151	\$ 144	\$ 130	\$ 102	\$ 102	\$ 0	\$ 0
Habitat	\$ 211,000	\$ 32	\$ 31	\$ 28	\$ 22	\$ 22	\$ 10	\$ 18
Transit	1,381,000	\$ 212	\$ 203	\$ 183	\$ 144	\$ 144	\$ 65	\$ 119
Roads	\$ 201,000	\$ 31	\$ 30	\$ 27	\$ 21	\$ 21	\$ 10	\$ 17
Landscape Corridors	\$ 340,000	\$ 52	\$ 50	\$ 45	\$ 35	\$ 35	\$ 16	\$ 29
Subtotal Maintenance	\$ 4,500,000	\$ 711	\$ 678	\$ 612	\$ 481	\$ 481	\$ 101	\$ 184
Transportation Management Services	\$ 426,000	\$ 66	\$ 63	\$ 56	\$ 44	\$ 44	\$ 20	\$ 37
Subtotal	\$ 5,729,000	\$ 906	\$ 864	\$ 781	\$ 613	\$ 613	\$ 121	\$ 220
Administration and Communications	\$ 1,000,000	\$ 158	\$ 151	\$ 136	\$ 107	\$ 107	\$ 21	\$ 38
TOTAL	\$ 6,729,000	\$ 1,064	\$ 1,015	\$ 917	\$ 720	\$ 720	\$ 142	\$ 259

sum1 bo

Costs and Cost Allocations by Service Type

Overview

As summarized in **Table 5-1** (discussed above), annual service cost estimates were developed for each service type at the completion of Phase 1 and at buildout. These cost estimates were allocated to the benefitting land uses to arrive at an annual cost per dwelling unit for each residential land use and per 1,000 building square foot for each commercial land use (where appropriate). Each service type was allocated to the benefitting land uses on the basis of persons served, with some services assumed to benefit residents only and other services assumed to benefit both residents and employees. In the cases where only residents benefit from the service (population-based services), the costs were allocated to the residential uses only, whereas in cases where both residents and employees benefit from the service (population- and employee-based services), the costs were allocated to both residential and nonresidential uses. When employees benefited from a service, their benefit level was assumed to be one-half of that for a resident. **Table 5-3** shows the persons served used to allocate costs at Phase 1 and buildout for both population-based and population- and employee-based service types. The services of each service benefit type are shown below.

Population-Based Services

Recreation

Parks

Open Space and Trails

Population- and Employee-Based Services

Habitat

Landscape Corridors

Road Maintenance

Transit

TDM Services

The cost estimates and allocations for each CHLSD service category are discussed in the remainder of this chapter. For each category, this discussion includes the following components:

- Estimated level of services and the service provider.
In some cases, operating and maintenance costs are shared between service providers. In these cases, the maintenance responsibilities are specified for each organization.
- Estimated annual cost required to meet the service standards at the completion of Phase 1 and buildout.
- Cost allocations at the completion of Phase 1 and at buildout.

Recreation Services

Elements of Service

The CHLSD will provide recreation services and programs. The programs will include traditional sports activities, such as youth and adult basketball and soccer, and coordination with other sports organizations such as Little League™. Programs also will include traditional special interest activities such as dance, music training, crafts, youth summer day camp, and others typically associated with a park district or department. The recreation service is envisioned as extending into community health and wellness education and environmental awareness and education. Thus, the recreation services might include classes on nutrition, gardening, individual wellness, walking, nature studies, and so on. In addition, the recreation services would coordinate a community gardens program and a local farmers market.

Preliminary Service Level Standards

The actual selection of programs and services will evolve and change with the needs and interests of the community and will be determined by the County BOS or CHCSD Board.

Estimated Annual Services Costs

Table 5-6 details the calculation of the estimated net annual recreation costs at completion of Phase 1 development and at buildout. The recreation services in this table include a swim center and other general recreation programs. It is assumed the swim center will not be built until after completion of Phase 1 development. The swim center service costs will be incurred only if and when the swim center is built.

All cost estimates are preliminary and are based on cost assumptions in comparable project areas. The swim center annual services cost estimate is based on annual pool maintenance costs for a comparable pool (the Arroyo Pool) in the City of Davis, California. A 50 percent cost recovery from all recreation program revenues is assumed. The recreation programs cost recovery percentage is based on a survey of recreation costs in other jurisdictions in the region.

Annual Services Cost Allocation

Table 5-7 details the allocation of the net annual recreation services cost to the benefitting land uses at the completion of Phase 1 development and at buildout. These costs are allocated to residential uses only.

Table 5-6
Cordova Hills Urban Services Plan
Annual CHLSD Recreation Services Cost (2011\$)

Item	Percent	Phase 1			Buildout		
		Cost Per Person Served	Persons Served	Total Annual Services Cost	Cost Per Person Served	Persons Served	Total Annual Services Cost
Swim Center [1]		\$ 0	0	\$ 0	\$ 15	20,110	\$ 300,000
General Recreation Programs [2]		\$ 50	4,567	\$ 228,350	\$ 50	20,110	\$ 1,005,485
Subtotal (rounded)		\$ 50	4,567	\$ 228,350	\$ 65	20,110	\$ 1,305,485
Less General Recreation Cost Recovery [2]	50%	(\$ 25)	4,567	(\$ 114,175)	(\$ 25)	20,110	(\$ 502,743)
Net Annual Recreation Cost		\$ 25	4,567	\$ 114,175	\$ 40	20,110	\$ 802,743
Net Annual Recreation Cost (Rounded)		\$ 25	4,567	\$ 114,000	\$ 40	20,110	\$ 803,000

rec cost

Source: Sacramento County Regional Parks; EPS.

[1] Annual swim center maintenance cost is based on City of Davis annual pool maintenance costs for Arroyo Pool.

Cost per person served calculated as total annual maintenance costs / persons served.

[2] Based on survey of costs from comparable jurisdictions in the region (2010).

Table 5-7
Cordova Hills Urban Services Plan
Annual CHLSD Recreation Services Cost
Allocation (2011\$)

Item	Phase 1						
	Residential Units [1]	Nonres. Bldg. Sq. Ft. [1]	Persons Served	Distribution	Net Cost Assignment	Per Unit	Per 1,000 Sq. Ft.
<i>Formula</i>	<i>A</i>	<i>B</i>		<i>D</i>	<i>E = Total Cost*D</i>	<i>F = E/A</i>	<i>G = E/B*1,000</i>
Residential Land Uses							
Estates Residential	0		0	0.0%	\$0	\$0	
Low Density Residential	290		899	19.7%	\$22,441	\$77	
Medium Density Residential	760		2,128	46.6%	\$53,118	\$70	
Residential 20	150		330	7.2%	\$8,237	\$55	
High Density Residential	550		1,210	26.5%	\$30,204	\$55	
Total Residential	1,750		4,567	100.0%	\$114,000		
Nonresidential Land Uses							
Commercial		120,000	0	0.0%	\$0		\$0
Office		0	0	0.0%	\$0		\$0
Total Commercial		120,000	0	0.0%	\$0		
Total [2]	1,750	120,000	4,567	100.0%	\$114,000		

rec alloc

Sources: EPS.

[1] See Table 2-2.

[2] See Table 5-6 for total cost.

Table 5-7
Cordova Hills Urban Services Plan
Annual CHLSD Recreation Services Cost
Allocation (2011\$)

Item	Buildout						
	Residential Units [1]	Nonres. Bldg. Sq. Ft. [1]	Persons Served	Distribution	Net Cost Assignment	Per Unit	Per 1,000 Sq. Ft.
<i>Formula</i>	<i>A</i>	<i>B</i>		<i>D</i>	<i>E = Total Cost*D</i>	<i>F = E/A</i>	<i>G = E/B*1,000</i>
Residential Land Uses							
Estates Residential	138		448	2.2%	\$17,885	\$130	
Low Density Residential	1,809		5,609	27.9%	\$223,975	\$124	
Medium Density Residential	3,061		8,571	42.6%	\$342,233	\$112	
Residential 20	833		1,832	9.1%	\$73,134	\$88	
High Density Residential	1,659		3,651	18.2%	\$145,773	\$88	
Total Residential	7,500		20,110	100.0%	\$803,000		
Nonresidential Land Uses							
Commercial	0	654,860	0	0.0%	\$0		\$0
Office	0	196,540	0	0.0%	\$0		\$0
Total Commercial	0	851,400	0	0.0%	\$0		
Total [2]	7,500	851,400	20,110	100.0%	\$803,000		

rec alloc

Sources: EPS.

[1] See Table 2-2.

[2] See Table 5-6 for total cost.

Park Maintenance

Elements of Service

Park maintenance services will be provided by the CHLSD and will comprise maintenance of park facilities and upkeep of all parklands, including turf, irrigation, playgrounds, and sports facilities. In addition, the CHLSD will be responsible for maintaining the lighting in the parks. Staff crews also will clean restrooms and repair facilities damaged by vandalism.

The park plan for Cordova Hills includes a combination of large sports facilities, a Community Park, and several neighborhood parks. In addition to the formal parks, there is an extensive network of open space areas that weave through the residential neighborhoods and along the edge of the major resource avoidance open space areas.

The Sports Park is a 50-acre complex located near the university/college campus center at the west side of Cordova Hills. This site will include soccer fields, baseball and softball fields, extensive picnic areas, and parking, among other amenities. The Sports Park is envisioned as a primary community resource that will serve much of the active sports needs, particularly for league and tournament play.

The Community Park is located adjacent to the commercial center in East Valley near the geographic center of the community. The Community Park encompasses 18 acres and will abut the commercial site to provide an opportunity for a restaurant to be located overlooking the park. The park will be distinctly urban in character and will include a community center, a village green for a farmers market and large community events, playgrounds and picnic areas, and a splash fountain, in addition to open turf and play fields.

Neighborhood parks will encompass 5 or 6 acres and will include open turf for soccer, picnic facilities, and a playground. Tot lots are not the obligation of the CHLSD but may be developed as part of subdivision development, with funding paid through a homeowners association (HOA).

Preliminary Service Level Standards

The County General Plan requires 5 acres of parkland per 1,000 residents. As detailed in the Draft Cordova Hills Master Plan, the maximum residential development of 8,000 units would generate a projected population of 21,379 at buildout. This population would create a need for a total of 106.9 acres of designated parkland in the Cordova Hills community, in addition to the avoided areas and other non-credited open space/parks. The Cordova Hills Master Plan includes 99.1 acres of active neighborhood, community, and sports parks, leaving the Project with another 7.8 acres of required active parks. Consequently, the park maintenance cost estimates assume that 7.8 acres of open space will be developed as active parkland (see discussion below).

Estimated Annual Service Costs

Table 5-8 details the calculation of the estimated net annual park costs at completion of Phase 1 development and at buildout. Separate cost estimates are shown for neighborhood parks, community parks, the sports park, and additional active parks needed to meet the required 106.9 acres of parks. As discussed above, the additional active parks will be land currently designated as open space that will be developed as active parks. The cost estimates are preliminary and are based on cost assumptions in comparable project areas. The maintenance

cost estimates per acre are somewhat higher for neighborhood parks because these parks are smaller and have relatively more facilities versus open fields to maintain.

Annual Services Cost Allocation

Table 5-9 details the allocation of the net annual park maintenance cost to the benefitting land uses at the completion of Phase 1 development and at buildout. These costs are allocated to residential uses only.

Table 5-8
Cordova Hills Urban Services Plan
Annual CHLSD Parks Maintenance Cost (2011\$)

Item	Net Annual Cost Per Acre [1]	Phase 1		Buildout	
		Acres	Cost	Acres	Cost
Neighborhood Parks	\$ 15,000	5.0	\$ 75,000	30.6	\$ 459,000
Community Park	\$ 12,500	0.0	\$ 0	18.5	\$ 231,250
Sports Park [2]	\$ 12,500	15.0	\$ 187,500	50.0	\$ 625,000
Additional Active Parks [3]	\$ 15,000			7.8	\$ 117,000
Total Annual Parks Maintenance Cost		20.0	\$ 262,500	106.9	\$ 1,432,250
Total Annual Parks Maintenance Cost (Rounded)			\$ 263,000		\$ 1,432,000

parks cost

Source: EPS, MacKay & Somps, Wade & Assoc.

[1] Based on survey of parks and open space maintenance costs for comparable jurisdictions in region

[2] A portion of the sports park maintenance cost would be funded by user fees charged to sports organizations.
The cost shown in this table is for basic maintenance of the facility excluding extra costs needed to support use by leagues/special events.

[3] Open space that will be developed and maintained as active parks so that Cordova Hills reaches its total requirement of 106.9 acres of active parkland (5 acres per 1,000 population).

Table 5-9
Cordova Hills Urban Services Plan
Annual CHLSD Parks Maintenance Cost
Allocation (2011\$)

Item	Phase 1						
	Residential Units [1]	Nonres. Bldg. Sq. Ft. [1]	Persons Served	Distribution	Net Cost Assignment	Per Unit	Per 1,000 Sq. Ft.
<i>Formula</i>	<i>A</i>	<i>B</i>		<i>D</i>	<i>E = Total Cost*D</i>	<i>F = E/A</i>	<i>G = E/B*1,000</i>
Residential Land Uses							
Estates Residential	0		0	0.0%	\$0	\$0	
Low Density Residential	290		899	19.7%	\$51,771	\$179	
Medium Density Residential	760		2,128	46.6%	\$122,545	\$161	
Residential 20	150		330	7.2%	\$19,004	\$127	
High Density Residential	550		1,210	26.5%	\$69,680	\$127	
Total Residential	1,750		4,567	100.0%	\$263,000		
Nonresidential Land Uses							
Commercial		120,000	0	0.0%	\$0		\$0
Office		0	0	0.0%	\$0		\$0
Total Commercial		120,000	0	0.0%	\$0		
Total [2]	1,750	120,000	4,567	100.0%	\$263,000		

parks alloc

Sources: EPS.

[1] See Table 2-2.

[2] See Table 5-8 for total cost.

Table 5-9
Cordova Hills Urban Services Plan
Annual CHLSD Parks Maintenance Cost
Allocation (2011\$)

Item	Buildout						
	Residential Units [1]	Nonres. Bldg. Sq. Ft. [1]	Persons Served	Distribution	Net Cost Assignment	Per Unit	Per 1,000 Sq. Ft.
<i>Formula</i>	<i>A</i>	<i>B</i>		<i>D</i>	<i>E = Total Cost*D</i>	<i>F = E/A</i>	<i>G = E/B*1,000</i>
Residential Land Uses							
Estates Residential	138		448	2.2%	\$31,894	\$231	
Low Density Residential	1,809		5,609	27.9%	\$399,418	\$221	
Medium Density Residential	3,061		8,571	42.6%	\$610,309	\$199	
Residential 20	833		1,832	9.1%	\$130,420	\$157	
High Density Residential	1,659		3,651	18.2%	\$259,959	\$157	
Total Residential	7,500		20,110	100.0%	\$1,432,000		
Nonresidential Land Uses							
Commercial	0	654,860	0	0.0%	\$0		\$0
Office	0	196,540	0	0.0%	\$0		\$0
Total Commercial	0	851,400	0	0.0%	\$0		
Total [2]	7,500	851,400	20,110	100.0%	\$1,432,000		

parks alloc

Sources: EPS.

[1] See Table 2-2.

[2] See Table 5-8 for total cost.

Open Space and Trails Maintenance

Elements of Service

The CHLSD will maintain all open space/greenbelts, open space edge conditions, paseos, and trails outside the public ROW, as well as the lighting located in paseos and along trails.

Maintenance of the open spaces does not include maintenance of the three distinct preserves (referred to as avoided areas), which will be maintained through an endowment. The maintenance does, however, include treatment of physical edge conditions surrounding the avoided areas. All the edge conditions include a landscaped area, trail, and swale that create a hydrological barrier from urban runoff toward the avoidance area. This landscaped area would be located outside the avoidance area boundary and would serve as an additional buffer, decreasing “edge effects” on wildlife and habitat in the avoided area.

Estimated Annual Maintenance Costs

Table 5-10 summarizes the open space and trails annual maintenance cost at the completion of Phase 1 development and at buildout. Separate cost estimates are shown for maintenance of open space/greenbelts, open space edges, paseos, multi-use trails, and lighting along paseos and trails. Please note that the open space/greenbelts square feet shown at buildout include an adjustment to account for open space acres that will be developed as active parkland (see previous discussion in Park Maintenance section). The cost estimates for all items except lighting are based on the planned square feet for Phase 1 and buildout and on the estimated annual cost per square foot for the different types of open space and trails. The lighting cost estimates are based on the linear feet of paseos and trails, the number of lights required using an estimate of one light every 200 linear feet, and an estimated annual maintenance cost per light.

Table 5-11 details the calculation of the annual maintenance costs at completion of Phase 1 and buildout. Annual maintenance costs per square foot were estimated by MJS Design Group.

Annual Maintenance Cost Allocation

Table 5-12 details the allocation of the net annual open space and trails maintenance cost to the benefitting land uses at the completion of Phase 1 development and at buildout. These costs are allocated to residential uses only.

Table 5-10
Cordova Hills Urban Services Plan
Annual CHLSD Open Space and Trails Maintenance Cost Summary (2011\$)

Item [1]	Phase 1				Buildout			
	Linear Ft.	Lights	Sq. Ft.	Annual Cost	Linear Ft.	Lights	Sq. Ft.	Annual Cost
Open Space/Greenbelts			0	\$ 0			3,666,232	\$ 248,275
Open Space Edges			568,700	\$ 85,822			1,748,100	\$ 258,722
Paseos (20 miles)	10,560		211,200	\$ 32,098	105,600		2,112,000	\$ 321,024
Multi-Use Trails (10' wide)	1,000		10,000	\$ 200	22,785		227,850	\$ 4,557
Multi-Use Trails (14' wide)	1,686		23,600	\$ 1,180	4,029		56,400	\$ 2,820
Lighting [2]	13,246	66		\$ 9,934	132,414	662		\$ 99,310
Total Annual Cost			813,500	\$ 129,234			7,810,582	\$ 934,708
Total Annual Cost (Rounded)				\$ 129,000				\$ 935,000

os sum

Source: MacKay & Soms, MJS Design Group

[1] See Table 5-11 for detailed cost estimates of all items except lighting.

[2] Linear feet for lighting equals sum of linear feet of paseos and trails. One light every 200 feet; \$150 per light/year based on PG&E Lighting Schedule-1 rates of \$11 per month plus a contingency for non-routine repairs.

Table 5-11
Cordova Hills Urban Services Plan
Annual CHLSD Open Space and Trails Maintenance Cost (2011\$)

Item	Annual Cost Per Sq. Ft.	Phase 1		Buildout	
		Square Feet	Cost	Square Feet	Cost
Open Space/Greenbelts					
Paseo Central Landscape Corridor	\$ 0.02	0	\$ 0	2,029,900	\$ 40,598
Ridgeline Landscape Corridor	\$ 0.02	0	\$ 0	226,600	\$ 4,532
University/College Campus Center/Universit	\$ 0.12	0	\$ 0	461,300	\$ 55,356
Central Spine R-2 Greenbelt	\$ 0.12	0	\$ 0	435,600	\$ 52,272
East Valley/Estates R-2 Greenbelt	\$ 0.12	0	\$ 0	852,600	\$ 102,312
Less Paseo Central Landscape Corridor converted to Neighborhood Parkland [1]	\$ 0.02	0	\$ 0	(339,768)	(\$ 6,795)
Subtotal Open Space/Greenbelts		0	\$ 0	3,666,232	\$ 248,275
Open Space Edges					
Paseo Central Edges					
Landscape Area	\$ 0.18	0	\$ 0	736,000	\$ 132,480
Multi-purpose Trails (10' wide)	\$ 0.02	0	\$ 0	184,000	\$ 3,680
Main Avoidance Boundary Edges					
Landscape Area	\$ 0.18	465,300	\$ 83,754	662,500	\$ 119,250
Multi-purpose Trails (10' wide)	\$ 0.02	103,400	\$ 2,068	165,600	\$ 3,312
Subtotal Edges		568,700	\$ 85,822	1,748,100	\$ 258,722
Paseos (20 miles)					
Landscape Area (12' wide)	\$ 0.24	126,700	\$ 30,408	1,267,200	\$ 304,128
Multi-purpose Path (8' wide)	\$ 0.02	84,500	\$ 1,690	844,800	\$ 16,896
Subtotal Paseos		211,200	\$ 32,098	2,112,000	\$ 321,024
Multi-Use Trails (10' wide)	\$ 0.02	10,000	\$ 200	227,850	\$ 4,557
Multi-Use Trails (14' wide)	\$ 0.05	23,600	\$ 1,180	56,400	\$ 2,820
Total Open Space and Trails		813,500	\$ 119,300	7,810,582	\$ 835,398
Total Open Space and Trails (Rounded)			\$ 119,000		\$ 835,000

OS

Source: MacKay & Somps, MJS Design Group

[1] Open space that will be developed and maintained as active neighborhood parks. See Table 5-8.

Table 5-12
Cordova Hills Urban Services Plan
Annual CHLSD Open Space and Trails
Maintenance Cost Allocation (2011\$)

Item	Phase 1						
	Residential Units [1]	Nonres. Bldg. Sq. Ft. [1]	Persons Served	Distribution	Net Cost Assignment	Per Unit	Per 1,000 Sq. Ft.
<i>Formula</i>	<i>A</i>	<i>B</i>		<i>D</i>	<i>E = Total Cost*D</i>	<i>F = E/A</i>	<i>G = E/B*1,000</i>
Residential Land Uses							
Estates Residential	0		0	0.0%	\$0	\$0	
Low Density Residential	290		899	19.7%	\$25,393	\$88	
Medium Density Residential	760		2,128	46.6%	\$60,108	\$79	
Residential 20	150		330	7.2%	\$9,321	\$62	
High Density Residential	550		1,210	26.5%	\$34,178	\$62	
Total Residential	1,750		4,567	100.0%	\$129,000		
Nonresidential Land Uses							
Commercial		120,000	0	0.0%	\$0		\$0
Office		0	0	0.0%	\$0		\$0
Total Commercial		120,000	0	0.0%	\$0		
Total [2]	1,750	120,000	4,567	100.0%	\$129,000		

os alloc

Sources: EPS.

[1] See Table 2-2.

[2] See Table 5-20 for total cost.

Table 5-12
Cordova Hills Urban Services Plan
Annual CHLSD Open Space and Trails
Maintenance Cost Allocation (2011\$)

Item	Buildout						
	Residential Units [1]	Nonres. Bldg. Sq. Ft. [1]	Persons Served	Distribution	Net Cost Assignment	Per Unit	Per 1,000 Sq. Ft.
<i>Formula</i>	<i>A</i>	<i>B</i>		<i>D</i>	<i>E = Total Cost*D</i>	<i>F = E/A</i>	<i>G = E/B*1,000</i>
Residential Land Uses							
Estates Residential	138		448	2.2%	\$20,825	\$151	
Low Density Residential	1,809		5,609	27.9%	\$260,793	\$144	
Medium Density Residential	3,061		8,571	42.6%	\$398,491	\$130	
Residential 20	833		1,832	9.1%	\$85,156	\$102	
High Density Residential	1,659		3,651	18.2%	\$169,736	\$102	
Total Residential	7,500		20,110	100.0%	\$935,000		
Nonresidential Land Uses							
Commercial	0	654,860	0	0.0%	\$0		\$0
Office	0	196,540	0	0.0%	\$0		\$0
Total Commercial	0	851,400	0	0.0%	\$0		
Total [2]	7,500	851,400	20,110	100.0%	\$935,000		

os alloc

Sources: EPS.

[1] See Table 2-2.

[2] See Table 5-20 for total cost.

Habitat Operations and Maintenance

Elements of Service

Wetlands preservation will be required in the avoidance areas of the Project. Most of the avoidance areas are in the western third of the Project. In addition, offsite habitat mitigation will be required. The offsite mitigation costs will include creation, restoration, and preservation costs and are discussed in the Cordova Hills Financing Plan and proposed to be funded through the Cordova Hills Special Financing District.

The ongoing costs of operating and maintaining the onsite preserve are planned to be funded through the annual CHLSD tax or assessment. The ongoing operations and maintenance of the habitat includes legal, construction, survey, maintenance, operations, and reporting functions.

Estimated Annual Maintenance Costs

Table 5-13 summarizes the annual onsite habitat operations and maintenance costs. These costs are detailed in the Property Analysis Record (PAR) prepared to estimate annual management costs for the onsite Cordova Hills habitat preserve. The costs in **Table 5-13** are estimates for the annual costs beginning in the year after the habitat is established. The first-year costs would be somewhat higher than in the subsequent years because additional costs would be required to establish the habitat.

It is assumed that the entire required onsite preserve will be established and will need to be maintained in the first year of Cordova Hills development. Consequently, the annual Phase 1 costs are equal to the buildout costs (in 2011 dollars). The Cordova Hills developer may be required to privately fund some of the costs in the first few years of the Project until enough development occurs that the proposed tax or assessment would provide sufficient revenue.

Annual Maintenance Cost Allocation

Table 5-14 details the allocation of the net annual habitat operations and maintenance costs to the benefitting land uses at the completion of Phase 1 development and at buildout. These costs are allocated to both residential and nonresidential uses.

Table 5-13
Cordova Hills Urban Services Plan
Annual CHLSD Habitat Operations and Maintenance Cost (2011\$)

Item	Percent	Annual Cost [1]
Site Construction/Maintenance		\$ 85,826
Biotic Surveys		\$ 10,920
Habitat Maintenance		\$ 40,800
Public Services		\$ 10,708
General Maintenance		\$ 2,000
Reporting		\$ 8,315
Office Maintenance		\$ 250
Field Equipment		\$ 1,075
Operations		\$ 958
Subtotal		\$ 160,852
Contingency	10%	\$ 16,085
Subtotal with Contingency		\$ 176,937
Administration	19%	\$ 33,618
Total Annual Cost		\$ 210,555
Total Annual Cost (Rounded)		211,000

hab

Source: ECORP

[1] Assumes that annual cost in Phase 1 is equal to the full buildout annual cost.

Table 5-14
Cordova Hills Urban Services Plan
Annual CHLSD Habitat Operations and
Maintenance Cost Allocation (2011\$)

Item	Phase 1						
	Residential Units [1]	Nonres. Bldg. Sq. Ft. [1]	Persons Served	Distribution	Net Cost Assignment	Per Unit	Per 1,000 Sq. Ft.
<i>Formula</i>	<i>A</i>	<i>B</i>		<i>D</i>	<i>E = Total Cost*D</i>	<i>F = E/A</i>	<i>G = E/B*1,000</i>
Residential Land Uses							
Estates Residential	0		0	0.0%	\$0	\$0	
Low Density Residential	290		899	19.2%	\$40,471	\$140	
Medium Density Residential	760		2,128	45.4%	\$95,799	\$126	
Residential 20	150		330	7.0%	\$14,856	\$99	
High Density Residential	550		1,210	25.8%	\$54,472	\$99	
Total Residential	1,750		4,567	97.4%	\$205,598		
Nonresidential Land Uses							
Commercial		120,000	120	2.6%	\$5,402		\$45
Office		0	0	0.0%	\$0		\$0
Total Commercial		120,000	120	2.6%	\$5,402		
Total [2]	1,750	120,000	4,687	100.0%	\$211,000		

hab alloc

Sources: EPS.

[1] See Table 2-2.

[2] See Table 5-20 for total cost.

Table 5-14
Cordova Hills Urban Services Plan
Annual CHLSD Habitat Operations and
Maintenance Cost Allocation (2011\$)

Item	Buildout						
	Residential Units [1]	Nonres. Bldg. Sq. Ft. [1]	Persons Served	Distribution	Net Cost Assignment	Per Unit	Per 1,000 Sq. Ft.
<i>Formula</i>	<i>A</i>	<i>B</i>		<i>D</i>	<i>E = Total Cost*D</i>	<i>F = E/A</i>	<i>G = E/B*1,000</i>
Residential Land Uses							
Estates Residential	138		448	2.1%	\$4,474	\$32	
Low Density Residential	1,809		5,609	26.6%	\$56,032	\$31	
Medium Density Residential	3,061		8,571	40.6%	\$85,617	\$28	
Residential 20	833		1,832	8.7%	\$18,296	\$22	
High Density Residential	1,659		3,651	17.3%	\$36,468	\$22	
Total Residential	7,500		20,110	95.2%	\$200,888		
Nonresidential Land Uses							
Commercial	0	654,860	655	3.1%	\$6,542		\$10
Office	0	196,540	357	1.7%	\$3,570		\$18
Total Commercial	0	851,400	1,012	4.8%	\$10,112		
Total [2]	7,500	851,400	21,122	100.0%	\$211,000		

hab alloc

Sources: EPS.

[1] See Table 2-2.

[2] See Table 5-20 for total cost.

Landscape Corridors

Elements of Service

Landscaping in the Project refers to landscaping in road medians and adjacent to roads. It will include water features, traditional landscaping, landscaping with Low Impact Development (LID) features, rain gardens, gateways, sidewalks, walls and fences, directional and project signage, and accent and signage lighting.

For the purposes of determining the landscaping that will be maintained by the CHLSD and the cost of that landscaping, the landscaping features have been divided into the following categories:

- Landscape Corridors
- Landscape Corridors with LID Features
- Median Landscaping
- Median Landscaping with LID features
- Sidewalks
- Sound Walls

The CHLSD will maintain some of these landscaping features, depending on the adjacent type of property. **Map 5-1** categorizes the roads (and subsequently the adjacent landscape corridors) by the types of property they front. The CHLSD-maintained landscaping is detailed below by landscaping category.

Landscape Corridors and Landscape Corridors with LID Features

The CHLSD will maintain the following landscape corridors:

- All landscape corridors with LID features.
- All landscape corridors without LID features that do not directly front commercial, residential, or school district properties.

All landscape corridors without LID features that front commercial, residential, or school district properties will be privately maintained by commercial property owners, home owners, or the Elk Grove Unified School District (EGUSD).

Median Landscaping and Median Landscaping with LID Features

The CHLSD will maintain all median landscaping (with and without LID features).

Sidewalks and Sound Walls

The CHLSD will maintain the following sidewalks:

- All sidewalks in single-family residential areas.
- All other sidewalks that do not front commercial, multifamily, condominium, or school district properties.

All sidewalks that front commercial, multifamily, condominium, or school district properties will be privately maintained by commercial property owners, home owners associations, or the EGUSD.

The CHLSD will maintain all sound walls.

Preliminary Service Level Standards

The landscape maintenance standards will comply with the design vision and standards established in the Cordova Hills Master Plan/Special Plan Area Ordinance. This will require a low maintenance and low water demand landscape design. Regular periodic maintenance on a weekly schedule will be required to maintain visual quality and to sustain the viability of the plantings. The maintenance also will include vandalism and graffiti abatement in all public common areas outside the public street ROW.

Estimated Annual Maintenance Costs

Table 5-15 summarizes the CHLSD landscaping maintenance cost at the completion of Phase 1 development and at buildout. Cost estimates are shown for each category of landscaping feature discussed above. These estimates are based on the planned landscaping square feet for Phase 1 and buildout and on the estimated annual cost per square foot for the different categories of landscaping features.

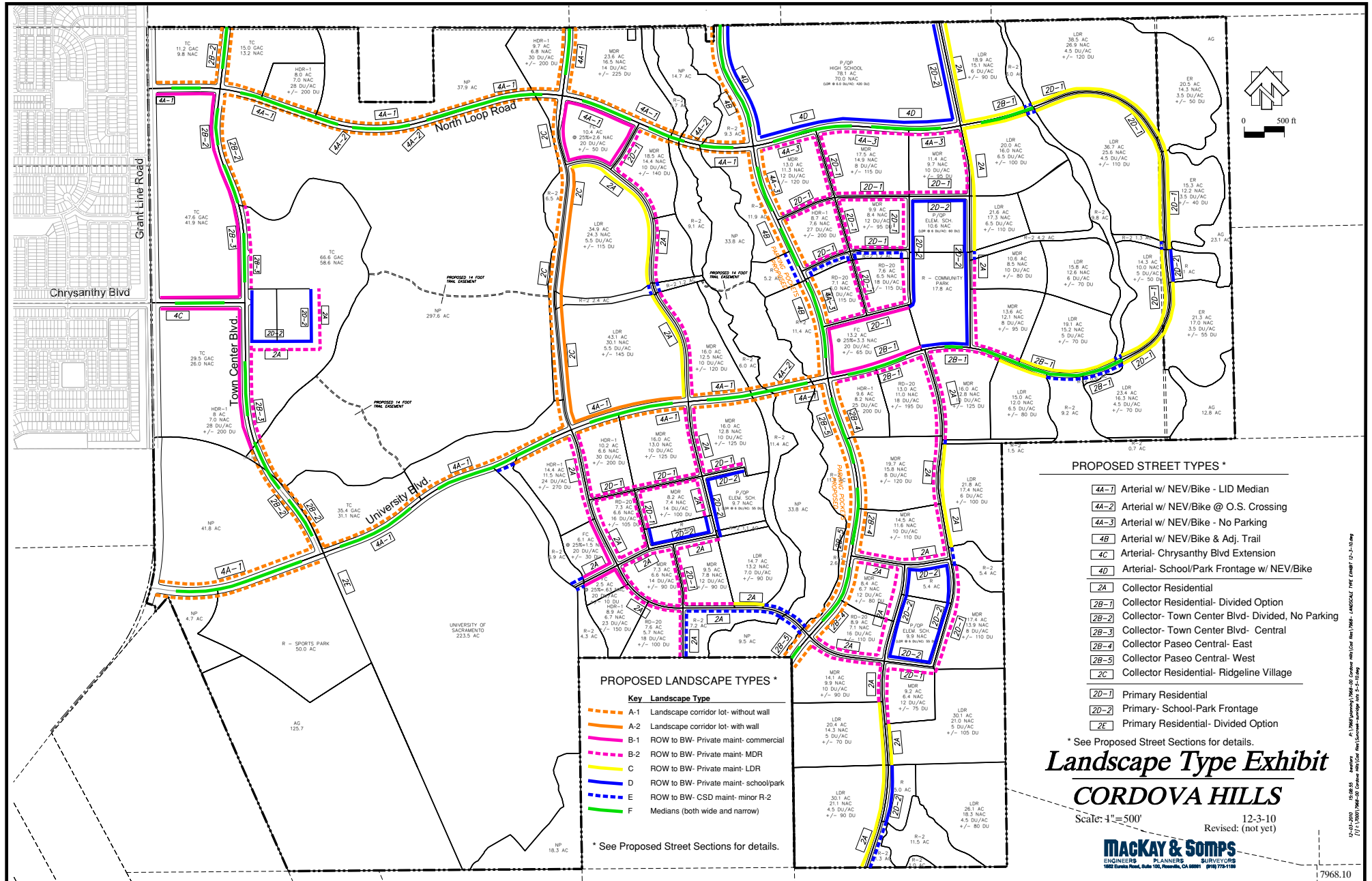
Table 5-16 details the calculation of the annual CHLSD maintenance costs for landscaping in landscape corridors and medians at completion of Phase 1 and buildout. **Table 5-17** details the calculation of the CHLSD sidewalk and sound wall maintenance costs at completion of Phase 1 and buildout. **Table 5-18** details the estimated linear feet of sidewalks that are used in **Table 5-17** to estimate the annual sidewalk maintenance cost.

Annual maintenance costs per square foot for each landscaping category except sound walls were estimated by MJS Design Group. The maintenance cost per square foot for sound walls were assumed to be equal to the maintenance costs per square foot for sidewalks.

Annual Maintenance Cost Allocation

Table 5-19 details the allocation of the CHLSD landscaping maintenance cost to the benefitting land uses at the completion of Phase 1 development and at buildout. These costs are allocated to both residential and nonresidential uses.

Map 5-1



12-3-2010 15:08:55 P:\Mackay\Somps\CORDOVA HILLS\CORDOVA HILLS Landscape Type Exhibit.dwg User: Mackay, J. Date: 12-3-2010

Table 5-15
Cordova Hills Urban Services Plan
Annual CHLSD Landscape Corridor Maintenance Cost Summary (2011\$)

Item	Annual Cost per Sq. Ft.	Phase 1		Buildout	
		Sq. Ft.	Cost	Sq. Ft.	Cost
Landscape	\$ 0.18	76,000	\$ 13,680	219,200	\$ 39,456
Landscape/LID	\$ 0.15	101,600	\$ 15,240	1,011,500	\$ 151,725
Median	\$ 0.18	56,600	\$ 10,188	286,900	\$ 51,642
Median/LID	\$ 0.16	182,400	\$ 29,549	388,100	\$ 62,872
Sidewalks	\$ 0.02	260,264	\$ 5,205	1,678,554	\$ 33,571
Sound Walls	\$ 0.02	0	\$ 0	27,660	\$ 553
Total Annual Cost			\$ 73,862		\$ 339,819
Total Annual Cost (Rounded)			\$ 74,000		\$ 340,000

/sc cost

Source: MacKay & Soms, MJS Design Group, Sacramento County

Table 5-16
Cordova Hills Urban Services Plan
Annual CHLSD Landscaping Maintenance Cost (2011\$)

Item [1]	Maintenance Responsibility	Annual Cost per Sq. Ft.	Width (feet)	Phase 1		Buildout	
				Sq. Ft.	Total Cost	Sq. Ft.	Total Cost
Grant Line Road							
Landscape Setback (inside ROW)	County	N/A	20	94,000	N/A	94,000	N/A
Road Section 4A-1							
Median/LID	CHLSD	\$ 0.16	24	182,400	\$ 29,549	388,100	\$ 62,872
Landscape/LID	CHLSD	\$ 0.15	8	60,800	\$ 9,120	129,400	\$ 19,410
Landscape	CHLSD	\$ 0.18	10	76,000	\$ 13,680	161,700	\$ 29,106
Road Section 4A-2							
Sidewalk (inside ROW)	County	N/A	8	0	N/A	14,000	N/A
Road Section 4A-3							
Median	CHLSD	\$ 0.18	7	0	\$ 0	50,300	\$ 9,054
Landscape/LID	CHLSD	\$ 0.15	12	0	\$ 0	86,200	\$ 12,930
Landscape	CHLSD	\$ 0.18	8	0	\$ 0	57,500	\$ 10,350
Road Section 4B							
Median	CHLSD	\$ 0.18	7	0	\$ 0	32,200	\$ 5,796
Road Section 4C (Town Center Blvd)							
Median	CHLSD	\$ 0.18	14	40,200	\$ 7,236	40,200	\$ 7,236
Landscape	Private	N/A	6	34,400	N/A	34,400	N/A
Road Section 4D							
Median	CHLSD	\$ 0.18	7	0	\$ 0	18,100	\$ 3,258
Landscape/LID	CHLSD	\$ 0.15	8	0	\$ 0	20,700	\$ 3,105
Landscape	EGUSD	N/A	13	0	N/A	33,600	N/A
Road Section 4E							
Median	CHLSD	\$ 0.18	14	12,200	\$ 2,196	12,200	\$ 2,196
Landscape/LID	CHLSD	\$ 0.15	10	17,400	\$ 2,610	17,400	\$ 2,610
Landscape	Private.	N/A	8	13,900	N/A	13,900	N/A

Table 5-16
Cordova Hills Urban Services Plan
Annual CHLSD Landscaping Maintenance Cost (2011\$)

Item [1]	Maintenance Responsibility	Annual Cost per Sq. Ft.	Width (feet)	Phase 1		Buildout	
				Sq. Ft.	Total Cost	Sq. Ft.	Total Cost
Road Section 2A							
Landscape/LID	CHLSD	\$ 0.15	8	17,800	\$ 2,670	288,000	\$ 43,200
Landscape	Private	N/A	10	22,200	N/A	360,000	N/A
Road Section 2B-1							
Median	CHLSD	\$ 0.18	12	0	\$ 0	53,600	\$ 9,648
Landscape/LID	CHLSD	\$ 0.15	8	0	\$ 0	71,500	\$ 10,725
Landscape	Private	N/A	10	0	N/A	89,400	N/A
Road Section 2B-2				0	\$ 0	0	\$ 0
Road Section 2B-3							
Median	CHLSD	\$ 0.18	7	0	\$ 0	25,800	\$ 4,644
Landscape/LID	CHLSD	\$ 0.15	12	0	\$ 0	44,200	\$ 6,630
Landscape	Private	N/A	8	0	N/A	29,400	N/A
Road Section 2B-4							
Median	CHLSD	\$ 0.18	7	0	\$ 0	50,300	\$ 9,054
Road Section 2C							
Landscape/LID	CHLSD	\$ 0.15	10	0	\$ 0	82,000	\$ 12,300
Road Section 2D-1							
Landscape/LID	CHLSD	\$ 0.15	8	0	\$ 0	266,500	\$ 39,975
Landscape/PUE	Private	N/A	10	0	N/A	333,100	N/A
Road Section 2D-2							
Landscape	EGUSD	N/A	13	0	N/A	125,800	N/A
Sidewalk	EGUSD	N/A	8	0	N/A	77,400	N/A
Road Section 2E							
Median	CHLSD	\$ 0.18	12	4,200	\$ 756	4,200	\$ 756
Landscape/LID	CHLSD	\$ 0.15	8	5,600	\$ 840	5,600	\$ 840
Landscape/PUE	Private	N/A	10	7,000	N/A	7,000	N/A
Total Annual Maintenance Costs				588,100	\$ 68,657	3,117,700	\$ 305,695
Total Annual Maintenance Costs (Rounded)					\$ 69,000		\$ 306,000

Isr dtl

Source: MacKay & Soms, MJS Design Group

[1] See Table 5-17 for sidewalks and sound walls maintained by the CHLSD.

Table 5-17
Cordova Hills Urban Services Plan
Annual CHLSD Sidewalk and Sound Wall Maintenance Costs (2011\$)

Item	Cost Per Sq. Ft.	Width (ft.)	Phase 1			Buildout		
			Linear Feet	Square Feet	Annual Cost	Linear Feet	Square Feet	Annual Cost
<u>Sidewalks [1]</u>								
<i>formula</i>	<i>a</i>	<i>b</i>	<i>c</i>	<i>d=b*c</i>	<i>a*d</i>	<i>c</i>	<i>d=b*c</i>	<i>a*d</i>
Landscape Corridor Frontage	\$ 0.02	6	0	0	\$ 0	7,259	43,551	\$ 871
Single Family Frontage on Major Streets	\$ 0.02	6	2,219	13,314	\$ 266	63,226	379,356	\$ 7,587
Single Family Frontage on Neighborhood Streets	\$ 0.02	5	49,390	246,950	\$ 4,939	241,777	1,208,883	\$ 24,178
Minor R-2 Frontage	\$ 0.02	6	0	0	\$ 0	7,794	46,764	\$ 935
Subtotal Sidewalks			51,609	260,264	\$ 5,205	320,055	1,678,554	\$ 33,571
<u>Sound Walls</u>								
<i>formula</i>	<i>a</i>	<i>b</i>	<i>c</i>	<i>e=a*d</i>	<i>e*\$.02</i>	<i>c</i>	<i>e=a*d</i>	<i>e*\$.02</i>
Sound Walls [2]	\$ 0.02	6	0	0	\$ 0.00	4,610	27,660	\$ 553

SW

Source: MacKay & Somp, MJS Design Group, Sacramento County

[1] See Table 5-18 for linear feet.

[2] Sound wall linear feet are estimated as linear feet for Landscape Type A-2: Landscape Corridor Lot With Wall. See Map 5-1.

Table 5-18
Cordova Hills Urban Services Plan
Linear Feet of Sidewalks Maintained by CHLSD

Sidewalk Type	Percent Maintained by CHLSD	Average Linear Feet Per Unit [1]	Phase 1			Buildout		
			Dwelling Units	Linear Feet	Linear Feet Maintained by CHLSD	Dwelling Units	Linear Feet	Linear Feet Maintained by CHLSD
<i>formula</i>	<i>a</i>			<i>b</i>	<i>a*b</i>		<i>c</i>	<i>a*c</i>
Landscape Corridor Frontage								
Street Section 4A-3	50%	N/A	N/A	0	0	N/A	7,183	3,592
Street Section 2B-4	100%	N/A	N/A	0	0	N/A	3,667	3,667
Subtotal				0	0		10,850	7,259
Single Family Frontage on Major Streets								
Estates Residential and Low Density [2]	100%	N/A	N/A	0	0	N/A	23,206	23,206
Medium Density [3]	100%	N/A	N/A	2,219	2,219	N/A	40,020	40,020
Subtotal				2,219	2,219		63,226	63,226
Minor R-2 Frontage [4]	100%			0	0		7,794	7,794
<i>formula</i>	<i>a</i>	<i>b</i>	<i>c</i>	<i>b*c</i>	<i>a*b*c</i>	<i>d</i>	<i>b*d</i>	<i>a*b*d</i>
Single Family Frontage on Neighborhood Streets [1]								
Estates Residential	100%	55	0	0	0	138	7,580	7,580
Low Density	100%	55	290	15,950	15,950	1,809	99,516	99,516
Medium Density	100%	44	760	33,440	33,440	3,061	134,681	134,681
Subtotal			1,050	49,390	49,390	5,008	241,777	241,777
Total				51,609	51,609		323,647	320,055

SW2

Source: MacKay & Somp, MJS Design Group, Sacramento County

[1] Estimated average linear feet for a unit not on a corner lot plus 10% more to account for greater linear feet for corner lots.

[2] Linear feet for Landscape Type C (see Map 5-1)

[3] Linear feet estimated as linear feet for Landscape Type B-2 (see Map 5-1) less 800 lf * number of multifamily sites (multifamily portion of B-2 lf).

[4] Linear feet for Landscape Type E (see Map 5-1).

Table 5-19
Cordova Hills Urban Services Plan
Annual CHLSD Landscape Corridor Maintenance
Cost Allocation (2011\$)

Item	Phase 1						
	Residential Units [1]	Nonres. Bldg. Sq. Ft. [1]	People Served	Distribution	Net Cost Assignment	Per Unit	Per 1,000 Sq. Ft.
<i>Formula</i>	<i>A</i>	<i>B</i>		<i>D</i>	<i>E = Total Cost*D</i>	<i>F = E/A</i>	<i>G = E/B*1,000</i>
Residential Land Uses							
Estates Residential	0		0	0.0%	\$0	\$0	
Low Density Residential	290		899	19.2%	\$14,194	\$49	
Medium Density Residential	760		2,128	45.4%	\$33,598	\$44	
Residential 20	150		330	7.0%	\$5,210	\$35	
High Density Residential	550		1,210	25.8%	\$19,104	\$35	
Total Residential	1,750		4,567	97.4%	\$72,105		
Nonresidential Land Uses							
Commercial		120,000	120	2.6%	\$1,895		\$16
Office		0	0	0.0%	\$0		\$0
Total Commercial		120,000	120	2.6%	\$1,895		
Total [2]	1,750	120,000	4,687	100.0%	\$74,000		

lsc alloc

Sources: EPS.

[1] See Table 2-2.

[2] See Table 5-15 for total cost.

Table 5-19
Cordova Hills Urban Services Plan
Annual CHLSD Landscape Corridor Maintenance
Cost Allocation (2011\$)

Item	Buildout						
	Residential Units [1]	Nonres. Bldg. Sq. Ft. [1]	People Served	Distribution	Net Cost Assignment	Per Unit	Per 1,000 Sq. Ft.
<i>Formula</i>	<i>A</i>	<i>B</i>		<i>D</i>	<i>E = Total Cost*D</i>	<i>F = E/A</i>	<i>G = E/B*1,000</i>
Residential Land Uses							
Estates Residential	138		448	2.1%	\$7,210	\$52	
Low Density Residential	1,809		5,609	26.6%	\$90,289	\$50	
Medium Density Residential	3,061		8,571	40.6%	\$137,962	\$45	
Residential 20	833		1,832	8.7%	\$29,482	\$35	
High Density Residential	1,659		3,651	17.3%	\$58,764	\$35	
Total Residential	7,500		20,110	95.2%	\$323,706		
Nonresidential Land Uses							
Commercial	0	654,860	655	3.1%	\$10,541		\$16
Office	0	196,540	357	1.7%	\$5,752		\$29
Total Commercial	0	851,400	1,012	4.8%	\$16,294		
Total [2]	7,500	851,400	21,122	100.0%	\$340,000		

Isr alloc

Sources: EPS.

[1] See Table 2-2.

[2] See Table 5-15 for total cost.

Road Maintenance

Elements of Service

The County DOT will maintain the roads and adjacent facilities in the public street ROW consisting of paved section, curb and gutter.² County DOT road maintenance services are funded through revenues recorded in the County's Road Fund (e.g., gas tax; property tax; Measure A half-cent sales tax). EPS prepared a Draft Fiscal Impact Analysis, which estimated whether Road Fund revenues generated by the Project would adequately cover the cost of the County DOT-provided road maintenance services described previously. The results of the Fiscal Impact Analysis indicated that the County Road Fund would result in an annual net deficit of \$34,000 in Phase 1 and an annual net deficit of \$201,000 at buildout of the Project. This annual deficit is anticipated to be funded by the Mello-Roos CFD special tax.

To the extent that there are surplus revenues in the County Road Fund (i.e., revenues are greater than expenditures), the CHLSD could provide supplemental road maintenance services consisting of expanded street sweeping or other on-site road maintenance.

Estimated Annual Maintenance Costs

The Draft Fiscal Impact Analysis prepared by EPS indicates an annual net fiscal deficit in the County Road Fund of \$34,000 for Phase 1 and \$201,000 at buildout of the Project. As such, this Urban Services Analysis uses these deficits as costs to allocate to development in the Project.

Annual Maintenance Cost Allocation

Table 5-20 details the allocation of the annual road maintenance cost to the benefitting land uses at the completion of Phase 1 development and at buildout. These costs are allocated to both residential and nonresidential uses.

² The exception is that the CHCSD will maintain the landscaping in all medians as discussed in the Landscaping section earlier in this chapter.

Table 5-20
Cordova Hills Urban Services Plan
Annual CHLSD Road
Maintenance Cost Allocation (2011\$)

Item	Phase 1						
	Residential Units [1]	Nonres. Bldg. Sq. Ft. [1]	People Served	Distribution	Net Cost Assignment	Per Unit	Per 1,000 Sq. Ft.
<i>Formula</i>	<i>A</i>	<i>B</i>		<i>D</i>	<i>E = Total Cost*D</i>	<i>F = E/A</i>	<i>G = E/B*1,000</i>
Residential Land Uses							
Estates Residential	0		0	0.0%	\$0	\$0	
Low Density Residential	290		899	19.2%	\$6,521	\$22	
Medium Density Residential	760		2,128	45.4%	\$15,437	\$20	
Residential 20	150		330	7.0%	\$2,394	\$16	
High Density Residential	550		1,210	25.8%	\$8,777	\$16	
Total Residential	1,750		4,567	97.4%	\$33,130		
Nonresidential Land Uses							
Commercial		120,000	120	2.6%	\$870		\$7
Office		0	0	0.0%	\$0		\$0
Total Commercial		120,000	120	2.6%	\$870		
Total [2]	1,750	120,000	4,687	100.0%	\$34,000		

road alloc

Sources: EPS.

[1] See Table 2-2.

[2] See the Draft Fiscal Impact Analysis for the total cost.

Table 5-20
Cordova Hills Urban Services Plan
Annual CHLSD Road
Maintenance Cost Allocation (2011\$)

Item	Buildout						
	Residential Units [1]	Nonres. Bldg. Sq. Ft. [1]	People Served	Distribution	Net Cost Assignment	Per Unit	Per 1,000 Sq. Ft.
<i>Formula</i>	<i>A</i>	<i>B</i>		<i>D</i>	<i>E = Total Cost*D</i>	<i>F = E/A</i>	<i>G = E/B*1,000</i>
Residential Land Uses							
Estates Residential	138		448	2.1%	\$4,262	\$31	
Low Density Residential	1,809		5,609	26.6%	\$53,377	\$30	
Medium Density Residential	3,061		8,571	40.6%	\$81,560	\$27	
Residential 20	833		1,832	8.7%	\$17,429	\$21	
High Density Residential	1,659		3,651	17.3%	\$34,740	\$21	
Total Residential	7,500		20,110	95.2%	\$191,368		
Nonresidential Land Uses							
Commercial	0	654,860	655	3.1%	\$6,232		\$10
Office	0	196,540	357	1.7%	\$3,401		\$17
Total Commercial	0	851,400	1,012	4.8%	\$9,632		
Total [2]	7,500	851,400	21,122	100.0%	\$201,000		

road alloc

Sources: EPS.

[1] See Table 2-2.

[2] See the Draft Fiscal Impact Analysis for the tota

Transit Operations and Maintenance

Elements of Service

The Cordova Hills proponent proposes including a local transit system consisting of two distinct but coordinated bus routes. An internal route will operate around a loop in the Cordova Hills Plan Area. An external loop will provide a connection to the Mather/Mills Light Rail Transit (LRT) station. The loops can operate independently with a transfer hub in the Cordova Hills Town Center, but the routes will be coordinated so they can operate as a single continuous route with no transfers required.

The planned system will connect to Sacramento Regional Transit (RT) system but will not be part of RT. The Cordova Hills system would be operated by a service operator under contract to the County or CHLSD.

The CHLSD will lease buses and will own and manage all bus shelters, turnouts, and signage associated with the transit system. The CHLSD also would provide Transportation Management Association (TMA) services or contract with another TMA for management of TMA services (detailed later in this chapter). The internal services may include a range of rideshare initiatives, travel demand management (TDM) methods, and alternative mode promotional activities undertaken by the TMA.

Preliminary Service Level Standards

The transit system will begin with limited services that may involve only an external shuttle to the Mather/Mills LRT station. The County BOS or CSD Board and General Manager of the transit system for Cordova Hills will assess the appropriate transit routes and timing for Phase 1 and subsequent phases based on funding and actual ridership. The transit plan summarized in this report is a guide for the CHLSD to follow. As the community grows, the transit plan envisions that an internal loop system will be developed. The internal loop will expand with the community along the primary street system, a modified grid form that allows flexibility for routing to serve the greatest number of potential riders. Transit service will provide “timed transfers” or continuous loops to minimize the need for transfer between the internal shuttle and external connection to the LRT station. The transit system is planned to operate 365 days per year with a full schedule on weekdays and a reduced schedule on weekends and holidays, as detailed in the remainder of this section.

Internal Route

At buildout of the Project, the internal system would operate from 6:00 AM to 9:00 PM every day. The transit plan assumes two 2-hour peak periods on weekdays: one in the morning from 7:00 to 9:00 and one in the afternoon from 4:00 to 6:00. There would not be peak periods on weekends. Headways would be 15 minutes during peak hours and 30 minutes during all other times of the day. Routes would be run in both directions. Walk access distances to transit stops will be designed in the location of primary roads, pedestrian ways, and the location of major destinations and housing areas to achieve ¼-mile at maximum. The internal route characteristics are summarized below.

Hours of operation	6 AM–9 PM
Days of operation	Everyday
Peak Frequency	15 minutes
Off Peak Frequency	30 minutes
Percentage of Residents within ¼ Mile	84%
Average Speed (including stops)	10 miles per hour

External Route

An external shuttle loop service between the Cordova Hills Transit Center and the Mather/Mills Station on the RT Gold Line light rail line would provide a linkage to those services from Cordova Hills. The external loop would operate on weekdays only. At buildout of the Project, it would operate from 6:00 AM to 7:00 PM on weekdays only. As with the internal loop, there would be two 2-hour peak periods: one in the morning from 7:00 to 9:00 and one in the afternoon from 4:00 to 6:00. Headways would be 15 minutes during peak hours and 60 minutes during all other times of the day. The route would be run in one direction only. The external route characteristics are summarized below.

Hours of operation	6 AM–7 PM
Days of operation	Weekdays
Peak Frequency	15 minutes
Off Peak Frequency	60 minutes
Scheduling	Timed transfers with LRT and RT service at Mather/Mills LRT Station
Target Average Speed (including intermediate stops)	30 miles per hour

Estimated Annual Operations and Maintenance Costs

Table 5-21 shows the calculation of the annual transit operations and maintenance costs at the completion of Phase 1 development and at buildout. The buildout cost is estimated as the cost per revenue hour (provided by MV Transportation) multiplied by the estimated annual revenue hours. A revenue hour is equal to one hour of operation for one vehicle. The Phase 1 cost is estimated so the cost per person served is equivalent to the buildout cost per person served.

Table 5-22 details the estimated revenue hours per operation hour, which is equivalent to the number of buses required per operation hour, for the peak and non-peak periods of both the internal and external routes. These factors are used in **Table 5-21** to estimate the total annual revenue hours.

It is assumed that a portion of the transit costs will be funded through fare box recovery and a university/college campus center subsidy. The fare box recovery is assumed to account for 5 percent of the total gross costs. Fares will apply only to outside users of the transit system. Cordova Hills residents, employees, and university/college campus center students will have transit passes. The university/college campus center subsidy is assumed to be \$100 per student.³ **Table 5-21** shows both the gross annual estimated transit costs and the net annual costs after accounting for fare box recovery and the university/college campus center subsidy.

Table 5-23 provides a comparison between estimated operating transit costs, revenues, and surpluses at various stages of Project buildout.

Note that **Table 5-23** includes estimated costs at the issuance of 1,000 residential building permits. As detailed in the Development Agreement, this is the point by which the external shuttle service must commence. Initiation of the external shuttle service could be required at any point between issuance of the 500th and the 1,000th residential building permits, depending on the results of an analysis to be conducted by the CHLSD before issuance of the 500th building permit to assess whether the external shuttle service should be commenced at 500 residential building permits or at a later threshold.

Annual Operations and Maintenance Cost Allocation

Table 5-24 details the allocation of the net transit operations and maintenance costs to the benefitting land uses at the completion of Phase 1 development and at buildout. These costs are allocated to both residential and nonresidential uses.

³ In the event that a university or other institution of higher learning does not develop, the special tax on residential and non-residential development allocated to pay for transit costs would increase above what is shown in the Cordova Hills Urban Services Plan.

Table 5-21
Cordova Hills Urban Services Plan
Annual CHLSD Transit Operations and Maintenance Cost (2011\$)

Item	Formula	Week Days				Weekends	Total Annual Transit Cost at Buildout	Total Annual Transit Cost at Phase 1
		Peak Period		Non-Peak Period		Non-Peak Period		
		Internal Route	External Route	Internal Route	External Route	Internal Route		
		7-9 AM; 4-6 PM	7-9 AM; 4-6 PM	6-7 AM, 9 AM-4 PM, 6-9 PM	6-7 AM, 9 AM-4 PM, 6-7 PM	7 AM- 9 PM		
Cost per Revenue Hour [1]	a	\$ 72	\$ 72	\$ 72	\$ 72	\$ 72	\$ 72	
Transit Operation Hours per Day	b	4	4	11	9	14		
Revenue Hours per Operation Hour [2]	c	6	3	4	1	4		
Days per Week the Buses Run	d	5	5	5	5	2		
Revenue Hours Per Week	$e=b*c*d$	120	60	220	45	112	557	
Revenue Hours Per Year	$f=e*52$	6,240	3,120	11,440	2,340	5,824	28,964	
Total Annual Cost [3]	$a*f$	\$ 449,280	\$ 224,640	\$ 823,680	\$ 168,480	\$ 419,328	\$ 2,085,408	\$ 462,757
Less Farebox Recovery [4], [5]	5%						(\$ 104,270)	(\$ 23,138)
Less University/College Campus Center Subsidy [4], [6]							(\$ 600,000)	(\$ 60,000)
Total Annual Cost							\$ 1,381,138	\$ 379,619
Total Annual Cost (Rounded)							\$ 1,381,000	\$ 380,000

Source: Conwy, LLC and MV Transportation.

[1] Reflects bus lease cost. One revenue hour = one hour of operation for one vehicle.

[2] See Table 5-22 for buses needed each hour (equivalent to revenue hours per operation hour).

[3] Phase 1 total annual cost estimated so that cost per person served equals cost per person served at buildout.

[4] Preliminary rough estimates.

[5] Farebox recovery only applies to outside users of system. Residents, employees, and university/college campus center students will have free passes.

[6] \$100 per year per student * 6,000 students at buildout; \$100 per year per student * 600 students at Phase 1.

Table 5-22
Cordova Hills Urban Services Plan
Buses Required for Transit Service (2011\$)

Item	Formula	Peak Period		Non-Peak Period	
		Internal Route	External Route	Internal Route	External Route
Route Length (miles)		6.1	17.3	6.1	17.3
Planning Time per Cycle (min.)	<i>a</i>	45	45	45	45
Target Headway (min.)	<i>b</i>	15	15	30	60
Buses per Direction [1]	$c=a/b$	3	3	2	1
Directions Buses Run	<i>d</i>	2	1	2	1
Buses Needed	$c*d$	6	3	4	1

bus

Source: Cordova Hills Transit Plan Summary (3/26/10)

[1] Rounded up to nearest integer.

Table 5-23
Cordova Hills Urban Services Plan
Transit Revenue and Cost Comparison (2011\$)

Item	Annual Transit Operating Cost vs. Revenue		
	Cost	Revenue	Surplus/Shortfall
1,000 Dwelling Units	\$ 171,190	\$ 183,868	\$ 12,678
3,000 Dwelling Units [1]	\$ 510,950	\$ 552,224	\$ 41,274
5,000 Dwelling Units [2]	\$ 877,300	\$ 920,374	\$ 43,074
Buildout	\$ 1,381,140	\$ 1,450,050	\$ 68,910

comp

[1] Initial shorter internal route with buses running in one direction only.

[2] Full internal route with buses running in one direction only.

Table 5-24
Cordova Hills Urban Services Plan
Annual CHLSD Transit Operations and
Maintenance Cost Allocation (2011\$)

Item	Phase 1						
	Residential Units [1]	Nonres. Bldg. Sq. Ft. [1]	Persons Served	Distribution	Net Cost Assignment	Per Unit	Per 1,000 Sq. Ft.
<i>Formula</i>	<i>A</i>	<i>B</i>		<i>D</i>	<i>E = Total Cost*D</i>	<i>F = E/A</i>	<i>G = E/B*1,000</i>
Residential Land Uses							
Estates Residential	0		0	0.0%	\$0	\$0	
Low Density Residential	290		899	19.2%	\$72,887	\$251	
Medium Density Residential	760		2,128	45.4%	\$172,528	\$227	
Residential 20	150		330	7.0%	\$26,755	\$178	
High Density Residential	550		1,210	25.8%	\$98,101	\$178	
Total Residential	1,750		4,567	97.4%	\$370,271		
Nonresidential Land Uses							
Commercial		120,000	120	2.6%	\$9,729		\$81
Office		0	0	0.0%	\$0		\$0
Total Commercial		120,000	120	2.6%	\$9,729		
Total [2]	1,750	120,000	4,687	100.0%	\$380,000		

tran alloc

Sources: EPS

[1] See Table 2-2.

[2] See Table 5-21 for total cost.

Table 5-24
Cordova Hills Urban Services Plan
Annual CHLSD Transit Operations and
Maintenance Cost Allocation (2011\$)

Item	Buildout						
	Residential Units [1]	Nonres. Bldg. Sq. Ft. [1]	Persons Served	Distribution	Net Cost Assignment	Per Unit	Per 1,000 Sq. Ft.
<i>Formula</i>	<i>A</i>	<i>B</i>		<i>D</i>	<i>E = Total Cost*D</i>	<i>F = E/A</i>	<i>G = E/B*1,000</i>
Residential Land Uses							
Estates Residential	138		448	2.1%	\$29,284	\$212	
Low Density Residential	1,809		5,609	26.6%	\$366,734	\$203	
Medium Density Residential	3,061		8,571	40.6%	\$560,368	\$183	
Residential 20	833		1,832	8.7%	\$119,748	\$144	
High Density Residential	1,659		3,651	17.3%	\$238,686	\$144	
Total Residential	7,500		20,110	95.2%	\$1,314,820		
Nonresidential Land Uses							
Commercial	0	654,860	655	3.1%	\$42,816		\$65
Office	0	196,540	357	1.7%	\$23,364		\$119
Total Commercial	0	851,400	1,012	4.8%	\$66,180		
Total [2]	7,500	851,400	21,122	100.0%	\$1,381,000		

tran alloc

Sources: EPS

[1] See Table 2-2.

[2] See Table 5-21 for total cost.

Transportation Demand Management (TDM) Services

Elements of Service

The CHLSD will provide TDM services through programs serving the community residents, as well as businesses and institutions. Services to the residents, businesses, and institutions in Cordova Hills that encourage more efficient use of transportation and parking resources may include these:

- Marketing and Promotion
- Parking Management and Brokerage
- Pedestrian and Bicycle Planning
- Pedways
- Rideshare Matching and Vanpool Coordination
- Shared Parking Coordination
- Shuttle Services
- Special Event Transport Management
- Telework Support
- Transit Improvements
- Transportation Access Guides
- Wayfinding and Multi-Modal Navigation Tools

The CHLSD would implement the TDM programs for the community residents, businesses, and institutions through a TMA. The CHLSD either would establish an internal TMA or would participate in another geographically broader TMA.

TMA's are generally public-private partnerships. They provide an institutional framework for the TDM services programs and allow small employers to provide commute trip reduction services comparable to those offered by large companies.

TMA's can provide a variety of services, including these:

- Access Management
- Commute Trip Reduction
- Commuter Financial Incentives
- Flextime Support
- Guaranteed Ride Home Services

Participation in the TMA will be required for land zoned Town Center (TC), Flex Commercial (FC), and Public/Quasi Public (P/QP) in Cordova Hills through one or more of the following mechanisms: the purchase and sale agreement for individual parcels; a Master Property Owners' Association; or the Conditions, Covenants, and Restrictions (CC&R).

Estimated Annual Services Costs

Table 5-25 summarizes the estimated annual TDM services costs at completion of Phase 1 development and at buildout. The program costs include costs to serve both Cordova Hills residents and Cordova Hills businesses. The annual residential program costs are estimated using an average cost of \$50 per dwelling unit. The annual program costs to serve the business are estimated using an average cost of \$25 per employee.

Annual Services Cost Allocation

Table 5-26 details the allocation of the net annual TDM service cost to the benefitting land uses at the completion of Phase 1 development and at buildout. These costs are allocated to both residential and nonresidential uses because services will be provided both for residents and employees.

Table 5-25
Cordova Hills Urban Services Plan
Annual CHLSD Transportation Management Services Cost (2011\$)

Item	Phase 1	Buildout
Resident Cost		
Average Cost per Dwelling Unit	\$ 50	\$ 50
Dwelling Units	1,750	7,500
Subtotal Resident Cost	\$ 87,500	\$ 375,000
Employee Cost		
Average Cost per Employee	\$ 25	\$ 25
Employees	240	2,024
Subtotal Employee Cost	\$ 6,000	\$ 50,610
Total Annual Cost	\$ 93,500	\$ 425,610
Total Annual Cost (Rounded)	\$ 94,000	\$ 426,000

tma

Source: EPS

Table 5-26
Cordova Hills Urban Services Plan
Annual CHLSD Transportation Management
Services Cost Allocation (2011\$)

Item	Phase 1						
	Residential Units [1]	Nonres. Bldg. Sq. Ft. [1]	Persons Served	Distribution	Net Cost Assignment	Per Unit	Per 1,000 Sq. Ft.
<i>Formula</i>	<i>A</i>	<i>B</i>		<i>D</i>	<i>E = Total Cost*D</i>	<i>F = E/A</i>	<i>G = E/B*1,000</i>
Residential Land Uses							
Estates Residential	0		0	0.0%	\$0	\$0	
Low Density Residential	290		899	19.2%	\$18,030	\$62	
Medium Density Residential	760		2,128	45.4%	\$42,678	\$56	
Residential 20	150		330	7.0%	\$6,618	\$44	
High Density Residential	550		1,210	25.8%	\$24,267	\$44	
Total Residential	1,750		4,567	97.4%	\$91,593		
Nonresidential Land Uses							
Commercial		120,000	120	2.6%	\$2,407		\$20
Office		0	0	0.0%	\$0		\$0
Total Commercial		120,000	120	2.6%	\$2,407		
Total [2]	1,750	120,000	4,687	100.0%	\$94,000		

tma alloc

Sources: EPS.

[1] See Table 2-2.

[2] See Table 5-25 for total cost.

Table 5-26
Cordova Hills Urban Services Plan
Annual CHLSD Transportation Management
Services Cost Allocation (2011\$)

Item	Buildout						
	Residential Units [1]	Nonres. Bldg. Sq. Ft. [1]	Persons Served	Distribution	Net Cost Assignment	Per Unit	Per 1,000 Sq. Ft.
<i>Formula</i>	<i>A</i>	<i>B</i>		<i>D</i>	<i>E = Total Cost*D</i>	<i>F = E/A</i>	<i>G = E/B*1,000</i>
Residential Land Uses							
Estates Residential	138		448	2.1%	\$9,033	\$66	
Low Density Residential	1,809		5,609	26.6%	\$113,127	\$63	
Medium Density Residential	3,061		8,571	40.6%	\$172,858	\$56	
Residential 20	833		1,832	8.7%	\$36,939	\$44	
High Density Residential	1,659		3,651	17.3%	\$73,628	\$44	
Total Residential	7,500		20,110	95.2%	\$405,585		
Nonresidential Land Uses							
Commercial	0	654,860	655	3.1%	\$13,208		\$20
Office	0	196,540	357	1.7%	\$7,207		\$37
Total Commercial	0	851,400	1,012	4.8%	\$20,415		
Total [2]	7,500	851,400	21,122	100.0%	\$426,000		

tma alloc

Sources: EPS.

[1] See Table 2-2.

[2] See Table 5-25 for total cost.

CHLSD Administration and Communications

Elements of Service

Initially, the County will administer and coordinate the activity of all services provided directly by the CHLSD and County agencies and departments. The County also will coordinate with other service providers who are not directly under the administration of the CHLSD, such as the SMFD, the County DOT and others.

If a CSA is chosen as the most efficient governance option, the County will continue to administer and coordinate these services. The County BOS could also create a Local Advisory Board (CSA Board) comprised of local representatives to administer and coordinate services. If a CSD is chosen as the most efficient governance option, a board of directors will be established to administer and coordinate these services.

The CHLSD administration activities will include overseeing the daily operations of the services, preparing and administering the annual budget, providing a liaison to other service agencies, and providing a point of contact for the residents and businesses in the service area. In addition, each individual CHLSD service type (and associated cost estimate) is assumed to include an administrative component for daily administration of the particular service.

CHLSD administration will include a core community communication network to disseminate information about community activities; to facilitate services, such as rideshare opportunities and transit schedules; and to provide emergency service information. The communication network will take the form of a community intranet that includes community and special interest Web sites, public meeting broadcasts, and such public services as may become apparent as the community grows.

Preliminary Service Level Standards

The CHLSD will provide adequate administrative support to manage all services administered and funded through the CHLSD. As development progresses and the level of demand for services increases, the level of administrative support also will increase.

To implement the community communication network aspect of the administration, the entire community will be wired with cable or wireless services that are capable of providing a communication link to all homes and businesses. This is intended to provide a public access channel that will "piggy-back" onto or supplement such commercial services that may be available in the community. The CHLSD will provide content for the network and will provide for maintenance of the system. Such maintenance may be by contract with a commercial provider.

Estimated Annual Service Costs

The annual cost relative to the number of residents and employees is anticipated to be greater for Phase 1 than at buildout for two reasons. First, initial CHLSD startup costs will be incurred in Phase 1 that will not be incurred at buildout. Second, the CHLSD will need to start with a certain base level of services that would not increase proportionately to the population increase as the community develops.

It is assumed that the annual CHLSD administration cost will be approximately \$400,000 annually at completion of Phase 1 (approximately 24 percent of the total CHLSD services costs)

and \$1 million annually at buildout (approximately 15 percent of the total CHLSD services costs). These costs are shown in **Table 5-1**.

Annual Services Cost Allocation

Tables 5-4 and **5-5** (previous summary tables) show the estimated annual CHLSD administration costs by land use at the completion of Phase 1 development and at buildout, respectively. For Phase 1, the cost by land use is equal to 15 percent of the sum of all other CHLSD service costs by land use, and for buildout, the cost by land use is equal to 10 percent of the sum of all other CHLSD service costs by land use.

6. URBAN SERVICE FINANCING STRATEGY

Urban services provided to the Cordova Hills Community will be funded with a combination of existing local tax revenues (property taxes, sales taxes, etc.) that will be generated by new development and new local development-related sources. An overarching principle of this Urban Services and Governance Plan is that the new community will not place a financial burden on the County as a whole at any phase of the Project. Because the timing of development and the exact mix of development during a given time period may be subject to variation, the urban services financing strategy will need to adapt to changing conditions. The proposed urban services financing strategy for the Project is based on the following guiding principles:

- For urban services provided by the County, traditional funding mechanisms would be used to provide service at the same levels provided for in other urbanized portions of the County. Cordova Hills also would participate in existing special financing districts that provide funding for County General Fund services, such as CFD 2005-1 for police services.
- County Special Districts (SASD, SRCSD, SCWA Zone 12, SCWA Zone 40, etc.) will provide wastewater collection and treatment, water quality, storm water, and potable water services to the Project with funding provided through their user rate structure.
- Other Special Districts (SMFD, EGUSD) will provide services with funding from property taxes, special assessments/taxes charged on a districtwide basis, and other traditional funding sources.
- The CHLSD will provide its authorized services through special taxes/assessments, user charges, and other revenues available to the CHLSD. For some services described in **Chapter 5**, the CHLSD will provide enhanced levels of services that exceed the base levels of services provide by the County or special districts.

The following sections describe potential new urban services funding mechanisms and how those mechanisms will be applied to the urban services proposed in Cordova Hills.

New Local Funding Mechanisms

Several funding mechanisms could be implemented to provide funding for urban services. The set of mechanisms implemented would depend on whether a CSA or CSD is formed. The decision on whether to form a CSA or CSD will not be decided until the Project is approved. Project-specific mitigation measures could include the special taxes or assessments described below.

Assessments

Local governments may impose assessments on benefiting property to fund construction, operations, and maintenance of street landscaping, lighting, traffic signals, parks, trees, sidewalks, recreational facilities, transit facilities, and transportation system management

activities. Formation of an assessment district requires an Engineer's Report and majority vote of the benefiting landowners.

By statutory definition, the funds generated by assessments must benefit the properties assessed and may not be used to fund services outside the special district/Special Planning Area.

Mello-Roos Community Facilities Districts for Services

Mello-Roos CFDs for Services (Services CFDs) are authorized to cover a variety of public services, as outlined below:

- Police protection services.
- Fire protection and suppression services, and ambulance and paramedic services.
- Recreation program services; library services; and the operation and maintenance of parks, parkways, open space, museums, and cultural facilities (a tax to fund these services must be for a registered-voter-approved CFD as opposed to a landowner-approved CFD).
- Maintenance and lighting of parks, parkways, streets, roads, and open space.
- Flood and storm protection services, including the operation and maintenance of storm drainage systems and sandstorm protection systems.
- Removal or remedial action for the cleanup of any hazardous substance released or threatened to be released into the environment.

It is likely that the CHLSD will form a CFD to fund some of its authorized services. This CFD would be formed before any development, and thus, the qualified voters would be the landowners/property owners.

Special Tax Authorized by Gov. Code Sec 50075

Special districts are authorized to levy a special tax under Government Code Section 50075, subject to voter approval. The special tax requires approval of 2/3 of the authorized voters. The ordinance or resolution proposing the special tax shall include the following specifications:

- The type of tax and the rate of tax to be levied.
- The method of collection.
- The date on which the election will be held.

The special tax also requires the local agency to provide accountability measures, including a statement indicating the purpose of the special tax, procedures so that the proceeds can only be used for the specific purposes identified, and the creation of a special account.

The authorization of the special tax likely will be necessary for services that cannot be funded either through the proposed Mello-Roos CFD or the special assessment district. Specifically, transit service and the transportation system management services may require implementation of the special tax.

Phasing of Services and Additional Funding

Initially, where possible, CHLSD services will be phased to match the special tax/assessment revenue, along with user fees and other revenues. Service levels will increase to meet the planned services standards over time. Minimum service levels are determined by the mitigation requirements in the EIR, tentative map conditions, and Development Agreement requirements.

For some services, however, a higher level of service will be necessary than can be funded by the special tax/assessment revenue in the early years of development. An example is landscaping maintenance, which must be provided once the landscaping has been established, whether or not development is great enough to generate the necessary revenue. If the annual special tax revenue on developed property is insufficient to meet minimum service levels, then the special tax/assessment will be levied against undeveloped property to help fund the annual services costs. The tax rate on undeveloped property will be on a per acre basis. The Draft Development Agreement proposes the following hierarchy for levying the special tax on undeveloped property if needed:

1. The special tax shall first be levied on undeveloped lots shown on recorded final small lot subdivision maps at up to 100% of the maximum special tax rate for developed property.
2. If the additional revenue from the undeveloped lots described above is insufficient to cover the funding shortfall, then a special tax shall be levied on property with approved tentative small lot subdivision maps at up to a specified percentage of the maximum special tax rate for developed property. This percentage will be determined when the funding mechanism to pay for services is adopted.
3. If the additional revenue from the two sources above still is insufficient to cover the funding shortfall, then the special tax shall be levied on property with recorded final parcel maps at up to a specified percent of the maximum special tax rate for developed property. This percentage will be determined when the funding mechanism to pay for services is adopted.

It should be noted that the estimated annual revenue from the tax on developed property is estimated to be sufficient to fully cover the annual Phase 1 services costs. Additional revenue from the tax on undeveloped property would only be needed in the event that the Phase 1 costs were higher than anticipated or Phase 1 development was less than anticipated.

Urban Services Costs and Special Tax/Assessment for Services

The proposed maximum services special tax/assessment rates by land use are summarized in **Table 6-1**. For each land use, the special tax/assessment rate by land use was estimated based on the total services cost allocation across all CHLSD services (detailed in the previous chapter). The estimated maximum rates shown in **Table 6-1** have been established based on the following objectives: to generate sufficient revenue to fund Phase 1 and buildout annual service costs and to keep total taxes and assessments within 1.8 percent of projected home sales prices. The latter objective is described in greater detail in the following section.

tax

Urban Services Funding Feasibility

Table 6-2 estimates the financial feasibility of the Cordova Hills services funding by analyzing the Project's total tax burden. One measure of feasibility is a comparison of the total annual property taxes and assessments as compared to the projected finished home sales price. Most jurisdictions prefer that this total tax burden range from 1.5 to 1.8 percent of projected home sales prices.

Table 6-2 estimates the total taxes/assessments for the different residential uses, including the types listed below and excluding the infrastructure taxes/assessments:

- Basic 1-percent property tax.
- Other general ad valorem taxes (e.g., school/other general obligation bonds).
- Maximum special taxes/assessments for services (from this report).

Table 6-2 subtotals all taxes and assessments, before consideration of special taxes and assessments for infrastructure. Assuming a maximum burden of 1.8 percent of estimated finished home sales prices, there appears to be the capacity for infrastructure special taxes/assessments ranging from \$200 per unit for affordable high-density units to \$1,530 per unit for estates residential units.⁴ The Project's Public Facility Financing Plan will identify the targeted special tax/assessment amounts that might be used to fund backbone infrastructure for the Project.

⁴ The finished home sales prices used in this analysis reflect higher prices than the current average (as of September 2012). It is presumed that these higher prices will be reflective of a "normalized" housing market several years from now when home builders are in a position to construct and sell dwelling units in the Project.

Table 6-2
Cordova Hills Urban Services Plan
Estimated Residential Annual Taxes/Assessments as a Percentage of Home Price

Item	Formula	Percent	Estates Residential	Low Density (LDR)	Medium Density (MDR)	Residential 20		HDR		
						Owner- occupied	Renter- occupied	Owner- occupied & Market Rate	Renter- occupied & Market Rate	Renter- occupied & Affordable
Assumptions										
Estimated Average Sales Price per Dwelling Unit [1]	a		\$500,000	\$445,000	\$345,000	\$275,000	\$234,000	\$250,000	\$213,000	\$133,000
Less Homeowners' Exemption			(\$7,000)	(\$7,000)	(\$7,000)	(\$7,000)	(\$7,000)	(\$7,000)	(\$7,000)	(\$7,000)
Estimated Taxable Sale Price	b		\$493,000	\$438,000	\$338,000	\$268,000	\$227,000	\$243,000	\$206,000	\$126,000
Amount per Dwelling Unit										
Capacity for Taxes/Assessments	d=a*1.8%	1.8%	\$9,000	\$8,010	\$6,210	\$4,950	\$4,212	\$4,500	\$3,834	\$2,394
Taxes/Assessments										
General Property Tax	b*1.0%	1.0%	\$4,930	\$4,380	\$3,380	\$2,680	\$2,270	\$2,430	\$2,060	\$1,260
Other Ad Valorem Taxes [2]	b*0.1%	0.1%	\$493	\$438	\$338	\$268	\$227	\$243	\$206	\$126
Sloughhouse Fire			\$100	\$100	\$100	\$100	\$100	\$100	\$100	\$100
School CFD Taxes (Elk Grove Unified School District)			\$200	\$200	\$200	\$200	\$200	\$200	\$200	\$200
Sacramento County Sheriff Services Tax			\$339	\$339	\$339	\$248	\$248	\$248	\$248	\$248
Estimated Max. Special Tax for Services			\$1,400	\$1,400	\$1,100	\$1,000	\$850	\$850	\$720	\$250
Subtotal Taxes/Assessments	e		\$7,462	\$6,857	\$5,457	\$4,496	\$3,895	\$4,071	\$3,534	\$2,184
Remaining Capacity for Special Taxes for Infrastructure (Rounded)	d-e		\$1,530	\$1,100	\$700	\$450	\$300	\$400	\$300	\$200

rtax

Source: The Gregory Group and EPS.

[1] The finished home sales prices used in this analysis reflect higher prices than the current average (as of February 2012). It is presumed that these higher prices will be reflective of a "normalized" housing market several years from now when homebuilders are in a position to construct and sell dwelling units in the Project.

[2] Placeholder for existing or set aside for potential future ad valorem taxes such as general obligation bonds.

7. CORDOVA HILLS GOVERNANCE PLAN

Introduction

Previous chapters detailed the proposed services and service providers for Cordova Hills. This chapter presents a Governance Plan for providing the services. It describes the objectives of the Governance Plan, alternatives considered for the provision of urban services, the elements of the proposed Governance Plan, and the procedures needed to create a CSA or CSD and implement the Governance Plan. The governance options have been described collectively as the CHLSD throughout this document. The Governance Plan provides a basis for further discussions with the County, other affected public agencies, and LAFCo staff regarding the provision of urban services and governance for Cordova Hills. The formal Reorganization Application to LAFCo will follow County action on the Master Plan and other entitlement documents (including environmental documents).

Cordova Hills will grow in time to a population of more than 21,000. As such, it will require construction and operation of substantial new municipal infrastructure, including water and sewer utilities, roads, drainage, parks and open spaces, and civic facilities, as described and evaluated in the Public Facilities Financing Plan. These facilities will require ongoing operations and maintenance. Meanwhile, the full range of urban services will be needed. The Governance Plan recognizes that urban services demanded must be efficient (i.e., take advantage of existing service capacities), provide enfranchisement of local residents, and have the revenue-generating capacity necessary to fund infrastructure and ongoing urban service standards and operations and maintenance costs.

Governance Objectives

The Governance Plan is intended to achieve several urban service and fiscal objectives for the Cordova Hills Community, including these:

1. Provide a high level of urban services to the Cordova Hills Community consistent with policies set forth in the County's General Plan and the Cordova Hills Master Plan.
2. Assure efficient and effective urban services at Cordova Hills by relying on the capacity of existing service providers when they offer the most efficient and cost-effective approach.
3. Establish a multi-purpose special district that (1) provides urban services not offered (or not offered effectively) by existing entities, and (2) enfranchises community residents regarding local urban service provision and future transitions.
4. Provide an adequate fiscal base for the new community so desired urban service levels can be achieved and maintained over time, while also maintaining "revenue neutrality" for the County and other urban service providers.

Governance Options

While this report proposes a certain mix of urban service providers, these services could be delivered via several governance options (how urban services are organized and governed) as outlined below. The topic of governance options has been discussed with County staff and Sacramento LAFCo staff during preparation of the Cordova Hills Master Plan over the past several years. The resulting Governance Plan is a hybrid of the available options.

Governance options considered include these:

- Continuation of services by existing agencies (e.g., County agencies, existing regional special districts).
- Annexation to an existing multi-purpose special district or city.
- Creation of a dependent special purpose special district (e.g., CSA) to provide or enhance urban service levels.
- Creation of an independent multi-purpose special district(s) (e.g., CSD).

Continued Services Provided by County Departments

The County currently provides urban services to an expansive urbanized area in the County; approximately 40 percent of the County's population of 1.4 million resides in unincorporated urban communities. Over the years, the County has established an urban service capability that is on par with a typical large suburban city. This capability is built around its line departments (e.g., Sheriff, Public Works, Planning and Development Services) but also includes several regional independent special districts and authorities.

While continuing County services is a key part of the Urban Services and Governance Plan and is thus reflected in the Governance Plan, there are several services required and proposed for Cordova Hills that are not provided by existing County departments or dependent special districts for the area. These additional services include park maintenance, open space and trails maintenance, landscape corridors maintenance, habitat restoration and management, recreation services, road maintenance (and potentially, supplemental road maintenance), transit operations, TDM programs, and general administration and community communications. For example, while Cordova Hills is within the boundary of County Service Area 4B, administered by the County Regional Parks Department, the Parks Department provides maintenance of regional parks but does not provide maintenance of local community and neighborhood parks.

Annexation to Nearby City or Special District

The Cordova Hills Master Plan Area abuts the municipal boundary of the City of Rancho Cordova. While annexation to the City of Rancho Cordova could meet the governance objectives, it would not be consistent or compatible with development objectives, as expressed in the Cordova Hills Master Plan. The City of Rancho Cordova's planning, housing, and infrastructure financing policies are not consistent with those included in the Cordova Hills Master Plan or the Public Facilities Financing Plan.

The Cordova Hills Master Plan area could annex into the Cordova Recreation and Park District (CRPD). However, the CRPD does not provide the full range of services proposed for the CHCSD. Consequently, the range of services planned for Cordova Hills would place a burden on CRPD for which there is no current staffing or facilities. The added services would create a notable differentiation in services types and levels of service in the CRPD that would likely result in difficult management and policy issues. Also, it would be difficult for the CRPD to provide the service levels prescribed for Cordova Hills because Cordova Hills would be only a small part of the CRPD service area. Moreover, it is unlikely that there would be any representation for Cordova Hills on CRPD's Board of Directors until buildout of the Project, and even then, representation on CRPD'S Board of Directors would be uncertain, thus disenfranchising local residents.

Create New County Service Area (CSA)

Counties needing to introduce or enhance urban services in unincorporated portions of the county have commonly created CSAs, dependent special districts that are budget units of the County governed by the County Board of Supervisors (BOS). A "multi-purpose" CSA could be created to provide the additional urban services required for Cordova Hills.

Create New Multi-Purpose Community Services District (CSD)

A CSD could be formed to provide an administrative and financial framework for providing the urban services required and proposed for Cordova Hills that are not provided by existing agencies. CSDs have become a common form of governance for providing urban services in unincorporated areas around the State.

Regarding the matter of municipal service efficiency (a key criterion LAFCo will use in evaluating any local agency formation or reorganization), the CSD can be highly efficient. For example, in the early years when the Cordova Hills Community is being created but has limited service demand, existing County staff can provide service, assuming excess capacity exists in the operating departments. Provision of urban services by the County during the initial years of development will need to take into consideration the Community's proximity to County facilities and staff, for example, the nearby Bradshaw Road County Center.

Over time, as service demands grow, additional staff will be required, regardless of whether they are working for existing agencies (e.g., county departments) or for a new government agency. In any case, it is assumed that cooperation between government agencies, including contracting for services, can assure efficient use of existing capacity and the most efficient way to increase staff capacity as service demands grow. It is assumed that agreements (i.e., an Urban Services Agreement or specific service contracts) between the CSD and other agencies can define and regulate what services are provided by which agency based on the most efficient approach.

Cordova Hills Governance Plan

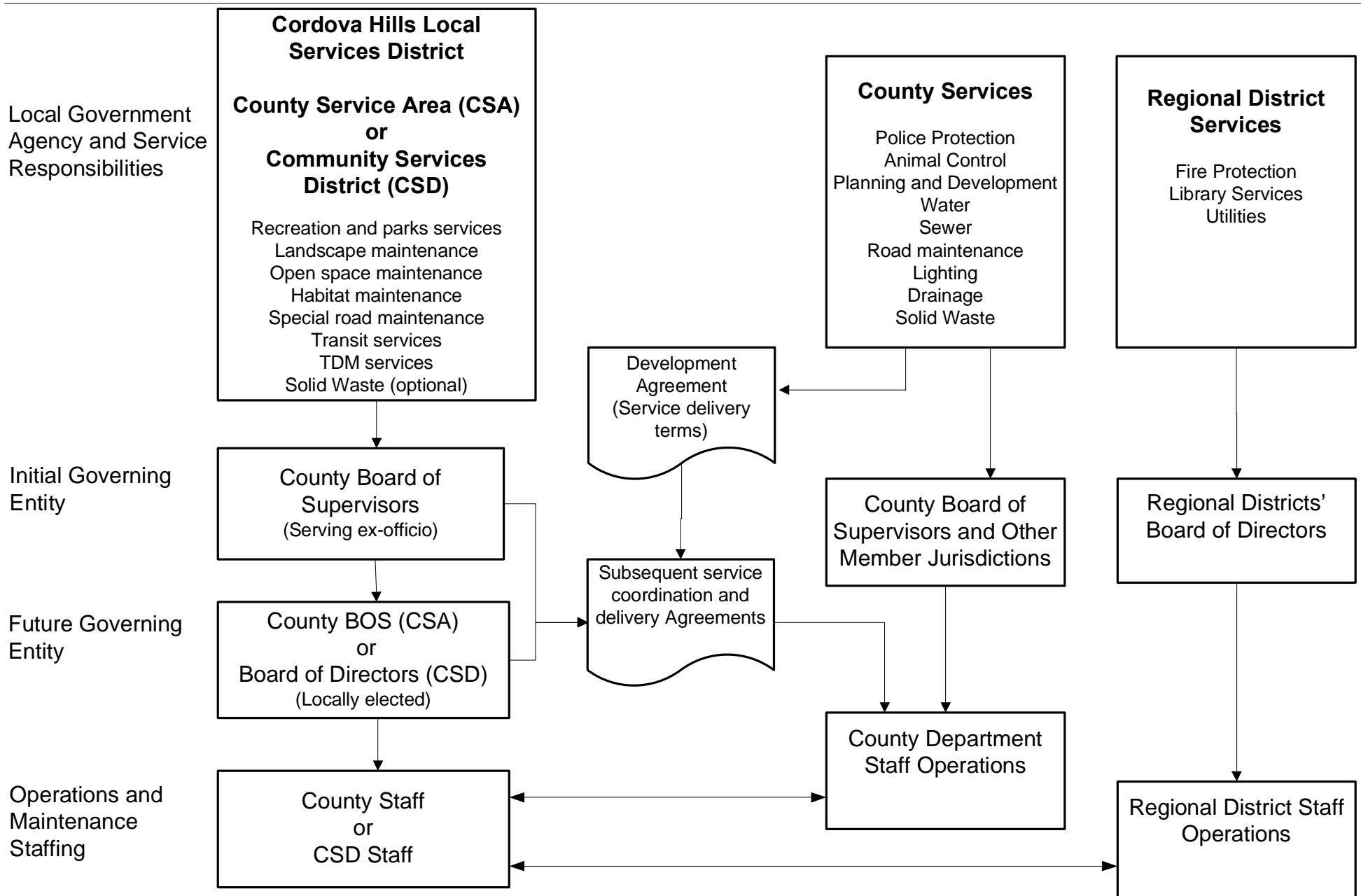
The Governance Plan for Cordova Hills reflects the urban service demands outlined in this report. It incorporates experiences from around the State in providing governance and services to unincorporated new communities, applies statutory-based forms of local governance, and reflects the unique circumstances of the Cordova Hills development. It is informed by previous analyses

of urban service demands, including environmental review, the fiscal analysis, and the design of the Project itself, which proposes several unique features that influence service demands. As part of this effort, there have been interviews and briefings with County staff (as part of developing the Urban Services and Governance Plan and the Fiscal Impact Analysis) and LAFCo staff.

The Governance Plan is summarized in **Figure 7-1**, which identifies the key local government entities, their governing bodies, and operations and maintenance staffing. Key features of the proposal are listed below:

- It has been assumed that County departments will provide urban services to Cordova Hills in a manner similar to the urban services provided to other urbanized portions of the County. Related conditions and terms that specify levels of service and other terms of service provisions can be included in the Development Agreement. Subsequent service agreements also can be entered into between the CSD (if chosen and formed) and the County.
- Regional Special Districts including the SMFD and SMUD will provide services as they do throughout the other urban portions of the County.
- Creation of a CSA or CSD. A CSA or CSD would be created to provide recreation and park services, open space and trails maintenance, enhanced levels of landscaping, road maintenance (and potentially, supplemental road maintenance), local transit service, TDM programs, habitat operations and maintenance, community communications, and related administrative services, as detailed in **Chapter 5**. The County BOS resolution (CSA) or Resolution of Application and the Terms and Conditions imposed by LAFCo as a part of special district formation (CSD) can specify desired service levels and other aspects of service delivery, as well as a means of funding.
- Contracts between the CSD (if chosen as the most effective governance option) and the County departments (or other regional service providers) can be used to specify service levels and other service requirements. These contracts would be entered into between the CSD (if chosen) and the County following CSD formation.
- If a CSA is created, the County BOS also could create a Local Advisory Board (CSA Board) comprising local representatives. This Board could be endowed with management and contracting oversight and could make recommendations to the County BOS on policy and procedures; final decisions ultimately would be at the discretion of the County BOS. The CSA could have a permanent director or executive officer to oversee the provision of services, retain institutional memory, and represent the interests of the CSA and its constituents in interactions with service providers and other government entities.
- If a CSD is created, transition of CSD governance to a locally elected Board of Directors. Initially, as provided for in the enabling statute, the CSD would be governed by the County BOS, which, serving ex officio, would serve as the Board of Directors. In both cases, the terms and conditions of district formation adopted by LAFCo would specify a point at which local residents may vote on the question of creating a locally elected Board(s) of Directors.

Figure 7-1 -- Summary of Cordova Hills Governance Proposal



LAFCo Considerations (CSD Only)

LAFCo has sole discretion regarding formation of a CSD and the related local government reorganization actions, including completing a Municipal Services Review (MSR)/Plan for Services (PFS) and establishing an SOI for the new district.⁵ As part of the MSR/PFS, LAFCo will evaluate the service delivery of the CSD and make determinations regarding the effectiveness of the service delivery program and means and timing of financing. As part of its action on the proposed CSD application, LAFCo will determine whether the proposal is financially feasible. The following items clarify the CSD proposal in a format consistent with LAFCo standards and procedures.

SOI Considerations

This section addresses each of the factors that LAFCo must consider in making its determination regarding the SOI for a CSD.

1. The maximum possible service area of the agency is based on present and possible service capabilities of the agency.

The service area proposed for the CSD is coterminous with the boundary of the Project. If, at some time in the future, the Project area is amended to include additional territory, then an SOI boundary change could be considered, before any related annexation.

2. The range of services the agency is providing or could provide.

The CSD would be authorized to provide the following services:

- Parks and recreation.
- Open space and trails.
- Habitat operations and maintenance.
- Enhanced levels of landscaping.
- Supplemental road maintenance.
- Transit operations and maintenance.
- Transportation systems management.
- Administration and community communications.

3. The projected future population growth of the area.

There is no present population within the boundaries of the Project. The maximum buildout population from the Draft Cordova Hills Master Plan is estimated at 21,379. The university/college campus center at full development in several years will have approximately 4,040 resident students out of a total student enrollment of 6,000. The student resident recreation needs will be met by on-campus sports and recreation facilities and programs.

⁵ As described by California Government Code Section 56076, a Sphere of Influence (SOI) is "a plan for the probable physical boundaries and service area of a local government agency."

4. The type of development occurring or planned for the area, including residential, commercial, and industrial development.

The land uses and projected development for the Project are detailed in **Table 2-1** and **Table 2-2**.

5. The present and probable future service needs of the area.

The service needs of the Project are fully described in this report. **Chapter 5** describes in detail the services that would be provided by a CSD.

6. Local governmental agencies presently providing services to such area and the present level, range, and adequacy of services provided by such existing local governmental agencies.

There are no urban services currently being provided to the area. Cordova Hills is within the boundary of County Service Area 4B administered by the County Regional Parks Department. The County focuses on regional park facilities and does not provide local community and neighborhood parks. A reorganization that would remove Cordova Hills from the boundary of CSA 4B is part of the proposed LAFCo action. **Chapters 3** and **4** describe the existing governmental agencies that will provide services to the area. The service providers are summarized in **Table 1-1**.

7. The existence of social and economic communities of interest between the areas within the boundaries of a local governmental agency and the area that surrounds it and that could be considered in the agency's SOI.

Cordova Hills has been designed to provide an interdependent social and economic community. The CSD would be planned to be the organizational entity that enhances the sense of community identity and provides efficient coordinated community services, with a focus on communications, recreational activities, and transportation services. These networked activities will be the backbone of community activities.

The only existing entity that might provide some of the proposed activities of the CSD is CRPD. However, the CRPD does not provide the full range of services proposed for Cordova Hills. The CRPD currently provides only recreation and park services. Cordova Hills needs not only recreation and park services, but also open space and trails maintenance, habitat maintenance, landscape corridor maintenance, road maintenance, transit operations, and transportation management services. This range of services planned for Cordova Hills would place a burden on the CRPD, which does not have the staffing or facilities to provide these services.

It would be difficult for the CRPD to provide the services levels prescribed for Cordova Hills because Cordova Hills would be only a small part of the CRPD service area and the CRPD would not be providing the same services and service levels to the existing CRPD service area. The added services provided only in Cordova Hills would create a notable differentiation in services types and levels of service in the CRPD that would likely result in difficult management and policy issues. In addition, because Cordova Hills would be only a small part of the CRPD service area, it is unlikely that there would be any representation for

Cordova Hills on CRPD's Board of Directors until buildout of the Project, and even then, representation on CPRD'S Board is uncertain.

The CSD, however, could provide all of the needed services to Cordova Hills. The CSD would establish a sense of community in Cordova Hills because it would provide services to Cordova Hills only and would serve as an organizing element to manage al of the needed services. A community communications network would be established to aid in management and administration of services.

- 8. The existence of agricultural preserves in the Project area, which could be considered in the agency's SOI, and the effect on maintaining the physical and economic integrity of such preserves in the event that such preserves are in a SOI of a local governmental agency.**

There are no agricultural preserves in Cordova Hills.

MSR Considerations

LAFCo is required to make determinations related to several specific areas. Each of these areas is addressed below. This section only discusses responsibilities that would be related to the CSD and not other municipal services provided by existing entities.

- 1. Infrastructure needs or deficiencies.**

There is no infrastructure in Cordova Hills. Construction of the infrastructure will be controlled by the Project conditions of approval, the Development Agreement with the County, and the EIR. The infrastructure funding program is detailed in the Financing Plan.

The CSD would be responsible for construction of park and recreation facilities and landscaping in the open space corridors and in certain streetscape areas outside the public ROW. This will include some signage, lighting, and transit support facilities including bus shelters and bus parking. These facilities may be funded by a variety of sources, including direct developer funding, development impact fees, and a Cordova Hills Mello-Roos CFD.

- 2. Growth and population projections for the affected area.**

There is no present population within the boundaries of the Project area. The maximum buildout population is estimated at 21,379.

- 3. Financing constraints and opportunity.**

Chapter 5 describes the funding plan for the services that would be provided by the CSD. A Mello-Roos CFD special tax is planned to pay for the costs of services not funded directly through user fees/charges or other revenue sources. Special taxes will be established to pay for the costs of services not funded directly through user fees/charges or other revenue sources. Special taxes on undeveloped property would cover shortfalls in the early years until the tax base has grown to a sufficient level to fund needed services.

4. Cost avoidance opportunities.

The annual CSD budget would be evaluated by a County BOS-appointed advisory committee to provide the highest level of service for the least cost. Because the CSD would be a new entity, it could implement many “best practices” techniques as it begins to provide services.

5. Rate restructuring.

Because the CSD would be a new special district, it would have the opportunity to set the appropriate rate structure to pay for the necessary services. The rate structure would have a built-in cost-of-living escalation factor.

6. Opportunities for shared cost.

The goals of the Project include partnerships with other public entities. The most likely arrangement would be shared park and recreation facilities with the EGUSD. Another opportunity may be a joint partnership with the SMFD.

7. Government structure options, including advantages and disadvantages of consolidation or reorganization.

The Urban Services and Governance Plan has been designed to minimize the need for new government organizations. Many of the services are planned to be provided by existing service providers. **Chapters 3 and 4** describe the existing governmental agencies that will provide services to the area. The service providers are summarized in **Table 1-1**.

The proposed services that would be provided by the CSD are more comprehensive than the authorized services for any other service provider. The CSD would be designed to be the community organizing vehicle that brings together all elements of the community. The communication, recreation, and transportation functions of the CSD would form the basis of the community network.

One advantage of a CSD is the efficiencies in the cost of providing the multiple services proposed. Where a multitude of single-purpose agencies would have administrative and other overhead costs associated with each agency, a CSD would have a single unified administration. Where a multitude of single purpose agencies would require individual employees with limited skill sets, the CSD would facilitate use of cross-trained, multi-functional personnel who can be allocated to diverse tasks efficiently. For example, park maintenance staff also would maintain the open space and trails network, signage, streetscape, and bus shelters. The cost savings because of efficiencies in administrative overhead, continuing use of maintenance equipment, and staffing flexibility is one of the chief attributes of a multi-service CSD. In addition, the creation of a locally controlled Board of Directors would significantly rectify the limited representation that Cordova Hills residents and businesses would have in other organizations that could provide a similar set of services.

8. Evaluation of management efficiencies.

As a new entity, the CSD would be designed to promote management efficiencies. It would be funded adequately through the levy of a special tax without burdening other special districts. The CSD would have the advantage of starting out with a highly efficient network communications system, which should produce substantial savings in day-to-day operations.

The CSD services plan would provide the option of contracting out many of the maintenance functions, which could provide cost effective delivery of these services.

9. Local accountability and governance.

A CSD would be planned to start out as a dependent district governed ex-officio by the County BOS. It would be managed by a five-member advisory board of directors appointed by the County BOS. At some point in the future, the residents of Cordova Hills could decide to become an independent district and elect their own Board of Directors.

Outreach would be provided by the communications services function of the CSD. The CSD would establish and operate a communitywide intranet as the key component of a communications network that would distribute information about community activities and services and provide transportation management services such as ride-sharing bulletins, real-time bus location information, and transit system routing and schedules, as well as provide emergency information. Community meetings would be held in the CSD administrative building or other community meeting spaces.

Formation of a CSA

The specific authorized services and other features of a new CSA must be specified in the County BOS resolution. See **Chapter 5** for a full detailing of the urban services proposed for a CSA. The County will require a feasibility analysis that addresses potential effects on existing agencies and also will develop detailed terms and conditions that guide formation and operation of the new CSA.

General Specifications of the CSA

At this point it is expected that the County BOS resolution will include the following specifications.

Authorized Services

The CSA would provide recreation and park services, maintenance of open space and trails and landscape corridors, habitat operations and maintenance, supplemental maintenance of roads, transit and transportation management services, and CSA administration and communications. An additional range of "latent" services could be authorized at the formation of the CSA, such as solid waste.

Geographic Area

The CSA would encompass the boundary of the Cordova Hills Master Plan, as illustrated in previous Project maps in **Chapters 1** and **2**. The SOI would be coterminous with the proposed CSA boundary.

Formation

Formation of a CSA would be initiated by a resolution of the County BOS, along with a petition of landowners.

Reorganization

A reorganization of CSA 4B would be required to detach Cordova Hills from its boundary. A similar detachment is proposed from CSA 10, which provides transit and air quality services.

Governing Body

As a dependent district, the CSA would be governed by the County BOS. The County could institute a Local Advisory Board (CSA Board) comprising local representatives. This CSA Board could be endowed with management and contracting oversight and could make recommendations to the County BOS on policy and procedures; final decisions ultimately would be at the discretion of the County BOS. The CSA could have a permanent director or executive officer to oversee the provision of services, retain institutional memory, and represent the interests of the CSA and its constituents in interactions with service providers and other government entities.

Revenues

The CSA would be funded by special taxes, benefit assessments, and user fees and charges. The CSA is subject to a Gann Limit (Article 13B of the State Constitution), which limits the amount of proceeds from taxes that can be collected. A CSA with street-related responsibilities also is allowed to collect related franchise fees, pursuant to State law.

Capital Financing

A CSA may issue general obligation bonds in its territory for purposes of capital facilities financing; however, the total amount of outstanding indebtedness is limited to 15 percent of assessed value within the CSA boundaries. A CSA also may issue land secured bonds services by assessments or special taxes (e.g., a Mello-Roos CFD), or revenue bonds, assuming a rate base exists for services being delivered (e.g., water or sewer service charges).

Staffing and Expenditures

The County could have a permanent director or executive officer oversee the provision of services, retain institutional memory, and represent the interests of the CSA and its constituents in interactions with service providers and other government entities. However, the County BOS retains ultimate discretion.

Formation of a CSD

The specific authorized services and other features of a new CSD must be specified in the Petition or Resolution of Formation. See **Chapter 5** for a full detailing of the urban services proposed for a CSD. LAFCo, as part of its discretionary proceedings, would conduct a feasibility analysis that addressed potential effects on existing agencies and also would develop detailed terms and conditions that guide formation and operation of the new CSD.

General Specifications of the CSD

At this point it is expected that the application to Sacramento LAFCo would include the following specifications.

Authorized Services

The CSD would provide recreation and park services, maintenance of open space and trails and landscape corridors, habitat operations and maintenance, supplemental maintenance of roads, transit and transportation management services, and CSD administration and communications. An additional range of “latent” services could be authorized at formation of the CSD, such as solid waste services.

Geographic Area

The CSD would encompass the boundary of the Cordova Hills Master Plan, as illustrated in previous Project maps in **Chapters 1** and **2**. The SOI would be coterminous with the proposed CSD boundary.

Formation

Formation of a CSD would be initiated by a resolution of the County BOS, along with a petition of landowners.

Reorganization

A reorganization of CSA 4B would be required to detach Cordova Hills from its boundary. A similar detachment would be proposed from CSA 10, which provides transit and air quality services.

Governing Body

Initially, the CSD would be governed by the County BOS, serving as the CSD Directors, *ex officio*. The County BOS is required to place the question of having a locally elected board of directors when either of the following conditions occurs: the number of registered voters in the district has reached or exceeded 500 (or fewer, as may be established by LAFCo), or 10 years after the effective date of the CSD’s formation (or earlier as may be specified by LAFCo).

Revenues

The CSD would be funded by special taxes, benefit assessments, and user fees and charges. A CSD is subject to a Gann Limit (Article 13B of the State Constitution), which limits the amount of proceeds from taxes that can be collected. A CSD with street-related responsibilities also is allowed to collect related franchise fees, pursuant to State law.

Capital Financing

A CSD may issue general obligation bonds in its territory for purposes of capital facilities financing; however, the total amount of outstanding indebtedness is limited to 15 percent of assessed value within the CSD boundaries. A CSD also may issue land secured bonds services by assessments or special taxes (e.g., a Mello-Roos CFD), or revenue bonds, assuming a rate base exists for services being delivered (e.g., water or sewer service charges).

Staffing and Expenditures

The County BOS would hire or contract management and technical staff and services. It is expected that the County BOS would retain the general manager who, in turn, would hire

additional staff as necessary, or manage contracts with the County or other public or private service providers.

Implementation of the Governance Plan

Over the past 3 years, the Cordova Hills planning, environmental review, and entitlement process has integrated the following three elements:

- An evaluation of municipal service requirements and the most practical and responsive approach to providing urban services (presented in this Urban Services and Governance Plan).
- Proposing how and by whom urban services would be provided and governed (presented in this Urban Services Plan).
- Fiscal implications of new development at Cordova Hills on the County and the regional service special districts (see Draft Fiscal Impact Analysis).

Going forward, it will be important to fully integrate creation of the appropriate governing entities and provision of urban services into the ongoing entitlement process.

Table 7-1 presents a proposed time line for formation of a CSA, and **Table 7-2** presents a proposed time line for formation of a CSD. The time line begins with presentation of the Governance Plan as outlined in this report and links the process to the broader entitlement process and subsequent implementation. The main steps in the process are summarized below.

1. Complete Governance Proposal and Related Entitlement Documents and Agreements

This Urban Services Plan provides the basis of discussions with County staff, the independent special districts, and LAFCo regarding the provision of urban services to the Cordova Hills Community. While there have been ongoing conversations with these agencies as part of the planning process, it will be helpful to confirm once again that the direction, assumptions, analysis, and proposals included in this document are sound and agreeable. Regarding the County-provided urban services, it is proposed that specific terms be incorporated into the Development Agreement. The Urban Services Agreement will specify terms of continuing County urban services (e.g., law enforcement) and also establish conditions for start-up and operation of a CSA or CSD. A CSA would be a dependent special district in perpetuity, and a CSD would be a dependent special district during the early years of the community's development. It could later become an independent special district.

2. Prepare Preliminary Reorganization Application for LAFCo

While no formal application is expected until following CEQA determination and planning entitlement actions by the County BOS, preparatory work, including related briefings with County staff and the Sacramento LAFCo, will take place before the entitlement actions of the County BOS. This work can include resolving various aspects of the reorganization application, including formation/reorganization procedures, required documentation, form, and content of the required feasibility study, etc. The feasibility study and Engineer's Report

Table 7-1
Cordova Hills Urban Services Plan
Cordova Hills Governance Proposal Process: CSA Formation

**CSA
Formation**

Supporting efforts and technical analysis	Governance Proposal Action Item	Responsible Entity	Months after SPA Approval
Preparation and refinement of Urban Services and Governance Plan and preparation and negotiation of agreement terms	Agreement with County on Urban Services and Governance Plan and Related Documents	Conwy LLC and Sacramento County	3
Collaboration with LAFCo on submittal requirements following review of Preliminary Feasibility Study and Engineer's Report	Preparation of Draft Application -- "Formation of Cordova Hills CSA"	Conwy LLC, Sacramento County, LAFCo staff	4
Response to LAFCo requirements and requests related to Reorganization Application, including key Terms and Conditions	Review and Refinement of Draft Application	Conwy LLC, Sacramento County, LAFCo staff	5
Cordova Hills Master Plan, Development Plans, Final EIR Certification, Development Agreement	Project Approvals Granted	County Planning Commission and Board of Supervisors	6
Landowner petition and Board of Supervisors Resolution requesting Reorganization (CSA formation, etc.)	Formal Reorganization Application to County BOS	Conwy LLC and County Board of Supervisors	7
	Resolution Approval by County BOS	County BOS	TBD

gov proc1

Table 7-2
Cordova Hills Urban Services Plan
Cordova Hills Governance Proposal Process: CSD Formation

**CSD
Formation**

Supporting efforts and technical analysis	Governance Proposal Action Item	Responsible Entity	Months after SPA Approval
Preparation and refinement of Urban Services and Governance Plan and preparation and negotiation of agreement terms	Agreement with County on Urban Services and Governance Plan and Related Documents	Conwy LLC and Sacramento County	3
Collaboration with LAFCo on submittal requirements following review of Preliminary CSD Feasibility Study and Engineer's Report	Preparation of Draft Application -- "Formation of Cordova Hills CSD"	Conwy LLC and LAFCo staff	4
Response to LAFCo requirements and requests related to Reorganization Application, including key Terms and Conditions	Review and Refinement of Draft Application	Conwy LLC and LAFCo staff	5
Cordova Hills Master Plan, Development Plans, Final EIR Certification, Development Agreement	Project Approvals Granted	County Planning Commission and Board of Supervisors	6
Landowner petition and Board of Supervisors Resolution requesting Reorganization (CSD formation, etc.)	Formal Reorganization Application to LAFCo	Conwy LLC and County Board of Supervisors	7
Preparation of Executive Officer's (EO) Report and Terms and Conditions of Approvals	LAFCo Technical Review of Application and Preparation of EO Report	LAFCo staff	8
Responses to public hearing input and direction by Commission	LAFCo Public Hearing and Action on Application	LAFCo Commission and staff	9
	File Certificate of Completion	LAFCo Commission and staff	TBD

gov proc

required for consideration of the reorganization applications are LAFCo documents. Cordova Hills proposes to submit a draft feasibility study as part of the Preliminary Application, recognizing that it is LAFCo's discretion to rely on, augment, or create an independent feasibility study. The Cordova Hills team, including EPS, would appreciate the opportunity to collaborate with LAFCo staff to assure that the proposed preliminary application and feasibility study addresses issues of concern to LAFCo staff in an acceptable format.

3. Completion of Application Initiating the LAFCo review of the CSD Formation and related Reorganization

Following action by the County BOS on the Master Plan, EIR, and related entitlement documents, the LAFCo Application can be submitted (because the Certified Final EIR is a required part of the Application). As noted above, it is proposed that the Application be made by Resolution of the County BOS. The complete Application will trigger official LAFCo actions, including review of the Application, preparation of the Feasibility Study and Executive Officer's Report, and the LAFCo hearings. Regarding the Feasibility Study, while a Draft Feasibility Study will be prepared as part of the preliminary Application documentation, LAFCo staff will decide how they will make the required feasibility findings, including conducting an independent feasibility study.

4. Start-up of CSA or CSD and Initial Operations

In the event LAFCo approves the formation of a CSA, the County Board of Supervisors will govern all actions related to the CSA. The County BOS could institute a Local Advisory Board (CSA Board) comprising local representatives. This CSA Board could be endowed with management and contracting oversight and could make recommendations to the County BOS on policy and procedures; final decisions ultimately would be at the discretion of the County BOS. The CSA could have a permanent director or executive officer to oversee the provision of services, retain institutional memory, and represent the interests of the CSA and its constituents in interactions with service providers and other government entities.

In the event LAFCo approves formation of a CSD, the County Board of Supervisors would serve ex officio as the CSD Board. As an early step, they would retain or appoint a General Manager who would be charged with establishing a budget for the CSD and beginning organizing service capabilities. Because it would be several years before significant service responsibilities exist, the initial phase of the CSD would focus mainly on organizational efforts. For example, it is likely that the CSD would enter into various contracts and other institutional arrangements that would define and assure the desired service levels as reflected in the Urban Services and Governance Plan, the Fiscal Impact Analysis and the Final EIR.



APPENDIX A:

Cordova Hills Phasing Analysis

These phasing analysis tables provide a general indication of balance between the level of development over buildout of the Project and services provided to the Project.

Table A-1	Park Development	A-1
Table A-2	Open Space and Trails, Landscape Corridors, and Supplemental Street Sweeping.....	A-2
Table A-3	Annual CHLSD Open Space and Trails Maintenance Cost Summary	A-3
Table A-4	Annual CHLSD Landscape Corridor Maintenance Cost Summary	A-4
Table A-5	Estimated Transit Assessment Revenue.....	A-5
Table A-6	Annual CHLSD Transit Operations and Maintenance Cost—1,000 Units.....	A-6
Table A-7	Annual CHLSD Transit Operations and Maintenance Cost—Initial Internal Route—3,000 Units.....	A-7
Table A-8	Annual CHLSD Transit Operations and Maintenance Cost—Full Internal Route with Buses in One Direction Only—5,000 Units.....	A-8
Table A-9	Annual CHLSD Transit Operations and Maintenance Cost—Buildout	A-9
Table A-10	Buses Required for Transit Service—1,000 units	A-10
Table A-11	Buses Required for Transit Service—Initial Internal Route—3,000 Units.....	A-11
Table A-12	Buses Required for Transit Service—Full Internal Route with Buses in One Direction Only—5,000 Units.....	A-12
Table A-13	Buses Required for Transit Service—Buildout	A-13

Table A-1
Cordova Hills Phasing Analysis
Park Development

Item	Units Trigger	Total	Phase 1				Phase 2				Phase 3				
			2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
RESIDENTIAL UNITS															
Residential Permits (1 year after lot sale)															
Annual Dwelling Units		7,500	0	233	233	643	641	351	351	723	719	670	670	1,135	1,131
Cumulative Dwelling Units			0	233	466	1,109	1,750	2,101	2,452	3,175	3,894	4,564	5,234	6,369	7,500
PARK ACRES															
Neighborhood Parks															
Town Center Park	500	3.0			3.0										
University Village Park	2,000	3.0					3.0								
Town Center Park	3,500	2.0								2.0					
University Village Park	4,000	3.1									3.1				
East Valley Park	5,200	5.3										5.3			
Estates Park	7,000	3.7												3.7	
Creekside Park North	7,500	5.4													5.4
Creekside Park South	7,500	5.1													5.1
Additional Active Parks	7,500	7.8													7.8
Subtotal		38.4	0.0	0.0	3.0	0.0	3.0	0.0	0.0	2.0	3.1	5.3	0.0	3.7	18.3
Community Park															
Phase 1	4,500	5.0									5.0				
Phase 2	7,500	13.5													13.5
Subtotal		18.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	13.5
Sports Park															
Phase 1	1,500	10.0				10.0									
Phase 2	3,000	10.0							10.0						
Phase 3	5,500	30.0											30.0		
Subtotal		50.0	0.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0	0.0	0.0	30.0	0.0	0.0
Swim Center															
X															
Community Center															
X															
Total		106.9	0.0	0.0	3.0	10.0	3.0	0.0	10.0	2.0	8.1	5.3	30.0	3.7	31.8
Cumulative Dwelling Units															
Percentage of Total			0	233	466	1,109	1,750	2,101	2,452	3,175	3,894	4,564	5,234	6,369	7,500
			0%	3%	6%	15%	23%	28%	33%	42%	52%	61%	70%	85%	100%
Cumulative Park Acres															
Percentage of Total		106.9	0.0	0.0	3.0	13.0	16.0	16.0	26.0	28.0	36.1	41.4	71.4	75.1	106.9
			0%	0%	3%	12%	15%	15%	24%	26%	34%	39%	67%	70%	100%

"parks"

Table A-2
Cordova Hills Phasing Analysis
Open Space and Trails and Landscape Corridors

Item	Source	Amount (end of Phase)		
		Phase 1	Phase 2	Phase 3
Dwelling Units				
Dwelling Units by Phase		1,750	2,272	3,478
Cumulative Dwelling Units		1,750	4,022	7,500
Percent of Total		23%	54%	100%
Estimated Costs				
Open Space And Trails	Table A-3	\$ 129,000	\$ 466,000	\$ 935,000
Percent of Total		14%	50%	100%
Landscape Corridors	Table A-4	\$ 74,000	\$ 167,000	\$ 340,000
Percent of Total		22%	49%	100%
phasing				

phasing

Table A-3
Cordova Hills Urban Services Plan
Annual CHLSD Open Space and Trails Maintenance Cost Summary (2011\$)

Item [1]	Phase 1				Phase 2				Buildout			
	Linear Ft.	Lights	Sq. Ft.	Annual Cost	Linear Ft.	Lights	Sq. Ft.	Annual Cost	Linear Ft.	Lights	Sq. Ft.	Annual Cost
Open Space/Greenbelts			0	\$ 0			2,874,600	\$ 119,302			3,666,232	\$ 248,275
Open Space Edges			568,700	\$ 85,822			1,318,100	\$ 195,082			1,748,100	\$ 258,722
Paseos (20 miles)	10,560		211,200	\$ 32,098	47,520		950,400	\$ 144,452	105,600		2,112,000	\$ 321,024
Multi-Use Trails (10' wide)	1,000		10,000	\$ 200	3,335		33,350	\$ 667	22,785		227,850	\$ 4,557
Multi-Use Trails (14' wide)	1,686		23,600	\$ 1,180	4,029		56,400	\$ 2,820	4,029		56,400	\$ 2,820
Lighting [2]	13,246	66		\$ 9,934	54,884	274	165,600	\$ 3,312	132,414	662		\$ 99,310
Total Annual Cost			813,500	\$ 129,234			5,232,850	\$ 465,635			7,810,582	\$ 934,708
Total Annual Cost (Rounded)				\$ 129,000				\$ 466,000				\$ 935,000

os sum

Source: MacKay & Somps, MJS Design Group

[1] See Table 5-11 for detailed cost estimates of all items except lighting.

[2] Linear feet for lighting equals sum of linear feet of paseos and trails. One light every 200 feet; \$150 per light/year based on PG&E Lighting Schedule-1 rates of \$11 per month plus a contingency for non-routine repairs.

Table A-4
Cordova Hills Urban Services Plan
Annual CHLSD Landscape Corridor Maintenance Cost Summary (2011\$)

Item	Annual Cost per Sq. Ft.	Phase 1		Phase 2		Buildout	
		Sq. Ft.	Cost	Sq. Ft.	Cost	Sq. Ft.	Cost
Landscape	\$ 0.18	76,000	\$ 13,680	161,700	\$ 29,106	219,200	\$ 39,456
Landscape/LID	\$ 0.15	101,600	\$ 15,240	368,800	\$ 55,320	1,011,500	\$ 151,725
Median	\$ 0.18	56,600	\$ 10,188	56,600	\$ 10,188	286,900	\$ 51,642
Median/LID	\$ 0.16	182,400	\$ 29,549	388,100	\$ 62,872	388,100	\$ 62,872
Sidewalks	\$ 0.02	260,264	\$ 5,205	439,916	\$ 8,798	1,678,554	\$ 33,571
Sound Walls	\$ 0.02	0	\$ 0	27,660	\$ 553	27,660	\$ 553
Total Annual Cost			\$ 73,862		\$ 166,838		\$ 339,819
Total Annual Cost (Rounded)			\$ 74,000		\$ 167,000		\$ 340,000

/sc cost

Source: MacKay & Soms, MJS Design Group, Sacramento County

Table A-5
Cordova Hills Special Planning Area
Estimated Transit Assessment Revenue

Item	Est. Transit Assessment [1]	Units/Sq. Ft.		Revenue				
		Phase 1	Buildout	Phase 1	Buildout	1,000 Units	3,000 Units	5,000 Units
Formula				<i>a</i>	<i>b</i>	<i>a * 57%</i>	<i>b * 40%</i>	<i>b * 67%</i>
Residential Land Uses	<u>per unit</u>	<u>dwelling units</u>						
Estates Residential	\$ 223	0	138	\$ 0	\$ 30,748	\$ 0	\$ 12,299	\$ 20,499
Low Density Residential	\$ 213	290	1,809	\$ 61,718	\$ 385,070	\$ 35,267	\$ 154,028	\$ 256,714
Medium Density Residential	\$ 192	760	3,061	\$ 146,090	\$ 588,386	\$ 83,480	\$ 235,354	\$ 392,257
Residential 20	\$ 151	150	833	\$ 22,655	\$ 125,735	\$ 12,946	\$ 50,294	\$ 83,823
High Density Residential	\$ 151	550	1,659	\$ 83,068	\$ 250,621	\$ 47,468	\$ 100,248	\$ 167,081
Total Residential		1,750	7,500	\$ 313,531	\$ 1,380,561	\$ 179,161	\$ 552,224	\$ 920,374
Nonresidential Land Uses	<u>per 1,000 sq. ft.</u>	<u>building sq. ft.</u>						
Commercial	\$ 69	120,000	654,860	\$ 8,238	\$ 44,957	\$ 4,708	\$ 0	\$ 0
Office	\$ 125	0	196,540	\$ 0	\$ 24,532	\$ 0	\$ 0	\$ 0
Total Commercial		120,000	851,400	\$ 8,238	\$ 69,489	\$ 4,708	\$ 0	\$ 0
Total				\$ 321,769	\$ 1,450,050	\$ 183,868	\$ 552,224	\$ 920,374
Percent of Buildout Cost								

rev

[1] Buildout cost per unit plus 5% contingency.

Table A-6
Cordova Hills Special Planning Area
Annual CHLSD Transit Operations and Maintenance Cost (2011\$) -- 1,000 Units

Item	Formula	Week Days				Weekends	Total Annual Transit Cost at 1,000 Units
		Peak Period		Non-Peak Period		Non-Peak Period	
		Internal Route	External Route	Internal Route	External Route	Internal Route	
		7-9 AM; 4-6 PM	7-9 AM; 4-6 PM	6-7 AM, 9 AM-4 PM, 6-9 PM	6-7 AM, 9 AM-4 PM, 6-7 PM	7 AM- 9 PM	
Cost per Revenue Hour [1]	a	\$ 72	\$ 72	\$ 72	\$ 72	\$ 72	\$ 72
Transit Operation Hours per Day	b	NA	4	NA	9	NA	
Revenue Hours per Operation Hour [2]	c	NA	1	NA	1	NA	
Days per Week the Buses Run	d	NA	5	NA	5	NA	
Revenue Hours Per Week	$e=b*c*d$	NA	20	NA	45	NA	65
Revenue Hours Per Year	$f=e*52$	NA	1,040	NA	2,340	NA	3,380
Total Annual Cost [3]	$a*f$	NA	\$ 74,880	NA	\$ 168,480	NA	\$ 243,360
Less Farebox Recovery [4], [5]	5%						(\$ 12,168)
Less University Subsidy [4], [6]							(\$ 60,000)
Total Annual Cost							\$ 171,192
Total Annual Cost (Rounded)							\$ 171,190

Source: Conwy, LLC and MV Transportation

tran 1000

[1] One revenue hour = one hour of operation for one vehicle.

[2] See Table A-13 for buses needed each hour (equivalent to revenue hours per operation hour).

[3] Phase 1 total annual cost estimated so that cost per person served equals cost per person served at buildout.

[4] Preliminary rough estimates.

[5] Farebox recovery only applies to outside users of system. Residents, employees, and university students will have free passes.

[6] \$100 per year per student * 600 students at 1,000 units.

Table A-7
Cordova Hills Special Planning Area
Annual CHLSD Transit Operations and Maintenance Cost (2011\$) -- Initial Internal Route -- 3,000 Units

Item	Formula	Week Days				Weekends	Total Annual Transit Cost at Buildout
		Peak Period		Non-Peak Period		Non-Peak Period	
		Internal Route	External Route	Internal Route	External Route	Internal Route	
		7-9 AM; 4-6 PM	7-9 AM; 4-6 PM	6-7 AM, 9 AM-4 PM, 6-9 PM	6-7 AM, 9 AM-4 PM, 6-7 PM	7 AM- 9 PM	
Cost per Revenue Hour [1]	a	\$ 72	\$ 72	\$ 72	\$ 72	\$ 72	\$ 72
Transit Operation Hours per Day	b	4	4	11	9	14	
Revenue Hours per Operation Hour [2]	c	2	3	1	1	1	
Days per Week the Buses Run	d	5	5	5	5	2	
Revenue Hours Per Week	$e=b*c*d$	40	60	55	45	28	228
Revenue Hours Per Year	$f=e*52$	2,080	3,120	2,860	2,340	1,456	11,856
Total Annual Cost [3]	$a*f$	\$ 149,760	\$ 224,640	\$ 205,920	\$ 168,480	\$ 104,832	\$ 853,632
Less Farebox Recovery [4], [5]	5%						(\$ 42,682)
Less University Subsidy [4], [6]							(\$ 300,000)
Total Annual Cost							\$ 510,950
Total Annual Cost (Rounded)							\$ 510,950

tran 4000

Source: Conwy, LLC and MV Transportation

[1] One revenue hour = one hour of operation for one vehicle.

[2] See Table A-13 for buses needed each hour (equivalent to revenue hours per operation hour).

[3] Phase 1 total annual cost estimated so that cost per person served equals cost per person served at buildout.

[4] Preliminary rough estimates.

[5] Farebox recovery only applies to outside users of system. Residents, employees, and university students will have free passes.

[6] 3,000 students.

Table A-8
Cordova Hills Special Planning Area
Annual CHLSD Transit Operations and Maintenance Cost (2011\$) -- Full Internal Route with Buses in One Direction Only -- 5,000 Units

Item	Formula	Week Days				Weekends	Total Annual Transit Cost at Buildout
		Peak Period		Non-Peak Period		Non-Peak Period	
		Internal Route	External Route	Internal Route	External Route	Internal Route	
		7-9 AM; 4-6 PM	7-9 AM; 4-6 PM	6-7 AM, 9 AM-4 PM, 6-9 PM	6-7 AM, 9 AM-4 PM, 6-7 PM	7 AM- 9 PM	
Cost per Revenue Hour [1]	a	\$ 72	\$ 72	\$ 72	\$ 72	\$ 72	\$ 72
Transit Operation Hours per Day	b	4	4	11	9	14	
Revenue Hours per Operation Hour [2]	c	3	3	2	1	2	
Days per Week the Buses Run	d	5	5	5	5	2	
Revenue Hours Per Week	$e=b*c*d$	60	60	110	45	56	331
Revenue Hours Per Year	$f=e*52$	3,120	3,120	5,720	2,340	2,912	17,212
Total Annual Cost [3]	$a*f$	\$ 224,640	\$ 224,640	\$ 411,840	\$ 168,480	\$ 209,664	\$ 1,239,264
Less Farebox Recovery [4], [5]	5%						(\$ 61,963)
Less University Subsidy [4], [6]							(\$ 300,000)
Total Annual Cost							\$ 877,301
Total Annual Cost (Rounded)							\$ 877,300

tran one dir

Source: Conwy, LLC and MV Transportation

[1] One revenue hour = one hour of operation for one vehicle.

[2] See Table A-13 for buses needed each hour (equivalent to revenue hours per operation hour).

[3] Phase 1 total annual cost estimated so that cost per person served equals cost per person served at buildout.

[4] Preliminary rough estimates.

[5] Farebox recovery only applies to outside users of system. Residents, employees, and university students will have free passes.

[6] 3,000 students.

Table A-9
Cordova Hills Special Planning Area
Annual CHLSD Transit Operations and Maintenance Cost (2011\$) -- Buildout

Item	Formula	Week Days				Weekends	Total Annual Transit Cost at Buildout
		Peak Period		Non-Peak Period		Non-Peak Period	
		Internal Route	External Route	Internal Route	External Route	Internal Route	
		7-9 AM; 4-6 PM	7-9 AM; 4-6 PM	6-7 AM, 9 AM-4 PM, 6-9 PM	6-7 AM, 9 AM-4 PM, 6-7 PM	7 AM- 9 PM	
Cost per Revenue Hour [1]	a	\$ 72	\$ 72	\$ 72	\$ 72	\$ 72	\$ 72
Transit Operation Hours per Day	b	4	4	11	9	14	
Revenue Hours per Operation Hour [2]	c	6	3	4	1	4	
Days per Week the Buses Run	d	5	5	5	5	2	
Revenue Hours Per Week	$e=b*c*d$	120	60	220	45	112	557
Revenue Hours Per Year	$f=e*52$	6,240	3,120	11,440	2,340	5,824	28,964
Total Annual Cost [3]	$a*f$	\$ 449,280	\$ 224,640	\$ 823,680	\$ 168,480	\$ 419,328	\$ 2,085,408
Less Farebox Recovery [4], [5]	5%						(\$ 104,270)
Less University Subsidy [4], [6]							(\$ 600,000)
Total Annual Cost							\$ 1,381,138
Total Annual Cost (Rounded)							\$ 1,381,140

Source: Conwy, LLC and MV Transportation

tran

[1] One revenue hour = one hour of operation for one vehicle.

[2] See Table A-13 for buses needed each hour (equivalent to revenue hours per operation hour).

[3] Phase 1 total annual cost estimated so that cost per person served equals cost per person served at buildout.

[4] Preliminary rough estimates.

[5] Farebox recovery only applies to outside users of system. Residents, employees, and university students will have free passes.

[6] \$100 per year per student * 6,000 students at buildout.

Table A-10
Cordova Hills Special Planning Area
Buses Required for Transit Service (2011\$) -- 1,000 units

Item	Formula	Peak Period		Non-Peak Period	
		Internal Route	External Route	Internal Route	External Route
Route Length (miles)		NA	17.3	NA	17.3
Planning Time per Cycle (min.)	<i>a</i>	NA	45	NA	45
Target Headway (min.)	<i>b</i>	NA	60	NA	60
Buses per Direction [1]	$c=a/b$	NA	1	NA	1
Directions Buses Run	<i>d</i>	NA	1	NA	1
Buses Needed	$c*d$	NA	1	NA	1

bus 1000

Source: Cordova Hills Transit Plan Summary (3/26/10)

[1] Rounded up to nearest integer.

Table A-11
Cordova Hills Special Planning Area
Buses Required for Transit Service (2011\$) -- Initial Internal Route -- 3,000 Units

Item	Formula	Peak Period		Non-Peak Period	
		Internal Route	External Route	Internal Route	External Route
Ultimate Route Length (miles)		6.1	17.3	6.1	17.3
Initial Route Percent		70%	100%	70%	100%
Initial Route Length		4.3	17.3	4.3	17.3
Planning Time per Cycle (min.)	<i>a</i>	30	45	30	45
Target Headway (min.)	<i>b</i>	15	15	30	60
Buses per Direction [1]	$c=a/b$	2	3	1	1
Directions Buses Run	<i>d</i>	1	1	1	1
Buses Needed	$c*d$	2	3	1	1

bus 4000

Source: Cordova Hills Transit Plan Summary (3/26/10)

[1] Rounded up to nearest integer.

Table A-12
Cordova Hills Special Planning Area
Buses Required for Transit Service (2011\$) -- Full Internal Route with Buses in One Direction Only -- 5,000 Units

Item	Formula	Peak Period		Non-Peak Period	
		Internal Route	External Route	Internal Route	External Route
Ultimate Route Length (miles)		6.1	17.3	6.1	17.3
Initial Route Percent		100%	100%	100%	100%
Initial Route Length		6.1	17.3	6.1	17.3
Planning Time per Cycle (min.)	<i>a</i>	45	45	45	45
Target Headway (min.)	<i>b</i>	15	15	30	60
Buses per Direction [1]	$c=a/b$	3	3	2	1
Directions Buses Run	<i>d</i>	1	1	1	1
Buses Needed	$c*d$	3	3	2	1

bus one dir

Source: Cordova Hills Transit Plan Summary (3/26/10)

[1] Rounded up to nearest integer.

Table A-13
Cordova Hills Special Planning Area
Buses Required for Transit Service (2011\$) -- Buildout

Item	Formula	Peak Period		Non-Peak Period	
		Internal Route	External Route	Internal Route	External Route
Route Length (miles)		6.1	17.3	6.1	17.3
Planning Time per Cycle (min.)	<i>a</i>	45	45	45	45
Target Headway (min.)	<i>b</i>	15	15	30	60
Buses per Direction [1]	$c=a/b$	3	3	2	1
Directions Buses Run	<i>d</i>	2	1	2	1
Buses Needed	$c*d$	6	3	4	1

bus

Source: Cordova Hills Transit Plan Summary (3/26/10)

[1] Rounded up to nearest integer.

Sacramento Local Agency Formation Commission

Cordova Hills Project

Application

The attached Public Facilities Financing Plan for the Cordova Hills Project, which includes a Capital Improvement Program and Financing Plan, shall serve as the Engineer's Report for purposes of the LAFCo application.

Final Report

**Cordova Hills Special Planning Area
Public Facilities Financing Plan**

The Economics of Land Use



Prepared for:

Conwy, LLC

Prepared by:

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March 2013

EPS #16586

The Economics of Land Use



Final Report

Cordova Hills Special Planning Area Public Facilities Financing Plan

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March 2013

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Table of Contents

1.	FINANCING PLAN SUMMARY	1-1
	Introduction	1-1
	Purpose	1-1
	University/College Campus Center	1-3
	Backbone Infrastructure and Public Facility Costs.....	1-4
	Financing Summary	1-10
	Financing Plan Implementation	1-19
	Organization of the Report	1-20
2.	LAND USE.....	2-1
	Overview	2-1
	Phasing	2-1
3.	ROADS	3-1
	Facilities	3-1
	Facility Costs and Revenues	3-2
	Phasing	3-11
	Funding Strategy	3-17
4.	SANITARY SEWER.....	4-1
	Facility Costs.....	4-1
	Alternative Sanitary Sewer Infrastructure Scenarios.....	4-5
	Phasing for PFFP Services Scenario	4-5
	Funding Strategy	4-7
5.	STORM DRAINAGE	5-1
	Facility Costs and Phasing.....	5-1
	Funding Strategy	5-6

6.	WATER	6-1
	Potable Water System	6-1
	Non-Potable Water System	6-6
7.	EARTHWORK	7-1
	Facility Costs.....	7-1
	Phasing	7-1
	Funding Strategy	7-1
8.	PUBLIC SAFETY.....	8-1
	Fire	8-1
	Law Enforcement	8-5
9.	CORDOVA HILLS LOCAL SERVICES DISTRICT FACILITIES	9-1
	Facility Costs.....	9-1
	Phasing	9-1
	Funding Strategy	9-3
10.	PARKS	10-1
	Facility Costs.....	10-1
	Phasing	10-5
	Funding Strategy	10-7
11.	OPEN SPACE AND TRAILS	11-1
	Facility Costs.....	11-1
	Phasing	11-5
	Funding Strategy	11-5
12.	HABITAT AND WETLANDS	12-1
	Facility Costs.....	12-1
	Phasing	12-4
	Funding Strategy	12-4

13.	LIBRARY	13-1
14.	TRANSIT	14-1
	Facility Costs	14-1
	Phasing	14-1
	Funding Strategy	14-5
15.	SCHOOLS	15-1
	Proposed Facilities	15-1
	Facility Costs	15-1
	Phasing	15-1
	Funding Strategy	15-5
	EGUSD CFD.....	15-5
16.	SPECIAL FINANCING DISTRICT FORMATION AND UPDATES	16-1
	Summary.....	16-1
	Estimated Cost	16-1
	Phasing	16-1
	Funding Strategy	16-1
17.	CORDOVA HILLS SPECIAL FINANCING DISTRICT	17-1
	Formation of the CHLSD	17-1
	Cordova Hills Special Financing District.....	17-1
18.	IMPLEMENTATION	18-1
	Changes in the Capital Improvement and Financing Programs	18-1
	Fee Credits and Reimbursements.....	18-2
19.	DEVELOPMENT FEASIBILITY	19-1
	Infrastructure Cost Feasibility Test	19-1
	Two-Percent Test	19-5
	Land Developer Cost Burden	19-5

List of Tables and Figure

Table 1-1	Estimated Backbone Infrastructure and Public Facilities Costs.....	1-11
Figure 1-1	Summary of Funding Programs.....	1-12
Table 1-3	Preliminary Sources and Uses of Funds at Buildout.....	1-15
Table 1-4	Cordova Hills SFD Cost Allocation Summary at Buildout.....	1-17
Table 1-5	Cordova Hills SFD Cost per Acre at Buildout	1-18
Table 2-1	Estimated Acres by Land Use	2-5
Table 2-2	Projected Community Dwelling Units, Building Square Feet, Population, and Employees	2-7
Table 2-3	Projected University/College Campus Center Dwelling Units, Building Square Feet, Students, and Employees.....	2-8
Table 2-4	Projected Buildout Development and Population Comparison.....	2-9
Table 3-1	Summary of Estimated Backbone Road Revenues and Costs	3-3
Table 3-2	Estimated Onsite Road Costs (2 pages)	3-8
Table 3-3	Roadway Mitigation Phasing (3 pages).....	3-12
Table 3-4	Potential Funding Sources—Offsite Roads with DUE Thresholds for Construction Responsibility	3-18
Table 3-5	Measure A Sacramento Countywide Transportation Mitigation Fee Revenue....	3-20
Table 3-6	SCTDF Fee Revenue	3-22
Table 3-7	Estimated SCTDF Credit.....	3-23
Table 3-8	Road Cost Allocation Factors	3-27
Table 3-9	Cordova Hills SFD Onsite Road Cost Allocation.....	3-28
Table 3-10	Cordova Hills SFD Offsite Road Cost Allocation at Buildout	3-29
Table 3-11	Cordova Hills SFD Phase 1 Onsite Road Cost Allocation.....	3-30
Table 3-12	Cordova Hills SFD Phase 1 Offsite Road Cost Allocation.....	3-31
Table 3-13	Cordova Hills Roads Cost Burden—Low-Density Unit.....	3-32
Table 3-14	SCTDF Credit.....	3-33
Table 4-1	Estimated Sanitary Sewer Facility Costs.....	4-2
Table 4-2	Sanitary Sewer Facilities Alternatives	4-6
Table 4-3	Summary of Sanitary Sewer Costs and Revenues	4-8

Table 4-4	SASD Fee Revenue	4-11
Table 4-5	SRCS D Fee Revenue	4-12
Table 4-6	Trunk Sewer Data and Model Results (4 pages)	4-13
Table 4-7	Sewer Service Alternatives (2 pages)	4-17
Table 5-1	Estimated Storm Drainage Facility Costs (2 pages)	5-4
Table 5-2	Estimated Storm Drainage Basin Facilities Construction and Land Acquisition Costs.....	5-7
Table 5-3	Summary of Storm Drainage Facility Funding Sources	5-8
Table 5-4	SCWA Zone 11A Drainage Fee Revenue.....	5-10
Table 5-5	Estimated Cordova Hills SFD Storm Drainage Facility Revenue and Costs.....	5-11
Table 5-6	Storm Drainage Cost Allocation Factors	5-12
Table 5-7	Cordova Hills SFD Storm Drainage Facilities Cost Allocation for Development in Zone 11A.....	5-13
Table 5-8	Cordova Hills SFD Storm Drainage Facilities Cost Allocation for Development in Phases 2 and 3	5-14
Table 5-9	Storm Drainage Construction Cost vs. Proportional Cost Allocation— Zone 11A.....	5-16
Table 5-10	Drainage Basin Cost Detail—Basin B1	5-17
Table 5-11	Drainage Basin Cost Detail—Basin B2	5-18
Table 5-12	Drainage Basin Cost Detail—Basin B3	5-19
Table 5-13	Drainage Basin Cost Detail—Basin B4	5-20
Table 5-14	Drainage Basin Cost Detail—Basin B5	5-21
Table 6-1	Estimated Potable Water Facility Costs	6-4
Table 6-2	SCWA Zone 40 Fee Revenue	6-5
Table 6-3	Estimated Non-Potable Water Facility Costs.....	6-8
Table 6-4	Water Cost Allocation Factors	6-10
Table 6-5	Cordova Hills SFD Non-Potable Water Facilities Cost Allocation at Buildout	6-12
Table 6-6	Non-Potable Water Facilities Cost vs. Proportional Cost Allocation	6-13
Table 7-1	Estimated Earthwork Costs	7-2

Table 8-1	Fire Station Costs	8-2
Table 8-2	Sacramento Metropolitan Fire District Capital Fire Facilities Fee Revenue	8-3
Table 8-3	Summary of Fire Station Costs and Revenues.....	8-4
Table 9-1	Estimated CHLSD Facilities Costs	9-2
Table 9-2	CHLSD Facilities Cost Allocation Factors.....	9-4
Table 9-3	Cordova Hills SFD CHLSD Facilities Cost Allocation at Buildout.....	9-5
Table 9-4	CHLSD Facilities Cost vs. Proportional Cost Allocation.....	9-6
Table 10-2	Estimated Parks Construction Costs	10-3
Table 10-3	Park Development Phasing.....	10-6
Table 10-4	Park Cost Allocation Factors	10-8
Table 10-5	Cordova Hills SFD Parks Cost Allocation at Buildout.....	10-9
Table 10-6	Parks Cost vs. Proportional Cost Allocation.....	10-10
Table 11-1	Estimated Open Space and Trails Construction Costs.....	11-4
Table 11-2	Open Space and Trail Development Phasing	11-6
Table 11-3	R-2 Acres Allocation	11-7
Table 11-4	Summary of Open Space and Trails Funding Sources—Phase 1	11-9
Table 11-5	Summary of Open Space and Trails Funding Sources—Buildout	11-10
Table 11-6	Open Space and Trails Cost Allocation Factors	11-11
Table 12-1	Estimated Habitat Mitigation Costs.....	12-3
Table 13-1	Proposed Sacramento County Library Fee Revenue	13-2
Table 14-1	Estimated Transit Costs.....	14-4
Table 14-2	Transit Development Phasing	14-7
Table 14-3	Transit Cost Summary at Buildout.....	14-8
Table 14-4	Transit Cost Allocation Factors.....	14-9
Table 14-5	Cordova Hills SFD Transit Cost Allocation at Buildout.....	14-10
Table 15-1	School Construction Costs by Phase	15-3
Table 15-2	Cordova Hills Planned Schools vs. Schools Required	15-4

Table 15-3	EGUSD School Funding by Phase	15-6
Table 15-4	State Funding for School Construction by Phase	15-7
Table 16-1	Estimated Special District Formation and Updates Costs	16-2
Table 16-2	Special District Formation and Updates Cost Allocation Factors	16-4
Table 16-3	Special District Formation and Updates Cost Allocation at Buildout	16-5
Table 16-4	Special District Formation and Updates vs. Proportional Cost Allocation	16-6
Table 17-1	Estimated Maximum Annual Special Tax Revenue at Buildout	17-3
Table 17-2	Estimated Infrastructure Bond Sizing at Buildout	17-4
Table 19-1	Summary of Infrastructure Burden per Unit for Development in SCWA Zone 11A	19-3
Table 19-2	Summary of Infrastructure Burden per Unit for Development not in SCWA Zone 11a.....	19-4
Table 19-3	Test of 2% Sales Price.....	19-6
Table 19-4	Summary of Additional Developer Infrastructure Burden.....	19-7

List of Maps

Map 1-1	Cordova Hills Vicinity.....	1-2
Map 2-1	Cordova Hills Village Concept	2-2
Map 2-2	Cordova Hills Land Use Plan	2-3
Map 2-3	Cordova Hills Illustrative Development Phasing.....	2-4
Map 3-1	Street Type Exhibit	3-6
Map 3-2	On-Site Roadway CIP Exhibit.....	3-7
Map 3-3	Roadway CIP Exhibit	3-10
Map 4-1	Sanitary Sewer Buildout Expansion Plan	4-3
Map 4-2	Projected Sanitary Sewer Infrastructure Phasing Plan.....	4-4
Map 4-3	Phase 1 Sanitary Sewer Infrastructure Plan.....	4-19

Map 4-4	Phase 2 Sanitary Sewer Infrastructure Plan.....	4-20
Map 4-5	Phase 3 Sanitary Sewer Infrastructure Plan.....	4-21
Map 5-1	Cordova Hills Grading Concept and Basin Location Plan	5-2
Map 5-2	Cordova Hills Trunk Drainage	5-3
Map 6-1	Cordova Hills Water System	6-2
Map 6-2	Cordova Hills Buildout Non-Potable Water System.....	6-7
Map 10-1	Park Sites	10-4
Map 11-1	Open Space	11-2
Map 11-2	Trails System	11-3
Map 12-1	Wetland Avoidance and Impact.....	12-2
Map 14-1	Internal Shuttle Van/Bus Starter Route.....	14-2
Map 14-2	External Bus Route	14-3
Map 15-1	School Sites	15-2

1. *FINANCING PLAN SUMMARY*

Introduction

This Public Facilities Financing Plan (Financing Plan) sets forth a strategy to finance backbone infrastructure and other public facilities required to serve the proposed land uses in the Cordova Hills Special Planning Area (Cordova Hills or Project). The 2,668-acre Project is vacant and is located in unincorporated Sacramento County (County) just east of the City of Rancho Cordova, the approved Sunridge Specific Plan, and the proposed Suncreek Specific Plan. It is bordered to the west by Grant Line Road, to the north by Glory Lane (about one-half mile south of Douglas Road), and to the east by Carson Creek. The Kiefer Landfill and its associated bufferlands are southwest of the Project, and the required bufferlands extend into the southwest portion of Cordova Hills. **Map 1-1** shows the regional location of the Project.

Planned development in Cordova Hills consists of a maximum of 8,000 residential units on approximately 1,089 acres, approximately 103 acres of commercial and office development, and approximately 224 acres that will accommodate a university or other institution of higher learning (hereafter referred to as “university/college campus center”). The remaining acreage will be used for parks, recreation, open space, trails, agriculture, schools, and other public facility improvements, such as roadways. The Project is divided into six separate villages. Development of the Town Center village and a portion of the university/college campus center, both located on the west side of the Project, comprise the first phase of development. The Town Center Village includes 23 percent of the proposed residential units and more than half of the commercial and office development.

Purpose

This Financing Plan has been prepared to comply with requirements of the following County General Plan policies related to public facility financing:

- LU-13: A Public Facilities/Infrastructure Master Plan shall be prepared to identify the major facilities required to serve new development in urban growth areas. A Public Facilities Financing Plan shall be prepared and approved by the Board of Supervisors prior to or concurrent with the approval of any zoning for any urban uses in urban growth areas. The Financing Plan shall include a Public Facilities/Infrastructure Master Plan describing required major infrastructure improvements necessary to support proposed developments, and present a detailed plan for the phasing of capital improvements which identifies the extent, timing and estimated costs of all necessary infrastructure.

Map 1-1

Cordova Hills Vicinity Map

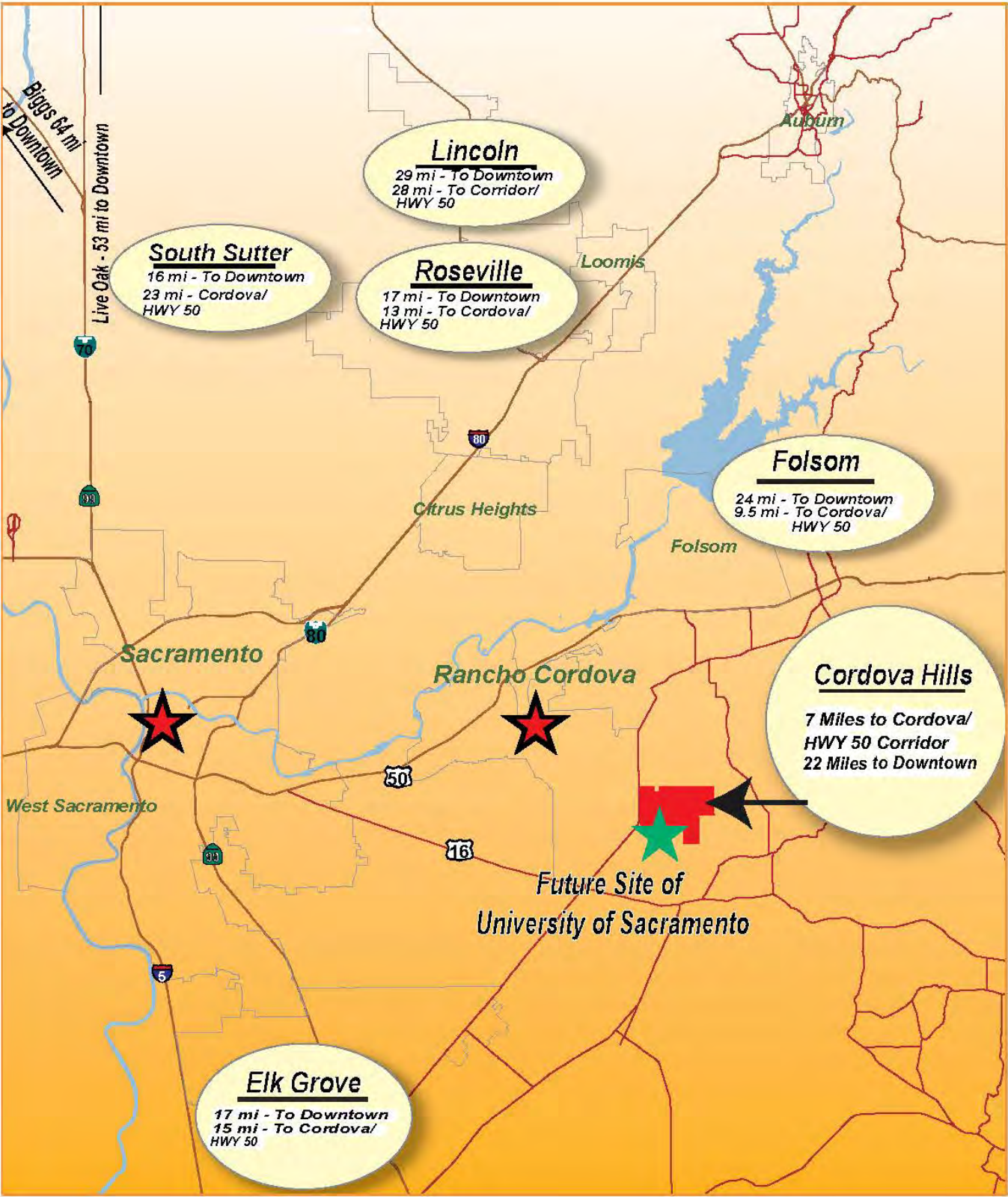


Figure 1.1: Regional Location

- LU-120: The County shall only consider approval of a proposed UPA expansion and/or Master Plan outside of the existing UPA if the Board finds that the proposed project is planned and will be built in a manner that:
 - Meets all of the requirements per PC-1 through PC-10.
 - Meets ONE of the two alternative performance metrics:
 - » Alternative #1: Criteria-based
 - » Alternative #2: VMT/Greenhouse Gas Emissions Reduction Metric.¹

In accordance with these policies, the Financing Plan provides the estimated cost and timing of backbone infrastructure and other public facilities needed to serve new development in the Project. It also provides the strategy to match the timing of when facilities are required as well as the timing of costs with the availability of probable funding sources. The Financing Plan will be submitted for approval to the Board of Supervisors as a companion document to the Cordova Hills Master Plan.

The specific purposes of the Financing Plan are listed below:

- Establish the policy framework for financing the required backbone infrastructure and other public facilities.
- Specify the backbone infrastructure and other public facilities to be constructed or acquired in association with development of the Project.
- Identify the estimated costs, constraints, and phasing requirements for required backbone infrastructure and other public facilities.
- Identify funding mechanisms, both existing and new, to fund required backbone infrastructure and other public facilities.

University/College Campus Center

The Project contains an approximately 224-acre site for a university/college campus center. Although, as of March 2013, a specific university/college campus center has not yet been identified to occupy the site, Section 2.3.1 of the Cordova Hills Development Agreement states that the site shall be used for an institute of higher education as defined in the Cordova Hills Master Plan. If an institution of higher education does not locate on the site by the end of the 30-year initial term of the Development Agreement, then the land shall be transferred at no cost to the County for use consistent with its zoning under the Cordova Hills Master Plan. In addition, at the time of the transfer, the property owners will cancel any obligation (credits/reimbursements) the land has to pay for its share of any infrastructure improvements previously constructed by the owner that benefit the university/college campus center site. Further, the

¹ Refer to the Land Use Element of the County General Plan for additional details regarding PC-1 through PC-10 requirements and the two alternative performance metrics.

property owners agree to construct the backbone infrastructure to the frontage of the university/college campus center site during the Phase 1 development of the Project, whether or not a university/college campus center has been identified by that time. Section 2.3.1 of the Development Agreement describes additional conditions related to finding a university for the site and transferring the site to the County.

Backbone Infrastructure and Public Facility Costs

Definitions

The term “backbone infrastructure” often is used to describe all publicly owned facilities. This Financing Plan will use the following definitions to more precisely define these items:

- **Backbone Infrastructure** includes most of the essential public service-based infrastructure inclusive of roadways and improvements underneath roadways (such as storm drainage, sanitary sewer, and water facilities). Backbone infrastructure is sized to serve numerous individual development projects in the Project and in some cases serves adjacent development areas.
- **Public Facilities** provide amenities to the Project (e.g., parks and libraries) or house employees and equipment providing services to the area (e.g., fire facilities, corporation yard).
- **Public Improvements (or Improvements)** is used generically in the Financing Plan to include a combination of backbone infrastructure and public facilities when a precise breakdown is not required.
- **Subdivision Infrastructure** refers to subdivision frontage improvements (e.g., outer lanes, bicycle lanes, gutters, curbs, and sidewalks along roads and landscape corridors) and in-tract improvements (e.g., mass grading, sewer, storm drainage, water, and roads) in an individual subdivision, commercial, or multifamily project. *All subdivision infrastructure is excluded from this Financing Plan and will be privately financed.*

Backbone Infrastructure

Buildout of the Project will require construction of approximately \$326 million of backbone infrastructure. *All costs in this Financing Plan are in 2011 dollars and will be subject to future updates.* The backbone infrastructure in this Financing Plan includes the following items:

- Roadways
- Sanitary Sewer Facilities—Trunk and Interceptor Systems
- Storm Drainage Facilities
- Water Facilities—Potable and Non-potable
- Earthwork

Public Facilities

Buildout of the Project will require construction of approximately \$233 million of public facilities. The public facilities in this Financing Plan include the following items:

- Fire Facilities
- Cordova Hills Local Services District (CHLSD) Facilities
- Parks
- Open Space and Trails
- Habitat and Wetlands
- Library Facilities
- Transit Facilities
- Schools
- Special Financing District Formation and Updates

Note that both earthwork and habitat and wetlands are discussed in the Financing Plan because they are significant elements of the Project. It is anticipated, however, that their costs will be funded privately.

Cost Estimate Sources

Cost estimates for required backbone infrastructure and public facility improvements have been derived from a combination of available engineering and cost estimate data from the following sources:

- MacKay & Somps Civil Engineers, Inc., (MacKay & Somps)
- MJS Design Group (MJS)
- HCM, Inc.
- Sacramento Library Authority
- MV Transportation
- ECORP Consulting, Inc. (ECORP)
- Sacramento Metropolitan Fire District (Fire District)
- Elk Grove Unified School District (EGUSD)

Cost estimates are detailed for each improvement type in **Chapters 3** through **16**. These cost estimates are based on the best information available at the time of the Financing Plan preparation. At the time of implementing the financing mechanisms and any updates thereafter, revisions will be made if descriptions of facilities and associated timing and cost estimates change.

Note that the cost estimates were developed over a two to three year period. For the purposes of consistency, the costs in all tables are identified as 2011 dollars. Due to current economic conditions, it is very difficult to estimate the costs. Stating that all costs are in 2011 dollars is a reasonable assumption. Infrastructure costs will be updated prior to implementation of the financing mechanisms.

Phase 1 and Total Cost Summary

MacKay & Somps estimated backbone infrastructure facilities requirements and costs for three development phases. Only the facilities costs at completion of Phase 1 and at buildout are included in this Financing Plan. Likewise, public facilities requirements and costs are estimated at completion of Phase 1 and at buildout. Although requirements and costs have been included only for Phase 1 and buildout, each phase of development will likely have multiple sub-phases.

Improvements will be constructed and costs incurred throughout each phase based on conditions of approval for each subdivision in the phase. Additional details such as potential funding constraints of phased improvements for each infrastructure type are summarized below and described in greater detail in subsequent chapters of this report.

- **Roads.** Cordova Hills will be required to fund both onsite and offsite backbone roadway improvements.

The onsite road improvements will be funded through the proposed Cordova Hills Special Financing District (SFD). The cost of onsite road facilities in Phase 1 exceeds the estimated revenue generated through the proposed Cordova Hills SFD based on Phase 1 development. The total deficit amount of \$14.2 million will be advance-funded by the master developer and reimbursed through the Cordova Hills SFD in subsequent phases of the Project. At buildout, this Financing Plan indicates sufficient funding will be generated by Project development to fund onsite road facility costs.

The offsite road improvements in the Cordova Hills Offsite Roadway Capital Improvement Program (CIP) will be funded through a combination of the Cordova Hills SFD, developer advance funding, and County and other development impact fee programs. The two existing road fee programs in which Cordova Hills development must participate and pay fees are the Sacramento County Transportation Development Fee (SCTDF) Program and the Measure A Sacramento Countywide Transportation Mitigation Fee Program (SCTMFP). Some of the offsite improvements that Cordova Hills must construct are also included in these fee programs. The Cordova Hills developer will be required to provide advance funding for these offsite road improvements and will be eligible to receive fee credits and reimbursements from the fee programs. The amount and timing of reimbursements available from these fee programs, however, is difficult to determine. Both the SCTDF and SCTMFP programs have many road projects competing for available funding from these programs. It is uncertain when the fee revenue would be available in the form of reimbursements.

The amount of advance funding required by the Cordova Hills developers for road improvements is detailed in **Chapter 3**. Cordova Hills' Phase 1 roadway funding requirements will result in a shortfall of approximately \$14.2 million that will not be recouped until additional fees are collected from the Cordova Hills SFD or reimbursements made from the other fee and/or funding programs.

The most significant financial hurdle following Phase 1 will occur when the Cordova Hills development reaches 3,200 dwelling unit equivalents (DUEs). At this point, the construction cost requirement for offsite roadways could reach approximately \$55 million (\$40 million of which is triggered at 3,200 DUEs), or roughly 70 percent, of the total road construction requirement. However, only about \$13 million, or roughly 40 percent of the development fee revenue, would have been collected by this time. The resulting shortfall of approximately \$42 million occurs both because of this disparity between the percentages of costs incurred and fees collected and because the developer is constructing road improvements that are potentially eligible for reimbursement from other funding programs and thus are excluded from the Cordova Hills SFD funding program. Cordova Hills' construction cost requirement and resulting shortfall would be reduced if other regional development projects trigger and construct the roadways before Cordova Hills triggers them.

Then next significant financial hurdle will occur at 6,900 EDUs. At this point, 92 percent of the Cordova Hills construction responsibility cost might be incurred, but only about 84 percent of the Cordova Hills development will have contributed to the fee program.

At buildout, the developer could have advanced approximately \$45 million subject to future reimbursement. It is uncertain whether or not any of this reimbursement funding may be available before buildout to reduce the developer's out of pocket costs. It is also uncertain how much of this oversizing cost will ultimately be reimbursed.

- **Sanitary Sewer.** Cordova Hills' developers will construct and fund required Cordova Hills Sewer Master Plan trunk facilities, as well as participate in the Sacramento Area Sewer District (SASD) and Sacramento Regional County Sanitation District (SRCSD) fee programs. The developers will be eligible for SASD fee credits and reimbursements up to the full construction cost of the trunk facilities that they construct. Cordova Hills will provide advance-funding for these facilities and will receive full credit against all SASD fees owed. It is anticipated that the developers will still have a remaining outstanding developer advance of approximately \$21.9 million at buildout of Cordova Hills and will be eligible to receive cash reimbursements from the SASD fee revenue. The timing of the SASD reimbursements is uncertain and depends on the availability of SASD fee revenue. Full reimbursement may require a considerable time period beyond buildout of Cordova Hills, and it is possible that the Cordova Hills developers may never receive full reimbursement.
- **Storm Drainage.** Storm drainage facilities will be funded through SCWA Zone 11A development impact fee revenue and the proposed Cordova Hills SFD. Developers will construct facilities in Phase 1, which is entirely located in SCWA Zone 11A, and will be eligible to receive credits or reimbursements from the Zone 11A fee program for a portion of the facilities costs in Phase 1. Storm drainage facilities in all remaining phases are not located in any of the SCWA drainage zones and will be funded through the Cordova Hills SFD. In addition, there are some storm drainage facilities in Phase 1 that are ineligible for SCWA Zone 11A credits or reimbursements that will be funded through the proposed Cordova Hills SFD. To the extent that Cordova Hills SFD revenues are insufficient to fund phased storm drainage facilities, the master developer will provide advance-funding with reimbursement from the Cordova Hills SFD when revenue becomes available.
- **Water.** The Project will be required to pay SCWA Zone 40 development impact fees for the construction of potable water facilities. It is anticipated that SCWA Zone 40 development impact fee revenue will be available to fund potable water improvements for each phase of the Project. A potential phasing constraint concerns the availability of water for Cordova Hills from the North Douglas water storage tanks. The availability of water is dependent on the pace of development in the area surrounding these tanks (e.g., North Douglas; Sunridge). In the event development moves forward in this area, the length of time before Cordova Hills' tanks are needed could be relatively short. In an extremely conservative scenario, the Cordova Hills tanks would need to be constructed at the beginning of the Project. Advance-funding from the master development may be required and would be reimbursed through SCWA.

Non-potable water costs will be funded through the Cordova Hills SFD. The cost of non-potable facilities in Phase 1 exceeds the estimated revenue generated through the proposed Cordova Hills SFD based on Phase 1 development. The total deficit amount will be advance-

funded by the master developer and reimbursed through the Cordova Hills SFD in subsequent phases of the Project. At buildout, this Financing Plan indicates sufficient funding will be generated by Project development to fund non-potable facility costs.

- **Earthwork.** Earthwork is discussed in this Financing Plan because it is a significant element of the Project, but it is currently anticipated that earthwork costs will be privately funded by the developers. The developers, however, may request that earthwork for some of the following items be included in the Cordova Hills SFD funding program if they meet the construction requirements necessary for public financing mechanisms:
 - Four-lane roads
 - Drainage corridors
 - Major parks
 - School sites
- **CHLSD Facilities.** The CHLSD will provide municipal services to Cordova Hills. As detailed in the Urban Services Plan, the CHLSD could be either a County Services Area (CSA) or a Community Services District (CSD). During the Project approval hearings, it was determined that the governance structure for the CHLSD will be a CSA. This was memorialized in the Development Agreement as presented to the Sacramento County Board of Supervisors on January 29, 2013, which indicates “the governance structure utilized to provide the municipal services to the Project Area will be a county service area formed for the Project pursuant to the County Service Area Law contained in Government Code Sections 25210 et. seq.”
- A more detailed discussion of the CHLSD is provided in the Draft Cordova Hills Special Planning Area Urban Services and Governance Plan.

The cost of CHLSD facilities in Phase 1 exceeds the estimated revenue generated through the proposed Cordova Hills SFD based on Phase 1 development. The shortfall amount of \$2.6 million will be advance-funded by the master developer and reimbursed through the Cordova Hills SFD in subsequent phases of the Project. At buildout, sufficient funding will be generated by Project development to fund CHLSD facility costs.

- **Public Safety.** Based on correspondence from the Sacramento Metropolitan Fire District (SMFD), there are too many variables to assess the precise timing of fire and medical services facilities for the Project. SMFD has agreed to assess the phasing of fire and medical service facilities at the small lot tentative map stage of the Project. As such, this Financing Plan assumes that development in the Project will pay the SMFD fee. Additional funding sources for any shortfalls will be evaluated at the time facilities are required.

The County Sheriff plans to operate a substation in the Project through a lease with Cordova Hills. Expenditures associated with leasing a substation will be covered through the fiscal impact analysis surplus estimated in EPS’s Draft Fiscal Impact Analysis.

- **Parks.** This Financing Plan includes an annual phasing schedule of park improvements compared with residential development. In each year of Project development, the percentage of total dwelling units exceeds the percentage of park development indicating

that there will be a sufficient tax base (development) available to fund facility costs. Funding shortfalls by phase are not anticipated.

- **Open Space and Trails.** The percentage of development in Phase 1 exceeds the percentage of open space and trail development in Phase 1, indicating there is a sufficient tax base (development) to fund open space and trail development costs. Indeed, there is a projected \$475,000 surplus in Cordova Hills SFD revenues in Phase 1. Remaining open space and trail facilities will be funded through the Cordova Hills SFD as well. To the extent that there is insufficient funding to cover phased costs, the master developer will provide advance-funding with reimbursement through the Cordova Hills SFD when revenues become available. However, this scenario is not anticipated.
- **Habitat and Wetlands.** On-site habitat and wetlands costs will be funded through the proposed CHLSD, as detailed in the September 2012 Public Review Draft Cordova Hills Urban Services Plan (Urban Services Plan). To the extent that on-site habitat and wetlands costs exceed revenues available through the CHLSD, the master developer will provide advance-funding. Off-site habitat and wetlands costs will be funded privately by the master developer. There is a proposed South Sacramento Habitat Conservation Plan fee program, however, which if implemented, could replace the private developer funding as the funding source of habitat mitigation costs.
- **Library.** The timing of constructing a library facility is at the discretion of the Library Authority and will be dependent on funding from Cordova Hills as well as other benefiting areas. The funding source for constructing a library facility will be the countywide library development impact fee program, if and when it is implemented. In the event the County does not implement a countywide library development impact fee program, the Project will fund its fair share of library facilities through the proposed Cordova Hills SFD.
- **Transit.** The cost of transit facilities in Phase 1 exceeds the estimated revenue generated through the proposed Cordova Hills SFD based on Phase 1 development. The total deficit amount will be advance-funded by the master developer and reimbursed through the Cordova Hills SFD in subsequent phases of the Project. At buildout, sufficient funding will be generated by Project development to fund transit facility costs.
- **Schools.** The Elk Grove Unified School District (EGUSD) will construct the required schools. Funding will be provided by State of California school funding program and by the EGUSD Level 2 fee for school facilities in equal amounts. Cordova Hills will participate in the EGUSD fee program. The EGUSD updates its fee program annually to calculate the fee needed to provide one-half of the facilities funding. The fees are adjusted each year to account for the changing construction costs, student generation rates, and dwelling unit sizes.
- **Cordova Hills Special Financing District Formation and Updates.** The Phase 1 cost for the Cordova Hills SFD formation and updates exceeds the estimated revenue generated through the proposed Cordova Hills SFD based on Phase 1 development. The total deficit amount will be advance-funded by the master developer and reimbursed through the Cordova Hills SFD in subsequent phases of the Project. At buildout, sufficient funding will be generated by Project development to fund the Cordova Hills SFD formation and updates costs.

Table 1-1 summarizes the costs of backbone infrastructure and public facilities required for Phase 1 and buildout of the Project. At buildout, these costs total approximately \$559 million. Phase 1 costs total approximately \$123 million. All cost estimates in this Financing Plan are in 2011 dollars. The costs and funding programs will be evaluated and updated throughout development of the Project.

Cost estimates include only improvements that are required to directly serve the Project, including on-site and, in some cases, off-site facilities. The public financing mechanisms discussed below pay for backbone infrastructure and other public facilities. The cost estimates in **Table 1-1** do not include the costs of in-tract and other subdivision-specific improvements, which the Financing Plan assumes will be privately financed. For several of the improvement types (roads, earthwork, open space and trails, and habitat and wetlands), however, some privately funded costs are identified and discussed in this report.

Financing Summary

Purpose

The purpose of the Financing Plan is to recommend the appropriate financing mechanisms to fund the necessary backbone infrastructure and other public facility costs required to serve the Project. The selected financing mechanisms must be flexible enough to provide funding for the required improvements when needed. The financing mechanisms used will depend on the type and timing of the needed facilities. Construction will be phased so facilities are available when needed.

Financing Strategy

A combination of funding sources ultimately will fund the Financing Plan costs. The Financing Plan recommends a combination of the following sources:

- Existing County and other public agency fee programs.
- A new Cordova Hills Special Financing District (SFD), which could include the following funding mechanisms:
 - Project-area development fee program.
 - Bond-funding through a Mello-Roos Community Facilities District (CFD).
 - Developer advances and reimbursements.
- EGUSD CFD funding.
- State, federal, and other funding.
- Developer funding.

Combining these funding sources will optimize the use of available revenue sources to meet the backbone infrastructure and public facilities needs of the Project. **Figure 1-1** summarizes the funding sources.

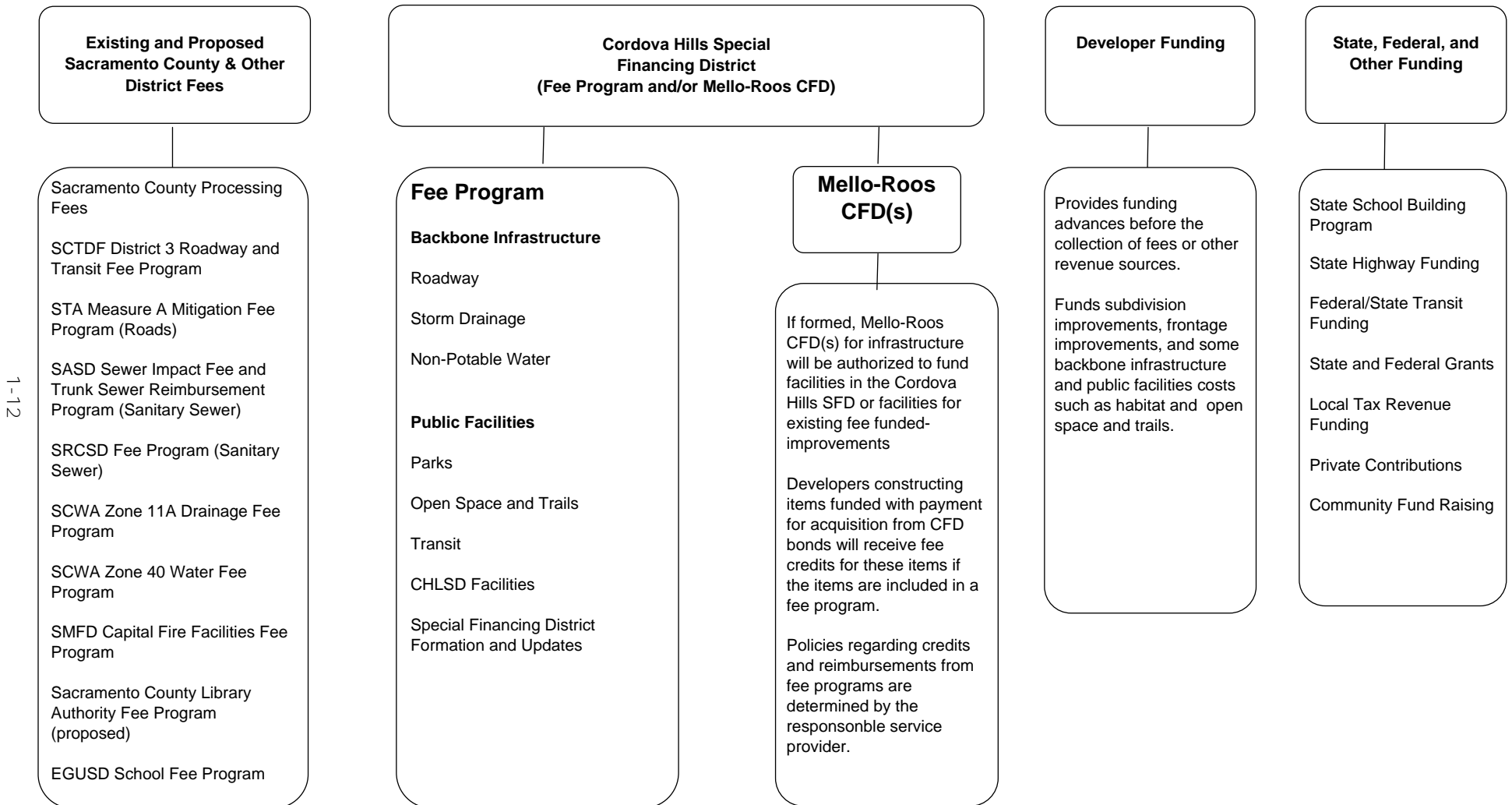
Table 1-1
Cordova Hills Financing Plan
Estimated Backbone Infrastructure and Public Facilities Costs (2011\$)

Item	Phase 1	Buildout
Backbone Infrastructure		
Roads	\$ 38,550,000	\$ 148,130,000
Sanitary Sewer System	\$ 12,090,000	\$ 42,490,000
Storm Drainage System -- Zone 11A	\$ 3,740,000	\$ 3,740,000
Storm Drainage System -- Outside of Zone 11A	\$ 0	\$ 9,350,000
Potable Water	\$ 7,000,000	\$ 17,380,000
Non-potable Water	\$ 2,300,000	\$ 8,870,000
Earthwork	\$ 10,080,000	\$ 96,120,000
Subtotal Backbone Infrastructure (Rounded)	\$ 73,760,000	\$ 326,080,000
Public Facilities		
Fire	\$ 2,050,000	\$ 9,740,000
Parks	\$ 5,630,000	\$ 47,460,000
Open Space and Trails	\$ 2,010,000	\$ 19,560,000
Habitat and Wetlands	\$ 4,670,000	\$ 15,350,000
Library	\$ 1,240,000	\$ 5,480,000
Transit	\$ 290,000	\$ 500,000
CHLSD Facilities	\$ 4,000,000	\$ 9,000,000
Special District Formation and Updates	\$ 1,500,000	\$ 2,000,000
Schools	\$ 28,100,000	\$ 123,440,000
Subtotal Public Facilities (Rounded)	\$ 49,490,000	\$ 232,530,000
TOTAL (Rounded)	\$ 123,250,000	\$ 558,610,000

tot costs

Source: McKay & Soms and EPS.

**Figure 1-1
Cordova Hills Special Planning Area Public Facilities Financing Plan
Summary of Funding Programs**



Tables 1-2 and **1-3** show the estimated backbone infrastructure and public facility costs and financing sources used to fund these costs at completion of Phase 1 and buildout of the Project, respectively. Note that these tables include costs and funding sources for the following improvements:

- All onsite backbone infrastructure and public facilities.
- Offsite backbone infrastructure that Cordova Hills is obligated to construct.

The costs and funding sources for offsite sanitary sewer infrastructure required for Cordova Hills' development but constructed by the Sacramento Regional County Sanitation District (SRCSD) are excluded from **Tables 1-2** and **1-3**. Cordova Hills' development will pay the SRCSD fees to provide funding for the construction of required offsite facilities but is not responsible for constructing the facilities. Consequently, neither the costs nor fee revenue for this program are included on **Tables 1-2** and **1-3**.

Each financing source shown on **Tables 1-2** and **1-3** is discussed below.

Existing Fee Programs

Existing fee programs include County development impact fee programs and the EGUSD School Fee Program. These fee programs are listed below. Note that the costs funded by the SRCSD Fee Program are excluded from **Table 1-2** and **Table 1-3**. As noted above, Cordova Hills will pay the SRCSD fee but will not be responsible for constructing the offsite infrastructure funded by the fee. Consequently, the cost of these offsite improvements is excluded from this report.

- Sacramento County Transportation Development Fee Program (SCTDF) District 3 Roadway and Transit Fee Program.
- Sacramento Transportation Authority (STA) Measure A Mitigation Fee Program.
- Sacramento Area Sewer District (SASD) Sewer Impact Fee and Trunk Sewer Reimbursement Program.
- Sacramento Regional County Sanitation District (SRCSD) Fee Program
- Sacramento County Water Agency (SCWA) Zone 11A Drainage Fee Program.
- SCWA Zone 40 Water Fee Program.
- Sacramento Metropolitan Fire District (SMFD) Capital Fire Facilities Fee Program.
- Sacramento Public Library Authority Development Impact Fee Program (proposed).
- EGUSD School Fee Program.

Table 1-2
Cordova Hills Financing Plan
Preliminary Sources and Uses of Funds at Completion of Phase 1 (2011\$)

PHASE 1

Item	Total Estimated Cost [1]	Cordova Hills Special Financing District [2]	County Fee Programs [3]		EGUSD Mitigation Fee	State, Federal, and Other Funding	Developer Funding [4]
			Fee Revenue from Cordova Hills	Fee Payments or Reimbursement from Other Areas			
Backbone Infrastructure							
Roads	\$ 38,550,000	\$ 21,870,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 16,680,000
Sanitary Sewer System	\$ 12,090,000	\$ 0	\$ 3,120,000	\$ 0	\$ 0	\$ 0	\$ 8,970,000
Storm Drainage System -- Zone 11A	\$ 3,740,000	\$ 1,310,000	\$ 1,670,000	\$ 0	\$ 0	\$ 0	\$ 760,000
Storm Drainage System -- Outside of Zone 11A	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Potable Water	\$ 7,000,000	\$ 0	\$ 7,000,000	\$ 0	\$ 0	\$ 0	\$ 0
Non-potable Water	\$ 2,300,000	\$ 1,400,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 900,000
Earthwork	\$ 10,080,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 10,080,000
Subtotal Backbone Infrastructure (Rounded)	\$ 73,760,000	\$ 24,580,000	\$ 11,790,000	\$ 0	\$ 0	\$ 0	\$ 37,390,000
Public Facilities							
Fire	\$ 2,050,000	\$ 0	\$ 2,050,000	\$ 0	\$ 0	\$ 0	\$ 0
Parks	\$ 5,630,000	\$ 5,630,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Open Space and Trails	\$ 2,010,000	\$ 1,110,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 900,000
Habitat and Wetlands	\$ 4,670,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 4,670,000
Library	\$ 1,240,000	\$ 0	\$ 1,240,000	\$ 0	\$ 0	\$ 0	\$ 0
Transit	\$ 290,000	\$ 80,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 210,000
CHLSD Facilities	\$ 4,000,000	\$ 1,390,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 2,610,000
Special District Formation and Updates	\$ 1,500,000	\$ 270,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1,230,000
Schools	\$ 28,100,000	\$ 0	\$ 0	\$ 0	\$ 14,050,000	\$ 14,050,000	\$ 0
Subtotal Public Facilities (Rounded)	\$ 49,490,000	\$ 8,480,000	\$ 3,290,000	\$ 0	\$ 14,050,000	\$ 14,050,000	\$ 9,620,000
TOTAL (Rounded)	\$ 123,250,000	\$ 33,060,000	\$ 15,080,000	\$ 0	\$ 14,050,000	\$ 14,050,000	\$ 47,010,000

sources p1

[1] This table includes the costs of all onsite backbone infrastructure and public facilities and only the offsite backbone facilities that Cordova Hills is obligated to construct. Costs of offsite backbone facilities constructed by other agencies and funded through their fee programs are not included. See text for further discussion.

[2] Could include fee or Mello-Roos CFD funding.

[3] Existing and proposed fee programs (referenced tables show calculation of fee revenue estimates):

Sewer: SASD (Table 4-3)

Storm Drainage: SCWA Zone 11A (Table 5-3)

Water: SCWA Zone 40 (Table 6-2)

Fire: Sacramento Metropolitan Fire District Capital Fire Facilities Fee (Table 8-1)

Library: Proposed Sacramento Public Library Authority Fee (Table 13-1)

[4] The cost of many Phase 1 facilities exceeds the projected Phase 1 revenues generated through the Cordova Hills SFD and existing fee programs. Developer advance funding will be needed to cover Phase 1 deficits. Developers who advance fund facilities will be paid back through credits and/or reimbursements as development progresses.

Table 1-3
Cordova Hills Financing Plan
Preliminary Sources and Uses of Funds at Buildout (2011\$)

BUILDOUT

Item	Total Estimated Cost [1]	Cordova Hills Special Financing District [2]	County Fee Programs [3]		EGUSD Mitigation Fee	State, Federal, and Other Funding	Developer Funding
			Fee Revenue from Cordova Hills	Fee Payments or Reimbursements from Other Areas [4]			
Backbone Infrastructure							
Roads [4]	\$ 148,130,000	\$ 103,250,000	\$ 0	\$ 44,880,000	\$ 0	\$ 0	\$ 0
Sanitary Sewer System [5]	\$ 42,490,000	\$ 0	\$ 20,600,000	\$ 21,890,000	\$ 0	\$ 0	\$ 0
Storm Drainage System -- Zone 11A	\$ 3,740,000	\$ 2,070,000	\$ 1,670,000	\$ 0	\$ 0	\$ 0	\$ 0
Storm Drainage System -- Outside of Zone 11A	\$ 9,350,000	\$ 9,350,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Potable Water	\$ 17,380,000	\$ 0	\$ 17,380,000	\$ 0	\$ 0	\$ 0	\$ 0
Non-potable Water	\$ 8,870,000	\$ 8,870,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Earthwork	\$ 96,120,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 96,120,000
Subtotal Backbone Infrastructure (Rounded)	\$ 326,080,000	\$ 123,540,000	\$ 39,650,000	\$ 66,770,000	\$ 0	\$ 0	\$ 96,120,000
Public Facilities							
Fire	\$ 9,740,000	\$ 0	\$ 9,740,000	\$ 0	\$ 0	\$ 0	\$ 0
Parks	\$ 47,460,000	\$ 47,460,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Open Space and Trails	\$ 19,560,000	\$ 10,480,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 9,080,000
Habitat and Wetlands	\$ 15,350,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 15,350,000
Library	\$ 5,480,000	\$ 0	\$ 5,480,000	\$ 0	\$ 0	\$ 0	\$ 0
Transit	\$ 500,000	\$ 500,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
CHLSD Facilities	\$ 9,000,000	\$ 9,000,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Special District Formation and Updates	\$ 2,000,000	\$ 2,000,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Schools	\$ 123,440,000	\$ 0	\$ 0	\$ 0	\$ 61,720,000	\$ 61,720,000	\$ 0
Subtotal Public Facilities (Rounded)	\$ 232,530,000	\$ 69,440,000	\$ 15,220,000	\$ 0	\$ 61,720,000	\$ 61,720,000	\$ 24,430,000
TOTAL (Rounded)	\$ 558,610,000	\$ 192,980,000	\$ 54,870,000	\$ 66,770,000	\$ 61,720,000	\$ 61,720,000	\$ 120,550,000

SOURCES

- [1] This table includes the costs of all onsite backbone infrastructure and public facilities and only the offsite backbone facilities that Cordova Hills is obligated to construct. Costs of offsite backbone facilities constructed by other agencies and funded through their fee programs are not included. See text for further discussion.
- [2] Could include fee or Mello-Roos CFD funding.
- [3] Existing and proposed fee programs (referenced tables show calculation of fee revenue estimates):
 Sewer: SASD (Table 4-3)
 Storm Drainage: SCWA Zone 11A (Table 5-3)
 Water: SCWA Zone 40 (Table 6-2)
 Fire: Sacramento Metropolitan Fire District Capital Fire Facilities Fee (Table 8-1)
 Library: Proposed Sacramento Public Library Authority Fee (Table 13-1)
- [4] Cordova Hills will construct road improvements and be eligible for SCTDF fee credits and cash reimbursements for some of these improvements. Cash reimbursements will be made from other development projects and from the SCTDF fee program. The timing and availability of reimbursements is uncertain.
- [5] Cordova Hills will construct SASD trunk sewer facilities and be eligible for SASD fee credits and cash reimbursements. Cash reimbursements will be made from fees collected throughout the SASD expansion areas in accordance with the SASD reimbursement policies. The reimbursement of \$27.4 M is estimated as the difference in buildout costs and Cordova Hills estimated SASD fee revenue. Given the current SASD reimbursement policies and availability of sewer impact fee revenue from expansion areas, full reimbursement to Cordova Hills may not occur for 20 years or more.

Proposed Cordova Hills Special Financing District

Summary

It is recommended that the County Special Districts Section (SDS) implement the Cordova Hills Special Financing District (SFD) to help fund construction of backbone infrastructure and public facilities. It is projected that all backbone infrastructure except sanitary sewer and potable water improvements and all public facilities, except fire facilities, libraries, and schools, will require some funding through the SFD.

As mentioned previously, the SFD could include funding through bonding mechanisms, a fee program, or a system for developer advances and reimbursements. A cost allocation of the projected SFD costs has been performed to estimate the buildout cost burden for each land use type. **Table 1-4** summarizes the estimated SFD buildout cost per dwelling unit for residential land uses and per building square foot for commercial uses and for the university/college campus center.

Table 1-5 converts the residential and commercial cost burdens from **Table 1-4** to costs per acre, allowing a comparison of cost burdens across land uses. This table also shows the total SFD cost obligation for the university/college campus center for each public facility type. The cost allocation methodology for each facility type is detailed in **Chapters 3** through **17** of this Financing Plan.

Alternative Land Uses

The SFD buildout cost allocations summarized in **Tables 1-4** and **1-5** are based on the identified land uses in the Draft Cordova Hills Master Plan. It is possible that there could be additional land uses proposed, such as age-restricted housing. If additional land uses are identified, the SFD cost allocations and possible CFD special taxes would be adjusted to account for these different uses. The adjustments would occur during the SFD formation or during implementation.

University/College Campus Center

The university/college campus center's total SFD cost obligation is estimated for each public facility type to receive funding through the SFD. This cost obligation is also estimated on a per-building square foot basis. The total building square feet for the university/college campus center reflects the current estimate from the Draft Cordova Hills Master Plan (April 2012). This estimate will be updated upon approval of a plan for the selected university/college campus center.

The university/college campus center's SFD payments will be made when building permits are issued based on the overall cost per square foot applied to the number of square feet included on the building permit. Either the master developer or the university/college campus center will be responsible for making the payment. The master developer and university/college campus center will have an agreement that details who is responsible for the SFD payment obligations.

State, Federal, and Other Funding

It is anticipated that EGUSD will be eligible for grant funding from the State School Facility Program to fund a portion of Cordova Hills' schools costs. In addition, State and federal funding may be available to help fund roadway facilities. There also may be other funding sources that

Table 1-4
Cordova Hills Financing Plan
Cordova Hills SFD Cost Allocation Summary at Buildout (2011\$)

Item	Special Financing District Costs [1]								
	Total Estimated Cost	Cost per Dwelling Unit					Cost per Bldg. Sq. Ft.		
		Estates Residential	Low Density	Medium Density	Residential 20	High Density	Commercial	Office	University/ College Campus Center
Backbone Infrastructure									
Roads	\$ 103,250,000	\$ 14,676	\$ 12,544	\$ 12,544	\$ 7,652	\$ 7,652	\$ 14.05	\$ 14.43	\$ 4.83
Storm Drainage System -- Zone 11A	\$ 2,070,000	\$ 0	\$ 620	\$ 517	\$ 434	\$ 331	\$ 1.94	\$ 1.94	\$ 0.99
Storm Drainage System -- Outside of Zone 11A	\$ 9,350,000	\$ 2,307	\$ 1,718	\$ 1,381	\$ 1,088	\$ 789	\$ 0.57	\$ 2.39	\$ 0.81
Non-potable Water	\$ 8,870,000	\$ 1,107	\$ 1,107	\$ 1,107	\$ 830	\$ 830	\$ 0.49	\$ 0.69	\$ 0.43
Subtotal Backbone Infrastructure	\$ 123,540,000								
Backbone Infrastructure Total									
		<i>Backbone Infrastructure Cost Allocation by Drainage Shed</i>							
Development In Zone 11A		\$ 15,783	\$ 14,271	\$ 14,167	\$ 8,916	\$ 8,813	\$ 16.48	\$ 17.06	\$ 6.25
Development Outside of Zone 11A		\$ 18,090	\$ 15,369	\$ 15,032	\$ 9,570	\$ 9,271	\$ 15.11	\$ 17.51	\$ 6.07
Public Facilities									
Parks	\$ 47,460,000	\$ 7,432	\$ 7,089	\$ 6,403	\$ 5,031	\$ 5,031	\$ 1.25	\$ 3.33	\$ 0.00
Open Space and Trails	\$ 10,480,000	\$ 1,547	\$ 1,476	\$ 1,333	\$ 1,047	\$ 1,047	\$ 0.97	\$ 1.37	\$ 0.00
Transit	\$ 500,000	\$ 27	\$ 27	\$ 20	\$ 81	\$ 66	\$ 0.12	\$ 0.24	\$ 0.04
CHLSD Facilities	\$ 9,000,000	\$ 1,231	\$ 1,174	\$ 1,060	\$ 833	\$ 833	\$ 0.78	\$ 1.09	\$ 0.35
Special District Formation and Updates	\$ 2,000,000	\$ 730	\$ 422	\$ 196	\$ 115	\$ 79	\$ 0.17	\$ 0.24	\$ 0.08
Subtotal Public Facilities	\$ 69,440,000	\$ 10,967	\$ 10,188	\$ 9,013	\$ 7,107	\$ 7,056	\$ 3.29	\$ 6.27	\$ 0.48
TOTAL	\$ 192,980,000								
		<i>Total Cordova Hills Cost Allocation by Drainage Shed</i>							
Development In Zone 11A [2]	\$ 47,800,000	\$ 26,750	\$ 24,459	\$ 23,180	\$ 16,023	\$ 15,869	\$ 19.78	\$ 23.33	\$ 6.72
Development Outside of Zone 11A [2]	\$ 145,180,000	\$ 29,057	\$ 25,557	\$ 24,045	\$ 16,677	\$ 16,327	\$ 18.41	\$ 23.78	\$ 6.55

bo sum

[1] Excludes costs funded by existing and proposed County/Regional fee programs.

[2] Zone 11A costs are fair share burden for Phase 1. Remaining costs are fair share burden for remaining phases. Total costs by phase do not match costs on Table 1-2 and Table 1-3 because of timing of construction of improvements.

Table 1-5
Cordova Hills Financing Plan
Cordova Hills SFD Cost per Acre at Buildout (2011\$)

Special Financing District Costs [1]									
Item	Total Estimated Cost	Cost per Acre							University/ College Campus Center Total Cost
		Estates Residential	Low Density	Medium Density	Residential 20	High Density	Commercial	Office	
Backbone Infrastructure									
Roads	\$ 103,250,000	\$ 31,261	\$ 46,213	\$ 99,279	\$ 103,579	\$ 150,159	\$ 126,765	\$ 92,409	\$ 9,030,000
Storm Drainage System -- Zone 11A	\$ 2,070,000	\$ 0	\$ 2,285	\$ 4,090	\$ 5,876	\$ 6,492	\$ 17,525	\$ 12,442	\$ 340,000
Storm Drainage System -- Outside of Zone 11A	\$ 9,350,000	\$ 4,913	\$ 6,330	\$ 10,931	\$ 14,734	\$ 15,477	\$ 5,162	\$ 15,313	\$ 1,240,000
Non-potable Water	\$ 8,870,000	\$ 2,357	\$ 4,077	\$ 8,759	\$ 11,236	\$ 16,288	\$ 4,427	\$ 4,427	\$ 800,000
Subtotal Backbone Infrastructure	\$ 123,540,000								\$ 11,410,000
Backbone Infrastructure Total		<i>Backbone Infrastructure Cost Allocation by Drainage Shed</i>							
Development In Zone 11A		\$ 31,261	\$ 48,497	\$ 103,369	\$ 109,455	\$ 156,651	\$ 144,290	\$ 104,851	
Development Outside of Zone 11A		\$ 36,174	\$ 52,543	\$ 110,211	\$ 118,313	\$ 165,636	\$ 131,928	\$ 107,721	
Public Facilities									
Parks	\$ 47,460,000	\$ 15,830	\$ 26,116	\$ 50,676	\$ 68,101	\$ 98,727	\$ 11,320	\$ 21,336	\$ 0
Open Space and Trails	\$ 10,480,000	\$ 3,295	\$ 5,436	\$ 10,548	\$ 14,175	\$ 20,550	\$ 8,793	\$ 8,793	\$ 0
Transit	\$ 500,000	\$ 58	\$ 101	\$ 159	\$ 1,096	\$ 1,290	\$ 1,061	\$ 1,517	\$ 80,000
CHLSD Facilities	\$ 9,000,000	\$ 2,622	\$ 4,326	\$ 8,393	\$ 11,279	\$ 16,351	\$ 6,996	\$ 6,996	\$ 660,000
Special District Formation and Updates	\$ 2,000,000	\$ 1,555	\$ 1,555	\$ 1,555	\$ 1,555	\$ 1,555	\$ 1,555	\$ 1,555	\$ 150,000
Subtotal Public Facilities	\$ 69,440,000	\$ 23,360	\$ 37,534	\$ 71,332	\$ 96,207	\$ 138,472	\$ 29,724	\$ 40,196	\$ 890,000
		<i>Total Cordova Hills Cost Allocation by Drainage Shed</i>							
TOTAL	\$ 192,980,000								\$ 12,300,000
Development In Zone 11A [2]	\$ 47,800,000	\$ 54,621	\$ 86,031	\$ 174,701	\$ 205,662	\$ 295,123	\$ 174,015	\$ 145,047	\$ 2,310,000
Development Outside of Zone 11A [2]	\$ 145,180,000	\$ 59,534	\$ 90,077	\$ 181,542	\$ 214,520	\$ 304,108	\$ 161,652	\$ 147,918	\$ 9,990,000

bo sum2

[1] Excludes costs funded by existing and proposed County/Regional fee programs.

[2] Zone 11A costs are fair share burden for Phase 1. Remaining costs are fair share burden for remaining phases. Total costs by phase do not match costs on Table 1-2 and Table 1-3 because of timing of construction of improvements.

could be used to help fund various items such as expanded parks amenities. One of these potential funding sources is revenue sharing through a tax sharing agreement with the County. To achieve the County's goals for the Special Planning Area, the County may allocate a certain portion of tax revenues from fiscal surpluses generated by the Project to help fund the construction of public improvements and the delivery of public services.

Developer Funding

It is anticipated that much of the required Phase 1 infrastructure will be oversized to benefit development in future phases and that Phase 1 costs will exceed revenue collected from Phase 1 development. As shown in **Table 1-2**, it is projected that developer advances may be required to finance a large portion of Phase 1 improvements.

The timing of the reimbursement for developer advances is uncertain. In the case of the developer advance funding for road construction and sanitary sewer system construction costs, it may be many years before the developer is fully reimbursed. There is also the possibility that the developer may never be completely reimbursed for advanced funding improvements required by the Project's Conditions of Approval and Development Agreement commitments. Full reimbursement may not be realized if the development impact fee programs are underfunded or the anticipated development requiring oversized facilities never materializes.

The developer will have to carry these costs until full or partial reimbursement occurs. The interest carry and unreimbursed costs are a burden of the project developer. These carry costs directly affect the developer's financial feasibility for the project. The project developer typically covers the advance funding and associated carry costs through revenues generated by land sales to builders. The larger the amount of advance funding required during the development of the project, the more difficult it is for the developer to achieve the requisite land sale revenue and associated return on investment.

As a result of the developer paying for the unreimbursed advance funding and carry costs, these costs are **not** included in the infrastructure cost burdens by land use provided in the feasibility discussion found in **Chapter 19**. The residential and commercial infrastructure cost burden tests (development fees and land secured debt burden) are established to assess the feasibility of the finished products to the home builders and the non-residential commercial builders (builders) and, therefore, do not include an allowance for the land developer carry costs. The developer carry costs are factored into the individual building projects through the land sales prices paid by the builder to the developer rather than the development impact fee and land secured debt burdens. In addition, **Chapter 19** also includes a separate analysis of the developer's infrastructure cost burden for improvements that the developer will construct and advance fund. This analysis provides one method of examining the financial feasibility of the Project to the developer.

Financing Plan Implementation

Implementation of the Financing Plan ensures that new development will be committed to pay its fair share of the cost of backbone infrastructure and public facilities required to serve the Project. Implementation will occur after Financing Plan approval. The County will administer implementation of the Financing Plan, which will require the following tasks:

- Coordinating closely with all appropriate County departments and other service providers.
- Reviewing Capital Improvement Plans (CIPs).
- Estimating fee program cash flows if it is decided to include a fee program in the Cordova Hills SFD.
- Preparing a Cordova Hills Fee Program Nexus Study to implement the fee program if established.
- Forming one or more Mello-Roos CFDs and administering subsequent bond sales and tax collection if it is decided to include CFDs in the Cordova Hills SFD.
- Monitoring identified revenue sources.
- Accounting for fee payments, fee credits, and reimbursements.

The implementation of the financing mechanisms as recommended in the Financing Plan will need to account for changes in land use, infrastructure project and cost information, and funding sources. Changes should be re-evaluated in the context of the overall financing strategy to ensure required funding is available when needed.

The infrastructure cost estimates in this report are expressed in constant 2011 dollars. They are planning level estimates and are not meant to be final estimates. The infrastructure needs and costs will continually be evaluated and updated as planning and development progresses. When costs are adjusted, the funding programs also will be adjusted to ensure adequate funding. For example, a Cordova Hills SFD development impact fee program, if established, would be updated annually for inflation and periodically for cost adjustments and land use changes.

Organization of the Report

This report is organized as follows:

- **Chapter 2** summarizes the proposed land uses in the Project.
- **Chapters 3** through **7** detail the costs and funding of each backbone infrastructure improvement type.
- **Chapters 8** through **16** detail the costs and funding for each type of Public Facility. The corporation yard and transit facility requirements and costs are uncertain and need to be refined as more information becomes available. The chapters describing the requirements, costs, and funding estimates for the other public facilities are complete and ready for review.
- **Chapter 17** discusses the proposed new Cordova Hills SFD.
- **Chapter 18** discusses implementation of the Financing Plan.
- **Chapter 19** examines the feasibility of the Financing Plan.

2. LAND USE

Overview

The 2,668-acre Cordova Hills site is presently vacant. The Cordova Hills Project will include a mix of uses consisting of residential, office, retail, university/college campus center, schools, parks, trails, open space, and public uses. As shown on **Map 2-1**, the Project includes six distinct villages, the proposed university/college campus center, a large preservation (avoided) area, and other permanent open space that serves to separate villages.

The Project includes a wide mix of residential uses, from high-density residential along the western edge, to low-density residential along the eastern edge. The majority of the commercial development is planned for the Town Center village in the western part of the Project adjacent to Grant Line Road. A 223-acre university/college campus center is planned just southeast of the Town Center. **Map 2-2** shows the Project land use plan.

Phasing

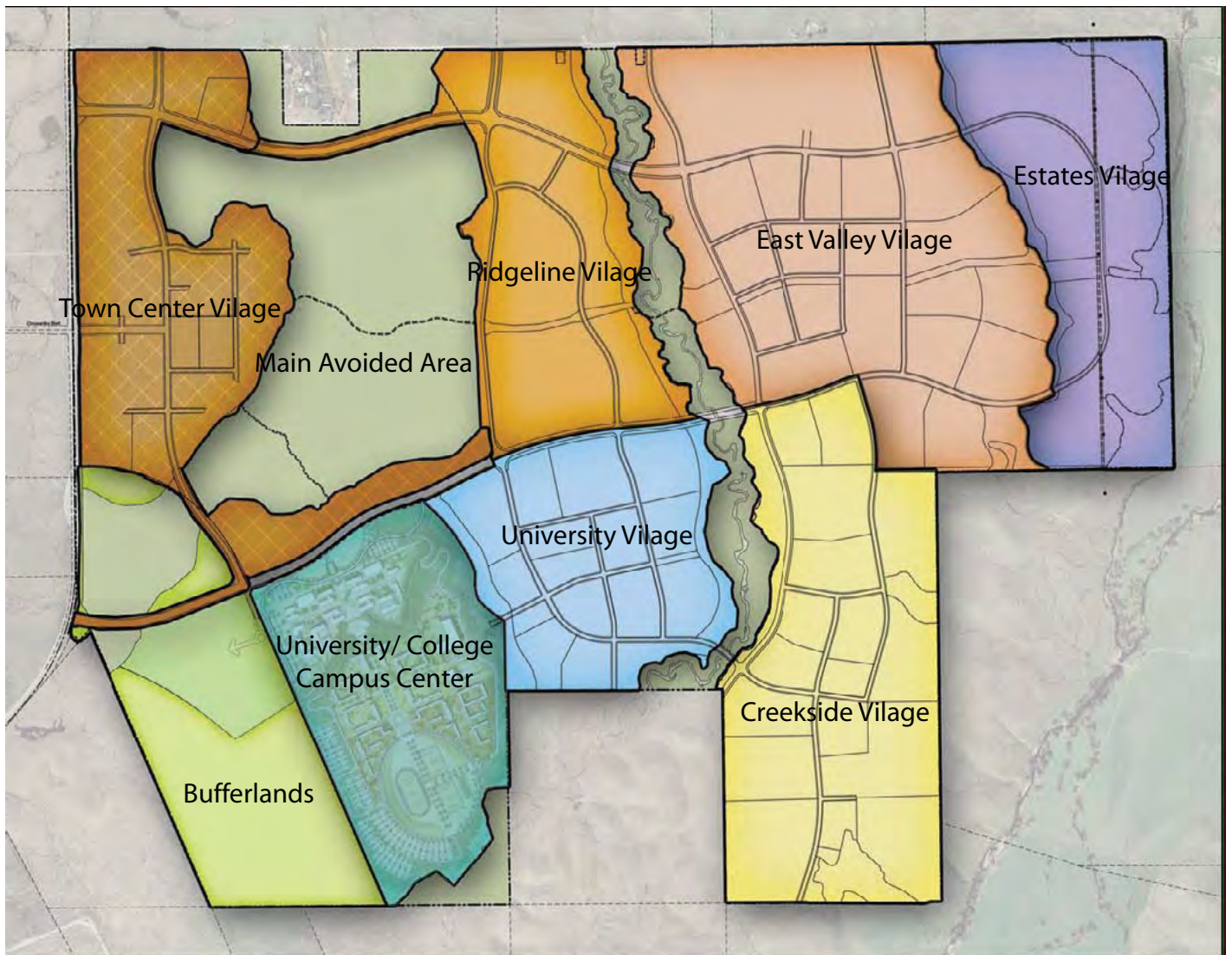
Summary

The Project is expected to develop in phases beginning in the western part of the Project and continuing eastward. **Map 2-3** shows the illustrative Project phasing. The map includes three phases. Phase 1 includes development of the Town Center and part of the university/college campus center. Phase 2 includes completion of the university/college campus center and development of Ridgeline Village and University Village, which are located in the center of the Project. Phase 3 includes development of the remaining three villages. This Financing Plan focuses on Phase 1 and Project buildout. Phase 1 initiates the Project and includes development of infrastructure needed to provide essential services. After initiation of the Project, development will respond to market conditions, will occur in multiple smaller phases, and will not necessarily follow the phasing shown in **Map 2-3**. Because the actual Project phasing is uncertain, the Financing Plan focuses on the initiation of development (Phase 1) and buildout.

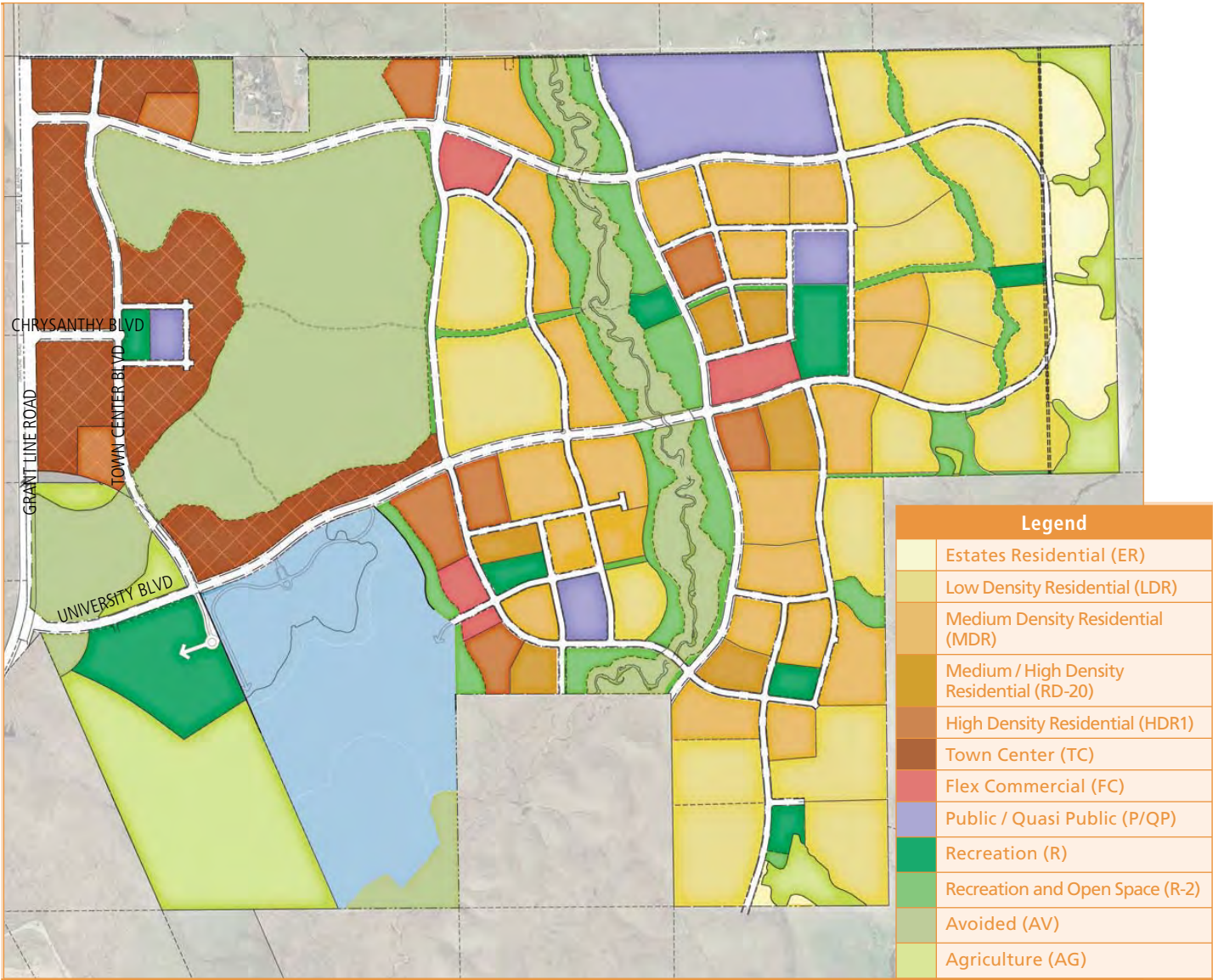
Acres

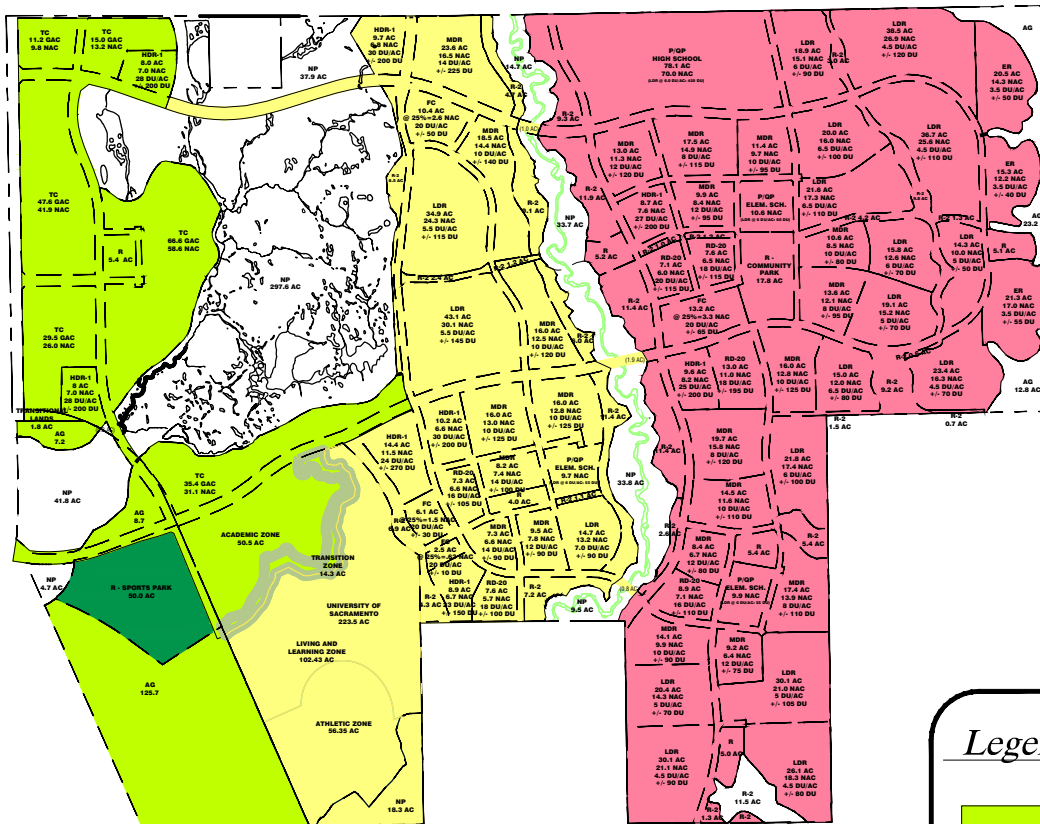
Table 2-1 summarizes the acres by land use at completion of Phase 1 and at buildout. The acres shown in **Table 2-1** are based on the March 2011 Land Use Plan prepared by William Hezmalhalch Architects, Inc. (WHA). Please note that the acres by land use reflected in the recent April 2012 Revised Public Review Draft of the Cordova Hills Master Plan (Cordova Hills Master Plan) were modified slightly from the acres shown in this Financing Plan. In particular, the April 2012 Cordova Hills Master Plan includes 3.2 fewer residential and commercial acres and 3.2 more public use acres. Since the recent acres change was so minor, and since the land use mix is likely to change again before implementation of the Project, this report continues to reflect the March 2011 Land Use Plan acres, consistent with many of the other technical studies.

Map 2-1
Cordova Hills Village Concept



Map 2-2
Cordova Hills Land Use Plan





Legend

- Phase 1
- Phase 2
- Phase 3
- Sports Park
(10ac Phase 1
10ac Phase 2
30ac Phase 3)

Map 2-3

Illustrative Development Phasing

Proposed Project

Revised L.U.P. November 24, 2009

Cordova Hills

Sacramento County,

California

Scale: 1"=2500'

April 16, 2010

Mackay & Somp

CIVIL ENGINEERS, INC.
ROSEVILLE, CALIFORNIA (916) 773-1189

7968-10

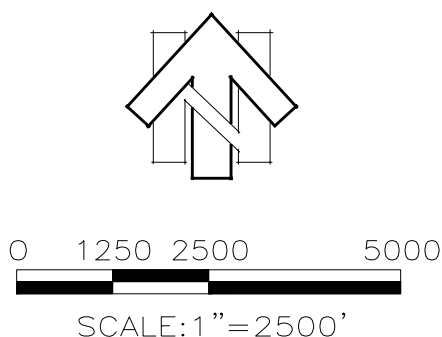


Table 2-1
Cordova Hills Financing Plan
Estimated Acres by Land Use

Land Use	Original Acres		Acres After Distribution of Mixed Use [1]	
	Phase 1 [2]	Buildout	Phase 1 [2]	Buildout
Residential Land Uses				
Estates Residential (1-7 units/acre)	0.0	64.7	0.0	64.7
Low Density Residential (4-7 units/acre)	0.0	442.8	48.3	491.1
Medium Density Residential (7-15 units/acre)	0.0	310.5	63.3	386.8
Residential 20 (15-23 units/acre)	0.0	54.0	7.5	61.5
High Density Residential (23-30 units/acre)	16.0	79.6	21.0	84.6
Total Residential Land Uses	16.0	951.6	140.1	1,088.6
Nonresidential Land Uses				
Commercial	0.0	0.0	13.3	72.6
Office	0.0	0.0	0.0	30.7
Total Commercial	0.0	0.0	13.3	103.3
Undeveloped Commercial	0.0	0.0	68.3	0.0
Mixed Use				
Town Center	205.7	205.7	0.0	0.0
Flex Commercial	0.0	34.6	0.0	0.0
Total Mixed Use	205.7	240.3	0.0	0.0
Public Uses				
Public/Quasi Public	6.0	105.8	6.0	105.8
Recreation	15.0	99.1	15.0	99.1
Rec 2	3.0	150.6	3.0	150.6
Avoided Area	381.2	493.2	381.2	493.2
Agriculture	145.1	194.0	145.1	194.0
Misc. Roads & Open Space	74.0	210.4	74.0	210.4
Total Public Uses	624.3	1,253.1	624.3	1,253.1
University/College Campus Center				
Academic Zone	54.8	54.8	54.8	54.8
Transition Zone	0.0	42.3	0.0	42.3
Living and Learning Zone	0.0	39.7	0.0	39.7
Athletic Zone	0.0	86.7	0.0	86.7
Total University/College Campus Center	54.8	223.5	54.8	223.5
Total	900.8	2,668.5	900.8	2,668.5

acres sum

Source: EPS and WHA Land Use Plan (March 2011)

- [1] Acres with "Town Center" and "Flex Commercial" land uses were distributed to residential and commercial uses.
- [2] Phase 1 is equivalent to the Town Center, the surrounding agricultural and avoided area, and part of the university/college campus center.

Table 2-1 shows both the original acres from this Land Use Plan and the acres after distributing the mixed use acres (defined as "Town Center" and "Flex Commercial" uses) to the various residential and nonresidential uses. The mixed use acres contain a mix of residential and nonresidential uses and were distributed to these uses for the purposes of properly allocating Financing Plan costs to the different land uses.

Development, Population, and Employees

Table 2-2 shows the projected dwelling units, building square feet, population, and employees for Phase 1 and buildout of the community portion of the Project. These development projections are based on estimates prepared by WHA for use in the Cordova Hills Master Plan. The university/college campus center projections are shown separately in **Table 2-3**.

The mix of Phase 1 dwelling units and non-residential building square feet is approximate and represents a possible development scenario in the Town Center village. There is flexibility in the mix of the Town Center development, so the relative amount of commercial and residential development could be different. In addition, density bonus dwelling units could be built, increasing the amount of residential development.

For purposes of the Financing Plan, the buildout dwelling units were reduced from the maximum 8,000 dwelling units to 7,500 dwelling units, and the buildout nonresidential building square feet were reduced from 1.3 million square feet to 851,000 square feet. **Table 2-4** compares the Financing Plan and Master Plan dwelling units and building square feet at buildout. The Master Plan projections are higher because they are used to estimate maximum Project impacts. The more conservative projections in the Financing Plan help ensure that costs per dwelling unit or building square foot are not understated if actual development occurs at levels below the maximum authorization.

In addition, for purposes of developing fair share cost allocations, the persons per household factors used in the Financing Plan to project population are different from those used in the Master Plan. The Financing Plan differentiates between factors for different residential uses while the Master Plan assumes only two factors: one for single-family uses and one for multifamily uses. Because of the difference in assumed dwelling units, the total projected population in the Financing Plan (20,110 people) is less than in the Master Plan (21,379 people). This lower Financing Plan population estimate does not affect the projected requirement for parks, schools, or other population based facilities identified in the Master Plan, as these requirements were based on the Master Plan population estimate.

Table 2-2
Cordova Hills Financing Plan
Projected Community Dwelling Units, Building Square Feet, Population, and Employees

Land Use	Financing Plan Land Use Assumptions [1]							
	FAR	Persons per Household [2]	Phase 1			Buildout		
			Acres	Dwelling Units/ Bldg. Sq. Ft.	Population/ Employees	Acres	Dwelling Units/ Bldg. Sq. Ft.	Population/ Employees
Residential Land Uses		<u>PPH</u>		<u>Units</u>	<u>Population</u>		<u>Units</u>	<u>Population</u>
Estates Residential		3.25	0.0	0	0	64.7	138	448
Low Density Residential		3.10	48.3	290	899	491.1	1,809	5,609
Medium Density Residential		2.80	63.3	760	2,128	386.8	3,061	8,571
Residential 20 [3]		2.20	7.5	150	330	61.5	833	1,832
High Density Residential [3]		2.20	21.0	550	1,210	84.6	1,659	3,651
Subtotal			140.1	1,750	4,567	1,088.6	7,500	20,110
Nonresidential Land Uses		<u>Bldg. Sq. Ft./Emp.</u>		<u>Sq. Ft.</u>	<u>Employees</u>		<u>Sq. Ft.</u>	<u>Employees</u>
Commercial	0.21	500	13.3	120,000	240	72.6	654,860	1,310
Office	0.15	275	0.0	0	0	30.7	196,540	715
Subtotal			13.3	120,000	240	103.3	851,400	2,024

pop

Source: Wade & Assoc., WHA Inc. (4/9/10), EPS

[1] The people per household, buildout dwelling units, and buildout sq.ft. differ from those in the Draft Cordova Hills Master Plan. See Table 2-4 for a comparison.

[2] Persons per household and building square feet per employee differ from the Master Plan. For details on calculations, refer to Table A-3 of the Cordova Hills Fiscal Impact Analysis and Table 2-1 of the Cordova Hills Financing Plan.

[3] Residential 20 and High Density Residential land uses comprise the following subcategories:

Land Use	Phase 1			Buildout		
	Acres	Dwelling Units	Population	Acres	Dwelling Units	Population
Residential 20						
Owner-Occupied	3.8	75	165	30.8	416	916
Renter-Occupied	3.8	75	165	30.8	416	916
High Density Residential						
Owner-Occupied & Market Rate	6.3	161	354	16.9	341	750
Renter-Occupied & Market Rate	6.3	161	354	16.9	341	750
Renter-Occupied & Affordable	8.4	228	502	50.7	978	2,152

Table 2-3
Cordova Hills Financing Plan
Projected University/College Campus Center Dwelling Units, Building Square Feet, Students, and Employees

**University/
College Campus Center**

Land Use	Population Factor	Phase 1			Buildout		
		Acres	Dwelling Units/ Bldg. Sq. Ft.	Students/ Employees	Acres	Dwelling Units/ Bldg. Sq. Ft.	Students/ Employees
University/College Campus Center			<u>Sq. Ft.</u>			<u>Sq. Ft.</u>	
Academic Zone		54.8			54.8		
Transition Zone		0.0			42.3		
Living and Learning Zone		0.0			39.7		
Athletic Zone		0.0			86.7		
Subtotal		54.8	344,000		223.5	1,870,000	
University/College Campus Center Students, Employees, and Residents			<u>Units</u>			<u>Units</u>	
Students				600			6,000
Faculty				TBD			685
Non-Student Staff				TBD			TBD
Subtotal University/College Campus Center Students and Employees				600			6,685
Student Residents (90% of undergrads, 10% of grads)	4.00		115	460		1,010	4,040
Other Residents (100 temporary)	1.00		0	0		100	100
Subtotal Housing Units/Residents			115	460		1,110	4,140

univ pop

Source: Cordova Hills Administrative Draft Master Plan (September 2010) -- Table 5-1

Table 2-4
Cordova Hills Financing Plan
Projected Buildout Development and Population Comparison

Land Use	People per Household [1]	Financing Plan		People per Household	Master Plan	
		Dwelling Units/ Bldg. Sq. Ft.	Population		Dwelling Units/ Bldg. Sq. Ft.	Population
Residential Land Uses						
		<u>Units</u>			<u>Units</u>	
Flex Commercial [2]	-	0	0	2.71	155	420
Estates Residential (1-7 units/acre)	3.25	138	448	2.71	147	398
Low Density Residential (4-7 units/acre)	3.10	1,809	5,609	2.71	1,930	5,230
Medium Density Residential (7-15 units/acre)	2.80	3,061	8,571	2.71	3,110	8,428
Residential 20 (15-23 units/acre)	2.20	833	1,832	2.71	888	2,406
High Density Residential (23-30 units/acre)	2.20	1,659	3,651	2.54	1,620	4,115
High Density Residential (30-40 units/acre) [2]	-	0	0	2.54	150	381
Subtotal [3]		7,500	20,110		8,000	21,379
		<u>Bldg. Sq. Ft.</u>			<u>Bldg. Sq. Ft.</u>	
Nonresidential Land Uses [3]		851,400			1,349,419	

pop2

Source: Cordova Hills Administrative Draft Master Plan (September 2010) -- Table 3-1 and 11/20/09 Land Use Plan

- [1] People per household factors that differ from the factors in the Master Plan were established for use in the Financing Plan cost allocation. The overall population generated by 8,000 units remains virtually the same. The total estimated units in the Financing Plan, however, were reduced from a maximum of 8,000 to 7,500, resulting in a lower population.
- [2] For cost allocation purposes, the Financing Plan does not include separate categories for High Density (30-40 units/acre) or Flex Commercial units. High Density (30-40 units/acre) units have been included with High Density (23-30 units/acre). Flex Commercial units have been included with Medium Density.
- [3] For the purposes of the Financing Plan, the projected buildout residential dwelling units and nonresidential building square feet were reduced from the maximum authorized levels. These more conservative projections helps ensure that the costs per dwelling unit and building square foot are not understated if actual development occurs at levels below the maximum authorization.

3. *ROADS*

The Cordova Hills Special Planning Area (Cordova Hills) provides a comprehensive transportation network designed in accordance with anticipated traffic volumes and travel demands of the planned land uses, as well as the regional system envisioned by the County General Plan.

At the time of preparation of this Cordova Hills Financing Plan, there were certain variables present that could affect Cordova Hills's fair share allocation of certain offsite roadway costs. These variables include roadway improvements within the jurisdictional boundaries of the City of Rancho Cordova and the City of Elk Grove, as well as the impact of the proposed Capital Southeast Connector Project on Grant Line Road improvements. The analyses included in the Financing Plan are based on the best assumptions and information currently available. For the implementation of the financing mechanisms and updates thereafter, revisions will be made if assumptions change or the outcome of discussions with the cities yields a different fair share cost obligation.

The County currently requires development projects to pay their fair share of offsite road improvements in other jurisdictions. The Board of Supervisors provided further direction that if a reciprocal agreement cannot be reached by both jurisdictions at the time of fee collection, then mitigation payments for impacts wholly in the other jurisdiction will not be collected. The County intends to enter into a Cross Jurisdictional Memorandum of Understanding (MOU) with other jurisdictions to collaboratively address the impacts of its development within neighboring jurisdictions.

The proposed Capital Southeast Connector Project is another variable that may result in a need to amend the assumptions of Cordova Hills' final cost and construction responsibilities at implementation. The County General Plan calls for Grant Line Road ultimately to be improved to a 6-lane thoroughfare configuration, which this Financing Plan takes into account; however, the proposed Connector Project likely would turn Grant Line Road into a limited access 4-lane expressway. Consequently, if and when the Connector Project develops, the implementation plan would reallocate Cordova Hills' fair share funding of Grant Line Road to the Connector Project configuration of Grant Line Road (anticipated to be a 4-lane expressway with grade separated interchanges). Cordova Hills' fair share cost might be reduced if Cordova Hills' fair share funding for the Connector project is less than its fair share cost allocation for the 6 lane Grant Line Road thoroughfare configuration. Cordova Hills' fair share allocation percent will not be increased as a result of this project change because the Cordova Hills project does not require the Connector project as a mitigation measure for its traffic impacts.

Facilities

The Cordova Hills backbone roadway system includes both onsite and offsite improvements. The Onsite and Offsite Road Capital Improvement Programs are detailed in **Appendix A**. This appendix includes two preliminary cost estimate sections prepared by Mackay & Soms. The first section provides costs estimates for onsite road improvements and the second section provides cost estimates for offsite road improvements.

Onsite improvements include the following types of facilities:

- Four-lane arterial roads, including medians.
- Two-lane roads, adjacent to open spaces.
- NEV lanes, bike lanes, and trails within the road right-of-way.
- Traffic signals.
- Pedestrian signals and crossings.
- Roundabouts.
- Creek and habitat crossings.
- Separated sidewalks, street lights, and landscaping.

Offsite improvements include the following type of facilities:

- Intersection improvements.
- Four and six lane roadway improvements on major roads including, among others: Grant Line Road, Jackson Highway, and Douglas Road.
- Drainage structures/bridges associated with the expanded roadway capacity improvements and new roadways.
- Shoulder widening.
- Auxiliary lanes on Highway 50.

Facility Costs and Revenues

Summary

Table 3-1 summarizes the Cordova Hills Phase 1 and buildout onsite and offsite backbone roadway improvement costs and revenues for improvements to be funded through the proposed Cordova Hills Special Financing District (Cordova Hills SFD). As noted above, there are several actions regarding the cost responsibility for offsite road mitigation projects that will not be finalized for some time. Also, Sacramento County's and Rancho Cordova's development impact fee programs for traffic improvements may require updates in the near future. As a result, the revenue and cost estimates discussed below are preliminary.

Buildout

The total cost for the onsite and offsite backbone improvements at buildout is estimated at \$148.1 million. This cost excludes frontage improvements that are typically funded privately by developers except for areas adjacent to open spaces. The road improvements include those road projects that Cordova Hills may be required to construct as required under its mitigation requirements and projects for which Cordova Hills is required to pay a fair share through a fee program. Many of the offsite road improvements are regional roads and have funding identified from other sources, such as Sacramento County Transportation Development Fee program (SCTDF), other fee programs, other new development financing programs and quarry mitigation programs.

Table 3-1
Cordova Hills Financing Plan
Summary of Estimated Backbone Road Revenues and Costs (2011\$)

Item	Source	Cordova Hills Amount		Buildout Percentage
		Phase 1	Buildout [1]	
Revenues				
Cordova Hills SFD Fee - Onsite (Rounded)	Table 3-11 (Phase 1) Table 3-2 (Buildout)	\$ 10,520,000	\$ 49,660,000	
Cordova Hills SFD Fee - Offsite [2]	Table 3-12 (Phase 1)			
Fair Share Responsibility Only	Table 3-3 (Buildout)	\$ 4,354,703	\$ 20,561,106	38%
Construction Requirement - Fair Share [3]	Table 3-10 (Buildout)	\$ 6,995,913	\$ 33,031,805	62%
Subtotal Cordova Hills SFD - Offsite (Rounded)		\$ 11,350,000	\$ 53,590,000	100%
Measure A SCTMFP Revenue		See Note [4].		
SCTDF Revenue		See Note [4].		
Other Sources		See Note [4].		
Total Revenues (Rounded)		\$ 21,870,000	\$ 103,250,000	
Costs				
Onsite Road Costs	Table 3-2			
Onsite Road Cost		\$ 24,860,700	\$ 60,911,500	
Less Frontage Costs		(\$ 4,060,500)	(\$ 11,250,000)	
Subtotal Onsite Road Costs (Rounded)		\$ 20,800,000	\$ 49,660,000	
Offsite Road Costs	Table 3-3			
Offsite Roads with Fair Share Responsibility Only		\$ 4,354,703	\$ 20,561,106	
Offsite Roads with Construction Requirement [5]		\$ 13,395,794	\$ 77,904,829	
Subtotal Offsite Road Costs (Rounded)		\$ 17,750,000	\$ 98,470,000	
Total Cordova Hills Backbone Road Costs (Rounded)		\$ 38,550,000	\$ 148,130,000	
Surplus/(Shortfall)		(\$ 16,680,000)	(\$ 44,880,000)	
Developer Funding Required - Possibly Reimbursable [6]		\$ 16,680,000	\$ 44,880,000	

roads sum

- [1] Buildout amounts include Phase 1 costs.
- [2] The Phase 1 split of revenues between Fair Share Only and Construction Required improvements is estimated based on the buildout fair share percentage for each of these improvement types.
- [3] This amount is Cordova Hills' fair share of offsite road improvements that Cordova Hills will be required to construct.
- [4] Availability and timing of reimbursements from SCTDF, Measure A, and other sources are uncertain. Therefore, no amounts have been estimated
- [5] These estimates include oversizing requirements and assume that Cordova Hills must initially fully fund the offsite projects for which it has a construction responsibility. Cordova Hills may receive reimbursement for costs beyond their fair share
- [6] The cost of improvements that Cordova Hills may be required to construct is greater than Cordova Hills' fair share cost for these improvements. Reimbursements may be available from several funding sources.

Cordova Hills' fair share of the total cost at buildout is estimated at \$103.3 million and will be funded through the Cordova Hills SFD. Cordova Hills will receive credit for a portion of the fees it pays into the SCTDF for road projects that are also included in and partially funded through the Cordova Hills SFD. In addition, Cordova Hills may need to advance an estimated \$44.9 million in construction costs beyond its fair share of costs and may receive reimbursement from some of the identified funding programs in the future. However, the timing and amount of these reimbursements is uncertain. The Cordova Hills developer will be required to advance the construction costs and wait for future reimbursements based on the terms of the reimbursement agreements associated with each road construction project. The estimated \$44.9 million in advance funding could be reduced if other regional development projects trigger and construct roadways identified for funding through the Cordova Hills SFD before Cordova Hills triggers them.

Phase 1

The Phase 1 backbone roadway improvement costs shown in **Table 3-1** total \$38.6 million. This amount assumes that Cordova Hills will need to initially fully fund the offsite costs for which it has a construction responsibility (as discussed in more detail later in this chapter). Cordova Hills developers may be reimbursed for costs that exceed the Project's fair share allocation as determined by Sacramento County Department of Transportation (SACDOT) for the SCTDF and from other sources that also have a funding obligation for the improvements.

Existing Fee Programs and Other Funding Sources

Some of the offsite road improvements in the Cordova Hills Offsite Roadway CIP are included in the SCTDF, Measure A, and Rancho Cordova transportation fee programs. The amount of SCTDF funding available in assisting the Cordova Hill's road mitigation projects is difficult to determine. Both SCTDF and Measure A have many road projects competing for available funding from these programs. It is uncertain when the SCTDF funding would be available to reimburse the Cordova Hills' developers for constructing road improvements that are included in the SCTDF. Measure A funding is only available for the Capital Southeast Connector. At some point, Measure A revenues may be available, if the Grant Line Road Expressway is converted to the Connector. If the Cordova Hills developer provides for advance funding for the Connector, then there may be some reimbursements from the Measure A program. The same uncertainty applies to the availability of funding from other potential sources.

Since the timing and availability of credits and reimbursements from the SCTDF and Measure A programs is uncertain, **Table 3-1** does not include any estimates for reimbursements from these funding programs.

If there is no reimbursement or matching funding from the various funding sources during Phase 1, then there is a remaining Phase 1 estimated shortfall of \$16.7 million, which would be developer advance-funded. At buildout, the developer's reimbursable advance funding beyond Cordova Hills' fair share costs is estimated at \$44.9 million if no reimbursements are available by buildout. The Cordova Hills developer may be reimbursed for the developer advances as revenue becomes available from other sources. However as stated above, the timing of these reimbursements is unknown. The developer will need to carry these costs until reimbursements become available.

Onsite Roadway Costs

Map 3-1 shows the proposed Cordova Hills' onsite street types and locations. **Map 3-2** shows the proposed Cordova Hills' onsite street types and locations for road segments to be funded through the Cordova Hills SFD only. These roads include all four lane roads and some two lane roads. Most two lane roads, however, will be funded by private developers whose property is adjacent to the road. Funding for frontage lanes is discussed in more detail later in this chapter.

Table 3-2 summarizes the onsite backbone roadway costs that will be funded through the Cordova Hills SFD. The detailed onsite unit cost estimates for the various roadway sections are provided in Appendix A. **Table 3-2** includes the total cost of all onsite roadway improvements included in the Cordova Hills SFD, as well as the net cost after deducting estimated frontage costs. Frontage consists of the curb, gutter, sidewalk, and first 11 feet of pavement (whether a parking lane and/or portion of the outside travel lane) in each direction and is typically paid by the developers whose properties are adjacent to these lanes. Consequently, frontage costs for roads adjacent to residential or commercial development will be financed by private developer funding.

The onsite backbone roadway cost totals an estimated \$60.9 million. The net cost after deducting the frontage costs totals \$49.7 million. **Appendix A** includes the detailed unit cost estimates for all onsite road sections included in **Table 3-2**.

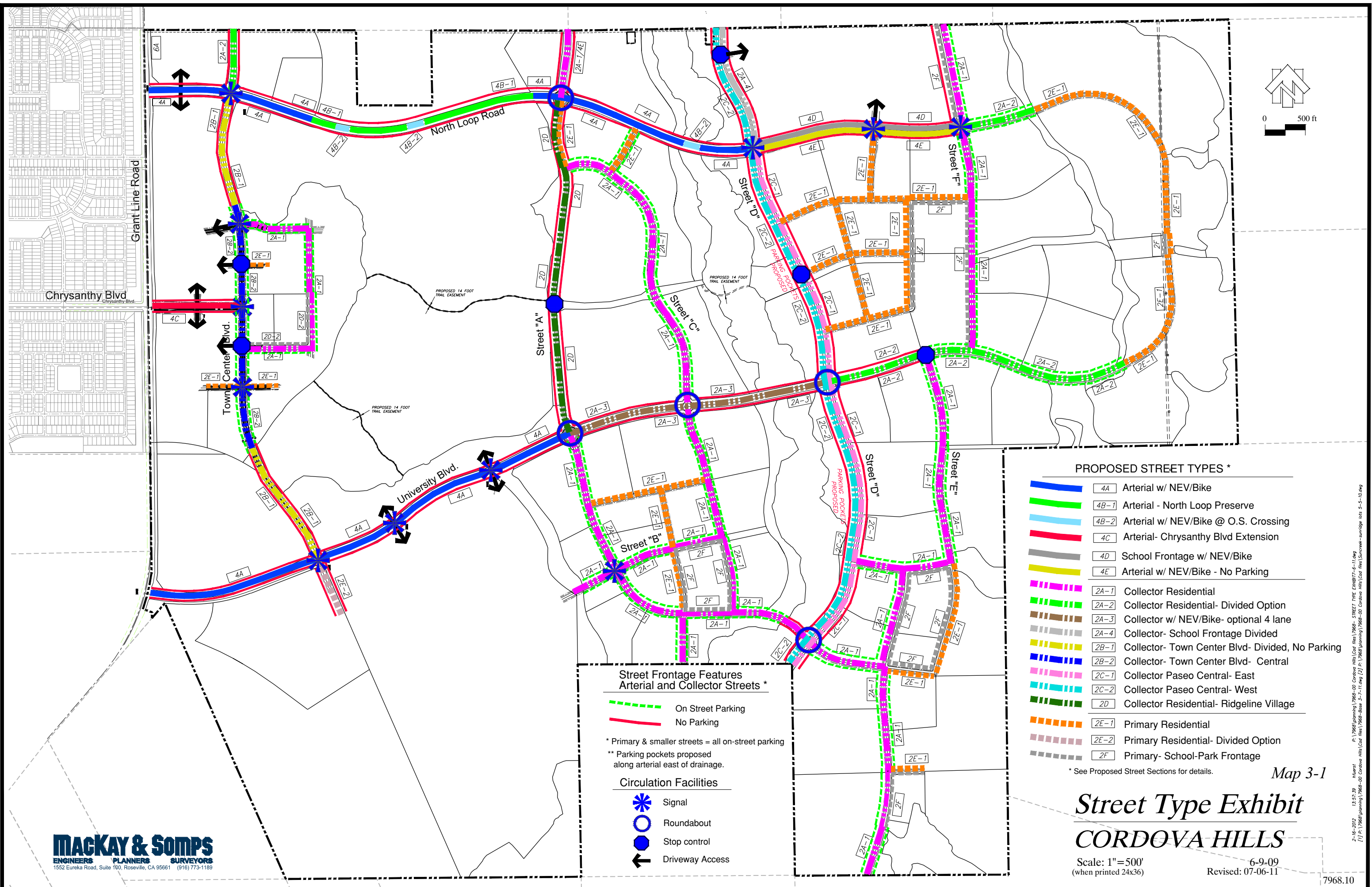
Offsite Roadway Costs

Cordova Hills has an obligation to construct many of the off-site roadways included in the Offsite Roadway CIP at various stages of development. The cost to Cordova Hills to construct these roadways would be reduced to just Cordova Hills' fair share if other regional development projects trigger and construct the roadways before Cordova Hills triggers them. In addition, Cordova Hills has a responsibility to fund its fair share of certain roadway improvements with no construction responsibility. Cordova Hills' total fair share of offsite roadway costs will be payable through the Cordova Hills SFD. The remainder of offsite Roadway CIP costs may be funded by other sources, such as County and City fee programs, state and federal funding, and other surrounding new development projects that are conditioned to participate in funding the improvements if required by California Environmental Quality Act (CEQA) mitigations prior to Cordova Hills' responsibility to construct. As noted earlier, the availability and timing of funding from other sources is uncertain.

Map 3-3 shows the location of the transportation improvement mitigation measures in the Off-site Roadway CIP. There are two types of mitigation measures shown on the map and summarized below:

- A mitigation measure with a whole number under it indicates an improvement with a construction responsibility. The number indicates the timing of the construction requirement, measured in dwelling unit equivalents (DUEs).

There are several intersection improvements that could be required earlier than stated in the mitigation measures. Intersection analyses will be required prior to issuance of the first and one-thousandth building permits to reassess the time at which various improvements will be



PROPOSED STREET TYPES *

- | | | |
|--|------|--|
| | 4A | Arterial w/ NEV/Bike |
| | 4B-1 | Arterial - North Loop Preserve |
| | 4B-2 | Arterial w/ NEV/Bike @ O.S. Crossing |
| | 4C | Arterial- Chrysanthy Blvd Extension |
| | 4D | School Frontage w/ NEV/Bike |
| | 4E | Arterial w/ NEV/Bike - No Parking |
| | 2A-1 | Collector Residential |
| | 2A-2 | Collector Residential- Divided Option |
| | 2A-3 | Collector w/ NEV/Bike- optional 4 lane |
| | 2A-4 | Collector- School Frontage Divided |
| | 2B-1 | Collector- Town Center Blvd- Divided, No Parking |
| | 2B-2 | Collector- Town Center Blvd- Central |
| | 2C-1 | Collector Paseo Central- East |
| | 2C-2 | Collector Paseo Central- West |
| | 2D | Collector Residential- Ridgeline Village |
| | 2E-1 | Primary Residential |
| | 2E-2 | Primary Residential- Divided Option |
| | 2F | Primary- School-Park Frontage |
- * See Proposed Street Sections for details.

Street Frontage Features
Arterial and Collector Streets *

- On Street Parking
- No Parking

* Primary & smaller streets = all on-street parking

** Parking pockets proposed along arterial east of drainage.

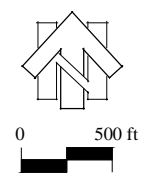
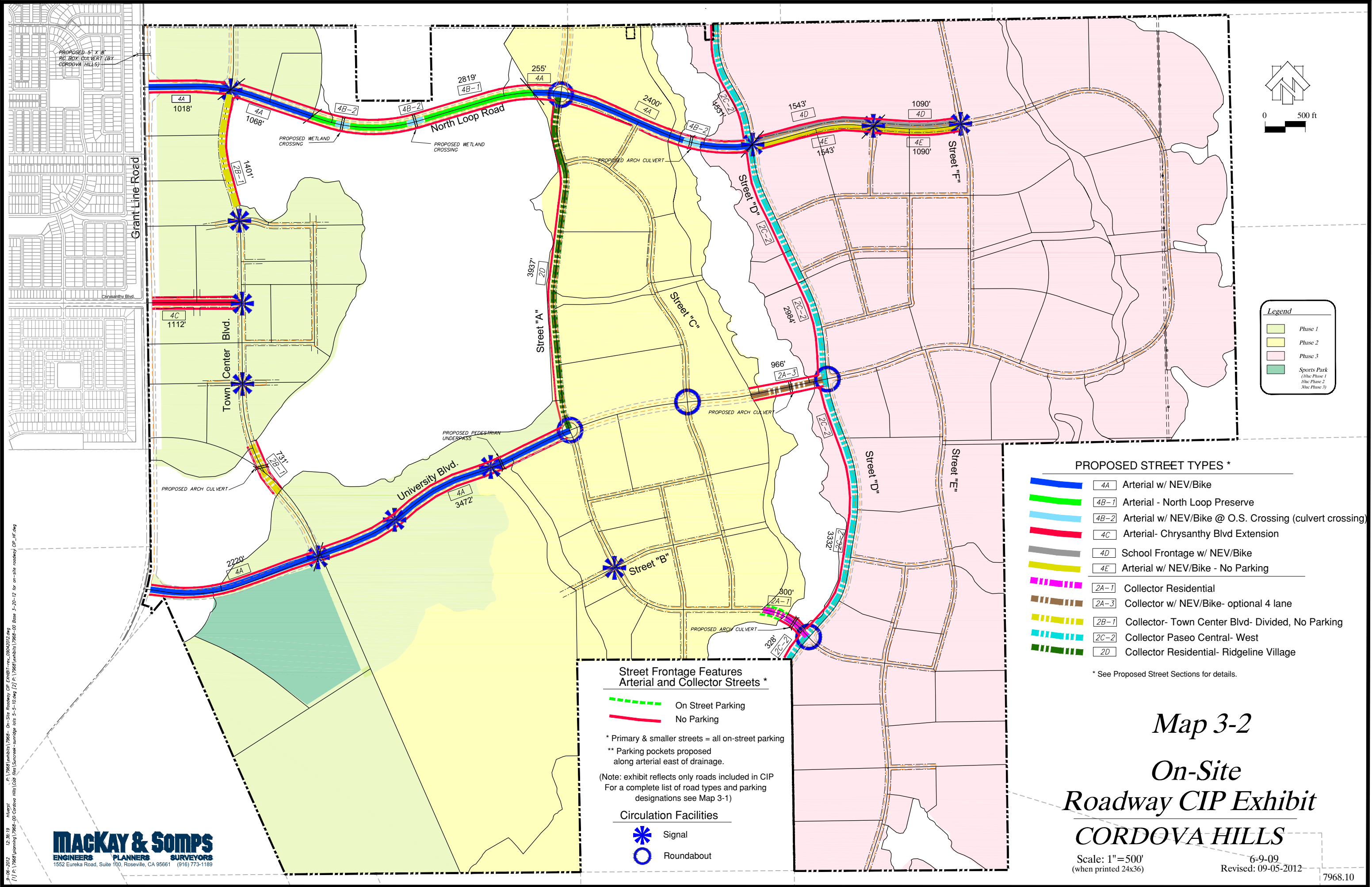
Circulation Facilities

- Signal
- Roundabout
- Stop control
- Driveway Access

Map 3-1
Street Type Exhibit
CORDOVA HILLS

Scale: 1"=500'
(when printed 24x36)

6-9-09
Revised: 07-06-11



Legend

- Phase 1
- Phase 2
- Phase 3
- Sports Park (Use Phase 1, Use Phase 2, Use Phase 3)

PROPOSED STREET TYPES *

- 4A Arterial w/ NEV/Bike
- 4B-1 Arterial - North Loop Preserve
- 4B-2 Arterial w/ NEV/Bike @ O.S. Crossing (culvert crossing)
- 4C Arterial - Chrysanthy Blvd Extension
- 4D School Frontage w/ NEV/Bike
- 4E Arterial w/ NEV/Bike - No Parking
- 2A-1 Collector Residential
- 2A-3 Collector w/ NEV/Bike- optional 4 lane
- 2B-1 Collector- Town Center Blvd- Divided, No Parking
- 2C-2 Collector Paseo Central- West
- 2D Collector Residential- Ridgeline Village

* See Proposed Street Sections for details.

**Street Frontage Features
Arterial and Collector Streets ***

- On Street Parking
- No Parking

* Primary & smaller streets = all on-street parking

** Parking pockets proposed along arterial east of drainage.

(Note: exhibit reflects only roads included in CIP
For a complete list of road types and parking designations see Map 3-1)

Circulation Facilities

- Signal
- Roundabout

Map 3-2
On-Site
Roadway CIP Exhibit
CORDOVA HILLS

Scale: 1"=500'
(when printed 24x36)

6-9-09
Revised: 09-05-2012

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Table 3-2
Cordova Hills Financing Plan
Estimated Onsite Road Costs (2011\$)

Item	Half Sections	Units	Frontage		Unit Cost		Phase 1				Buildout			
			Pct Not Funded by CH SFD	Funding Source	Total	Frontage	Quantity	Total Cost	Less Frontage	Net Cost	Quantity	Total Cost	Less Frontage	Net Cost
Onsite Street Sections														
4-Lane Arterial, Section 4A (93' R.O.W.) - 1/2 section														
4A: 1018	2	LF	100%	Private	\$ 831	\$ 415	1,018	\$ 1,691,916	(\$ 844,940)	\$ 846,976	1,018	\$ 1,691,916	(\$ 844,940)	\$ 846,976
4A: 1068 [1]	2	LF	50%	Private	\$ 831	\$ 415	1,068	\$ 1,775,016	(\$ 221,610)	\$ 1,553,406	1,068	\$ 1,775,016	(\$ 443,220)	\$ 1,331,796
4A: 2220	2	LF	0%		\$ 831	\$ 415	2,220	\$ 3,689,640	\$ 0	\$ 3,689,640	2,220	\$ 3,689,640	\$ 0	\$ 3,689,640
4A: 3472	2	LF	100%	Private & Univ/CC	\$ 831	\$ 415	3,472	\$ 5,770,464	(\$ 1,440,880)	\$ 4,329,584	3,472	\$ 5,770,464	(\$ 2,881,760)	\$ 2,888,704
4A: 2400 [1]	2	LF	60%	Private	\$ 831	\$ 415	0	\$ 0	\$ 0	\$ 0	2,400	\$ 3,988,800	(\$ 1,195,200)	\$ 2,793,600
4A: 255	2	LF	50%	Private	\$ 831	\$ 415	0	\$ 0	\$ 0	\$ 0	255	\$ 423,810	(\$ 105,825)	\$ 317,985
Subtotal 4A	2	LF			\$ 831	\$ 415	7,778	\$ 12,927,000	(\$ 2,507,400)	\$ 10,419,600	10,433	\$ 17,339,600	(\$ 5,470,900)	\$ 11,868,700
4-Lane Arterial, Section 4B-1 (85' R.O.W.) - 1/2 section														
4B-1: 2819 [1]	2	LF	0%		\$ 803	\$ 373	0	\$ 0	\$ 0	\$ 0	2,819	\$ 4,527,300	\$ 0	\$ 4,527,300
4-Lane Arterial, Section 4C (76' R.O.W.) - 1/2 section														
4C: 1112	2	LF	100%	Private	\$ 777	\$ 450	1,112	\$ 1,728,000	(\$ 500,400)	\$ 1,227,600	1,112	\$ 1,728,000	(\$ 1,000,800)	\$ 727,200
4-Lane Arterial, Section 4D (78' R.O.W.) - 1/2 section [2]														
4D: 1543	1	LF	100%	EGUSD	\$ 710	\$ 372	0	\$ 0	\$ 0	\$ 0	1,543	\$ 1,095,500	(\$ 574,000)	\$ 521,500
4D: 1090	1	LF	100%	EGUSD	\$ 710	\$ 372	0	\$ 0	\$ 0	\$ 0	1,090	\$ 773,900	(\$ 405,500)	\$ 368,400
Subtotal 4D	1	LF			\$ 710	\$ 372	0	\$ 0	\$ 0	\$ 0	2,633	\$ 1,869,400	(\$ 979,500)	\$ 889,900
4-Lane Arterial, Section 4E (82' R.O.W.) - 1/2 section [2]														
4E: 1543	1	LF	100%	Private	\$ 754	\$ 335	0	\$ 0	\$ 0	\$ 0	1,543	\$ 1,163,400	(\$ 516,900)	\$ 646,500
4E: 1090	1	LF	100%	Private	\$ 754	\$ 335	0	\$ 0	\$ 0	\$ 0	1,090	\$ 821,900	(\$ 365,200)	\$ 456,700
Subtotal 4E	1	LF			\$ 754	\$ 335	0	\$ 0	\$ 0	\$ 0	2,633	\$ 1,985,300	(\$ 882,100)	\$ 1,103,200
2-Lane Collector Residential, Section 2A-1 (48' R.O.W.) 1/2 sect.														
2A-1: 300	2	LF	0%		\$ 334	NA	0	\$ 0	\$ 0	\$ 0	300	\$ 200,400	\$ 0	\$ 200,400
2-Lane Collector w/NEV, Section 2A-3 (93' R.O.W.) - 1/2 sect.														
2A-3: 966	2	LF	0%		\$ 676	NA	0	\$ 0	\$ 0	\$ 0	966	\$ 1,306,000	\$ 0	\$ 1,306,000
2-Lane Collector, Section 2B-1 (54' R.O.W.) - 1/2 section/frontage														
2B-1: 731	2	LF	0%		\$ 427	NA	731	\$ 624,274	\$ 0	\$ 624,274	731	\$ 624,274	\$ 0	\$ 624,274
2B-1: 1401	1	LF	0%		\$ 427	NA	1,401	\$ 598,227	\$ 0	\$ 598,227	1,401	\$ 598,227	\$ 0	\$ 598,227
Subtotal 2B-1:					\$ 427	NA	2,132	\$ 1,222,501	\$ 0	\$ 1,222,501	2,132	\$ 1,222,501	\$ 0	\$ 1,222,501
2-Ln Collector Paseo Central, Sect. 2C-2 (56' R.O.W.) 1/2 sect.														
2C-2: 1531	1	LF	0%		\$ 482	NA	0	\$ 0	\$ 0	\$ 0	1,531	\$ 737,942	\$ 0	\$ 737,942
2C-2: 2984	1	LF	0%		\$ 482	NA	0	\$ 0	\$ 0	\$ 0	2,984	\$ 1,438,288	\$ 0	\$ 1,438,288
2C-2: 3332	1	LF	0%		\$ 482	NA	0	\$ 0	\$ 0	\$ 0	3,332	\$ 1,606,024	\$ 0	\$ 1,606,024
2C-2: 328	1	LF	0%		\$ 482	NA	0	\$ 0	\$ 0	\$ 0	328	\$ 158,096	\$ 0	\$ 158,096
Subtotal 2C-2	1	LF			\$ 482	NA	0	\$ 0	\$ 0	\$ 0	8,175	\$ 3,940,350	\$ 0	\$ 3,940,350
2-Lane Collector Residential, Section 2D (36.5' R.O.W.) 1/2 sect.														
2D: 3937	1	LF	0%		\$ 327	NA	0	\$ 0	\$ 0	\$ 0	3,937	\$ 1,287,399	\$ 0	\$ 1,287,399
Total Onsite Street Sections								\$ 15,877,501	(\$ 3,007,800)	\$ 12,869,701		\$ 35,406,250	(\$ 8,333,300)	\$ 27,072,950

Table 3-2
Cordova Hills Financing Plan
Estimated Onsite Road Costs (2011\$)

Item	Half Sections	Units	Frontage		Unit Cost		Phase 1				Buildout			
			Pct Not Funded by CH SFD	Funding Source	Total	Frontage	Quantity	Total Cost	Less Frontage	Net Cost	Quantity	Total Cost	Less Frontage	Net Cost
Culverts, Traffic Signals, and Round-Abouts														
Arch Culvert: 154' x 24' span x 5' height, incl. headwalls, wingwalls		LS	NA		\$ 770,000	NA	1	\$ 770,000	\$ 0	\$ 770,000	1	\$ 770,000	\$ 0	\$ 770,000
5' x 8' Conc. Box Culvert (Grant Line Road)		LF	NA		\$ 750	NA	118	\$ 88,500	\$ 0	\$ 88,500	118	\$ 88,500	\$ 0	\$ 88,500
Traffic Signal 2x2		EA	NA		\$ 200,000	NA	0	\$ 0	\$ 0	\$ 0	1	\$ 200,000	\$ 0	\$ 200,000
Traffic Signal 4x2		EA	NA		\$ 225,000	NA	7	\$ 1,575,000	\$ 0	\$ 1,575,000	10	\$ 2,250,000	\$ 0	\$ 2,250,000
4x Round-About		EA	NA		\$ 782,200	NA	0	\$ 0	\$ 0	\$ 0	2	\$ 1,564,400	\$ 0	\$ 1,564,400
2x Round-About		EA	NA		\$ 605,000	NA	0	\$ 0	\$ 0	\$ 0	3	\$ 1,815,000	\$ 0	\$ 1,815,000
Creek Crossings (Arch Culverts)														
169' x 32' span x 8' height, incl. headwalls & wing walls		LS	NA		\$ 1,014,000	NA	0	\$ 0	\$ 0	\$ 0	1	\$ 1,014,000	\$ 0	\$ 1,014,000
154' x 32' span x 10' height, incl. headwalls & wing walls		LS	NA		\$ 1,000,000	NA	0	\$ 0	\$ 0	\$ 0	1	\$ 1,000,000	\$ 0	\$ 1,000,000
114' x 32' span x 10' height, incl. headwalls & wing walls		LS	NA		\$ 744,800	NA	0	\$ 0	\$ 0	\$ 0	1	\$ 744,800	\$ 0	\$ 744,800
Wetland Swale Crossings														
(2 ea. @116 lf ea.) 8' x 6' Conc. Box Culvert (North Loop Rd.)		LF	NA		\$ 700	NA	0	\$ 0	\$ 0	\$ 0	232	\$ 162,400	\$ 0	\$ 162,400
Pedestrian Underpath (University Blvd.)														
8'x12' Elliptical Metal Arch Plate Culvert		LF	NA		\$ 700	NA	149	\$ 104,300	\$ 0	\$ 104,300	149	\$ 104,300	\$ 0	\$ 104,300
Subtotal Onsite Roads								\$ 18,415,301	(\$ 3,007,800)	\$ 15,407,501		\$ 45,119,650	(\$ 8,333,300)	\$ 36,786,350
Contingency (35%)		35%						\$ 6,445,355	(\$ 1,052,730)	\$ 5,392,625		\$ 15,791,878	(\$ 2,916,655)	\$ 12,875,223
Total Onsite Roads								\$ 24,860,700	(\$ 4,060,500)	\$ 20,800,100		\$ 60,911,500	(\$ 11,250,000)	\$ 49,661,600

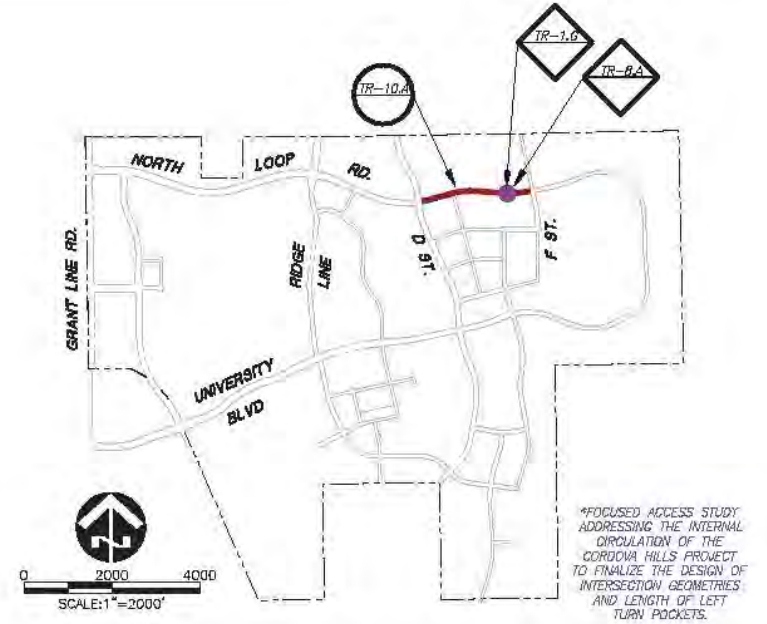
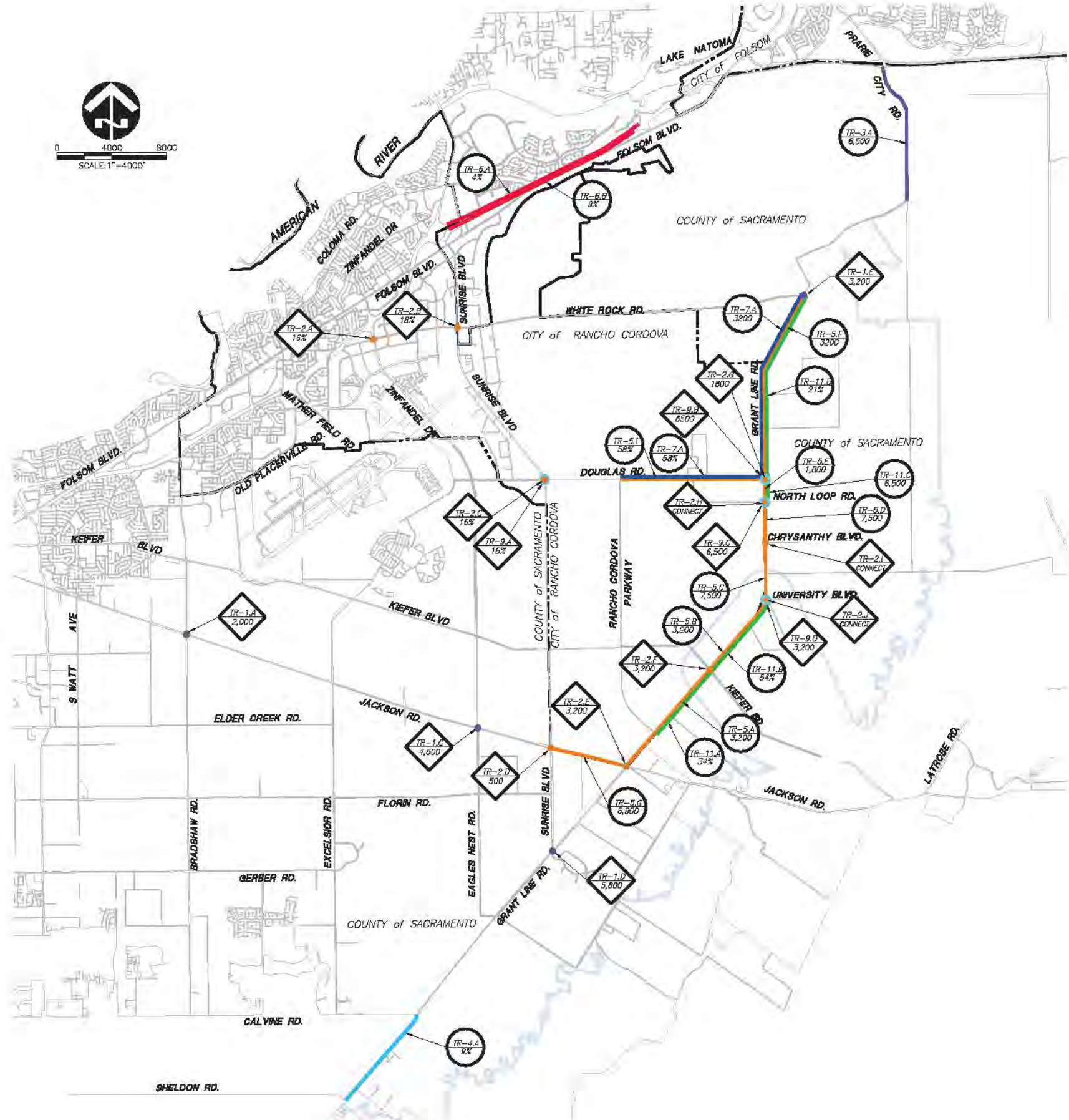
road cost

Source: MacKay & Somps (May 2012)

[1] Section 4B-2 refers to street sections at culverts. They are included in the lengths of the adjacent sections 4A and 4B-1 and are not broken out separately in this table.

[2] Sections 4D are parts of the same road segment. 4D is on the north side of the road, and 4E is on the south side. The total road segment includes one half section of 4D and one half section of 4E.

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Cordova Hills SPA Detail

LEGEND

- ◇ DEIR MITIGATION NUMBER (INTERSECTION)
DUE THRESHOLD OR FAIR SHARE FUNDING PERCENTAGE
- DEIR MITIGATION NUMBER (ROADWAY SEGMENT)
DUE THRESHOLD OR FAIR SHARE FUNDING PERCENTAGE
- INTERSECTION IMPROVEMENTS

Map 3-3
Roadway CIP Exhibit
(referencing only full mitigation measures - not phased improvements)

Cordova Hills SPA
Sacramento County, California
rev. February, 2013

MACKEY & SOMPS
CIVIL ENGINEERS, INC.
ROSELIE, CALIFORNIA (916) 773-1189

needed. These intersection analyses could result in changes to the required timing of the improvements. The intersection improvements to be included in the analyses are listed below:

<u>Intersection</u>	<u>Current Timing of Construction</u>
Grant Line and Jackson	500 DUEs
Grant Line and Douglas	850 DUEs
Grant Line and Douglas	1,800 DUEs
Kiefer and Grant Line	2,000 DUEs

In addition to requiring intersection analyses for these intersections, the County also accelerated the construction requirement for the Sunrise and Jackson intersection to 500 EDUs. To facilitate this early construction requirement, the County has agreed to commit \$800,000 in SCTDF revenue for funding of the intersection. SACDOT will obtain all necessary federal and state permits needed for construction, and there shall be no moratorium on Cordova Hills development if SACDOT does not obtain the permits. Although the County will obtain the permits, the Cordova Hills developer will pay the associated mitigation costs if Cordova Hills constructs the improvements. A credit and reimbursement agreement between SACDOT and the developer will govern the use of credits for the Sunrise and Jackson intersection.

- A mitigation measure with a percentage indicates an improvement that requires a fair share funding contribution but not a construction responsibility. The fair share payments for these mitigation measures will be made through the Cordova Hills SFD on a per-unit pay-as-you-go basis as building permits are issued, rather than as lump sum amounts at predetermined thresholds.

Table 3-3 summarizes the costs of the offsite roadway improvements included in the Cordova Hills Offsite Roadway CIP. This table is discussed further in the following section. **Appendix A** provides the detailed cost estimates for the Offsite Roadway CIP.

Phasing

Onsite Roadway Phasing

Phase 1 of the onsite roadway system includes onsite road improvements in the Town Center and adjacent to the university/college campus center. Phase 1 onsite roadway improvements are estimated at \$20.8 million. **Map 2-3** in **Chapter 2** shows the preliminary phasing plan for the Cordova Hills project. Roadways in Phase 1 will serve the Town Center Village and the university site. The timing of construction for remaining phases is undetermined at this time and will be based on market conditions, project conditions of approval (as noted in the Development Agreement and Rezoning Conditions), and Environmental Impact Report (EIR) mitigation measures. The remaining onsite roadway will be built incrementally as the project proceeds through buildout. There will likely be many smaller sub-phasing as development of the project responds to market conditions.

Table 3-3													
Cordova Hills Financing Plan													
Roadway Mitigation Phasing													
										Fair Share			
Cond. Of Approval	Mitigation Measure	Trigger (DUE)	Project / Item	Project Description / Mitigation Req.	Construction Needs	Qty	Unit	Unit Price	Total Project Cost	Fair Share Pct. [1]	Cost	Construction Requirement	Cumulative Construction Cost
	Construction Responsibility - Phase 1												
41	TR-1.G. TR-8.A.	w/HS Construction	School Access and North Loop Rd.	Prov. EB dual LT-lanes	EB dual LT-lanes.	1	LS	\$28,000	\$28,000	100%	\$28,000	\$28,000	\$28,000
43		Connect	Grant Line Rd. at N. Loop Rd.	NB 1(T+R) combined; SB T+L; WB L+R (stop-controlled)	stop control on WB approach; SB T+L lane; NB 1(T+R) combined; North Loop full segment	1	LS	\$377,900	\$377,900	100%	\$377,900	\$377,900	\$405,900
44		Connect	Grant Line Rd. at Chrysanthy Blvd.	NB 1(T+R) combined; SB T+L; WB L+R (stop-controlled)	stop control on WB approach; SB T+L lane; NB 1(T+R) combined; Chrysanthy full segment	1	LS	\$377,900	\$377,900	100%	\$377,900	\$377,900	\$783,800
45		Connect	Grant Line Rd. at University Blvd.	NB 1(T+R) combined; SB T+L; WB L+R (stop-controlled)	stop control on WB approach; SB T+L lane; NB 1(T+R) combined; University full segment	1	LS	\$377,900	\$377,900	100%	\$377,900	\$377,900	\$1,161,700
53		250	Grant Line- Douglas Rd to White Rock Rd	Shoulder widening (6' shoulders, ea. Side)	6' paved shoulders, roadside ditches (as req'd)	14,256	LF	\$404	\$5,759,424	100%	\$5,759,424	\$5,759,424	\$6,921,124
54		500	Grant Line Rd. at Jackson Rd. (SR-16)	Signal modification; EB/WB T+(T+R)combined+L; NB/SB (T+R)combined+L	Intx. widen & signal mod. for; NB/SB add LT & RT lanes, EB/WB nothing needed (includes receiving lane and transitions). Relocate 3 power poles. R/W take all side.	1	LS	\$1,339,800	\$1,339,800	20%	\$267,960	\$1,339,800	\$8,260,924
54a	TR-2.D.	500	Sunrise Blvd. at Jackson Rd. (SR-16)	Prov. EB/WB dual thru-lanes (EB= thru-lane & thru/RT-lane, WB= thru & thru-lanes)	Intx. widen & signal mod. for; EB convert RT-lane to thru/RT-lane, WB add thru-lane (includes receiving lane and transitions); Bridge expansion to east; R/W take north side	1	LS	\$2,516,900	\$2,516,900	8%	\$201,352	\$2,516,900	\$10,777,824
55		850	Grant Line Rd. at Douglas Rd.	Signalize; NB T+2L; SB T+R+U-turn; EB L+R	Intx. widen & signal; NB add dual LT + 1 T-lane, SB 1T+1R+1U-turn lane, EB single L+RT lanes (includes receiving lane and transitions). R/W take all side.	1	LS	\$1,504,370	\$1,504,370	43%	\$646,879	\$1,504,370	\$12,282,194
46		1,250	Grant Line Rd. at N. Loop Rd.	Signalize; NB 1(T+R) combined + U-turn; SB T+2L; WB L+R	Signalize; SB 2T+2L; NB 1(T+R) combined+1U-turn; North Loop 1L+1R	1	LS	\$513,300	\$513,300	100%	\$513,300	\$513,300	\$12,795,494
47		1,250	Grant Line Rd. at University Blvd.	Signalize; NB T+R+ U-turn; SB T+L+ receiving lane; WB 2L+R	Signalize; add WB second left turn lane w/receiving lane & NB U-turn	1	LS	\$600,300	\$600,300	100%	\$600,300	\$600,300	\$13,395,794
	Subtotal, Phase 1								\$13,395,794		\$9,150,915	\$13,395,794	
	Construction Responsibility - Remaining Phases												
48		1,800	Grant Line Rd. at N. Loop Rd.	Signal modification; NB 2T+R+ U-turn; SB 2T+2L; WB 2L+free-R	4-lane widening, inc. median of northern leg; NB 1T+1(T+R) combined+1U-turn;	1	LS	\$1,147,900	\$1,147,900	100%	\$1,147,900	\$1,147,900	\$14,543,694
56		1,800	Grant Line Rd. at Douglas Rd.	Signal modification; NB 2T+2L; SB 2T+R+U-turn; EB L+free-R	widen NB approach to match 4-lane widening of segment to North Loop Road; add WB free-RT w/AccelARATION/merge lane lane	1	LS	\$984,750	\$984,750	43%	\$423,443	\$984,750	\$15,528,444
57		1,800	Grant Line- North Loop to Glory Lane	Widen to 4-lanes (Class "C") thoroughfare section (ult. 6-lane)	Add median and 2 lanes northbound, including curb, gutter, and s/w on Project side, no power pole relocation (new 69 kv poles)	247	LF	\$1,135	\$280,345	59%	\$165,404	\$280,345	\$15,808,789
57		1,800	Grant Line- Glory Lane to Douglas Rd	Widen to 4-lanes (Class "C") thoroughfare section (ult. 6-lane)	Add median and 2 lanes northbound, including shoulder and AC path on County side, intersection & driveway reconstruction, no power pole relocation (new 69 kv poles); incl. full frontage south of Glory Lane	1,209	LF	\$815	\$985,335	59%	\$581,348	\$985,335	\$16,794,124
58	TR-1.A.	2,000	Bradshaw Rd. at Jackson Rd.	Prov. WB second thru-lane.	Intx. widen & signal mod. for; WB add thru-lane (includes receiving lane and transitions). Relocate 1 signal pole and 2 power poles. R/W take north side.	1	LS	\$398,700	\$398,700	100%	\$398,700	\$398,700	\$17,192,824
59		2,000	Grant Line Rd. at Kiefer Blvd.	Signalize, prov. NB/SB LT-turn & thru/RT-lane, EB/WB LT/thru/RT shared lane	Signalize & intersection widening (on east side GLR) for; NB/SB add LT-lane, EB add full segment (36'); Relocate 4 power poles (by SMUD). R/W take east side.	1	LS	\$910,190	\$910,190	39%	\$354,974	\$910,190	\$18,103,014
49	TR-2.J. TR-9.D.	3,200	Grant Line Rd. at University Blvd.	Signal modification; NB 2T+free-R+ U-turn; SB 2T+2L; WB 2L+R	4-lane widening, incl. median to south; re-locate signal; add NB free-right turn lane, incl. channelization island	1	LS	\$840,400	\$840,400	100%	\$840,400	\$840,400	\$18,943,414
60	TR-1.E.	3,200	Grant Line Rd. at White Rock Rd.	Signalize, prov. NB 2T+2L, SB 2T+R, EB 2L+R	From County Project - Intx. widen & signal mod. for; NB LT-lane. R/W take east side.	1	LS	\$371,460	\$371,460	100%	\$371,460	\$371,460	\$19,314,874

Table 3-3													
Cordova Hills Financing Plan													
Roadway Mitigation Phasing													
										Fair Share			
Cond. Of Approval	Mitigation Measure	Trigger (DUE)	Project / Item	Project Description / Mitigation Req.	Construction Needs	Qty	Unit	Unit Price	Total Project Cost	Fair Share Pct. [1]	Cost	Construction Requirement	Cumulative Construction Cost
62	TR-2.E.	3,200	Grant Line Rd. at Jackson Rd. (SR-16)	mod. signal; prov. EB 2L+T+(T+R) combined; WB L+T+(T+R) combined; NB L+T+(T+R) combined; SB L+T+(T+R) combined;	add outside lanes (all legs), modify EB & WB median, and re-stripe (all legs)	1	LS	\$1,064,200	\$1,064,200	20%	\$212,840	\$1,064,200	\$20,379,074
63	TR-2.F.	3,200	Grant Line Rd. at Kiefer Blvd.	prov. NB/SB LT-turn, thru lane, & thru/RT-lane, EB/WB LT-lane & thru/RT lane	Intx. widen & signal mod. for; NB/SB add thru lane, EB/WB add LT-lane). R/W take all side.	1	LS	\$388,810	\$388,810	39%	\$151,636	\$388,810	\$20,767,884
64	TR-5.A.	3,200	Grant Line- Jackson Rd to Kiefer Blvd	Widen to 4-lanes (Class "C") w/ moderate access control (ult. 6-lane)	Add median and 2 lanes northbound, including shoulder and AC path on County side, intersection & driveway reconstruction, power pole relocation.	17,820	LF	\$815	\$14,523,300	32%	\$4,647,456	\$14,523,300	\$35,291,184
65	TR-5.B	3,200	Grant Line- Kiefer Blvd to Univ. Blvd	Widen to 4-lanes (Class "C") w/ moderate access control (ult. 6-lane)	Add median and 2 lanes northbound, including shoulder and AC path on County side, intersection & driveway reconstruction, power pole relocation.	12,270	LF	\$760	\$9,325,200	54%	\$5,035,608	\$9,325,200	\$44,616,384
66	TR-5.F. TR-7.A.	3,200	Grant Line- Douglas Rd to White Rock Rd	Widen to 4-lanes (Class "C") w/ moderate access control (ult. 6-lane)	Add median and 2 lanes northbound, including shoulder and 6' AC path on County side, intersection & driveway reconstruction, power pole relocation.	12,910	LF	\$815	\$10,521,650	21%	\$2,209,547	\$10,521,650	\$55,138,034
50		3,700	Grant Line Rd. at Chrysanthy Blvd.	Signalize; NB 1(T+R) combined+U-turn; SB T+L+receiving lane; WB L+R	Signalize (3-way); add U-turn on NB approach	1	LS	\$289,580	\$289,580	100%	\$289,580	\$289,580	\$55,427,614
67	TR-1.C.	4,500	Eagles Nest Rd. at Jackson Rd. (SR-16)	Signalize, prov. NB/SB LT-lane & thru/RT-lane	Intx. widen & signalize for; NB add thru/RT-lane (includes receiving lane and transitions), SB convert to add LT-lane. R/W take east side.	1	LS	\$739,600	\$739,600	7%	\$51,772	\$739,600	\$56,167,214
68	TR-1.D.	5,800	Grant Line Rd. at Sunrise Blvd.	Prov. SB LT, Thru and RT lane	Intx. widening & signal mod. for; SB add RT-lane (includes receiving lane and transitions). Relocate 2 signal poles.	1	LS	\$553,660	\$553,660	15%	\$83,049	\$553,660	\$56,720,874
69	TR-2.G. TR-9.B.	6,500	Grant Line Rd. at Douglas Rd.	Signalize, prov NB dual LT-lane & 3 thru-lanes, SB 3 thru-lanes, RT-lane, U-turn lane, & departure lane, EB LT-lane & free RT-lane	Widen SB approach to match 4-lane widening of segment to White Rock Rd.	1	LS	\$800,500	\$800,500	43%	\$344,215	\$800,500	\$57,521,374
70	TR-3.A.	6,500	Prarie City Rd- US 50 to White Rock Rd.	Upgrade from rural highway without shoulder to with shoulders	Add shoulders, slope & fill work in northern portions, a few power pole relocates.	9,820	LF	\$404	\$3,967,280	8%	\$317,382	\$3,967,280	\$61,488,654
71	TR-5.E. TR-11.C.	6,500	Grant Line- North Loop to Douglas Rd	Upgrade to 6-lane "Connectorized" thoroughfare w/ moderate access control (Class "C" except at Project frontage)	replace 2 SB lanes, add median and 4 additional lanes (3 SB, 1 NB), including 6' shoulder on City side, intersection & driveway reconstruction, no power pole relocation (new 69 kv poles);	1,456	LF	\$1,365	\$1,987,440	59%	\$1,172,590	\$1,987,440	\$63,476,094
51	TR-2.H. TR-9.C	6,500	Grant Line Rd. at N. Loop Rd.	Signal modification; NB 3T+R+ U-turn; SB 3T+2L; WB 2L+free-R	6-lane widening of northern leg; re-locate median and LT pocket on northern leg to west, add NB & SB through lanes	1	LS	\$1,460,300	\$1,460,300	100%	\$1,460,300	\$1,460,300	\$64,936,394
72	TR-5.G.	6,900	Jackson Rd- Sunrise Blvd to Grant Line Rd	Widen to 4-lanes (Class "C") w/ moderate access control (ult. 6-lane)	Add median and additional lane each way, including shoulders, intersection & driveway reconstruction, power pole relocation.	4,660	LF	\$1,545	\$7,199,700	16%	\$1,151,952	\$7,199,700	\$72,136,094
52	TR-2.I.	7,500	Grant Line Rd. at Chrysanthy Blvd.	Signalize; NB 2T+U-turn+R; SB 2T+2L; WB 2L+2T+R;	Re-locate signal; 4-lane widening of northern & southern leg, incl. median; add NB separated right turn lane	1	LS	\$1,023,300	\$1,023,300	100%	\$1,023,300	\$1,023,300	\$73,159,394
73	TR-5.C.	7,500	Grant Line- Univ. Blvd to Chrysanthy Blvd	Widen to 4-lanes (Class "C") w/ moderate access control (ult. 6-lane)	Add median and 2 lanes northbound, including curb, gutter, and s/w on Project side, no power pole relocation (new 69 kv poles)	2,460	LF	\$1,135	\$2,792,100	35%	\$977,235	\$2,792,100	\$75,951,494
74	TR-5.D.	7,500	Grant Line- Chrysanthy Blvd to North Loop	Widen to 4-lanes (Class "C") w/ moderate access control (ult. 6-lane)	Add median and 2 lanes northbound, including curb, gutter, and s/w on Project side, no power pole relocation (new 69 kv poles)	1,721	LF	\$1,135	\$1,953,335	24%	\$468,800	\$1,953,335	\$77,904,829
Subtotal Remaining Phases									\$64,509,035		\$23,880,890	\$64,509,035	

Table 3-3													
Cordova Hills Financing Plan													
Roadway Mitigation Phasing													
										Fair Share			
Cond. Of Approval	Mitigation Measure	Trigger (DUE)	Project / Item	Project Description / Mitigation Req.	Construction Needs	Qty	Unit	Unit Price	Total Project Cost	Fair Share Pct. [1]	Cost	Construction Requirement	Cumulative Construction Cost
	Fair Share Only												
	TR-11.D.		Grant Line- Douglas Rd to White Rock Rd	Upgrade to 6-lane thoroughfare w/ moderate access control (Class "C")	replace 2 SB lanes, add median and 4 additional lanes (3 SB, 1 NB), including 6' shoulder on City side, intersection & driveway reconstruction	12,910	LF	\$1,365	\$17,622,150	21%	\$3,700,652	\$0	\$77,904,829
76	TR-11.A.		Grant Line- RC Pkwy to Kiefer Blvd	Upgrade to 6-lane thoroughfare w/ moderate access control (Class "C")	no "C+P" impact under LOS E analysis	6,048	LF	\$1,365	\$8,255,520	34%	\$2,806,877	\$0	\$77,904,829
77	TR-11.B.		Grant Line- Kiefer Blvd to Univ. Blvd	Upgrade to 6-lane thoroughfare w/ moderate access control (Class "C")	replace 2 SB lanes, add median and 4 additional lanes (3 SB, 1 NB), including 6' shoulder on City side, intersection & driveway reconstruction	6,505	LF	\$1,270	\$8,261,350	54%	\$4,461,129	\$0	\$77,904,829
78	TR-6.A.		US 50 WB- Hazel to Sunrise	Add auxiliary lane	add auxiliary lane	3	MILE	\$1,500,000	\$4,889,205	4%	\$195,568	\$0	\$77,904,829
79	TR-6.B.		US 50 EB- Sunrise to Hazel	Add auxiliary lane	add auxiliary lane	3	MILE	\$1,500,000	\$4,889,205	9%	\$440,028	\$0	\$77,904,829
80	TR-4.A.		Grant Line- Sheldon Rd to Calvine Rd	Upgrade to 4-lanes & capacity class to arterial w/ moderate access control.	Add median and additional lane each way, including shoulders, intersection & driveway reconstruction, power pole relocation.	8,160	LF	\$1,545	\$12,607,200	9%	\$1,134,648	\$0	\$77,904,829
81	TR-2.B.		Sunrise Blvd. at White Rock Rd.	Prov. EB and WB overlap phasing	Signal mod. for; EB/WB overlap phasing	1	LS	\$6,750	\$6,750	18%	\$1,215	\$0	\$77,904,829
82	TR-9.A.		Sunrise Blvd & Douglas Road	Prov.EB/WB RT overlap phasing	Signal mod. for; EB/WB RT overlap phasing	1	LS	\$6,750	\$6,750	16%	\$1,080	\$0	\$77,904,829
83	TR-5.I. TR-7.A.		Douglas Rd- RC Pkwy to Americanos Blvd.	Upgrade to 4-lanes & capacity class to arterial w/ moderate access control	Add median and additional 2 lanes plus 5' shoulder westbound	1	LS	\$5,154,000	\$5,154,000	58%	\$2,989,320	\$0	\$77,904,829
83	TR-5.I. TR-7.A.		Douglas Rd- Americanos Blvd. to Grant Line Rd.	Upgrade to 4-lanes & capacity class to arterial w/ moderate access control	Add median and additional lane each way, including shoulders, 6' AC paths, intersection & driveway reconstruction, power pole relocation.	5,300	LF	\$1,545	\$8,188,500	58%	\$4,749,330	\$0	\$77,904,829
84	TR-2.A.		Zinfandel Dr. at White Rock Rd.	Prov. WB dual RT-lanes	Intx. widen & signal mod. for; WB add RT-lane. Relocated 1 signal pole and 2 street lights. R/W take north side	1	LS	\$501,120	\$501,120	16%	\$80,179	\$0	\$77,904,829
85	TR-2.C.		Sunrise Blvd. at Douglas Rd.	Prov.WB overlap phasing	Signal mod. for; WB overlap phasing	1	LS	\$6,750	\$6,750	16%	\$1,080	\$0	\$77,904,829
	Subtotal Fair Share Only								\$70,388,499		\$20,561,106	\$0	
	Summary												
	Phase 1 Construction								\$13,395,794		\$9,150,915	\$13,395,794	
	Remaining Phases Construction								\$64,509,035		\$23,880,890	\$64,509,035	
	Total Construction								\$77,904,829		\$33,031,805	\$77,904,829	
	Fair Share Only								\$70,388,499		\$20,561,106	\$0	
	Grand Total								\$148,293,328		\$53,592,911	\$77,904,829	
													phasing1
	[1] Fair share percentage based on cumulative plus project fair share percentages.												

Offsite Roadway Phasing

Table 3-3 shows the Cordova Hills offsite roadway improvements in order of the DUE triggers which establish the timing for projects for which Cordova Hills has a mitigation requirement for construction of the improvements. Improvements without construction triggers will require fair share payments to meet the mitigation requirement.

Construction Responsibility Improvements

Table 3-3 includes descriptions of all offsite roadway mitigation measures that are the responsibility of the Cordova Hills project to construct. Some of these road projects may be part of EIR mitigation requirements for other nearby development projects such as Sun Creek and the Arboretum in Ranch Cordova. The actual construction responsibility will be assigned to the project that requires its construction due to its mitigation monitoring program. As a result, it is uncertain how much of the roadway construction costs identified in **Table 3-3** will actually be incurred by Cordova Hills above its fair share amount. Many of these roadway projects are included in a development impact fee program. Developers constructing these improvements may receive fee credits or reimbursements from these fee programs as discussed later in this chapter. There is also a possibility that the Capital Southeast Connector JPA will construct certain Grant Line Road improvements, if the JPA is able to secure funding prior to the development projects' construction triggers.

Many of the existing off-site rural roadway segments that are identified to be widened by Cordova Hills include existing 12 kV power poles adjacent to the existing pavement. The cost to relocate the poles typically has to be borne by the development that causes the relocation to occur. Only when a project is a public roadway improvement project will SMUD relocate such power poles at its own cost. The off-site roadway segment and intersection widening estimates that Cordova Hills will be the applicant on (vs. being a public project) thus include the costs to relocate the power poles. For certain projects on Grant Line Road, the construction cost estimates do not include the costs to relocate power poles. For the projects between Douglas Road and University Boulevard, SMUD will be constructing a new 69 kV pole line to bring power to Cordova Hills. As part of this project, the existing 12 kV pole line along this segment of Grant Line Road will be abandoned. For the segment of Grant Line Road between Douglas Road and White Rock Road, Cordova Hills has agreed to fund shoulder widening at the time that 250 DUEs are constructed onsite. Because the County Department of Transportation will be the applicant for this particular project making it a public project, the cost to relocate the power poles will be borne by SMUD.

Table 3-3 includes the fair share funding percentage for the improvements for which Cordova Hills has a construction requirement. The fair share funding amount for these improvements is the amount Cordova Hills SFD would be required to reimburse to developers of other projects or public agencies if they built the improvement instead of Cordova Hills. The fair share amounts of these road improvements are used to establish a portion of the road fee in the Cordova Hills SFD. The Cordova Hills developer will be responsible for constructing the road improvements based on the construction trigger requirement. The developer will be partially reimbursed from the Cordova Hills SFD road fee and may receive further reimbursements from other funding programs as funding becomes available with the limitation noted earlier.

The fair share funding allocations are preliminary estimates. The funding responsibilities assigned to Cordova Hills may be reviewed and updated as the various financing programs are updated and the Cordova Hills SFD is implemented or as other financing programs are implemented.

Phase 1 of Cordova Hills has an estimated 1,750 dwelling units and 120,000 commercial building square feet. Using vehicle miles traveled (VMT) factors to estimated DUEs and allocate costs (see **Table 3-8** later in this chapter), Phase 1 development results in 1,683 DUEs. Assuming that no other development projects are underway, offsite roadway improvements constructed by Phase 1 of Cordova Hills would be those projects listed below the 1,800 DUE trigger.

The most significant financial hurdle following Phase 1 will occur when the Cordova Hills development reaches 3,200 DUEs. At this point, the construction cost for offsite roadway requirements could reach approximately \$55 million. Expenditures of \$41 million fall between 2,000 and 3,200 DUEs. The \$55 million represents roughly 70 percent of the total offsite road construction requirement. However, only about \$13 million, or roughly 40 percent of the development fee revenue would have been collected by this time. The resulting shortfall of approximately \$42 million occurs both because of this disparity between the percentages of costs incurred and fees collected and because the developer is also constructing road improvements that are potentially eligible for reimbursement from other funding programs and thus are not included in the Cordova Hills SFD funding program. Cordova Hills' construction cost requirement and resulting shortfall would be reduced if other regional development projects trigger and construct the roadways before Cordova Hills triggers them.

Then next significant financial hurdle will occur at 6,900 EDUs. At this point, 92 percent of the Cordova Hills construction responsibility cost might be incurred, but only about 84 percent of the Cordova Hills development will have contributed to the fee program.

At buildout, **Table 3-1** shows that the developer could have advanced approximately \$45 million, subject to future reimbursement. It is uncertain whether or not any of this reimbursement funding may be available before buildout to reduce the developer's out of pocket costs. It is also uncertain how much of this oversizing cost will ultimately be reimbursed.

Fair Share Only Improvements

Table 3-3 also includes the offsite roadway projects for which Cordova Hills has a fair share funding obligation but no construction responsibility. The Cordova Hills' funding obligation for these offsite road costs is met through the Cordova Hills SFD.

There are no phasing requirements for the roadway projects for which Cordova Hills has a fair share funding responsibility only. The fair share funding will be provided by the funding programs discussed below.

As with the construction responsibility improvements, the fair share funding allocations assigned to Cordova Hills will be reviewed and updated as the various financing programs are updated and the Cordova Hills SFD is implemented.

Funding Strategy

Summary

Cordova Hills' onsite and offsite backbone road costs will be funded through a combination of existing and proposed funding sources. These funding sources are described below.

Onsite Funding Sources

Onsite backbone roadway costs will be funded by the proposed Cordova Hills SFD. Most frontage improvements and most two-lane roads will be funded by private developers within the Cordova Hills. There are a few cases where two lane road segments or frontage along four lane road segments (listed in **Table 3-2**) are adjacent to open spaces on one or both sides of the road. Funding for these improvements is included in the Cordova Hills SFD financing program.

Offsite Funding Sources

There are a number of different road financing plans and fee programs that have some level of financial responsibility for the offsite road projects that are part of Cordova Hill's mitigation requirements. Cordova Hills has construction responsibility and fair share funding responsibility for many of these road projects and fair share funding responsibility only for others. All of these programs include periodic updates or major updates to reflect changed land use assumptions and funding responsibilities. Several updates to each of these programs may take place during the development period of the Cordova Hills project.

Table 3-4 shows the major road projects for which Cordova Hills has been assigned construction responsibility, as defined in the EIR Mitigation Measures. **Table 3-4** shows the major road segments that are identified in the SCTDF and other funding programs. **Table 3-4** also indicates if the road project is presently identified in an existing or proposed development impact fee programs or other financing programs. If funding is available from other sources, then Cordova Hills' financial contribution for construction may be reduced to only the Cordova Hills fair share. However, there is no certainty that funding will be available to offset construction costs or when funding may be available for eventual reimbursement. Information from these other funding programs is not detailed enough to identify the availability of funding for each specific Cordova Hills mitigation measure and is considered with other priorities within each program.

There is also considerable shared funding responsibility between the Sacramento County road funding programs and the Rancho Cordova road funding programs, particularly for segments of Grant Line Road and Jackson Highway. Furthermore, the Cordova Hills project has mitigation requirements for roads that are completely within the boundaries of Rancho Cordova and currently fully or partially funded by Rancho Cordova transportation fee programs. Similarly, projects proposed in Rancho Cordova may have mitigation requirements for roadway projects within the boundaries of Sacramento County.

To provide a mechanism to assure that developments in neighboring jurisdictions mitigate for the impacts, a Cross Jurisdictional Memorandum of Understanding (MOU) or a Reciprocal Funding Agreements is proposed. Sacramento County may develop MOUs with the cities of Rancho Cordova, Folsom and Elk Grove. A similar MOU with the City of Sacramento is already in place.

Table 3-4
Cordova Hills Financing Plan
Potential Funding Sources - Offsite Roads with DUE Thresholds for Construction Responsibility [1]

Mitigation Measure	Total Cost	Cordova Hills SFD	SCTDF	Measure A (Eligible for JPA SR-99/US-50 Connector Only)	Rancho Cordova Citywide Fee & Road Fee	Sunrise Douglas DIF	Teichert and Stonebridge Quarry
Grant Line Road							
White Rock Road to Douglas Road	\$19,942,154	X	X	X	X	X	X
Douglas Road to Kiefer Blvd	\$25,631,535	X	X	X	X	X	X
Kiefer Blvd To Jackson Road	\$16,927,300	X					
Grant Line Road at Sunrise Blvd	\$553,660	X					
Subtotal Grant Line Road	\$63,054,649	X	X	X	X	X	X
Jackson Road							
Sunrise Blvd to Grant Line Rd	\$7,199,700	X	X		X	X	
Other Mitigation							
School Access and North Loop Rd.	\$28,000	X					
Sunrise Blvd. at Jackson Rd. (SR-16)	\$2,516,900	X		X			
Bradshaw Rd. at Jackson Rd.	\$398,700						
Eagles Nest Rd. at Jackson Rd. (SR-16)	\$739,600	X					
Prairie City Rd- US 50 to White Rock Rd.	\$3,967,280	X					
Subtotal	\$7,650,480						
Total	\$77,904,829						

fund

[1] Potential funding sources are identified as funding sources in existing County and City fee programs.

[2] Total cost is the cost identified for the segments that Cordova Hills is required to construct. These amounts do not match the cost for the road segments identified in the other listed financing programs. The Cordova Hills' costs are in 2012 dollars. Many of the other programs have costs that are several years old. Also, the portion of the road segment that Cordova Hills may be required to construct may only be part of the complete road segments in the other funding programs.

The Cross Jurisdictional MOU or Reciprocal Funding Agreement would, in general terms, describe the intentions of Sacramento County and the City of Rancho Cordova to cooperate in the funding of road projects located in each jurisdiction that are impacted by development projects approved by the respective jurisdiction. The MOU or Agreement would provide a mechanism to collect for the impacts that the Cordova Hills project would have on the roads within the cities of Rancho Cordova, Elk Grove, and Folsom. The agreement would also cover the impacts on County roads caused by development projects approved by these other cities.

The County and Rancho Cordova may also enter into an agreement related to funding of roadways located on their shared boundary, such as Grant Line Road and Jackson Highway.

Offsite costs ultimately may be funded in part by the existing and new funding programs discussed above and more fully described below. Because of EIR mitigation measures, Cordova Hills may be required to construct and/or advance fund some offsite roadway improvements that have other funding sources (such as County fee programs or Rancho Cordova Fee Programs). Cordova Hills would then be eligible for reimbursements from these other sources. The details regarding these reimbursements are typically governed by reimbursement agreements for each road improvement.

Existing Funding Sources and Fee Programs

Cordova Hills will be required to pay fees in the following two existing roadway development impact fee programs:

- Measure A Sacramento Countywide Transportation Mitigation Fee Program (SCTMFP).
- Sacramento County Transportation Development Fee (SCTDF) Program.

In addition, other funding sources or programs may provide construction funding or reimbursement for some offsite mitigation measures:

- City of Rancho Cordova Transportation System Development Impact Fee Program.
- Sunrise Douglas Community Plan (Rancho Cordova) Development Impact Fee Program.
- Teichert Quarry and Stonebridge Quarry Mitigation Programs.

The funding programs listed above are updated periodically by the responsible jurisdiction. These programs may need to be updated in the next few years with the exception of the Measure A SCTMFP, which is a voter approved fee program.

Measure A SCTMFP

Cordova Hills' development will participate in the SCTMFP. In November 2004, Sacramento County voters approved Measure A implementing a transportation development impact fee. The fee is used to fund Measure A capital projects in the local jurisdictions where the fees are generated. The only Measure A project that is also linked to the Cordova Hills Mitigation Measures is the Capital Southeast Connector which is an alternative road project for the construction of Grant Line Road as a 4 lane expressway. If Cordova Hills constructs portions of the Capital Southeast Connector, then Cordova Hills may be eligible for Measure A reimbursements. **Table 3-5** estimates the SCTMFP fee revenue generated from Cordova Hills at completion of Phase 1 development and at buildout.

Table 3-5
Cordova Hills Financing Plan
Measure A Sacramento Countywide Transportation Mitigation Fee Revenue (2011\$)

Item	Fee per Unit/ Bldg. Sq. Ft.	Phase 1		Buildout	
		Dwelling Units/ Building Sq. Ft.	Total Fee Revenue	Dwelling Units/ Building Sq. Ft.	Total Fee Revenue
Residential Land Uses					
Estates Residential	\$ 1,040	0	\$ 0	138	\$ 143,325
Low Density Residential	\$ 1,040	290	\$ 301,600	1,809	\$ 1,881,750
Medium Density Residential	\$ 1,040	760	\$ 790,400	3,061	\$ 3,183,375
Residential 20	\$ 728	150	\$ 109,200	833	\$ 606,060
High Density Residential	\$ 728	550	\$ 400,400	1,659	\$ 1,208,025
Total Residential Land Uses		1,750	\$ 1,601,600	7,500	\$ 7,022,535
Nonresidential Land Uses					
Commercial	\$ 3.85	120,000	\$ 462,480	654,860	\$ 2,523,830
Office	\$ 1.25	0	\$ 0	196,540	\$ 245,478
Total Commercial		120,000	\$ 462,480	851,400	\$ 2,769,309
University/College Campus Center [1]	\$ 728	115	\$ 83,720	1,110	\$ 808,080
Total Measure A Fee (Rounded)			\$ 2,060,000		\$ 10,600,000

ma fee

Source: Sacramento Transportation Authority, July 2011.

[1] Multifamily rate used for university/college campus center.

SCTDF Fee Program

Cordova Hills' development is located in District 3 of the SCTDF Fee Program. **Table 3-6** estimates the SCTDF fee revenue from Cordova Hills at completion of Phase 1 development and at buildout. Cordova Hills will generate an estimated \$66.9 million in SCTDF fee revenue at buildout. **Table 3-6** assumes the estimated SCTDF fee after adjusting for potential fee credits. The fee credit is for the portion of SCTDF road costs that have also been included in the Cordova Hills SFD road program to avoid double charging for an improvement. These roadway costs and the resulting total SCTDF credit amount are detailed in **Table 3-14** at the end of this chapter. **Table 3-7** estimates the number of DUEs and calculates a fee credit per DUE as well as the percent of the SCTDF fee per DUE that the credit represents. The fees in **Table 3-6** are adjusted by this credit percentage.

The current SCTDF rates are set at one-third of the full rates. The full rates are being phased in and are planned to go into effect in March of 2013. The fee estimates in **Table 3-6** assume the 2013 implementation of the full fee adjusted by the fee credit.

The SCTDF Fee Program is scheduled for periodic updates every five years or when there is a major change in assumptions, such as a comprehensive update in the General Plan or when a large new specific plan is approved. The SCTDF was last updated in March 2010.

City of Rancho Cordova Transportation System Development Impact Fee Program

The City of Rancho Cordova's transportation system development impact fee (RCTSDIF) funds more than \$1.263 billion in needed and desired capital improvement projects through the City's 2030 General Plan buildout. Capital improvements include arterial and collector streets, bridges, intersection and interchange improvements, and other miscellaneous projects. Roughly 93 percent, or \$1.164 billion, of the total project list is designated as necessary as the result of, or to accommodate, continued residential and business development. The remaining share represents funding for existing deficiency projects that would be needed regardless of any future development.

Sunrise Douglas Community Plan (Rancho Cordova) Development Impact Fee Program

The Sunrise Douglas Community Plan (SDCP) Development Impact Fee Program (SDCP Fee Program) includes a roadway component that funds \$116.5 million in roadway improvement costs that are required to serve new development in the SDCP. The projects include widening of major onsite and offsite roadway segments, intersection improvements and signalization, median improvements, drainage culverts, landscaping, and right-of-way land acquisition. **Table B-1 of Appendix B** in the July 22, 2005, SDCP Fee Program Nexus Study identifies the 103 roadway projects in the SDCP CIP.

Sunrise Douglas development projects are subject to both the SDCP Fee Program and the RCTSDIF Program. However, the fees are not overlapping, so a Sunrise Douglas development project will pay the total amount of the citywide fee in two components—the citywide component and the Sunrise Douglas component.

Teichert Quarry and Stonebridge Quarry Mitigation Programs

Traffic mitigation programs were recently adopted for the Teichert Quarry and Stonbridge Quarry projects located in Eastern Sacramento County. These quarry projects are obligated to fund

Table 3-6
Cordova Hills Financing Plan
SCTDF Fee Revenue (2011\$)

Item	Fee per Unit / Bldg. Sq. Ft. / Student			Phase 1		Buildout	
	Total	Less	Fee After	Units	Total Fee	Units	Total Fee
	Fee	Credit [2]	Credit				
	<i>district 3</i>						
<hr/>							
Credit Percentage [1]		16.2%					
Residential Land Uses	<i>per unit</i>			<i>dwelling units</i>		<i>dwelling units</i>	
Estates Residential	\$ 11,337	(\$ 1,834)	\$ 9,503	0	\$ 0	138	\$ 1,309,674
Low Density Residential	\$ 9,690	(\$ 1,567)	\$ 8,122	290	\$ 2,355,523	1,809	\$ 14,696,636
Medium Density Residential	\$ 9,690	(\$ 1,567)	\$ 8,122	760	\$ 6,173,095	3,061	\$ 24,862,444
Residential 20	\$ 5,911	(\$ 956)	\$ 4,955	150	\$ 743,206	833	\$ 4,124,791
High Density Residential	\$ 5,911	(\$ 956)	\$ 4,955	550	\$ 2,725,087	1,659	\$ 8,221,711
Total Residential Land Uses				1,750	\$ 11,996,910	7,500	\$ 53,215,255
Nonresidential Land Uses	<i>per bldg. sq. ft.</i>			<i>bldg. sq. ft.</i>		<i>bldg. sq. ft.</i>	
Commercial	\$ 10.85	(\$ 1.76)	\$ 9.09	120,000	\$ 1,091,396	654,860	\$ 5,955,930
Office	\$ 11.15	(\$ 1.80)	\$ 9.35	0	\$ 0	196,540	\$ 1,836,949
Total Commercial				120,000	\$ 1,091,396	851,400	\$ 7,792,880
University/College Campus Center [2]	<i>per student</i>			<i>students</i>		<i>students</i>	
	\$ 1,163	(\$ 188)	\$ 975	600	\$ 584,822	6,000	\$ 5,848,223
Total SCTDF Fee					\$ 13,670,000		\$ 66,860,000

sctdf fee

Source: Sacramento County SCTDF fee program, updated March 2011.

[1] See Table 3-7.

[2] Preliminary estimate of fee credit. Fee credit will be finalized at implementation.

[3] Private school rate used for university/college campus center.

several mitigation measures that are also included in the mitigation measures for Cordova Hills. It is uncertain when the quarry mitigation programs would construct the road projects that are mitigation requirements for both the quarry projects and Cordova Hills.

The Quarry projects are not obligated to reimburse others for improvements made towards a Quarry mitigation measure. However, it is possible that a Quarry Project may construct a common mitigation measure in advance of Cordova Hills being required to construct the same improvement thereby removing Cordova Hills' mitigation obligation.

The Teichert Quarry Roadway Mitigation Program includes \$17.2 million in fair share cost allocations. Project mitigation measures include signalization and roadway expansions. Major projects include converting Grant Line Road from White Rock Road to Douglas Road and White Rock Road from Scott Road West to Scott Road East into four lane arterials.

The Stonebridge Quarry mitigation program includes \$25.2 million in fair share cost allocations. Project mitigation measures include signalization and roadway expansions. Major projects include converting Grant Line Road from White Rock Road to Douglas Road, Grant Line Road from Douglas Road to Kiefer Road, and White Rock Road from Scott Road West to Scott Road East into four lane arterials.

Proposed Funding Programs

The following two new funding programs are proposed:

- Cordova Hills Special Financing District.
- Folsom SOI Mitigation Monitoring Program.

Proposed Cordova Hills SFD

Cordova Hills' fair share funding responsibility for road projects will be funded through the proposed Cordova Hills SFD. The Cordova Hills SFD will fund all of the major backbone road projects within the Cordova Hills' project and portions of the costs of the offsite mitigation requirement. The Cordova Hills SFD will likely include Mello-Roos Community Facilities District bond-funding or development impact fees. The Cordova Hills developer will be required to construct many of the road projects prior to the availability of revenues generated by the Cordova Hills SFD. These funding advances may be reimbursed in part through fee credits or direct reimbursements from the Cordova Hills SFD for improvements included in the Cordova Hills SFD programs.

Folsom SOI Mitigation Monitoring Program

The City of Folsom recently approved the Folsom SOI project located south of Highway 50. The Folsom SOI project has some roadway mitigation requirements for Grant Line Road. The project's financing program will include development impact fees or some other financing mechanism to fund the identified mitigation requirements. The Folsom SOI Financing Plan is being prepared by the Folsom SOI developers and the City of Folsom.

Funding For Frontage Improvements and Sawtooth Road Policy

The full completion of roadway segments is dependent on developers on both sides of the roadway completing their frontage sections. Contiguously completed segments are dependent on all property owners along the route. Thus, noncontiguous development caused by incongruent development timing and, in some cases, property owners that never plan to develop, results in roadways of varying widths and a mixture of improvement conditions that create traffic “bottlenecks” and a lack of continuity for vehicles, bicycles, and pedestrians. These non-contiguous roadway segments are commonly referred to as “sawtooth road frontage”. In addition to the aesthetic and convenience issues, these unfinished roadway segments can present safety problems for vehicles, bicycles, and pedestrians within those transportation corridors.

Onsite roadways within Cordova Hills shall be subject to the requirements of the County policy concerning discontinuous roadway frontage improvements (“sawtooth”). Unless otherwise noted, Cordova Hills shall install roadway frontage improvements along logical segments of at least one-quarter mile in length, including the project’s frontage. If the length of the project’s conditioned onsite frontage improvements on a single roadway is equal to or greater than one-quarter mile in length, then the project will be deemed to have satisfied the logical segment condition for that roadway. If the project’s onsite frontage improvements are less than one-quarter mile, the project shall install additional offsite frontage improvements in order to satisfy the logical segment condition. The location of limits of such onsite frontage improvements will be determined at the time of the improvements’ plan approval and to the satisfaction of the Department of Transportation. Onsite frontage improvements shall include the construction of the outside travel lane, bike lane or NEV lane, finished roadway edge, and a pedestrian walkway, all as per applicable Cordova Hills’ roadway cross section.

Frontage improvements adjacent to development projects are typically funded privately and the costs are not included in the development impact fee programs prior to the enforcement of the logical segment condition. Since enactment of the policy, in some County planning areas, the County has included a “frontage lane fee” component in the plan area fee. Due to the logical segment policy, fronting developments are often required to acquire right-of-way and construct frontage improvements beyond their project limits. A frontage fee helps lessen the burden on developments that have frontage construction requirements by allowing reimbursements from fees collected from the remainder of the development area. However, this is not proposed for Cordova Hills because the entire project is controlled by the master developer. As a result, the frontage improvement cost burden can be factored into the land value for the individual subdivisions. In summary, the homebuilders will be constructing the logical segments, including portions beyond their project limits, along with their subdivisions, and will not receive reimbursements from any fee—they will take this obligation into account when they purchase subdivisions from the master developer.

There are some exceptions where frontage improvements are included in the SCTDF Program. However, none of the Cordova Hills road mitigation projects have frontage funding included in the SCTDF.

Cordova Hills Special Financing District

Cost Allocation

The Cordova Hills offsite and onsite roadway costs are allocated to the various land uses based on the land uses' relative usage. **Table 3-8** shows the allocation factors used to estimate relative roadway usage and fairly allocate costs to the Cordova Hills land uses. The roadway costs are allocated based on DUEs for residential dwelling units, non-residential building square feet, and university/college campus center students. Separate buildout cost allocations are performed for the onsite and offsite roadway costs. **Table 3-9** shows the buildout onsite roadway cost allocation and the resulting cost per dwelling unit for residential land uses, per building square foot for the nonresidential land uses, and in total for the university/college campus center. **Table 3-10** shows the same information for the buildout offsite roadway costs.

Phase 1 Revenue

The cost per dwelling unit and building square foot factors at buildout from **Table 3-9** and **Table 3-10** are used to calculate the Cordova Hills SFD revenue for both Phase 1 and Buildout. The buildout cost allocations are the basis for estimating the fee revenue in the SFD for both Phase 1 and Buildout.

Table 3-11 shows the estimated Phase 1 Cordova Hills SFD revenue for onsite roadway improvements. **Table 3-12** shows the estimated Phase 1 Cordova Hills SFD revenue for offsite roadway improvements.

SCTDF Credits and Reimbursements

Cordova Hills' development must pay SCTDF fees as well as Cordova Hills SFD fees. Some offsite road improvements may be partially funded in both the SCTDF Program and the Cordova Hills SFD program. To avoid double counting of the fees collected for roadway projects, it is proposed that the Cordova Hills development will receive SCTDF credits for improvements that are included in both programs. A fee credit of 16.2 percent is estimated at this time. This estimate is preliminary and will be finalized when the Cordova Hills SFD program is implemented. As discussed previously, this fee credit is estimated in **Table 3-7** and is based on the SCTDF funding for Cordova Hills' offsite road mitigation projects shown in **Table 3-3**. The reduction in the SCTDF Fee ("fee credit") will reduce the amount of funding available for future reimbursement.

Table 3-13 shows the adjusted total roadway cost burden for a single family unit, including the SFD fee for onsite and offsite roads and the net SCTDF fee after the adjustment for road projects also funded in the SFD. This is a preliminary calculation and will be finalized when the SFD program is implemented. **Table 3-14** provides the backup detail for calculating the SCTDF credit. It includes all the road improvements included in both the SCTDF Program and the Cordova Hills SFD Program and estimates the credit to be received for each improvement. The total credit for all improvements is divided by the total number of DUEs to arrive at an estimated credit per DUE.

Table 3-8
Cordova Hills Financing Plan
Road Cost Allocation Factors [1]

Land Use	Pct of Total DUEs	PM Peak Hour Trips per Unit	Trip Length	Pct. New Trips	VMT per Unit	DUEs per Unit	Phase 1 DUEs		Buildout DUEs	
							Units/ Sq. Ft.	DUEs	Units/ Sq. Ft.	DUEs
<i>formula</i>		<i>a</i>	<i>b</i>	<i>c</i>	<i>d=a*b*c</i>	<i>e</i>				
Residential Land Uses		<u>per dwelling unit</u>				<u>per dwelling unit</u>	<u>dwelling units</u>		<u>dwelling units</u>	
Estates Residential (1-7 units/acre)		1.18	5.0	100%	5.90	1.17	0	0	138	161
Low Density Residential (4-7 units/acre)		1.01	5.0	100%	5.05	1.00	290	290	1,809	1,809
Medium Density Residential (7-15 units/acre)		1.01	5.0	100%	5.05	1.00	760	760	3,061	3,061
Residential 20 (15-23 units/acre)		0.62	5.0	100%	3.10	0.61	150	92	833	508
High Density Residential (23-30 units/acre)		0.62	5.0	100%	3.10	0.61	550	336	1,659	1,012
Total Residential Land Uses							1,750	1,477	7,500	6,552
Nonresidential Land Uses		<u>per 1,000 bldg. sq. ft.</u>				<u>per 1,000 bldg. sq. ft.</u>	<u>bldg. sq. ft.</u>		<u>bldg. sq. ft.</u>	
Commercial		6.26	1.8	50%	5.63	1.12	120,000	134	654,860	733
Office		1.40	4.5	92%	5.80	1.15	0	0	196,540	226
Total Commercial							120,000	134	851,400	959
Total University/College Campus Center		<u>per student</u>					<u>students</u>			
		0.17	4.3	80%	0.58	0.12	600	72	6,000	720
TOTAL DUES								1,683		8,231

due roads

[1] Peak hour trips per dwelling unit/bldg. sq. ft., trip length, pct. new trips, and VMT per dwelling unit/bldg. sq. ft. are based on factors used by DKS Associates in the SCTDF Final Report (November 2008).

[2] Private school factors from SCTDF Final Report are used for the university/college campus center.

Table 3-9
Cordova Hills Financing Plan
Cordova Hills SFD Onsite Road Cost Allocation at Buildout (2011\$)

Item	Land Use		Cost Allocation Basis			Road Cost Allocation at Buildout		
	Acres	Units/ Sq. Ft.	DUEs per Unit [1]	Total DUEs [1]	Percentage Distribution	Total Cost	Cost per Acre	Cost per Unit/Sq. Ft.
Residential Land Uses		<u>units</u>						<u>per dwelling unit</u>
Estates Residential	64.7	138	1.17	161	2.0%	\$ 972,804	\$ 15,036	\$ 7,059
Low Density Residential	491.1	1,809	1.00	1,809	22.0%	\$ 10,916,401	\$ 22,227	\$ 6,033
Medium Density Residential	386.8	3,061	1.00	3,061	37.2%	\$ 18,467,383	\$ 47,750	\$ 6,033
Residential 20	61.5	833	0.61	508	6.2%	\$ 3,063,832	\$ 49,818	\$ 3,680
High Density Residential	84.6	1,659	0.61	1,012	12.3%	\$ 6,106,963	\$ 72,222	\$ 3,680
Total Residential Land Uses	1,088.6	7,500		6,552	79.6%	\$ 39,527,383		
Nonresidential Land Uses		<u>bldg. sq. ft.</u>						<u>per bldg. sq. ft.</u>
Commercial	72.6	654,860	1.12	733	8.9%	\$ 4,425,042	\$ 60,970	\$ 6.76
Office	30.7	196,540	1.15	226	2.7%	\$ 1,363,640	\$ 44,446	\$ 6.94
Total Commercial	103.3	851,400		959	11.7%	\$ 5,788,682		
University/College Campus Center		<u>bldg. sq. ft.</u>						<u>per bldg. sq. ft.</u>
		1,870,000	0.12	720	8.7%	\$ 4,343,936		\$ 2.32
TOTAL [2]				8,231	100%	\$ 49,660,000		

alloc road

[1] See Table 3-8.

[2] See Table 3-1 for total onsite costs.

Table 3-10
Cordova Hills Financing Plan
Cordova Hills SFD Offsite Road Cost Allocation at Buildout (2011\$)

Item	Land Use		Cost Allocation Basis			Road Cost Allocation at Buildout			Cost per Unit/Sq. Ft.	
	Acres	Units/ Sq. Ft.	DUEs per Unit [1]	Total DUEs [1]	Percentage Distribution	Total Cost	Cost per Acre	Cost per Unit/Sq. Ft.	Fair Share	Construction Requirement
Residential Land Uses		<u>units</u>						<u>per dwelling unit</u>	38%	62%
Estates Residential	64.7	138	1.17	161	2.0%	\$ 1,049,790	\$ 16,226	\$ 7,618	\$ 2,923	\$ 4,695
Low Density Residential	491.1	1,809	1.00	1,809	22.0%	\$ 11,780,305	\$ 23,986	\$ 6,511	\$ 2,498	\$ 4,013
Medium Density Residential	386.8	3,061	1.00	3,061	37.2%	\$ 19,928,857	\$ 51,529	\$ 6,511	\$ 2,498	\$ 4,013
Residential 20	61.5	833	0.61	508	6.2%	\$ 3,306,298	\$ 53,761	\$ 3,972	\$ 1,524	\$ 2,448
High Density Residential	84.6	1,659	0.61	1,012	12.3%	\$ 6,590,256	\$ 77,937	\$ 3,972	\$ 1,524	\$ 2,448
Total Residential Land Uses	1,088.6	7,500		6,552	79.6%	\$ 42,655,506				
Nonresidential Land Uses		<u>bldg. sq. ft.</u>						<u>per bldg. sq. ft.</u>		
Commercial	72.6	654,860	1.12	733	8.9%	\$ 4,775,231	\$ 65,795	\$ 7.29	\$ 2.80	\$ 4.49
Office	30.7	196,540	1.15	226	2.7%	\$ 1,471,556	\$ 47,963	\$ 7.49	\$ 2.87	\$ 4.61
Total Commercial	103.3	851,400		959	11.7%	\$ 6,246,787				
University/College Campus Center		<u>bldg. sq. ft.</u>						<u>per bldg. sq. ft.</u>		
		1,870,000		720	8.7%	\$ 4,687,707		\$ 2.51	\$ 0.96	\$ 1.55
TOTAL [2]				8,231	100%	\$ 53,590,000				

alloc road off

[1] See Table 3-8.

[2] See Table 3-1 for total onsite costs.

Table 3-11
Cordova Hills Financing Plan
Cordova Hills SFD Phase 1 Onsite Road Cost Allocation (2011\$)

Item	Cost per Unit [1]	Phase 1 Units	Phase 1 Cost Allocation
Residential Land Uses			
	<i>per dwelling unit</i>	<i>dwelling units</i>	
Estates Residential	\$ 7,059	0	\$ 0
Low Density Residential	\$ 6,033	290	\$ 1,749,641
Medium Density Residential	\$ 6,033	760	\$ 4,585,265
Residential 20	\$ 3,680	150	\$ 552,042
High Density Residential	\$ 3,680	550	\$ 2,024,153
Total Residential Land Uses		1,750	\$ 8,911,101
Nonresidential Land Uses			
	<i>per bldg. sq. ft.</i>	<i>bldg sq. ft.</i>	
Commercial	\$ 6.76	120,000	\$ 810,868
Office	\$ 6.94	0	\$ 0
Total Commercial		120,000	\$ 810,868
University/College Campus Center			
	<i>per bldg. sq. ft.</i>	<i>bldg sq. ft.</i>	
	\$ 2.32	344,000	\$ 799,098
TOTAL (Rounded) [2]			\$ 10,520,000

road alloc ph1

[1] See Table 3-9 for Cordova Hills SFD onsite roads cost per unit.

[2] Represents allocation of Phase 1 funding for onsite roadways generated by Cordova Hills SFD road fee.

Table 3-12
Cordova Hills Financing Plan
Cordova Hills SFD Phase 1 Offsite Road Cost Allocation (2011\$)

Item	Pct.	Cost per Unit [1]	Phase 1 Units	Phase 1 Cost Allocation
Residential Land Uses				
		<u>per dwelling unit</u>	<u>dwelling units</u>	
Estates Residential		\$ 7,618	0	\$ 0
Low Density Residential		\$ 6,511	290	\$ 1,888,104
Medium Density Residential		\$ 6,511	760	\$ 4,948,135
Residential 20		\$ 3,972	150	\$ 595,729
High Density Residential		\$ 3,972	550	\$ 2,184,341
Total Residential Land Uses			1,750	\$ 9,616,309
Nonresidential Land Uses				
		<u>per bldg. sq. ft.</u>	<u>bldg sq. ft.</u>	
Commercial		\$ 7.29	120,000	\$ 875,039
Office		\$ 7.49	0	\$ 0
Total Commercial			120,000	\$ 875,039
University/College Campus Center				
		<u>per bldg. sq. ft.</u>	<u>bldg sq. ft.</u>	
		\$ 2.51	344,000	\$ 862,337
TOTAL (Rounded) [2]				\$ 11,350,000
Cordova Hills SFD Offsite Roads Revenue Allocation (Rounded) [3]				
Fair Share Responsibility	38%			\$ 4,354,703
Construction Requirement	62%			\$ 6,995,913
Total Offsite Roads Cost				\$ 11,350,000

road alloc ph1 off

- [1] See Table 3-10 for Cordova Hills SFD offsite nsite roads cost per unit.
 [2] Represents allocation of Phase 1 funding for offsite roadways generated by Cordova Hills SFD road fee.
 [3] Allocation of Cordova Hills SFD offsite roads revenue between fair share responsibility and construction requirement improvements based on percentages of total offsite costs for each typ of improvement. See Table 3-1 for percentages.

Table 3-13
Cordova Hills Financing Plan
Cordova Hills Roads Cost Burden - Low Density Unit

Item	Roads Cost Burden per Low Density Unit
Cordova Hills SFD	
Onsite Roads	\$ 6,033
Offsite Roads - Fair Share Responsibility Only	\$ 2,498
Offsite Roads - Construction Requirement - Fair Share	\$ 4,013
Total	\$ 12,544
SCTDF per Low Density Unit	
Fee per Low Density Unit	\$ 9,690
Less SCTDF Credit	(\$ 1,567)
Net SCTDF	\$ 8,122
SCTDF Estimated Credit Percentage	16.2%
Total Cordova Hills SFD and SCTDF Cost per Low Density Unit	\$ 20,666
Construction Requirement Above Fair Share-Reimbursable [1]	\$ 5,453
Gross Cost per Low Density Unit Including Reimbursable Amount	\$ 26,119

burden

[1] Construction Requirement Above Fair Share is the estimated cost per unit that Cordova Hills developers are advancing to pay for the construction of roadway improvements required by the mitigation monitoring program that are beyond Cordova Hills' fair share. Cordova Hills may be reimbursed at some time from other funding programs. This amount is not included in the proposed Cordova Hills SFD fee for roads.

Table 3-14
Cordova Hills Financing Plan
SCTDF Credit

Seg.	COA	Description	Fair Share Cost	Pct of Fair Share Cost	Pct of Miles Shared with Rancho Cordova	Pct of Roadway Funded by Rancho Cordova	Pct for SCTDF Credit	SCTDF Credit	Adjustment for Seg. 12	Adjusted SCTDF Credit
<i>formula</i>			<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e=b*(1-c*d)</i>	<i>f=a*e</i>	<i>g</i>	<i>f+g</i>
1	Grant Line Rd - White Rock to Douglas									
14		Grant Line- Douglas Rd to White Rock Rd	\$5,759,424	100%	65%	50%	68%	\$3,887,611		
27		Grant Line- Douglas Rd to White Rock Rd	\$2,209,547	100%	65%	50%	68%	\$1,491,444		
		Subtotal	\$7,968,971					\$5,379,055	\$272,774	\$5,651,829
2	Grant Line Rd - Douglas to Kiefer									
18		Grant Line- North Loop to Glory Lane	\$165,404	50%	100%	50%	25%	\$41,351		
18		Grant Line- Glory Lane to Douglas Rd	\$581,348	50%	100%	50%	25%	\$145,337		
32		Grant Line- North Loop to Douglas Rd	\$1,172,590	100%	100%	50%	50%	\$586,295		
20		Grant Line Rd. at Kiefer Blvd.	\$354,974	50%	100%	50%	25%	\$88,744		
26		Grant Line- Kiefer Blvd to Univ. Blvd	\$5,035,608	100%	100%	50%	50%	\$2,517,804		
38		Grant Line- Kiefer Blvd to Univ. Blvd	\$4,461,129	100%	100%	50%	50%	\$2,230,565		
34		Grant Line- Univ. Blvd to Chrysanthy Blvd	\$977,235	100%	100%	50%	50%	\$488,618		
35		Grant Line- Chrysanthy Blvd to North Loop	\$468,800	100%	100%	50%	50%	\$234,400		
		Subtotal	\$13,217,087					\$6,333,112	\$272,774	\$6,605,887
3	Jackson Rd - Grant Line to Sunrise									
33		Jackson Rd- Sunrise Blvd to Grant Line Rd	\$1,151,952	100%	100%	50%	50%	\$575,976		
4	Eagles Nest - Kiefer to Jackson									
28		Eagles Nest Rd. at Jackson Rd. (SR-16)	\$51,772	50%	0%	0%	50%	\$25,886		
5	Sunrise Blvd - Florin to Grant Line									
29		Grant Line Rd. at Sunrise Blvd.	\$83,049	50%	0%	0%	50%	\$41,525		
12	Grant Line Rd - White Rock to Douglas (split evenly between 1 and 2)									
16		Grant Line Rd. at Douglas Rd.	\$646,879	50%	100%	50%	25%	\$161,720		
17		Grant Line Rd. at Douglas Rd.	\$423,443	100%	100%	50%	50%	\$211,721		
30		Grant Line Rd. at Douglas Rd.	\$344,215	100%	100%	50%	50%	\$172,108		
		Subtotal	\$1,414,537					\$545,549	(\$545,549)	\$0
		TOTAL	\$23,887,367					\$12,901,102	\$0	\$12,901,102

Source: DOT

SCTDF cr

In addition to granting Cordova Hills the estimated SCTDF fee credit described above, the County has also committed to providing \$800,000 of SCTDF funding to facilitate the early construction of the intersection improvements at Sunrise and Jackson (as discussed earlier). The County will provide this funding in the form of full SCTDF credits until \$800,000 is reached. That is, Cordova Hills development will not be required to pay any SCTDF fees until it has used \$800,000 in fee credits.

4. *SANITARY SEWER*

In January 2012, Sacramento Area Sewer District's (SASD's) Board of Directors approved an SASD Sewer System Capacity Plan 2010 Update that outlines the District's most current mid-range and long-term plan for sewer service to the Cordova Hills area. Sacramento Regional County Sanitation District (SRCSD) is in the process of finalizing its own Interceptor Sequencing Study that will aid SRCSD in planning and implementing regional conveyance projects based on SASD's local collection plans.

SRCSD's regional Interceptor facilities will convey sewage from local trunk sewers to the Sacramento Regional Wastewater Treatment Plant (SRWTP) located near the Sacramento River in Elk Grove. Cordova Hills is located outside of the SASD and SRCSD service areas and will thus need to be annexed into both of these service areas through LAFCO in order to receive sewer service.

The annexation process is to be initiated by the Project applicant. Once annexed, the Project proponents will pay the applicable sewer impact fees and construct the required onsite and offsite local collection and trunk conveyance facilities in order to receive service. SRCSD constructs the regional interceptor facilities. Based on the most current planning documents, Cordova Hills will ultimately be served by the SRCSD Douglas Interceptor (DI). This Financing Plan is consistent with the most current SASD and SRCSD planning documents (SASD and SRCSD East Rancho Mid-Range Plans and SASD System Capacity Plan).

Facility Costs

Recommended Scenario

Table 4-1 details the Phase 1 and buildout backbone sanitary sewer trunk facilities and costs for a likely sewer system scenario based on the SRCSD current planning documents. This scenario is referred to in this Financing Plan as the PFFP Services Scenario.

Note that the costs in **Table 4-1** include the costs of an initial pump station with a capacity of 5.6 million gallons a day (mgd), which is sufficient to meet Cordova Hills demand through Phase 2 development. SASD's current recommendation results in the initial pump station being designed to a capacity of 7.13 mgd, which is sufficient to extend service beyond Cordova Hills Phase 2. Once the 7.13 mgd capacity is reached through partial buildout of Phase 3 of Cordova Hills or the western trunk sewer within Cordova Hills is built, the second pump station south of Cordova Hills (with a design capacity of 3.87 mgd) will need to be built.

Also, note that trunk sewer lines typically carry a flow between 1 million gallons a day (mgd) and 10 mgd, whereas local sewer collection facilities carry a flow less than 1 mgd. The backbone sewer infrastructure costs included in this Financing Plan do not include the costs of any local collection facilities.

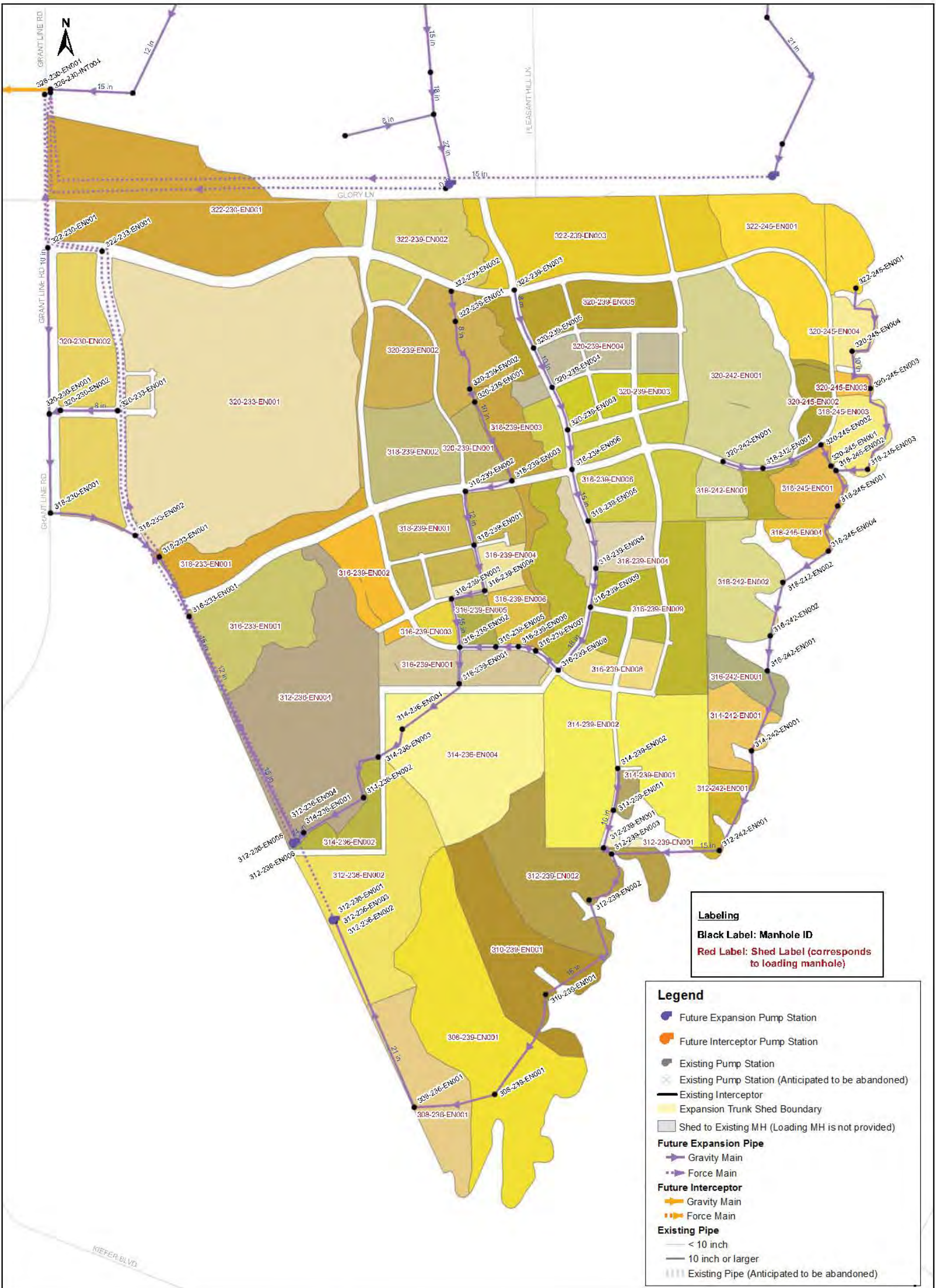
Map 4-1 shows all SASD planned trunk facilities at buildout of SASD Area 4, which includes Cordova Hills. The backup data for this map is provided in **Table 4-6** at the end of this chapter. **Map 4-2** shows the onsite and offsite infrastructure phasing plan for the PFFP Services Scenario.

Table 4-1
Cordova Hills Financing Plan
Estimated Sanitary Sewer Facility Costs (2011\$)

Item	Unit Cost	Unit	Quantity	Phase 1			Buildout			
				Subtotal Cost	Contingencies & Soft Cost [1]	Total Sewer Cost	Quantity	Subtotal Cost	Contingencies & Soft Cost [1]	Total Sewer Cost
Percentage				35%			35%			
On-Site Costs										
Sanitary Sewer, 10" Trunk (16-20' Deep)	\$ 210	LF	0	\$ 0	\$ 0	\$ 0	650	\$ 136,500	\$ 47,775	\$ 184,275
Sanitary Sewer, 12" Trunk (20-24' Deep)	\$ 260	LF	0	\$ 0	\$ 0	\$ 0	891	\$ 231,660	\$ 81,081	\$ 312,741
Sanitary Sewer, 15" Trunk (16-20' Deep)	\$ 275	LF	0	\$ 0	\$ 0	\$ 0	2,295	\$ 631,125	\$ 220,894	\$ 852,019
Sanitary Sewer, 15" Trunk (20-24' Deep)	\$ 300	LF	1,965	\$ 589,500	\$ 206,325	\$ 795,825	6,373	\$ 1,911,900	\$ 669,165	\$ 2,581,065
Sanitary Sewer, 15" Trunk (24-28' Deep)	\$ 325	LF	5,643	\$ 1,833,975	\$ 641,891	\$ 2,475,866	12,024	\$ 3,907,800	\$ 1,367,730	\$ 5,275,530
Sanitary Sewer, 15" Trunk (32' Deep)	\$ 390	LF	1,080	\$ 421,200	\$ 147,420	\$ 568,620	1,080	\$ 421,200	\$ 147,420	\$ 568,620
Sanitary Sewer, 18" Trunk (8-16' Deep)	\$ 285	LF	0	\$ 0	\$ 0	\$ 0	1,146	\$ 326,610	\$ 114,314	\$ 440,924
Sanitary Sewer, 18" Trunk (24-28' Deep)	\$ 370	LF	0	\$ 0	\$ 0	\$ 0	4,393	\$ 1,625,410	\$ 568,894	\$ 2,194,304
Sanitary Sewer, 21" Trunk (20-24' Deep)	\$ 385	LF	0	\$ 0	\$ 0	\$ 0	583	\$ 224,455	\$ 78,559	\$ 303,014
Sanitary Sewer, 21" Trunk (28' Deep)	\$ 415	LF	0	\$ 0	\$ 0	\$ 0	6,467	\$ 2,683,805	\$ 939,332	\$ 3,623,137
Sanitary Sewer, 24" Trunk (8-16' Deep)	\$ 365	LF	0	\$ 0	\$ 0	\$ 0	3,426	\$ 1,250,490	\$ 437,672	\$ 1,688,162
Sanitary Sewer, 24" Trunk (16-20' Deep)	\$ 390	LF	0	\$ 0	\$ 0	\$ 0	650	\$ 253,500	\$ 88,725	\$ 342,225
Sanitary Sewer, 24" Trunk (20-24' Deep)	\$ 420	LF	0	\$ 0	\$ 0	\$ 0	590	\$ 247,800	\$ 86,730	\$ 334,530
Sanitary Sewer, 24" Trunk (24-28' Deep)	\$ 450	LF	0	\$ 0	\$ 0	\$ 0	22	\$ 9,900	\$ 3,465	\$ 13,365
Sanitary Sewer, 27" Trunk (16-20' Deep)	\$ 420	LF	43	\$ 18,060	\$ 6,321	\$ 24,381	43	\$ 18,060	\$ 6,321	\$ 24,381
12-inch Force Main (to Douglas / Grant Line)-Undeveloped	\$ 180	LF	0	\$ 0	\$ 0	\$ 0	4,934	\$ 888,120	\$ 310,842	\$ 1,198,962
12-inch Force Main (to Douglas / Grant Line)-w/ Pavement Restoration	\$ 280	LF	0	\$ 0	\$ 0	\$ 0	10,066	\$ 2,818,480	\$ 986,468	\$ 3,804,948
16-inch Force Main (to intersection of Glory Lane / Grant Line Rd.)	\$ 245	LF	11,899	\$ 2,915,255	\$ 1,020,339	\$ 3,935,594	11,899	\$ 2,915,255	\$ 1,020,339	\$ 3,935,594
Pump Station (312-236-EN006)	\$ 1,800,000	LS	1	\$ 1,800,000	\$ 630,000	\$ 2,430,000	1	\$ 1,800,000	\$ 630,000	\$ 2,430,000
Phase 2 Upgrade of SASD Pump Station (2.03 to 5.60 mgd)	\$ 1,800,000	LS	0	\$ 0	\$ 0	\$ 0	1	\$ 1,800,000	\$ 630,000	\$ 2,430,000
Subtotal On-Site				\$ 7,577,990	\$ 2,652,297	\$ 10,230,287		\$ 24,102,070	\$ 8,435,725	\$ 32,537,795
Off-Site Costs										
16-inch Force Main (in exist. roadway - to Douglas/Grant Line)	\$ 245	LF	1,740	\$ 426,300	\$ 149,205	\$ 575,505	1,740	\$ 426,300	\$ 149,205	\$ 575,505
16-inch Force Main (in exist. roadway - to exist ASD Trunk)	\$ 245	LF	3,770	\$ 923,650	\$ 323,278	\$ 1,246,928	3,770	\$ 923,650	\$ 323,278	\$ 1,246,928
16-inch Force Main (in exist. Roadway)	\$ 245	LF	0	\$ 0	\$ 0	\$ 0	6,930	\$ 1,697,850	\$ 594,248	\$ 2,292,098
16-inch Force Main (in exist. Roadway)-w/Pavement Restoration	\$ 345	LF	0	\$ 0	\$ 0	\$ 0	5,300	\$ 1,828,500	\$ 639,975	\$ 2,468,475
Phase 1 Reception MH @ exist. 18" trunk	\$ 24,000	EA	1	\$ 24,000	\$ 8,400	\$ 32,400	1	\$ 24,000	\$ 8,400	\$ 32,400
Phase 2 Reception MH @ POC-4 (future Aerojet-2 Interceptor)	\$ 25,000	EA	0	\$ 0	\$ 0	\$ 0	1	\$ 25,000	\$ 8,750	\$ 33,750
Phase 3 Reception MH @ Douglas Interceptor	\$ 25,000	EA	0	\$ 0	\$ 0	\$ 0	1	\$ 25,000	\$ 8,750	\$ 33,750
abandon phased connection	\$ 20,000	EA	0	\$ 0	\$ 0	\$ 0	1	\$ 20,000	\$ 7,000	\$ 27,000
Pump Station (312-236-EN001)	\$ 2,400,000	LS	0	\$ 0	\$ 0	\$ 0	1	\$ 2,400,000	\$ 840,000	\$ 3,240,000
Subtotal Off-Site				\$ 1,373,950	\$ 480,883	\$ 1,854,833		\$ 7,370,300	\$ 2,579,605	\$ 9,949,905
Total Cost				\$ 8,951,940	\$ 3,133,179	\$ 12,085,119		\$ 31,472,370	\$ 11,015,330	\$ 42,487,700
Total Cost (Rounded)				\$ 8,950,000	\$ 3,130,000	\$ 12,090,000		\$ 31,470,000	\$ 11,020,000	\$ 42,490,000

Source: MacKay & Soms.

[1] Contingencies and soft costs include 20% cost contingency, 10% for surveys & design, and 5% for inspections & materials testing.



2010 SASD SYSTEM CAPACITY PLAN
BR East Rancho
Sewer Shed Map - Area 4
Buildout Expansion Plan
Map 4-1

Date last revised: 10/12/2011

At buildout, the total estimated cost of the Cordova Hills backbone sewer system based on the PFFP Services Scenario is approximately \$42.3 million. Facilities include the following improvements:

- Gravity trunk sewer lines ranging from 10 to 27 inches in diameter.
- Two SASD pump stations (one on-site and one off-site).
- On-site force mains and their appurtenances.
- Off-site interim force main extensions and their appurtenances.

Alternative Sanitary Sewer Infrastructure Scenarios

Based on the draft SRCSD Interceptor Sequencing Study and SASD Sewer System Capacity Plan 2010 Update (SCP), a number of sewer service alternatives were developed in addition to the PFFP Services Scenario to address the projected timing of construction of ultimate downstream trunk and interceptor sewer facilities. The PFFP Services Scenario is based on the assumption that capacity will be available in the existing Aerojet-Sunrise Douglas (ASD) trunk sewer and Chrysanthy Pump Station to serve Phase 1 of Cordova Hills (discussed below in Phasing section). There are three other possible scenarios for Phase 1 if this capacity is not available. In addition, each of these four main scenarios contain a number of alternatives for Phases 2 and 3 of Cordova Hills development based on the availability of capacity in existing trunk facilities and on the status of construction of the planned future Aerojet-2 Interceptor and Douglas Interceptor. The actual facilities required will depend on the construction status of the planned future interceptors.

The costs for the various scenarios are summarized in **Table 4-2**. The total buildout cost estimates range from \$37.6 million to \$60.9 million. The scenarios are detailed at the end of this chapter in **Table 4-7**. **Map 4-3**, **Map 4-4**, and **Map 4-5** following **Table 4-7** graphically depict the various sewer facility scenarios for Phases 1, 2, and 3 of Cordova Hills development, respectively.

Phasing for PFFP Services Scenario

Under the PFFP Services Scenario and as projected in the SASD SCP, Cordova Hills ultimately will be served by the SRCSD Douglas Interceptor facility. Before the extension of this interceptor to the vicinity of the Project, Cordova Hills plans to pump its wastewater to the existing Aerojet-Sunrise Douglas (ASD) trunk sewer located in Douglas Road approximately 3,700 feet northwest of Cordova Hills on an interim basis. Based on email correspondence with SASD (Roy Carlson, July 13, 2010), through at least the year 2020, sewer service to the East Rancho Cordova area, including Cordova Hills, is planned to be provided by means of the existing facilities and enhancements thereof (i.e., the Chrysanthy Pump Station and associated force main system to which the ASD trunk drains).

Phase 1 proposes to tie into the existing ASD trunk sewer and send the flows to the existing Chrysanthy Pump Station. Phase 1 includes a 2 mgd SASD pump station and the gravity lines and force mains necessary to connect to the ASD trunk sewer in Douglas Road. Phase 1 sewer improvements are expected to cost approximately \$12.1 million. Additional improvements to the Chrysanthy Pump Station may be needed to serve additional new development in the eastern

Table 4-2
Cordova Hills Financing Plan
Sanitary Sewer Facilities Alternatives

Scenario	Phase 1 POC	Number of Buildout Alternatives	Estimated Cost	
			Phase 1	Buildout
PFFP Service Scenario [1]	ASD Trunk		\$ 12,090,000	\$ 42,490,000
Scenario 1: Preferred	ASD Trunk	9	\$ 12,090,000	\$ 37,630,000 to \$ 60,910,000
Scenario 2	Aerojet-2 Interceptor	2	\$ 16,820,000	\$ 42,380,000 to \$ 48,430,000
Scenario 3	Bradshaw Interceptor at Zinfandel Drive	3	\$ 21,780,000	\$ 47,340,000 to \$ 53,390,000
Scenario 4	Bradshaw Interceptor at International Drive	3	\$ 23,740,000	\$ 49,300,000 to \$ 60,910,000

alts

[1] The PFFP Service Scenario (summarized below) is considered the most likely service scenario given the current status of existing and planned facilities.

PFFP Service Scenario

Phase 1:	POC: ASD Trunk <ul style="list-style-type: none"> Onsite pump station 16" FM from pump station to ASD Trunk POC in Douglas Rd. 	\$ 12,090,000
Phase 2:	POC: Aerojet-2 Interceptor <ul style="list-style-type: none"> Upgrade onsite pump station (312-236-EN006) Extension of 16" FM from Phase 1 POC to Aerojet-2 Interceptor POC at intersection of Sunrise and Douglas 	\$ 11,530,000
Phase 3:	POC: Douglas Interceptor <ul style="list-style-type: none"> Offsite pump station 12" FM from new pump station to ultimate Douglas Interceptor POC at intersection of Grant Line and Douglas 	\$ 18,870,000
TOTAL:		\$ 42,490,000

portion of Rancho Cordova. These improvements would entail the replacement of the existing pumps with two larger pumps and the shortening of the downstream force main to tie into the Bradshaw Interceptor at a total cost of approximately \$1.24 million (cost provided by Roy Carlson, SASD). Ultimate capacity of the Chrysanthy Pump Station is just under 9 mgd. Depending on development timing and available capacity, the developers who will be using the Chrysanthy Pump Station and related sewer facilities will participate in the funding of these fee-creditable and/or reimbursable improvements.

Upgrading the on-site SASD pump station to a greater capacity, construction of a separate off-site pump station approximately 1,400 feet south of the on-site pump station, construction of additional gravity and force main sewer facilities, and construction of additional offsite permanent and interim facilities ahead of the extension of the Douglas Interceptor will be required to support remaining phases.

Installation of sewer improvements will be determined by the phasing of development projects to be served by sewer facilities. SASD does not guarantee or reserve sewer service capacity until payment of sewer impact fees. Individual projects will be required to complete sewer facility improvements as conditions of project approval. Costs for remaining phases beyond Phase 1 based on the PFFP Services Scenario total approximately \$30.4 million.

Funding Strategy

Summary

Cordova Hills developers will construct and fund the Sewer Master Plan trunk facilities, as well as participate in the SASD and SRCSD development impact fee programs. The developers will be eligible for SASD fee credits and reimbursements up to the full construction cost of the trunk facilities that they construct. In accordance with SASD policies, construction costs eligible for SASD fee credits and reimbursements will be based on low bid costs as determined through a competitive bid process with a minimum of three eligible bids.

The Cordova Hills Sewer Master Plan summarized in this report depicts SASD's current planning assumptions and fee structure. Each phase of this plan will be subject to SASD's Ordinance, Standards and Specifications, Fee Structure, and Reimbursement Policies and Procedures (including eligibility for reimbursement and reimbursement agreement requirements) in place at the time the triggering applications, studies, and submittals are approved.

Table 4-3 estimates the developer and SASD fee funding for the Cordova Hills trunk sanitary sewer facilities costs. This funding is summarized below:

- **Cordova Hills Developer Funding:** Cordova Hills developers will construct and fund all required trunk sewer facilities and be repaid through SASD fee credits and reimbursements. **Table 4-3** shows the required developer advance funding at the end of Phase 1 and at buildout.

Table 4-3
Cordova Hills Financing Plan
Summary of Sanitary Sewer Costs and Revenues (2011\$)

Item	Formula	Phase 1	Buildout
Total Backbone Sewer Costs Eligible for SASD Fee Credits [1]	a	\$ 12,090,000	\$ 42,490,000
Less Credits for SASD Fee Funded Costs [2]	b	(\$ 3,120,000)	(\$ 20,600,000)
Reimbursable Amount from Later Cordova Hills Phases and Other Projects	c=a+b	\$ 8,970,000	\$ 21,890,000
Less Estimated Reimbursements from SASD Fee Program [3]	d	unknown	unknown
Developer Advance Funding (End of Period) [4]	e=c-d	\$ 8,970,000	\$ 21,890,000
Less Future SASD Reimbursements After Buildout [5]	f	NA	(\$ 21,890,000)
Net Developer Funding After All Reimbursements	e+f	NA	\$ 0

ss sum

Source: MacKay & Soms, SASD

- [1] See Table 4-1.
- [2] Rounded. Calculated in Table 4-4.
- [3] Timing of SASD reimbursements is unpredictable, and some or all of the reimbursements may not occur until after buildout.
- [4] Estimated developer advance required by end of period. Developer may have to advance the total cost but should receive the estimated SASD fee credits shown by the end of the period to cover a portion of the advance. This table shows the maximum exposure to the developers if no reimbursements are received until after buildout.
- [5] Assumes that all Cordova Hills backbone sewer costs ultimately will be creditable/reimbursable from SASD fees. An SASD reimbursement is shown for the following three reasons:
 - (a) the sewer facilities in this Financing Plan include some oversizing to serve future development south of the Project and within the Urban Services Area
 - (b) the unit cost estimates used to derive the costs in this table are higher than the unit cost estimates on which the SASD fees are based. It is anticipated that ultimately the reimbursement will not be as high as shown because the SASD fees will be updated to reflect actual costs as facilities are constructed.
 - (c) Interim trunk facilities constructed in lieu of ultimate facilities being in place are reimbursable.

- **SASD Sewer Impact Fee and Trunk Sewer Reimbursement Program:**

- ***Credits***

Cordova Hills will receive full credits against all SASD fees paid since the developer advance funding required is greater than the SASD fee revenue generated by Cordova Hills development. **Table 4-3** shows the estimated SASD fee credits received at the completion of Phase 1 development and at buildout.

- ***Reimbursements***

Table 4-3 estimates that at the completion of Phase 1 development, after applying the fee credits, Cordova Hills developers will have an outstanding developer advance of \$9.0 million remaining to be repaid. Likewise, it is estimated that at buildout, after applying all fee credits, Cordova Hills developers will have received full credit for all SASD fees paid but may still have a remaining outstanding developer advance of \$21.9 million. Cordova Hills will be eligible to receive cash reimbursements from SASD sewer impact fee revenue to repay the remaining developer advance. Although the reimbursements likely will be made at several different times during and after completion of Cordova Hills development, **Table 4-3** shows them as occurring after buildout to depict the most conservative scenario for reimbursement.

Cordova Hills is owed reimbursements from the SASD fee program for the following three reasons:

- » The sewer facilities that Cordova Hills developers must construct include some oversizing to serve future development south of the Project.
- » The unit cost estimates used to derive the overall sewer facilities costs to be funded by Cordova Hills developers are higher than the unit cost estimates on which the SASD fees are presently based. It is anticipated that ultimately the reimbursement may be lower than estimated in **Table 4-3** because of adjustments to the SASD fee schedule to reflect actual costs as facilities are constructed.
- » The cost of interim trunk facilities constructed in lieu of the ultimate facilities being in place may be reimbursable. It is SASD'S policy to evaluate the necessity for interim facilities and approve reimbursement on a case by case basis. For the PFFP Services Scenario, the cost of the interim facilities total approximately \$6.1 million.

The sewer improvement costs to be funded through the SASD Sewer Impact Fee and Trunk Sewer Reimbursement Program will be evaluated and updated throughout development of the Project. According to the SASD Reimbursement Program, a Board-approved reimbursement agreement will identify the exact reimbursement terms including contingency, engineering, and inspection costs. In addition, the program will be periodically updated to reflect current costs.

The timing of the SASD reimbursements is uncertain and depends on the availability of SASD fee revenue. Full reimbursement may require a considerable time period and extend beyond buildout of Cordova Hills. In fact, Cordova Hills may never receive full reimbursement if other potential development projects are not built.

Existing Fee Programs

Cordova Hills will be required to participate in two existing sewer development impact fee programs in Sacramento: SASD and SRCSD.

Cordova Hills development will pay the SASD sewer development impact fees. **Table 4-4** estimates the SASD fee revenue from Cordova Hills at completion of Phase 1 development and at buildout. As discussed above, Cordova Hills will be eligible for SASD fee credits or reimbursements for the cost of the Sewer Master Plan identified facilities in accordance with the SASD Sewer Ordinance adopted to be effective on April 8, 2011.

Cordova Hills development will pay SRCSD Impact Fees, to provide funding toward regional sewer interceptor and treatment facilities. **Table 4-5** estimates the SRCSD fee revenue from Cordova Hills at completion of Phase 1 development and at buildout. Since the Cordova Hills Sewer Master Plan does not include costs for any regional interceptors or treatment facilities, Cordova Hills will not be eligible for credits or reimbursements from SRCSD fees.

Proposed Cordova Hills SFD

The developer will be responsible to construct local sewer collection facilities of less than 1 million gallons capacity to serve the individual land uses within Cordova Hills. The cost of these facilities is considered a part of standard 'in-tract' development costs and thus will not be reflected in the proposed Cordova Hills SFD.

Table 4-4
Cordova Hills Financing Plan
SASD Fee Revenue (2011\$)

Item	SASD Fee			Phase 1		Buildout		
	Fee per Net Acre	Dwelling Units per Net Acre [1]	FAR	Fee per Unit/ Bldg. Sq. Ft.	Net Acres	Total Fee Revenue	Net Acres	Total Fee Revenue
Residential Land Uses				<i>per dwelling unit</i>				
Estates Residential	\$ 15,000	2.1		\$ 7,042	0.0	\$ 0	64.7	\$ 970,500
Low Density Residential	\$ 15,000	3.7		\$ 4,072	48.3	\$ 725,000	491.1	\$ 7,367,000
Medium Density Residential	\$ 15,000	7.9		\$ 1,895	63.3	\$ 950,000	386.8	\$ 5,801,250
Residential 20	\$ 15,000	13.5		\$ 1,108	7.5	\$ 112,500	61.5	\$ 922,500
High Density Residential	\$ 15,000	19.6		\$ 764	21.0	\$ 314,376	84.6	\$ 1,268,376
Total Residential Land Uses					140.1	\$ 2,101,876	1,088.6	\$ 16,329,626
Nonresidential Land Uses				<i>per bldg. sq. ft.</i>				
Commercial	\$ 15,000		0.21	\$ 1.66	13.3	\$ 199,491	72.6	\$ 1,088,658
Office	\$ 15,000		0.15	\$ 2.34	0.0	\$ 0	30.7	\$ 460,216
Total Commercial					13.3	\$ 199,491	103.3	\$ 1,548,874
University/College Campus Center [2]					54.8	\$ 822,000	181.2	\$ 2,718,000
TOTAL (Rounded)						\$ 3,120,000		\$ 20,600,000

sasd

Source: SASD rate and fee schedule effective April 1, 2011.

[1] Dwelling units per acre are estimated as buildout units/buildout acres. These factors differ from the Phase 1 dwelling units per acre.

[2] Academic, living/learning, and athletic zone acres.

Table 4-5
Cordova Hills Financing Plan
SRCSd Fee Revenue (2011\$)

Item	ESD Factor [1]	Fee per Unit/ Bldg. Sq. Ft./ Student	Phase 1		Buildout	
			Units	Total Fee Revenue	Units	Total Fee Revenue
<hr/>						
Residential Land Uses	<u>per dwelling unit</u>		<u>dwelling units</u>			
Estates Residential	1.00	\$ 7,450	0	\$ 0	138	\$ 1,026,703
Low Density Residential	1.00	\$ 7,450	290	\$ 2,160,500	1,809	\$ 13,479,844
Medium Density Residential	1.00	\$ 7,450	760	\$ 5,662,000	3,061	\$ 22,803,984
Residential 20	0.75	\$ 5,588	150	\$ 838,125	833	\$ 4,651,594
High Density Residential	0.75	\$ 5,588	550	\$ 3,073,125	1,659	\$ 9,271,758
Total Residential Land Uses			1,750	\$ 11,733,750	7,500	\$ 51,233,883
Nonresidential Land Uses	<u>per 1000 bldg. sq. ft.</u>		<u>bldg. sq. ft.</u>			
Commercial	0.10	\$ 0.75	120,000	\$ 89,400	654,860	\$ 487,871
Office	0.20	\$ 1.49	0	\$ 0	196,540	\$ 292,845
Total Commercial			120,000	\$ 89,400	851,400	\$ 780,715
	<u>per 100 students</u>		<u>students</u>			
University/College Campus Center	2.20	\$ 16,390	600	\$ 98,340	6,000	\$ 983,400
TOTAL				\$ 11,921,490		\$ 52,997,998

srcsd

Source: SRCSd rate and fee schedule effective April 1, 2010. SRCSd is currently conducting a Rate and Fee Study to evaluate existing monthly rates and impact fee structures. While the study is not yet complete, preliminary findings indicate that impact fees are likely to increase within the next ten years.

[1] University/college campus center factor is the factor for colleges and universities.

Table 4-6
BR East Rancho
Trunk Sewer Data and Model Results
Buildout 10-Year Design Storm

US Manhole	DS Manhole	Link Suffix	Link Type	Diameter (in)	Length (ft)	US Rim Elev. (ft)	US Invert Elev. (ft)	DS Rim Elev. (ft)	DS Invert Elev. (ft)	Slope, %	Full Capacity (mgd)	Peak Flow (mgd)	% Full Capacity	d/D
350-236-EN001	348-233-EN001	1	Gravity Main	12	3180	266.0	243.0	250.0	234.5	0.270	1.19	1.07	90	0.8
348-233-EN001	348-230-EN001	1	Gravity Main	15	3162	250.0	234.3	240.0	209.5	0.780	3.70	1.66	45	0.6
348-230-EN001	346-227-EN002	1	Gravity Main	15	2154	240.0	209.5	206.0	189.0	0.950	4.08	2.33	57	0.6
346-227-EN002	346-227-EN001	1	Gravity Main	18	1844	206.0	188.7	186.0	156.0	1.770	9.05	3.01	33	0.6
346-227-EN001	346-224-EN001	1	Gravity Main	21	1967	186.0	155.7	184.0	152.4	0.170	4.21	3.41	81	0.7
346-224-EN001	344-221-EN001	1	Gravity Main	21	2165	184.0	152.1	166.1	144.8	0.340	5.95	4.01	67	0.6
344-221-EN001	342-221-EN001	1	Gravity Main	24	2829	166.1	144.6	150.0	135.3	0.330	8.40	4.62	55	0.6
342-221-EN001	342-218-EN001	1	Gravity Main	27	1464	150.0	135.0	150.4	133.5	0.100	6.33	5.16	82	0.7
342-218-EN001	342-218-EN002	2	Gravity Main	27	762	150.4	133.5	151.4	132.8	0.090	6.07	5.47	90	0.7
342-218-EN002	338-215-INT001	1	Gravity Main	27	5439	151.4	132.8	149.6	122.1	0.200	8.90	5.47	61	0.6
346-236-EN001	346-233-EN001	1	Gravity Main	12	2281	267.8	243.2	256.0	230.7	0.550	1.71	1.43	84	0.8
346-233-EN001	344-233-EN001	1	Gravity Main	15	1299	256.0	230.5	237.6	226.5	0.310	2.31	2.21	96	0.8
344-233-EN001	344-230-EN002	1	Gravity Main	18	2092	237.6	226.3	237.4	221.3	0.240	3.31	2.80	85	0.7
344-230-EN002	344-230-EN001	1	Gravity Main	18	2334	237.4	221.3	215.6	189.3	1.370	7.95	3.84	48	0.6
344-230-EN001	342-224-EN002	1	Gravity Main	21	3710	215.6	189.0	197.1	173.9	0.410	6.54	4.92	75	0.9
342-224-EN002	342-224-EN001	1	Gravity Main	21	2845	197.1	173.9	194.0	162.4	0.410	6.54	6.45	99	0.9
342-224-EN001	342-221-EN002	1	Gravity Main	21	1567	194.0	162.4	184.0	151.9	0.670	8.39	6.92	82	0.7
342-221-EN002	340-218-EN001	1	Gravity Main	21	2156	184.0	151.9	156.0	137.4	0.670	8.39	6.92	82	0.7
340-218-EN001	340-218-EN002	1	Gravity Main	30	742	156.0	136.7	163.9	135.9	0.100	8.44	7.52	89	0.7
340-218-EN002	338-215-INT001	1	Gravity Main	30	4730	163.9	135.9	149.6	121.8	0.300	14.48	7.52	52	0.5
346-239-EN001	344-239-EN001	1	Gravity Main	15	2387	288.0	271.8	288.1	267.5	0.180	1.77	1.24	70	0.6
344-239-EN001	344-236-EN001	1	Gravity Main	18	1753	288.1	267.3	289.9	264.8	0.140	2.54	1.75	69	0.7
344-236-EN001	342-236-EN001	1	Gravity Main	18	2142	289.9	264.8	279.5	259.1	0.270	3.51	2.62	75	0.7
342-236-EN001	342-233-EN001	1	Gravity Main	18	1406	279.5	259.1	265.1	228.2	2.200	10.08	2.62	26	0.4
342-233-EN001	340-233-EN001	1	Gravity Main	21	1965	265.1	227.9	245.2	210.4	0.890	9.69	4.37	45	0.6
340-233-EN001	340-230-EN002	1	Gravity Main	24	1576	245.2	210.2	232.0	204.5	0.360	8.80	5.72	65	0.6
340-230-EN002	340-230-EN001	1	Gravity Main	24	1763	232.0	204.5	228.6	197.9	0.380	8.97	5.72	64	0.6
340-230-EN001	340-227-EN001	1	Gravity Main	24	1244	228.6	197.9	204.0	191.9	0.480	10.17	6.54	64	0.6
340-227-EN001	338-227-EN001	1	Gravity Main	24	1849	204.0	191.9	191.0	171.0	1.130	15.59	6.54	42	0.7
338-227-EN001	338-224-EN002	1	Gravity Main	24	1277	191.0	171.0	190.0	166.4	0.360	8.81	7.47	85	0.7
338-224-EN002	338-224-EN001	1	Gravity Main	27	2060	190.0	166.1	184.2	161.0	0.250	10.06	7.47	74	0.6
338-224-EN001	338-221-EN001	1	Gravity Main	33	3023	184.2	160.1	174.3	157.1	0.100	10.83	8.24	76	0.7
338-221-EN001	338-215-EN001	1	Gravity Main	33	4283	174.3	156.9	170.0	124.9	0.750	29.61	8.90	30	0.6
338-215-EN001	338-215-EN002	1	Gravity Main	33	216	170.0	124.9	170.0	124.5	0.170	13.97	9.69	69	0.6
338-215-EN002	338-215-INT001	1	Gravity Main	33	391	170.0	124.5	149.6	121.6	0.750	29.63	9.69	33	0.4
344-215-EN005	344-215-EN004	1	Gravity Main	15	561	140.0	113.5	139.3	112.4	0.200	1.85	1.07	58	0.6
344-215-EN004	342-215-EN006	2	Gravity Main	15	1940	139.3	112.4	136.6	108.9	0.180	1.78	1.20	67	0.8
342-215-EN006	342-215-EN005	1	Gravity Main	18	806	136.6	108.6	139.0	107.5	0.140	2.54	2.36	93	0.9
342-215-EN005	340-215-EN002	1	Gravity Main	18	1250	139.0	107.5	134.0	105.7	0.140	2.58	2.67	100	0.9
340-215-EN002	338-215-EN011	1	Gravity Main	21	2361	134.0	105.5	140.0	102.6	0.120	3.57	3.00	84	0.9
338-215-EN011	338-212-EN010	1	Gravity Main	21	764	140.0	102.6	138.0	101.7	0.120	3.49	3.72	100	0.9
338-212-EN010	338-212-EN008	1	Gravity Main	24	543	138.0	101.5	132.4	100.8	0.120	5.04	3.92	78	0.9
338-212-EN008	338-212-EN007	1	Gravity Main	24	397	132.4	100.8	132.0	100.3	0.130	5.20	4.59	88	0.9
338-212-EN007	338-212-EN006	1	Gravity Main	24	763	132.0	100.3	130.7	99.4	0.110	4.96	4.64	94	1.0
338-212-EN006	336-212-EN009	1	Gravity Main	24	1081	130.7	99.4	130.0	98.4	0.100	4.52	4.79	100	1.0
336-212-EN009	336-212-EN010	1	Gravity Main	24	268	130.0	98.4	124.0	98.2	0.080	4.04	4.98	100	0.9
336-212-EN010	336-212-INT001	1	Gravity Main	24	311	124.0	98.2	124.7	97.9	0.110	4.84	5.56	100	0.8
336-236-EN002	336-233-EN004	1	Gravity Main	15	2042	275.7	246.4	264.0	242.7	0.180	1.77	1.66	94	0.8
336-233-EN004	336-233-EN003	2	Gravity Main	15	1729	264.0	242.7	262.0	234.6	0.470	2.86	1.94	68	0.6
336-233-EN003	336-230-EN004	2	Gravity Main	18	1170	262.0	234.4	260.0	215.3	1.630	8.68	2.36	27	0.4
336-230-EN004	336-230-EN003	2	Gravity Main	21	1861	260.0	215.0	228.0	196.0	1.020	10.36	3.01	29	0.9
336-230-EN003	336-227-EN002	2	Gravity Main	21	989	228.0	196.0	212.0	194.8	0.120	3.57	3.81	100	0.9
336-227-EN002	334-227-EN002	2	Gravity Main	21	1795	212.0	194.8	198.0	179.5	0.850	9.47	4.19	44	0.8
334-227-EN002	334-224-EN006	2	Gravity Main	24	853	198.0	179.3	194.0	178.3	0.110	4.86	4.87	100	0.8

Table 4-6
BR East Rancho
Trunk Sewer Data and Model Results
Buildout 10-Year Design Storm

US Manhole	DS Manhole	Link Suffix	Link Type	Diameter (in)	Length (ft)	US Rim Elev. (ft)	US Invert Elev. (ft)	DS Rim Elev. (ft)	DS Invert Elev. (ft)	Slope, %	Full Capacity (mgd)	Peak Flow (mgd)	% Full Capacity	d/D
334-224-EN006	336-224-EN002	2	Gravity Main	24	1961	194.0	178.3	190.0	167.1	0.570	11.09	4.87	44	0.7
336-224-EN002	334-224-EN005	2	Gravity Main	27	1396	190.0	166.8	192.0	165.4	0.100	6.35	5.34	84	0.7
334-224-EN005	334-224-EN004	1	Gravity Main	27	2153	192.0	165.4	175.9	162.7	0.120	7.04	5.51	78	0.7
334-224-EN004	334-221-EN004	2	Gravity Main	27	2147	175.9	162.7	172.0	154.5	0.380	12.41	6.05	49	0.5
334-221-EN004	334-221-EN003	1	Gravity Main	30	1330	172.0	154.2	172.8	151.9	0.170	11.09	7.30	66	0.8
334-221-EN003	334-218-EN002	1	Gravity Main	30	1682	172.8	151.9	173.6	150.2	0.100	8.39	7.84	93	0.8
334-218-EN002	336-218-EN002	1	Gravity Main	30	2211	173.6	150.2	178.0	148.0	0.100	8.39	8.18	97	0.8
336-218-EN002	334-215-EN002	1	Gravity Main	30	1431	178.0	148.0	165.0	136.5	0.800	23.77	8.35	35	0.7
334-215-EN002	334-212-EN006	1	Gravity Main	33	3236	165.0	136.2	158.0	133.0	0.100	10.82	8.95	83	0.7
334-212-EN006	334-212-INT001	1	Gravity Main	33	813	158.0	133.0	137.1	109.9	2.840	57.67	9.57	17	0.3
328-215-EN003	328-215-EN002	1	Gravity Main	15	1200	163.6	117.4	145.0	115.3	0.180	1.77	1.24	70	0.6
328-215-EN002	328-215-EN001	1	Gravity Main	15	588	145.0	115.3	148.0	114.2	0.180	1.77	1.24	70	0.8
328-215-EN001	328-212-INT001	1	Gravity Main	15	84	148.0	114.2	148.0	114.1	0.180	1.77	2.32	100	0.8
334-233-EN001	332-230-EN002	1	Gravity Main	12	2100	249.2	235.5	236.1	219.3	0.770	2.03	1.41	69	0.6
332-230-EN002	332-230-EN001	1	Gravity Main	15	1285	236.1	219.0	226.0	214.5	0.350	2.48	1.98	80	0.7
332-230-EN001	332-227-EN001	1	Gravity Main	15	1198	226.0	214.5	216.6	190.5	2.000	5.91	1.98	34	0.5
332-227-EN001	332-227-EN002	1	Gravity Main	21	1172	216.6	190.0	224.8	188.6	0.120	3.56	2.55	72	0.6
332-227-EN002	330-227-EN001	1	Gravity Main	21	1216	224.8	188.6	207.6	167.9	1.700	13.37	2.55	19	0.5
330-227-EN001	330-224-EN001	1	Gravity Main	21	2004	207.6	167.9	184.6	158.7	0.460	6.95	3.11	45	0.7
330-224-EN001	330-221-EN002	1	Gravity Main	24	1484	184.6	158.7	164.0	156.4	0.150	5.74	3.97	69	0.6
330-221-EN002	330-221-EN001	1	Gravity Main	24	2696	164.0	156.4	174.0	151.7	0.180	6.15	4.15	67	0.8
330-221-EN001	330-218-EN001	1	Gravity Main	24	1402	174.0	151.7	165.1	150.1	0.110	4.85	4.47	92	0.8
330-218-EN001	328-218-EN001	1	Gravity Main	24	1820	165.1	149.8	151.0	132.2	0.970	14.41	5.14	36	0.9
328-218-EN001	328-215-EN004	1	Gravity Main	24	1945	151.0	132.2	152.0	130.0	0.110	4.85	5.13	100	0.9
328-215-EN004	326-215-EN003	1	Gravity Main	27	2195	152.0	119.5	146.0	117.3	0.100	6.34	5.92	93	0.8
326-215-EN003	326-215-INT001	1	Gravity Main	27	59	146.0	117.3	146.0	117.2	0.100	6.34	6.32	100	0.6
328-230-EN001	326-230-INT003	1	Gravity Main	15	4458	251.7	227.9	214.0	193.0	0.780	3.70	2.13	58	0.6
320-230-EN001	318-230-EN001	1	Gravity Main	15	1605	228.0	207.1	234.0	204.2	0.180	1.77	1.28	72	0.7
318-230-EN001	318-233-EN002	1	Gravity Main	15	1444	234.0	204.2	216.7	201.6	0.180	1.77	1.28	72	0.7
318-233-EN002	318-233-EN001	1	Gravity Main	15	521	216.7	201.6	231.0	200.8	0.160	1.69	1.28	76	0.7
318-233-EN001	316-233-EN001	1	Gravity Main	15	1080	231.0	200.8	233.1	198.8	0.180	1.78	1.42	80	0.7
316-233-EN001	312-236-EN004	1	Gravity Main	15	4038	233.1	198.8	138.0	122.0	1.900	5.77	1.68	29	0.4
312-236-EN004	312-236-EN005	1	Gravity Main	27	43	138.0	121.0	138.0	120.9	0.240	9.72	7.13	73	0.6
312-236-EN005	312-236-EN006	1	Pump									7.13		0.0
312-236-EN006	322-233-EN001	1	Force Main	15	10331	138.0	120.9	240.4	220.0	-0.950		7.13		1.0
322-233-EN001	326-230-EN001	1	Force Main	15	3308	240.4	220.0	248.0	229.1	-0.280		7.13		1.0
326-230-EN001	326-230-INT004	1	Gravity Main	30	104	248.0	230.3	245.7	230.2	0.100	8.39	7.13	85	1.0
318-239-EN002	318-239-EN001	1	Gravity Main	12	891	171.0	155.2	175.7	150.3	0.550	1.71	1.06	62	0.6
318-239-EN001	316-239-EN004	1	Gravity Main	15	762	175.7	150.0	163.6	148.6	0.180	1.77	1.50	85	0.8
316-239-EN004	316-239-EN003	1	Gravity Main	15	555	163.6	148.6	173.2	147.6	0.180	1.77	1.59	90	0.8
316-239-EN003	316-239-EN002	1	Gravity Main	15	799	173.2	147.6	164.2	146.2	0.180	1.78	1.65	93	0.8
316-239-EN002	316-239-EN001	1	Gravity Main	24	590	164.2	134.7	149.2	134.1	0.110	4.86	4.21	87	0.7
316-239-EN001	314-236-EN004	1	Gravity Main	24	1205	149.2	134.1	140.0	127.0	0.590	11.21	4.41	39	0.9
314-236-EN004	314-236-EN003	1	Gravity Main	24	650	140.0	127.0	147.7	126.3	0.110	4.85	4.85	100	0.9
314-236-EN003	314-236-EN002	1	Gravity Main	24	918	147.7	126.3	134.0	125.3	0.110	4.85	4.83	100	0.9
314-236-EN002	314-236-EN001	1	Gravity Main	24	1123	134.0	125.3	138.4	124.0	0.110	4.85	4.82	99	0.8
314-236-EN001	312-236-EN004	1	Gravity Main	24	180	138.4	124.0	138.0	123.6	0.230	7.07	4.82	68	0.6
320-239-EN003	318-239-EN006	1	Gravity Main	10	650	190.3	163.1	165.6	158.0	0.790	1.26	1.14	90	0.8
318-239-EN006	318-239-EN005	1	Gravity Main	15	878	165.6	157.6	179.3	156.0	0.180	1.77	1.63	92	0.8
318-239-EN005	318-239-EN004	1	Gravity Main	15	784	179.3	156.0	167.5	154.6	0.180	1.77	1.63	92	0.8
318-239-EN004	316-239-EN009	1	Gravity Main	15	633	167.5	154.6	166.4	140.0	2.310	6.35	1.75	28	0.5
316-239-EN009	316-239-EN008	1	Gravity Main	18	1182	166.4	139.7	155.9	137.6	0.180	2.85	2.12	74	0.8
316-239-EN008	316-239-EN007	1	Gravity Main	18	486	155.9	137.6	146.0	136.9	0.140	2.54	2.25	89	0.7
316-239-EN007	316-239-EN006	1	Gravity Main	18	291	146.0	136.9	148.3	136.5	0.140	2.55	2.25	88	0.7

Table 4-6
BR East Rancho
Trunk Sewer Data and Model Results
Buildout 10-Year Design Storm

US Manhole	DS Manhole	Link Suffix	Link Type	Diameter (in)	Length (ft)	US Rim Elev. (ft)	US Invert Elev. (ft)	DS Rim Elev. (ft)	DS Invert Elev. (ft)	Slope, %	Full Capacity (mgd)	Peak Flow (mgd)	% Full Capacity	d/D
316-239-EN006	316-239-EN005	1	Gravity Main	18	369	148.3	136.5	149.9	136.0	0.140	2.54	2.31	91	0.7
316-239-EN005	316-239-EN002	1	Gravity Main	21	583	149.9	135.7	164.2	135.0	0.120	3.55	2.35	66	0.6
318-245-EN002	318-245-EN001	1	Gravity Main	15	623	155.7	127.1	148.3	125.9	0.180	1.77	1.21	68	0.7
318-245-EN001	318-245-EN004	1	Gravity Main	15	814	148.3	125.9	147.0	124.5	0.180	1.77	1.31	74	0.7
318-245-EN004	318-242-EN002	1	Gravity Main	15	894	147.0	124.5	145.2	122.9	0.180	1.77	1.36	77	0.7
318-242-EN002	316-242-EN002	1	Gravity Main	15	892	145.2	122.9	151.6	121.3	0.180	1.77	1.54	87	0.7
316-242-EN002	316-242-EN001	1	Gravity Main	15	566	151.6	121.3	141.7	120.3	0.180	1.77	1.54	87	0.8
316-242-EN001	314-242-EN001	1	Gravity Main	15	1398	141.7	120.3	141.0	117.7	0.180	1.77	1.61	91	0.8
314-242-EN001	312-242-EN001	1	Gravity Main	15	1743	141.0	117.7	142.1	114.6	0.180	1.78	1.71	96	0.9
312-242-EN001	312-239-EN003	1	Gravity Main	15	1743	142.1	114.6	136.0	111.4	0.180	1.77	1.74	98	0.9
312-239-EN003	312-239-EN002	1	Gravity Main	18	1051	136.0	111.2	138.0	109.7	0.140	2.54	2.31	91	1.0
312-239-EN002	310-239-EN001	1	Gravity Main	18	2126	138.0	109.7	142.7	106.7	0.140	2.54	2.60	100	1.0
310-239-EN001	308-239-EN001	1	Gravity Main	21	1861	142.7	106.5	132.1	104.3	0.120	3.55	2.87	81	0.9
308-239-EN001	308-236-EN001	1	Gravity Main	21	1326	132.1	104.3	135.6	102.6	0.120	3.61	3.40	94	0.9
308-236-EN001	312-236-EN002	1	Gravity Main	21	3280	135.6	102.6	124.0	98.7	0.120	3.55	3.57	100	0.9
312-236-EN002	312-236-EN003	1	Gravity Main	24	22	124.0	98.4	124.0	98.4	0.110	4.89	3.87	79	0.5
312-236-EN003	312-236-EN001	1	Pump									3.87		0.0
312-236-EN001	326-230-INT004	1	Force Main	12	15066	124.0	98.4	245.7	229.1	-0.870		3.87		1.0
332-242-EN003	332-242-EN002	1	Gravity Main	10	476	227.7	208.6	222.1	204.5	0.870	1.32	1.16	88	0.8
332-242-EN002	332-242-EN001	1	Gravity Main	10	1316	222.1	204.5	202.0	193.0	0.870	1.32	1.16	88	0.7
332-242-EN001	330-242-EN001	1	Gravity Main	18	1362	202.0	187.0	198.0	183.5	0.260	3.47	3.08	89	0.8
330-242-EN001	328-242-EN001	1	Gravity Main	18	1303	198.0	183.5	208.9	178.5	0.380	4.19	3.67	88	0.7
328-242-EN001	326-242-EN001	1	Gravity Main	18	2264	208.9	178.5	180.4	169.9	0.380	4.18	3.67	88	0.7
326-242-EN001	324-242-EN002	1	Gravity Main	21	2418	180.4	160.0	192.3	152.0	0.330	5.90	4.64	79	0.8
324-242-EN002	324-242-EN003	1	Gravity Main	21	535	192.3	152.0	158.0	150.4	0.310	5.70	5.41	95	0.8
324-242-EN003	324-242-EN001	1	Pump									5.41		0.0
324-242-EN001	326-230-INT004	1	Force Main	15	13019	158.0	151.0	245.7	229.1	-0.600		5.41		1.0
332-242-EN004	332-242-EN001	1	Gravity Main	15	1300	206.0	192.6	202.0	187.2	0.410	2.68	1.66	62	0.7
328-239-EN001	326-236-EN002	1	Gravity Main	12	1142	211.8	200.0	203.3	190.0	0.880	2.16	1.72	80	0.7
326-236-EN002	326-236-EN001	1	Gravity Main	15	1347	203.3	189.8	193.9	180.7	0.670	3.43	2.37	69	0.6
326-236-EN001	324-236-EN001	1	Gravity Main	18	687	193.9	180.5	188.1	177.0	0.500	4.82	3.52	73	0.6
324-236-EN001	324-239-EN002	1	Gravity Main	27	1171	188.1	171.0	184.0	170.0	0.090	5.91	4.56	77	0.7
324-239-EN002	324-239-EN001	1	Pump									4.56		0.0
324-239-EN001	326-230-INT004	1	Force Main	15	8017	182.4	169.0	245.7	229.1	-0.750		4.56		1.0
328-233-EN001	326-233-EN003	1	Gravity Main	12	2800	259.2	244.5	246.0	234.3	0.370	1.39	1.17	84	0.7
326-233-EN003	326-230-INT001	1	Gravity Main	15	1334	246.0	234.0	246.0	231.5	0.180	1.77	1.17	66	1.0
310-221-EN001	308-218-EN001	1	Gravity Main	15	920	150.6	115.3	127.2	113.6	0.180	1.78	1.25	70	0.6
308-218-EN001	306-218-EN003	1	Gravity Main	15	1966	127.2	113.6	125.7	101.0	0.640	3.35	1.25	37	0.4
306-218-EN003	306-218-EN002	1	Gravity Main	24	452	125.7	100.2	123.8	99.7	0.110	4.87	2.94	60	0.6
306-218-EN002	306-218-EN001	1	Gravity Main	24	1432	123.8	99.7	126.0	98.1	0.110	4.89	3.61	74	0.7
306-218-EN001	306-215-EN001	1	Gravity Main	24	1891	126.0	98.1	116.0	96.0	0.110	4.85	3.60	74	0.6
306-215-EN001	306-215-EN002	1	Pump									3.60		0.0
306-215-EN002	312-215-EN007	2	Force Main	12	7329	116.0	96.0	153.0	115.7	-0.270		3.60		1.0
312-215-EN007	322-215-INT001	1	Force Main	12	8314	153.0	115.7	160.5	138.0	-0.270		3.60		1.0
308-221-EN001	306-218-EN003	1	Gravity Main	15	1367	126.0	110.0	125.7	108.4	0.120	1.45	1.32	91	0.8
320-227-EN001	318-227-EN003	1	Gravity Main	12	1591	192.1	165.6	189.7	162.0	0.230	1.10	1.06	96	0.8
318-227-EN003	318-227-EN002	1	Gravity Main	15	552	189.7	161.7	175.0	160.4	0.230	2.01	1.92	96	0.9
318-227-EN002	318-227-EN001	1	Gravity Main	15	300	175.0	160.4	172.4	159.7	0.230	2.01	1.96	98	0.9
318-227-EN001	316-224-EN003	1	Gravity Main	15	2130	172.4	159.7	163.2	154.8	0.230	2.01	2.00	100	0.9
316-224-EN003	316-224-EN002	1	Gravity Main	18	860	163.2	154.5	159.8	147.5	0.820	6.15	2.63	43	0.5
316-224-EN002	316-224-EN001	1	Gravity Main	18	822	159.8	146.8	164.0	131.6	1.850	9.25	3.92	42	0.5
316-224-EN001	314-221-EN001	1	Gravity Main	27	2644	164.0	130.5	142.0	127.6	0.110	6.65	4.43	67	0.7
314-221-EN001	312-221-EN001	1	Gravity Main	27	1667	142.0	127.6	142.0	125.9	0.100	6.34	5.13	81	0.7
312-221-EN001	312-218-EN002	1	Gravity Main	27	2239	142.0	125.9	132.1	116.5	0.420	13.00	5.13	39	0.7

Table 4-6
BR East Rancho
Trunk Sewer Data and Model Results
Buildout 10-Year Design Storm

US Manhole	DS Manhole	Link Suffix	Link Type	Diameter (in)	Length (ft)	US Rim Elev. (ft)	US Invert Elev. (ft)	DS Rim Elev. (ft)	DS Invert Elev. (ft)	Slope, %	Full Capacity (mgd)	Peak Flow (mgd)	% Full Capacity	d/D
312-218-EN002	312-218-EN001	1	Gravity Main	27	1389	132.1	116.5	130.0	115.0	0.110	6.65	5.75	86	0.7
312-218-EN001	310-218-EN001	1	Gravity Main	27	1363	130.0	115.0	131.9	105.3	0.710	16.89	5.81	34	1.0
310-218-EN001	310-215-EN002	1	Gravity Main	27	2022	131.9	105.0	130.0	103.0	0.100	6.33	6.48	100	1.0
310-215-EN002	310-215-EN003	1	Gravity Main	27	279	130.0	103.0	134.8	102.7	0.100	6.34	6.45	100	1.0
310-215-EN003	310-215-EN001	1	Pump									6.10		0.0
310-215-EN001	312-215-EN001	2	Force Main	15	2552	135.0	102.7	151.0	111.0	-0.320		6.10		1.0
312-215-EN001	322-215-INT001	1	Force Main	15	8314	151.0	111.0	160.5	138.0	-0.320		6.10		1.0
316-224-EN004	316-224-EN002	1	Gravity Main	15	200	161.2	148.0	159.8	147.6	0.180	1.77	1.30	73	0.6

Table 4-7
Cordova Hills Financing Plan
Sewer Service
Alternatives

Current SASD Sewer Capacity Plan Update 2010 identifies ultimate downstream sewer facilities to serve Cordova Hills as the Douglas Interceptor, to be extended east on Douglas Road to the intersection of Douglas Rd. w/Grant Line Rd. some time after yr-2020; Cordova Hills is projected to break ground by yr-2015+/-

Scenario/Alternative	Phase 1 (2.02 mgd)	Phase 2 (5.60 mgd)	Phase 3 (10.14 mgd)
Preferred Scenario (in accordance w/SASD Sewer System Capacity Plan 2010 Update; assumes Cordova Hills development starting prior to completion of Douglas Interceptor)			
Alternative 1	POC-1: ASD Trunk Requires on-site PS at Node 312-236-EN006 and extension of 17,409' x 16" FM from PS to exist. ASD trunk manhole 326-227-1011 in Douglas Rd. May require Anatolia PS & FM upgrades prior to end of Phase 1 (\$1,240,000 per SASD estimates)	Douglas Interceptor (DI) (assumes Phase 1 connection to ASD Trunk and extension of DI prior to max. capacity of Anatolia PS & FM); Requires upgrades to on-site PS at Node 312-236-EN006	Douglas Interceptor (DI) (assumes extension of DI prior to max. capacity of 16" FM); Requires 2nd PS at Node 312-236-EN001 located approx. 1,400' s/e of on-site PS and extension of 15,000' x 12" FM to Douglas Interceptor at intersection of Douglas Rd./Grant Line Rd.
	\$12,070,268	\$6,690,060	\$18,872,683
Alternative 2		POC-2: Aerojet-2 Interceptor (AJ-2I) (if Phase 1 connection to ASD Trunk and no DI); Requires extension of 16" FM to Aerojet-2 Interceptor POC-2 at intersection of Sunrise Blvd. & Douglas Rd. (additional 12,230' x 16" FM from POC-1 to AJ-2I; Σ=29,639' x 16" FM from on-site PS to POC-2)	Douglas Interceptor (DI) (assumes extension of DI prior to max. capacity of 16" FM); Requires 2nd PS at Node 312-236-EN001 located approx. 1,400' s/e of on-site PS and extension of 15,000' x 12" FM to Douglas Interceptor at intersection of Douglas Rd./Grant Line Rd.
		\$11,437,133	\$18,872,683
Alternative 3			POC-2: Aerojet-2 Interceptor (AJ-2I) (if no DI); Requires extension of 12" FM to Aerojet-2 Interceptor POC-2 at intersection of Sunrise Blvd. & Douglas Rd. (additional 16,000' x 12" FM; Σ=31,000' x 12" FM from on-site PS to AJ-2I)
			\$24,920,683
Alternative 4		POC-3: Bradschaw Interceptor (BI) at Zinfandel Drive (if Phase 1 connection to ASD Trunk and no AJ-2I); Requires extension of 16" FM to BI at Zinfandel Dr./N. Mather Dr. intersection (additional 10,930' x 16" FM; Σ=23,160' x 16" FM from POC-1 to BI)	Douglas Interceptor (DI) (assumes extension of DI prior to max. capacity of 16" FM); Requires 2nd PS at Node 312-236-EN001 located approx. 1,400' s/e of on-site PS and extension of 15,000' x 12" FM to Douglas Interceptor at intersection of Douglas Rd./Grant Line Rd.
		\$17,552,431	\$18,872,683
Alternative 5			POC-2: Aerojet-2 Interceptor (AJ-2I) (if no DI); Requires extension of 12" FM to Aerojet-2 Interceptor POC-2 at intersection of Sunrise Blvd. & Douglas Rd. (additional 16,000' x 12" FM; Σ=31,000' x 12" FM from on-site PS to AJ-2I)
			\$24,920,683
Alternative 6			POC-3: Bradschaw Interceptor (BI) at Zinfandel Drive (if no AJ-2I); Requires extension of 12" FM to BI at Zinfandel Dr./N. Mather Dr. intersection (additional 10,930' x 12" FM; Σ=41,930' x 12" FM from on-site PS to BI)
			\$29,823,073
Alternative 7		POC-4: Bradshaw Interceptor (BI) at International Drive (if Phase 1 connection to ASD Trunk and no AJ-2I); Requires extension of 16" FM to BI at International Drive west of Folsom South Canal (additional 12,670' x 16" FM; Σ=24,900' x 16" FM from POC-1 to BI)	Douglas Interceptor (DI) (assumes extension of DI prior to max. capacity of 16" FM); Requires 2nd PS at Node 312-236-EN001 located approx. 1,400' s/e of on-site PS and extension of 15,000' x 12" FM to Douglas Interceptor at intersection of Douglas Rd./Grant Line Rd.
		\$18,362,836	\$18,872,683
Alternative 8			POC-2: Aerojet-2 Interceptor (AJ-2I) (if no DI); Requires extension of 12" FM to Aerojet-2 Interceptor POC-2 at intersection of Sunrise Blvd. & Douglas Rd. (additional 16,000' x 12" FM; Σ=31,000' x 12" FM from on-site PS to AJ-2I)
			\$24,920,683
Alternative 9			POC-4: Bradshaw Interceptor (BI) at International Drive (if no AJ-2I); Requires extension of 12" FM to BI at International Drive west of Folsom South Canal (additional 12,670' x 12" FM; Σ=43,670' x 12" FM from on-site PS to BI)
			\$30,480,793

Table 4-7
Cordova Hills Financing Plan
Sewer Service
Alternatives

Current SASD Sewer Capacity Plan Update 2010 identifies ultimate downstream sewer facilities to serve Cordova Hills as the Douglas Interceptor, to be extended east on Douglas Road to the intersection of Douglas Rd. w/Grant Line Rd. some time after yr-2020; Cordova Hills is projected to break ground by yr-2015+/-

Scenario/Alternative	Phase 1 (2.02 mgd)	Phase 2 (5.60 mgd)	Phase 3 (10.14 mgd)
Scenario 2			
Alternative 1	POC-2: Aerojet-2 Interceptor (AJ-2I) (no capacity available in ASD Trunk and Anatolia PS); Requires extension of 16" FM to Aerojet-2 Interceptor POC-2 at intersection of Sunrise Blvd. & Douglas Rd. (additional 12,230' x 16" FM (Σ=29,639' x 16" FM from on-site PS) \$16,817,341	(if Phase 1 extension by-passes Anatolia PS & FM, no further Phase 2 FM extension required); Requires upgrades to on-site PS at Node 312-236-EN006 \$6,690,060	Douglas Interceptor (DI) (assumes extension of DI prior to max. capacity of 16" FM); Requires 2nd PS at Node 312-236-EN001 located approx. 1,400' s/e of on-site PS and extension of 15,000' x 12" FM to Douglas Interceptor at intersection of Douglas Rd./Grant Line Rd. \$18,872,683
Alternative 2			POC-2: Aerojet-2 Interceptor (AJ-2I) (if no DI); Requires extension of 12" FM to Aerojet-2 Interceptor POC-2 at intersection of Sunrise Blvd. & Douglas Rd. (additional 16,000' x 12" FM; Σ=31,000' x 12" FM from on-site PS to AJ-2I) \$24,920,683
Scenario 3			
Alternative 1	POC-3: Bradschaw Interceptor (BI) at Zinfandel Drive (no capacity available in ASD Trunk and Anatolia PS) Requires extension of 16" FM to BI at Zinfandel Dr./N. Mather Dr. intersection (additional 23,160' x 16" FM (Σ=40,572' x 16" FM from on-site PS) \$21,780,414	(if Phase 1 extension by-passes Anatolia PS & FM, no further Phase 2 FM extension required); Requires upgrades to on-site PS at Node 312-236-EN006 \$6,690,060	Douglas Interceptor (DI) (assumes extension of DI prior to max. capacity of 16" FM); Requires 2nd PS at Node 312-236-EN001 located approx. 1,400' s/e of on-site PS and extension of 15,000' x 12" FM to Douglas Interceptor at intersection of Douglas Rd./Grant Line Rd. \$18,872,683
Alternative 2			POC-2: Aerojet-2 Interceptor (AJ-2I) (if no DI); Requires extension of 12" FM to Aerojet-2 Interceptor POC-2 at intersection of Sunrise Blvd. & Douglas Rd. (additional 16,000' x 12" FM; Σ=31,000' x 12" FM from on-site PS to AJ-2I) \$24,920,683
Alternative 3			POC-3: Bradschaw Interceptor (BI) at Zinfandel Drive (if no AJ-2I); Requires extension of 12" FM to BI at Zinfandel Dr./N. Mather Dr. intersection (additional 10,930' x 12" FM; Σ=41,930' x 12" FM from on-site PS to BI) \$29,823,073
Scenario 4			
Alternative 1	POC-4: Bradshaw Interceptor at International Drive (no capacity available in ASD Trunk and Anatolia PS); Requires extension of 16" FM to BI at International Drive west of Folsom South Canal (additional 24,900' x 16" FM (Σ=42,312' x 16" FM from on-site PS) \$23,743,044	(if Phase 1 extension by-passes Anatolia PS & FM, no further Phase 2 FM extension required); Requires upgrades to on-site PS at Node 312-236-EN006 \$6,690,060	Douglas Interceptor (DI) (assumes extension of DI prior to max. capacity of 16" FM); Requires 2nd PS at Node 312-236-EN001 located approx. 1,400' s/e of on-site PS and extension of 15,000' x 12" FM to Douglas Interceptor at intersection of Douglas Rd./Grant Line Rd. \$18,872,683
Alternative 2			POC-2: Aerojet-2 Interceptor (AJ-2I) (if no DI); Requires extension of 12" FM to Aerojet-2 Interceptor POC-2 at intersection of Sunrise Blvd. & Douglas Rd. (additional 16,000' x 12" FM; Σ=31,000' x 12" FM from on-site PS to AJ-2I) \$24,920,683
Alternative 3			POC-4: Bradshaw Interceptor (BI) at International Drive Requires extension of 12" FM to BI at International Drive west of Folsom South Canal (additional 12,670' x 12" FM; Σ=43,670' x 12" FM from on-site PS to BI) \$30,480,793

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PHASE 1 SANITARY SEWER INFRASTRUCTURE PLAN (OFF-SITE)

Cordova Hills SPA

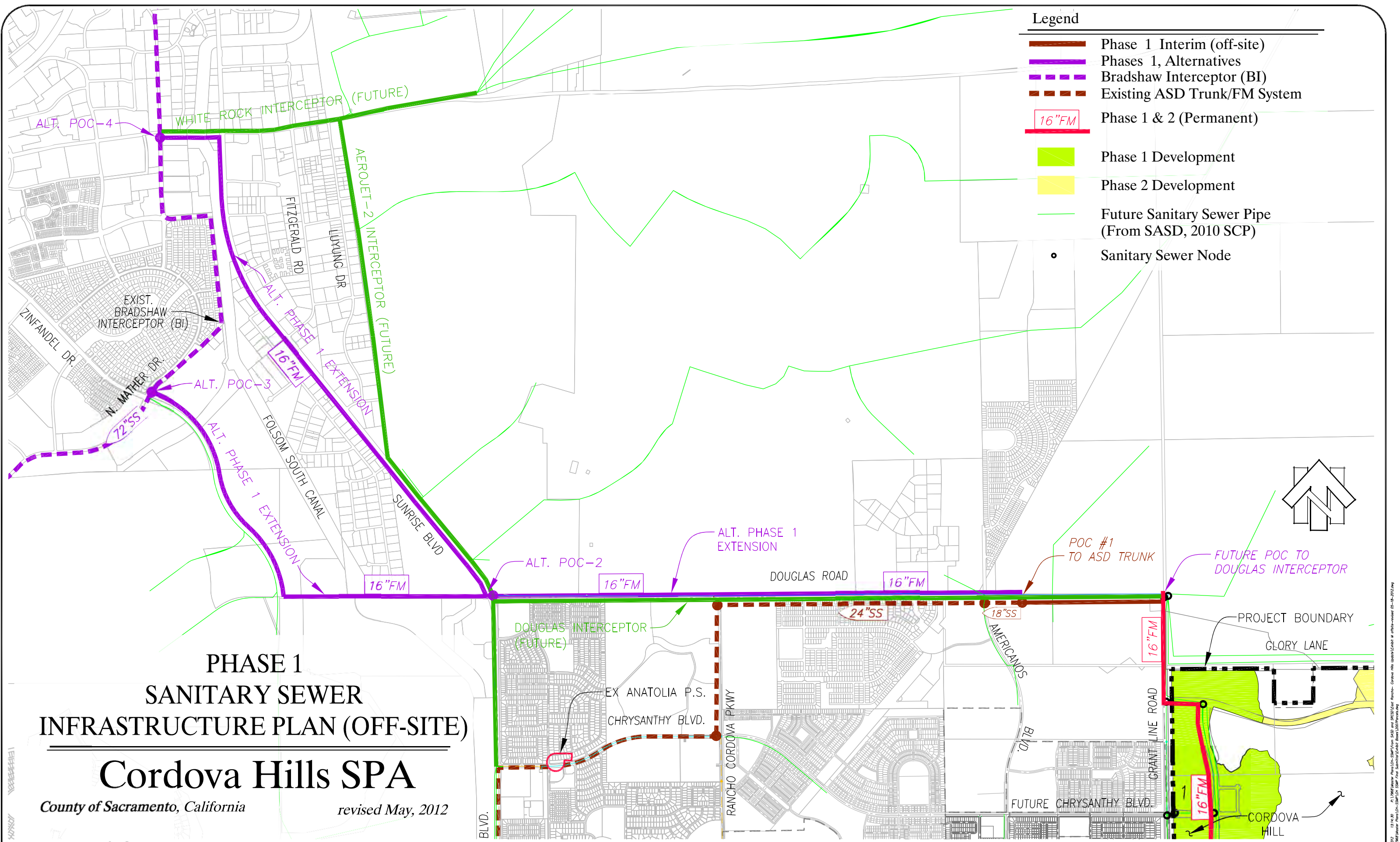
County of Sacramento, California

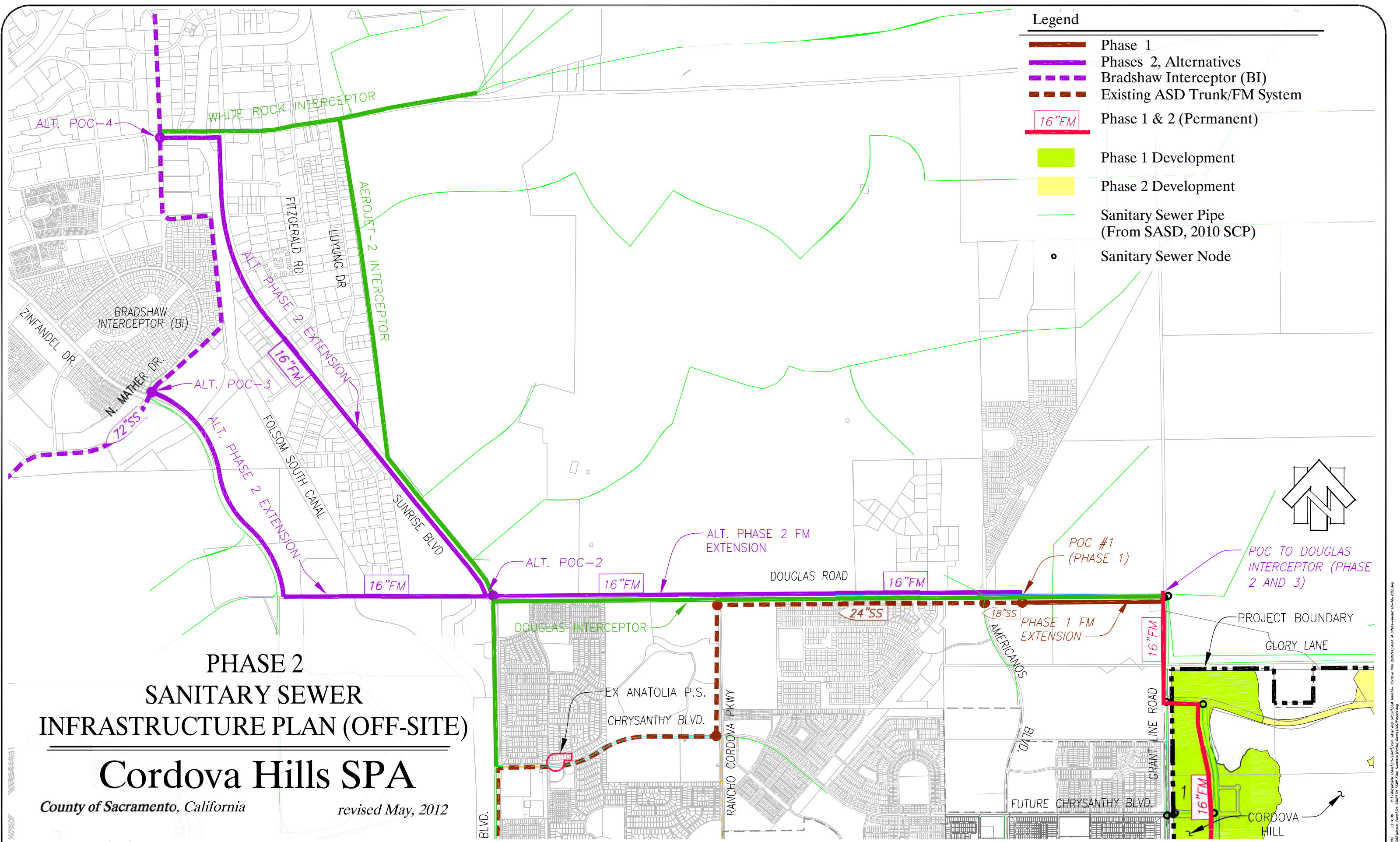
revised May, 2012

Map 4-3

Scale: 1"=2,000' (when plotted at 1:1 on 11"x17" media)

- Legend**
- Phase 1 Interim (off-site)
 - Phases 1, Alternatives
 - Bradshaw Interceptor (BI)
 - Existing ASD Trunk/FM System
 - 16"FM Phase 1 & 2 (Permanent)
 - Phase 1 Development
 - Phase 2 Development
 - Future Sanitary Sewer Pipe (From SASD, 2010 SCP)
 - Sanitary Sewer Node





- Legend**
- Phase 1
 - Phases 2, Alternatives
 - Bradshaw Interceptor (BI)
 - Existing ASD Trunk/FM System
 - 16"FM Phase 1 & 2 (Permanent)
 - Phase 1 Development
 - Phase 2 Development
 - Sanitary Sewer Pipe (From SASD, 2010 SCP)
 - Sanitary Sewer Node

PHASE 2
SANITARY SEWER
INFRASTRUCTURE PLAN (OFF-SITE)

Cordova Hills SPA

County of Sacramento, California

revised May, 2012

Map 4-4

Scale: 1"=2,000' (when plotted at 1:1 on 11"x17" media)

MACKEY & SOMPS
CIVIL ENGINEERS, INC.
ROSEVILLE, CALIFORNIA (916) 773-1189 7968-10

2-25-2012 11:44 AM C:\Users\miller\Documents\Projects\Cordova Hills SPA\Map 4-4.mxd
[1] P:\Users\miller\Documents\Projects\Cordova Hills SPA\Map 4-4.mxd

PHASE 3
SANITARY SEWER
INFRASTRUCTURE PLAN (OFF-SITE)

Cordova Hills SPA

County of Sacramento, California

revised May, 2012

Map 4-5

Scale: 1"=2,000' (when plotted at 1:1 on 11"x17" media)

Legend

Phase 1

Phases 1 And 2 Alternatives

Bradshaw Interceptor (BI)

Existing ASD Trunk/FM System

16"FM

Phase 1 & 2 (Permanent)

12"FM

Phase 3 (Permanent)

12"FM

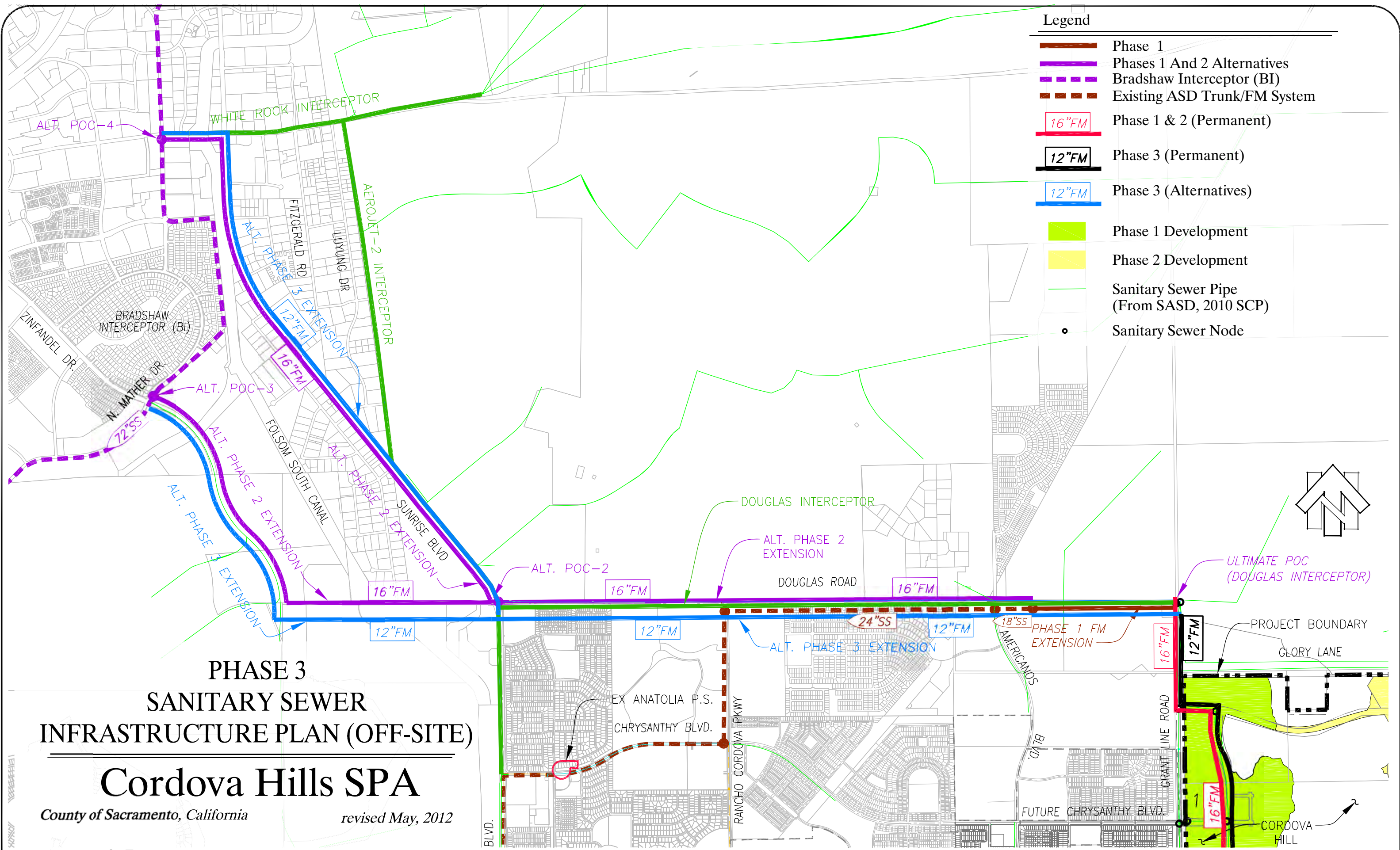
Phase 3 (Alternatives)

Phase 1 Development

Phase 2 Development

Sanitary Sewer Pipe
(From SASD, 2010 SCP)

Sanitary Sewer Node



5. STORM DRAINAGE

The Cordova Hills backbone storm drainage system is detailed in the Drainage Master Plan for Cordova Hills, prepared by MacKay & Soms (Drainage Master Plan). The Drainage Master Plan analyzes drainage impacts resulting from development of the proposed land uses in Cordova Hills. It conceptually defines at the master plan level how potential impacts of the proposed development on existing receiving waters can be fully mitigated to existing or better than existing conditions. It preliminarily details construction of on-site combination Flood and Flow Duration Control Detention Basins that mitigate for the development impacts. Further more detailed analysis will be required prior to the next phase of the development process, tentative map approval or improvement map approval, whichever comes first. **Map 5-1** shows the proposed storm drainage basin location plan and **Map 5-2** shows the proposed drainage trunk facilities in the Project. The backbone storm drainage system includes the following items:

- Storm drainage pipes;
- Manholes;
- Drainage inlets; and
- Flood control and water quality basin facilities and land.

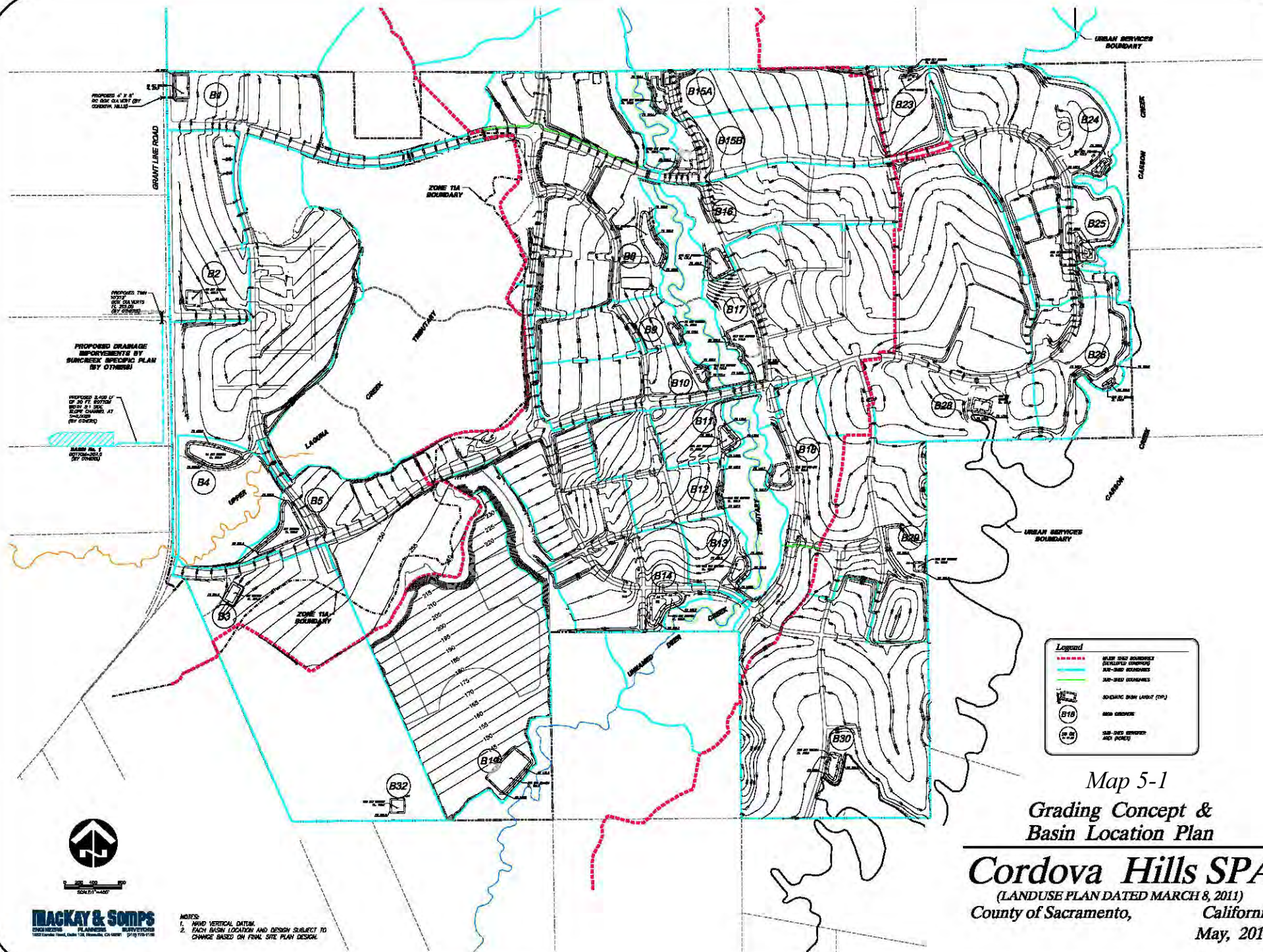
Facility Costs and Phasing

Summary

Table 5-1 summarizes Phase 1, remaining phases, and buildout storm drainage facility costs.

Phase 1 of Cordova Hills is located in the Sacramento County Water Agency (SCWA) Storm Drainage Zone 11A and will be required to pay Zone 11A development impact fees. Developers will construct and fund the Phase 1 facilities and will be eligible for credits or reimbursements from Zone 11A fees. **Table 5-1** shows the Phase 1 costs and the amount of the costs that are eligible for credits or reimbursements. The total Phase 1 storm drainage facilities cost is estimated at \$3.7 million, \$1.6 million of which is eligible for credits or reimbursements from the Zone 11A fee program. The remaining \$2.1 million is not eligible for Zone 11A credits or reimbursements. Storm drainage facilities and land that are not eligible for Zone 11A credits or reimbursements include the following items:

- 18 inch and 24 inch storm drains.
- Type B drainage inlets.
- Land for drainage basins other than regional flood basins (none of the Cordova Hills Phase 1 basins are regional basins).
- Buffer landscaping for drainage basins.
- Contingencies and soft costs in excess of the Zone 11A 8-percent engineering cost credit.



Map 5-1
Grading Concept &
Basin Location Plan

Cordova Hills SPA
(LANDUSE PLAN DATED MARCH 8, 2011)
County of Sacramento, California
May, 2011



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[1] P:\7968\Master_Plane\CM\SCM\Bases\JPG_7968_10_2009.dwg [2] P:\7968\1001\1001-01.dwg [3] P:\7968\Master_Plane\CM\SCM\Bases\Shed_Base.dwg [4] P:\7968\Master_Plane\CM\SCM\Bases\Zore\14m+USR-R1035.dwg [5] P:\7968\
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Table 5-1
Cordova Hills Financing Plan
Estimated Storm Drainage Facility Costs (2011\$)

Phase 1--Zone 11A [1]											
Item	Units	Unit Cost	Unit Credit	Quantity	Total Cost			Costs Eligible for Zone 11A Fee Credits			Costs Not Eligible for Zone 11A Fee Credits
					Construction/ Land Acq.	Contingencies & Soft Cost [1]	Total	Construction	Engineering	Total	
Percentage					35%			8%			
Storm Drainage											
Storm Drain, 18"	LF	\$ 39.76	\$ 0.00	0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Storm Drain, 24"	LF	\$ 49.60	\$ 0.00	2,470	\$ 122,512	\$ 42,879	\$ 165,391	\$ 0	\$ 0	\$ 0	\$ 165,391
Storm Drain, 30"	LF	\$ 59.22	\$ 59.22	2,650	\$ 156,933	\$ 54,927	\$ 211,860	\$ 156,933	\$ 12,555	\$ 169,488	\$ 42,372
Storm Drain, 36"	LF	\$ 72.43	\$ 72.43	1,410	\$ 102,126	\$ 35,744	\$ 137,871	\$ 102,126	\$ 8,170	\$ 110,296	\$ 27,574
Storm Drain, 42"	LF	\$ 99.14	\$ 99.14	350	\$ 34,699	\$ 12,145	\$ 46,844	\$ 34,699	\$ 2,776	\$ 37,475	\$ 9,369
Storm Drain, 48"	LF	\$ 114.11	\$ 114.11	0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Storm Drain Manhole, 48"	LF	\$ 2,923.41	\$ 2,923.41	17	\$ 49,893	\$ 17,463	\$ 67,355	\$ 49,893	\$ 3,991	\$ 53,884	\$ 13,471
Storm Drain Manhole, 60"	LF	\$ 4,254.04	\$ 4,254.04	6	\$ 24,957	\$ 8,735	\$ 33,692	\$ 24,957	\$ 1,997	\$ 26,954	\$ 6,738
Drain Inlet - Sac Co. Std type B	LF	\$ 250.00	\$ 0.00	40	\$ 10,033	\$ 3,512	\$ 13,545	\$ 0	\$ 0	\$ 0	\$ 13,545
Flood Control / Water Quality Basin Fac. [2]	AC FT	NA	NA	119	\$ 1,794,554	\$ 628,094	\$ 2,422,648	\$ 1,182,894	\$ 94,632	\$ 1,277,525	\$ 1,145,122
Basin Land	AC	\$ 50,000	\$ 0.00	13	\$ 644,500	\$ 0	\$ 644,500	\$ 0	\$ 0	\$ 0	\$ 644,500
Total Construction and Land Acquisition Costs					\$ 2,940,207	\$ 803,498	\$ 3,743,705	\$ 1,551,502	\$ 124,120	\$ 1,675,622	\$ 2,068,083
Total Construction and Land Acquisition Costs (Rounded)							\$ 3,740,000			\$ 1,670,000	\$ 2,070,000

sd cost

Source: MacKay & Soms

[1] Contingencies and soft costs include 20% cost contingency, 10% for surveys & design, and 5% for inspections & materials testing.

[2] Includes basin inlet structure and combined flow duration control/ flood control structure. See Table 5-2 for costs by basin.

Table 5-1
Cordova Hills Financing Plan
Estimated Storm Drainage Facility Costs (2011\$)

			Remaining Phases				Buildout			
			Total Cost				Total Cost			
Item	Units	Unit Cost	Quantity	Construction/ Land Acq.	Contingencies & Soft Cost [1]	Total	Quantity	Construction/ Land Acq.	Contingencies & Soft Cost [1]	Total
Percentage					35%		35%			
Storm Drainage										
Storm Drain, 18"	LF	\$ 39.76	4,040	\$ 160,630	\$ 56,221	\$ 216,851	4,040	\$ 160,630	\$ 56,221	\$ 216,851
Storm Drain, 24"	LF	\$ 49.60	9,840	\$ 488,064	\$ 170,822	\$ 658,886	12,310	\$ 610,576	\$ 213,702	\$ 824,278
Storm Drain, 30"	LF	\$ 59.22	3,020	\$ 178,844	\$ 62,596	\$ 241,440	5,670	\$ 335,777	\$ 117,522	\$ 453,299
Storm Drain, 36"	LF	\$ 72.43	510	\$ 36,939	\$ 12,929	\$ 49,868	1,920	\$ 139,066	\$ 48,673	\$ 187,739
Storm Drain, 42"	LF	\$ 99.14	0	\$ 0	\$ 0	\$ 0	350	\$ 34,699	\$ 12,145	\$ 46,844
Storm Drain, 48"	LF	\$ 114.11	230	\$ 26,245	\$ 9,186	\$ 35,431	230	\$ 26,245	\$ 9,186	\$ 35,431
Storm Drain Manhole, 48"	LF	\$ 2,923.41	56	\$ 164,685	\$ 57,640	\$ 222,325	73	\$ 214,578	\$ 75,102	\$ 289,681
Storm Drain Manhole, 60"	LF	\$ 4,254.04	2	\$ 10,493	\$ 3,673	\$ 14,166	8	\$ 35,450	\$ 12,408	\$ 47,858
Drain Inlet - Sac Co. Std type B	LF	\$ 250.00	103	\$ 25,725	\$ 9,004	\$ 34,729	143	\$ 35,758	\$ 12,515	\$ 48,274
Flood Control / Water Quality Basin Fac. [2]	AC FT	NA	290	\$ 4,456,385	\$ 1,559,735	\$ 6,016,119	409	\$ 6,250,938	\$ 2,187,828	\$ 8,438,767
Basin Land	AC	\$ 50,000	37	\$ 1,864,500	\$ 0	\$ 1,864,500	50	\$ 2,509,000	\$ 0	\$ 2,509,000
Total Construction and Land Acquisition Costs				\$ 7,412,512	\$ 1,941,804	\$ 9,354,316		\$ 10,352,719	\$ 2,745,302	\$ 13,098,021
Total Construction and Land Acquisition Costs (Rounded)						\$ 9,350,000				\$ 13,090,000

sd cost

Source: MacKay & Soms

[1] Contingencies and soft costs include 20% cost contingency, 10% for surveys & design, and 5% for inspections & materials testing.

[2] Includes basin inlet structure and combined flow duration control/flood control structure. See Table 5-2 for costs by basin.

Development phases beyond Phase 1 are not included in Zone 11A and will not participate in the Zone 11A fee program. The total storm drainage facilities cost for development in the remaining phases of the Project is estimated at \$9.4 million. The total buildout cost for all phases is estimated at \$13.1 million.

Drainage Basins

The Drainage Master Plan contains detailed cost estimates for each of the 26 proposed detention basins. These detailed estimates include both facilities and land cost estimates. The Flood Control/Water Quality Basin Facilities and the Basin Land cost items in **Table 5-1** are totals of the individual basin costs. **Table 5-2** summarizes the basin facilities and land costs by basin and Project phase. For each of the basins, it shows the total facilities and land cost and the portion of the total costs that is eligible for Zone 11A credits and/or reimbursements.

Only the Phase 1 basins are located in the Zone 11A area and eligible to receive Zone 11A credits or reimbursements. All of these basins are eligible for credits and/or reimbursements for basin facilities costs but not for the basin land and buffer landscaping costs. Documentation of the basin costs is provided in the Drainage Master Plan. The detailed cost tables for the five Phase 1 basins located in Zone 11A are included at the end of this chapter as **Table 5-10** through **Table 5-14**.

Funding Strategy

Summary

Table 5-3 summarizes the estimated Cordova Hills storm drainage facilities costs and revenues by funding source. Estimated costs and revenues are shown at completion of Phase 1 and at buildout. The funding sources are summarized below by phase.

Phase 1

The following funding sources will be used for Phase 1 development:

- SCWA Zone 11A Fee Program Credits and Reimbursements
- Cordova Hills Special Financing District

Of the \$3.7 million in Phase 1 storm drainage facilities costs, it is estimated that \$1.6 million will be funded through the Zone 11A fee program and the remaining \$2.1 million will be funded through the proposed Cordova Hills Special Financing District (SFD). Each of these funding sources is discussed below.

SCWA Zone 11A Fee Program Credits and Reimbursements

Phase 1 development is located in Zone 11A and will be required to pay Zone 11A development impact fees. The developers will construct the Phase 1 storm drainage facilities and will be eligible to receive credits or reimbursements from the Zone 11A fee program for a portion of the facilities cost in accordance with SCWA's applicable policies and allowable credit amounts for the various drainage facilities. The policies and allowable credit amounts are detailed in Title 2 of the SCWA Code.

■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■

basin

Prepared by EPS 10/9/2012

Table 5-3
Cordova Hills Financing Plan
Summary of Storm Drainage Facility Funding Sources (2011\$)

Funding Source	Storm Drainage Costs		
	Phase 1	Remaining Phases	Buildout
Zone 11A Fee Program - Creditable Costs	\$ 1,670,000	\$ 0	\$ 1,670,000
Cordova Hills SFD [1]			
Costs Inside Zone 11A but Ineligible for Fee Credits	\$ 2,070,000	\$ 0	\$ 2,070,000
Costs Outside of Zone 11A	\$ 0	\$ 9,350,000	\$ 9,350,000
Total Cordova Hills SFD	\$ 2,070,000	\$ 9,350,000	\$ 11,420,000
Total	\$ 3,740,000	\$ 9,350,000	\$ 13,090,000

sd su

[1] Costs not funded through Zone 11A fee credits and reimbursements.

Developers may receive credits or reimbursements for eligible Zone 11A trunk drainage facilities that have not been financed by an assessment district, a Mello-Roos Community Facilities District, a special tax district, or any similar public infrastructure financing entity. Before issuing credits or reimbursements for the construction of eligible facilities, SCWA will require the Cordova Hills developer to provide certification that the facilities were not financed through a public financing program.

Cordova Hills Special Financing District

The facilities and land costs that are ineligible for Zone 11A fee credits and reimbursements will be funded through the proposed Cordova Hills SFD, as shown in **Table 5-3**. The SFD could include developer funding and reimbursements, bond-funding, or funding through a fee program and is discussed further later in this chapter.

Buildout

The development phases after Phase 1 are not located in any of the SCWA drainage zones, so there is no existing fee program to fund the required storm drainage facilities costs. The entire estimated \$9.4 million in drainage costs for phases beyond Phase 1 will be funded through the Cordova Hills SFD.

Existing Fee Programs

Phase 1 development will participate in the SCWA Zone 11A storm drainage fee program. This development is the development shown as Phase 1 **Table 5-4** shows the estimated fee revenue.

Proposed Cordova Hills SFD

Cordova Hills proposes that all improvement costs not funded through the Zone 11A fee program be funded through the Cordova Hills SFD. This report includes facilities cost allocations to the various uses that would be needed if developer or fee funding were established to fund the facilities.

The estimated Cordova Hills storm drainage costs to be funded through the Cordova Hills SFD are allocated to the different land uses based on the land uses' relative storm drainage usage. **Table 5-5** summarizes the costs to be funded through the Cordova Hills SFD (as well as the costs to be funded through the Zone 11A Fee Program). The costs to be funded through the Cordova Hills SFD include both Phase 1 costs ineligible for Zone 11A credits and all other storm drainage costs for the remaining phases. **Table 5-5** shows the Phase 1 costs for development in Zone 11A separately from the costs for development outside of Zone 11A. **Table 5-6** shows the allocation factors used to estimate relative storm drainage usage and fairly allocate costs to the land uses. Storm drainage costs are allocated based on impervious surface factors per acre obtained from the City and County of Sacramento Storm Drainage Manual. **Table 5-7** shows the buildout cost allocation for Zone 11A development and the resulting storm drainage cost per dwelling unit for residential land uses, per building square foot for the nonresidential land uses, and in total for the university/college campus center. **Table 5-8** shows the same information for development outside of Zone 11A.

Item	Fee per Acre [2]	Dwelling Units	FAR	Fee per Unit/ Bldg. Sq. Ft. [3]	Phase 1		Buildout	
					Acres	Total Fee Revenue	Acres	Total Fee Revenue
<i>formula [1]</i>	<i>a</i>				<i>b</i>	<i>a*b</i>	<i>c</i>	<i>a*c</i>
Residential Land Uses				<i>per dwelling unit [4]</i>				
Estates Residential	\$ 12,484			NA	0.0	\$ 0	0.0	\$ 0
Low Density Residential	\$ 14,255	290		\$ 2,376	48.3	\$ 688,992	48.3	\$ 688,992
Medium Density Residential	\$ 15,494	760		\$ 1,291	63.3	\$ 981,287	63.3	\$ 981,287
Residential 20	\$ 17,910	150		\$ 896	7.5	\$ 134,325	7.5	\$ 134,325
High Density Residential	\$ 17,910	550		\$ 682	21.0	\$ 375,365	21.0	\$ 375,365
Total Residential Land Uses					140.1	\$ 2,179,968	140.1	\$ 2,179,968
Nonresidential Land Uses				<i>per bldg. sq. ft. [5]</i>				
Commercial	\$ 19,777		0.21	\$ 2.19	13.3	\$ 263,023	63.1	\$ 1,248,524
Office	\$ 19,777		0.15	\$ 3.09	0.0	\$ 0	18.4	\$ 364,784
Total Commercial					13.3	\$ 263,023	81.6	\$ 1,613,307
University/College Campus Center [6]	\$ 15,494				54.8	\$ 849,071	54.8	\$ 849,071
TOTAL						\$ 3,292,062		\$ 4,642,347
TOTAL (Rounded)						\$ 3,290,000		\$ 4,640,000

[1] SCWA Zone 11A fee revenue estimated as fee per acre * acres.
[2] Zone 11A fees per acre are from Drainage Fee Schedule A of Appendix No. 1, Title 2 of the SCWA code (effective date: March 1, 2010). The fee estimates assume rates for each land use using the following correspondence.

[3] Fee per dwelling unit and bldg sq.ft. estimated for use in the burden analysis only. See Table 19-1.
[4] Fee per dwelling unit = total fee revenue at buildout (fee per acre * acres) divided by total dwelling units in Zone 11A area.
[5] Fee per building square foot = fee per acre/(FAR*43560).
[6] Transition zone acres excluded.

Table 5-5
Cordova Hills Financing Plan
Estimated Cordova Hills SFD Storm Drainage Facility Revenues and Costs (2011\$)

Item	Within Zone 11A			Remainder of Project (Remaining Phases)	Buildout
	Eligible for Fee Credits [1]	Ineligible for Fee Credits	Subtotal Zone 11A		
Revenue					
Zone 11A Fee Program	\$ 4,640,000	\$ 0	\$ 4,640,000	\$ 0	\$ 4,640,000
Cordova Hills SFD [1]	\$ 0	\$ 2,070,000	\$ 2,070,000	\$ 9,350,000	\$ 11,420,000
Total	\$ 4,640,000	\$ 2,070,000	\$ 6,710,000	\$ 9,350,000	\$ 16,060,000
Cost					
Zone 11A Fee Program [2]	\$ 1,670,000	\$ 0	\$ 1,670,000	\$ 0	\$ 1,670,000
Cordova Hills SFD [1]	\$ 0	\$ 2,070,000	\$ 2,070,000	\$ 9,350,000	\$ 11,420,000
Total	\$ 1,670,000	\$ 2,070,000	\$ 3,740,000	\$ 9,350,000	\$ 13,090,000
Revenue Less Cost	\$ 2,970,000	\$ 0	\$ 2,970,000	\$ 0	\$ 2,970,000

sd sum

Source: SCWA and Mackay & Soms.

[1] Estimated Zone 11A fee revenue from Cordova Hills development exceeds cost eligible for fee credits, so no costs eligible for fee credits will be funded through the Cordova Hills SFD.

[2] Credits and reimbursements will be applied according to SCWA code.

	Impervious Surface per Acre [1]
Residential Land Uses	
Estates Residential (1-7 units/acre)	0.25
Low Density Residential (4-7 units/acre)	0.30
Medium Density Residential (7-15 units/acre)	0.50
Residential 20 (15-23 units/acre)	0.70
High Density Residential (23-30 units/acre)	0.70
Total Residential Land Uses	
Nonresidential Land Uses	
Commercial	0.90
Office	0.90
Total Commercial	
University/College Campus Center	0.50

Source: City and County of Sacramento Drainage Manual.

<u>Cordova Hills Land Use</u>	<u>SCWA Land Use from Aerial Photography</u>	<u>County General Plan Land Use</u>
Estates Residential	Residential : 2-3 du/acre	Low Dens. Res. (1-12 du/acre)
Low Density Residential	Residential : 3-4 du/acre	Low Dens. Res. (1-12 du/acre)
Medium Density Residential	Residential : 6-8 du/acre	Low Dens. Res. (1-12 du/acre)
Residential 20	Condominiums	Med. Dens. Res. (13-30 du/acre)
High Density Residential	Condominiums	Med. Dens. Res. (13-30 du/acre)
Commercial	Commercial, Offices	Commercial/Offices
Office	Commercial, Offices	Commercial/Offices
University/College Campus Center	N/A	School

Table 5-7
Cordova Hills Financing Plan
Cordova Hills SFD Storm Drainage Facilities Cost Allocation for Development in Zone 11A (2011\$)

Item	Area of Project Within Zone 11A							
	Land Use (Phase 1)		Cost Allocation Basis			Cost Allocation		
	Acres	Units/ Sq. Ft.	Impervious Surface per Acre[1]	Total Impervious Acres	Percentage Distribution	Total Cost	Cost per Acre	Cost per Unit/Sq. Ft.
Residential Land Uses		<u>units</u>						<u>per unit</u>
Estates Residential	0.0	0	0.25	0	0.0%	\$ 0	\$ 0	\$ 0
Low Density Residential	48.3	290	0.30	15	8.7%	\$ 179,833	\$ 3,721	\$ 620
Medium Density Residential	63.3	760	0.50	32	19.0%	\$ 392,738	\$ 6,201	\$ 517
Residential 20	7.5	150	0.70	5	3.1%	\$ 65,112	\$ 8,682	\$ 434
High Density Residential	21.0	550	0.70	15	8.8%	\$ 181,952	\$ 8,682	\$ 331
Total Residential Land Uses	140.1	1,750		66	39.6%	\$ 819,635		
Nonresidential Land Uses		<u>bldg. sq. ft.</u>						<u>per bldg. sq. ft.</u>
Commercial [2]	63.1	362,800	0.90	57	34.0%	\$ 704,661	\$ 11,162	\$ 1.94
Office	18.4	106,000	0.90	17	9.9%	\$ 205,882	\$ 11,162	\$ 1.94
Total Commercial	81.6	468,800		73	44.0%	\$ 910,543		
University/College Campus Center	54.8	<u>bldg. sq. ft.</u> 344,000	0.50	27	16.4%	\$ 339,822		<u>per bldg. sq. ft.</u> \$ 0.99
TOTAL [3]	276.5			167	100.0%	\$ 2,070,000		

alloc sd

[1] See Table 5-6.

[2] Includes Phase 1 undeveloped commercial acres.

[3] See Table 5-5 for total cost.

Table 5-8
Cordova Hills Financing Plan
Cordova Hills SFD Storm Drainage Facilities Cost Allocation for Development in Phases 2 and 3 (2011\$)

Item	Area of Project Outside of Zone 11A							
	Land Use (all after Phase 1)		Cost Allocation Basis			Cost Allocation		
	Acres	Units/ Sq. Ft.	Impervious Surface per Acre[1]	Total Impervious Acres	Percentage Distribution	Total Cost	Cost per Acre	Cost per Unit/Sq. Ft.
Residential Land Uses		<u>units</u>						<u>per unit</u>
Estates Residential	64.7	137.8	0.25	16	3.4%	\$ 317,885	\$ 4,913	\$ 2,307
Low Density Residential	442.8	1,519.4	0.30	133	27.9%	\$ 2,610,683	\$ 5,896	\$ 1,718
Medium Density Residential	323.4	2,300.9	0.50	162	34.0%	\$ 3,178,027	\$ 9,826	\$ 1,381
Residential 20	54.0	682.5	0.70	38	7.9%	\$ 742,877	\$ 13,757	\$ 1,088
High Density Residential	63.6	1,109.4	0.70	45	9.4%	\$ 874,944	\$ 13,757	\$ 789
Total Residential Land Uses	948.5	5,750		393	82.6%	\$ 7,724,416		
Nonresidential Land Uses		<u>bldg. sq. ft.</u>						<u>per bldg. sq. ft.</u>
Commercial	9.4	292,060	0.90	9	1.8%	\$ 167,096	\$ 17,688	\$ 0.57
Office	12.2	90,540	0.90	11	2.3%	\$ 216,429	\$ 17,688	\$ 2.39
Total Commercial	21.7	382,600		20	4.1%	\$ 383,525		
University/College Campus Center [2]	126.4	1,526,000	0.50	63	13.3%	\$ 1,242,059		<u>per bldg. sq. ft.</u> \$ 0.81
TOTAL [3]	1,096.6	1,526,000		476	100.0%	\$ 9,350,000		

alloc sd12

[1] See Table 5-6.

[2] Since transition zone acres do not generate any storm drainage usage, they are excluded for the purposes of allocating costs to the university/college campus. To estimate a university cost per acre that can be compared and summed across improvement types, however, the university portion of costs for each improvement type is spread over all university acres. The master developers have agreed to advance the university's portion of the costs if needed and get reimbursed by the university as development occurs.

[3] See Table 5-5 for total cost.

Note that in **Table 5-7**, the commercial and office square feet represent the planned development levels in Zone 11A at buildout. Even though all Project development in the Zone 11A area is located in the Phase 1 area (see **Map 2-3**), it is assumed that only a limited amount of the non-residential development in this area will occur during Phase 1, with the remainder occurring in later phases. Thus, the buildout nonresidential development in Zone 11A is greater than the Phase 1 nonresidential development.

Phase 1 Facilities Cost vs. Allocated Cost – SFD Funded Facilities

Table 5-9 shows the estimated Cordova Hills SFD Phase 1 and buildout storm drainage facilities costs versus proportional allocated costs for development within Zone 11A. These costs apply to improvements in the Cordova Hills SFD program only and not to Zone 11A funded improvements. There is a deficit of estimated revenues in Phase 1 as compared to estimated Phase 1 facilities costs. This deficit will be advance-funded by the master developer and reimbursed through the Cordova Hills SFD in subsequent phases of the Project. *Note that there is no similar Phase 1 shortfall analysis for development outside of Zone 11A because none of this development occurs in Phase 1.*

Table 5-9
Cordova Hills Financing Plan
Storm Drainage Construction Cost vs. Proportional Cost Allocation (2011\$) - Zone 11A
Cordova Hills SFD Funded Facilities

Item	Cost per Acre	Acres		Cordova Hills SFD Cost Allocation vs. Net Construction Cost	
		Phase 1	Buildout	Phase 1	Buildout
Net Construction Cost [1]				\$ 2,070,000	\$ 2,070,000
Allocated Cost					
Residential Land Uses					
Estates Residential	\$ 0	0.0	0.0	\$ 0	\$ 0
Low Density Residential	\$ 3,721	48.3	48.3	\$ 179,833	\$ 179,833
Medium Density Residential	\$ 6,201	63.3	63.3	\$ 392,738	\$ 392,738
Residential 20	\$ 8,682	7.5	7.5	\$ 65,112	\$ 65,112
High Density Residential	\$ 8,682	21.0	21.0	\$ 181,952	\$ 181,952
Total Residential Land Uses		140.1	140.1	\$ 819,635	\$ 819,635
Nonresidential Land Uses					
Commercial	\$ 11,162	13.3	63.1	\$ 148,449	\$ 704,661
Office	\$ 11,162	0.0	18.4	\$ 0	\$ 205,882
Total Commercial		13.3	81.6	\$ 148,449	\$ 910,543
University/College Campus Center	<i>total cost</i> \$ 339,822	<i>pct of total development</i> 100%	100%	\$ 339,822	\$ 339,822
TOTAL				\$ 1,307,906	\$ 2,070,000
Surplus/(Shortfall)				(\$ 762,094)	\$ 0

sd rev

[1] Excludes cost that are creditable against SASD fee.

Table 5-10
Cordova Hills Financing Plan
Drainage Basin Cost Detail - Basin B1

DEVELOPMENT PHASE 1
BASIN B1 (Laguna Creek Shed)
(1.88-Acre Detention/Hydromod./WQ Treatment Basin - Shed Area = 58.3 Acres)

Item		QTY	Unit	Unit Cost [1]	Subtotal
Zone 11A					
1.	Flood Control Excavation [2]	15,150	c.y	\$ 3.71	\$ 56,207
2.	WQ Excavation	7,050	c.y	\$ 3.71	\$ 26,156
3.	Hydroseed	2.25	acres	\$ 1,768.19	\$ 3,978
4.	Basin Access Ramp	1	ea.	\$ 15,000.00	\$ 15,000
5.	Pipe Gate	1	ea.	\$ 2,946.99	\$ 2,947
6.	30" Basin Discharge Pipe	150	lf	\$ 59.22	\$ 8,883
7.	Emergency Spillway	1	ea.	\$ 15,000.00	\$ 15,000
8.	Fencing - Post & Cable	1,140	lf	\$ 10.90	\$ 12,426
9.	Hydromod. Excavation [3]	3,030	c.y	\$ 3.71	\$ 11,241
10.	Flow Duration Control Structure	1	ea.	\$ 25,000.00	\$ 25,000
Zone 11A Subtotal					\$ 176,838
Engineering [4]		8	%	\$ 176,837.72	\$ 14,147
Zone 11A Total					\$ 191,000
CH Supplemental Fee Program					
Contingency/Soft Costs for Zone 11A					
Reimb. Costs [4]		27	%	\$ 176,837.72	\$ 47,746
11.	Percolation Trenches	1,290	lf	\$ 40.00	\$ 51,600
12.	Buffer Enhancement Landscaping	1,140	lf	\$ 46.50	\$ 53,010
Engineering/Contingency/Soft Costs		35	%	\$ 104,610.00	\$ 36,614
CH Supplemental Fee Subtotal					\$ 188,970
Land Acquisition, incl. Buffer [5]		2.25	acres	\$ 50,000.00	\$ 112,500
CH Supplemental Fee Total					\$ 301,500
SUMMARY					
Zone 11A Reimbursable					\$ 191,000
CH Supplemental Fee Program					\$ 301,500
TOTAL BASIN B1 COST					\$ 492,500

B1

Source: MacKay & Somps (August 2011)

Notes:

[1] Unit Cost based on 2011 Zone 11A schedule.

[2] Total excavated basin volume includes req'd freeboard.

[3] Hydromod. volume is additional 20% of req'd flood control volume.

[4] Engineering costs are reimbursable in the amount of 8% of the Zone 11A reimbursable construction costs. Additional soft costs and contingencies are not reimbursable through Zone 11.

[5] Land acquisition unit cost to be determined by appraisal (assumed to be \$50,000).

Table 5-11
Cordova Hills Financing Plan
Drainage Basin Cost Detail - Basin B2

DEVELOPMENT PHASE 1
BASIN B2 (Laguna Creek Shed)
(1.17-Acre Detention/Hydromod./WQ Treatment Basin - Shed Area = 63.5 Acres)

Item	QTY	Unit	Unit Cost [1]	Subtotal
Zone 11A				
1. Flood Control Excavation [2]	10,120	c.y	\$ 3.71	\$ 37,545
2. WQ Excavation	7,390	c.y	\$ 3.71	\$ 27,417
3. Hydroseed	1.41	acres	\$ 1,768.19	\$ 2,493
4. Basin Access Ramp	1	ea.	\$ 15,000.00	\$ 15,000
5. Pipe Gate	1	ea.	\$ 2,946.99	\$ 2,947
6. 36" Basin Discharge Pipe	150	lf	\$ 72.43	\$ 10,865
7. Emergency Spillway	1	ea.	\$ 15,000.00	\$ 15,000
8. Fencing - Post & Cable	900	lf	\$ 10.90	\$ 9,810
9. Hydromod. Excavation [3]	2,020	c.y	\$ 3.71	\$ 7,494
10. Flow Duration Control Structure	1	ea.	\$ 25,000.00	\$ 25,000
Zone 11A Subtotal				\$ 153,571
Engineering [4]	8	%	\$ 153,570.94	\$ 12,286
Zone 11A Total				\$ 165,900
CH Supplemental Fee Program				
Contingency/Soft Costs for Zone 11A				
Reimb. Costs [4]	27	%	\$ 153,570.94	\$ 41,464
11. Percolation Trenches	1,410	lf	\$ 40.00	\$ 56,400
12. Buffer Enhancement Landscaping	900	lf	\$ 46.50	\$ 41,850
Engineering/Contingency/Soft Costs	35	%	\$ 98,250.00	\$ 34,388
CH Supplemental Fee Subtotal				\$ 174,102
Land Acquisition, incl. Buffer [5]	1.41	acres	\$ 50,000.00	\$ 70,500
CH Supplemental Fee Total				\$ 244,600
SUMMARY				
Zone 11A Reimbursable				\$ 165,900
CH Supplemental Fee Program				\$ 244,600
TOTAL BASIN B2 COST				\$ 410,500

B2

Source: MacKay & Soms (August 2011)

Notes:

[1] Unit Cost based on 2011 Zone 11A schedule.

[2] Total excavated basin volume includes req'd freeboard.

[3] Hydromod. volume is additional 20% of req'd flood control volume.

[4] Engineering costs are reimbursable in the amount of 8% of the Zone 11A reimbursable construction costs. Additional soft costs and contingencies are not reimbursable through Zone 11.

[5] Land acquisition unit cost to be determined by appraisal (assumed to be \$50,000).

Table 5-12
Cordova Hills Financing Plan
Drainage Basin Cost Detail - Basin B3

DEVELOPMENT PHASE 1

BASIN B3 (Laguna Creek Shed)

(1.21-Acre Detention/Hydromod./WQ Treatment Basin - Shed Area = 62.8 Acres)

Item	QTY	Unit	Unit Cost [1]	Subtotal
Zone 11A				
1. Flood Control Excavation [2]	12,250	c.y	\$ 3.71	\$ 45,448
2. WQ Excavation	2,420	c.y	\$ 3.71	\$ 8,978
3. Hydroseed	1.21	acres	\$ 1,768.19	\$ 2,140
4. Basin Access Ramp	1	ea.	\$ 15,000.00	\$ 15,000
5. Pipe Gate	1	ea.	\$ 2,946.99	\$ 2,947
6. 30" Basin Discharge Pipe	200	lf	\$ 59.22	\$ 11,844
7. Basin Discharge Spreader Structure [3]	52	lf	\$ 400.00	\$ 20,800
8. Emergency Spillway	1	ea.	\$ 15,000.00	\$ 15,000
9. Fencing - Post & Cable	910	lf	\$ 10.90	\$ 9,919
10. Hydromod. Excavation [4]	2,450	c.y	\$ 3.71	\$ 9,090
11. Flow Duration Control Structure	1	ea.	\$ 25,000.00	\$ 25,000
Zone 11A Subtotal				\$ 166,165
Engineering [5]	8	%	\$ 166,164.70	\$ 13,293
Zone 11A Total				\$ 179,500
CH Supplemental Fee Program				
Contingency/Soft Costs for Zone 11A				
Reimb. Costs [5]	27	%	\$ 166,164.70	\$ 44,864
12. Percolation Trenches	1,390	lf	\$ 40.00	\$ 55,600
13. Buffer Enhancement Landscaping [6]	0	lf	\$ 46.50	\$ 0
Engineering/Contingency/Soft Costs	35	%	\$ 55,600.00	\$ 19,460
CH Supplemental Fee Subtotal				\$ 119,924
Land Acquisition [7]	1.21	acres	\$ 50,000.00	\$ 60,500
CH Supplemental Fee Total				\$ 180,400
SUMMARY				
Zone 11A Reimbursable				\$ 179,500
CH Supplemental Fee Program				\$ 180,400
TOTAL BASIN B3 COST				\$ 359,900

B3

Source: MacKay & Soms (August 2011)

Notes:

[1] Unit Cost based on 2011 Zone 11A schedule.

[2] Total excavated basin volume includes req'd freeboard.

[3] Length of spreader structure = 1 lf min. / 0.25 cfs of Q10 (Q10 = 13 cfs)

[4] Hydromod. volume is additional 20% of req'd flood control volume.

[5] Engineering costs are reimbursable in the amount of 8% of the Zone 11A reimbursable construction costs. Additional soft costs and contingencies are not reimbursable through Zone 11.

[6] Basin seamlessly incorporated into park, thus not requiring additional buffer.

[7] Land acquisition unit cost to be determined by appraisal (assumed to be \$50,000).

Table 5-13
Cordova Hills Financing Plan
Drainage Basin Cost Detail - Basin B4

DEVELOPMENT PHASE 1

BASIN B4 (Laguna Creek Shed)

(4.01-Acre Detention/Hydromod./WQ Treatment Basin - Shed Area = 171.6 Acres)

Item	QTY	Unit	Unit Cost [1]	Subtotal
Zone 11A				
1. Flood Control Excavation [2]	45,790	c.y	\$ 3.71	\$ 169,881
2. WQ Excavation	13,040	c.y	\$ 3.71	\$ 48,378
3. Hydroseed	4.01	acres	\$ 1,768.19	\$ 7,090
4. Basin Access Ramp	1	ea.	\$ 15,000.00	\$ 15,000
5. Pipe Gate	1	ea.	\$ 2,500.00	\$ 2,500
6. 36" Basin Discharge Pipe	80	lf	\$ 72.43	\$ 5,794
7. Basin Discharge Spreader Structure [3]	60	lf	\$ 213.85	\$ 12,831
8. Emergency Spillway	60	lf	\$ 400.00	\$ 24,000
9. Fencing - Post & Cable	910	lf	\$ 10.90	\$ 9,919
10. Hydromod. Excavation [4]	9,160	c.y	\$ 3.71	\$ 33,984
11. Flow Duration Control Structure	1	ea.	\$ 25,000.00	\$ 25,000
Zone 11A Subtotal				\$ 354,378
Engineering [5]	8	%	\$ 354,377.74	\$ 28,350
Zone 11A Total				\$ 382,700
CH Supplemental Fee Program				
Contingency/Soft Costs for Zone 11A				
Reimb. Costs [5]	27	%	\$ 354,377.74	\$ 95,682
12. Percolation Trenches	3,800	lf	\$ 40.00	\$ 152,000
13. Buffer Enhancement Landscaping [6]	0	lf	\$ 46.50	\$ 0
Engineering/Contingency/Soft Costs	35	%	\$ 152,000.00	\$ 53,200
CH Supplemental Fee Subtotal				\$ 300,882
Land Acquisition [7]	4.01	acres	\$ 50,000.00	\$ 200,500
CH Supplemental Fee Total				\$ 501,400
SUMMARY				
Zone 11A Reimbursable				\$ 382,700
CH Supplemental Fee Program				\$ 501,400
TOTAL BASIN B4 COST				\$ 884,100

B4

Source: MacKay & Somps (August 2011)

Notes:

[1] Unit Cost based on 2011 Zone 11A schedule.

[2] Total excavated basin volume includes req'd freeboard.

[3] Length of spreader structure = 1 lf min. / 0.25 cfs of Q10 (Q10 = 15 cfs)

[4] Hydromod. volume is additional 20% of req'd flood control volume.

[5] Engineering costs are reimbursable in the amount of 8% of the Zone 11A reimbursable construction costs. Additional soft costs and contingencies are not reimbursable through Zone 11.

[6] Basin seamlessly incorporated into R-2 open space, thus not requiring additional buffer.

[7] Land acquisition unit cost to be determined by appraisal (assumed to be \$50,000).

Table 5-14
Cordova Hills Financing Plan
Drainage Basin Cost Detail - Basin B5

DEVELOPMENT PHASE 1
BASIN B5 (Laguna Creek Shed)
(4.47-Acre Detention/Hydromod./WQ Treatment Basin - Shed Area = 227.4 Acres)

Item		QTY	Unit	Unit Cost [1]	Subtotal
Zone 11A					
1.	Flood Control Excavation [2]	45,850	c.y	\$ 3.71	\$ 170,104
2.	WQ Excavation	7,280	c.y	\$ 3.71	\$ 27,009
3.	Hydroseed	4.47	acres	\$ 1,768.19	\$ 7,904
4.	Basin Access Ramp	1	ea.	\$ 15,000.00	\$ 15,000
5.	Pipe Gate	1	ea.	\$ 2,500.00	\$ 2,500
6.	36" Basin Discharge Pipe	80	lf	\$ 72.43	\$ 5,794
7.	Basin Discharge Spreader Structure [3]	50	lf	\$ 213.85	\$ 10,693
8.	Emergency Spillway	60	lf	\$ 400.00	\$ 24,000
9.	Fencing - Post & Cable	910	lf	\$ 10.90	\$ 9,919
10.	Hydromod. Excavation [4]	9,170	c.y	\$ 3.71	\$ 34,021
11.	Flow Duration Control Structure	1	ea.	\$ 25,000.00	\$ 25,000
	Zone 11A Subtotal				\$ 331,943
	Engineering [5]	8	%	\$ 331,942.71	\$ 26,555
	Zone 11A Total				\$ 358,500
CH Supplemental Fee Program					
	Contingency/Soft Costs for Zone 11A				
	Reimb. Costs [5]	27	%	\$ 331,942.71	\$ 89,625
12.	Percolation Trenches	5,030	lf	\$ 40.00	\$ 201,200
13.	Buffer Enhancement Landscaping [6]	0	lf	\$ 46.50	\$ 0
	Engineering/Contingency/Soft Costs	35	%	\$ 201,200.00	\$ 70,420
	CH Supplemental Fee Subtotal				\$ 361,245
	Land Acquisition [7]	4.01	acres	\$ 50,000.00	\$ 200,500
	CH Supplemental Fee Total				\$ 561,700
SUMMARY					
	Zone 11A Reimbursable				\$ 358,500
	CH Supplemental Fee Program				\$ 561,700
	TOTAL BASIN B5 COST				\$ 920,200

B5

Source: MacKay & Somps (August 2011)

Notes:

[1] Unit Cost based on 2011 Zone 11A schedule.

[2] Total excavated basin volume includes req'd freeboard.

[3] Length of spreader structure =1 lf min. / 0.25 cfs of Q10 (Q10 = 15 cfs)

[4] Hydromod. volume is additional 20% of req'd flood control volume.

[5] Engineering costs are reimbursable in the amount of 8% of the Zone 11A reimbursable construction costs. Additional soft costs and contingencies are not reimbursable through Zone 11.

[6] Basin seamlessly incorporated into R-2 open space thus not requiring additional buffer.

[7] Land acquisition unit cost to be determined by appraisal (assumed to be \$50,000).

6. WATER

The Cordova Hills backbone water facilities consist of both potable water and non-potable water facilities. The planned facilities are detailed in the Potable Water Master Plan for Cordova Hills and the Non-Potable Water Master Plan for Cordova Hills (including their respective Supplemental Reports), both prepared by MacKay & Somps. All new potable and non-potable water facilities will be dedicated to the Sacramento County Water Agency (SCWA).

Potable Water System

With the exception of the Bufferlands, Cordova Hills is in the Sacramento County Water Agency (SCWA) Zone 40 Service Area. Zone 40 is responsible for construction of potable water facilities within its boundaries. Limited Zone 40 water facilities will be extended into the Bufferlands. Cordova Hills ultimately will be serviced from proposed storage tanks anticipated to be located just north of the Project, east of Ridgeline Road. The Cordova Hills potable water system ultimately will be integrated into the SCWA Zone 40 North Service Area system with connections along Grant Line Road. The potable water system includes the following types of improvements:



- Onsite and offsite water transmission mains.
- Pressure reducing station.
- Above ground water storage tanks (capacity of 3.5 million gallons).
- Ground tank booster pumps.

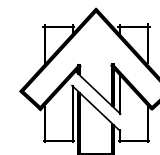
Map 6-1 shows the proposed potable water system at buildout. The map includes water tanks with a total capacity of 5.5 million gallons. Of this total capacity, 3.5 million gallons will be used for the potable water system, and the remaining 2.0 million will be used for non-potable uses.

Note that both the storage tanks and pipeline feeding the tanks are proposed to be located off-site on land currently owned by the Project applicant. A condition of approval on the large lot map would ensure SCWA's access to and right to acquire this off-site storage site. The Project applicant proposes the following language for this condition of approval: "Prior to recordation of the large lot map, a water tank site and related water pipeline easements shall be identified to the satisfaction of the Sacramento County Water Agency. The identified water tank site shall be in a location consistent with the Cordova Hills Water Master Plan and a size and configuration that meets SCWA standards."

Also note that water main extensions to the lands located south of Cordova Hills as depicted on **Map 6-1** are shown for modeling purposes only to ensure adequate sizing of the Project pipe system to handle future demands south of Cordova Hills, should they ever materialize. Construction of these water main extensions is not required for service of Cordova Hills and thus not a part of the Project.

LEGEND

- EXISTING WATERLINE
- 12" WATERLINE
- 16" WATERLINE
- 18" WATERLINE
- 24" WATERLINE
- 30" WATERLINE
- 36" WATERLINE
- 42" WATERLINE
- 30" STORAGE TANK FEED LINE
- FUTURE OFFSITE WATERLINE (BY OTHERS)
-  PROPOSED WATER STORAGE TANKS (5.5 MILLION GALLONS TOTAL, 2.0 MILLION GALLONS FOR INTERIM IRRIGATION USES)
-  PRESSURE REDUCING VALVE



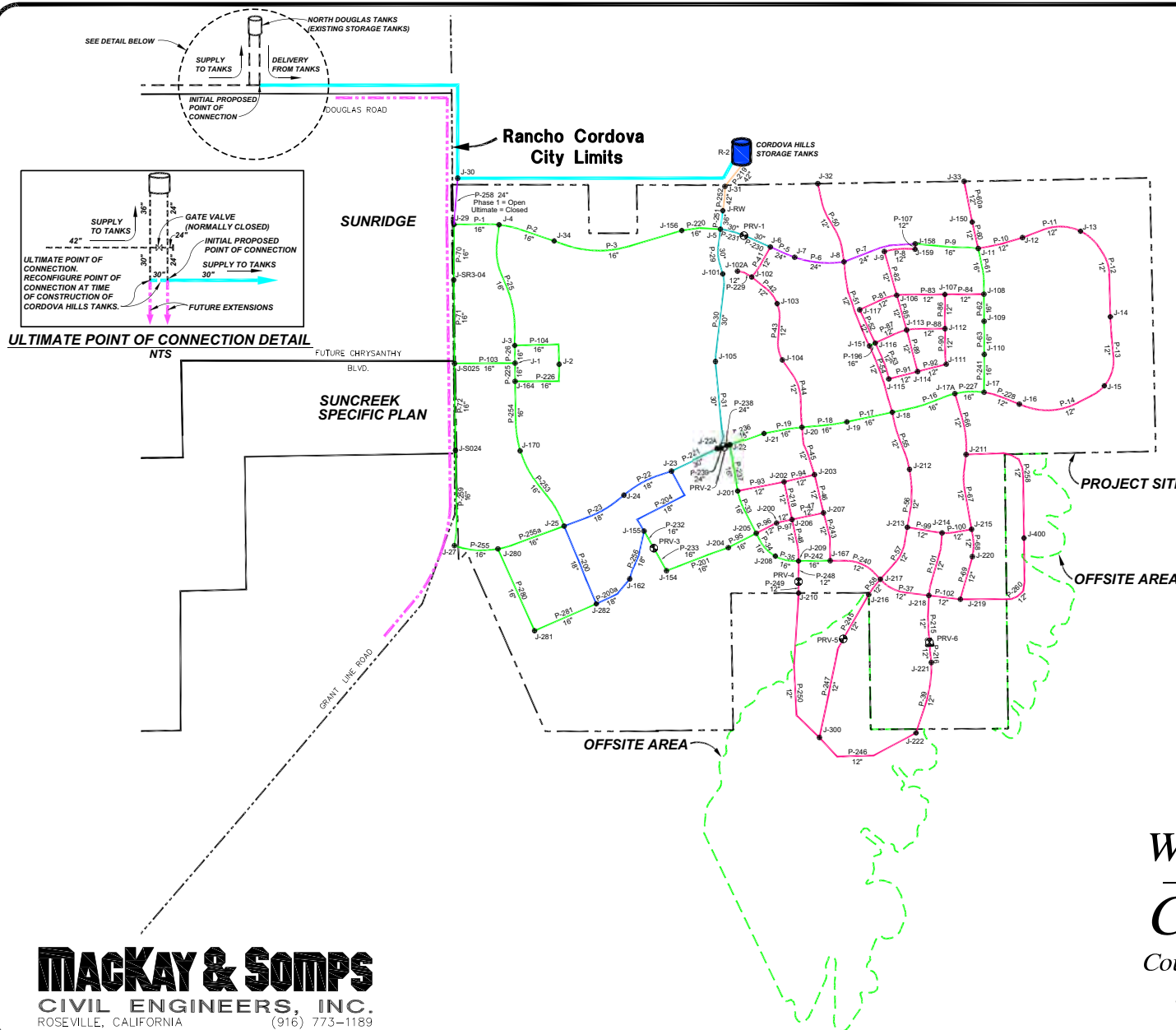
MAP 6-1

WATER SYSTEM MAP

Cordova Hills SPA

County of Sacramento, California
Scale: NTS
Sept. 22, 2011

7968-10



MACKAY & SOMPS
CIVIL ENGINEERS, INC.
ROSEVILLE, CALIFORNIA (916) 773-1189

Facility Costs

Table 6-1 details the Phase 1 and buildout potable water facility costs as reflected in the Cordova Hills Water Capital Improvement Plan (CIP). At buildout, the total estimated cost of the potable water system is \$17.4 million. This cost includes the cost of all trunk facilities to be used for the potable water system, as well as the cost for SCWA to acquire land for potable water storage tanks used for potable water located north of the Project.

Phasing

There are two existing water storage tanks located in the North Douglas development west of Grant Line Road and north of Douglas Road. It is anticipated that Phase 1 will be serviced from these tanks until the proposed new tanks are constructed later in the development process, the timing of which will be determined by SCWA. The availability of water for Cordova Hills from the North Douglas tanks is dependent on the pace of development in the area surrounding these tanks (e.g., North Douglas; Sunridge). In the event development moves forward in this area, the length of time before Cordova Hills tanks are needed could be relatively short. In an extremely conservative scenario, the Cordova Hills tanks would need to be constructed at the beginning of the Project.

Phase 1 of the potable water system includes construction of the transmission system needed to serve Phase 1 development in Cordova Hills. The Phase 1 potable water system costs are estimated at \$7.0 million.

Funding Strategy

Summary

A majority of the Cordova Hills development is located in the SCWA Zone 40 service area and will be required to pay Zone 40 development impact fees for construction of potable water facilities. Developers will construct and advance-fund the potable water facilities. They will then be eligible to receive Zone 40 fee credits or reimbursements for all potable water trunk facilities constructed in accordance with SCWA's applicable policies. Non-trunk potable water facilities will be funded by the individual developers in Cordova Hills and are not included in this Financing Plan.

All potable water facilities shown in **Table 6-1** are eligible for Zone 40 fee credits or reimbursements.

Existing Fee Programs

Cordova Hills will be required to pay SCWA Zone 40 development impact fees for the construction of potable water facilities. **Table 6-2** estimates the Zone 40 fee revenue from Cordova Hills at completion of Phase 1 development and at buildout. As discussed above, Cordova Hills will be eligible for Zone 40 fee reimbursements in accordance with Title 4 of the Sacramento County Water Agency Code. If Mello-Roos CFD bonds are used to fund facilities that could become eligible for reimbursements under the provisions of Title 4, then the reimbursements for construction of those facilities shall be paid solely to the CFD and not to the developer facilitating construction of the Project. Reimbursements would be based on the cost of facilities at the time of construction.

Table 6-1
Cordova Hills Financing Plan
Estimated Potable Water Facility Costs (2011\$)

Item	Units	Unit Cost	Phase 1				Buildout			
			Quantity	Construction Cost	Total Cost		Quantity	Construction Cost	Total Cost	
					Contingencies & Soft Costs	Total			Contingencies & Soft Costs	Total
Percentage [1]					8%				8%	
Reimbursable from Zone 40 Fee Program										
Water Main (on-site), 16" Incl. Fittings & Appurtenances	LF	\$ 126	22,884	\$ 2,888,000	\$ 231,040	\$ 3,119,040	41,456	\$ 5,231,700	\$ 418,536	\$ 5,650,236
Water Main (on-site), 18" Incl. Fittings & Appurtenances	LF	\$ 145	7,815	\$ 1,129,300	\$ 90,344	\$ 1,219,644	7,815	\$ 1,129,300	\$ 90,344	\$ 1,219,644
Water Main (on-site), 24" Incl. Fittings & Appurtenances	LF	\$ 191	748	\$ 142,800	\$ 11,424	\$ 154,224	3,898	\$ 744,100	\$ 59,528	\$ 803,628
Water Main (off-site), 30" Incl. Fittings & Appurtenances	LF	\$ 274	7,200	\$ 1,972,100	\$ 157,768	\$ 2,129,868	13,531	\$ 3,706,100	\$ 296,488	\$ 4,002,588
Water Main (on-site), 36" Incl. Fittings & Appurtenances	LF	\$ 315	0	\$ 0	\$ 0	\$ 0	359	\$ 113,100	\$ 9,048	\$ 122,148
Water Main (on-site), 42" Incl. Fittings & Appurtenances	LF	\$ 385	0	\$ 0	\$ 0	\$ 0	1,390	\$ 535,200	\$ 42,816	\$ 578,016
16" Butterfly Valve Assembly	EA	\$ 5,394	25	\$ 134,900	\$ 10,792	\$ 145,692	48	\$ 258,900	\$ 20,712	\$ 279,612
18" Butterfly Valve Assembly	EA	\$ 6,473	6	\$ 38,800	\$ 3,104	\$ 41,904	6	\$ 38,800	\$ 3,104	\$ 41,904
24" Butterfly Valve Assembly	EA	\$ 10,249	2	\$ 20,500	\$ 1,640	\$ 22,140	6	\$ 61,500	\$ 4,920	\$ 66,420
30" Butterfly Valve Assembly	EA	\$ 19,526	6	\$ 117,200	\$ 9,376	\$ 126,576	11	\$ 214,800	\$ 17,184	\$ 231,984
36" Butterfly Valve Assembly	EA	\$ 23,626	0	\$ 0	\$ 0	\$ 0	1	\$ 23,600	\$ 1,888	\$ 25,488
42" Butterfly Valve Assembly	EA	\$ 32,472	0	\$ 0	\$ 0	\$ 0	2	\$ 64,900	\$ 5,192	\$ 70,092
12" PRV Assembly	EA	\$ 32,500	0	\$ 0	\$ 0	\$ 0	1	\$ 32,500	\$ 2,600	\$ 35,100
16" PRV Assembly	EA	\$ 55,000	0	\$ 0	\$ 0	\$ 0	1	\$ 55,000	\$ 4,400	\$ 59,400
24" PRV Assembly	EA	\$ 97,000	0	\$ 0	\$ 0	\$ 0	1	\$ 97,000	\$ 7,760	\$ 104,760
30" PRV Assembly	EA	\$ 126,500	0	\$ 0	\$ 0	\$ 0	1	\$ 126,500	\$ 10,120	\$ 136,620
2" ARV Assembly	EA	\$ 5,825	3	\$ 17,500	\$ 1,400	\$ 18,900	9	\$ 52,400	\$ 4,192	\$ 56,592
Temp. 4" In-Line Blow-off Valve	EA	\$ 7,660	3	\$ 23,000	\$ 1,840	\$ 24,840	13	\$ 99,600	\$ 7,968	\$ 107,568
Above Ground Water Tanks [2]	MG	\$ 750,000	0	\$ 0	\$ 0	\$ 0	3.5	\$ 2,625,000	\$ 210,000	\$ 2,835,000
Above Ground Water Tanks - Land Acquisition [3]	AC	\$ 75,000	0	\$ 0	\$ 0	\$ 0	5	\$ 381,800	\$ 30,544	\$ 412,344
Ground Tank Booster Pump	LS	\$ 250,000	0	\$ 0	\$ 0	\$ 0	2	\$ 500,000	\$ 40,000	\$ 540,000
Total				\$ 6,484,100	\$ 518,728	\$ 7,002,828		\$ 16,091,800	\$ 1,287,344	\$ 17,379,144
Total (Rounded)						\$ 7,000,000				\$ 17,380,000

water cost

Source: MacKay & Sumps (April 2010) and SCWA.

[1] Zone 40 allowable percentage.

[2] 2 MG of interim tank capacity may be needed for non-potable water storage until a non-potable regional water supply becomes available. At that time, the tanks may be converted to potable water tanks used by development north of Cordova Hills and the cost of the tanks may become reimbursable through the SCWA Zone 40 fee program.

[3] Land acquisition costs for the above ground water tanks are estimated with a placeholder value of \$75,000 per acre. Site requirements for the tanks used for potable and non-potable water storage are estimated to be between 4-11 acres; this Financing Plan assumes 8 acres. Acres have been prorated based on the relative capacity (in millions of gallons) for potable vs. non-potable storage.

Non-Potable Water System

At this time, SCWA does not provide non-potable (reclaimed) water service to the Cordova Hills area, so the Cordova Hills reclaimed water system initially could be serviced from an interim connection into the proposed potable water system. The Cordova Hills non-potable water system subsequently could connect into a future regional non-potable SCWA system along Grant Line Road.

Map 6-2 shows the proposed non-potable water system at buildout. The non-potable water system consists of a transmission system to provide irrigation water to parks, open spaces, schools, roadway medians, and nonresidential irrigation uses, including commercial and business professional development. In addition, the non-potable water system will include above ground storage tanks with a capacity of 2.0 million gallons, which will be located north of the Project and east of Ridgeline Road. Note that the map shows water storage tanks with a total capacity of 5.5 million gallons. This capacity includes the 2.0 million gallons for non-potable uses, as well as 3.5 million gallons for potable uses (as detailed in the previous Potable Water System section).

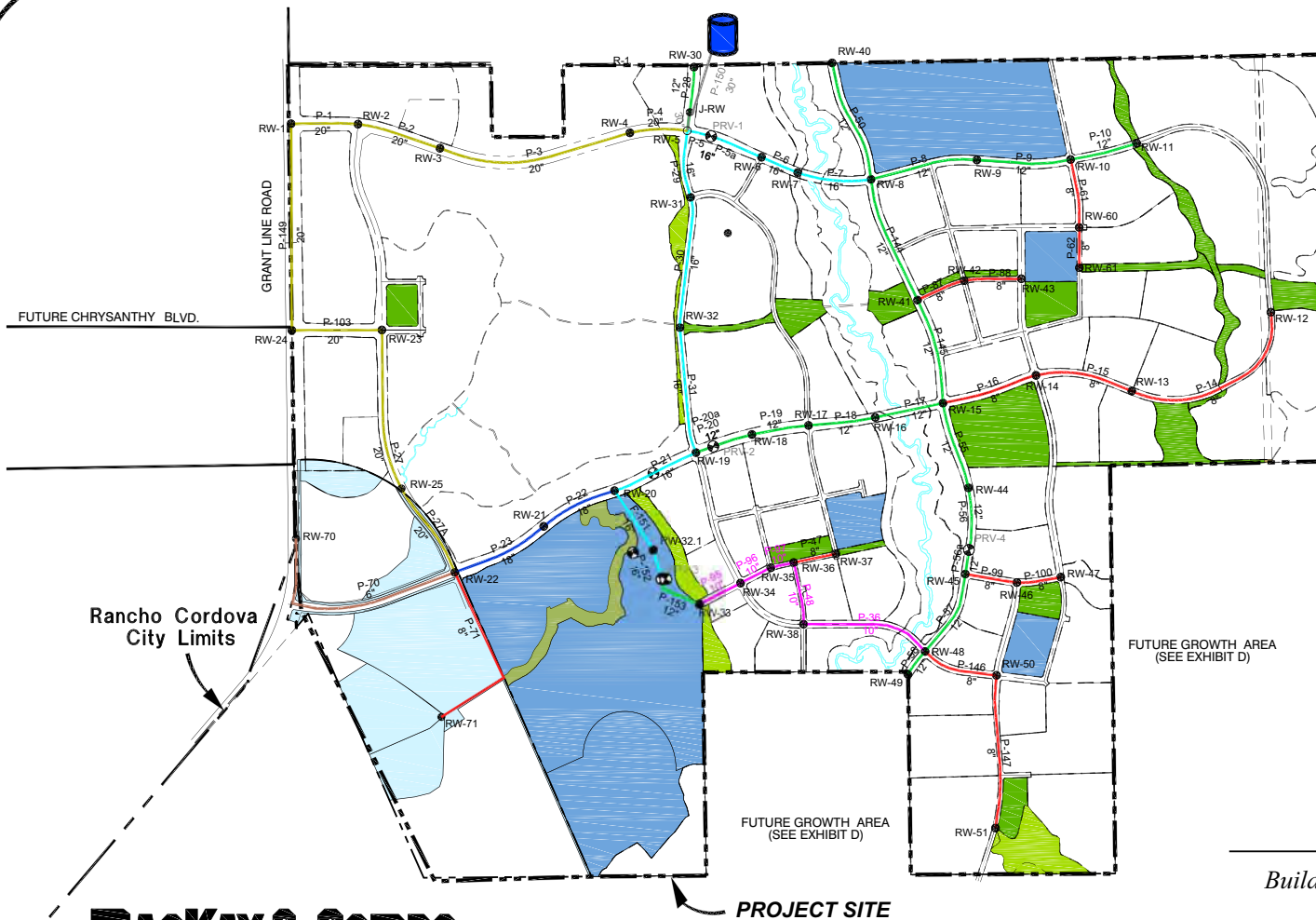
SCWA has not made any determination regarding the development of the future regional non-potable water system. The non-potable system is not a requirement of the project and the Cordova Hills developer has the option of constructing the non-potable water system.

If the non-potable system is constructed, the developer will be responsible for funding and constructing the improvements as described below. The developer will also be responsible for funding the maintenance of the non-potable water facilities within the Project. This funding will allow for appropriate maintenance of the non-potable water supply infrastructure constructed by the Project that is connected to the SCWA potable system. Funding will be provided through the CHLSD. The maintenance funding will continue until such time as the non-potable water facilities are disconnected from the potable water system and concurrently connected to and operated by a non-potable water supply service provider. The Project would then be subject to the applicable rates as adopted by that non-potable water service provider.

If the developer decides not to construct the non-potable system, the Potable Water System Master Plan will need to be updated so that the potable water distribution system is sized to meet the water supply demands (including irrigation) of the Project. The costs identified above for the potable water system will increase due to the larger water distribution pipelines. The additional cost will be funded through the Zone 40 development impact fees.

Facility Costs

Table 6-3 details the Phase 1 and buildout non-potable water facility costs. At buildout, the total estimated cost of the non-potable water system is \$8.9 million. This cost includes the cost of all trunk facilities to be used for the non-potable water system as well as the cost for the water storage tanks, which will be dedicated by the Cordova Hills master developer and funded through the Cordova Hills SFD.



0 750 1500
SCALE: 1"=1500'

LEGEND

- 6" NON-POTABLE DISTRIBUTION MAIN
- 8" NON-POTABLE DISTRIBUTION MAIN
- 10" NON-POTABLE DISTRIBUTION MAIN
- 12" NON-POTABLE DISTRIBUTION MAIN
- 16" NON-POTABLE TRANSMISSION MAIN
- 18" NON-POTABLE TRANSMISSION MAIN
- 20" NON-POTABLE TRANSMISSION MAIN
- 30" NON-POTABLE TRANSMISSION MAIN
- PUBLIC/QUASI PUBLIC (P/QP)
- RECREATION (R)
- REC. 2 (R2)
- DEMAND JUNCTION
- PRESSURE REDUCING VALVE
- BUFFERLANDS TO BE IRRIGATED
- PROPOSED WATER STORAGE TANKS (5.5 MILLION GALLONS TOTAL, 2.0 MILLION GALLONS FOR INTERIM NON-POTABLE USES)

Map 6-2

Buildout Non-Potable Water System

MACKAY & SOMPS
CIVIL ENGINEERS, INC.
ROSEVILLE, CALIFORNIA (916) 773-1189

PROJECT SITE

Table 6-3
Cordova Hills Financing Plan
Estimated Non-Potable Water Facility Costs (2011\$)

Item	Units	Unit Cost	Phase 1				Buildout			
			Total Cost				Total Cost			
			Quantity	Construction Cost	Contingencies & Soft Costs [1]	Total	Quantity	Construction Cost	Contingencies & Soft Costs [1]	Total
Percentage			8%				8%			
Non-potable Water										
Water Main, 6" Incl. Fittings & Appurtenances	LF	\$ 35	3,046	\$ 106,600	\$ 8,528	\$ 115,128	3,046	\$ 106,600	\$ 8,528	\$ 115,128
Water Main, 8" Incl. Fittings & Appurtenances	LF	\$ 44	0	\$ 0	\$ 0	\$ 0	12,676	\$ 557,700	\$ 44,616	\$ 602,316
Water Main, 10" Incl. Fittings & Appurtenances	LF	\$ 47	0	\$ 0	\$ 0	\$ 0	3,894	\$ 183,000	\$ 14,640	\$ 197,640
Water Main, 12" Incl. Fittings & Appurtenances	LF	\$ 95	100	\$ 9,500	\$ 760	\$ 10,260	16,610	\$ 1,578,000	\$ 126,240	\$ 1,704,240
Water Main, 16" Incl. Fittings & Appurtenances	LF	\$ 126	921	\$ 116,200	\$ 9,296	\$ 125,496	9,224	\$ 1,164,100	\$ 93,128	\$ 1,257,228
Water Main, 18" Incl. Fittings & Appurtenances	LF	\$ 145	2,348	\$ 339,300	\$ 27,144	\$ 366,444	2,348	\$ 339,300	\$ 27,144	\$ 366,444
Water Main, 20" Incl. Fittings & Appurtenances	LF	\$ 157	9,227	\$ 1,444,000	\$ 115,520	\$ 1,559,520	12,522	\$ 1,959,700	\$ 156,776	\$ 2,116,476
Water Main, 30" Incl. Fittings & Appurtenances	LF	\$ 263	0	\$ 0	\$ 0	\$ 0	350	\$ 92,100	\$ 7,368	\$ 99,468
6" Gate Valve	EA	\$ 1,750	2	\$ 3,500	\$ 280	\$ 3,780	2	\$ 3,500	\$ 280	\$ 3,780
8" Gate Valve	EA	\$ 2,400	0	\$ 0	\$ 0	\$ 0	13	\$ 31,200	\$ 2,496	\$ 33,696
10" Gate Valve	EA	\$ 3,450	0	\$ 0	\$ 0	\$ 0	4	\$ 13,800	\$ 1,104	\$ 14,904
12" Butterfly Valve Assembly	EA	\$ 3,452	2	\$ 6,900	\$ 552	\$ 7,452	18	\$ 62,100	\$ 4,968	\$ 67,068
16" Butterfly Valve Assembly	EA	\$ 5,394	2	\$ 10,800	\$ 864	\$ 11,664	10	\$ 53,900	\$ 4,312	\$ 58,212
18" Butterfly Valve Assembly	EA	\$ 6,473	2	\$ 12,900	\$ 1,032	\$ 13,932	2	\$ 12,900	\$ 1,032	\$ 13,932
20" Butterfly Valve Assembly	EA	\$ 7,444	7	\$ 52,100	\$ 4,168	\$ 56,268	9	\$ 67,000	\$ 5,360	\$ 72,360
30" Butterfly Valve Assembly	EA	\$ 19,526	0	\$ 0	\$ 0	\$ 0	3	\$ 58,600	\$ 4,688	\$ 63,288
temp. 4" In-Line Blow-off Valve	EA	\$ 7,660	2	\$ 15,300	\$ 1,224	\$ 16,524	4	\$ 30,600	\$ 2,448	\$ 33,048
4" In-Line Blow-off Valve	EA	\$ 7,660	0	\$ 0	\$ 0	\$ 0	4	\$ 30,600	\$ 2,448	\$ 33,048
Temp. 12" Backflow Prevention Assembly	EA	\$ 15,000	1	\$ 15,000	\$ 1,200	\$ 16,200	1	\$ 15,000	\$ 1,200	\$ 16,200
12" PRV Assembly	EA	\$ 32,500	0	\$ 0	\$ 0	\$ 0	2	\$ 65,000	\$ 5,200	\$ 70,200
16" PRV Assembly	EA	\$ 55,000	0	\$ 0	\$ 0	\$ 0	1	\$ 55,000	\$ 4,400	\$ 59,400
2" ARV Assembly	EA	\$ 5,825	0	\$ 0	\$ 0	\$ 0	2	\$ 11,700	\$ 936	\$ 12,636
Above Ground Water Tanks	MG	\$ 750,000	0	\$ 0	\$ 0	\$ 0	2	\$ 1,500,000	\$ 120,000	\$ 1,620,000
Above Ground Water Tanks - Land Acquisition [2]	AC	\$ 75,000	0	\$ 0	\$ 0	\$ 0	3	\$ 218,200	\$ 17,456	\$ 235,656
Total				\$ 2,132,100	\$ 170,568	\$ 2,302,668		\$ 8,209,600	\$ 656,768	\$ 8,866,368
Total (Rounded)						\$ 2,300,000				\$ 8,870,000

np cost

Source: MacKay & Soms

[1] Contingencies and soft costs include 20% cost contingency, 10% for surveys & design, and 5% for inspections & materials testing.

[2] Land acquisition costs for the above ground water tanks are estimated with a placeholder value of \$75,000 per acre. Site requirements for the tanks used for potable and non-potable water storage are estimated to be between 4-11 acres; this Financing Plan assumes 8 acres. Acres have been prorated based on the relative capacity (in millions of gallons) for potable vs. non-potable storage.

Phasing

Before the availability of the planned future SCWA regional reclaimed water system (see discussion above), the Cordova Hills reclaimed water system will be serviced from an interim connection into the proposed potable water system. Phase 1 of the non-potable water system includes construction of the non-potable transmission system needed to serve Phase 1 development in Cordova Hills. Phase 1 non-potable water system costs are estimated at \$2.3 million.

Funding Strategy

Summary

There are existing fee programs for development of non-potable water systems in some areas of the County but not in the Cordova Hills area. Further, Cordova Hills would not be eligible to annex to any of these existing programs. Consequently, it is assumed that all non-potable water facility costs will be funded through the Cordova Hills SFD.

The non-potable water facilities include two water storage tanks. It is possible these tanks could become eligible for Zone 40 reimbursement in the future if SCWA decides to use the tanks for regional potable water storage. In that case, the cost of the tanks could be eligible for credits or reimbursements from Zone 40 fees collected from the project(s) directly benefiting from the tanks.

Existing Fee Programs

Currently, there is no fee program that serves the Cordova Hills area for development of a non-potable water system.

Proposed Cordova Hills SFD

Cordova Hills proposes that the non-potable water system be funded through the Cordova Hills SFD. The SFD could include developer funding and reimbursements, bond-funding, or funding through a fee program. This report includes facilities cost allocations to the various uses that would be needed if developer or fee funding were established to fund the facilities.

The buildout non-potable water costs are allocated to the different land uses based on the land uses' benefit received. **Table 6-4** shows the allocation factors used to estimate benefit received and fairly allocate costs to the land uses. These factors are based on the factors that Zone 40 uses to determine its development impact fees for potable water improvements. Non-potable water is used primarily for irrigation of open spaces, parks, and nonresidential uses, including commercial and business professional development. The benefit received is related more to the general population than to the water demand of a specific land use. Thus, allocation factors based on persons per household and employees would be appropriate. The Zone 40 factors, however, are fairly representative of persons per household and employees, so these factors are used to allocate non-potable water facility costs. Non-potable water allocation factors will be finalized at the time that a Development Impact Fee Nexus Study is prepared if adjusted allocation factors are appropriate.

Table 6-4
Cordova Hills Financing Plan
Non-Potable Water Cost Allocation Factors

Item	DUEs per Dwelling Unit/Acre [1]	Dwelling Units per Acre [2]	DUEs per Acre
Residential Land Uses			
	<i>per dwelling unit</i>		
Estates Residential (1-7 units/acre)	1.00	2.13	2.13
Low Density Residential (4-7 units/acre)	1.00	3.68	3.68
Medium Density Residential (7-15 units/acre)	1.00	7.91	7.91
Residential 20 (15-23 units/acre)	0.75	13.54	10.15
High Density Residential (23-30 units/acre)	0.75	19.62	14.72
Total Residential Land Uses			
Nonresidential Land Uses			
	<i>per acre</i>		
Commercial	4.00		4.00
Office	4.00		4.00
Total Commercial			
University/College Campus Center	4.00		4.00

due water

[1] DUE factors per dwelling unit and acre are from the Sacramento County Water Agency Fee Schedule; effective March 1, 2009. DUEs for commercial and university/college campus center water use are estimated assuming 2" service; DUEs for residential water are estimated at 1" service.

[2] Dwelling units per acre are estimated as buildout units/buildout acres. These factors differ from the Phase 1 dwelling units per acre.

Table 6-5 shows the buildout cost allocation and the resulting non-potable water facilities cost per dwelling unit for residential land uses, per building square foot for nonresidential land uses, and in total for the university/college campus center.

Phase 1 Facilities Cost vs. Allocated Cost

Table 6-6 is used to estimate the Cordova Hills SFD Phase 1 and buildout non-potable water facilities costs versus proportional allocated costs. There is an estimated shortfall of allocated costs in Phase 1 as compared to estimated Phase 1 development costs. This shortfall should be recovered by buildout. The master developer will advance fund and construct non-potable water facilities until adequate revenues are collected from the Cordova Hills SFD to reimburse the master developer.

Table 6-5
Cordova Hills Financing Plan
Cordova Hills SFD Non-Potable Water Facilities Cost Allocation at Buildout (2011\$)

Item	Land Use		Cost Allocation Basis			Water Facilities Cost Allocation at Buildout		
	Acres	Units/ Sq. Ft.	DUEs per Acre [1]	Total DUEs	Percentage Distribution	Total Cost	Cost per Acre	Cost per Unit/Sq. Ft.
Residential Land Uses		<u>units</u>						<u>per unit</u>
Estates Residential	64.7	138	2.13	138	1.7%	\$ 152,516	\$ 2,357	\$ 1,107
Low Density Residential	491.1	1,809	3.68	1,809	22.6%	\$ 2,002,424	\$ 4,077	\$ 1,107
Medium Density Residential	386.8	3,061	7.91	3,061	38.2%	\$ 3,387,520	\$ 8,759	\$ 1,107
Residential 20	61.5	833	10.15	624	7.8%	\$ 690,992	\$ 11,236	\$ 830
High Density Residential	84.6	1,659	14.72	1,245	15.5%	\$ 1,377,315	\$ 16,288	\$ 830
Total Residential Land Uses	1,088.6	7,500		6,877	85.8%	\$ 7,610,767		
Nonresidential Land Uses		<u>bldg. sq. ft.</u>						<u>per bldg. sq. ft.</u>
Commercial	72.6	654,860	4.00	290	3.6%	\$ 321,283	\$ 4,427	\$ 0.49
Office	30.7	196,540	4.00	123	1.5%	\$ 135,818	\$ 4,427	\$ 0.69
Total Commercial	103.3	851,400		413	5.2%	\$ 457,101		
University/College Campus Center [2]	181.2	1,870,000	4.00	725	9.0%	\$ 802,132		<u>per bldg. sq. ft.</u> \$ 0.43
TOTAL [3]				8,015	100.0%	\$ 8,870,000		

alloc water

[1] See Table 6-4.

[2] Since transition zone acres do not generate water usage, they are excluded when allocating costs to the university/college campus center.
The university/college campus center building square feet at buildout is currently estimated at approximately 1,870,000. This estimate is from the Draft Cordova Hills Master Plan (April 2012) and will be updated upon approval of a plan for a selected university/college campus center.

[3] See Table 6-3 for total cost.

7. EARTHWORK

Earthwork is necessary to prepare the Project site for development. It includes clearing and grubbing, rough grading, and erosion control of the site prior to development.

Facility Costs

Table 7-1 summarizes the Phase 1 and buildout earthwork costs. The total earthwork cost at buildout is estimated at \$96.1 million.

Phasing

Phase 1 earthwork will be performed on all of the acres to be developed in Phase 1. These acres include the Town Center, Phase 1 of the university/college campus center, and 10 acres of the Sports Park. Phase 1 earthwork costs total approximately \$10.1 million of the estimated \$96.1 million at buildout.

Funding Strategy

It is currently anticipated that the earthwork costs will be funded privately rather than through a public financing mechanism. The developers, however, may request that earthwork for some of the following items be included in the Cordova Hills SFD funding program if they meet the construction requirements necessary for public financing mechanisms:

- Four-lane roads
- Drainage corridors
- Major parks
- School sites

Table 7-1
Cordova Hills Financing Plan
Estimated Earthwork Costs (2011\$)

Item	Percentage	Units	Unit Cost	Phase 1		Buildout	
				Quantity	Total Cost	Quantity	Total Cost
Construction Costs							
Clearing and Grubbing		AC	\$ 800	363	\$ 290,480	1,986	\$ 1,588,880
Rough Grading		CY	\$ 5	1,290,500	\$ 6,452,500	13,127,900	\$ 65,639,500
Erosion Control		AC	\$ 2,000	363	\$ 726,200	1,986	\$ 3,972,200
Subtotal					\$ 7,469,180		\$ 71,200,580
Contingencies and Soft Costs							
Construction Contingency	20%				\$ 1,493,836		\$ 14,240,116
Surveys and Design	10%				\$ 746,918		\$ 7,120,058
Inspections and Materials Testing	5%				\$ 373,459		\$ 3,560,029
Subtotal	35%				\$ 2,614,213		\$ 24,920,203
Total Cost					\$ 10,083,393		\$ 96,120,783

earth cost

Source: MacKay & Soms (April 2010).

8. PUBLIC SAFETY

Fire

The Sacramento Metropolitan Fire District (SMFD) is the fire protection service provider for Cordova Hills and will continue to provide services once the community has developed. The SMFD has indicated that development in the Cordova Hills area will increase the need for fire protection, including additional staffing, vehicles and equipment. Given the current mix of land uses, SMFD has indicated that one station will be adequate to serve Cordova Hills. SMFD has indicated that this station should be located in the commercial center in the East Valley Village in order to meet travel time standards. It is possible that a second station could be located in Cordova Hills if needed to serve neighboring development projects as well as Cordova Hills.

Table 8-1 shows the estimated cost to construct a fire station and provide the major equipment needed for the station. It is estimated that a fire station of approximately 6,500 square feet will be required and that an engine, a truck, a medic vehicle, and staff and support vehicles will be required to service the area. The total cost is estimated at \$5.3 million.

All new development within the SMFD will be subject to the District-wide Capital Fire Facilities fee (SMFD fee) to fund construction and equipment costs for new fire stations. **Table 8-2** shows the projected fee revenue from Cordova Hills development at completion of Phase 1 development and at buildout. The Project will generate approximately \$2.0 million in fee revenue at the end of Phase 1 and \$9.7 million at buildout. It is assumed that the total buildout fee revenue will be sufficient to fund Cordova Hills' impact on fire facilities and that no other funding sources will be necessary. Fee revenue from the other communities served by the fire station(s) sited in Cordova Hills may also be available for the construction of new station(s).

At the time of this Financing Plan, there are too many variables to assess the precise timing of fire and medical services facilities for the Project. The timing of the fire station(s) located within the adjacent Sunridge or Suncreek Specific Plans will dictate the timing of when the Cordova Hills fire station will need to be constructed. SMFD has agreed to assess the phasing of fire and medical service facilities at the small lot tentative map stage of the Project. As such, this Financing Plan assumes that development in the Project will pay the SMFD fee and additional funding sources for any shortfalls will be evaluated at the time facilities are required. As shown in **Table 8-3**, at buildout the Project will generate a surplus of SMFD fee revenues to cover the estimated facility costs of \$5.3 million.

The Cordova Hills developer will be required to dedicate land for the fire station site. Depending on the outcome of negotiations between the Cordova Hills developer and the SMFD, the developer may receive fee credits against the SMFD fee for all or a portion of the site acquisition costs.

Table 8-1
Cordova Hills Specific Plan Services Evaluation
Fire Station Costs (2011\$)

Item	Estimated Cost [1]
Fire Station Building (6,500 sq.ft. @ \$500 per sq.ft.)	\$ 3,250,000
Engine	\$ 600,000
Truck	\$ 800,000
Medic Unit	\$ 500,000
Staff and Support Vehicles	\$ 150,000
Total	\$ 5,300,000

fire cost

[1] Preliminary estimates subject to verification by SMFD.

Table 8-2
Cordova Hills Specific Plan Services Evaluation
Sacramento Metropolitan Fire District Capital Fire Facilities Fee Revenue (2011\$)

Land Use	Fee per Bldg. Sq. Ft.	Sq. Ft. per Unit	Phase 1			Buildout		
			Units	Building Sq. Ft.	Fee Revenue	Units	Building Sq. Ft.	Fee Revenue
Residential								
Estates Residential	\$ 0.56	2,800	0	0	\$ 0	138	385,875	\$ 216,090
Low Density Residential	\$ 0.56	2,500	290	725,000	\$ 406,000	1,809	4,523,438	\$ 2,533,125
Medium Density Residential	\$ 0.56	1,800	760	1,368,000	\$ 766,080	3,061	5,509,688	\$ 3,085,425
Residential 20	\$ 0.75	1,000	150	150,000	\$ 112,500	833	832,500	\$ 624,375
High Density Residential	\$ 0.75	1,000	550	550,000	\$ 412,500	1,659	1,659,375	\$ 1,244,531
Total Residential Land Uses			1,750	2,793,000	\$ 1,697,080	7,500	12,910,875	\$ 7,703,546
Nonresidential								
Commercial	\$ 0.75			120,000	\$ 90,000		654,860	\$ 491,145
Office	\$ 0.75			0	\$ 0		196,540	\$ 147,405
Total Commercial				120,000	\$ 90,000		851,400	\$ 638,550
University/College Campus Center [1]	\$ 0.75			344,000	\$ 258,000		1,870,000	\$ 1,402,500
TOTAL					\$ 2,045,080			\$ 9,744,596
TOTAL (Rounded)					\$ 2,050,000			\$ 9,740,000

Source: Sacramento Metropolitan Fire District Capital Fire Facilities Fee Schedule

[1] University/college campus center assumed to pay commercial fee.

fire

Table 8-3
Cordova Hills Specific Plan Services Evaluation
Summary of Fire Station Costs and Revenues (2011\$)

Item	Amount	
	Phase 1	Buildout
Fire Facilities Cost [1] [2]	TBD	\$ 5,300,000
Less SMFD Fee Revenue	\$ 2,050,000	\$ 9,740,000
Fire Facilities Surplus/Shortfall	NA	\$ 4,440,000

fire adv

[1] See Table 8-1.

[2] Based on correspondence from SMFD, there are too many variables to assess the precise timing of fire and medical services facilities for the Project. SMFD has agreed to assess the phasing of fire and medical service facilities at the small lot tentative map stage of the Project. As such, this Financing Plan assumes that development in the Project will pay the SMFD fee, and additional funding sources for any shortfalls will be evaluated at the time facilities are required.

Law Enforcement

The Sacramento County Sheriff's Department currently provides law enforcement services to Cordova Hills and will continue to provide services to the area. The Sheriff's Department plans to operate a substation in the Cordova Hills Town Center village through a lease with Cordova Hills. Expenditures associated with leasing a substation will be covered through the fiscal impact analysis surplus estimated in EPS's Draft Fiscal Impact Analysis. The Draft Fiscal Impact Analysis estimated that County General Fund and Police Services Community Facilities District (CFD) 2005-1 revenues would generate a fiscal surplus of \$750,000 in Phase 1 and \$2.7 million at buildout of the Project, after accounting for the cost of providing countywide and County-administered municipal services.

9. CORDOVA HILLS LOCAL SERVICES DISTRICT FACILITIES

Cordova Hills proposes to include both a corporation yard and an administrative facility within the Project area. Sites for these facilities are currently undetermined. They could be located at the same site or at separate sites.

The corporation yard will provide maintenance and service space to support the park maintenance, road maintenance, transit services, and landscape and lighting maintenance. Corporation yard facilities will include buildings for maintenance and service, storage areas for equipment and supplies, parking areas, emergency showers, and outdoor bins for materials such as decomposed granite, aggregate, and topsoil. The corporation yard size of approximately 2.4 acres and 34,000 square feet of covered areas is a preliminary estimate.

The administrative facility could house some of the service providers, as well as CHLSD administrative personnel. Preliminary estimates for the size of the administrative facility are 2,500 square feet during Phase 1 and 10,000 square feet at buildout.

After the service providers who will occupy the corporation yard space and the staff who will occupy the administrative facility have been finalized, a study will be performed to estimate the appropriate sized corporation yard and administrative facilities and the associated development costs. This study will occur prior to development of the project. Costs for the corporation yard and administrative facilities will be updated as part of the implementation of the financing mechanisms.

Facility Costs

Table 9-1 provides placeholder estimates the Phase 1 and buildout facilities costs for the corporation yard and administrative facility. The site preparation and corporation yard construction costs total an estimated \$6.9 million at buildout of Cordova Hills. Construction costs for comparable corporation yard facilities in the region range from \$5 to \$10 million. The Cordova Hills master developer will work with the County to determine the specific corporation yard requirements and further refine the cost. The administrative facility construction costs are estimated at \$2 million at buildout. This cost is based on a 10,000 square foot facility and a construction cost of \$200 per square foot.

Phasing

Phase 1 corporation yard facilities costs are estimated as half of the buildout costs, or approximately \$3.5 million, as shown in **Table 9-1**. Phase 1 administrative facility construction costs are estimated at \$500,000. The Phase 1 administrative offices could also be housed in leased space. This cost is based on a 2,500 square foot facility and a construction cost of \$200 per square foot.

- [1] Corporation yard unit costs based on the cost of comparable corporation yards in the region.
- [2] Phase 1 corporation yard construction assumed to be 50% of buildout construction.
- [3] Corporation yard size derived from Sutter Pointe Specific Plan PFFP (July 2008).
Corporation yard assumed to be approximately 1/2 the size of the Sutter Pointe corporation yard.
- [4] Instead of constructing an initial administrative facility, the Phase 1 administrative offices could be housed in leased space.

Funding Strategy

Summary

There are no existing development impact fee programs for corporation yard or administrative facilities. Therefore, Cordova Hills proposes that these costs be funded through the Cordova Hills SFD.

Existing Fee Programs

Currently, there are no fee programs in Sacramento County for construction of corporation yards or administrative facilities.

Proposed Cordova Hills SFD

Cordova Hills proposes that the corporation yard and administrative facilities costs be funded through the Cordova Hills SFD. The SFD could include developer funding and reimbursements, bond-funding, or funding through a fee program. This report includes facilities cost allocations to the various uses that would be needed if developer or fee funding were established to fund the facilities.

The total Cordova Hills corporation yard and administrative facility costs are allocated to the different land uses based on the land uses' relative corporation yard usage. **Table 9-2** shows the allocation factors used to estimate relative usage and fairly allocate costs to the land uses. The costs are divided between residential and nonresidential uses based on developable acres. The total residential portion is then allocated to the residential uses based on population. The nonresidential portion is allocated to the nonresidential uses based on developable acres.

Table 9-3 shows the buildout cost allocation and the resulting cost per dwelling unit for residential land uses, per building square foot for nonresidential uses, and in total for the university/college campus center.

Phase 1 Facilities Cost vs. Allocated Cost

Table 9-4 shows the estimated Cordova Hills SFD Phase 1 and buildout corporation yard and administrative facilities development costs versus proportional allocated costs. There is an estimated shortfall of allocated costs in Phase 1 as compared to estimated Phase 1 construction costs. This shortfall should be recovered by buildout. The master developer(s) will advance fund and construct the corporation yard and administrative facilities until adequate revenues are collected from the Cordova Hills SFD to reimburse the developer(s).

Table 9-2
Cordova Hills Financing Plan
CHLSD Facilities Cost Allocation Factors

Item	Acres	Total Population	Percentage of Total Population	Cost Allocation Factor [1]
Residential Land Uses				
Estates Residential (1-7 units/acre)	64.7	448	2%	24.2
Low Density Residential (4-7 units/acre)	491.1	5,609	28%	303.6
Medium Density Residential (7-15 units/acre)	386.8	8,571	43%	464.0
Residential 20 (15-23 units/acre)	61.5	1,832	9%	99.1
High Density Residential (23-30 units/acre)	84.6	3,651	18%	197.6
Total Residential Land Uses	1,088.6	20,110	100%	1,088.6
Nonresidential Land Uses				
Commercial	72.6			72.6
Office	30.7			30.7
Total Commercial	103.3			103.3
University/College Campus Center [2]	94.5			94.5
Total	1,286.4			1,286.4

due corp

Source: EPS.

[1] CHLSD facilities costs are divided between residential, nonresidential, and University/College Campus Center uses based on developable acres. The total residential portion is then allocated based on population. The nonresidential and University/College Campus Center portions are allocated based on developable acres.

[2] University/College Campus Center acres are living/learning and academic zone acres.

Table 9-3
Cordova Hills Financing Plan
Cordova Hills SFD CHLSD Facilities Cost Allocation at Buildout (2011\$)

Item	Land Use		Cost Allocation Basis		Corporation Yard Cost Allocation at Buildout		
	Acres	Units/ Sq. Ft.	DUE Factor per Acre [1]	Percentage Distribution	Total Cost	Cost per Acre	Cost per Unit/Sq. Ft.
Residential Land Uses							
		<u>units</u>					<u>per unit</u>
Estates Residential	64.7	138	24.2	1.9%	\$ 169,636	\$ 2,622	\$ 1,231
Low Density Residential	491.1	1,809	303.6	23.6%	\$ 2,124,399	\$ 4,326	\$ 1,174
Medium Density Residential	386.8	3,061	464.0	36.1%	\$ 3,246,073	\$ 8,393	\$ 1,060
Residential 20	61.5	833	99.1	7.7%	\$ 693,670	\$ 11,279	\$ 833
High Density Residential	84.6	1,659	197.6	15.4%	\$ 1,382,652	\$ 16,351	\$ 833
Total Residential Land Uses	1,088.6	7,500	1,088.6	84.6%	\$ 7,616,430		
Nonresidential Land Uses							
		<u>bldg. sq. ft.</u>					<u>per bldg. sq. ft.</u>
Commercial	72.6	654,860	72.6	5.6%	\$ 507,770	\$ 6,996	\$ 0.78
Office	30.7	196,540	30.7	2.4%	\$ 214,653	\$ 6,996	\$ 1.09
Total Commercial	103.3	851,400	103.3	8.0%	\$ 722,423		
University/College Campus Center [2]		<u>bldg. sq. ft.</u>					<u>per bldg. sq. ft.</u>
		1,870,000	94.5	7.3%	\$ 661,147		\$ 0.35
TOTAL [3]			1,286.4	100.0%	\$ 9,000,000		

alloc corp

[1] See Table 9-2.

[2] Since transition and athletic zone acres do not place demand on CHLSD facilities, they are excluded when allocating costs to the university/college campus center. To estimate a university cost per acre that can be compared and summed across improvement types, however, the university portion of costs for each improvement type is spread over all university acres. The master developers have agreed to advance the university's portion of the costs if needed and get reimbursed by the university as development occurs.

[3] See Table 9-1 for total cost.

Table 9-4
Cordova Hills Financing Plan
CHLSD Facilities Cost vs. Proportional Cost Allocation (2011\$)

Item	Cost per Acre	Acres		Allocation vs. Construction Cost	
		Phase 1	Buildout	Phase 1	Buildout
Construction Cost				\$ 4,000,000	\$ 9,000,000
Allocated Cost					
Residential Land Uses					
Estates Residential	\$ 2,622	0.0	64.7	\$ 0	\$ 169,636
Low Density Residential	\$ 4,326	48.3	491.1	\$ 209,066	\$ 2,124,399
Medium Density Residential	\$ 8,393	63.3	386.8	\$ 531,570	\$ 3,246,073
Residential 20	\$ 11,279	7.5	61.5	\$ 84,594	\$ 693,670
High Density Residential	\$ 16,351	21.0	84.6	\$ 342,700	\$ 1,382,652
Total Residential Land Uses		140.1	1,088.6	\$ 1,167,930	\$ 7,616,430
Nonresidential Land Uses					
Commercial	\$ 6,996	13.3	72.6	\$ 93,046	\$ 507,770
Office	\$ 6,996	0.0	30.7	\$ 0	\$ 214,653
Total Commercial		13.3	103.3	\$ 93,046	\$ 722,423
University/College Campus Center	<u>total cost</u> \$ 661,147	<u>pct of total development</u> 20%	100%	\$ 132,229	\$ 661,147
TOTAL				\$ 1,393,206	\$ 9,000,000
Surplus/(Shortfall)				(\$ 2,606,794)	\$ 0

corp rev

10. PARKS

Cordova Hills is located in County Service Area 4B (CSA 4b), a park district governed and administered by Sacramento County. CSA 4B currently collects an assessment for park maintenance and provides minimal park and recreation services to the Cordova Hills project area. The responsibilities for park development and maintenance are planned to be shifted to the proposed CHLSD. Recreation services also will be provided at the park sites and funded through the CHLSD. The Cordova Hills park plan currently includes the following active parks:

- A 50-acre sports park.
- An 18.5-acre community park.
- Six neighborhood parks ranging in size from 4 to 6 acres.

In addition, the Cordova Hills park plan includes a Swim Center and a Community Center that would include amenities such as a gymnasium, meeting rooms, youth center, and senior center. As the Project builds out and if additional funding is available, the Cordova Hills park plan may be updated to adjust the size and amenities of the proposed active parks, Swim Center, and Community Center. **Table 10-1** shows each of parks planned for Cordova Hills and their respective amenities. This table is included as an example of the amenities to be programmed for the various parks. It is not meant to serve as the actual programming of park improvements.

Note that the 110.7 total park acres on **Table 10-1** exceed the 99.1 active park acres on **Table 10-2** (discussed below) because **Table 10-1** includes the Creekside Ag acres. Creekside Ag is not an planned active park, so it is not included on **Table 10-2**. If the Creekside Ag acres were excluded, then the total planned park acres on **Table 10-1** would sum to 99.1 acres, consistent with the acres on **Table 10-2**.

Map 10-1 shows the proposed locations of the parks. The community park and two of the neighborhood parks are located adjacent to school sites. All planned parks will be exclusively owned and managed by the proposed CHLSD.

Facility Costs

Table 10-2 estimates the Phase 1 and buildout parks development costs. The County General Plan requires 5 acres of parkland per 1,000 residents. As detailed in Chapter 2, the maximum residential development of 8,000 units would generate a projected population of 21,379 at buildout. This population would create a need for a total 106.9 acres of active parkland within Cordova Hills. The Cordova Hills Master Plan includes 99.1 acres designated as active parks (as described above). Cordova Hills also includes 150.6 acres of land designated as Recreation-2, passive parkland that includes permanent, but not preserved, open space, greenbelts, paseos, basins, and trails. As the Project finalizes its subdivision maps, 7.8 acres of the Recreation-2 acres will be identified as active parks. Consequently, the park development costs in **Table 10-2** include 7.8 acres of the Recreation-2 land that will be developed as active parks.

Table 10-1

Cordova Hills Public Recreation Categories, Description, and Conceptual Programming

Activity/Facility	Proposed Standard for Cordova Hills		Proposed Facilities	Acres Required per Unit	Total Acres Required	Sports Center	Comm. Park	Town Center Park	East Valley Park	Estates Hilltop Park	Crookside North Park	Crookside South Park	University Village Park	Crookside Ag	Paseo Central	Joint High School Facility	Total
Net Park Acres						50	10.5	5	5.3	3.7	5.4	5.1	6.1	11.4			118.7
Soccer (Regulation)	1 per	5,000	9	2	18.0	5	1	1				1	1				9
Little League Field (66')	1 per	5,000	4	1.5	6.0	1	1		1		1						4
Baseball (90') one lighted	1 per	15,000	1	3.5	3.5	1											1
Girls Softball (one lighted)	1 per	5,000	4	1.5	6.0	1	1				1	1					4
Adult Softball (1 lighted)	1 per	12,000	2	1	2.0	1											1
Basketball, Indoor	1 per	8,000	3	0.16	0.5	-	3										3
Basketball, Outdoor	1 per	3,000	4	0.16	0.6	2	1	1			1		1				6
Dog Park	1 per	25,000	1	2	2.0	0									2		2
Aquatic Center/ Public Pool	1 per	20,000	1	3	3.0											1	1
Gymnasium	1 per	10,000	2	Combined with event center or school			1									1	2
Events Center	1 per	20,000	1	1.5	1.5		1										1
Meeting Rooms	1 per	7,500	3	Combined with event center or school			3										3
Youth Center	1 per	20,000	1	Combined with event center or school			1										1
Senior Center	1 per	30,000	1	1.5	1.5		1		0								1
Handball	1 per	20,000	1	0.83	0.0		1						0				1
Tennis	1 per	4,000	5	0.25	1.3		3	0					2				5
Horseshoes	1 per	8,000	3	0.83	0.3	0	2		1								3
Picnic Facility	1 per	1,400	15	0.81	0.2	6	6	3	4	2	3	4	4		4		36
Picnic Group	1 per	2,900	7	1.0	7.0	3	3	1		1	1	1	1				11
Play Apparatus	1 per	1,850	12	0.25	3.0	2	2	2	1	1	1	1	1				11
Splash Center			2				1	1									2
Frisbee Golf			1											1			1
Restrooms			8			1	1	1	1	1	1	1	1				8
Drinking Fountains			13			2	2	2	1	1	1	1	2				12
Furnishings (benches/ kiosks)			32			12	4	2	2	2	2	2	4	2			32
Total Acreage for Facilities Footprint					56.1												
Total Park Acres Required (5 acres per 1000)					106.9	Note: Field lighting is not provided at any park except the Sports Park, and possibly the Community Park.											

Table 10-2
Cordova Hills Financing Plan
Estimated Parks Construction Costs (2011\$)

Item	Cost per Acre [1]	Phase 1		Buildout	
		Acres	Cost	Acres	Cost [2]
Parks					
Neighborhood Parks	\$ 375,000	5.0	\$ 1,875,000	30.6	\$ 11,475,000
Community Park	\$ 375,000	0.0	\$ 0	18.5	\$ 6,937,500
Sports Park	\$ 375,000	10.0	\$ 3,750,000	50.0	\$ 18,750,000
Subtotal Designated Active Parks		15.0	\$ 5,625,000	99.1	\$ 37,162,500
Additional Active Parks [3]	\$ 375,000	0.0	\$ 0	7.8	\$ 2,925,000
Subtotal All Active Parks		15.0	\$ 5,625,000	106.9	\$ 40,087,500
Less Acres for Community Center	\$ 375,000	0.0	\$ 0	(3.0)	(\$ 1,125,000)
Total Parks Cost Excluding Community Center		15.0	\$ 5,625,000	103.9	\$ 38,962,500
Swim Center [2]			\$ 0		\$ 4,500,000
Community Center [2]		0.0	\$ 0	3.0	\$ 4,000,000
(gymnasium, meeting rooms, Youth Center, Senior Center)					
Total		15.0	\$ 5,625,000	106.9	\$ 47,462,500

parks cost

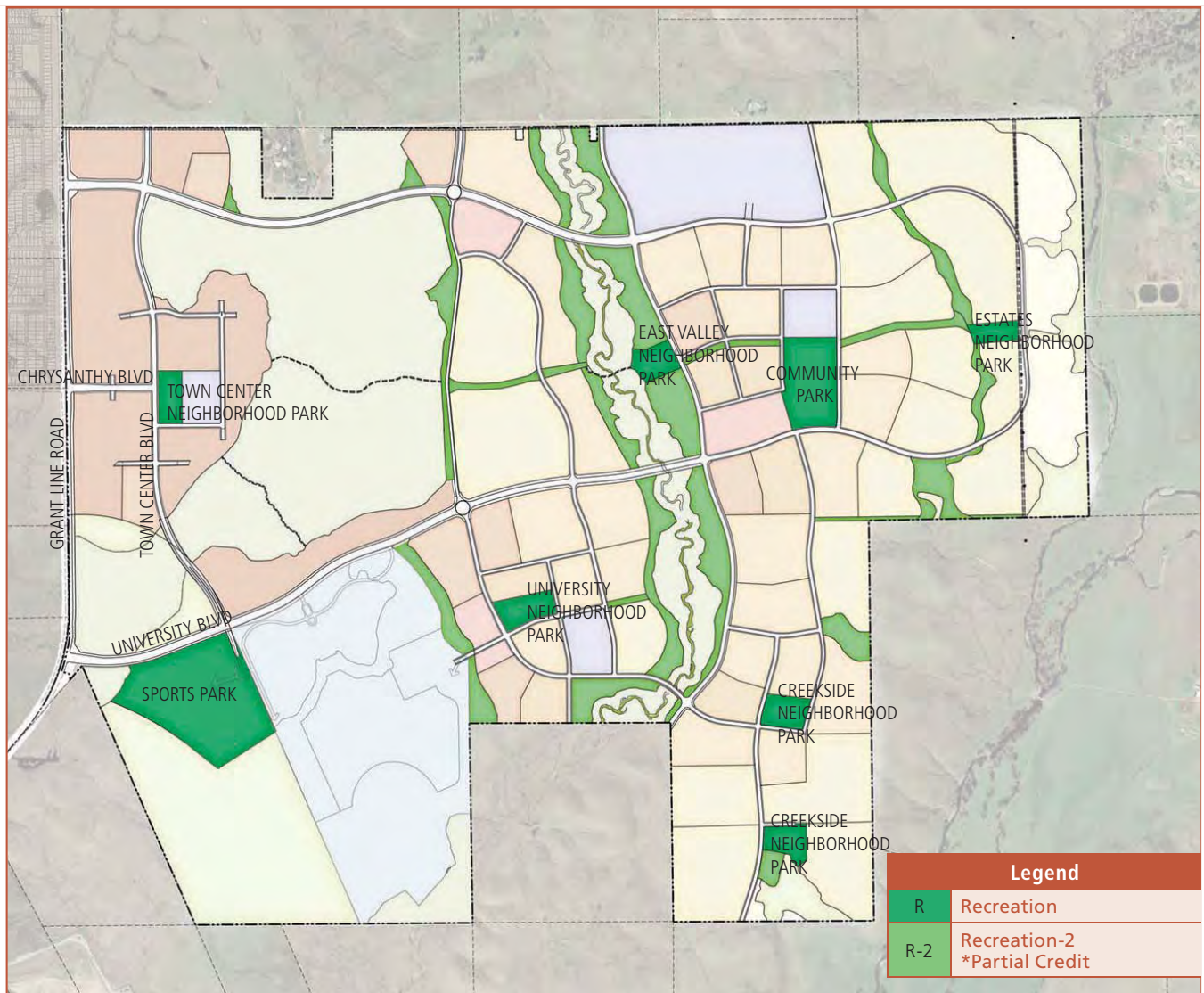
Source: EPS and Wade & Assoc.

[1] Based on survey of parks construction costs for comparable jurisdictions in the region.

[2] Swim Center and Community Center costs based on survey of costs for comparable facilities in the region.
Community center approximately 11,000 sq. ft. at a cost of \$350 per sq. ft.

[3] 7.8 Recreation-2 acres that will be identified as active parkland as the Project is mapped.

Map 10-1 Park Sites



Note: Only park sites and facilities (designated in legend as "Recreation") are addressed in this chapter. Open Space ("Recreation 2") is addressed in the "Open Space and Trails" chapter.

The total parks development cost at buildout is estimated at \$47.5 million. This cost includes general park development costs, as well as the costs of a Swim Center and a Community Center.

The general park development cost of \$39.0 million is estimated using an average cost of \$375,000 per acre. The Cordova Hills Draft Master Plan includes a list of facilities to be included at each park. Typically, the parks would include sports fields, basketball courts, picnic areas, play equipment, restrooms, drinking fountains, and furnishings (such as benches and kiosks). The average park improvement cost per acre accounts for funding of items including, but not limited to, water and sewer connection fees (including the costs of any installed water meters), design and engineering costs, drainage systems, surface improvements, restroom facilities located on park sites, sports fields, bicycle paths, play equipment, tables and benches, turf irrigation systems, fencing, paving, and lighting.

The total Swim Center construction cost estimate is for a community swim center and is estimated at \$4.5 million based on costs of other outdoor swim centers in the region. The Swim Center likely would include multiple pools, including one pool for lap swimming and smaller play and/or diving pools. The Community Center cost estimate is for an approximately 11,000 square foot community center with space for meeting rooms and senior center facilities. It also could include a gymnasium and youth center facilities, although these facilities, as well as additional meeting rooms, could be combined with a school. The total events center construction cost is estimated at \$4.0 million. This cost is also based on costs of comparable events centers in the region.

As Cordova Hills is developed, park master plans will be prepared for each park. Cost estimates will be updated as part of the park master planning process. Cordova Hills plans on developing parks using a budget based approach, with the costs adjusted for inflation. The CHLSD will have the ultimate decision on the park design and costs.

Phasing

Approximately 15 acres of park development are planned for Phase 1. Phase 1 parks include the following:

- The 5-acre neighborhood park located in the Town Center Village.
- 10 acres of the Sports Park located just west of the university/college campus center.

Phase 1 park construction totals an estimated \$5.6 million.

Table 10-3 shows the anticipated annual phasing of park development over buildout of the Project. As shown, the percentage of total dwelling units exceeds the percentage of park development indicating that there will be a sufficient tax base (development) available to fund facility costs.

Item	Units Trigger	Total	Phase 1				Phase 2				Phase 3				
			2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
RESIDENTIAL UNITS															
Residential Permits (1 year after lot sale)															
Annual Dwelling Units		7,500	0	233	233	643	641	351	351	723	719	670	670	1,135	1,131
Cumulative Dwelling Units			0	233	466	1,109	1,750	2,101	2,452	3,175	3,894	4,564	5,234	6,369	7,500
PARK ACRES															
Neighborhood Parks															
Town Center Park	500	5.0			5.0										
University Village Park	2,000	3.0					3.0								
University Village Park	4,000	3.1									3.1				
East Valley Park	5,200	5.3										5.3			
Estates Park	7,000	3.7												3.7	
Creekside Park North	7,500	5.4													5.4
Creekside Park South	7,500	5.1													5.1
Additional Active Parks	7,500	7.8													7.8
Subtotal		38.4	0.0	0.0	5.0	0.0	3.0	0.0	0.0	0.0	3.1	5.3	0.0	3.7	18.3
Community Park															
Phase 1	4,500	5.0									5.0				
Phase 2	7,500	13.5													13.5
Subtotal		18.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	13.5
Sports Park															
Phase 1	1,500	10.0				10.0									
Phase 2	3,000	10.0							10.0						
Phase 3	5,500	30.0											30.0		
Subtotal		50.0	0.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0	0.0	0.0	30.0	0.0	0.0
Swim Center															
X															
Community Center															
X															
Total		106.9	0.0	0.0	5.0	10.0	3.0	0.0	10.0	0.0	8.1	5.3	30.0	3.7	31.8
Cumulative Dwelling Units															
Percentage of Total		7,500	0	233	466	1,109	1,750	2,101	2,452	3,175	3,894	4,564	5,234	6,369	7,500
Percentage of Total															
			0%	3%	6%	15%	23%	28%	33%	42%	52%	61%	70%	85%	100%
Cumulative Park Acres															
Percentage of Total		106.9	0.0	0.0	5.0	15.0	18.0	18.0	28.0	28.0	36.1	41.4	71.4	75.1	106.9
Percentage of Total															
			0%	0%	5%	14%	17%	17%	26%	26%	34%	39%	67%	70%	100%

Prepared by EPS 9/7/2012

Funding Strategy

Summary

There are no existing park development fee programs in which Cordova Hills would participate. Cordova Hills proposes that park development costs be funded through the Cordova Hills SFD.

Existing Fee Programs

There are no fee programs for development of County parks.

Proposed Cordova Hills SFD

Cordova Hills proposes that park development costs be funded through the Cordova Hills SFD. The SFD could include developer funding and reimbursements, bond-funding, or funding through a fee program. This report includes facilities cost allocations to the various uses that would be needed if developer or fee funding were established to fund the facilities.

The total Cordova Hills parks costs are allocated to the different land uses based on the land uses' relative park usage. **Table 10-4** shows the allocation factors used to estimate relative parks usage and fairly allocate costs to the land uses. Parks costs are allocated based on persons per household and employees per acre. **Table 10-5** shows the buildout cost allocation and the resulting park cost per dwelling unit by residential land use and nonresidential building square foot.

Park improvement costs associated with approved park plans are eligible for fee credits pursuant to the provisions of the proposed Cordova Hills fee program.

Phase 1 Facilities Cost vs. Allocated Cost

Table 10-6 shows the estimated Cordova Hills SFD Phase 1 and buildout park development costs versus proportional allocated costs. There is an estimated surplus of allocated park costs in Phase 1 as compared to estimated Phase 1 park development costs.

Table 10-4
Cordova Hills Financing Plan
Park Cost Allocation Factors

	Dwelling Units per Acre	People per Dwelling Unit	People per Acre
<i>Formula</i>	<i>a</i>	<i>b</i>	<i>c=a *b</i>
Residential Land Uses			
Estates Residential (1-7 units/acre)	2.13	3.25	6.92
Low Density Residential (4-7 units/acre)	3.68	3.10	11.42
Medium Density Residential (7-15 units/acre)	7.91	2.80	22.16
Residential 20 (15-23 units/acre)	13.54	2.20	29.78
High Density Residential (23-30 units/acre)	19.62	2.20	43.17
Nonresidential Land Uses [1]			
Commercial			4.95
Office			9.33
University/College Campus Center [2]			

due park

[1] Nonresidential people per acre from North Vineyard Station Specific Plan Financing Plan.

[2] University/college campus center excluded from cost allocation.

Table 10-5
Cordova Hills Financing Plan
Cordova Hills SFD Parks Cost Allocation at Buildout (2011\$)

Item	Land Use		People per Acre [1]	Total DUEs	Percentage Distribution	Park Cost Allocation at Buildout		
	Acres	Units/ Sq. Ft.				Total Cost [2]	Cost per Acre	Cost per Unit/Sq. Ft.
Residential Land Uses		<u>units</u>						<u>per unit</u>
Estates Residential	64.7	138	6.92	448	2.2%	\$ 1,024,225	\$ 15,830	\$ 7,432
Low Density Residential	491.1	1,809	11.42	5,609	27.0%	\$ 12,826,662	\$ 26,116	\$ 7,089
Medium Density Residential	386.8	3,061	22.16	8,571	41.3%	\$ 19,599,089	\$ 50,676	\$ 6,403
Residential 20	61.5	833	29.78	1,832	8.8%	\$ 4,188,228	\$ 68,101	\$ 5,031
High Density Residential	84.6	1,659	43.17	3,651	17.6%	\$ 8,348,157	\$ 98,727	\$ 5,031
Total Residential Land Uses	1,088.6	7,500	113.5	20,110	96.9%	\$ 45,986,361		
Nonresidential Land Uses		<u>bldg. sq. ft.</u>						<u>per bldg. sq. ft.</u>
Commercial	72.6	654,860	5.0	359	1.7%	\$ 821,540	\$ 11,320	\$ 1.25
Office	30.7	196,540	9.3	286	1.4%	\$ 654,599	\$ 21,336	\$ 3.33
Total Commercial	103.3	851,400		646	3.1%	\$ 1,476,139		
University/College Campus Center [3]			0.0	0	0.0%	\$ 0		<u>per bldg. sq. ft.</u> \$ 0.00
TOTAL			113.5	20,755	100.0%	\$ 47,462,500		

alloc park

[1] SeeTable 10-4.

[2] SeeTable 10-2 for total cost.

[3] University/college campus center excluded from cost allocation.

Table 10-6
Cordova Hills Financing Plan
Parks Cost vs. Proportional Cost Allocation (2011\$)

Item	Cost per Acre	Acres		Allocation vs. Construction Cost	
		Phase 1	Buildout	Phase 1	Buildout
Construction Cost				\$ 5,625,000	\$ 47,462,500
Allocated Cost					
Residential Land Uses					
Estates Residential	\$ 15,830	0.0	64.7	\$ 0	\$ 1,024,225
Low Density Residential	\$ 26,116	48.3	491.1	\$ 1,262,295	\$ 12,826,662
Medium Density Residential	\$ 50,676	63.3	386.8	\$ 3,209,504	\$ 19,599,089
Residential 20	\$ 68,101	7.5	61.5	\$ 510,760	\$ 4,188,228
High Density Residential	\$ 98,727	21.0	84.6	\$ 2,069,150	\$ 8,348,157
Total Residential Land Uses		140.1	1,088.6	\$ 7,051,709	\$ 45,986,361
Nonresidential Land Uses					
Commercial	\$ 11,320	13.3	72.6	\$ 150,543	\$ 821,540
Office	\$ 21,336	0.0	30.7	\$ 0	\$ 654,599
Total Commercial		13.3	103.3	\$ 150,543	\$ 1,476,139
University/College Campus Cente	<u>total cost</u> \$ 0	<u>pct of total development</u> 20% 100%		\$ 0	\$ 0
TOTAL				\$ 7,202,252	\$ 47,462,500
Surplus/(Shortfall)				\$ 1,577,252	\$ 0

park rev

11. OPEN SPACE AND TRAILS

Cordova Hills contains an extensive open space and trail system that includes the following features:

- 4.0 million square feet of open space and greenbelts.
- 1.7 million square feet of trails and landscaping in the edges around the avoidance areas.
- 2.1 million square feet (20 miles) of paseos, including trails and adjacent landscaping.
- 284,000 square feet of multi-use trails.

Note that the avoidance area edges are included as open space, but the avoidance area preservation costs are included in the Habitat and Wetlands chapter. In addition, on-street bicycle trails and multi-use trails within the road right of way are included in the Roads chapter.

Map 11-1 shows the location of the open space and greenbelts (parcels identified as “Recreation-2” on the map). **Map 11-2** shows the proposed trails system. The trails on this map that are discussed in this chapter are identified as “Cordova Hills Community Trails (Off Street)” and “Community Trails Thru Main Preserve.” These trails include multi-use trails throughout the community, the trails contained in the avoidance areas edges, and the trails that cross the main avoidance area. There are two types of community multi-use trails as defined below.

- 10-foot wide trails with 2-foot decomposed granite shoulder on either side.
- 10-foot wide trails without the decomposed granite shoulders.

In the cost estimates, the trails that cross the main avoidance area are 10-foot wide trails with decomposed granite shoulders, while all other community trails are 10-foot wide trails without decomposed granite shoulders.

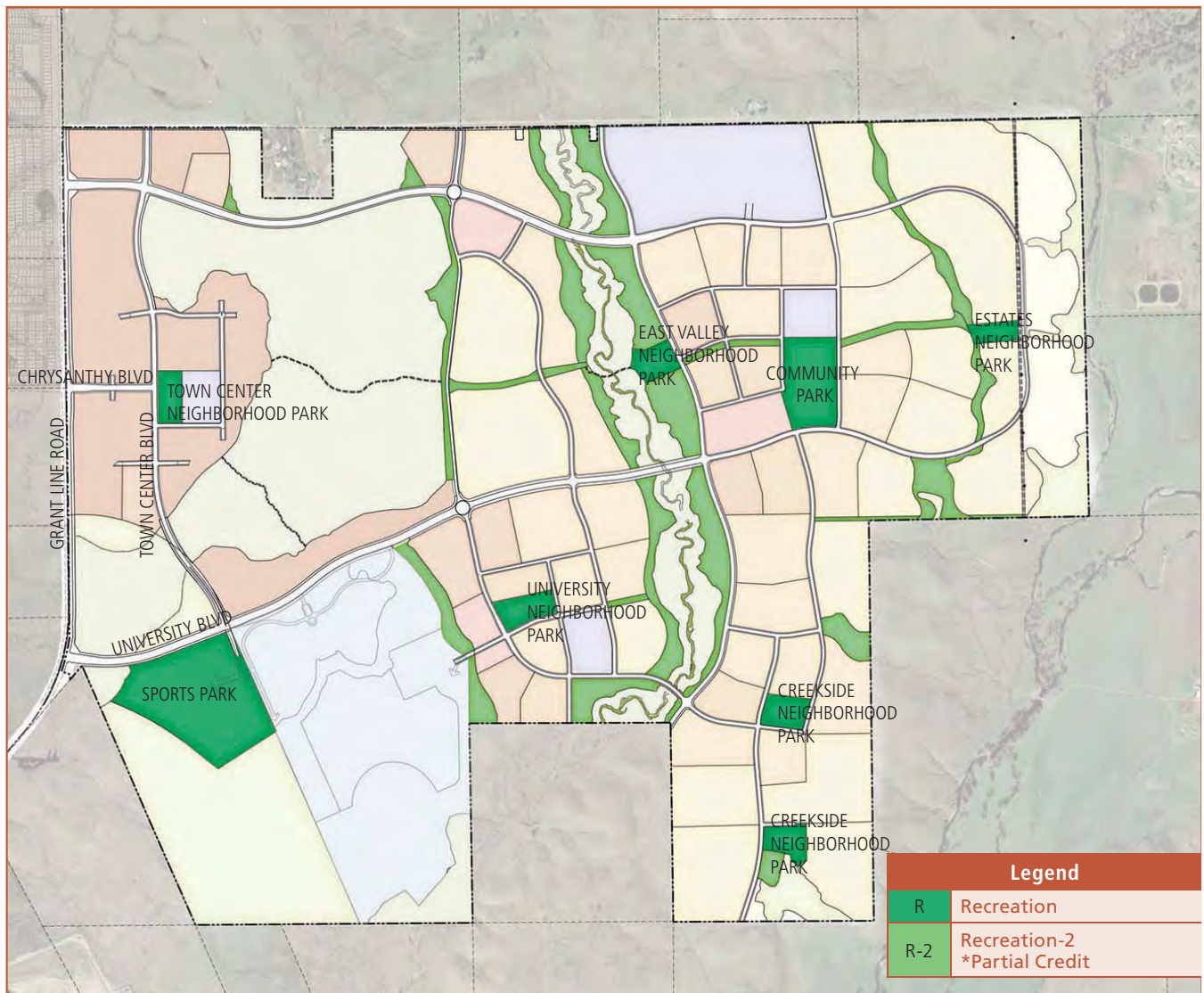
The 20 miles of paseos are not shown on **Map 11-2** because their exact locations are unknown at this time. More precise mapping of the paseos will occur as part of the tentative map approval process.

Facility Costs

Table 11-1 estimates the Phase 1 and buildout open space and trails development costs. These costs were provided by MJS Design Group and HCM, Inc. The total open space and trails development cost at buildout is estimated at \$19.6 million. Note that the open space/greenbelts square feet shown at buildout include an adjustment to deduct open space acres that will be developed as active parkland (see previous discussion in Parks chapter).

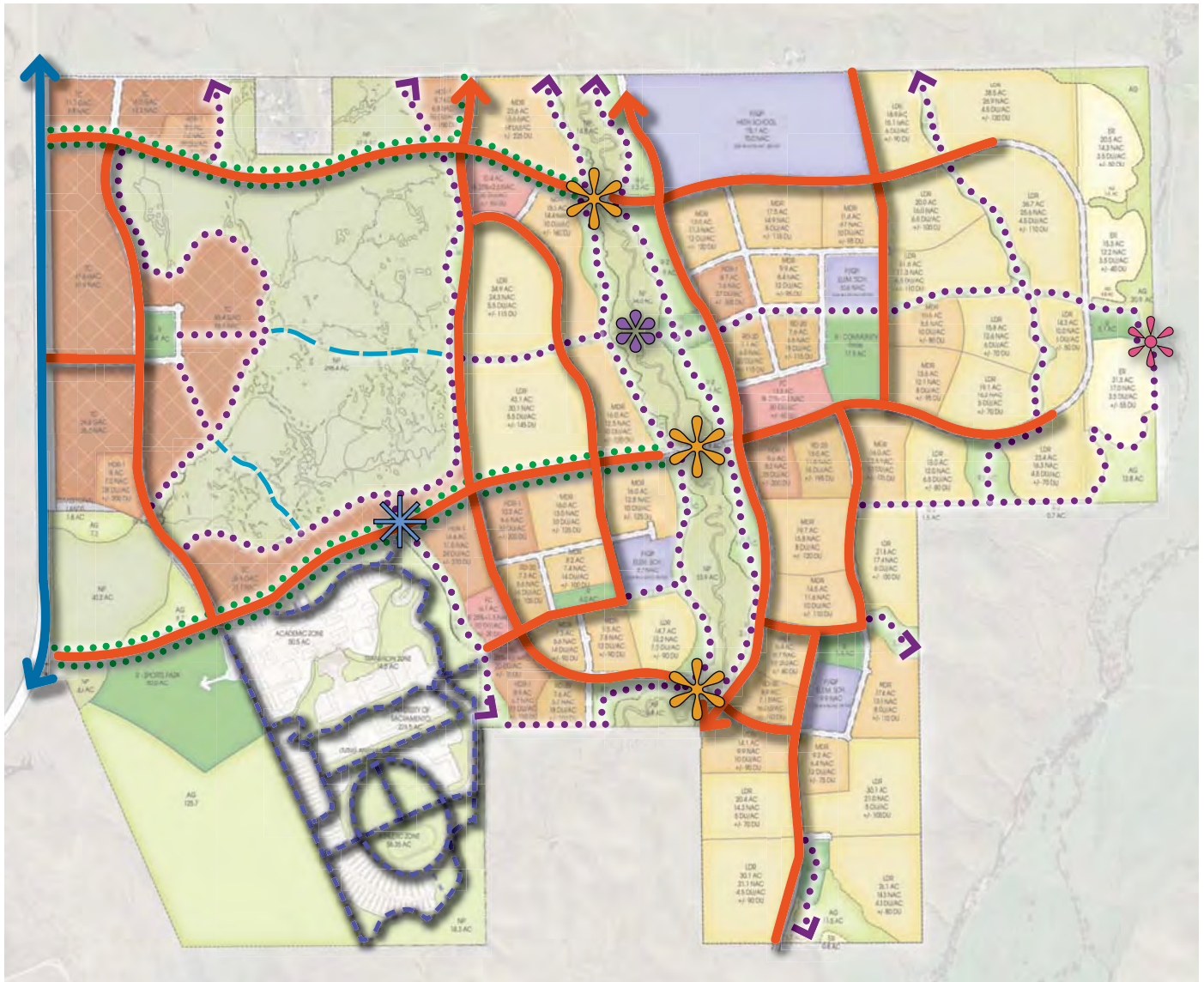
The open space and greenbelts listed on **Table 11-1** are shown on **Map 11-1**. All of the trails listed on **Table 11-1**, with the exception of the paseo trails (see previous discussion), are shown on **Map 11-2**.

Map 11-1 Open Space



Note: Only open space (designated in legend as "Recreation-2") is addressed in this chapter. Park sites and facilities ("Recreation") are addressed in the "Parks" chapter.

Map 11-2 Trails System



Legend



Proposed Regional Trail (by others)



Class II Bicycle Trail
(On-Street) (Approx. 26.2 miles)



Cordova Hills Community Trails
(Off Street) (Approx. 11.3 miles)



Off Street 10' Multi-Use Trails (Within
R.O.W.) (Approx. 5.6 miles)



Community Trails Thru Main Preserve
(On Grade) (Approx. .75 miles)



University Trails (Approx. 4.8 miles)



Pedestrian / Bicycle Bridge



Pedestrian Underpass



Potential Future Connection to
Existing Off-Site Trails



Vehicular Bridge with Trail Underpass

■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■

OS cost

[1] Open space that will be developed and maintained as active parks. See Table 10-2.

11-4

Phasing

The Phase 1 trails and open space planned development includes the following features:

- 569,000 square feet of edges around the avoidance areas.
- 211,000 square feet of paseos (approximately 2 miles).
- 34,000 square feet of multi-use trails.

Phase 1 open space and trails construction totals an estimated \$2.0 million.

Table 11-2 shows the anticipated phasing of open space and trail development for Phase 1 and buildout of the Project. As shown, the percentage of residential development in Phase 1 exceeds the percentage of open space and trail development in Phase 1, indicating there will be sufficient development to fund open space and trail development costs. Indeed, there is a projected \$475,000 surplus in Cordova Hills SFD revenues in Phase 1, as shown in **Table 11-6**. Funding for open space and trail facilities at buildout of the Project is discussed in the following section.

Funding Strategy

Summary

There are no existing open space and trails development impact fee programs in the County. Cordova Hills proposes that the open space and trails development cost be funded through the following two sources:

- Cordova Hills SFD.
- Private Developer Funding.

All open space and trails costs, with the exception of the paseos costs, will be funded through the Cordova Hills SFD. Paseos costs will be funded by private developers as site development costs because the paseos will be located in or adjacent to the subdivisions throughout the Project.

Table 11-3 summarizes the costs and funding sources. Of the total buildout costs, an estimated \$10.5 million will be funded through the Cordova Hills SFD and \$9.1 million by private developers.

Existing Fee Programs

Currently, there are no fee programs for development of County open space and trails.

Proposed Cordova Hills SFD

As discussed above, approximately \$10.5 million of the total open space and trails development costs are planned to be funded through the Cordova Hills SFD. The SFD could include advance developer funding and reimbursements, bond-funding, and/or funding through a fee program. This report includes facilities cost allocations to the various uses that would be needed if developer or fee funding were established to fund the facilities.

Table 11-2
Cordova Hills Financing Plan
Open Space and Trail Development Phasing

Item	Amount	
	Phase 1	Buildout
Dwelling Units	<u>units</u>	<u>units</u>
Cumulative Dwelling Units	1,750	7,500
Percent of Total	23%	100%
Cumulative Open Space and Trail Development	<u>sq. ft.</u>	<u>sq. ft.</u>
Open Space/Greenbelts	0	3,666,232
Open Space Edges	568,700	1,748,100
Paseos (20 miles)	211,200	2,112,000
Multi-Use Trails (10' wide)	10,000	227,850
Multi-Use Trails (14' wide)	23,600	56,400
Cumulative Total	813,500	7,810,582
Percent of Total	10%	100%

os_phasing

Source: MacKay & Somps, MJS Design Group

Table 11-3
Cordova Hills Financing Plan
Summary of Open Space and Trails Funding Sources (2011\$)

Item	Phase 1			Buildout		
	Cordova Hills SFD	Developer Funding	Total	Cordova Hills SFD	Developer Funding	Total
Open Space/Greenbelts	\$ 0	\$ 0	\$ 0	\$ 6,248,800	\$ 0	\$ 6,248,800
Edges	\$ 995,200	\$ 0	\$ 995,200	\$ 3,146,500	\$ 0	\$ 3,146,500
Paseos	\$ 0	\$ 908,200	\$ 908,200	\$ 0	\$ 9,081,600	\$ 9,081,600
Multi-Use Trails (10' wide)	\$ 40,000	\$ 0	\$ 40,000	\$ 911,400	\$ 0	\$ 911,400
Multi-Use Trails (14' wide)	\$ 70,800	\$ 0	\$ 70,800	\$ 169,200	\$ 0	\$ 169,200
Total Open Space and Trails (rounded)	\$ 1,110,000	\$ 910,000	\$ 2,020,000	\$ 10,480,000	\$ 9,080,000	\$ 19,560,000

os_su_bo

The Cordova Hills open space and trails costs are allocated to the different land uses based on the land uses' relative open space and trails usage. **Table 11-4** shows the allocation factors used to estimate relative usage and fairly allocate costs to the land uses. Open space and trails costs are allocated based on persons per household and nonresidential developable acres.

Table 11-5 shows the buildout cost allocation and the resulting open space and trails development cost per dwelling unit by residential land use and nonresidential building square foot.

Phase 1 Facilities Cost vs. Allocated Cost

Table 11-6 shows the estimated Cordova Hills SFD Phase 1 and buildout open space and trails development costs versus proportional allocated costs. There is an estimated surplus of Cordova Hills SFD revenues in Phase 1 as compared to estimated Phase 1 development costs. This surplus could be used to fund any potential shortfalls incurred in later phases of the Project.

Table 11-4
Cordova Hills Financing Plan
Open Space and Trails Cost Allocation Factors

	Acres	Total Population	Percentage of Total Population	Cost Allocation Factor [1]
Residential Land Uses				
Estates Residential (1-7 units/acre)	64.7	448	2%	24.2
Low Density Residential (4-7 units/acre)	491.1	5,609	28%	303.6
Medium Density Residential (7-15 units/acre)	386.8	8,571	43%	464.0
Residential 20 (15-23 units/acre)	61.5	1,832	9%	99.1
High Density Residential (23-30 units/acre)	84.6	3,651	18%	197.6
Total Residential Land Uses	1,088.6	20,110	100%	1,088.6
Nonresidential Land Uses				
Commercial	72.6			72.6
Office	30.7			30.7
Total Commercial	103.3			103.3
University/College Campus Center [1]	1,192			NA

due os

[1] University/college campus center excluded from cost allocation.

Table 11-5
Cordova Hills Financing Plan
Cordova Hills SFD Open Space and Trails Cost Allocation at Buildout (2011\$)

Item	Land Use		Cost Allocation Basis		Open Space & Trails Cost Allocation at Buildout		
	Acres	Units/ Sq. Ft.	Cost Allocation Factor [1]	Percentage Distribution	Total Cost [2]	Cost per Acre	Cost per Unit/Sq. Ft.
Residential Land Uses							
		<u>units</u>					<u>per unit</u>
Estates Residential	64.7	138	24.2	2.0%	\$ 213,193	\$ 3,295	\$ 1,547
Low Density Residential	491.1	1,809	303.6	25.5%	\$ 2,669,876	\$ 5,436	\$ 1,476
Medium Density Residential	386.8	3,061	464.0	38.9%	\$ 4,079,560	\$ 10,548	\$ 1,333
Residential 20	61.5	833	99.1	8.3%	\$ 871,782	\$ 14,175	\$ 1,047
High Density Residential	84.6	1,659	197.6	16.6%	\$ 1,737,673	\$ 20,550	\$ 1,047
Total Residential Land Uses	1,088.6	7,500	1,088.6	91.3%	\$ 9,572,083		
Nonresidential Land Uses							
		<u>bldg. sq. ft.</u>					<u>per bldg. sq. ft.</u>
Commercial	72.6	654,860	72.6	6.1%	\$ 638,148	\$ 8,793	\$ 0.97
Office	30.7	196,540	30.7	2.6%	\$ 269,769	\$ 8,793	\$ 1.37
Total Commercial	103.3	851,400	103.3	8.7%	\$ 907,917		
University/College Campus Center [3]			0.0	0.0%	\$ 0		<u>per bldg. sq. ft.</u> \$ 0.00
TOTAL			1,191.9	100.0%	\$ 10,480,000		

alloc os

[1] See Table 11-4.

[2] See Table 11-1 for total cost.

[3] University/college campus center excluded from cost allocation.

Table 11-6
Cordova Hills Financing Plan
Open Space and Trails Cost vs. Proportional Cost Allocation (2011\$)

Item	Cost per Acre	Acres		Allocation vs. Construction Cost	
		Phase 1	Buildout	Phase 1	Buildout
Construction Cost Allocated to Cordova Hills SFD				\$ 1,110,000	\$ 10,480,000
Allocated Cost					
Residential Land Uses					
Estates Residential	\$ 3,295	0.0	64.7	\$ 0	\$ 213,193
Low Density Residential	\$ 5,436	48.3	491.1	\$ 262,747	\$ 2,669,876
Medium Density Residential	\$ 10,548	63.3	386.8	\$ 668,060	\$ 4,079,560
Residential 20	\$ 14,175	7.5	61.5	\$ 106,315	\$ 871,782
High Density Residential	\$ 20,550	21.0	84.6	\$ 430,695	\$ 1,737,673
Total Residential Land Uses		140.1	1,088.6	\$ 1,467,817	\$ 9,572,083
Nonresidential Land Uses					
Commercial	\$ 8,793	13.3	72.6	\$ 116,938	\$ 638,148
Office	\$ 8,793	0.0	30.7	\$ 0	\$ 269,769
Total Commercial		13.3	103.3	\$ 116,938	\$ 907,917
	<u>total cost</u>	<u>pct of total development</u>			
University/College Campus Center	\$ 0	20%	100%	\$ 0	\$ 0
TOTAL				\$ 1,584,754	\$ 10,480,000
Surplus/(Shortfall)				\$ 474,754	\$ 0

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12. HABITAT AND WETLANDS

Wetland preservation will be required in the avoidance areas of the Project. Most of the avoidance areas are in the western third of the project. In addition, off-site habitat mitigation will be required. **Map 12-1**, prepared by ECORP Consulting Inc., shows the Project avoidance areas and the wetland features. It summarizes the impacts of the Project on the habitat and the Project avoided area acres as a result of creating the on-site preserve. These amounts are used to determine the habitat mitigation requirements for the Project, the credits granted for establishment of the on-site preserve, and the remaining off-site requirements. The map provides preliminary estimates that are currently being updated. The on-site and off-site habitat requirements and costs will be updated following completion of the environmental review process.

Facility Costs

Table 12-1 estimates the Phase 1 and buildout habitat mitigation costs. These costs, totaling approximately \$15.3 million are the costs for off-site mitigation only. The on-site and off-site costs are discussed further below.

On-site Costs

The on-site mitigation costs include annual legal, construction, survey, maintenance, operations, and reporting costs. The on-site costs would be somewhat higher in the first year of habitat establishment than in the subsequent years since additional costs would be required to establish the habitat. On-site costs do not reflect any construction costs (i.e., habitat creation or restoration costs) since the proposed on-site preserve location exists on undisturbed land. The on-site costs are included in the Urban Services Plan and are planned to be funded through an annual tax levied through the proposed CHLSD. The Cordova Hills developer may be required to privately fund some on-site costs in the first few years of the Project until enough development occurs that the proposed tax would provide sufficient revenue.

The on-site costs are detailed in the Property Analysis Record (PAR) prepared to estimate annual management costs for the on-site Cordova Hills habitat preserve. The final determination of the funding of ongoing maintenance costs for the on-site preserve will be detailed in the Habitat Management Plan for Cordova Hills.

Table 12-1
Cordova Hills Financing Plan
Estimated Habitat Mitigation Costs (2011\$)

Item	Formula	Phase 1	Buildout
On-Site Habitat Mitigation [1]		N/A	N/A
Off-Site Habitat Mitigation			
Creation/Restoration Acres [1]	a	17.79	39.63
Subtotal Creation/Restoration Cost	$b=a*\$250,000$	\$ 4,446,500	\$ 9,907,500
Preservation Acres [2]	c	32.26	65.14
Less Preservation Credits [3]	d	(31.15)	(37.93)
Net Preservation Requirement	$e=\max\text{ of }0\text{ and }(c-d)$	1.11	27.21
Subtotal Preservation Cost	$f=e*\$200,000$	\$ 222,800	\$ 5,441,600
TOTAL HABITAT MITIGATION COSTS	$g=b+f$	\$ 4,669,300	\$ 15,349,100

hab

Source: Conwy, LLC and ECORP.

- [1] One creation acre required for each impact acre. Maintenance of the onsite preserve is discussed in the Urban Services Plan and will be funded through a CHCSD special tax.
- [2] Two preservation acres required for each vernal pool, seasonal wetland, and seasonal wetland swale acre impacted.
- [3] Credits given for vernal pool, seasonal wetland, and seasonal wetland swale avoided acres.

Off-Site Costs

The off-site habitat mitigation costs will include creation, restoration, and preservation costs. The Project developer anticipates that it will be required to create and restore one acre of habitat for each acre of habitat disturbed and to preserve two acres of habitat for each acre disturbed. Credits for on-site habitat mitigation will be granted against these costs. **Table 12-1** shows the habitat mitigation creation/restoration and preservation acres requirement after netting out the acres requirement satisfied through on-site mitigation. The required creation and restoration acres and preservation acres are multiplied by an average cost per acre to arrive at a total off-site mitigation cost.

Phasing

Phase 1 habitat mitigation costs total approximately \$4.7 million of the estimated \$15.3 million at buildout.

Funding Strategy

The habitat and wetlands are a significant element of the Project, so they are included in this Financing Plan. It is currently anticipated, however, that the habitat mitigation costs will be funded privately rather than through a public financing mechanism.

There are no existing habitat mitigation fee programs in which the Project area is included that could be used to fund the off-site habitat costs. There is a proposed South Sacramento Habitat Conservation Plan fee program, however, which if implemented, could replace the private developer funding as the funding source of habitat mitigation costs.

13. LIBRARY

Library services for Cordova Hills are provided by the Sacramento Public Library Authority (Library Authority). Cordova Hills will be required to contribute toward the provision of library services for its residents.

The County is in the process of implementing a countywide library development impact fee program. Cordova Hills will participate in this fee program if and when it is implemented. The estimated fee rates proposed for the program are \$827 for single-family detached dwelling units; \$643 for 2-4 units attached; \$537 for 5+ units attached; and \$530 for mobile homes and second residential units, based on this proposed fee level. **Table 13-1** shows the projected fee revenue from Cordova Hills development at completion of Phase 1 development and at buildout. At buildout, the Project will generate approximately \$5.5 million in fee revenue. In the event that the County does not implement a countywide library development impact fee program, the Project will fund its fair share of library facilities through the proposed Cordova Hills SFD.

The Library Authority plans a 15,000 square foot library to serve Cordova Hills and adjacent areas. Cordova Hills could provide an appropriate library facility in the Town Center and lease the facility to the Library Authority. The development impact fee that Cordova Hills pays ultimately could be adjusted if this arrangement was established. However, it should be noted that the Cordova Hills developers are not required to construct a library facility.

As of the end of 2010, the Library Authority considered the estimated \$5.5 million from potential library fees adequate to fund the Cordova Hills' portion of construction, furnishing, and materials acquisitions for a 15,000 square foot library facility. Sufficiency of funding, however, is entirely dependent on economic conditions at the time of construction. The timing of constructing a library facility is at the discretion of the Library Authority and will be dependent on funding from all benefiting areas.

Further, no operating funds have been allocated to the Library Authority to support the opening and annual operation of a new library facility. Annual operations include staffing, collections, maintenance and security, and utilities. These additional costs are currently estimated at \$800,000 annually and would need to be budgeted and allocated to the Library Authority prior to construction. The operating costs and funding of these costs are discussed further in the Urban Services Plan.

Table 13-1
Cordova Hills Financing Plan
Proposed Sacramento County Library Fee Revenue (2011\$)

Item	Fee per Dwelling Unit [1]	Phase 1		Buildout	
		Dwelling Units	Total Fee Revenue	Dwelling Units	Total Fee Revenue
Residential Land Uses [2]					
Estates Residential	\$ 827	0	\$ 0	138	\$ 113,971
Low Density Residential	\$ 827	290	\$ 239,830	1,809	\$ 1,496,353
Medium Density Residential	\$ 827	760	\$ 628,520	3,061	\$ 2,531,395
Residential 20	\$ 537	150	\$ 80,550	833	\$ 447,053
High Density Residential	\$ 537	550	\$ 295,350	1,659	\$ 891,084
Total Residential Land Uses		1,750	\$ 1,244,250	7,500	\$ 5,479,856

lib fee

Source: Sacramento County; EPS.

[1] Residential fee only; multifamily fee estimated as 80% of single-family fee.

14. TRANSIT

Cordova Hills proposes to develop a local transit shuttle system within the Project area with an initial connection to the Sacramento Regional Transit (RT) station at Mather Field Road.

Map 14-1 shows the proposed internal bus routes, and **Map 14-2** shows the proposed external bus route.

The transit system would feed to RT services but would not be part of RT. The system would be operated by the proposed CHLSD. As detailed in the Urban Services Plan, Cordova Hills would contract out to provide the transit service, which would likely include the leasing of buses. The transit service provider would be paid through revenue generated from a Cordova Hills services tax and a university/college campus center subsidy. There would be no additional costs to the transit users except for a fare charged for non-residents of Cordova Hills.

Facility Costs

Table 14-1 estimates the Phase 1 and buildout transit facilities costs. Based on the Cordova Hills Transit Plan Summary (March 26, 2010) and a letter from MV Transit (April 28, 2010), it is estimated that Cordova Hills will require the following facilities and equipment:

- 20 bus stop shelters
- A transit center

The transit center, which is envisioned as a small information center/kiosk, will be located on the north side of the future extension of Chrysanthy Boulevard and will share parking with the Town Center commercial land uses. In addition, an onsite bus storage facility may be needed. Since it is currently undetermined if it will be needed, it is included in **Table 14-1** in the event that it is required, but no cost is shown.² Further, it is assumed that buses will be leased from the service provider and paid for through the proposed Cordova Hills services tax, so no buses will need to be purchased. The total construction cost at buildout for the transit facilities is estimated at \$495,700.

Phasing

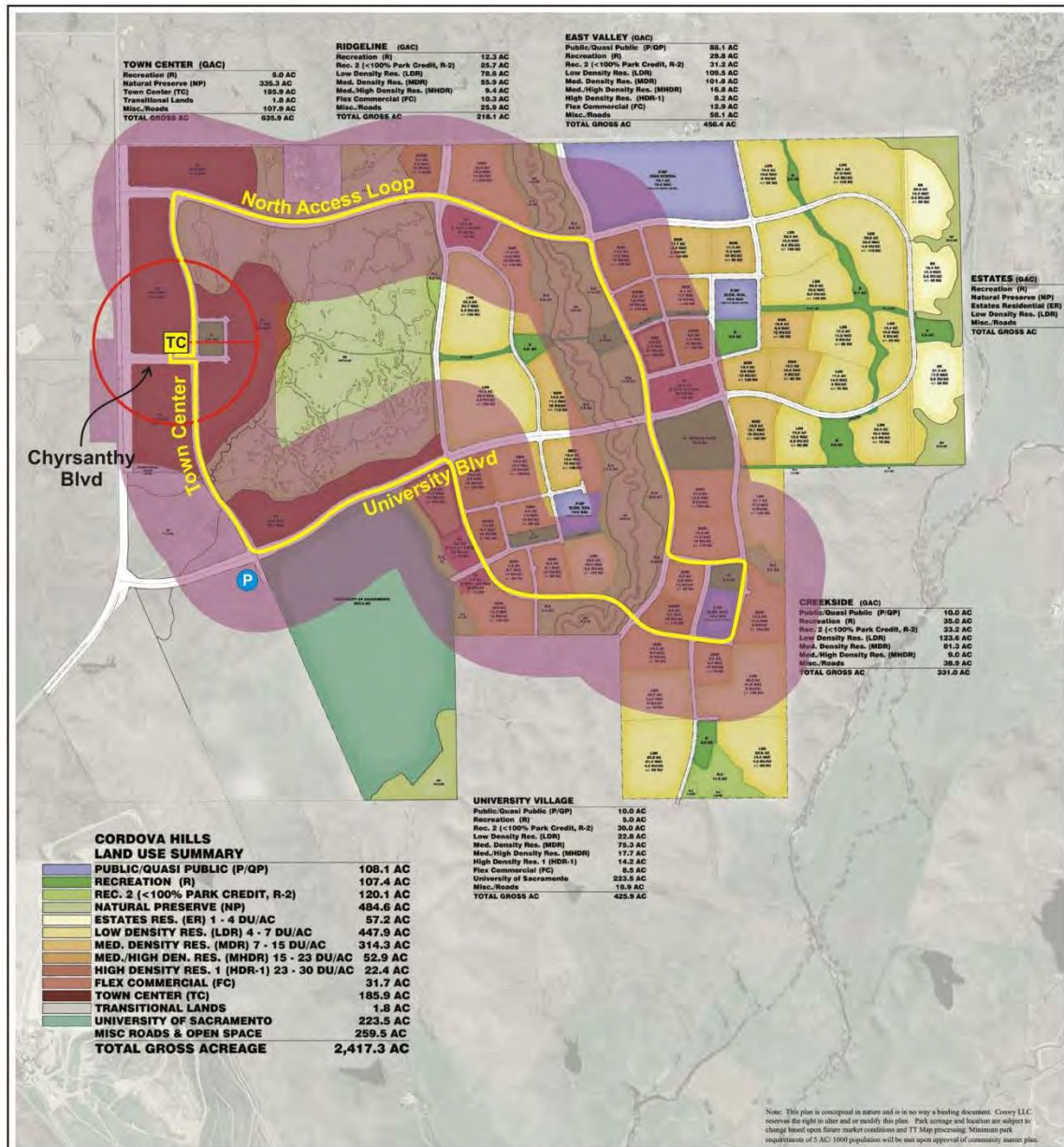
The Phase 1 transit services will consist of an initial external transit shuttle service from the Project to the Mather Field Road Light Rail Station. Thus, Phase 1 transit facilities costs comprise construction of the transit center and the four external bus stop shelters. The remaining bus

² A bus storage facility, either onsite or offsite, will be determined at the time a bus operator is selected. It is likely the operator will have their own maintenance facilities and funding will not be required from the Project.

Map 14-1

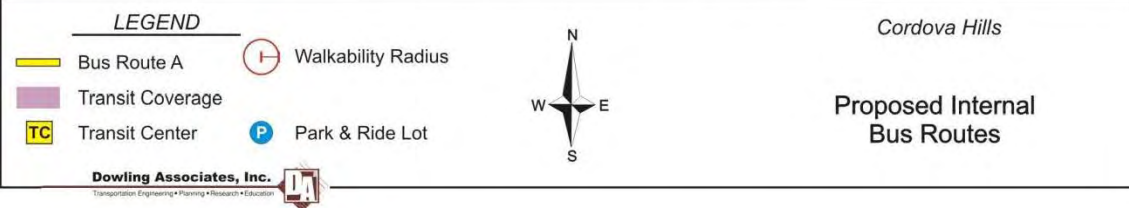
Internal Shuttle Van/Bus Starter Route

Exhibit 7 Internal Shuttle Van/Bus Starter Route



Approximate Scale:
0.25 miles

Base map received from Wade Associates, November 17, 2009



Map 14-2 External Bus Route

Exhibit 10 External Bus Route

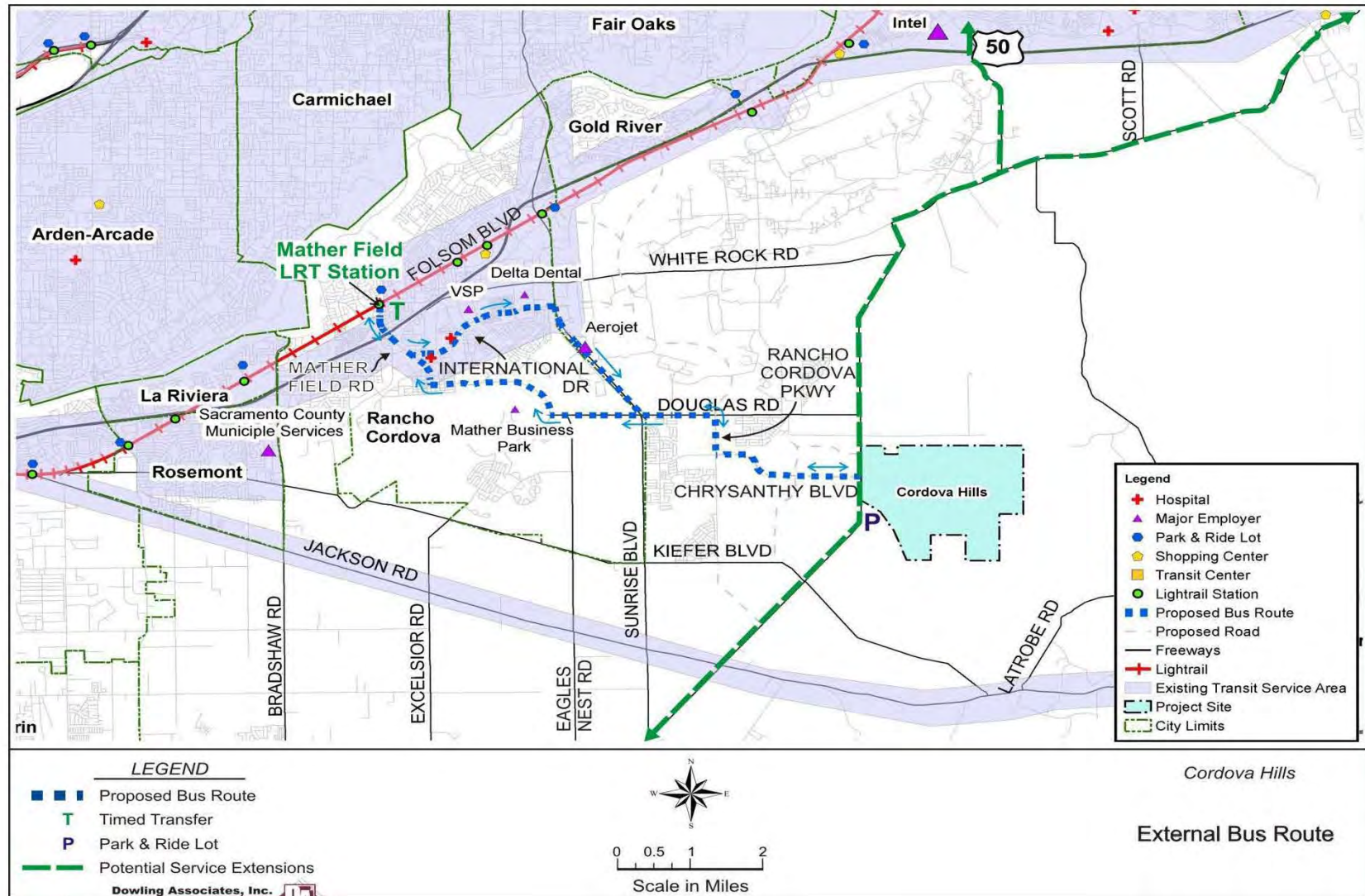


Table 14-1
Cordova Hills Financing Plan
Estimated Transit Costs (2011\$)

Description	Number	Unit Cost [1]	Total Cost	
			Phase 1 [2]	Buildout
Bus Stop Shelters				
Internal Route [3]	16	\$ 13,000	\$ -	\$ 208,000
External Route	4	\$ 13,000	\$ 52,000	\$ 52,000
Transit Center [4]	1	\$ 235,700	\$ 235,700	\$ 235,700
Bus Storage Facility	1	\$ -	TBD	
TOTAL			\$ 287,700	\$ 495,700

Source: EPS, Cordova Hills Transit Plan Summary (March 26, 2010), MV Transportation memorandum (April 28, 2010), and Regional University/College Campus Center Specific Plan PFFP (Sept. 2008). *transit cost*

[1] Unit costs of transit center from the Regional University/College Campus Center Specific Plan PFFP (Sept. 2008). Unit cost of bus shelters provided by RT. Costs have been increased by the percent change in the ENR CCI 20-City Index for January of the cost estimate year through January 2011, as shown below:.

Item	Year of Cost Est.	Unit Cost	Pct. Change in Jan. CCI Index	2011 Est. Unit Cost (Rounded)
Bus Shelter Unit Cost	2010	\$ 12,520	3.52%	\$ 13,000
Transit Center Unit Cost	2007	\$ 212,000	11.19%	\$ 235,700

[2] Phase 1 costs estimated as buildout costs * Phase 1 percent of total population.

[3] The internal bus route is not triggered until after Phase 1 (at the issuance of the 3,000th residential building permit). Thus no costs are estimated. At buildout, the internal 6.1-mile route will accommodate one shelter every 0.375 miles.

[4] The transit center is envisioned as a small information center/kiosk.

stop shelters will be needed for the Project's internal transit service, which will not be initiated until after completion of Phase 1 development. Phase 1 transit costs shown in **Table 14-1** total approximately \$288,000.

The transit services will be phased in over time, as detailed in the Development Agreement. This phasing is summarized below:

- Before the issuance of the 500th residential building permit, the CHLSD should perform an analysis to assess whether the external shuttle service should be commenced at 500 residential building permits or at a later threshold. Depending on the results of the analysis, initiation of the shuttle service could be required at any time between issuance of the 500th and 1,000th building permit.
- Before the issuance of the 1,000th residential building permit, the Project shall initiate an external transit shuttle service that will provide direct service between the Cordova Hills park-and-ride lot and Mather Field Road Light Rail Station.
- Before the issuance of the 3,000th residential building permit, the Project shall expand the external shuttle service between the Cordova Hills park-and-ride lot and Mather Field Road Light Rail Station to operate at greater frequencies during peak periods. At the same time, the Project shall also initiate an internal shuttle service between the Project's Transit Center and the developed portions of Phases 1 and 2.
- Before the issuance of the 5,000th residential building permit, the Project shall increase the length of the internal shuttle service to the final planned internal route.
- Before the issuance of the 7,500th residential building permit, the Project shall expand the internal shuttle service to run vehicles in both directions of the internal loop.

Funding Strategy

Summary

There are no existing development impact fee programs for transit facilities. Therefore, Cordova Hills proposes that transit facilities costs be funded through the Cordova Hills SFD.

Existing Fee Programs

Currently, there are no fee programs for construction of transit facilities.

Proposed Cordova Hills SFD

Cordova Hills proposes that transit facilities costs be funded through the Cordova Hills SFD. The SFD could include developer funding and reimbursements, bond-funding, or funding through a fee program. This report includes facilities cost allocations to the various uses that would be needed if developer or fee funding were established to fund the facilities.

The allocation process for transit facilities consists of two steps:

- First, the transit costs are divided between the Cordova Hills community and the university/college campus center. **Table 14-2** shows this cost distribution. The university/college campus center is allocated approximately 16 percent of the transit costs, and the community is allocated the remainder. The 16 percent factor is based on the university/college campus center's percent of total person trips for Cordova Hills. The person trips are obtained for DKS Associates Draft Cordova Hills Traffic Model (July 2010). The person trips represent potential transit trips because all people from the community and the university/college campus center have the opportunity to use the transit system for their trips.
- Second, the Cordova Hills community costs are allocated to the various land uses in the Community based on the land uses' relative usage. **Table 14-3** shows the allocation factors used to estimate relative transit usage and fairly allocate costs to the land uses. Transit costs are allocated based on peak hour transit trips per acre. **Table 14-4** shows the buildout cost allocation and the resulting transit cost per dwelling unit for residential land uses, per building square foot for nonresidential uses, and in total for the university/college campus center.

Phase 1 Facilities Cost vs. Allocated Cost

Table 14-5 shows the estimated Cordova Hills SFD Phase 1 and buildout transit facilities costs versus proportional allocated costs. There is a deficit of estimated revenues in Phase 1 as compared to estimated Phase 1 facilities costs. This deficit will be advance-funded by the master developer and reimbursed through the Cordova Hills SFD in subsequent phases of the Project.

Table 14-2
Cordova Hills Financing Plan
Transit Cost Summary at Buildout (2011\$)

Description	Total Person Trips [1]	Percent of Total	Buildout Cost
Cordova Hills Community	118,900	84%	\$ 414,769
University/College Campus Center	23,200	16%	\$ 80,931
Total [2]	142,100	100%	\$ 495,700

trans sum

Source: DKS Cordova Hills Traffic Model (July 2010)

[1] Total person trips represent potential transit trips since all people from the community and the University/College Campus Center have the opportunity to use the transit system for their trips.

[2] See Table 14-1 for total cost.

Table 14-3
Cordova Hills Financing Plan
Transit Cost Allocation Factors [1]

Land Use	FAR	Peak Hour Vehicle Trips per Acre	Typical Vehicle Occupancy	Peak Hour Trips per Acre	Percentage Transit Trips	Peak Hour Transit Trips per Acre
<i>formula</i>		<i>a</i>	<i>b</i>	<i>c=a*b</i>	<i>d</i>	<i>c*d</i>
Residential Land Uses						
Estates Residential (1-7 units/acre)		2.00	1.62	3.24	3.20%	0.10
Low Density Residential (4-7 units/acre)		3.50	1.62	5.67	3.20%	0.18
Medium Density Residential (7-15 units/acre)		5.70	1.57	8.95	3.20%	0.29
Residential 20 (15-23 units/acre)		10.20	1.56	15.91	12.40%	1.97
High Density Residential (23-30 units/acre)		12.00	1.56	18.72	12.40%	2.32
Total Residential Land Uses						
Nonresidential Land Uses						
Commercial	0.30	28.30	1.35	38.21	5.00%	1.91
Office	0.30	55.50	1.64	91.02	3.00%	2.73
Total Commercial						

due transit

[1] Cost allocation factors are based on the North Vineyard Specific Plan Public Facilities Financing Plan, November 10, 2004.

Table 14-4
Cordova Hills Financing Plan
Cordova Hills SFD Transit Cost Allocation at Buildout (2011\$)

Item	Land Use		Cost Allocation Basis			Transit Cost Allocation at Buildout		
	Acres	Units/ Sq. Ft.	Peak Hour Transit Trips per Acre [1]	Total Peak Hour Transit Trips	Percentage Distribution	Total Cost	Cost per Acre	Cost per Unit/Sq. Ft.
Residential Land Uses								
		<u>units</u>						<u>per unit</u>
Estates Residential	64.7	138	0.10	7	0.8%	\$ 3,727	\$ 58	\$ 27
Low Density Residential	491.1	1,809	0.18	89	10.0%	\$ 49,504	\$ 101	\$ 27
Medium Density Residential	386.8	3,061	0.29	111	12.4%	\$ 61,527	\$ 159	\$ 20
Residential 20	61.5	833	1.97	121	13.6%	\$ 67,411	\$ 1,096	\$ 81
High Density Residential	84.6	1,659	2.32	196	22.0%	\$ 109,042	\$ 1,290	\$ 66
Total Residential Land Uses	1,088.6	7,500		524	58.7%	\$ 291,209		
Nonresidential Land Uses								
		<u>bldg. sq. ft.</u>						<u>per bldg. sq. ft.</u>
Commercial	72.6	654,860	1.91	139	15.5%	\$ 77,019	\$ 1,061	\$ 0.12
Office	30.7	196,540	2.73	84	9.4%	\$ 46,541	\$ 1,517	\$ 0.24
Total Commercial	103.3	851,400		222	24.9%	\$ 123,560		
Subtotal Community Cost [2]				747	83.7%	\$ 414,769		
University/College Campus Center [2]		<u>bldg. sq. ft.</u> 1,870,000		146	16.3%	\$ 80,931		<u>per bldg. sq. ft.</u> \$ 0.04
TOTAL [2]				892	100.0%	\$ 495,700		

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[1] See Table 14-3.

[2] See Table 14-2 for Community, University/College Campus Center, and total cost estimates.

Table 14-5
Cordova Hills Financing Plan
Transit Cost vs. Proportional Cost Allocation (2011\$)

Item	Cost per Acre	Acres		Allocation vs. Construction Cost	
		Phase 1	Buildout	Phase 1	Buildout
Construction Cost				\$ 287,700	\$ 495,700
Allocated Cost					
Residential Land Uses					
Estates Residential	\$ 58	0.0	64.7	\$ 0	\$ 3,727
Low Density Residential	\$ 101	48.3	491.1	\$ 4,872	\$ 49,504
Medium Density Residential	\$ 159	63.3	386.8	\$ 10,075	\$ 61,527
Residential 20	\$ 1,096	7.5	61.5	\$ 8,221	\$ 67,411
High Density Residential	\$ 1,290	21.0	84.6	\$ 27,027	\$ 109,042
Total Residential Land Uses		140.1	1,088.6	\$ 50,195	\$ 291,209
Nonresidential Land Uses					
Commercial	\$ 1,061	13.3	72.6	\$ 14,113	\$ 77,019
Office	\$ 1,517	0.0	30.7	\$ 0	\$ 46,541
Total Commercial		13.3	103.3	\$ 14,113	\$ 123,560
	<i>total cost</i>	<i>pct of total development</i>			
University/College Campus Center	\$ 80,931	20%	100%	\$ 16,186	\$ 80,931
TOTAL				\$ 80,494	\$ 495,700
Surplus/(Shortfall)				(\$ 207,206)	\$ 0

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15. SCHOOLS

Cordova Hills is within the boundaries of the Elk Grove Unified School District (EGUSD). Information regarding school costs was obtained from the EGUSD Development fee Justification Study/school facilities Needs Analysis (SFNA) dated June 2010.

Proposed Facilities

Cordova Hills contains three elementary school sites and one combination middle and high school site (see **Map 15-1**). Based on the number of units expected in Cordova Hills, student yield factors from the SFNA, and EGUSD typical school sizes, Cordova Hills will generate the need for approximately 3 elementary schools but only about 62 percent of a middle/high school. The students and funding for the portion of the high school not attributable to Cordova Hills will come from other nearby areas outside of Cordova Hills.

Facility Costs

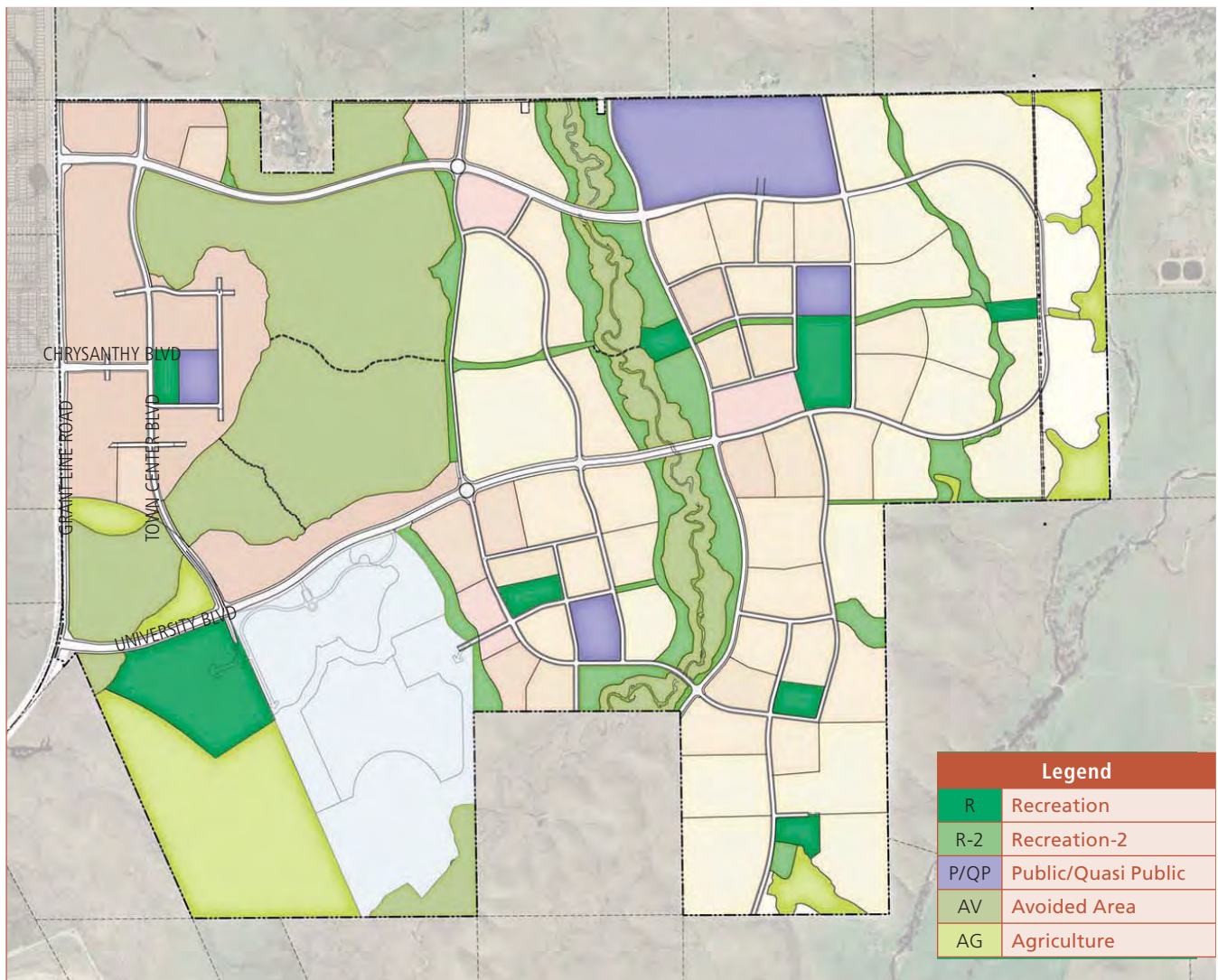
The EGUSD estimates school facility costs by using student generation rates per dwelling unit and average costs per student as quantified in the SNFA. **Table 15-1** shows the current student generation rates, total projected students, school facility costs per student by grade level, and projected total costs at completion of Phase 1 development and buildout. The cost of required school facilities to serve the estimated number of students is approximately \$28.1 million for Phase 1 development and \$123.4 million at buildout.

The method used by the EGUSD to estimate costs determines the cost of school facilities attributable to Cordova Hills development based on demand for facilities rather than on the actual cost of school facilities planned for construction in Cordova Hills. As discussed previously, Cordova Hills students will not require an entire high school although one is planned for construction in Cordova Hills. **Table 15-2** compares the school costs attributable to Cordova Hills development with the costs of building the planned schools. At buildout, the total estimated school construction cost of the planned schools in Cordova Hills is \$38.3 million greater than the estimated costs attributable to Cordova Hills students. This \$38.3 million will be funded by other areas whose students may attend the Cordova Hills schools.

Phasing

The EGUSD will manage the construction of school facilities. At this time planning information is not available. Phasing for schools will depend on availability of State funding and the timing and location of development.

Map 15-1 School Sites



Note: Only school sites and facilities (designated in legend as "Public/Quasi Public") are addressed in this chapter. Open space ("Recreation-2"), parks ("Recreation"), and habitat and wetlands ("Avoided Area") are addressed in other chapters.

Table 15-1
Cordova Hills Public Facilities Financing Plan
School Construction Costs by Phase (2011\$)

Item	Assumptions	Phase 1	Buildout
RESIDENTIAL DEVELOPMENT			
Single-Family		1,050	5,008
Multifamily		700	2,492
Total Residential Units		1,750	7,500
STUDENT GENERATION			
K-6 Students	<u>Yield Rate</u>		
Students from Single-Family	0.3763	395	1,885
Students from Multifamily	0.2684	188	669
K-6 Total Students		583	2,554
7-8 Students	<u>Yield Rate</u>		
Students from Single-Family	0.1127	118	564
Students from Multifamily	0.0736	52	183
7-8 Total Students		170	747
9-12 Students	<u>Yield Rate</u>		
Students from Single-Family	0.2101	221	1,052
Students from Multifamily	0.1333	93	332
9-12 Total Students		314	1,384
Total Students		1,067	4,685
STUDENT HOUSING COSTS			
Estimated Student Housing Costs	<u>Cost</u> <u>per Student [1]</u>		
Elementary	\$23,146	\$ 13,494,118	\$ 59,114,884
Middle	\$27,044	\$ 4,597,480	\$ 20,201,868
High School/Continuation	\$31,880	\$ 10,010,320	\$ 44,121,920
Total Estimated Student Housing Cost		\$ 28,101,918	\$ 123,438,672
Total Estimated Student Housing Cost (Rounded)		\$ 28,100,000	\$ 123,440,000

school cost

Source: Elk Grove USD Development Fee Justification Study / School Facilities Needs Analysis , July 2010.

[1] Contains three cost components: site acquisition, site development, and building construction.

Building construction costs based on State standards. EGUSD's cost may be higher.

	K-6	7-8	9-12
Site Acquisition	\$1,602	\$3,046	\$3,046
Site Development	\$3,754	\$5,138	\$4,912
Building Construction	\$17,790	\$18,860	\$23,922
Total	\$23,146	\$27,044	\$31,880

Table 15-2
Cordova Hills Public Facilities Financing Plan
Cordova Hills Planned Schools vs. Schools Required (2011\$)

Item	Cost		
	Planned Schools	School Capacity Required [1]	Difference
Elementary School (K-6)			
Number of Schools	3.00	3.00	
Students per School	850	850	
Students [2]	2,554	2,554	-
Cost per Student	\$ 23,146	\$ 23,146	
Total Cost	\$ 59,114,884	\$ 59,114,884	\$ 0
Middle School (7-8)			
Number of Schools	1.00	0.62	
Students per School	1,200	1,200	
Students	1,200	747	453
Cost per Student	\$ 27,044	\$ 27,044	
Total Cost	\$ 32,452,800	\$ 20,201,868	\$ 12,250,932
High School (9-12)			
Number of Schools	1.00	0.63	
Students per School	2,200	2,200	
Students	2,200	1,384	816
Cost per Student	\$ 31,880	\$ 31,880	
Total Cost	\$ 70,136,000	\$ 44,121,920	\$ 26,014,080
Total	\$ 161,703,684	\$ 123,438,672	\$ 38,265,012
Total (Rounded)	\$ 161,700,000	\$ 123,440,000	\$ 38,270,000

comp

[1] Capacity required to serve Cordova Hills project.

[2] Total elementary students at the three planned schools set equal to the number of projected students (2,554), which is roughly equivalent to the capacity of 3 850-student schools (2,550).

Funding Strategy

Summary

Table 15-3 summarizes the proposed funding of Cordova Hills school facilities costs. The funding will be provided by the following two sources:

- State of California Funding
- EGUSD Level 2 Fee

Each of these two funding sources provides funding for one-half of the allowable school facilities costs, as estimated using State standards and formulas. The State updates its cost factors every two years. The EGUSD updates its fee program annually to calculate the fee needed to provide one-half of the facilities funding. The fees are adjusted each year to account for the changing construction costs, student generation rates, and dwelling unit sizes.

State Funding

The State of California (State) will provide qualifying districts with funding for school facilities. The amount of funding is based on allowable amounts of site acquisition, site development and building construction costs per student according to State standards. **Table 15-4** estimates the Phase 1 and buildout State funding for Cordova Hills based on the projected number of students and the State funding per student amounts. State funding will provide revenues of approximately one-half of the allowable costs, or \$61.7 million at buildout of the Project.

Existing Fee Programs

The EGUSD has adopted a Level 2 school development fee program, as detailed in the SFNA. This fee program will provide funding for one-half of the allowable schools costs, or approximately \$61.7 million.

EGUSD CFD

Developing properties within the boundaries of the EGUSD are required to participate in the District's Mello-Roos CFD No. 1 annual special tax. The EGUSD Board of Education approved a local bond plan effective 1998-2010 on October 20, 1997. It is anticipated that the annual tax for CFD No. 1 will be collected until fiscal year 2038-2039. All currently remaining CFD bonding capacity, however, has been designated for projects in the District not directly associated with future development.

Table 15-3
Cordova Hills Public Facilities Financing Plan
EGUSD School Funding by Phase (2011\$)

Item	Phase 1	Buildout	Table
EGUSD Fee Revenue	\$ 14,050,000	\$ 61,720,000	
State Funding	\$ 14,050,000	\$ 61,720,000	Table 15-4
Estimated Construction Cost	\$ 28,100,000	\$ 123,440,000	

funding

Table 15-4
Cordova Hills Public Facilities Financing Plan
State Funding for School Construction by Phase (2011\$)

Item	State Funding per Student	Phase 1	Buildout
Students			
K-6		583	2,554
7-8		170	747
9-12		314	1,384
Total		1,067	4,685
STATE FUNDING [1]			
K-6	\$11,573	\$6,747,059	\$29,557,442
7-8	\$13,522	\$2,298,740	\$10,100,934
9-12	\$15,940	\$5,005,160	\$22,060,960
Total		\$14,050,959	\$61,719,336
Total (Rounded)		\$14,050,000	\$61,720,000

state

Source: Elk Grove USD Development Fee Justification Study/School
Facilities Needs Analysis , July 2010.

[1] Contains site acquisition, site development, and building construction.

	K-6	7-8	9-12
Site Acquisition	\$801	\$1,523	\$1,523
Site Development	\$1,877	\$2,569	\$2,456
Building Construction	\$8,895	\$9,430	\$11,961
Total	\$11,573	\$13,522	\$15,940

16. SPECIAL FINANCING DISTRICT FORMATION AND UPDATES

Summary

Sacramento County Public Works Special Districts Section (SDS), in cooperation with the service providing agencies, will administer the formation and updates of the Cordova Hills SFD. This administration will include the following tasks:

- Development of infrastructure master plans and associated environmental review work.
- Initial implementation of the Financing Plan.
- Formation of the Cordova Hills SFD. Depending on the final funding mechanisms decided upon, this task may include these:
 - Implementation of a Cordova Hills fee program.
 - Formation of a land-based financing district (e.g., Mello-Roos CFD), issuance of bonds, and collection of annual special taxes.
- Monitoring the infrastructure CIP and development activities.
- Periodic updating of the implementation program to ensure the necessary infrastructure is constructed as required to serve the Cordova Hills development.

Estimated Cost

Table 16-1 shows the Phase 1 and buildout Cordova Hills SFD formation and updates cost. The estimated costs total \$2.0 million at buildout of Cordova Hills. Additional costs of 3 to 4 percent will be included in the administration component of Cordova Hills SFD program. These costs will be required to provide day to day administration of the Cordova Hills SFD.

Phasing

The Phase 1 Cordova Hills SFD formation and updates cost is estimated at \$1.5 million, as shown in **Table 16-1**.

Funding Strategy

Cordova Hills proposes that the Cordova Hills SFD formation and updates cost be funded through the Cordova Hills SFD. The SFD could include developer funding and reimbursements, bond-funding, or funding through a fee program. This report includes cost allocations to the various uses that would be needed if developer or fee funding were established to fund the facilities. As necessary, the Cordova Hills developers will advance-fund the cost of the Cordova Hills SFD formation and updates and will be reimbursed through the Cordova Hills SFD when funds become available.

Table 16-1
Cordova Hills Financing Plan
Estimated Special District Formation and Updates Costs (2011\$)

Item	Phase 1	Buildout
Special District Formation and Updates Costs	\$ 1,500,000	\$ 2,000,000

form cost

The total Cordova Hills SFD formation and updates cost is allocated to the different land uses based on percentage of total developable acres for each land use. **Table 16-2** shows the developable acres by land use.

Table 16-3 shows the buildout cost allocation and the resulting Cordova Hills SFD formation and updates cost per dwelling unit for residential land uses and per building square foot for nonresidential uses.

Phase 1 Cost vs. Allocated Cost

Table 16-4 shows the estimated Phase 1 and buildout Cordova Hills SFD formation and updates cost versus proportional allocated costs. There is an estimated shortfall of allocated costs in Phase 1 as compared to estimated costs that will be needed for the Financing Plan administration and updates. This shortfall, estimated at \$1.2 million, should be recovered by buildout. The master developer(s) will advance-fund the costs until adequate revenues are collected from the Cordova Hills SFD to reimburse the developer(s).

Table 16-2
Cordova Hills Financing Plan
Special District Formation and Updates Cost Allocation Factors

	Developable Acres
Residential Land Uses	
Estates Residential (1-7 units/acre)	64.7
Low Density Residential (4-7 units/acre)	491.1
Medium Density Residential (7-15 units/acre)	386.8
Residential 20 (15-23 units/acre)	61.5
High Density Residential (23-30 units/acre)	84.6
Total Residential Land Uses	1,088.6
Nonresidential Land Uses	
Commercial	72.6
Office	30.7
Total Commercial	103.3
University/College Campus Center [1]	94.5
Total	1,286.4

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[1] Living/learning and academic zone acres.

Table 16-3
Cordova Hills Financing Plan
Special District Formation and Updates Cost Allocation at Buildout (2011\$)

Item	Land Use		Cost Allocation Basis		District Formation and Update Cost Allocation at Buildout		
	Acres	Units/ Sq. Ft.	Developable Acres	Percentage Distribution	Total Cost	Cost per Acre	Cost per Unit/Sq. Ft.
Residential Land Uses							
		<u>units</u>					<u>per unit</u>
Estates Residential	64.7	138	64.7	5.0%	\$ 100,591	\$ 1,555	\$ 730
Low Density Residential	491.1	1,809	491.1	38.2%	\$ 763,578	\$ 1,555	\$ 422
Medium Density Residential	386.8	3,061	386.8	30.1%	\$ 601,290	\$ 1,555	\$ 196
Residential 20	61.5	833	61.5	4.8%	\$ 95,616	\$ 1,555	\$ 115
High Density Residential	84.6	1,659	84.6	6.6%	\$ 131,465	\$ 1,555	\$ 79
Total Residential Land Uses	1,088.6	7,500	1,088.6	84.6%	\$ 1,692,540		
Nonresidential Land Uses							
		<u>bldg. sq. ft.</u>					<u>per bldg. sq. ft.</u>
Commercial	72.6	654,860	72.6	5.6%	\$ 112,838	\$ 1,555	\$ 0.17
Office	30.7	196,540	30.7	2.4%	\$ 47,701	\$ 1,555	\$ 0.24
Total Commercial	103.3	851,400	103.3	8.0%	\$ 160,538		
University/College Campus Center [1]	94.5	<u>bldg. sq. ft.</u> 1,870,000	94.5	7.3%	\$ 146,922		<u>per bldg. sq. ft.</u> \$ 0.08
TOTAL [2]	1,286.4		1,286.4	100.0%	\$ 2,000,000		

alloc form

[1] Transition and athletic zone acres are excluded when allocating costs to the university/college campus center. To estimate a university cost per acre that can be compared and summed across improvement types, however, the university portion of costs for each improvement type is spread over all university acres. The master developers have agreed to advance the university's portion of the costs if needed and get reimbursed by the university as development occurs.

[2] See Table 16-1 for total cost.

Table 16-4
Cordova Hills Financing Plan
Special District Formation and Updates vs. Proportional Cost Allocation (2011\$)

Item	Cost per Acre	Acres		Allocation vs. Estimated Cost	
		Phase 1	Buildout	Phase 1	Buildout
Formation and Updates Cost				\$ 1,500,000	\$ 2,000,000
Allocated Cost					
Residential Land Uses					
Estates Residential	\$ 1,555	0.0	64.7	\$ 0	\$ 100,591
Low Density Residential	\$ 1,555	48.3	491.1	\$ 75,145	\$ 763,578
Medium Density Residential	\$ 1,555	63.3	386.8	\$ 98,466	\$ 601,290
Residential 20	\$ 1,555	7.5	61.5	\$ 11,660	\$ 95,616
High Density Residential	\$ 1,555	21.0	84.6	\$ 32,585	\$ 131,465
Total Residential Land Uses		140.1	1,088.6	\$ 217,856	\$ 1,692,540
Nonresidential Land Uses					
Commercial	\$ 1,555	13.3	72.6	\$ 20,677	\$ 112,838
Office	\$ 1,555	0.0	30.7	\$ 0	\$ 47,701
Total Commercial		13.3	103.3	\$ 20,677	\$ 160,538
University/College Campus Center	<u>total cost</u> \$ 146,922	<u>pct of total development</u> 20% 100%		\$ 29,384	\$ 146,922
TOTAL				\$ 267,917	\$ 2,000,000
Surplus/(Shortfall)				(\$ 1,232,083)	\$ 0

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17. CORDOVA HILLS SPECIAL FINANCING DISTRICT

Construction of all backbone infrastructure and public facilities in Cordova Hills not financed through existing County, regional and school district fees and taxes will be financed through the proposed Cordova Hills Special Financing District (SFD). Cordova Hills plans to form the CHLSD to administer and finance the required urban services and construction of the backbone infrastructure and public facilities. The County will implement the financing mechanisms for funding construction of the backbone infrastructure and public facilities.

Formation of the CHLSD

Formation of the CHLSD is detailed in the Cordova Hills Special Planning Area Urban Services and Governance Plan. It is expected that, following consideration of the entitlement documents by the Sacramento County (County) Board of Supervisors, application will be made to the Sacramento Local Agency Formation Commission (LAFCo). The Urban Services and Governance Plan contains information needed to support this LAFCo application and the related technical studies that will be required, including completion of a Municipal Services Review, creation of a coterminous sphere of influence for the CHLSD, and other documentation deemed appropriate by the LAFCo Executive Officer.

Cordova Hills Special Financing District

The County Special Districts Section (SDS) will implement the financing mechanisms to be included in the Cordova Hills SFD. These financing mechanisms could include a Cordova Hills fee program and bond funding through a Mello-Roos Community Facilities District.

Cordova Hills Fee Program

A Cordova Hills fee program would fund improvements not already included in the capital improvement programs of existing fee programs. The fee program would be administered through the CHLSD. The fee by land use would be based on the cost allocation methodology presented in this report and would contain components for each backbone infrastructure and public facility type. Typically, the fee would be collected at the issuance of a building permit.

Developers may be required to construct facilities before sufficient fee revenue is available, so the fee program would include a provision for issuing fee credits and reimbursements to repay developers for advance funding for construction of facilities.

Mello-Roos Community Facilities Districts

One or more Mello-Roos Community Facilities Districts (CFDs) could be established to provide bond financing. Bond financing could provide funding for infrastructure improvements needed during the initial phases of development before the collection of sufficient fees or other sources of revenue. The bonds would be repaid through special taxes levied on property through the CFDs.

The special tax rates, eligible facilities, bond debt authorization, and property included in each CFD will be determined in the CFD formation process for each CFD. The initial bond issue will be constrained by the appraised value of land in the CFD at the time bonds are sold. The final bond sale will be limited by the maximum annual special tax.

EPS estimated maximum annual special tax rates that could be levied for each land use type with a target for total taxes and assessments of 1.8 percent of home value (see **Chapter 19**). This target rate is typical in the Sacramento region and is below the guideline of 2 percent of home value. **Table 17-1** shows these tax rates and estimates the maximum annual special tax revenue that could be generated by Cordova Hills development at buildout. This maximum annual special tax revenue is estimated at \$5.9 million. **Table 17-2** estimates that this annual tax revenue would result in a total bonding capacity of approximately \$79.0 million. After netting out the amounts needed for capitalized interest, the bond reserve fund, and issuance costs, there would be approximately \$62.3 million that could be used to finance infrastructure construction. This revenue estimate is preliminary. The special tax proceeds available to secure bonds issued to pay for public infrastructure will be estimated again after determining the actual special tax rates needed to pay for public services and operations and maintenance costs. As set forth in the Urban Services Plan, these estimates will be developed when a detailed budget is prepared for the CHLSD.

Table 17-1
Cordova Hills Financing Plan
Estimated Maximum Annual Special Tax Revenue at Buildout

Item	Land Use									Commercial	Office	Total
	Estates Residential	Low Density LDR)	Med. Density (MDR)	Residential 20		Owner-occupied & Market Rate	HDR					
				Owner-occupied	Renter-occupied		Renter-occupied & Market Rate	Renter-occupied & Affordable				
Dwelling Units	138	1,809	3,061	416	416	341	341	978				7,500
Non-Residential Acres									72.6	30.7		103.3
Estimated Max. Special Tax for Infrastructure	\$1,530	\$1,100	\$700	\$450	\$300	\$400	\$300	\$200	\$7,500	\$7,500		
Estimated Annual Maximum Special Tax Revenue for Infrastructure at Buildout (Rounded)	\$211,000	\$1,990,000	\$2,143,000	\$187,000	\$125,000	\$136,000	\$102,000	\$196,000	\$544,000	\$230,000		\$ 5,864,000

Source: The Gregory Group and EPS.

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18. IMPLEMENTATION

Implementation of the Financing Plan strategies will require the following steps:

- Approval of the Development Agreement between the developer and the County. This approval will occur with the Special Planning Area and Environmental Impact Report approvals.
- Updating existing development impact fee programs to include Cordova Hills land uses and eligible infrastructure projects if necessary. These fee programs include:
 - SCTDF (Roadways).
 - STA Measure A (Roadways).
 - SRCSD and SASD (Sewer).
 - SCWA Zone 11A (Storm Drainage).
 - SCWA Zone 40 (Water).
- Formation of the Cordova Hills SFD. Depending on the final funding mechanisms decided upon, this task may include the following items:
 - Implementation of a Cordova Hills fee program.
 - Formation of a land-based financing district (e.g., Mello-Roos CFD), issuance of bonds, and collection of annual special taxes.
- Formation of CFDs or Assessment Districts to fund public services.
- Creating other potential regional fee programs as needed.

Developers who construct or pay for backbone infrastructure or public facilities specified in the Financing Plan that are eligible for credit or reimbursement will be required to adhere to the credit and reimbursement provisions specified in the existing fee programs

Changes in the Capital Improvement and Financing Programs

It is anticipated that as the Financing Plan is implemented, the infrastructure costs and available funding sources will change as development occurs. As a result, the Financing Plan must be flexible enough to accommodate these changes appropriately. Changes in the actual or assumed facilities cost estimates or funding of the facilities should be re-evaluated in the context of the overall financing strategy to ensure required funding is available when needed.

Possible refinements are listed below:

- New or revised infrastructure projects.
- New cost information based on actual construction costs, updated engineering estimates, or changes in the land use plan.
- New funding source data.
- Inflation adjustments to cost and funding data.
- Land use changes for the Project.

Changes in the financing program could include higher or lower cost estimates, as well as changes in funding sources. Costs and funding sources also will need to be adjusted annually to reflect inflation costs because information in the Financing Plan is shown in 2011 dollars.

Fee Credits and Reimbursements

The County will require developers to advance fund or construct certain infrastructure and other associated costs contained in the Project. The improvements that are advance funded may be backbone infrastructure or other public facilities programmed for funding using existing fee programs, the proposed Cordova Hills SFD, bond proceeds, or private financing.

If the master developer is required to advance fund or provide shortfall funding for improvements for areas outside of the Project, the master developer also likely will be entitled to future reimbursements from those development areas generating fees for those facilities.

Fee credit/reimbursement programs for existing and proposed development fee programs will require agreement between the developers, the County, and any other applicable agencies who will administer the fee programs, such as the school district. The policies and procedures for providing fee credits and reimbursements will be set forth in the implementing documents for the fee programs or CFD(s).

19. DEVELOPMENT FEASIBILITY

This chapter assesses the financial feasibility of the Cordova Hills Project. There are the two components of this feasibility as summarized below:

- Feasibility of the finished products to the home builders and non-residential commercial builders (builders).
- Potential additional cost burden that may be carried by the land developer.

The feasibility of the finished products to the builders can be assessed by examining the total infrastructure cost burden and the total taxes and assessments for each developable land use. The Infrastructure Cost Feasibility Test and the Two-Percent Test provide guidelines for the maximum cost burden and maximum taxes that can be assessed without placing too much of a burden on the development.

It is common for developers of major development projects to advance fund and carry infrastructure costs for some time frame. The potential developer cost burden indicates the amount of infrastructure costs that may be carried prior to receiving potential reimbursements. The impact of the land developer's cost burden depends on a number of factors including the time frame for the reimbursements and the extent to which full reimbursement is received, either through public funding programs or through adjustments in land sales prices.

Infrastructure Cost Feasibility Test

Summary

The infrastructure cost burden of development to a builder can be used to assess the financial feasibility for development of the finished products of a project. The total infrastructure cost burden consists of all backbone infrastructure and public facilities costs allocated to the development plus applicable fees, including building permit processing fees, County and regional fees, and school district fees.

The Infrastructure Cost Burden Feasibility Test provides a performance indicator of project feasibility. In general, for each residential land use, if the total cost burden per dwelling unit is less than 15 to 20 percent of the finished home price, then a project is considered to be financially feasible:

- Residential units with a cost burden percentage below 15 percent clearly are financially feasible.
- Residential units with a cost burden percentage between 15 to 20 percent probably are financially feasible.
- Residential units with a cost burden percentage above 20 percent may be financially feasible.

These feasibility benchmarks are based on EPS's experience in conducting financial feasibility analyses for numerous projects throughout the Sacramento Region and Central Valley over the last two decades. The 15- to 20-percent test is merely a tool that can be used—along with other tools—as a general measure of financial feasibility. This measure should not be taken to mean that if one land use type exceeds the threshold, the project is definitely infeasible. There are ways in which a development project can mitigate against a high cost burden, such as reallocating some of the cost burden to other land uses. In addition, the infrastructure costs will be fine-tuned and possibly reduced as engineering studies are completed closer to actual construction. Also, future development projects could be required to contribute to funding offsite costs presently assigned to Cordova Hills, thus reducing Cordova Hills' obligation.

Cordova Hills Infrastructure Cost Burden Summary

Tables 19-1 and **19-2** show the total infrastructure cost burden by land use for development in Cordova Hills. The cost burden is shown per dwelling unit for residential units and per building square foot for nonresidential uses. **Table 19-1** shows the cost burden for development located in SCWA Drainage Zone 11A, and **Table 19-2** shows the cost burden for development located outside of SCWA Drainage Zone 11A. The cost burdens differ somewhat for these two development areas because development located in SCWA Zone 11A participates in the Zone 11A fee program.

The cost burden per dwelling unit ranges from 18.1 percent to 21.2 percent of the home sales price for all owner-occupied residential land uses. All of these percentages indicate probable financial feasibility. This analysis assumes that the Sacramento economy returns to normal market conditions and home prices. It is unlikely that the Cordova Hills project would begin construction until economic conditions improve.

The cost burden for multifamily rental units (Residential 20 and High Density Residential) is slightly higher, ranging from 21.7 percent to 23.7 percent of the estimated finished values. Although exceeding the 20 percent threshold, these product types may be feasible particularly considering other Project land uses are within the feasible range.

One exception is the cost burden for affordable units, which is well outside of the affordability range, at around 37.8 percent of estimated finished values. This finding is typical given the constrained values associated with affordable housing. In most cases, it is common for affordable units to be subsidized by a variety of sources to help offset development costs, including backbone infrastructure cost burdens. The subsidy will be the responsibility of the land developer and the builders as specified in buy/sell agreements between the developer and builders.

The cost burden percent for the majority of the Project residential unit types is within the general feasible range of 15 percent to 20 percent. The cost burden percent is just one measure of feasibility. Ultimately, a variety of Project circumstances will determine feasibility. Also, as discussed previously, the cost burden could be reduced for a number of reasons, including a reallocation of costs among land uses and cost reductions resulting from fine-tuning the estimates as engineering studies are completed and the Project becomes closer to implementation. The cost burden estimates will be further refined as the Project is implemented.

Table 19-1
Cordova Hills Financing Plan
Summary of Infrastructure Burden per Unit for Development in SCWA Zone 11A

Property in SCWA Zone 11A

	Residential							Nonresidential		
				Residential 20		HDR			Commercial <i>(Retail)</i>	Office
	Estates Residential	Low Density	Medium Density	Owner- occupied	Renter- occupied	Owner- occupied & Market Rate	Renter- occupied & Market Rate	Renter- occupied & Affordable		
<i>Price per Dwelling Unit /Sq. Ft.</i>	<i>No units in</i>	\$445,000	\$345,000	\$275,000	\$234,000	\$250,000	\$213,000	\$133,000	\$ 225	\$ 220
<i>Square Feet per Dwelling Unit</i>	<i>Zone 11A area</i>	<i>2,500</i>	<i>1,800</i>	<i>1,000</i>	<i>1,000</i>	<i>1,000</i>	<i>1,000</i>	<i>1,000</i>		
		<i>per dwelling unit</i>							<i>per bldg. sq. ft.</i>	
Building Permit Processing Fees		\$ 6,261	\$ 5,195	\$ 3,977	\$ 3,977	\$ 3,977	\$ 3,977	\$ 3,977	\$ 1.32	\$ 1.22
County/Regional Fees										
SASD (Sewer)		\$ 4,072	\$ 1,895	\$ 1,108	\$ 1,108	\$ 764	\$ 764	\$ 764	\$ 1.66	\$ 2.34
SRCSO (Sewer)		\$ 7,450	\$ 7,450	\$ 5,588	\$ 5,588	\$ 5,588	\$ 5,588	\$ 5,588	\$ 0.75	\$ 1.49
Zone 11A (Drainage)		\$ 2,376	\$ 1,291	\$ 896	\$ 896	\$ 682	\$ 682	\$ 682	\$ 2.19	\$ 3.09
Zone 40 (Water)		\$ 13,166	\$ 13,166	\$ 9,875	\$ 9,875	\$ 9,875	\$ 9,875	\$ 9,875	\$ 0.61	\$ 0.61
SCTDF (Roads)		\$ 9,690	\$ 9,690	\$ 5,911	\$ 5,911	\$ 5,911	\$ 5,911	\$ 5,911	\$ 10.85	\$ 11.15
Less SCTDF Credit (16%)		(\$ 1,567)	(\$ 1,567)	(\$ 956)	(\$ 956)	(\$ 956)	(\$ 956)	(\$ 956)	(\$ 1.76)	(\$ 1.80)
Measure A (Roads)		\$ 1,040	\$ 1,040	\$ 728	\$ 728	\$ 728	\$ 728	\$ 728	\$ 3.85	\$ 1.25
Sacramento Metropolitan Fire		\$ 1,400	\$ 1,008	\$ 750	\$ 750	\$ 750	\$ 750	\$ 750	\$ 0.75	\$ 0.75
Sacramento County Library Authority		\$ 827	\$ 827	\$ 537	\$ 537	\$ 537	\$ 537	\$ 537	\$ 0.00	\$ 0.00
Subtotal County/Regional Fees		\$ 38,453	\$ 34,800	\$ 24,435	\$ 24,435	\$ 23,879	\$ 23,879	\$ 23,879	\$ 18.91	\$ 18.88
Cordova Hills SFD										
Backbone Infrastructure										
Roads		\$ 12,544	\$ 12,544	\$ 7,652	\$ 7,652	\$ 7,652	\$ 7,652	\$ 7,652	\$ 14.05	\$ 14.43
Storm Drain System		\$ 620	\$ 517	\$ 434	\$ 434	\$ 331	\$ 331	\$ 331	\$ 1.94	\$ 1.94
Non-potable Water		\$ 1,107	\$ 1,107	\$ 830	\$ 830	\$ 830	\$ 830	\$ 830	\$ 0.49	\$ 0.69
Subtotal Backbone Infrastructure		\$ 14,271	\$ 14,167	\$ 8,916	\$ 8,916	\$ 8,813	\$ 8,813	\$ 8,813	\$ 16.48	\$ 17.06
Public Facilities										
Parks		\$ 7,089	\$ 6,403	\$ 5,031	\$ 5,031	\$ 5,031	\$ 5,031	\$ 5,031	\$ 1.25	\$ 3.33
Open Space and Trails		\$ 1,476	\$ 1,333	\$ 1,047	\$ 1,047	\$ 1,047	\$ 1,047	\$ 1,047	\$ 0.97	\$ 1.37
Transit		\$ 27	\$ 20	\$ 81	\$ 81	\$ 66	\$ 66	\$ 66	\$ 0.12	\$ 0.24
Corporation Yard		\$ 1,174	\$ 1,060	\$ 833	\$ 833	\$ 833	\$ 833	\$ 833	\$ 0.78	\$ 1.09
Special District Formation and Updates		\$ 422	\$ 196	\$ 115	\$ 115	\$ 79	\$ 79	\$ 79	\$ 0.17	\$ 0.24
Subtotal Public Facilities		\$ 10,188	\$ 9,013	\$ 7,107	\$ 7,107	\$ 7,056	\$ 7,056	\$ 7,056	\$ 3.29	\$ 6.27
Subtotal Cordova Hills SFD		\$ 24,459	\$ 23,180	\$ 16,023	\$ 16,023	\$ 15,869	\$ 15,869	\$ 15,869	\$ 19.78	\$ 23.33
School District										
EGUSD Fee		\$ 10,500	\$ 7,560	\$ 4,200	\$ 4,200	\$ 4,200	\$ 4,200	\$ 4,200	\$ 0.47	\$ 0.47
EGUSD CFD #1 [1]		\$2,487	\$2,487	\$2,487	\$ 2,487	\$2,487	\$ 2,487	\$ 2,487	\$ 0.00	\$ 0.00
Subtotal School District		\$ 12,987	\$ 10,047	\$ 6,687	\$ 6,687	\$ 6,687	\$ 6,687	\$ 6,687	\$ 0.47	\$ 0.47
TOTAL		\$ 82,160	\$ 73,222	\$ 51,122	\$ 51,122	\$ 50,411	\$ 50,411	\$ 50,411	\$ 40.48	\$ 43.91
Percentage of Sales Price		18.5%	21.2%	18.6%	21.8%	20.2%	23.7%	37.9%	18.0%	20.0%

burden 11a

[1] Estimated bond debt of \$200 annual tax per unit through 2038.

Table 19-2
Cordova Hills Financing Plan
Summary of Infrastructure Burden per Unit for Development not in SCWA Zone 11a

Property Not in SCWA Zone 11A

	Residential								Nonresidential	
				Residential 20		HDR			Commercial (Retail)	Office
	Estates Residential	Low Density	Medium Density	Owner- occupied	Renter- occupied	Owner- occupied & Market Rate	Renter- occupied & Market Rate	Renter- occupied & Affordable		
<i>Price per Dwelling Unit /Sq. Ft.</i>	\$ 500,000	\$ 445,000	\$ 345,000	\$ 275,000	\$ 234,000	\$ 250,000	\$ 213,000	\$ 133,000	\$ 225	\$ 220
<i>Square Feet per Dwelling Unit</i>	2,800	2,500	1,800	1,000	1,000	1,000	1,000	1,000		
	<i>per dwelling unit</i>								<i>per bldg. sq. ft.</i>	
Building Permit Processing Fees	\$ 6,718	\$ 6,261	\$ 5,195	\$ 3,977	\$ 3,977	\$ 3,977	\$ 3,977	\$ 3,977	\$ 1.32	\$ 1.22
County/Regional Fees										
SASD (Sewer)	\$ 7,042	\$ 4,072	\$ 1,895	\$ 1,108	\$ 1,108	\$ 764	\$ 764	\$ 764	\$ 1.66	\$ 2.34
SRCS D (Sewer)	\$ 7,450	\$ 7,450	\$ 7,450	\$ 5,588	\$ 5,588	\$ 5,588	\$ 5,588	\$ 5,588	\$ 0.75	\$ 1.49
Zone 40 (Water)	\$ 13,166	\$ 13,166	\$ 13,166	\$ 9,875	\$ 9,875	\$ 9,875	\$ 9,875	\$ 9,875	\$ 0.61	\$ 0.61
SCTDF (Roads)	\$ 11,337	\$ 9,690	\$ 9,690	\$ 5,911	\$ 5,911	\$ 5,911	\$ 5,911	\$ 5,911	\$ 10.85	\$ 11.15
Less SCTDF Credit (16%)	(\$ 1,834)	(\$ 1,567)	(\$ 1,567)	(\$ 956)	(\$ 956)	(\$ 956)	(\$ 956)	(\$ 956)	(\$ 1.76)	(\$ 1.80)
Measure A (Roads)	\$ 1,040	\$ 1,040	\$ 1,040	\$ 728	\$ 728	\$ 728	\$ 728	\$ 728	\$ 3.85	\$ 1.25
Sacramento Metropolitan Fire	\$ 1,568	\$ 1,400	\$ 1,008	\$ 750	\$ 750	\$ 750	\$ 750	\$ 750	\$ 0.75	\$ 0.75
Sacramento County Library Authority	\$ 827	\$ 827	\$ 827	\$ 537	\$ 537	\$ 537	\$ 537	\$ 537	\$ 0.00	\$ 0.00
Subtotal County/Regional Fees	\$ 40,596	\$ 36,077	\$ 33,509	\$ 23,540	\$ 23,540	\$ 23,196	\$ 23,196	\$ 23,196	\$ 16.72	\$ 15.79
Cordova Hills SFD										
Backbone Infrastructure										
Roads	\$ 14,676	\$ 12,544	\$ 12,544	\$ 7,652	\$ 7,652	\$ 7,652	\$ 7,652	\$ 7,652	\$ 14.05	\$ 14.43
Storm Drain System	\$ 2,307	\$ 1,718	\$ 1,381	\$ 1,088	\$ 1,088	\$ 789	\$ 789	\$ 789	\$ 0.57	\$ 2.39
Non-potable Water	\$ 1,107	\$ 1,107	\$ 1,107	\$ 830	\$ 830	\$ 830	\$ 830	\$ 830	\$ 0.49	\$ 0.69
Subtotal Backbone Infrastructure	\$ 18,090	\$ 15,369	\$ 15,032	\$ 9,570	\$ 9,570	\$ 9,271	\$ 9,271	\$ 9,271	\$ 15.11	\$ 17.51
Public Facilities										
Parks	\$ 7,432	\$ 7,089	\$ 6,403	\$ 5,031	\$ 5,031	\$ 5,031	\$ 5,031	\$ 5,031	\$ 1.25	\$ 3.33
Open Space and Trails	\$ 1,547	\$ 1,476	\$ 1,333	\$ 1,047	\$ 1,047	\$ 1,047	\$ 1,047	\$ 1,047	\$ 0.97	\$ 1.37
Transit	\$ 27	\$ 27	\$ 20	\$ 81	\$ 81	\$ 66	\$ 66	\$ 66	\$ 0.12	\$ 0.24
Corporation Yard	\$ 1,231	\$ 1,174	\$ 1,060	\$ 833	\$ 833	\$ 833	\$ 833	\$ 833	\$ 0.78	\$ 1.09
Special District Formation and Updates	\$ 730	\$ 422	\$ 196	\$ 115	\$ 115	\$ 79	\$ 79	\$ 79	\$ 0.17	\$ 0.24
Subtotal Public Facilities	\$ 10,967	\$ 10,188	\$ 9,013	\$ 7,107	\$ 7,107	\$ 7,056	\$ 7,056	\$ 7,056	\$ 3.29	\$ 6.27
Subtotal Cordova Hills SFD	\$ 29,057	\$ 25,557	\$ 24,045	\$ 16,677	\$ 16,677	\$ 16,327	\$ 16,327	\$ 16,327	\$ 18.41	\$ 23.78
School District										
EGUSD Fee	\$ 11,760	\$ 10,500	\$ 7,560	\$ 4,200	\$ 4,200	\$ 4,200	\$ 4,200	\$ 4,200	\$ 0.47	\$ 0.47
EGUSD CFD #1 [1]	\$ 2,487	\$ 2,487	\$ 2,487	\$ 2,487	\$ 2,487	\$ 2,487	\$ 2,487	\$ 2,487	\$ 0.00	\$ 0.00
Subtotal School District	\$ 14,247	\$ 12,987	\$ 10,047	\$ 6,687	\$ 6,687	\$ 6,687	\$ 6,687	\$ 6,687	\$ 0.47	\$ 0.47
TOTAL	\$ 90,618	\$ 80,882	\$ 72,795	\$ 50,881	\$ 50,881	\$ 50,187	\$ 50,187	\$ 50,187	\$ 36.92	\$ 41.27
Percentage of Sales Price	18.1%	18.2%	21.1%	18.5%	21.7%	20.1%	23.6%	37.7%	16.4%	18.8%

[1] Estimated bond debt of \$200 annual tax per unit through 2038.

burden 12

Two-Percent Test

The Two-Percent Test is another measure of the financial feasibility to the project builders of developing the finished products. The Two-Percent Test is a general rule for the feasibility of proposed annual special taxes and assessments. In general, if the sum of property taxes, other ad valorem taxes, and all annual special taxes and assessments is less than 2 percent of the average finished home sales price, then the burden of annual taxes and assessments is considered financially feasible. In the Sacramento region, there is generally a target rate for the total of these taxes to be less than 1.8 percent of the finished home sales price.

Table 19-3 summarizes the Two-Percent Test for the various residential and non-residential developable land uses in Cordova Hills. The maximum annual special tax rates for services are estimated and detailed in the Cordova Hills Urban Services and Governance Plan prepared by EPS (July 2011). After accounting for all other taxes on **Table 19-3**, the maximum annual special tax rates for infrastructure were estimated so that the total tax burden, including these special taxes, did not exceed 1.8 percent of the sales price. Thus, each land use type has a total tax burden less than 1.8 percent and would be considered feasible under the guideline of the Two-Percent Test.

Land Developer Cost Burden

The Cordova Hills Project has a number of extraordinary costs that will be carried by the land developer. These costs are for improvements to be privately funded by the land developer and for improvements for which the landowner will advance funds and await reimbursement from other sources. In addition, the developer may assume the university/college campus center's cost burden until the campus is developed or may provide advance funding for that campus project to facilitate its creation. One way to examine the financial feasibility of the Project is to estimate the additional cost burden to the land developer for the improvements that the developer must privately fund or advance fund.

Table 19-4 estimates these additional landowner costs, both in total and per developable acre. At buildout, these costs could total an estimated \$167,000 per developable acre if the developer is required to advance all identified costs. Note that for several of the improvement types (Non-potable Water, Transit, CHLSD facilities, and Special District Formation and Updates), the developer will provide advance funding in Phase 1 but will be fully reimbursed through the Cordova Hills SFD by buildout of the Project.

The total cost at buildout for the improvement types in **Table 19-4** represents a high estimate and could be substantially less than shown for the following major reasons.

- The earthwork costs could be much lower than shown. The estimates are preliminary. As grading plans are developed, cost estimates may be adjusted. Actual costs will be determined based on final grading plans and construction bids.
- The improvements in the top Developer Funding section of **Table 19-4** include both improvements that are planned for funding through the Cordova Hills SFD and improvements that are not planned for funding through the Cordova Hills SFD but rather will be privately funded by the developer.

Table 19-3
Cordova Hills Financing Plan
Test of 2% Sales Price

Item	Formula	Percentage	Residential							Non-Residential		
			Estates Residential	Low Density (LDR)	Med. Density (MDR)	Residential 20		Owner-occupied & Market Rate	HDR		Commercial	Office
						Owner-occupied	Renter-occupied		Renter-occupied & Affordable			
Residential Assumptions												
Estimated Sales Price per Dwelling Unit	a		\$500,000	\$445,000	\$345,000	\$275,000	\$234,000	\$250,000	\$213,000	\$133,000		
Less Homeowners' Exemption			(\$7,000)	(\$7,000)	(\$7,000)	(\$7,000)	(\$7,000)	(\$7,000)	(\$7,000)	(\$7,000)		
Estimated Taxable Sale Price	b		\$493,000	\$438,000	\$338,000	\$268,000	\$227,000	\$243,000	\$206,000	\$126,000		
Non-Residential Assumptions												
Estimated Price per Bldg. Sq. Ft.											\$ 225	\$ 220
Estimated Price per Acre											\$2,940,300	\$2,874,960
			Amount per Dwelling Unit							Amount per Acre		
Taxes/Assessments												
General Property Tax	b*1.0%	1.0%	\$4,930	\$4,380	\$3,380	\$2,680	\$2,270	\$2,430	\$2,060	\$1,260	\$29,403	\$28,750
Other Ad Valorem Taxes [1]	b*0.1%	0.1%	\$493	\$438	\$338	\$268	\$227	\$243	\$206	\$126	\$2,940	\$2,875
Sloughhouse Fire			\$100	\$100	\$100	\$100	\$100	\$100	\$100	\$100	\$0.00	\$0.00
School CFD Special Taxes (EGUSD)			\$200	\$200	\$200	\$200	\$200	\$200	\$200	\$200	\$800	\$800
Sacramento County Sheriff Services Tax			\$340	\$340	\$340	\$248	\$248	\$248	\$248	\$248	\$0.00	\$0.00
Estimated Max. Special Tax for Services [2]			\$1,400	\$1,400	\$1,100	\$1,000	\$850	\$850	\$720	\$250	\$2,091	\$3,659
Estimated Max. Special Tax for Infrastructure			\$1,530	\$1,100	\$700	\$450	\$300	\$400	\$300	\$200	\$7,500	\$7,500
Total Taxes/Assessments			\$8,993	\$7,958	\$6,158	\$4,946	\$4,195	\$4,471	\$3,834	\$2,384	\$42,734	\$43,584
Total Taxes/Assessments Percentage of Sales Price			1.80%	1.79%	1.78%	1.80%	1.79%	1.79%	1.80%	1.79%	1.45%	1.52%

Source: The Gregory Group and EPS.

2pct

[1] Placeholder for existing or set aside for potential future ad valorem taxes such as general obligation bonds.

[2] \$1.60 per sq. ft. for commercial; \$2.80 per sq. ft. for office. Cost per acre = cost per sq. ft. * 43,560 * 0.3 (FAR)

Table 19-4
Cordova Hills Financing Plan
Summary of Additional Developer Infrastructure Burden

Item	<u>Estimated Developer Cost [1]</u>		<u>Estimated Developer Cost per Developable Acre [1]</u>	
	Phase 1	Buildout	Phase 1	Buildout
Developable Acres [2]			1,191.9	1,191.9
Developer Funding [3]				
Earthwork	\$ 10,080,000	\$ 96,120,000	\$ 8,457	\$ 80,644
Open Space and Trails	\$ 900,000	\$ 9,080,000	\$ 755	\$ 7,618
Habitat and Wetlands	\$ 4,670,000	\$ 15,350,000	\$ 3,918	\$ 12,879
Storm Drainage System -- Zone 11A	\$ 760,000	\$ 0	\$ 638	\$ 0
Non-potable Water	\$ 900,000	\$ 0	\$ 755	\$ 0
Transit	\$ 210,000	\$ 0	\$ 176	\$ 0
CHLSD Facilities	\$ 2,610,000	\$ 0	\$ 2,190	\$ 0
Special District Formation and Updates	\$ 1,230,000	\$ 0	\$ 1,032	\$ 0
Subtotal	\$ 21,360,000	\$ 120,550,000	\$ 17,921	\$ 101,141
Developer Offsite Costs - Reimbursable [4]				
Roads	\$ 16,680,000	\$ 44,880,000	\$ 13,994	\$ 37,654
Sanitary Sewer	\$ 8,970,000	\$ 21,890,000	\$ 7,526	\$ 18,366
Subtotal	\$ 25,650,000	\$ 66,770,000	\$ 21,520	\$ 56,020
University Burden	\$ 2,340,000	\$ 12,300,000	\$ 1,963	\$ 10,320
TOTAL	\$ 49,350,000	\$ 199,620,000	\$ 41,404	\$ 167,480

burden dev

[1] Maximum estimated developer costs that would occur under a worst case scenario.

[2] Both the Phase 1 and buildout acres costs are divided by the total Project developable acres to estimate the developer's cost burden per developable acre for the entire Project.

[3] These costs are for improvements that are either included in the Cordova Hills SFD funding program or are to be privately funded. For the improvements in the Cordova Hills SFD program, the developer will be reimbursed from the SFD, so there is \$0 estimated developer cost at buildout. The cost of the remaining improvements at buildout could be recovered through land sales.

[4] The developer may not incur some of these costs if another regional development project triggers and constructs the improvements first. In addition, the developer may receive reimbursements from other public funding programs for some of these costs.

The improvements planned for funding through the Cordova Hills SFD have no outstanding developer costs at buildout. The developer may have to provide advance funding for these improvements but will be reimbursed through the Cordova Hills SFD.

The improvements to be privately funded do have estimated outstanding developer costs at buildout. A portion of these estimated costs could be recovered through adjusted land sales prices to the builders or factored into the purchase price that the developer paid for the land. Thus, the net amount of these outstanding developer costs at buildout would likely be lower than shown in **Table 19-4**.

- The proposed Capitol Southeast Connector project, if implemented, could eliminate much of the developer advance funding required for the Grant Line Road projects. This project would turn Grant Line Road from a planned six lane thoroughfare into a limited access four lane expressway, thus eliminating the advance funding required to expand Grant Line Road to six lanes.
- The estimated costs for road and sanitary sewer improvements in **Table 19-4** are for improvements that the Cordova Hills developer may be required to construct and await reimbursements from other regional funding programs. Other projects in the region, however, may trigger and be required to construct the improvements prior to Cordova Hills triggering the improvements. Thus, the required construction costs that Cordova Hills must advance for the road and sanitary sewer improvements could be substantially less than shown in **Table 19-4**. Even if the developer has to construct all of the improvements, reimbursements from public funding programs may be available to reduce the developer's actual costs. The timing and amount of reimbursements is uncertain, so **Table 19-4** represents the worst case for the developer assuming that there are no reimbursements.
- If the university/college campus center develops as planned, then the developer will not need to assume its cost burden.

While all of the factors above could result in lower costs than shown in **Table 19-4**, there also is potential for cost increases at the time of construction for several reasons as summarized below.

- Due to current economic conditions, it is very difficult to estimate the infrastructure costs, and the actual construction costs could be higher than estimated.
- There are a number of offsite sewer construction scenarios. Depending on the sewer extensions built by other projects, the advance funding for sewer facilities could be greater than the advance funding for the PFFP Sewer Service Scenario identified in the Sanitary Sewer chapter of this report.
- The timing of the construction of the water storage tanks is uncertain and could be early in the Project's development.

Before purchasing property, the land developer will analyze many of the extraordinary burdens on the property, such as those in **Table 19-4**, and adjust the land price to account for these burdens and maintain project feasibility.



APPENDIX A:

Cordova Hills Onsite and Offsite Roadway Capital Improvement Programs

Onsite Roads Cost Estimate	A-1
Offsite Roads Cost Estimate	A-32

NOTE: Offsite intersection exhibits to be included pending completion.

PRELIMINARY
ONSITE ROADS COST ESTIMATE

CORDOVA HILLS SPA
Proposed Project
Roadway Cross Sections

Sacramento, California

May 14, 2012

MACKEY & SOMPS
CIVIL ENGINEERS, INC.
SACRAMENTO, CALIFORNIA (916) 929-6092

Preliminary Cost Estimate
Cordova Hills SPA
Proposed Project Roadway Cross Sections

7968.10
prepared by: HF
updated on: 03/22/12

NOTES

1. This estimate is prepared as a guide only and is subject to possible change. It has been prepared to a standard of accuracy which, to the best of our knowledge and judgment, is sufficient to satisfy our understanding of the purpose of this estimate. MacKay & Soms makes no warranty, either expressed or implied, as to the accuracy of this estimate.
2. This estimate is based on Cordova Hills Street Sections dated March 21, 2012.
3. This estimate does not consider the following:
 - a. Cost associated with environmental (wetland) mitigations or biological surveys
 - b. Phased construction or out-of-regular-sequence construction
 - c. Costs associated with ground water or inclement weather conditions
 - d. Financial Charges
 - e. Bonds
 - f. Land costs, acquisition of right of way, easements, and/or rights of entry
 - g. Assessments from assessment, lighting & landscaping, Mello-Roos districts or the like
 - h. Relocation of existing above- or underground utilities
4. Costs presented herein represent an opinion based on historical information. No provision has been made for inflation.
5. The "cash flow" situation may be different than the fees, credits, and reimbursements itemized in this estimate.
6. Interim improvements may be required depending on development timing of individual units.
7. Cost for unsuitable material removal is not included in this estimate.
8. Costs are preliminary and subject to change upon more detailed design and analysis.
9. Cost for rock excavation is not included in this estimate.
- 10. This estimate does not reflect soft cost and construction cost contingencies, typically ranging from 15 to 40% of hard construction costs.**
11. Cost of local drainage, sewer, and water facilities are accounted for in respective infrastructure estimates and thus are not reflected in the roadway estimates.
12. Rough grade excavation costs are not a part of this estimate, as they are included in the master grading quantities.
13. This estimate does not include the cost of top soil import that may potentially be required for viable median and frontage landscaping and LID bio swales.

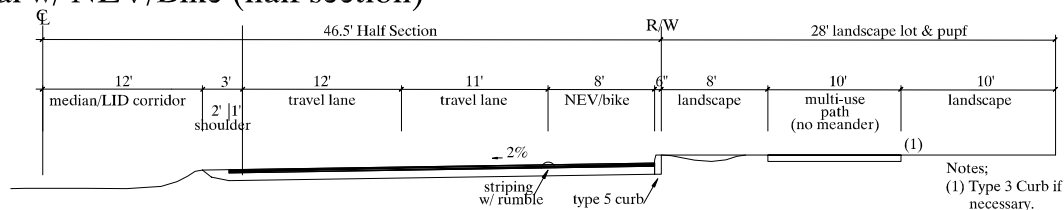
Preliminary Cost Estimate
Cordova Hills SPA
Proposed Project Roadway Cross Sections

7968.10
 prepared by: HF
 updated on: 03/22/12

Preliminary Cost Per Linear Foot
Section 4A - Half Section
 4-Lane Arterial w/ NEV / Bike Lane

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Subgrade Preparation	34	s.f	\$0.15	\$5.10
2.	Clear and Grub	75	s.f.	\$0.18	\$13.50
3.	Roadway Excavation	2.8	c.y.	\$30.00	\$84.00
4.	5.5" Asphaltic Concrete Paving	32	s.f.	\$3.85	\$123.20
5.	20.5" Aggregate Base	34	s.f.	\$5.75	\$195.50
6.	Conc. Vertical Curb, Type 5	1	l.f.	\$18.00	\$18.00
7.	Median Landscaping & Irrigation (incl. LID Swale)	12	s.f.	\$6.00	\$72.00
8.	Planting Strip (incl. alt. LID Swale) & Irrigation	18	s.f.	\$6.00	\$108.00
9.	Root Barrier	3	l.f.	\$24.00	\$72.00
10.	PCC Sidewalk w/ 6" AB	10	s.f.	\$6.00	\$60.00
11.	Signing & Striping (2 lanes + NEV))	3	l.f.	\$2.00	\$6.00
12.	Rumble Strip (AC indentations)	1	l.f	\$10.00	\$10.00
13.	Erosion Control	1	LS	\$6.00	\$6.00
14.	Street Lights (Type A, 220' spacing, each side)	1	l.f.	\$13.00	\$13.00
15.	Traffic Signal Interconnect (50%)	0.5	l.f.	\$13.00	\$6.50
16.	Joint Trench (one side only)	0.5	l.f.	\$75.00	\$37.50
	Subtotal				\$830.30
	Use				\$831.00

4A - Arterial w/ NEV/Bike (half section)



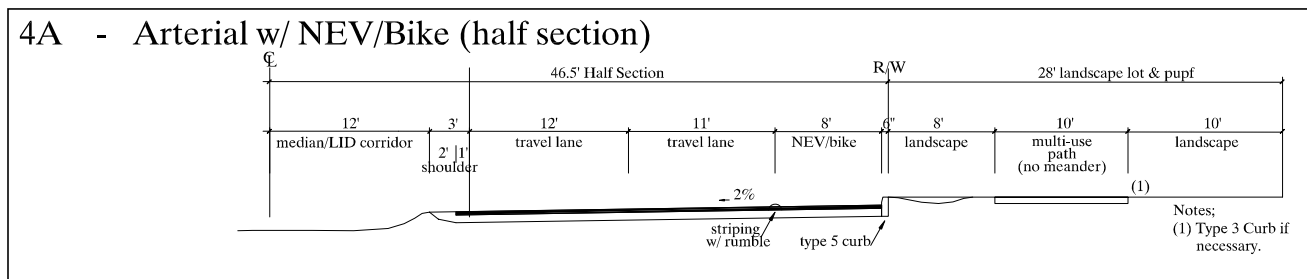
Preliminary Cost Estimate
Cordova Hills SPA
Proposed Project Roadway Cross Sections

7968.10
 prepared by: HF
 updated on: 03/22/12

Preliminary Cost Per Linear Foot
Section 4A Center Section - Half Section
 4-Lane Arterial w/ NEV / Bike Lane (minus frontage imp's)

	ITEM	QUANTITY	UNIT	UNIT PRICE	PER FT COST
1.	Subgrade Preparation	21	s.f	\$0.15	\$3.15
2.	Clear and Grub	51	s.f.	\$0.18	\$9.18
3.	Roadway Excavation	1.7	c.y.	\$30.00	\$51.00
4.	5.5" Asphaltic Concrete Paving	21	s.f.	\$3.85	\$80.85
5.	20.5" Aggregate Base	23	s.f.	\$5.75	\$132.25
6.	Median Landscaping & Irrigation (incl. LID Swale)	12	s.f.	\$6.00	\$72.00
7.	Planting Strip (incl. alt. LID Swale) & Irrigation	0	s.f.	\$6.00	\$0.00
8.	Signing & Striping (2 lanes + NEV))	2	l.f.	\$2.00	\$4.00
9.	Erosion Control	1	LS	\$6.00	\$6.00
10.	Street Lights (Type A, 220' spacing, each side)	1	l.f.	\$13.00	\$13.00
11.	Traffic Signal Interconnect (50%)	0.5	l.f.	\$13.00	\$6.50
12.	Joint Trench (one side only)	0.5	l.f.	\$75.00	\$37.50
Subtotal					\$415.43
Use					\$416.00

Note: Quantities and costs assume concurrent construction with frontage lane improvements (11' pvm't, conc. curb, 10' path) incl. in section shown below.



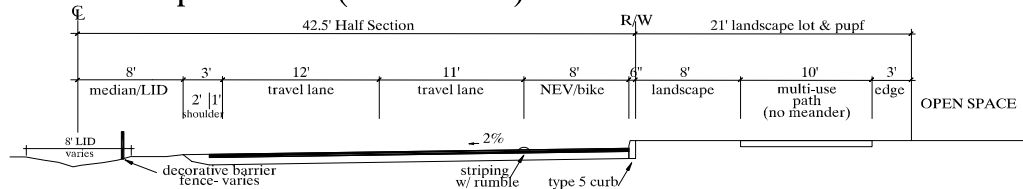
Preliminary Cost Estimate
Cordova Hills SPA
Proposed Project Roadway Cross Sections

7968.10
 prepared by: HF
 updated on: 03/22/12

Preliminary Cost Per Linear Foot
Section 4B-1 - Half Section
 4-Lane Arterial w/ NEV / Bike Lane - North Loop Preserve

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Subgrade Preparation	34	s.f	\$0.15	\$5.10
2.	Clear and Grub	64	s.f.	\$0.18	\$11.52
3.	Roadway Excavation	2.8	c.y.	\$30.00	\$84.00
4.	5.5" Asphaltic Concrete Paving	32	s.f.	\$3.85	\$123.20
5.	20.5" Aggregate Base	34	s.f.	\$5.75	\$195.50
6.	Conc. Vertical Curb, Type 5	1	l.f.	\$18.00	\$18.00
7.	Median Barrier (decorative)	0.5	l.f.	\$80.00	\$40.00
8.	Median Landscaping & Irrigation (incl. LID Swale)	8	s.f.	\$6.00	\$48.00
9.	Planting Strip & Irrigation (incl. alt. LID Swale)	11	s.f.	\$6.00	\$66.00
10.	Root Barrier	3	l.f.	\$24.00	\$72.00
11.	PCC Sidewalk w/6" AB	10	s.f.	\$6.00	\$60.00
12.	Signing & Striping (2 lanes + NEV))	3	l.f.	\$2.00	\$6.00
13.	Rumble Strip (AC indentations)	1	l.f	\$10.00	\$10.00
14.	Erosion Control	1	LS	\$6.00	\$6.00
15.	Street Lights (Type A, 220' spacing, each side)	1	l.f.	\$13.00	\$13.00
16.	Traffic Signal Interconnect (50%)	0.5	l.f.	\$13.00	\$6.50
17.	Joint Trench (one side only)	0.5	l.f.	\$75.00	\$37.50
	Subtotal				\$802.32
	Use				\$803.00

4B-1 - Arterial -North Loop Preserve (half section)



Preliminary Cost Estimate
Cordova Hills SPA
Proposed Project Roadway Cross Sections

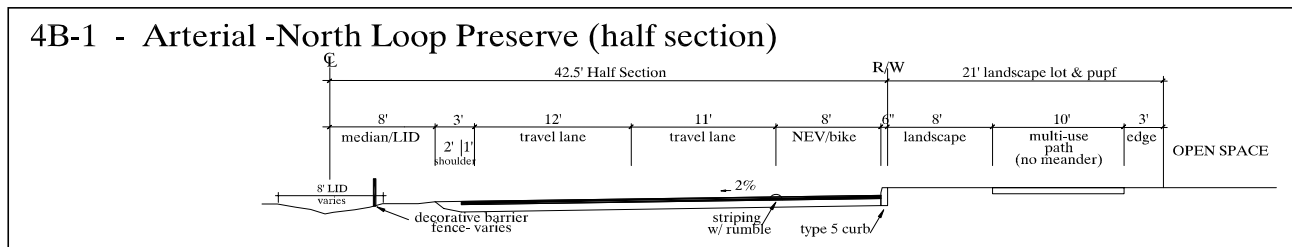
7968.10
 prepared by: HF
 updated on: 03/22/12

Preliminary Cost Per Linear Foot
Section 4B-1 Center Section - Half Section

4-Lane Arterial w/ NEV / Bike Lane (minus frontage imp's) - North Loop Preserve

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Subgrade Preparation	20	s.f	\$0.15	\$3.00
2.	Clear and Grub	40	s.f.	\$0.18	\$7.20
3.	Roadway Excavation	1.7	c.y.	\$30.00	\$51.00
4.	5.5" Asphaltic Concrete Paving	21	s.f.	\$3.85	\$80.85
5.	20.5" Aggregate Base	23	s.f.	\$5.75	\$132.25
6.	Median Barrier (decorative)	0.5	l.f.	\$80.00	\$40.00
7.	Median Landscaping & Irrigation (incl. LID Swale)	8	s.f.	\$6.00	\$48.00
8.	Planting Strip & Irrigation (incl. alt. LID Swale)	0	s.f.	\$6.00	\$0.00
9.	Signing & Striping (2 lanes + NEV))	2	l.f.	\$2.00	\$4.00
10.	Erosion Control	1	LS	\$6.00	\$6.00
11.	Street Lights (Type A, 220' spacing, each side)	1	l.f.	\$13.00	\$13.00
12.	Traffic Signal Interconnect (50%)	0.5	l.f.	\$13.00	\$6.50
13.	Joint Trench (one side only)	0.5	l.f.	\$75.00	\$37.50
Subtotal					\$429.30
Use					\$430.00

Note: Quantities and costs assume concurrent construction with frontage lane improvements (11' pvm't, conc. curb, 10' path) incl. in section shown below.



Preliminary Cost Estimate
Cordova Hills SPA
Proposed Project Roadway Cross Sections

7968.10
 prepared by: HF
 updated on: 03/22/12

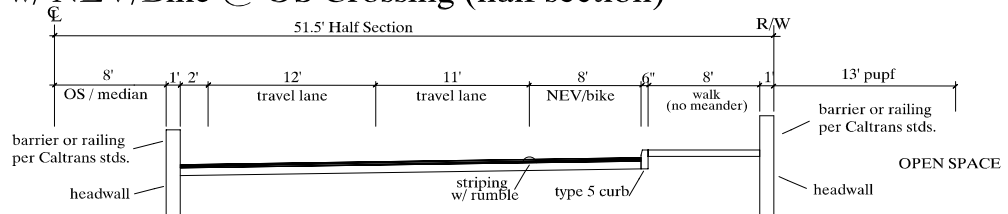
Preliminary Cost Per Linear Foot
Section 4B-2 - Half Section
 4-Lane Arterial w/ NEV / Bike Lane @ OS Crossing

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Subgrade Preparation	40	s.f	\$0.15	\$6.00
2.	5.5" Asphaltic Concrete Paving	33	s.f.	\$3.85	\$127.05
3.	20.5" Aggregate Base	33	s.f.	\$5.75	\$189.75
4.	Vertical Curb, Type 5 (6" Barrier Curb)	1	l.f.	\$18.00	\$18.00
5.	PCC Sidewalk w/6" AB	8	s.f.	\$6.00	\$48.00
6.	Signing & Striping (2 lanes + NEV)	3	l.f.	\$2.00	\$6.00
7.	Rumble Strip (AC indentations)	1	l.f	\$10.00	\$10.00
8.	Street Lights (Type A, 220' spacing, each side)	1	l.f.	\$13.00	\$13.00
9.	Traffic Signal Interconnect (50%)	0.5	l.f.	\$13.00	\$6.50
10.	Joint Trench (one side only)	0.5	l.f.	\$75.00	\$37.50
Subtotal					\$461.80

Use **\$462.00**

* Note: C&G, erosion control, headwalls, vehicle barriers, railing, & other appurtenances incl. in culvert estimate

4B-2 - Arterial w/ NEV/Bike @ OS Crossing (half section)



Preliminary Cost Estimate
Cordova Hills SPA
Proposed Project Roadway Cross Sections

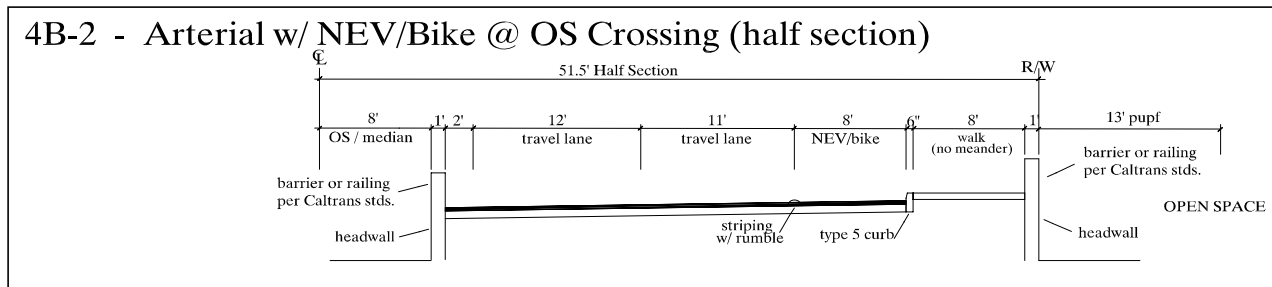
7968.10
 prepared by: HF
 prepared on: 03/22/12

Preliminary Cost Per Linear Foot
Section 4B-2 Center Section - Half Section
 4-Lane Arterial w/ NEV / Bike Lane (minus frontage imp's) @ OS Crossing

	ITEM	QUANTITY	UNIT	UNIT PRICE	PER FT COST
1.	Subgrade Preparation	20	s.f	\$0.15	\$3.00
2.	5.5" Asphaltic Concrete Paving	22	s.f.	\$3.85	\$84.70
3.	20.5" Aggregate Base	22	s.f.	\$5.75	\$126.50
4.	Signing & Striping (2 lanes + NEV)	2	l.f.	\$2.00	\$4.00
5.	Street Lights (Type A, 220' spacing, each side)	1	l.f.	\$13.00	\$13.00
6.	Traffic Signal Interconnect (50%)	0.5	l.f.	\$13.00	\$6.50
7.	Joint Trench (one side only)	0.5	l.f.	\$75.00	\$37.50
Subtotal					\$275.20
Use					\$276.00

* Note: C&G, erosion control, headwalls, vehicle barriers, railing, & other appurtenances incl. in culvert estimate

Note: Quantities and costs assume concurrent construction with frontage lane improvements (11' pvm't, conc. curb, 8' walk) incl. in section shown below.



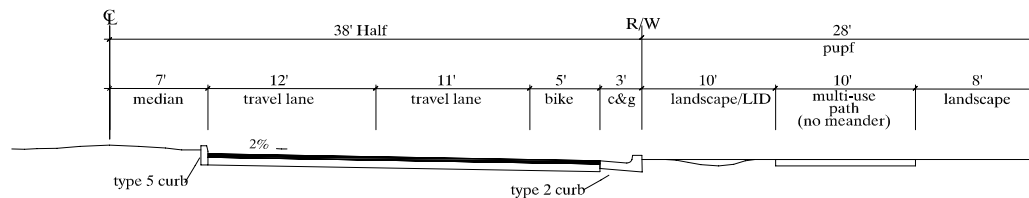
Preliminary Cost Estimate
Cordova Hills SPA
Proposed Project Roadway Cross Sections

7968.10
 prepared by: HF
 prepared on: 03/22/12

Preliminary Cost Per Linear Foot
Section 4C - Half Section
 4-Lane Arterial - Chrysanthy Blvd. Extension

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Subgrade Preparation	32	s.f	\$0.15	\$4.80
2.	Clear and Grub	66	s.f.	\$0.18	\$11.88
3.	Roadway Excavation	2.6	c.y.	\$30.00	\$78.00
4.	5.5" Asphaltic Concrete Paving	28	s.f.	\$3.85	\$107.80
5.	20.5" Aggregate Base	28	s.f.	\$5.75	\$161.00
6.	Curb & Gutter, Type 2 (Vertical Curb & Gutter)	1	l.f.	\$25.00	\$25.00
7.	Median Curb, Type 5 (6" Barrier Curb)	1	l.f.	\$18.00	\$18.00
8.	Median Landscaping & Irrigation	6.5	s.f.	\$6.00	\$39.00
9.	Planting Strip/LID Swale & Irrigation	18	s.f.	\$6.00	\$108.00
10.	Root Barrier	4	l.f.	\$24.00	\$96.00
11.	PCC Sidewalk w/ 6" AB	10	s.f.	\$6.00	\$60.00
12.	Signing & Striping (2 lanes + NEV)	2	l.f.	\$2.00	\$4.00
13.	Erosion Control	1	LS	\$6.00	\$6.00
14.	Street Lights (Type A, 220' spacing, each side)	1	l.f.	\$13.00	\$13.00
15.	Traffic Signal Interconnect (50%)	0.5	l.f.	\$13.00	\$6.50
16.	Joint Trench (one side only)	0.5	l.f.	\$75.00	\$37.50
Subtotal					\$776.48
Use					\$777.00

4C - Arterial- Chrysanthy Boulevard Extension (half section)



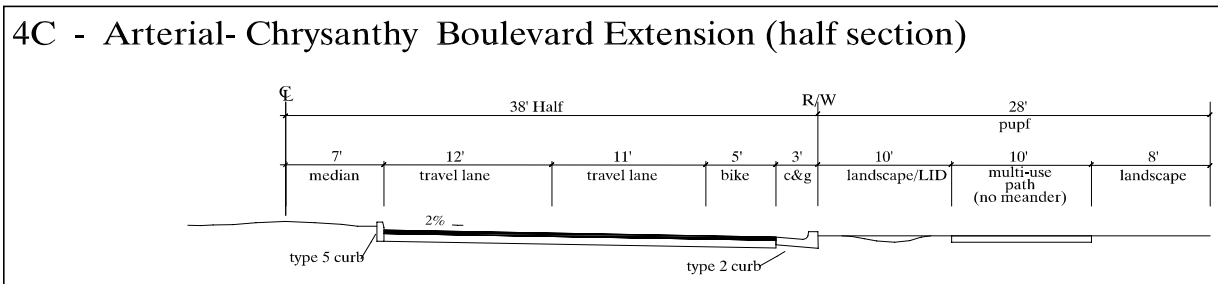
Preliminary Cost Estimate
Cordova Hills SPA
Proposed Project Roadway Cross Sections

7968.10
 prepared by: HF
 prepared on: 03/22/12

Preliminary Cost Per Linear Foot
Section 4C - Half Section
 4-Lane Arterial (minus frontage imp's) - Chrysanthy Blvd. Extension

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Subgrade Preparation	18	s.f	\$0.15	\$2.70
2.	Clear and Grub	42	s.f.	\$0.18	\$7.56
3.	Roadway Excavation	1.5	c.y.	\$5.00	\$7.50
4.	5.5" Asphaltic Concrete Paving	17	s.f.	\$3.85	\$65.45
5.	20.5" Aggregate Base	17	s.f.	\$5.75	\$97.75
6.	Median Curb, Type 5 (6" Barrier Curb)	1	l.f.	\$18.00	\$18.00
7.	Median Landscaping & Irrigation	6.5	s.f.	\$6.00	\$39.00
8.	Planting Strip/LID Swale & Irrigation	0	s.f.	\$6.00	\$0.00
9.	Root Barrier	1	l.f.	\$24.00	\$24.00
10.	Signing & Striping (2 lanes + NEV)	1	l.f.	\$2.00	\$2.00
11.	Erosion Control	1	LS	\$6.00	\$6.00
12.	Street Lights (Type A, 220' spacing, each side)	1	l.f.	\$13.00	\$13.00
13.	Traffic Signal Interconnect (50%)	0.5	l.f.	\$13.00	\$6.50
14.	Joint Trench (one side only)	0.5	l.f.	\$75.00	\$37.50
	Subtotal				\$326.96
	Use				\$327.00

Note: Quantities and costs assume concurrent construction with frontage lane improvements (11' pvm't, conc. curb, 10' path) incl. in section shown below.



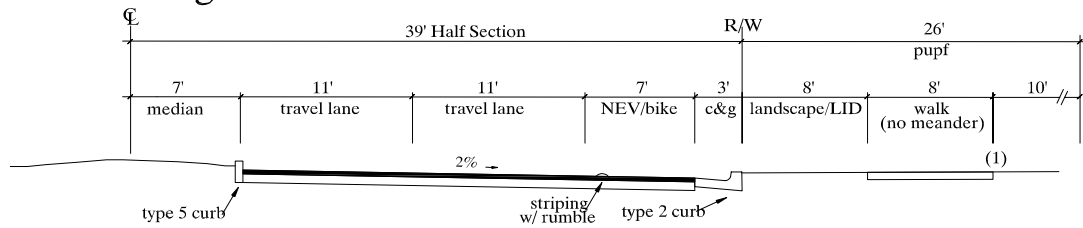
Preliminary Cost Estimate
Cordova Hills SPA
Proposed Project Roadway Cross Sections

7968.10
 prepared by: HF
 prepared on: 03/22/12

Preliminary Cost Per Linear Foot
Section 4D - Half Section
 4-Lane Arterial - School Frontage w/NEV/Bike

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Subgrade Preparation	33	s.f	\$0.15	\$4.95
2.	Clear and Grub	67	s.f.	\$0.18	\$12.06
3.	Roadway Excavation	2.6	c.y.	\$5.00	\$13.00
4.	5.5" Asphaltic Concrete Paving	29	s.f.	\$3.85	\$111.65
5.	20.5" Aggregate Base	29	s.f.	\$5.75	\$166.75
6.	Curb & Gutter, Type 2 (Vertical Curb & Gutter)	1	l.f.	\$25.00	\$25.00
7.	Median Curb, Type 5 (6" Barrier Curb)	1	l.f.	\$18.00	\$18.00
8.	Median Landscaping & Irrigation	6.5	s.f.	\$6.00	\$39.00
9.	Planting Strip & Irrigation	18	s.f.	\$6.00	\$108.00
10.	Root Barrier	4	l.f.	\$24.00	\$96.00
11.	PCC Sidewalk w/ 6" AB	8	s.f.	\$6.00	\$48.00
12.	Signing & Striping (2 lanes + NEV)	2	l.f.	\$2.00	\$4.00
13.	Erosion Control	1	LS	\$6.00	\$6.00
14.	Street Lights (Type A, 220' spacing, each side)	1	l.f.	\$13.00	\$13.00
15.	Traffic Signal Interconnect (50%)	0.5	l.f.	\$13.00	\$6.50
16.	Joint Trench (one side only)	0.5	l.f.	\$75.00	\$37.50
Subtotal					\$709.41
Use					\$710.00

4D - School Frontage w/ NEV/Bike



Preliminary Cost Estimate
Cordova Hills SPA
Proposed Project Roadway Cross Sections

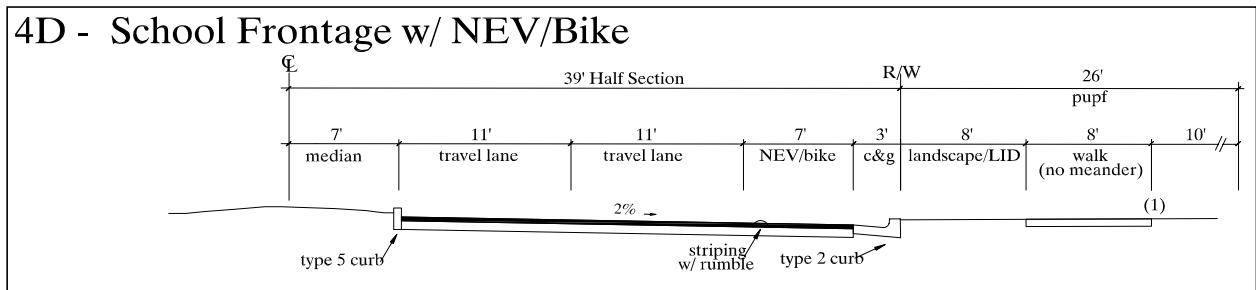
7968.10
 prepared by: HF
 prepared on: 03/22/12

Preliminary Cost Per Linear Foot
Section 4D - Half Section
 4-Lane Arterial (minus frontage imp's)

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Subgrade Preparation	19	s.f	\$0.15	\$2.85
2.	Clear and Grub	43	s.f.	\$0.18	\$7.74
3.	Roadway Excavation	1.6	c.y.	\$5.00	\$8.00
4.	5.5" Asphaltic Concrete Paving	18	s.f.	\$3.85	\$69.30
5.	20.5" Aggregate Base	18	s.f.	\$5.75	\$103.50
6.	Median Curb, Type 5 (6" Barrier Curb)	1	l.f.	\$18.00	\$18.00
7.	Median Landscaping & Irrigation	6.5	s.f.	\$6.00	\$39.00
8.	Planting Strip/LID Swale & Irrigation	0	s.f.	\$6.00	\$0.00
9.	Root Barrier	1	l.f.	\$24.00	\$24.00
10.	Signing & Striping (2 lanes + NEV)	1	l.f.	\$2.00	\$2.00
11.	Erosion Control	1	LS	\$6.00	\$6.00
12.	Street Lights (Type A, 220' spacing, each side)	1	l.f.	\$13.00	\$13.00
13.	Traffic Signal Interconnect (50%)	0.5	l.f.	\$13.00	\$6.50
14.	Joint Trench (one side only)	0.5	l.f.	\$75.00	\$37.50
Subtotal					\$337.39

Use **\$338.00**

Note: Quantities and costs assume concurrent construction with frontage lane improvements (11' pvm't, conc. curb, 8' path) incl. in section shown below.



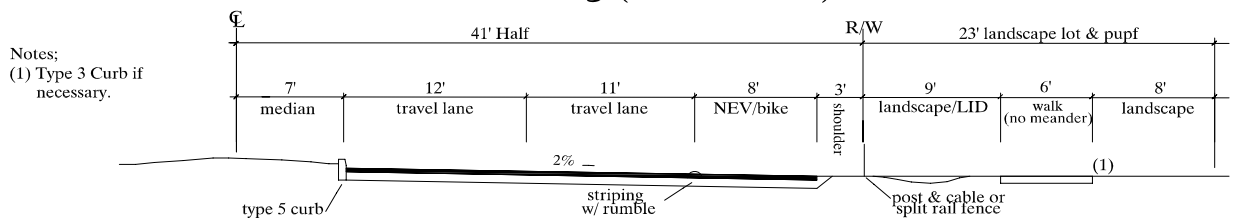
Preliminary Cost Estimate
Cordova Hills SPA
Proposed Project Roadway Cross Sections

7968.10
 prepared by: HF
 prepared on: 03/22/12

Preliminary Cost Per Linear Foot
Section 4E - Half Section
 4-Lane Arterial w/NEV/Bike Lane - No Parking

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Subgrade Preparation	32	s.f	\$0.15	\$4.80
2.	Clear and Grub	64	s.f.	\$0.18	\$11.52
3.	Roadway Excavation	2.6	c.y.	\$30.00	\$78.00
4.	5.5" Asphaltic Concrete Paving	31	s.f.	\$3.85	\$119.35
5.	Compacted Shoulder (native)	2	s.f.	\$1.00	\$2.00
6.	20.5" Aggregate Base (incl. 1' AB Shoulder)	32	s.f.	\$5.75	\$184.00
7.	Median Curb, Type 5 (6" Barrier Curb)	1	l.f.	\$18.00	\$18.00
8.	Median Landscaping & Irrigation	6.5	s.f.	\$6.00	\$39.00
9.	Planting Strip & Irrigation (incl. LID Swale)	17	s.f.	\$6.00	\$102.00
10.	Root Barrier	3	l.f.	\$24.00	\$72.00
11.	PCC Sidewalk w/ 6" AB	6	s.f.	\$6.00	\$36.00
12.	Rumble Strip (AC indentations)	1	l.f	\$10.00	\$10.00
13.	Signing & Striping (2 lanes + NEV)	3	l.f.	\$2.00	\$6.00
14.	Post & Cable fencing	1	l.f	\$8.00	\$8.00
15.	Erosion Control	1	LS	\$6.00	\$6.00
16.	Street Lights (Type A, 220' spacing, each side)	1	l.f.	\$13.00	\$13.00
17.	Traffic Signal Interconnect (50%)	0.5	l.f.	\$13.00	\$6.50
18.	Joint Trench (one side only)	0.5	l.f.	\$75.00	\$37.50
	Subtotal				\$753.67
	Use				\$754.00

4E - Arterial w/NEV/Bike - No Parking (half section)



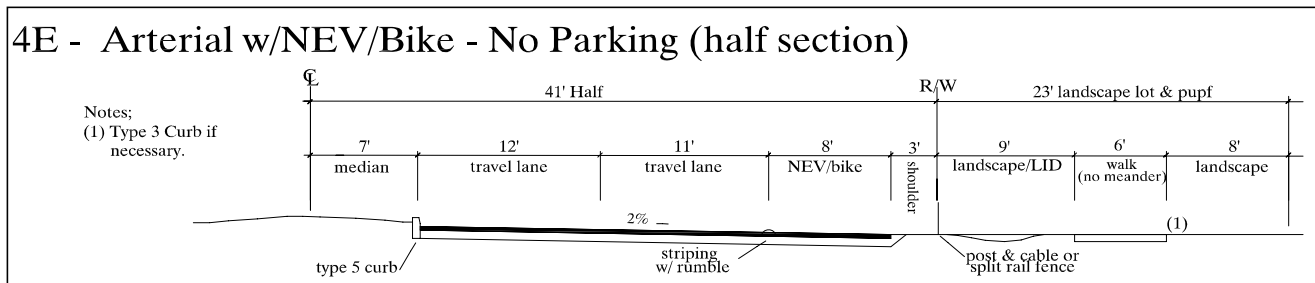
Preliminary Cost Estimate
Cordova Hills SPA
Proposed Project Roadway Cross Sections

7968.10
 prepared by: HF
 updated on: 03/22/12

Preliminary Cost Per Linear Foot
Section 4E - Half Section
 4-Lane Arterial w/NEV/Bike Lane (minus frontage imp's) - No Parking

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Subgrade Preparation	21	s.f	\$0.15	\$3.15
2.	Clear and Grub	46	s.f.	\$0.18	\$8.28
3.	Roadway Excavation	1.9	c.y.	\$30.00	\$57.00
4.	5.5" Asphaltic Concrete Paving	20	s.f.	\$3.85	\$77.00
5.	Compacted Shoulder (native)	2	s.f.	\$1.00	\$2.00
6.	20.5" Aggregate Base	20	s.f.	\$5.75	\$115.00
7.	Median Curb, Type 5 (6" Barrier Curb)	1	l.f.	\$18.00	\$18.00
8.	Median Landscaping & Irrigation	6.5	s.f.	\$6.00	\$39.00
9.	Planting Strip & Irrigation (incl. LID Swale)	0	s.f.	\$6.00	\$0.00
10.	Root Barrier	1	l.f.	\$24.00	\$24.00
11.	Signing & Striping (2 lanes + NEV)	2	l.f.	\$2.00	\$4.00
12.	Post & Cable fencing	1	l.f	\$8.00	\$8.00
13.	Erosion Control	1	LS	\$6.00	\$6.00
14.	Street Lights (Type A, 220' spacing, each side)	1	l.f.	\$13.00	\$13.00
15.	Traffic Signal Interconnect (50%)	0.5	l.f.	\$13.00	\$6.50
16.	Joint Trench (one side only)	0.5	l.f.	\$75.00	\$37.50
	Subtotal				\$418.43
	Use				\$419.00

Note: Quantities and costs assume concurrent construction with frontage lane improvements (11' pvm't and 6' walk) incl. in section shown below.



Preliminary Cost Estimate
Cordova Hills SPA
Proposed Project Roadway Cross Sections

7968.10
 prepared by: HF
 updated on: 03/22/12

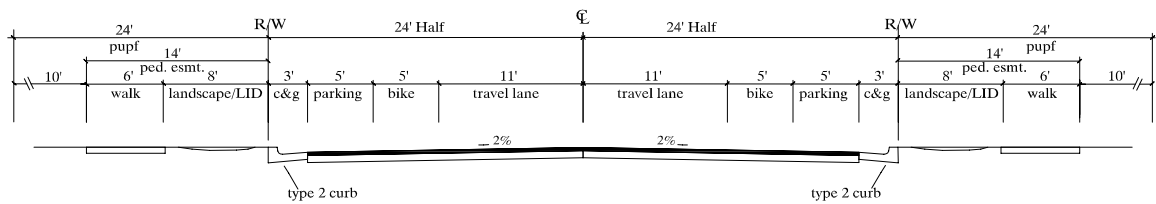
Preliminary Cost Per Linear Foot
Section 2A-1
 2-Lane Collector Residential Street

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Subgrade Preparation	48	s.f	\$0.15	\$7.20
2.	Clear and Grub	96	s.f.	\$0.18	\$17.28
3.	Roadway Excavation	1.9	c.y.	\$30.00	\$57.00
4.	3.5" Asphaltic Concrete Paving*	42	s.f.	\$2.45	\$102.90
5.	13" Aggregate Base*	42	s.f.	\$3.64	\$152.88
6.	Curb & Gutter, Type 2 (Vertical Curb & Gutter)	2	l.f.	\$25.00	\$50.00
7.	Root Barrier	6	l.f.	\$24.00	\$144.00
8.	PCC Sidewalk w/6" AB	12	s.f.	\$6.00	\$72.00
9.	Signing & Striping (2 lanes)	5	l.f.	\$2.00	\$10.00
10.	Erosion Control	1	LS	\$6.00	\$6.00
11.	Street Lights (Type B, 200' spacing, two-sided)	1	l.f.	\$11.00	\$11.00
12.	Joint Trench (one side)	0.5	l.f.	\$75.00	\$37.50
	Subtotal				\$667.76
	Use				\$668.00

Notes

* along the proposed transit route, required pavement section = 4" AC / 14" AB (total 'use' cost does not change)

2A-1 - Collector Residential



Preliminary Cost Estimate
Cordova Hills SPA
Proposed Project Roadway Cross Sections

7968.10
 prepared by: HF
 updated on: 03/22/12

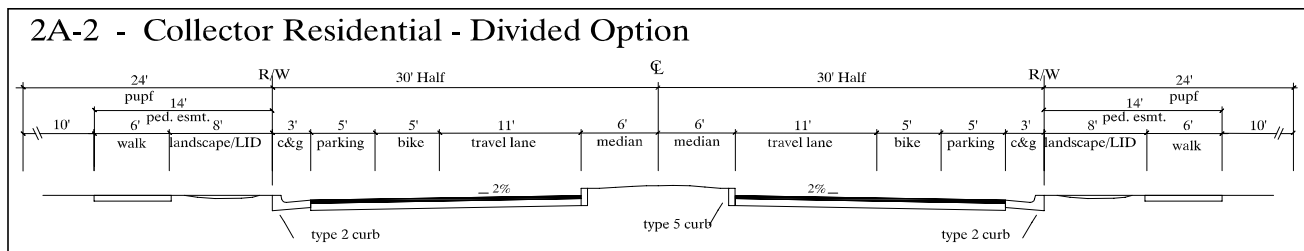
Preliminary Cost Per Linear Foot
Section 2A-2 (divided option)
 2-Lane Collector Residential Street

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Subgrade Preparation	49	s.f	\$0.15	\$7.35
2.	Clear and Grub	108	s.f.	\$0.18	\$19.44
3.	Roadway Excavation	2.2	c.y.	\$30.00	\$66.00
4.	3.5" Asphaltic Concrete Paving*	42	s.f.	\$2.45	\$102.90
5.	13" Aggregate Base*	42	s.f.	\$3.64	\$152.88
6.	Curb & Gutter, Type 2 (Vertical Curb & Gutter)	2	l.f.	\$25.00	\$50.00
7.	Median Curb, Type 5 (6" Barrier Curb)	2	l.f.	\$18.00	\$36.00
8.	Median Landscaping & Irrigation	11	s.f.	\$6.00	\$66.00
9.	Root Barrier	8	l.f.	\$24.00	\$192.00
10.	PCC Sidewalk w/6" AB	12	s.f.	\$6.00	\$72.00
11.	Signing & Striping (2 lanes)	4	l.f.	\$2.00	\$8.00
12.	Erosion Control	1	LS	\$6.00	\$6.00
13.	Street Lights (Type A, 220' spacing, two-sided)	1	l.f.	\$13.00	\$13.00
14.	Joint Trench (one side)	0.5	l.f.	\$75.00	\$37.50
Subtotal					\$829.07

Use **\$830.00**

Notes

* along the proposed transit route, required pavement section = 4" AC / 14" AB (total 'use' cost does not change)



Preliminary Cost Estimate
Cordova Hills SPA
Proposed Project Roadway Cross Sections

7968.10
 prepared by: HF
 updated on: 03/22/12

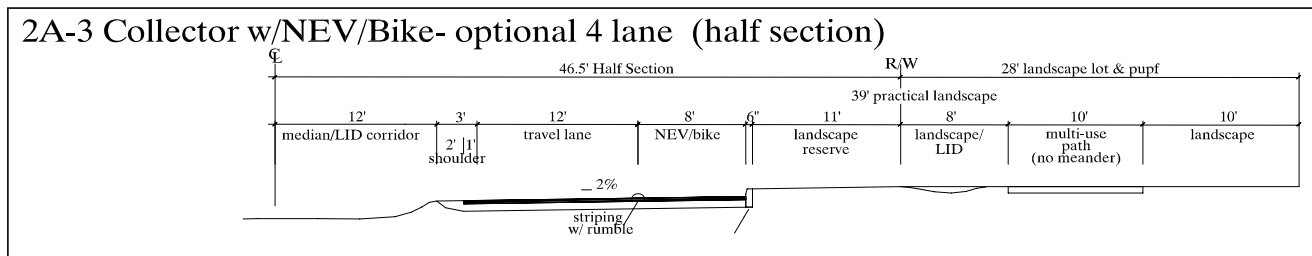
Preliminary Cost Per Linear Foot

Section 2A-3 - Half Section

2 (opt. 4) Lane Collector* w/ NEV / Bike Lane - Section 2A-3

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Subgrade Preparation	24	s.f	\$0.15	\$3.60
2.	Clear and Grub	75	s.f.	\$0.18	\$13.50
3.	Roadway Excavation	1.9	c.y.	\$30.00	\$57.00
4.	3.5" Asphaltic Concrete Paving	21	s.f.	\$2.45	\$51.45
5.	13" Aggregate Base	23	s.f.	\$3.64	\$83.72
6.	Median Curb, Type 5 (conc. vert. curb)	1	l.f.	\$18.00	\$18.00
7.	Median Landscaping & Irrigation (incl. LID Swale)	12	s.f.	\$6.00	\$72.00
8.	Planting Strip (incl. alt. LID Swale) & Irrigation	29	s.f.	\$6.00	\$174.00
9.	Root Barrier	3	l.f.	\$24.00	\$72.00
10.	PCC Sidewalk w/ 6" AB	10	s.f.	\$6.00	\$60.00
11.	Signing & Striping (1 lane + NEV))	2	l.f.	\$2.00	\$4.00
12.	Rumble Strip (AC indentations)	1	l.f	\$10.00	\$10.00
13.	Erosion Control	1	LS	\$6.00	\$6.00
14.	Street Lights (Type A, 220' spacing, two-sided)	0.5	l.f.	\$13.00	\$6.50
15.	Traffic Signal Interconnect (50%)	0.5	l.f.	\$13.00	\$6.50
16.	Joint Trench (one side only)	0.5	l.f.	\$75.00	\$37.50
Subtotal					\$675.77
Use					\$676.00

*Note: for 4-lane option, see Section 4A - Arterial w/ NEV / Bike



Preliminary Cost Estimate
Cordova Hills SPA
Proposed Project Roadway Cross Sections

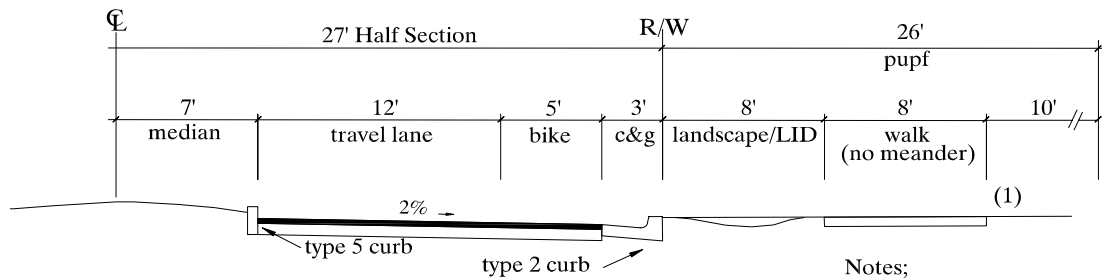
7968.10
 prepared by: HF
 updated on: 03/22/12

Section 2A-4

2-Lane Collector -School Frontage Divided (half section)

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Subgrade Preparation	21	s.f	\$0.15	\$3.15
2.	Clear and Grub	53	s.f.	\$0.18	\$9.54
3.	Roadway Excavation	1.2	c.y.	\$30.00	\$36.00
4.	4" Asphaltic Concrete Paving	17	s.f.	\$2.80	\$47.60
5.	14" Aggregate Base	17	s.f.	\$3.92	\$66.64
6.	Curb & Gutter, Type 2 (Vertical Curb & Gutter)	1	l.f.	\$25.00	\$25.00
7.	Median Curb, Type 5 (6" Barrier Curb)	1	l.f.	\$18.00	\$18.00
8.	Median Landscaping & Irrigation	6.5	s.f.	\$6.00	\$39.00
9.	Root Barrier	4	l.f.	\$24.00	\$96.00
10.	PCC Sidewalk w/6" AB	8	s.f.	\$6.00	\$48.00
11.	Signing & Striping (1 lane)	1	l.f.	\$2.00	\$2.00
12.	Erosion Control	1	LS	\$6.00	\$6.00
13.	Street Lights (Type A, 220' spacing, two-sided)	0.5	l.f.	\$13.00	\$6.50
14.	Joint Trench (one side)	0.5	l.f.	\$75.00	\$37.50
	Subtotal				\$440.93
	Use				\$441.00

2A-4 Collector- School Frontage Divided (half section)



Notes;
 (1) Type 3 Curb if necessary.

Preliminary Cost Estimate
Cordova Hills SPA
Proposed Project Roadway Cross Sections

7968.10
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 updated on: 03/22/12

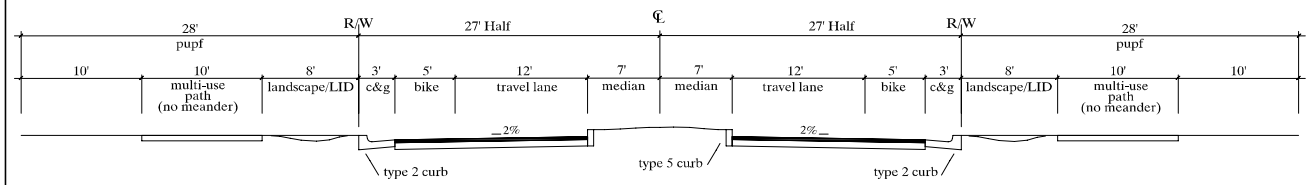
Preliminary Cost Per Linear Foot

Section 2B-1

2-Lane Collector - Town Center Blvd.- Divided, No Parking

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Subgrade Preparation	41	s.f	\$0.15	\$6.15
2.	Clear and Grub	110	s.f.	\$0.18	\$19.80
3.	Roadway Excavation	2.1	c.y.	\$30.00	\$63.00
4.	4" Asphaltic Concrete Paving	34	s.f.	\$2.80	\$95.20
5.	14" Aggregate Base	34	s.f.	\$3.92	\$133.28
6.	Curb & Gutter, Type 2 (Vertical Curb & Gutter)	2	l.f.	\$25.00	\$50.00
7.	Median Curb, Type 5 (6" Barrier Curb)	2	l.f.	\$18.00	\$36.00
8.	Median Landscaping & Irrigation	13	s.f.	\$6.00	\$78.00
9.	Root Barrier	8	l.f.	\$24.00	\$192.00
10.	PCC Sidewalk w/6" AB	20	s.f.	\$6.00	\$120.00
11.	Signing & Striping (2 lanes)	2	l.f.	\$2.00	\$4.00
12.	Erosion Control	1	LS	\$6.00	\$6.00
13.	Street Lights (Type A, 220' spacing, two-sided)	1	l.f.	\$13.00	\$13.00
14.	Joint Trench (one side)	0.5	l.f.	\$75.00	\$37.50
	Subtotal				\$853.93
	Use				\$854.00

2B-1 - Collector Town Center Blvd- Divided, No Parking



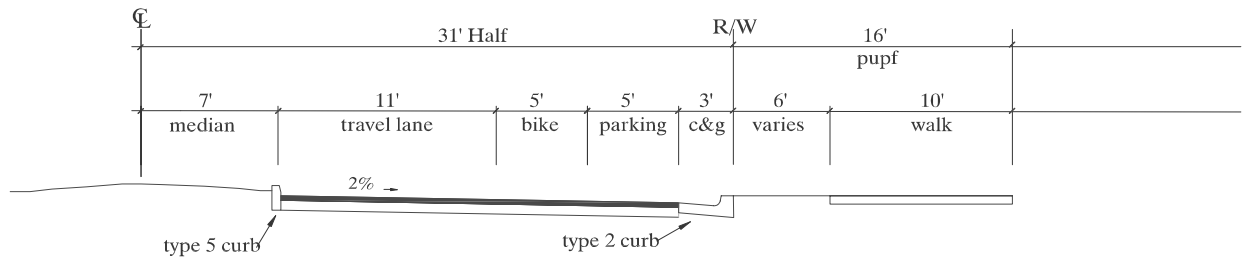
Preliminary Cost Estimate
Cordova Hills SPA
Proposed Project Roadway Cross Sections

7968.10
 prepared by: HF
 updated on: 03/22/12

Preliminary Cost Per Linear Foot
Section 2B-2 - Half Section
 2-Lane Collector - Town Center Blvd.- Central

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Subgrade Preparation	25	s.f	\$0.15	\$3.75
2.	Clear and Grub	47	s.f.	\$0.18	\$8.46
3.	Roadway Excavation	1.2	c.y.	\$30.00	\$36.00
4.	4" Asphaltic Concrete Paving	21	s.f.	\$2.80	\$58.80
5.	14" Aggregate Base	21	s.f.	\$3.92	\$82.32
6.	Curb & Gutter, Type 2 (Vertical Curb & Gutter)	1	l.f.	\$25.00	\$25.00
7.	Median Curb, Type 5 (6" Barrier Curb)	1	l.f.	\$18.00	\$18.00
8.	Median Landscaping & Irrigation	6.5	s.f.	\$6.00	\$39.00
9.	Root Barrier	4	l.f.	\$24.00	\$96.00
10.	PCC Sidewalk w/6" AB	10	s.f.	\$6.00	\$60.00
11.	Signing & Striping (2 lanes)	2	l.f.	\$2.00	\$4.00
12.	Erosion Control	1	LS	\$6.00	\$6.00
13.	Street Lights (Type A, 220' spacing, two-sided)	0.5	l.f.	\$13.00	\$6.50
14.	Joint Trench (one side)	0.5	l.f.	\$75.00	\$37.50
Subtotal					\$481.33
Use					\$482.00

2B-2 - Collector- Town Center Blvd- Central (half section)

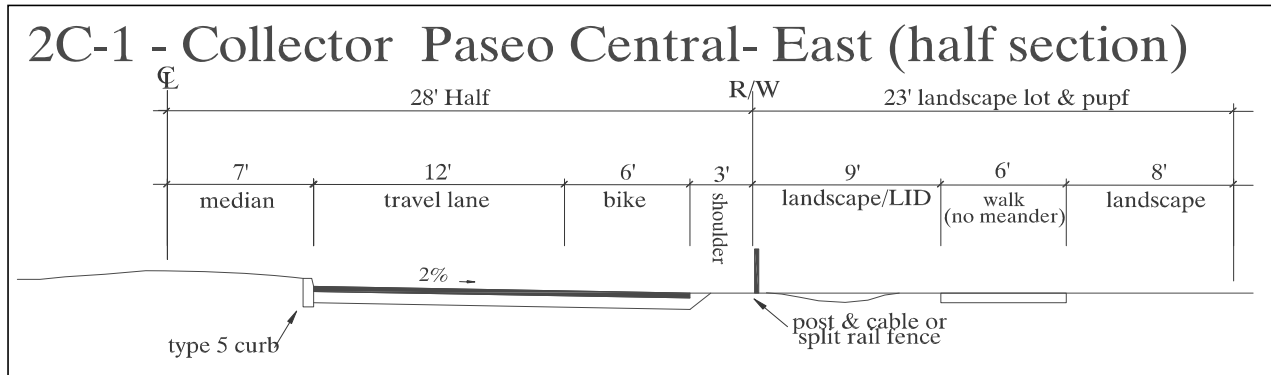


Preliminary Cost Estimate
Cordova Hills SPA
Proposed Project Roadway Cross Sections

7968.10
 prepared by: HF
 updated on: 03/22/12

Preliminary Cost Per Linear Foot
Section 2C-1 - Half Section
 2-Lane Collector Paseo Central - East

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Subgrade Preparation	20	s.f	\$0.15	\$3.00
2.	Clear and Grub	51	s.f.	\$0.18	\$9.18
3.	Roadway Excavation	0.9	c.y.	\$30.00	\$27.00
4.	3.5" Asphaltic Concrete Paving	18	s.f.	\$2.45	\$44.10
5.	Compacted Shoulder (native)	2	s.f.	\$1.00	\$2.00
6.	13" Aggregate Base (incl. 1' AB Shoulder)	19	s.f.	\$3.64	\$69.16
7.	Median Curb, Type 5 (6" Barrier Curb)	1	l.f.	\$18.00	\$18.00
8.	Median Landscaping & Irrigation	6.5	s.f.	\$6.00	\$39.00
9.	Planting Strip & Irrigation (incl. LID Swale)	17	s.f.	\$6.00	\$102.00
10.	Root Barrier	3	l.f.	\$24.00	\$72.00
11.	PCC Sidewalk w/ 6" AB	6	s.f.	\$6.00	\$36.00
12.	Signing & Striping (1 lane)	1	l.f.	\$2.00	\$2.00
13.	Post & Cable fencing	1	l.f	\$8.00	\$8.00
14.	Erosion Control	1	LS	\$6.00	\$6.00
15.	Street Lights (Type A, 220' spacing, two-sided)	0.5	l.f.	\$13.00	\$6.50
16.	Joint Trench (one side only)	0.5	l.f.	\$75.00	\$37.50
Subtotal					\$481.44
Use					\$482.00

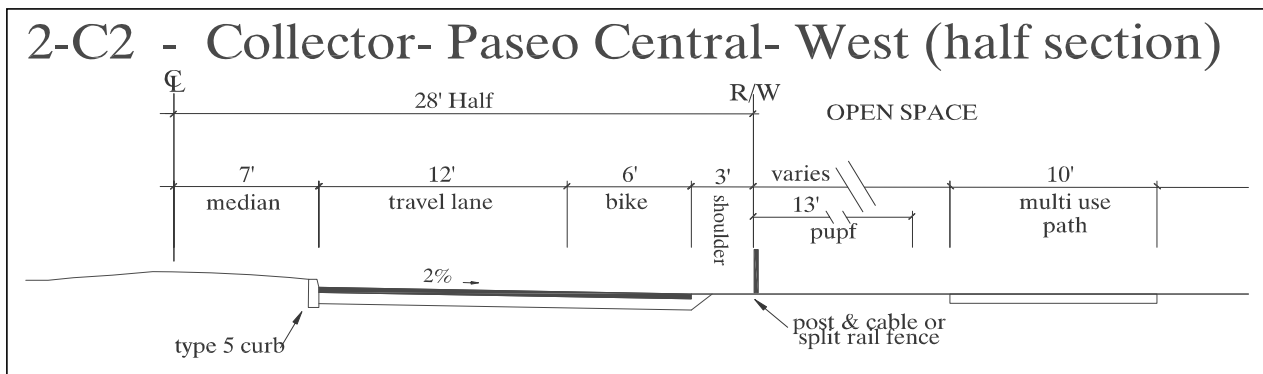


Preliminary Cost Estimate
Cordova Hills SPA
Proposed Project Roadway Cross Sections

7968.10
 prepared by: HF
 updated on: 03/22/12

Preliminary Cost Per Linear Foot
Section 2C-2 - Half Section
 2-Lane Collector Paseo Central - West

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Subgrade Preparation	18	s.f	\$0.15	\$2.70
2.	Clear and Grub	51	s.f.	\$0.18	\$9.18
3.	Roadway Excavation	0.9	c.y.	\$30.00	\$27.00
4.	3.5" Asphaltic Concrete Paving	18	s.f.	\$2.45	\$44.10
5.	Compacted Shoulder (native)	2	s.f.	\$1.00	\$2.00
6.	13" Aggregate Base (incl. 1' AB Shoulder)	19	s.f.	\$3.64	\$69.16
7.	Median Curb, Type 5 (6" Barrier Curb)	1	l.f.	\$18.00	\$18.00
8.	Median Landscaping & Irrigation	6.5	s.f.	\$6.00	\$39.00
9.	Planting Strip & Irrigation (incl. LID Swale)	13	s.f.	\$6.00	\$78.00
10.	Root Barrier	3	l.f.	\$24.00	\$72.00
11.	PCC Sidewalk w/ 6" AB	10	s.f.	\$6.00	\$60.00
12.	Signing & Striping (1 lane)	1	l.f.	\$2.00	\$2.00
13.	Post & Cable fencing	1	l.f	\$8.00	\$8.00
14.	Erosion Control	1	LS	\$6.00	\$6.00
15.	Street Lights (Type A, 220' spacing, two-sided)	0.5	l.f.	\$13.00	\$6.50
16.	Joint Trench (one side only)	0.5	l.f.	\$75.00	\$37.50
Subtotal					\$481.14
Use					\$482.00

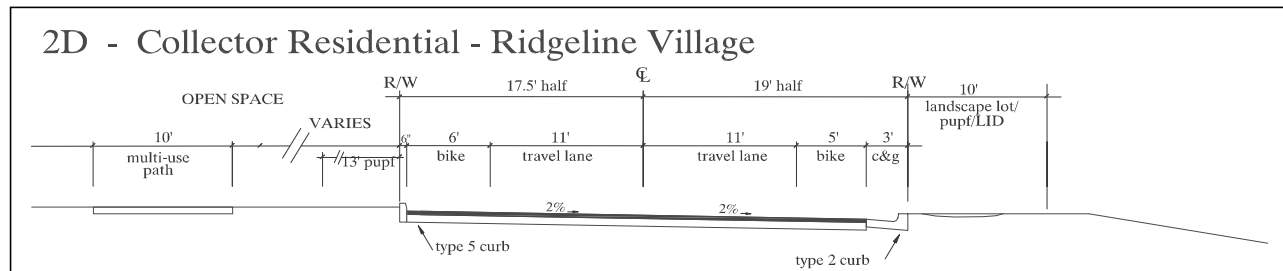


Preliminary Cost Estimate
Cordova Hills SPA
Proposed Project Roadway Cross Sections

7968.10
 prepared by: HF
 updated on: 03/22/12

Preliminary Cost Per Linear Foot
Section 2D
 2-Lane Collector Residential - Ridgeline Village

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Subgrade Preparation	38	s.f	\$0.15	\$5.70
2.	Clear and Grub (width varies)	70	s.f.	\$0.18	\$12.60
3.	Roadway Excavation	1.5	c.y.	\$30.00	\$45.00
4.	3.5" Asphaltic Concrete Paving	33	s.f.	\$2.45	\$80.85
5.	13" Aggregate Base	33	s.f.	\$3.64	\$120.12
6.	Curb & Gutter, Type 2 (Vertical Curb & Gutter)	1	l.f.	\$25.00	\$25.00
7.	Vertical Curb, Type 5 (6" Barrier Curb)	1	l.f.	\$18.00	\$18.00
8.	Planting Strip (width varies)	23	s.f.	\$6.00	\$138.00
9.	Root Barrier	4	l.f.	\$24.00	\$96.00
10.	PCC Sidewalk w/6" AB	10	s.f.	\$6.00	\$60.00
11.	Signing & Striping (2 lanes)	3	l.f.	\$1.00	\$3.00
12.	Erosion Control	1	LS	\$6.00	\$6.00
13.	Street Lights (Type B, 200' spacing, two-sided)	0.5	l.f.	\$11.00	\$5.50
14.	Joint Trench (one side)	0.5	l.f.	\$75.00	\$37.50
	Subtotal				\$653.27
	Use				\$654.00

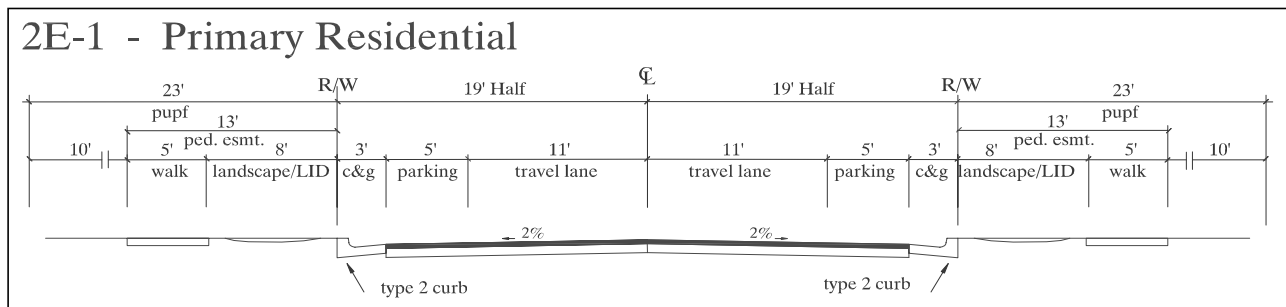


Preliminary Cost Estimate
Cordova Hills SPA
Proposed Project Roadway Cross Sections

7968.10
 prepared by: HF
 updated on: 03/22/12

Preliminary Cost Per Linear Foot
Section 2E-1
 2-Lane Primary Residential Street

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Subgrade Preparation	38	s.f	\$0.15	\$5.70
2.	Clear and Grub	64	s.f.	\$0.18	\$11.52
3.	Roadway Excavation	1.5	c.y.	\$30.00	\$45.00
4.	3" Asphaltic Concrete Paving	32	s.f.	\$2.10	\$67.20
5.	10" Aggregate Base	32	s.f.	\$2.80	\$89.60
6.	Root Barrier	6	l.f.	\$24.00	\$144.00
7.	Curb & Gutter, Type 2 (Vertical Curb & Gutter)	2	l.f.	\$25.00	\$50.00
8.	Planting Strip/LID Swale	16	s.f.	\$6.00	\$96.00
9.	PCC Sidewalk w/6" AB	10	s.f.	\$6.00	\$60.00
10.	Signing	1	l.f.	\$2.00	\$2.00
11.	Erosion Control	1	LS	\$10.00	\$10.00
12.	Street Lights (Type B, 240' spacing, two-sided)	1	l.f.	\$9.20	\$9.20
13.	Joint Trench (one side)	0.5	l.f.	\$75.00	\$37.50
Subtotal					\$627.72
Use					\$628.00

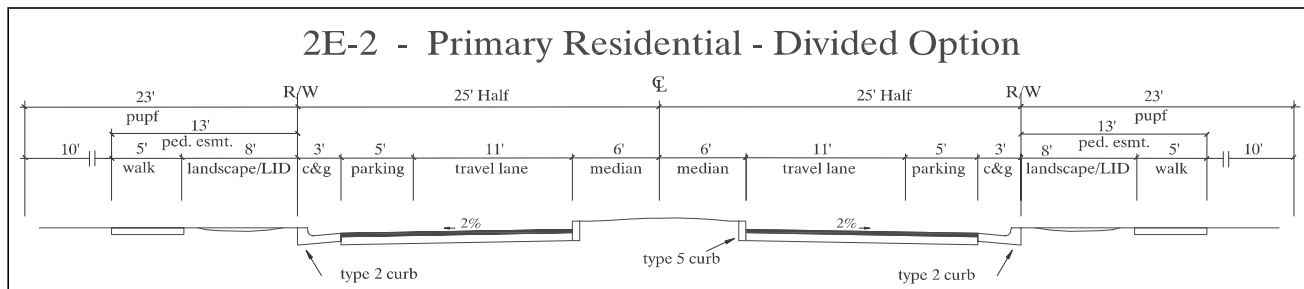


Preliminary Cost Estimate
Cordova Hills SPA
Proposed Project Roadway Cross Sections

7968.10
 prepared by: HF
 updated on: 03/22/12

Preliminary Cost Per Linear Foot
Section 2E-2
 2-Lane Primary Residential - Divided Option

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Subgrade Preparation	39	s.f	\$0.15	\$5.85
2.	Clear and Grub	74	s.f.	\$0.18	\$13.32
3.	Roadway Excavation	1.6	c.y.	\$30.00	\$48.00
4.	3" Asphaltic Concrete Paving	32	s.f.	\$2.10	\$67.20
5.	10" Aggregate Base	32	s.f.	\$2.80	\$89.60
6.	Curb & Gutter, Type 2 (Vertical Curb & Gutter)	2	l.f.	\$25.00	\$50.00
7.	Median Curb, Type 5 (6" Barrier Curb)	2	l.f.	\$18.00	\$36.00
8.	Median Landscaping & Irrigation	11	s.f.	\$6.00	\$66.00
9.	Root Barrier	8	l.f.	\$24.00	\$192.00
10.	PCC Sidewalk w/6" AB	10	s.f.	\$6.00	\$60.00
11.	Signage	1	l.f.	\$2.00	\$2.00
12.	Erosion Control	1	LS	\$6.00	\$6.00
13.	Street Lights (Type B, 240' spacing, two-sided)	1	l.f.	\$9.20	\$9.20
14.	Joint Trench (one side)	0.5	l.f.	\$75.00	\$37.50
	Subtotal				\$682.67
	Use				\$683.00



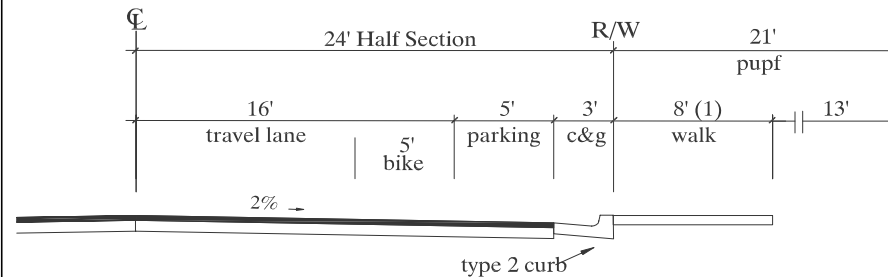
Preliminary Cost Estimate
Cordova Hills SPA
Proposed Project Roadway Cross Sections

7968.10
 prepared by: HF
 updated on: 03/22/12

Preliminary Cost Per Linear Foot
Section 2F - Half Section
 2-Lane Primary - School-Park Frontage

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Subgrade Preparation	32	s.f	\$0.15	\$4.80
2.	Clear and Grub	32	s.f.	\$0.18	\$5.76
3.	Roadway Excavation	1.3	c.y.	\$30.00	\$39.00
4.	3" Asphaltic Concrete Paving	21	s.f.	\$2.10	\$44.10
5.	10" Aggregate Base	21	s.f.	\$2.80	\$58.80
6.	Root Barrier	1	l.f.	\$24.00	\$24.00
7.	Curb & Gutter, Type 2 (Vertical Curb & Gutter)	1	l.f.	\$25.00	\$25.00
8.	PCC Sidewalk w/6" AB	8	s.f.	\$6.00	\$48.00
9.	Signing	1	l.f.	\$2.00	\$2.00
10.	Erosion Control	1	LS	\$6.00	\$6.00
11.	Street Lights (Type B, 240' spacing, two-sided)	1	l.f.	\$9.20	\$9.20
12.	Joint Trench (one side)	0.5	l.f.	\$75.00	\$37.50
	Subtotal				\$304.16
	Use				\$305.00

2F - Primary - School-Park Frontage (half section)



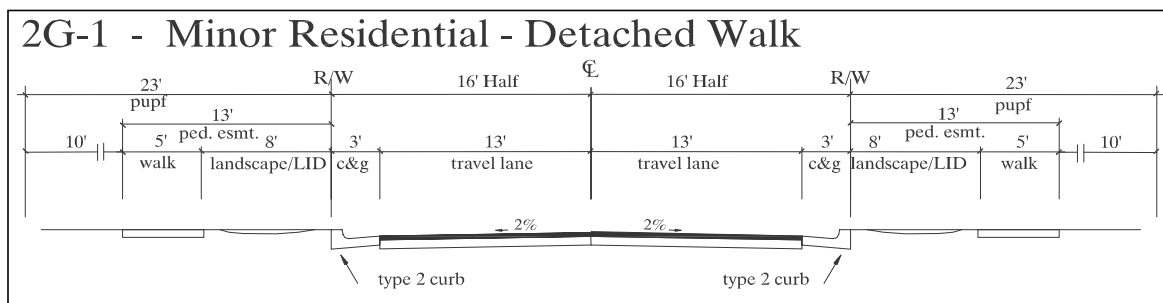
NOTES
 (1) 6' walk & 19 puf next to parks.

Preliminary Cost Estimate
Cordova Hills SPA
Proposed Project Roadway Cross Sections

7968.10
 prepared by: HF
 updated on: 03/22/12

Preliminary Cost Per Linear Foot
Section 2G-1
 2-Lane Minor Residential Street - Detached Walk

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Subgrade Preparation	32	s.f	\$0.15	\$4.80
2.	Clear and Grub	58	s.f.	\$0.18	\$10.44
3.	Roadway Excavation	1.1	c.y.	\$30.00	\$33.00
4.	3" Asphaltic Concrete Paving	26	s.f.	\$2.10	\$54.60
5.	10" Aggregate Base	26	s.f.	\$2.80	\$72.80
6.	Curb & Gutter, Type 2 (Vertical Curb & Gutter)	2	l.f.	\$25.00	\$50.00
7.	Planting Strip/LID Swale	16	s.f.	\$6.00	\$96.00
8.	PCC Sidewalk w/6" AB	10	s.f.	\$6.00	\$60.00
9.	Root Barrier	6	l.f.	\$24.00	\$144.00
10.	Signing	1	l.f.	\$2.00	\$2.00
11.	Erosion Control	1	LS	\$6.00	\$6.00
12.	Street Lights (Type B, 240' spacing, two-sided)	1	l.f.	\$9.20	\$9.20
13.	Joint Trench (one side)	0.5	l.f.	\$75.00	\$37.50
	Subtotal				\$580.34
	Use				\$581.00

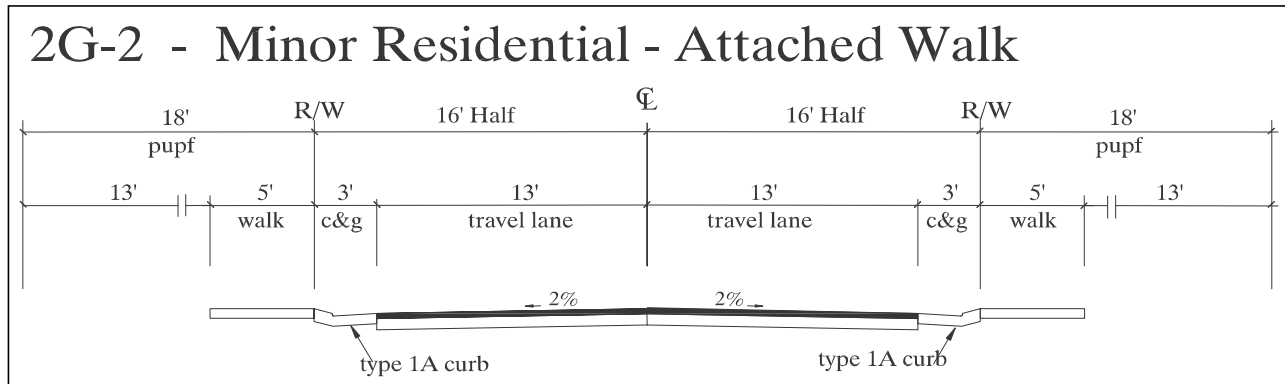


Preliminary Cost Estimate
Cordova Hills SPA
Proposed Project Roadway Cross Sections

7968.10
 prepared by: HF
 updated on: 03/22/12

Preliminary Cost Per Linear Foot
Section 2G-2
 2-Lane Minor Residential Street - Attached Walk

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Subgrade Preparation	42	s.f	\$0.15	\$6.30
2.	Clear and Grub	42	s.f.	\$0.18	\$7.56
3.	Roadway Excavation	1.1	c.y.	\$30.00	\$33.00
4.	3" Asphaltic Concrete Paving	34	s.f.	\$2.10	\$71.40
5.	10" Aggregate Base	34	s.f.	\$2.80	\$95.20
6.	Root Barrier	2	l.f.	\$24.00	\$48.00
7.	Curb & Gutter, Type 1A (Rolled Curb)	2	l.f.	\$25.00	\$50.00
8.	PCC Sidewalk w/6" AB	10	s.f.	\$6.00	\$60.00
9.	Signing	1	l.f.	\$2.00	\$2.00
10.	Erosion Control	1	LS	\$6.00	\$6.00
11.	Street Lights (Type B, 240' spacing, two-sided)	1	l.f.	\$9.20	\$9.20
12.	Joint Trench (one side)	0.5	l.f.	\$75.00	\$37.50
Subtotal					\$426.16
Use					\$427.00

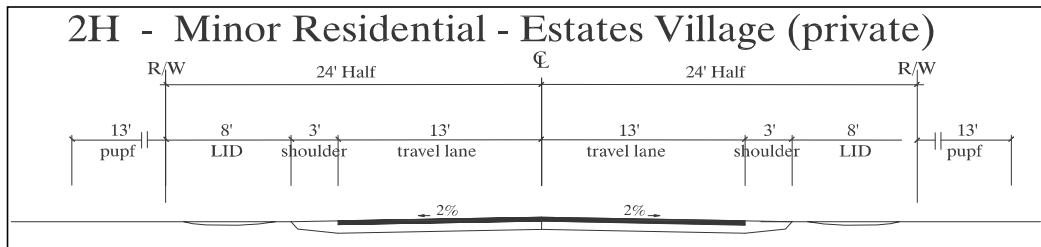


Preliminary Cost Estimate
Cordova Hills SPA
Proposed Project Roadway Cross Sections

7968.10
 prepared by: HF
 updated on: 03/22/12

Preliminary Cost Per Linear Foot
Section 2H (private)
 2-Lane Minor Residential Street - Estates Village

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Subgrade Preparation	28	s.f	\$0.15	\$4.20
2.	Clear and Grub	44	s.f.	\$0.18	\$7.92
3.	Roadway Excavation	1.1	c.y.	\$30.00	\$33.00
4.	3" Asphaltic Concrete Paving	26	s.f.	\$2.10	\$54.60
5.	10" Aggregate Base	32	s.f.	\$2.80	\$89.60
6.	Planting Strip/LID Swale	16	s.f.	\$6.00	\$96.00
7.	Signing	1	l.f.	\$2.00	\$2.00
8.	Erosion Control	1	LS	\$6.00	\$6.00
9.	Joint Trench (one side)	0.5	l.f.	\$75.00	\$37.50
Subtotal					\$330.82
Use					\$331.00



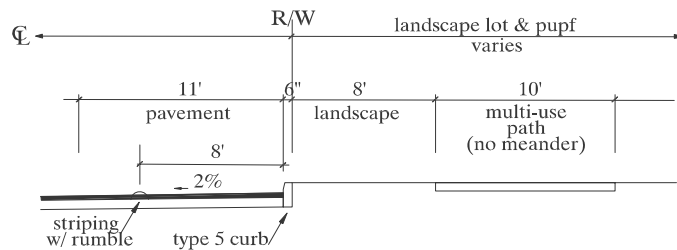
Preliminary Cost Estimate
Cordova Hills SPA
Proposed Project Roadway Cross Sections

7968.10
 prepared by: HF
 updated on: 03/22/12

Preliminary Cost Per Linear Foot
Arterial Frontage w/Type '5' Vert. Curb
 11' Pavement, 3' Curb & Gutter, 10' Path

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Subgrade Preparation	24	s.f	\$0.15	\$3.60
2.	Clear and Grub	24	s.f.	\$0.18	\$4.32
3.	Roadway Excavation	1.1	c.y.	\$30.00	\$33.00
4.	5.5" Asphaltic Concrete Paving	11	s.f.	\$3.85	\$42.35
5.	20.5" Aggregate Base	11	s.f.	\$5.75	\$63.25
6.	Conc. Vertical Curb, Type 5	1	l.f.	\$18.00	\$18.00
7.	Rumble Strip (AC indentations)	1	l.f	\$10.00	\$10.00
8.	Root Barrier	3	l.f.	\$24.00	\$72.00
9.	PCC Sidewalk w/ 6" AB	10	s.f.	\$6.00	\$60.00
10.	Signing & Striping	1	l.f.	\$2.00	\$2.00
11.	Erosion Control	24	s.f.	\$0.25	\$6.00
	Subtotal				\$314.52
	Use				\$315.00

Arterial Frontage Improvements w/Type '5' Vert. Curb



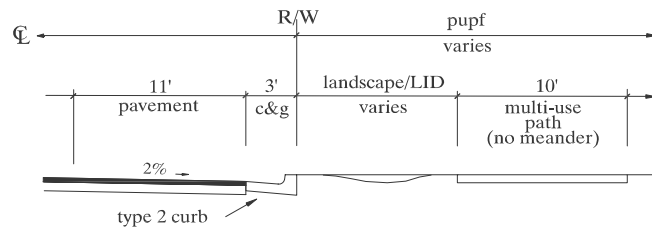
Preliminary Cost Estimate
Cordova Hills SPA
Proposed Project Roadway Cross Sections

7968.10
 prepared by: HF
 updated on: 03/22/12

Preliminary Cost Per Linear Foot
Arterial Frontage Improvements w/Type '2' Vert. Curb & Gutter
 11' Pavement, 3' Curb & Gutter, 10' Path

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Subgrade Preparation	24	s.f	\$0.15	\$3.60
2.	Clear and Grub	24	s.f.	\$0.18	\$4.32
3.	Roadway Excavation	1.1	c.y.	\$30.00	\$33.00
4.	5.5" Asphaltic Concrete Paving	11	s.f.	\$3.85	\$42.35
5.	20.5" Aggregate Base	11	s.f.	\$5.75	\$63.25
6.	Curb & Gutter, Type 2 (Vertical Curb & Gutter)	1	l.f.	\$25.00	\$25.00
7.	Root Barrier	3	l.f.	\$24.00	\$72.00
8.	PCC Sidewalk w/ 6" AB	10	s.f.	\$6.00	\$60.00
9.	Signing & Striping	1	l.f.	\$2.00	\$2.00
10.	Erosion Control	24	s.f.	\$0.25	\$6.00
Subtotal					\$311.52
Use					\$312.00

Arterial Frontage Improvements w/Type '2' Vert Curb & Gutter



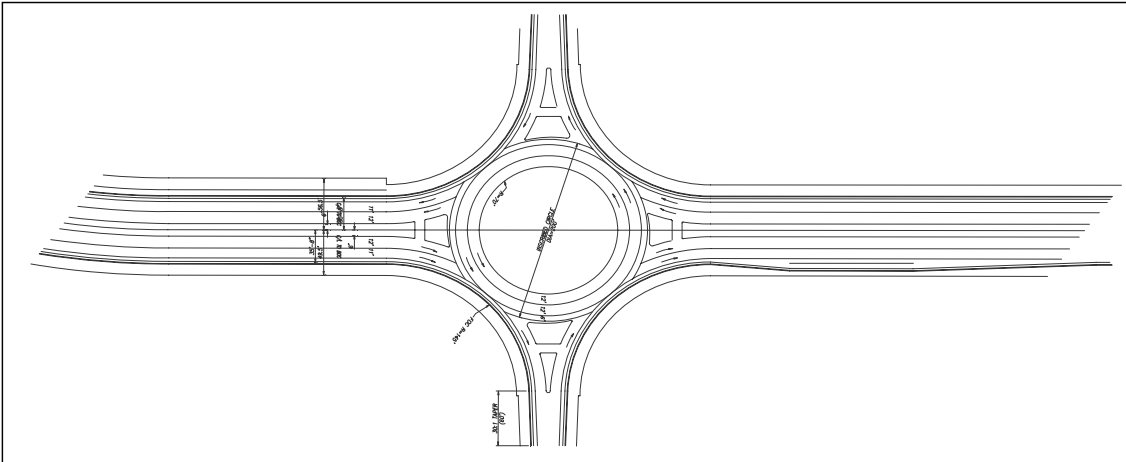
Preliminary Cost Estimate
Cordova Hills SPA
Proposed Project Roadway Cross Sections

7968.10
 prepared by: HF
 updated on: 03/22/12

4-Lane by 2-Lane Round-a-bout (4-way)*
 (curb return to curb return)

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>COST</u>
1.	Subgrade Preparation	38,530	s.f	\$0.15	\$5,779.50
2.	Clear and Grub	59,500	s.f.	\$0.18	\$10,710.00
3.	Roadway Excavation	2,550.0	c.y.	\$30.00	\$76,500.00
4.	5.5" Asphaltic Concrete Paving	24,350	s.f.	\$3.85	\$93,747.50
5.	20.5" Aggregate Base	24,350	s.f.	\$5.75	\$140,012.50
6.	4" Asphaltic Concrete Paving	5,150	s.f.	\$2.80	\$14,420.00
7.	14" Aggregate Base	5,150	s.f.	\$3.92	\$20,188.00
8.	Curb & Gutter, Type 2 (Vertical Curb & Gutter)	1,100	l.f.	\$25.00	\$27,500.00
8.	Conc. Vertical Curb, Type 5	1,150	l.f.	\$18.00	\$20,700.00
10.	Center Island Landscaping & Irrigation	15,390	s.f.	\$6.00	\$92,340.00
11.	8' Planting Strip & Irrigation	6,980	s.f.	\$6.00	\$41,880.00
12.	Splitter Island Pavers w/6"AB	3,840	s.f	\$7.50	\$28,800.00
13.	Root Barrier	3,060	l.f.	\$24.00	\$73,440.00
14.	PCC Sidewalk w/ 6" AB	8,280	s.f.	\$6.00	\$49,680.00
15.	H.C. Ramp	8	e.a.	\$1,200.00	\$9,600.00
16.	Signing & Striping	9,500	LS	\$2.00	\$19,000.00
17.	Erosion Control	1	LS	\$4,900.00	\$4,900.00
18.	Traffic Signal Interconnect	325	l.f.	\$13.00	\$4,225.00
19.	Joint Trench	650	l.f.	\$75.00	\$48,750.00
	Subtotal				\$782,172.50
	Use				\$782,200.00

* assumes transition of NEV lanes into general round-about travel lane; transition ahead of round-about not yet resolved.



PRELIMINARY
OFFSITE ROADS COST ESTIMATE

CORDOVA HILLS SPA
Proposed Project
Roadway Cross Sections

Sacramento, California

September 6, 2012

MACKEY & SOMPS
CIVIL ENGINEERS, INC.
SACRAMENTO, CALIFORNIA (916) 929-6092

Preliminary Cost Estimate
Cordova Hills SPA
Proposed Off-Site Unit Costs

UNIT COSTS

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Clear and Grub (including subgrade preparation)		s.f.	\$0.18	
2.	Pavement Removal (including saw cut)		s.f.	\$1.70	
3.	Roadway Excavation (section plus median, as required)		c.y.	\$30.00	
4.	5.5" Asphaltic Concrete Paving		s.f.	\$3.85	
5.	20.5" Aggregate Base		s.f.	\$5.75	
6.	Curb & Gutter, Type 2 (Vertical Curb & Gutter)		l.f.	\$25.00	
7.	Median Curb, Type 5 (6" Barrier Curb)		l.f.	\$18.00	
8.	Modification to Pedestrian Island		ea.	\$1,000.00	
9.	PCC Sidewalk w/ 6" AB		s.f.	\$6.00	
10.	Pedestrian Ramps		ea.	\$5,500.00	
11.	Pedestrian Landings w/ 3-5/8" PCC & 6" AB		ea.	\$3,000.00	
12.	4" AC Path (between Ped. Landings)		s.f.	\$2.80	
13.	Local Drainage - Roadside Ditch		l.f.	\$17.00	
14.	Traffic Signal Interconnect		l.f.	\$13.00	
15.	Traffic Signal		ea.	\$300,000.00	
16.	Traffic Signal Modification (all pedestals)		ea.	\$150,000.00	
17.	Traffic Signal Modification (Overlap Phasing)		ea.	\$5,000.00	Reprogramming only
18.	Traffic Signal Relocation		ea.	\$100,000.00	
19.	Street Light Relocation		ea.	\$2,000.00	
20.	Signing & Striping		l.f.	\$2.00	
21.	Right of Way Acquisition		ac.	\$50,000.00	
22.	Erosion Control		ea.	\$6.00	
23.	Traffic Control		l.f.	\$10.00	
24.	Utility Pole Relocation		l.f.	\$50.00	
25.	24" Root Barrier		l.f.	\$24.00	
26.	Median landscaping & Irrigation (shrubs & street trees)		s.f.	\$6.00	
27.	Median landscaping (shrubs - water truck irrigation)		s.f.	\$6.00	
27.	Local Drainage - Street Storm Drain System		l.f.	\$25.00	
29.	Street Lights - Major Road, Type A 220' spacing		l.f.	\$13.00	

Preliminary Cost Estimate
Cordova Hills SPA
Proposed Off-Site Unit Costs

7968.10
06 December 2011
revised: August 29, 2012
by: HF

30.	Curb & Gutter, Type 2 (6" Vertical Curb)	l.f.	\$25.00
31.	2" Asphaltic Concrete Paving	s.f.	\$1.40
32.	4" Aggregate Base	s.f.	\$1.12
	Traffic Signal (3-way)	ea.	\$200,000.00

Preliminary Cost Estimate
Cordova Hills SPA
Proposed Off-Site Intersections

Bradshaw Rd. X Jackson Rd. @ 2,000 DUE
Sacramento County

Provide second WB through

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Clear and Grub (including subgrade preparation)	9,450	s.f.	\$0.18	\$1,701.00
2.	Pavement Removal (including saw cut)	1,450	s.f.	\$1.70	\$2,465.00
3.	Utility Pole Relocation	2	ea	\$15,000.00	\$30,000.00
4.	Roadway Excavation (section plus median, as required)	480	c.y.	\$30.00	\$14,400.00
5.	5.5" Asphaltic Concrete Paving	5,960	s.f.	\$3.85	\$22,946.00
6.	20.5" Aggregate Base	5,960	s.f.	\$5.75	\$34,270.00
7.	Median Curb, Type 5 (6" Barrier Curb)	0	l.f.	\$18.00	\$0.00
8.	Modification to Pedestrian Island	1	ea.	\$1,000.00	\$1,000.00
9.	PCC Sidewalk w/ 6" AB	20	s.f.	\$6.00	\$120.00
10.	Pedestrian Ramps	4	ea.	\$5,500.00	\$22,000.00
11.	Pedestrian Landings w/ 3-5/8" PCC & 6" AB	4	ea.	\$3,000.00	\$12,000.00
12.	4" AC Path (between Ped. Landings)	60	s.f.	\$2.80	\$168.00
13.	Local Drainage - Roadside Ditch	580	l.f.	\$17.00	\$9,860.00
14.	Traffic Signal Interconnect	0	l.f.	\$13.00	\$0.00
15.	Traffic Signal	0	ea.	\$300,000.00	\$0.00
16.	Traffic Signal Modification (single pedestal)	0	ea.	\$50,000.00	\$0.00
17.	Traffic Signal Relocation	1	ea.	\$100,000.00	\$100,000.00
18.	Street Light Relocation	0	ea.	\$2,000.00	\$0.00
19.	Striping removal and slurry seal of affected area	14,000	sf	\$0.50	\$7,000.00
20.	Signing & Striping	1,200	l.f.	\$2.00	\$2,400.00
21.	Type A Driveway (approximately 40' wide)	1	ea	\$2,500.00	\$2,500.00
22.	Modify landscaping & irrigation	1	LS	\$2,500.00	\$2,500.00
23.	Erosion Control	1,600	LF	\$6.00	\$9,600.00
		Subtotal			\$274,930.00
		35% Cost Contingency			\$96,225.50
24.	Right of Way Acquisition	10.00	%	\$274,930.00	\$27,493.00
		Total			\$398,648.50
		Use			\$398,700.00

Notes:

- Refer to Exhibit #2 for graphical representation of the improvements listed above.
- ROW acquisition cost is place holder estimate only - to be updated based on detailed ROW assessment;
- This estimate excludes the following:
 - Joint Trench costs
 - Frontage, Landscaping, and Soundwall
 - Impact/Mitigation Requirements
- Improvements incl. full lengths of req'd transitions and lane addition.

Preliminary Cost Estimate
Cordova Hills SPA
Proposed Off-Site Intersections

Eagles Nest Rd. x Jackson Rd.
Sacramento County

Signalize and provide NB & SB left & shared through-right

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Clear and Grub (including subgrade preparation)	15,600	s.f.	\$0.18	\$2,808.00
2.	Pavement Removal (including saw cut)	1,700	s.f.	\$1.70	\$2,890.00
3.	Utility Pole Relocation	0	l.f.	\$50.00	\$0.00
4.	Roadway Excavation (section plus median, as required)	860	c.y.	\$30.00	\$25,800.00
5.	5.5" Asphaltic Concrete Paving	10,600	s.f.	\$3.85	\$40,810.00
6.	20.5" Aggregate Base	10,600	s.f.	\$5.75	\$60,950.00
7.	Curb & Gutter, Type 2 (Vertical Curb & Gutter)	0	l.f.	\$25.00	\$0.00
8.	Median Curb, Type 5 (6" Barrier Curb)	0	l.f.	\$18.00	\$0.00
9.	Modification to Pedestrian Island	0	ea.	\$1,000.00	\$0.00
10.	PCC Sidewalk w/ 6" AB	0	s.f.	\$6.00	\$0.00
11.	Pedestrian Ramps	4	ea.	\$5,500.00	\$22,000.00
12.	Pedestrian Landings w/ 3-5/8" PCC & 6" AB	4	ea.	\$3,000.00	\$12,000.00
13.	4" AC Path (between Ped. Landings)	60	s.f.	\$2.80	\$168.00
14.	Local Drainage - Roadside Ditch	820	l.f.	\$17.00	\$13,940.00
15.	Traffic Signal Interconnect	820	l.f.	\$13.00	\$10,660.00
16.	Traffic Signal	1	ea.	\$300,000.00	\$300,000.00
17.	Traffic Signal Modification (all pedestals)	0	ea.	\$150,000.00	\$0.00
18.	Traffic Signal Relocation	0	ea.	\$100,000.00	\$0.00
19.	Street Light Relocation	0	ea.	\$2,000.00	\$0.00
20.	Striping removal and slurry seal of affected area	14,000	sf	\$0.50	\$7,000.00
21.	Signing & Striping	720	l.f.	\$2.00	\$1,440.00
22.	Erosion Control	1,600	LF	\$6.00	\$9,600.00
				Subtotal	\$510,066.00
				35% Cost Contingency	\$178,523.10
23.	Right of Way Acquisition	10.00	%	\$510,066.00	\$51,006.60
				Total	\$739,595.70
				Use	\$739,600.00

Notes:

- Refer to Exhibit #5 for graphical representation of the improvements listed above.
- This estimate excludes the following:
 - Joint Trench costs
 - Frontage, Landscaping, and Soundwall
 - Impact/Mitigation Requirements
 - Adjustments of the ditch to the southeast
- ROW acquisition cost is place holder estimate only - to be updated based on detailed ROW assessment;

Preliminary Cost Estimate
Cordova Hills SPA
Proposed Off-Site Intersections

Grant Line Rd. x Sunrise Blvd.
Sacramento County

Provide SB left, through, and right

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Clear and Grub (including subgrade preparation)	9,900	s.f.	\$0.18	\$1,782.00
2.	Pavement Removal (including saw cut)	880	s.f.	\$1.70	\$1,496.00
3.	Utility Pole Relocation	0	l.f.	\$50.00	\$0.00
4.	Roadway Excavation (section plus median, as required)	578	c.y.	\$30.00	\$17,340.00
5.	5.5" Asphaltic Concrete Paving	7,200	s.f.	\$3.85	\$27,720.00
6.	20.5" Aggregate Base	7,200	s.f.	\$5.75	\$41,400.00
7.	Curb & Gutter, Type 2 (Vertical Curb & Gutter)	0	l.f.	\$25.00	\$0.00
8.	Median Curb, Type 5 (6" Barrier Curb)	0	l.f.	\$18.00	\$0.00
9.	Modification to Pedestrian Island	1	ea.	\$1,000.00	\$1,000.00
10.	PCC Sidewalk w/ 6" AB	0	s.f.	\$6.00	\$0.00
11.	Pedestrian Ramps	2	ea.	\$5,500.00	\$11,000.00
12.	Pedestrian Landings w/ 3-5/8" PCC & 6" AB	2	ea.	\$3,000.00	\$6,000.00
13.	4" AC Path (between Ped. Landings)	30	s.f.	\$2.80	\$84.00
14.	Local Drainage - Roadside Ditch	440	l.f.	\$17.00	\$7,480.00
15.	Traffic Signal Interconnect	440	l.f.	\$13.00	\$5,720.00
16.	Traffic Signal	0	ea.	\$300,000.00	\$0.00
17.	Traffic Signal Modification (all pedestals)	1	ea.	\$150,000.00	\$150,000.00
18.	Traffic Signal Relocation	1	ea.	\$100,000.00	\$100,000.00
19.	Street Light Relocation	0	ea.	\$2,000.00	\$0.00
20.	Striping removal and slurry seal of affected area	8,500	sf	\$0.50	\$4,250.00
20.	Signing & Striping	1,330	l.f.	\$2.00	\$2,660.00
22.	Erosion Control	650	LF	\$6.00	\$3,900.00
			Subtotal		\$381,832.00
			35% Cost Contingency		\$133,641.20
22.	Right of Way Acquisition	10.00	%	\$381,832.00	\$38,183.20
			Total		\$553,656.40
			Use		\$553,660.00

Notes:

- Refer to Exhibit #6 for graphical representation of the improvements listed above.
- This estimate excludes the following:
 - Joint Trench costs
 - Frontage, Landscaping, and Soundwall
 - Impact/Mitigation Requirements
- ROW acquisition cost is place holder estimate only - to be updated based on detailed ROW assessment;

Preliminary Cost Estimate
Cordova Hills SPA
Proposed Off-Site Intersections

Grant Line Rd. x White Rock Rd. @ 3.200 DUE

Sacramento County

Modify County project (2012/2013) to add second NB left turn lane and receiving lane

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Clear and Grub (including subgrade preparation)	16,500	s.f.	\$0.18	\$2,970.00
2.	Pavement Removal (including saw cut)	2,750	s.f.	\$1.70	\$4,675.00
3.	Utility Pole Relocation	0	l.f.	\$50.00	\$0.00
4.	Roadway Excavation (section plus median, as required)	790	c.y.	\$30.00	\$23,700.00
5.	5.5" Asphaltic Concrete Paving	11,700	s.f.	\$3.85	\$45,045.00
6.	20.5" Aggregate Base	11,700	s.f.	\$5.75	\$67,275.00
7.	Median Curb, Type 5 (6" Barrier Curb)	500	l.f.	\$18.00	\$9,000.00
8.	Modification to Pedestrian Island	0	ea.	\$1,000.00	\$0.00
9.	PCC Sidewalk w/ 6" AB	0	s.f.	\$6.00	\$0.00
10.	Pedestrian Ramps	0	ea.	\$5,500.00	\$0.00
11.	Pedestrian Landings w/ 3-5/8" PCC & 6" AB	0	ea.	\$3,000.00	\$0.00
12.	4" AC Path (between Ped. Landings)	0	s.f.	\$2.80	\$0.00
13.	Local Drainage - Roadside Ditch	980	l.f.	\$17.00	\$16,660.00
14.	Traffic Signal Interconnect	0	l.f.	\$13.00	\$0.00
15.	Traffic Signal	0	ea.	\$300,000.00	\$0.00
16.	Traffic Signal Modification (single pedestal)	1	ea.	\$50,000.00	\$50,000.00
17.	Traffic Signal Relocation	0	ea.	\$100,000.00	\$0.00
18.	Street Light Relocation	0	ea.	\$2,000.00	\$0.00
19.	Striping removal and slurry seal of affected area	46,500	sf	\$0.50	\$23,250.00
20.	Signing & Striping	2,600	l.f.	\$2.00	\$5,200.00
21.	Erosion Control	1,400	LF	\$6.00	\$8,400.00
			Subtotal		\$256,175.00
			35% Cost Contingency		\$89,661.25
22.	Right of Way Acquisition	10.00	%	\$256,175.00	\$25,617.50
			Total		\$371,453.75
			Use		\$371,460.00

Notes:

1. Refer to Exhibit #7 for graphical representation of the improvements listed above.
3. Exist. ROW is sufficient to allow implementation of req'd improvements within.
4. This estimate excludes the following:
 - a. Joint Trench costs
 - b. Frontage, Landscaping, and Soundwall
 - c. Impact/Mitigation Requirements
5. Improvements incl. req'd lane addition for 450' on NB approach and full length on NB departure (concurrent 4-lane segment widening southbound from intersection)
6. Assumes utility pole relocation to their ultimate location as part of preceeding County White Rock Road widening project.

Preliminary Cost Estimate
Cordova Hills SPA
Proposed Off-Site Intersections

Zinfandel Rd. x White Rock Rd.
Sacramento County
Provide WB dual right

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Clear and Grub (including subgrade preparation)	6,100	s.f.	\$0.18	\$1,098.00
2.	Pavement Removal (including saw cut)	700	s.f.	\$1.70	\$1,190.00
3.	Utility Pole Relocation	0	l.f.	\$50.00	\$0.00
4.	Roadway Excavation (section plus median, as required)	320	c.y.	\$30.00	\$9,600.00
5.	5.5" Asphaltic Concrete Paving	3,900	s.f.	\$3.85	\$15,015.00
6.	20.5" Aggregate Base	3,900	s.f.	\$5.75	\$22,425.00
7.	Median Curb, Type 5 (6" Barrier Curb)	0	l.f.	\$18.00	\$0.00
8.	Modification to Pedestrian Island	0	ea.	\$1,000.00	\$0.00
9.	Pedestrian Ramps	1	ea.	\$5,500.00	\$5,500.00
10.	Pedestrian Landings w/ 3-5/8" PCC & 6" AB	0	ea.	\$3,000.00	\$0.00
11.	4" AC Path (between Ped. Landings)	0	s.f.	\$2.80	\$0.00
12.	Local Drainage - Roadside Ditch	350	l.f.	\$17.00	\$5,950.00
13.	Traffic Signal Interconnect	350	l.f.	\$13.00	\$4,550.00
14.	Traffic Signal	0	ea.	\$300,000.00	\$0.00
15.	Traffic Signal Modification (all pedestals)	1	ea.	\$150,000.00	\$150,000.00
16.	Traffic Signal Relocation	1	ea.	\$100,000.00	\$100,000.00
17.	Street Light Relocation	2	ea.	\$2,000.00	\$4,000.00
18.	Striping removal and slurry seal of affected area	46,500	sf	\$0.50	\$23,250.00
18.	Signing & Striping	160	l.f.	\$2.00	\$320.00
20.	Erosion Control	450	LF	\$6.00	\$2,700.00
				Subtotal	\$345,598.00
				35% Cost Contingency	\$120,959.30
20.	Right of Way Acquisition	10.00	%	\$345,598.00	\$34,559.80
				Total	\$501,117.10
				Use	\$501,120.00

Notes:

1. Refer to Exhibit #12 for graphical representation of the improvements listed above.
2. This estimate excludes the following:
 - a. Joint Trench costs
 - b. Frontage, Landscaping, and Soundwall
 - c. Impact/Mitigation Requirements
3. ROW acquisition cost is place holder estimate only - to be updated based on detailed ROW assessment;
4. Assumes widening to be City project with utility pole relocation cost borne by SMUD.

Preliminary Cost Estimate
Cordova Hills SPA
Proposed Off-Site Intersections

Sunrise Blvd. x White Rock Rd.
Sacramento County
Provide EB/WB overlap phasing

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Clear and Grub (including subgrade preparation)	0	s.f.	\$0.18	\$0.00
2.	Pavement Removal (including saw cut)	0	s.f.	\$1.70	\$0.00
3.	Utility Pole Relocation	0	l.f.	\$50.00	\$0.00
4.	Roadway Excavation (section plus median, as required)	0	c.y.	\$30.00	\$0.00
5.	5.5" Asphaltic Concrete Paving	0	s.f.	\$3.85	\$0.00
6.	20.5" Aggregate Base	0	s.f.	\$5.75	\$0.00
7.	Curb & Gutter, Type 2 (Vertical Curb & Gutter)	0	l.f.	\$25.00	\$0.00
8.	Median Curb, Type 5 (6" Barrier Curb)	0	l.f.	\$18.00	\$0.00
9.	Modification to Pedestrian Island	0	ea.	\$1,000.00	\$0.00
10.	PCC Sidewalk w/ 6" AB	0	s.f.	\$6.00	\$0.00
11.	Pedestrian Ramps	0	ea.	\$5,500.00	\$0.00
12.	Pedestrian Landings w/ 3-5/8" PCC & 6" AB	0	ea.	\$3,000.00	\$0.00
13.	4" AC Path (between Ped. Landings)	0	s.f.	\$2.80	\$0.00
14.	Local Drainage - Roadside Ditch	0	l.f.	\$17.00	\$0.00
15.	Traffic Signal Interconnect	0	l.f.	\$13.00	\$0.00
16.	Traffic Signal	0	ea.	\$300,000.00	\$0.00
17.	Traffic Signal Modification (Overlap Phasing)	1	ea.	\$5,000.00	\$5,000.00
18.	Traffic Signal Relocation	0	ea.	\$100,000.00	\$0.00
19.	Street Light Relocation	0	ea.	\$2,000.00	\$0.00
20.	Striping removal and slurry seal of affected area	0	sf	\$0.50	\$0.00
20.	Signing & Striping	0	l.f.	\$2.00	\$0.00
22.	Erosion Control	0	LF	\$6.00	\$0.00
22.	Right of Way Acquisition	0.00	ac.	\$50,000.00	\$0.00
			Subtotal		\$5,000.00
			35% Cost Contingency		\$1,750.00
			Total		\$6,750.00
			Use		\$6,750.00

Preliminary Cost Estimate
Cordova Hills SPA
Proposed Off-Site Intersections

7968.10
rev.: August 7, 2012
by: HF

Sunrise Blvd. x Douglas Rd.
Sacramento County
Provide WB overlap phasing

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Clear and Grub (including subgrade preparation)	0	s.f.	\$0.18	\$0.00
2.	Pavement Removal (including saw cut)	0	s.f.	\$1.70	\$0.00
3.	Utility Pole Relocation	0	l.f.	\$50.00	\$0.00
4.	Roadway Excavation (section plus median, as required)	0	c.y.	\$30.00	\$0.00
5.	5.5" Asphaltic Concrete Paving	0	s.f.	\$3.85	\$0.00
6.	20.5" Aggregate Base	0	s.f.	\$5.75	\$0.00
7.	Curb & Gutter, Type 2 (Vertical Curb & Gutter)	0	l.f.	\$25.00	\$0.00
8.	Median Curb, Type 5 (6" Barrier Curb)	0	l.f.	\$18.00	\$0.00
9.	Modification to Pedestrian Island	0	ea.	\$1,000.00	\$0.00
10.	PCC Sidewalk w/ 6" AB	0	s.f.	\$6.00	\$0.00
11.	Pedestrian Ramps	0	ea.	\$5,500.00	\$0.00
12.	Pedestrian Landings w/ 3-5/8" PCC & 6" AB	0	ea.	\$3,000.00	\$0.00
13.	4" AC Path (between Ped. Landings)	0	s.f.	\$2.80	\$0.00
14.	Local Drainage - Roadside Ditch	0	l.f.	\$17.00	\$0.00
15.	Traffic Signal Interconnect	0	l.f.	\$13.00	\$0.00
16.	Traffic Signal	0	ea.	\$300,000.00	\$0.00
17.	Traffic Signal Modification (Overlap Phasing)	1	ea.	\$5,000.00	\$5,000.00
18.	Traffic Signal Relocation	0	ea.	\$100,000.00	\$0.00
19.	Street Light Relocation	0	ea.	\$2,000.00	\$0.00
20.	Signing & Striping	0	l.f.	\$2.00	\$0.00
21.	Right of Way Acquisition	0.00	ac.	\$50,000.00	\$0.00
			Subtotal		\$5,000.00
			35% Cost Contingency		\$1,750.00
			Total		\$6,750.00
			Use		\$6,750.00

Preliminary Cost Estimate
Cordova Hills SPA
Proposed Off-Site Intersections

Sunrise Blvd. x Douglas Rd. C+P
Sacramento County
Provide EB/WB right overlap phasing

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Clear and Grub (including subgrade preparation)	0	s.f.	\$0.18	\$0.00
2.	Pavement Removal (including saw cut)	0	s.f.	\$1.70	\$0.00
3.	Utility Pole Relocation	0	l.f.	\$50.00	\$0.00
4.	Roadway Excavation (section plus median, as required)	0	c.y.	\$30.00	\$0.00
5.	5.5" Asphaltic Concrete Paving	0	s.f.	\$3.85	\$0.00
6.	20.5" Aggregate Base	0	s.f.	\$5.75	\$0.00
7.	Curb & Gutter, Type 2 (Vertical Curb & Gutter)	0	l.f.	\$25.00	\$0.00
8.	Median Curb, Type 5 (6" Barrier Curb)	0	l.f.	\$18.00	\$0.00
9.	Modification to Pedestrian Island	0	ea.	\$1,000.00	\$0.00
10.	PCC Sidewalk w/ 6" AB	0	s.f.	\$6.00	\$0.00
11.	Pedestrian Ramps	0	ea.	\$5,500.00	\$0.00
12.	Pedestrian Landings w/ 3-5/8" PCC & 6" AB	0	ea.	\$3,000.00	\$0.00
13.	4" AC Path (between Ped. Landings)	0	s.f.	\$2.80	\$0.00
14.	Local Drainage - Roadside Ditch	0	l.f.	\$17.00	\$0.00
15.	Traffic Signal Interconnect	0	l.f.	\$13.00	\$0.00
16.	Traffic Signal	0	ea.	\$300,000.00	\$0.00
17.	Traffic Signal Modification (Overlap Phasing)	1	ea.	\$5,000.00	\$5,000.00
18.	Traffic Signal Relocation	0	ea.	\$100,000.00	\$0.00
19.	Street Light Relocation	0	ea.	\$2,000.00	\$0.00
20.	Signing & Striping	0	l.f.	\$2.00	\$0.00
21.	Right of Way Acquisition	0.00	ac.	\$50,000.00	\$0.00
			Subtotal		\$5,000.00
			35% Cost Contingency		\$1,750.00
			Total		\$6,750.00
			Use		\$6,750.00

Preliminary Cost Estimate
Cordova Hills SPA
Proposed Off-Site Intersections

Sunrise Blvd. x Jackson Rd. @ 3,200 DUE
Sacramento County

Provide EB left, through, & shared through/right and WB left, dual through, & right

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Clear and Grub (including subgrade preparation)	20,300	s.f.	\$0.18	\$3,654.00
2.	Pavement Removal (including saw cut)	3,280	s.f.	\$1.70	\$5,576.00
3.	Utility Pole Relocation	0	l.f.	\$50.00	\$0.00
4.	Roadway Excavation (section plus median, as required)	1,008	c.y.	\$30.00	\$30,240.00
5.	5.5" Asphaltic Concrete Paving	12,560	s.f.	\$3.85	\$48,356.00
6.	20.5" Aggregate Base	12,560	s.f.	\$5.75	\$72,220.00
7.	Median Curb, Type 5 (6" Barrier Curb)	0	l.f.	\$18.00	\$0.00
8.	Modification to Pedestrian Island	0	ea.	\$1,000.00	\$0.00
9.	Pedestrian Ramps	8	ea.	\$5,500.00	\$44,000.00
10.	Pedestrian Landings w/ 3-5/8" PCC & 6" AB	8	ea.	\$3,000.00	\$24,000.00
11.	4" AC Path (between Ped. Landings)	120	s.f.	\$2.80	\$336.00
12.	Local Drainage - Roadside Ditch	1,290	l.f.	\$17.00	\$21,930.00
13.	Traffic Signal Interconnect	620	l.f.	\$13.00	\$8,060.00
14.	Traffic Signal	0	ea.	\$300,000.00	\$0.00
15.	Traffic Signal Modification (all pedestals)	1	ea.	\$150,000.00	\$150,000.00
16.	Traffic Signal Relocation	1	ea.	\$100,000.00	\$100,000.00
17.	Street Light Relocation	0	ea.	\$2,000.00	\$0.00
18.	Striping removal and slurry seal of affected area	8,800	sf	\$0.50	\$4,400.00
19.	Signing & Striping	4,300	l.f.	\$2.00	\$8,600.00
20.	Bridge Reconstruction (6-lane capacity)	6,480	s.f.	\$200.00	\$1,296,000.00
21.	Erosion Control	1,300	LF	\$6.00	\$7,800.00
			Subtotal		\$1,825,172.00
			35% Cost Contingency		\$638,810.20
22.	Right of Way Acquisition	10.00	%	\$529,172.00	\$52,917.20
			Total		\$2,516,899.40
			Use		\$2,516,900.00

Notes:

1. Refer to Exhibit #16 for graphical representation of the improvements listed above.
2. This estimate excludes the following:
 - a. Joint Trench costs
 - b. Frontage, Landscaping, and Soundwall
 - d. Impact/Mitigation Requirements
4. ROW acquisition cost is place holder estimate only - to be updated based on detailed ROW assessment;

Preliminary Cost Estimate
Cordova Hills SPA
Proposed Off-Site Intersections

Grant Line Rd. x Jackson Rd. @ 500 DUE
Sacramento County

Provide signal modification; EB/WB T+(T+R)combined+L; NB/SB (T+R)combined+L
(widen exist. pavement)

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Clear and Grub (including subgrade preparation)	47,800	s.f.	\$0.18	\$8,604.00
2.	Pavement Removal (including saw cut)	4,060	s.f.	\$1.70	\$6,902.00
3.	Utility Pole Relocation	2	ea.	\$15,000.00	\$30,000.00
4.	Roadway Excavation (section plus median, as required)	3,840	c.y.	\$30.00	\$115,200.00
5.	5.5" Asphaltic Concrete Paving	47,800	s.f.	\$3.85	\$184,030.00
6.	20.5" Aggregate Base	47,800	s.f.	\$5.75	\$274,850.00
7.	Median Curb, Type 5 (6" Barrier Curb)	0	l.f.	\$18.00	\$0.00
8.	Pedestrian Ramps	0	ea.	\$5,500.00	\$0.00
9.	Pedestrian Landings w/ 3-5/8" PCC & 6" AB	0	ea.	\$3,000.00	\$0.00
10.	4" AC Path (between Ped. Landings)	0	s.f.	\$2.80	\$0.00
11.	Local Drainage - Roadside Ditch	4,100	l.f.	\$17.00	\$69,700.00
12.	Traffic Signal Interconnect	0	l.f.	\$13.00	\$0.00
13.	Traffic Signal	0	ea.	\$300,000.00	\$0.00
14.	Traffic Signal Modification (all pedestals)	1	ea.	\$150,000.00	\$150,000.00
15.	Traffic Signal Relocation	0	ea.	\$100,000.00	\$0.00
16.	Striping removal and slurry seal of affected area	103,000	sf	\$0.50	\$51,500.00
17.	Signing & Striping	11,800	l.f.	\$2.00	\$23,600.00
18.	Erosion Control	1,600	LF	\$6.00	\$9,600.00
				Subtotal	\$923,986.00
				35% Cost Contingency	\$323,395.10
18.	Right of Way Acquisition	10.00	%	\$923,986.00	\$92,398.60
			Total		\$1,339,779.70
			Use		\$1,339,800.00

Notes:

- Refer to Exhibit #17 for graphical representation of the improvements listed above.
- ROW acquisition cost is place holder estimate only - to be updated based on detailed ROW assessment;
- This estimate excludes the following:
 - Joint Trench costs
 - Frontage, Landscaping, and Soundwall
 - Impact/Mitigation Requirements
- Improvements full lengths of req'd merges and lane additions, all legs (widen of exist.; no concurrent segment widening req'd).

Preliminary Cost Estimate
Cordova Hills SPA
Proposed Off-Site Intersections

Grant Line Rd. x Jackson Rd. @ 3,200 DUE
Sacramento County

Provide signal modification; EB T+(T+R)combined+2L; WB T+(T+R)combined+L; NB/SB T+(T+R)combined+L
(widen exist. pavement)

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Clear and Grub (including subgrade preparation)	30,848	s.f.	\$0.18	\$5,552.64
2.	Pavement Removal (including saw cut)	7,600	s.f.	\$1.70	\$12,920.00
3.	Utility Pole Relocation	950	l.f.	\$50.00	\$47,500.00
4.	Roadway Excavation (section plus median, as required)	1,630	c.y.	\$30.00	\$48,900.00
5.	5.5" Asphaltic Concrete Paving	30,850	s.f.	\$3.85	\$118,772.50
6.	20.5" Aggregate Base	30,850	s.f.	\$5.75	\$177,387.50
7.	Median Curb, Type 5 (6" Barrier Curb)	1,800	l.f.	\$18.00	\$32,400.00
8.	Pedestrian Ramps	0	ea.	\$5,500.00	\$0.00
9.	Pedestrian Landings w/ 3-5/8" PCC & 6" AB	0	ea.	\$3,000.00	\$0.00
10.	4" AC Path (between Ped. Landings)	0	s.f.	\$2.80	\$0.00
11.	Local Drainage - Roadside Ditch	4,100	l.f.	\$17.00	\$69,700.00
12.	Traffic Signal Interconnect	0	l.f.	\$13.00	\$0.00
13.	Traffic Signal	0	ea.	\$300,000.00	\$0.00
14.	Traffic Signal Modification (all pedestals)	1	ea.	\$150,000.00	\$150,000.00
15.	Traffic Signal Relocation	0	ea.	\$100,000.00	\$0.00
16.	Striping removal and slurry seal of affected area	57,100	sf	\$0.50	\$28,550.00
17.	Signing & Striping	8,800	l.f.	\$2.00	\$17,600.00
18.	Erosion Control	4,100	LF	\$6.00	\$24,600.00
				Subtotal	\$733,882.64
				35% Cost Contingency	\$256,858.92
18.	Right of Way Acquisition	10.00	%	\$733,882.64	\$73,388.26
				Total	\$1,064,129.83
				Use	\$1,064,200.00

Notes:

- Refer to Exhibit #17 for graphical representation of the improvements listed above.
- ROW acquisition cost is place holder estimate only - to be updated based on detailed ROW assessment;
- This estimate excludes the following:
 - Joint Trench costs
 - Frontage, Landscaping, and Soundwall
 - Impact/Mitigation Requirements
- Improvements incl. full lengths of req'd merges and lane additions on east, west, and south legs, and 450' of north leg;
- concurrent 4-lane segment widening north of intersection

Preliminary Cost Estimate
Cordova Hills SPA
Proposed Off-Site Intersections

Grant Line Rd. x Kiefer Blvd. @ 2,000 DUE
Sacramento County

Signalize and provide NB/SB left & shared through/right and EB/WB shared through/left/right

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Clear and Grub (including subgrade preparation)	16,200	s.f.	\$0.18	\$2,916.00
2.	Pavement Removal (including saw cut)	1,630	s.f.	\$1.70	\$2,771.00
3.	Utility Pole Relocation	950	l.f.	\$50.00	\$47,500.00
4.	Roadway Excavation (section plus median, as required)	1,300	c.y.	\$30.00	\$39,000.00
5.	5.5" Asphaltic Concrete Paving	16,200	s.f.	\$3.85	\$62,370.00
6.	20.5" Aggregate Base	16,200	s.f.	\$5.75	\$93,150.00
7.	Median Curb, Type 5 (6" Barrier Curb)	0	l.f.	\$18.00	\$0.00
8.	Pedestrian Ramps	0	ea.	\$5,500.00	\$0.00
9.	Pedestrian Landings w/ 3-5/8" PCC & 6" AB	0	ea.	\$3,000.00	\$0.00
10.	4" AC Path (between Ped. Landings)	0	s.f.	\$2.80	\$0.00
11.	Local Drainage - Roadside Ditch	1,930	l.f.	\$17.00	\$32,810.00
12.	Traffic Signal Interconnect	1,200	l.f.	\$13.00	\$15,600.00
13.	Traffic Signal	1	ea.	\$300,000.00	\$300,000.00
14.	Traffic Signal Modification (all pedestals)	0	ea.	\$150,000.00	\$0.00
15.	Traffic Signal Relocation	0	ea.	\$100,000.00	\$0.00
16.	Street Light Relocation	0	ea.	\$2,000.00	\$0.00
17.	Striping removal and slurry seal of affected area	23,000	sf	\$0.50	\$11,500.00
17.	Signing & Striping	5,250	l.f.	\$2.00	\$10,500.00
19.	Erosion Control	1,600	LF	\$6.00	\$9,600.00
			Subtotal		\$627,717.00
			35% Cost Contingency		\$219,700.95
19.	Right of Way Acquisition	10.00	%	\$627,717.00	\$62,771.70
			Total		\$910,189.65
			Use		\$910,190.00

Notes:

1. Refer to Exhibit #18 for graphical representation of the improvements listed above.
3. ROW acquisition cost is place holder estimate only - to be updated based on detailed ROW assessment;
4. This estimate excludes the following:
 - a. Joint Trench costs
 - b. Frontage, Landscaping, and Soundwall
 - c. Impact/Mitigation Requirements
5. Improvements incl. full lengths of req'd transitions and lane addition.

Preliminary Cost Estimate
Cordova Hills SPA
Proposed Off-Site Intersections

Grant Line Rd. x Kiefer Blvd. @ 3,200 DUE
Sacramento County

Modify signalize and provide NB/SB L+T+(T+R)combined; EB/WB L+(T+R)combined
(Grant Line Road legs part of Grant Line Road 4-lane segment widening estimate)

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Clear and Grub (including subgrade preparation)	7,000	s.f.	\$0.18	\$1,260.00
2.	Pavement Removal (including saw cut)	720	s.f.	\$1.70	\$1,224.00
3.	Utility Pole Relocation	0	l.f.	\$50.00	\$0.00
4.	Roadway Excavation (section plus median, as required)	580	c.y.	\$30.00	\$17,400.00
5.	5.5" Asphaltic Concrete Paving	7,200	s.f.	\$3.85	\$27,720.00
6.	20.5" Aggregate Base	7,200	s.f.	\$5.75	\$41,400.00
7.	Median Curb, Type 5 (6" Barrier Curb)	0	l.f.	\$18.00	\$0.00
8.	Pedestrian Ramps	0	ea.	\$5,500.00	\$0.00
9.	Pedestrian Landings w/ 3-5/8" PCC & 6" AB	0	ea.	\$3,000.00	\$0.00
10.	4" AC Path (between Ped. Landings)	0	s.f.	\$2.80	\$0.00
11.	Local Drainage - Roadside Ditch	720	l.f.	\$17.00	\$12,240.00
12.	Traffic Signal Interconnect	0	l.f.	\$13.00	\$0.00
13.	Traffic Signal	0	ea.	\$300,000.00	\$0.00
14.	Traffic Signal Modification (all pedestals)	1	ea.	\$150,000.00	\$150,000.00
15.	Traffic Signal Relocation	0	ea.	\$100,000.00	\$0.00
16.	Street Light Relocation	0	ea.	\$2,000.00	\$0.00
17.	Striping removal and slurry seal of affected area	19,400	sf	\$0.50	\$9,700.00
17.	Signing & Striping	1,440	l.f.	\$2.00	\$2,880.00
19.	Erosion Control	720	LF	\$6.00	\$4,320.00
			Subtotal		\$268,144.00
			35% Cost Contingency		\$93,850.40
19.	Right of Way Acquisition	10.00	%	\$268,144.00	\$26,814.40
			Total		\$388,808.80
			Use		\$388,810.00

Notes:

1. Refer to Exhibit #18 for graphical representation of the improvements listed above.
3. ROW acquisition cost is place holder estimate only - to be updated based on detailed ROW assessment;
4. This estimate excludes the following:
 - a. Joint Trench costs
 - b. Frontage, Landscaping, and Soundwall
 - c. Impact/Mitigation Requirements
 - d. Utility pole relocation cost - assumes relocation as part of 2,000 DUE improvement project
5. Improvements incl. full lengths of req'd transitions and lane addition.

Preliminary Cost Estimate
Cordova Hills SPA
Proposed Off-Site Intersections

Grant Line Rd. x Douglas Rd. @ 850 DUE
Sacramento County

Signalize and provide NB dual left & through, SB through & right plus departure, EB left & right

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Clear and Grub (including subgrade preparation)	55,800	s.f.	\$0.18	\$10,044.00
2.	Pavement Removal (including saw cut)	4,700	s.f.	\$1.70	\$7,990.00
3.	Utility Pole Relocation	0	l.f.	\$50.00	\$0.00
4.	Roadway Excavation (section plus median, as required)	4,480	c.y.	\$30.00	\$134,400.00
5.	5.5" Asphaltic Concrete Paving	55,800	s.f.	\$3.85	\$214,830.00
6.	20.5" Aggregate Base	55,800	s.f.	\$5.75	\$320,850.00
7.	Median Curb, Type 5 (6" Barrier Curb)	1,800	l.f.	\$18.00	\$32,400.00
8.	Median landscaping (shrubs - water truck irrigation)	4,890	s.f.	\$6.00	\$29,340.00
9.	Pedestrian Ramps	0	ea.	\$5,500.00	\$0.00
10.	Pedestrian Landings w/ 3-5/8" PCC & 6" AB	0	ea.	\$3,000.00	\$0.00
11.	4" AC Path (5' wide, temp., County side only)	4,670	s.f.	\$2.80	\$13,076.00
12.	Local Drainage - Roadside Ditch	950	l.f.	\$17.00	\$16,150.00
13.	Traffic Signal Interconnect	950	l.f.	\$13.00	\$12,350.00
14.	Traffic Signal	1	ea.	\$200,000.00	\$200,000.00
15.	Striping removal and slurry seal of affected area	52,200	sf	\$0.50	\$26,100.00
16.	Signing & Striping	5,180	l.f.	\$2.00	\$10,360.00
17.	Erosion Control	1,600	LF	\$6.00	\$9,600.00
			Subtotal		\$1,037,490.00
			35% Cost Contingency		\$363,121.50
18.	Right of Way Acquisition	10.00	%	\$1,037,490.00	\$103,749.00
			Total		\$1,504,360.50
			Use		\$1,504,370.00

Notes:

1. ROW acquisition cost is place holder estimate only - to be updated based on detailed ROW assessment;
2. This estimate excludes the following:
 - a. Joint Trench costs
 - b. Frontage, Landscaping, and Soundwall
 - c. Impact/Mitigation Requirements
 - d. Does not consider future extension to the east
 - e. utility pole relocation - assumes relocation by SMUD as part of 69kV bring-up to project
3. Improvements include widening of exist. pavement for full length of transitions and lane additions req'd (all legs)

Preliminary Cost Estimate
Cordova Hills SPA
Proposed Off-Site Intersections

Grant Line Rd. x Douglas Rd. @ 1,800 DUE

Sacramento County

Signalize and provide NB dual left & dual through, SB through & shared through/right plus departure, & U-turn
EB left & free right

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Clear and Grub (including subgrade preparation)	39,000	s.f.	\$0.18	\$7,020.00
2.	Pavement Removal (including saw cut)	2,950	s.f.	\$1.70	\$5,015.00
3.	Utility Pole Relocation	0	l.f.	\$50.00	\$0.00
4.	Roadway Excavation (section plus median, as required)	3,130	c.y.	\$30.00	\$93,900.00
5.	5.5" Asphaltic Concrete Paving	39,000	s.f.	\$3.85	\$150,150.00
6.	20.5" Aggregate Base	39,000	s.f.	\$5.75	\$224,250.00
7.	Median Curb, Type 5 (6" Barrier Curb)	0	l.f.	\$18.00	\$0.00
8.	Median landscaping (shrubs - water truck irrigation)	0	s.f.	\$6.00	\$0.00
9.	Pedestrian Ramps	0	ea.	\$5,500.00	\$0.00
10.	Pedestrian Landings w/ 3-5/8" PCC & 6" AB	0	ea.	\$3,000.00	\$0.00
11.	4" AC Path (5' wide, temp., County side only)	0	s.f.	\$2.80	\$0.00
12.	Local Drainage - Street Storm Drain System	0	l.f.	\$25.00	\$0.00
13.	Traffic Signal Interconnect	0	l.f.	\$13.00	\$0.00
14.	Traffic Signal	0	ea.	\$200,000.00	\$0.00
15.	Traffic Signal Modification (all pedestals)	1	ea.	\$150,000.00	\$150,000.00
16.	Traffic Signal Relocation	0	ea.	\$100,000.00	\$0.00
17.	Street Light Relocation	0	ea.	\$2,000.00	\$0.00
18.	Striping removal and slurry seal of affected area	38,000	sf	\$0.50	\$19,000.00
18.	Signing & Striping	4,100	l.f.	\$2.00	\$8,200.00
18.	Erosion Control	3,600	LF	\$6.00	\$21,600.00
			Subtotal		\$679,135.00
			35% Cost Contingency		\$237,697.25
20.	Right of Way Acquisition	10.00	%	\$679,135.00	\$67,913.50
			Total		\$984,745.75
			Use		\$984,750.00

Notes:

1. ROW acquisition cost is place holder estimate only - to be updated based on detailed ROW assessment;
2. This estimate excludes the following:
 - a. Joint Trench costs
 - b. Frontage, Landscaping, and Soundwall
 - c. Impact/Mitigation Requirements
 - d. Does not consider future extension to the east
 - e. utility pole relocation - assumes relocation by SMUD as part of 69kV bring-up to project
3. Improvements include widening of exist. pavement for full length of transitions and lane additions req'd (all legs)
(concurrent 4-lane widening 450' south of intersection estimated separately)

Preliminary Cost Estimate
Cordova Hills SPA
Proposed Off-Site Intersections

Grant Line Rd. x Douglas Rd. (@ 6,500 DUE - 6-lane widening)
Sacramento County
(concurrent 6-lane widening of Grant Line Rd. between Douglas and North Loop)

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Clear and Grub (including subgrade preparation)	29,000	s.f.	\$0.18	\$5,220.00
2.	Pavement Removal (including saw cut)	2,100	s.f.	\$1.70	\$3,570.00
3.	Utility Pole Relocation	0	l.f.	\$50.00	\$0.00
4.	Roadway Excavation (section plus median, as required)	2,350	c.y.	\$30.00	\$70,500.00
5.	5.5" Asphaltic Concrete Paving	29,000	s.f.	\$3.85	\$111,650.00
6.	20.5" Aggregate Base	29,000	s.f.	\$5.75	\$166,750.00
7.	Median Curb, Type 5 (6" Barrier Curb)	0	l.f.	\$18.00	\$0.00
8.	Modification to Pedestrian Island	0	ea.	\$1,000.00	\$0.00
9.	Pedestrian Ramps	0	ea.	\$5,500.00	\$0.00
10.	Pedestrian Landings w/ 3-5/8" PCC & 6" AB	0	ea.	\$3,000.00	\$0.00
11.	4" AC Path (between Ped. Landings)	0	s.f.	\$2.80	\$0.00
12.	Local Drainage - Street Storm Drain System	0	l.f.	\$25.00	\$0.00
13.	Traffic Signal Interconnect	0	l.f.	\$13.00	\$0.00
14.	Traffic Signal	0	ea.	\$300,000.00	\$0.00
15.	Traffic Signal Modification (all pedestals)	1	ea.	\$150,000.00	\$150,000.00
16.	Traffic Signal Relocation	0	ea.	\$100,000.00	\$0.00
17.	Street Light Relocation	0	ea.	\$2,000.00	\$0.00
18.	Street Lights - Major Road, Type A 220' spacing	0	l.f.	\$13.00	\$0.00
19.	Striping removal and slurry seal of affected area	45,500	sf	\$0.50	\$22,750.00
20.	Signing & Striping	2,700	l.f.	\$2.00	\$5,400.00
21.	Erosion Control	2,700	LF	\$6.00	\$16,200.00
				Subtotal	\$552,040.00
				35% Cost Contingency	\$193,214.00
22.	Right of Way Acquisition	10.00	%	\$552,040.00	\$55,204.00
				Total	\$800,458.00
				Use	\$800,500.00

Notes:

- Refer to Exhibit #19 for graphical representation of the improvements listed above.
- This estimate excludes the following:
 - Joint Trench costs
 - Frontage, Landscaping, and Soundwall
 - Impact/Mitigation Requirements
 - utility pole relocation - assumes relocation by SMUD as part of 69kV bring-up to project
- Improvements include widening of exist. pavement for full length of transitions and lane additions req'd (all legs) (concurrent 6-lane widening south of intersection estimated separately)

Preliminary Cost Estimate
Cordova Hills SPA
Proposed Off-Site Intersections

Grant Line Rd. x N. Loop Rd.
Sacramento County
(at Connection)

Stop Control on WB approach; NB 1(T+R) combined; SB 1T+1L; North Loop 1L+1R (east leg incl. in on-site segment)

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Clear and Grub (including subgrade preparation)	17,200	s.f.	\$0.18	\$3,096.00
2.	Pavement Removal (including saw cut)	1,603	s.f.	\$1.70	\$2,725.10
3.	Utility Pole Relocation	0	l.f.	\$50.00	\$0.00
4.	Roadway Excavation (section plus median, as required)	1,380	c.y.	\$30.00	\$41,400.00
5.	5.5" Asphaltic Concrete Paving	17,200	s.f.	\$3.85	\$66,220.00
6.	20.5" Aggregate Base	17,200	s.f.	\$5.75	\$98,900.00
7.	Median Curb, Type 5 (6" Barrier Curb)	0	l.f.	\$18.00	\$0.00
8.	Median Curb, Type 4	0	l.f.	\$10.00	\$0.00
9.	Median landscaping (shrubs - water truck irrigation)	0	s.f.	\$6.00	\$0.00
10.	PCC Sidewalk w/ 6" AB	0	s.f.	\$6.00	\$0.00
11.	24" Root Barrier	0	l.f.	\$24.00	\$0.00
12.	Pedestrian Ramps	0	ea.	\$5,500.00	\$0.00
13.	Pedestrian Landings w/ 3-5/8" PCC & 6" AB	0	ea.	\$3,000.00	\$0.00
14.	Local Drainage - Roadside Ditch	1,510	l.f.	\$17.00	\$25,670.00
15.	Local Drainage - Street Storm Drain System	0	l.f.	\$25.00	\$0.00
16.	Traffic Signal Interconnect	0	l.f.	\$13.00	\$0.00
17.	Traffic Signal	0	ea.	\$300,000.00	\$0.00
18.	Striping removal and slurry seal of affected area	57,600	sf	\$0.50	\$28,800.00
19.	Signing & Striping	1	L.S.	\$3,500.00	\$3,500.00
20.	Erosion Control	1,600	LF	\$6.00	\$9,600.00
21.	Right of Way Acquisition	0.00	ac.	\$50,000.00	\$0.00
Subtotal					\$279,911.10
35% Cost Contingency					\$97,968.89
Total					\$377,879.99
Use					\$377,900.00

Notes:

1. This estimate excludes the following:
 - a. Joint Trench costs
 - b. Frontage Landscaping, and Soundwall
 - c. Erosion Control
 - d. utility pole relocation - assumes relocation by SMUD as part of 69kV bring-up to project
2. On-site ROW to be dedicated; Rancho Cordova ROW dedicated per approved SunRidge Tentative Maps
3. On-site improvements east of curb return (full improvements, Section 4A) incl. in on-site CIP
4. Improvements include full northern and southern legs of intersection (widening of exist). - no segment widening contemplated at this threshold.

Preliminary Cost Estimate
Cordova Hills SPA
Proposed Off-Site Intersections

7968.10
rev.: August 6, 2012
by: HF

Grant Line Rd. x N. Loop Rd.
Sacramento County
(@ 1,250 DUE)

Signalize; NB 1(T+R) combined+1U-turn; SB T+2L; North Loop L+R

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Clear and Grub (including subgrade preparation)	8,700	s.f.	\$0.18	\$1,566.00
2.	Pavement Removal (including saw cut)	1,600	s.f.	\$1.70	\$2,720.00
3.	Utility Pole Relocation	0	l.f.	\$50.00	\$0.00
4.	Roadway Excavation (section plus median, as required)	570	c.y.	\$30.00	\$17,100.00
5.	5.5" Asphaltic Concrete Paving	8,700	s.f.	\$3.85	\$33,495.00
6.	20.5" Aggregate Base	8,700	s.f.	\$5.75	\$50,025.00
7.	Median Curb, Type 5 (6" Barrier Curb)	0	l.f.	\$18.00	\$0.00
8.	Median Curb, Type 4	0	l.f.	\$10.00	\$0.00
9.	Median landscaping (shrubs - water truck irrigation)	0	s.f.	\$6.00	\$0.00
10.	PCC Sidewalk w/ 6" AB	0	s.f.	\$6.00	\$0.00
11.	24" Root Barrier	0	l.f.	\$24.00	\$0.00
12.	Pedestrian Ramps	0	ea.	\$5,500.00	\$0.00
13.	Pedestrian Landings w/ 3-5/8" PCC & 6" AB	0	ea.	\$3,000.00	\$0.00
14.	Local Drainage - Roadside Ditch	1,600	l.f.	\$17.00	\$27,200.00
15.	Local Drainage - Street Storm Drain System	0	l.f.	\$25.00	\$0.00
16.	Traffic Signal Interconnect	953	l.f.	\$13.00	\$12,389.00
17.	Traffic Signal (3-way)	1	ea.	\$200,000.00	\$200,000.00
18.	Striping removal and slurry seal of affected area	38,400	sf	\$0.50	\$19,200.00
19.	Signing & Striping	1	L.S.	\$7,500.00	\$7,500.00
20.	Erosion Control	1,500	LF	\$6.00	\$9,000.00
21.	Right of Way Acquisition	0.00	ac.	\$50,000.00	\$0.00
			Subtotal		\$380,195.00
			35% Cost Contingency		\$133,068.25
			Total		\$513,263.25
			Use		\$513,300.00

Notes:

1. This estimate excludes the following:
 - a. Joint Trench costs
 - b. Frontage Landscaping, and Soundwall
 - c. Erosion Control
 - d. utility pole relocation - assumes relocation by SMUD as part of 69kV bring-up to project
2. On-site ROW to be dedicated; Rancho Cordova ROW dedicated per approved SunRidge Tentative Maps
3. On-site improvements east of curb return (full improvements, Section 4A) incl. in on-site CIP
4. Improvements include full northern and southern legs of intersection (widening of exist). - no segment widening contemplated at this threshold.

Preliminary Cost Estimate
Cordova Hills SPA
Proposed Off-Site Intersections

Grant Line Rd. x N. Loop Rd.
Sacramento County
(@ 1,800 DUE)

Signal modificatin; NB 2T+R+U-turn; SB 2T+2L; North Loop 2L+free-R

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Clear and Grub (including subgrade preparation)	52,450	s.f.	\$0.18	\$9,441.00
2.	Pavement Removal (including saw cut)	1,610	s.f.	\$1.70	\$2,737.00
3.	Utility Pole Relocation	0	l.f.	\$50.00	\$0.00
4.	Roadway Excavation (section plus median, as required)	4,200	c.y.	\$30.00	\$126,000.00
5.	5.5" Asphaltic Concrete Paving	52,450	s.f.	\$3.85	\$201,932.50
6.	20.5" Aggregate Base	52,450	s.f.	\$5.75	\$301,587.50
7.	Median Curb, Type 5 (6" Barrier Curb)	950	l.f.	\$18.00	\$17,100.00
8.	Median Curb, Type 4	1,400	l.f.	\$10.00	\$14,000.00
9.	Median landscaping (shrubs - water truck irrigation)	0	s.f.	\$6.00	\$0.00
10.	PCC Sidewalk w/ 6" AB	0	s.f.	\$6.00	\$0.00
11.	24" Root Barrier	0	l.f.	\$24.00	\$0.00
12.	Pedestrian Ramps	5	ea.	\$5,500.00	\$27,500.00
13.	Pedestrian Landings w/ 3-5/8" PCC & 6" AB	2	ea.	\$3,000.00	\$6,000.00
14.	Local Drainage - Roadside Ditch	2,170	l.f.	\$17.00	\$36,890.00
15.	Local Drainage - Street Storm Drain System	0	l.f.	\$25.00	\$0.00
16.	Traffic Signal Interconnect	0	l.f.	\$13.00	\$0.00
17.	Traffic Signal Modification (single pedestal)	1	ea.	\$50,000.00	\$50,000.00
18.	Striping removal and slurry seal of affected area	70,100	sf	\$0.50	\$35,050.00
19.	Signing & Striping	1	L.S.	\$9,000.00	\$9,000.00
20.	Erosion Control	2,170	LF	\$6.00	\$13,020.00
21.	Right of Way Acquisition	0.00	ac.	\$50,000.00	\$0.00
			Subtotal		\$850,258.00
			35% Cost Contingency		\$297,590.30
			Total		\$1,147,848.30
			Use		\$1,147,900.00

Notes:

1. This estimate excludes the following:
 - a. Joint Trench costs
 - b. Frontage Landscaping, and Soundwall
 - c. utility pole relocation - assumes relocation by SMUD as part of 69kV bring-up to project
2. On-site ROW to be dedicated; Rancho Cordova ROW dedicated per approved SunRidge Tentative Maps
3. On-site improvements east of curb return (full improvements, Section 4A) incl. in on-site CIP
4. Improvements include full southern leg and 450 lf of northern leg of of intersection (widening of exist).
5. 4-lane segment widening improvements north of intersection estimated separately.

Preliminary Cost Estimate
Cordova Hills SPA
Proposed Off-Site Intersections

Grant Line Rd. x N. Loop Rd.
Sacramento County
(@ 6,500 DUE)

Signalize; NB 3T+1R+U-turn; SB 3T+2L; North Loop 2L+free-R w/acceleration/merge lane
(re-build western 2/3 of intersection - 4 lanes + median)

ITEM	QUANTITY	UNIT	UNIT PRICE	PER FT COST
1. Clear and Grub (including subgrade preparation)	67,900	s.f.	\$0.18	\$12,222.00
2. Pavement Removal (including saw cut)	45,600	s.f.	\$1.70	\$77,520.00
3. Utility Pole Relocation	0	l.f.	\$50.00	\$0.00
4. Roadway Excavation (section plus median, as required)	2,600	c.y.	\$30.00	\$78,000.00
5. 5.5" Asphaltic Concrete Paving	67,900	s.f.	\$3.85	\$261,415.00
6. 20.5" Aggregate Base	67,900	s.f.	\$5.75	\$390,425.00
7. Median Curb, Type 5 (6" Barrier Curb)	2,320	l.f.	\$18.00	\$41,760.00
8. Median landscaping (shrubs - water truck irrigation)	5,000	s.f.	\$6.00	\$30,000.00
9. PCC Sidewalk w/ 6" AB	0	s.f.	\$6.00	\$0.00
24" Root Barrier	900	l.f.	\$24.00	\$21,600.00
10. Pedestrian Ramps	0	ea.	\$5,500.00	\$0.00
11. Pedestrian Landings w/ 3-5/8" PCC & 6" AB	0	ea.	\$3,000.00	\$0.00
12. Local Drainage - Roadside Ditch	0	l.f.	\$17.00	\$0.00
13. Local Drainage - Street Storm Drain System	1,000	l.f.	\$25.00	\$25,000.00
14. Traffic Signal Interconnect	0	l.f.	\$13.00	\$0.00
15. Traffic Signal Modification (single pedestal)	2	ea.	\$50,000.00	\$100,000.00
16. Striping removal and slurry seal of affected area	44,800	sf	\$0.50	\$22,400.00
17. Signing & Striping	1	L.S.	\$7,500.00	\$7,500.00
18. Erosion Control	2,300	LF	\$6.00	\$13,800.00
19. Right of Way Acquisition	0.00	ac.	\$50,000.00	\$0.00
Subtotal				\$1,081,642.00
35% Cost Contingency				\$378,574.70
Total				\$1,460,216.70
Use				\$1,460,300.00

Notes:

1. This estimate excludes the following:
 - a. Joint Trench costs
 - b. Frontage Landscaping, and Soundwall
 - c. Erosion Control
 - d. utility pole relocation - assumes relocation by SMUD as part of 69kV bring-up to project
2. On-site ROW to be dedicated; Rancho Cordova ROW dedicated per approved SunRidge Tentative Maps
3. On-site improvements east of curb return (full improvements, Section 4A) incl. in on-site CIP
4. 4-lane segment widening improvements north of intersection estimated separately.
5. Incl. full replacement of old 2-lane Grant Line Rd. pavement section.

Preliminary Cost Estimate
Cordova Hills SPA
Proposed Off-Site Intersections

Grant Line Rd. x Chrysanthy Blvd.
Sacramento County

(@ Connection)

Stop Control on WB approach; NB 1(T+R) combined; SB 1T+1L; Chrysanthy 1L+1R (east leg incl. in on-site segment)

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Clear and Grub (including subgrade preparation)	17,200	s.f.	\$0.18	\$3,096.00
2.	Pavement Removal (including saw cut)	1,603	s.f.	\$1.70	\$2,725.10
3.	Utility Pole Relocation	0	l.f.	\$50.00	\$0.00
4.	Roadway Excavation (section plus median, as required)	1,380	c.y.	\$30.00	\$41,400.00
5.	5.5" Asphaltic Concrete Paving	17,200	s.f.	\$3.85	\$66,220.00
6.	20.5" Aggregate Base	17,200	s.f.	\$5.75	\$98,900.00
7.	Median Curb, Type 5 (6" Barrier Curb)	0	l.f.	\$18.00	\$0.00
8.	Median Curb, Type 4	0	l.f.	\$10.00	\$0.00
9.	Median landscaping (shrubs - water truck irrigation)	0	s.f.	\$6.00	\$0.00
10.	PCC Sidewalk w/ 6" AB	0	s.f.	\$6.00	\$0.00
11.	24" Root Barrier	0	l.f.	\$24.00	\$0.00
12.	Pedestrian Ramps	0	ea.	\$5,500.00	\$0.00
13.	Pedestrian Landings w/ 3-5/8" PCC & 6" AB	0	ea.	\$3,000.00	\$0.00
14.	Local Drainage - Roadside Ditch	1,510	l.f.	\$17.00	\$25,670.00
15.	Local Drainage - Street Storm Drain System	0	l.f.	\$25.00	\$0.00
16.	Traffic Signal Interconnect	0	l.f.	\$13.00	\$0.00
17.	Traffic Signal	0	ea.	\$300,000.00	\$0.00
18.	Striping removal and slurry seal of affected area	57,600	sf	\$0.50	\$28,800.00
19.	Signing & Striping	1	L.S.	\$3,500.00	\$3,500.00
20.	Erosion Control	1,600	LF	\$6.00	\$9,600.00
21.	Right of Way Acquisition	0.00	ac.	\$50,000.00	\$0.00
			Subtotal		\$279,911.10
			35% Cost Contingency		\$97,968.89
			Total		\$377,879.99
			Use		\$377,900.00

Notes:

1. This estimate excludes the following:
 - a. Joint Trench costs
 - b. Frontage, Landscaping, and Soundwall
 - c. Erosion Control
 - d. Does not consider future extension to the west
 - e. utility pole relocation - assumes relocation by SMUD as part of 69kV bring-up to project
2. On-site ROW to be dedicated; Rancho Cordova ROW dedicated per approved SunRidge/SunCreek Tentative Maps
3. On-site improvements east of curb return (full improvements, Section 4C) incl. in on-site CIP
4. Improvements include full northern and southern legs of intersection (widening of exist). - no segment widening contemplated at this threshold.

Preliminary Cost Estimate
Cordova Hills SPA
Proposed Off-Site Intersections

Grant Line Rd. x Chrysanthy Blvd.
Sacramento County
(@ 3,700 DUE)

Signalize; (east leg/Chrysanthy built out to full section, segment east of C.R. incl. in on-site costs)

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Clear and Grub (including subgrade preparation)	0	s.f.	\$0.18	\$0.00
2.	Pavement Removal (including saw cut)	0	s.f.	\$1.70	\$0.00
3.	Utility Pole Relocation	0	l.f.	\$50.00	\$0.00
4.	Roadway Excavation (section plus median, as required)	0	c.y.	\$30.00	\$0.00
5.	5.5" Asphaltic Concrete Paving	0	s.f.	\$3.85	\$0.00
6.	20.5" Aggregate Base	0	s.f.	\$5.75	\$0.00
7.	Median Curb, Type 5 (6" Barrier Curb)	0	l.f.	\$18.00	\$0.00
8.	PCC Sidewalk w/ 6" AB	0	s.f.	\$6.00	\$0.00
9.	Pedestrian Ramps	0	ea.	\$5,500.00	\$0.00
10.	Pedestrian Landings w/ 3-5/8" PCC & 6" AB	0	ea.	\$3,000.00	\$0.00
11.	Local Drainage - Roadside Ditch	0	l.f.	\$17.00	\$0.00
12.	Local Drainage - Street Storm Drain System	0	l.f.	\$25.00	\$0.00
13.	Traffic Signal Interconnect	1,000	l.f.	\$13.00	\$13,000.00
14.	Traffic Signal (3-way)	1	ea.	\$200,000.00	\$200,000.00
15.	Signing & Striping	1	L.S.	\$1,500.00	\$1,500.00
16.	Erosion Control	0	LF	\$6.00	\$0.00
17.	Right of Way Acquisition	0.00	ac.	\$50,000.00	\$0.00
			Subtotal		\$214,500.00
			35% Construction Cost Contingency		\$75,075.00
			Total		\$289,575.00
			Use		\$289,580.00

Notes:

1. This estimate excludes the following:
 - a. Joint Trench costs
 - b. Frontage, Landscaping, and Soundwall
 - c. Erosion Control
 - d. Does not consider future extension to the west
 - e. utility pole relocation - assumes relocation by SMUD as part of 69kV bring-up to project
2. On-site improvements east of curb return (full improvements, Section 4C) incl. in on-site CIP
3. On-site ROW to be dedicated; Rancho Cordova ROW dedicated per approved SunRidge/SunCreek Tentative Maps

Preliminary Cost Estimate
Cordova Hills SPA
Proposed Off-Site Intersections

Grant Line Rd. x Chrysanthy Blvd.
Sacramento County

(@ 7,500 DUE) 4-lane widening of adjoining segments north and south of intersection
Signal, NB 2T+R, SB 2T+2L, WB 2L+R (east leg/Chrysanthy built out to full section,
segment east of C.R. incl. in on-site costs)

ITEM	QUANTITY	UNIT	UNIT PRICE	PER FT COST
1. Clear and Grub (including subgrade preparation)	41,800	s.f.	\$0.18	\$7,524.00
2. Pavement Removal (including saw cut)	2,970	s.f.	\$1.70	\$5,049.00
3. Utility Pole Relocation	0	l.f.	\$50.00	\$0.00
4. Roadway Excavation (section plus median, as required)	3,000	c.y.	\$30.00	\$90,000.00
5. 5.5" Asphaltic Concrete Paving	41,800	s.f.	\$3.85	\$160,930.00
6. 20.5" Aggregate Base	41,800	s.f.	\$5.75	\$240,350.00
7. Median Curb, Type 5 (6" Barrier Curb)	1,700	l.f.	\$18.00	\$30,600.00
8. PCC Sidewalk w/ 6" AB	0	s.f.	\$6.00	\$0.00
9. Pedestrian Ramps	4	ea.	\$5,500.00	\$22,000.00
10. Pedestrian Landings w/ 3-5/8" PCC & 6" AB	0	ea.	\$3,000.00	\$0.00
11. Local Drainage - Roadside Ditch	1,000	l.f.	\$17.00	\$17,000.00
12. Local Drainage - Street Storm Drain System	0	l.f.	\$25.00	\$0.00
13. Traffic Signal Interconnect	0	l.f.	\$13.00	\$0.00
14. Traffic Signal Modification (all pedestals)	1	ea.	\$150,000.00	\$150,000.00
15. Striping removal and slurry seal of affected area	37,000	sf	\$0.50	\$18,500.00
16. Signing & Striping	1	L.S.	\$4,000.00	\$4,000.00
17. Erosion Control	2,000	LF	\$6.00	\$12,000.00
18. Right of Way Acquisition	0.00	ac.	\$50,000.00	\$0.00
Subtotal				\$757,953.00
35% Construction Cost Contingency				\$265,283.55
Total				\$1,023,236.55
Use				\$1,023,300.00

Notes:

1. This estimate excludes the following:
 - a. Joint Trench costs
 - b. Frontage, Landscaping, and Soundwall
 - c. Erosion Control
 - d. Does not consider future extension to the west
 - e. utility pole relocation - assumes relocation by SMUD as part of 69kV bring-up to project
2. On-site improvements east of curb return (full improvements, Section 4C) incl. in on-site CIP
3. Improvements include 450 lf of northern and southern legs of intersection (widening of exist).
4. On-site ROW to be dedicated; Rancho Cordova ROW dedicated per approved SunRidge/SunCreek Tentative Maps

Preliminary Cost Estimate
Cordova Hills SPA
Proposed Off-Site Intersections

Grant Line Rd. x University Blvd.
Sacramento County
(@ Connection)

Stop Control on WB approach; NB 1(T+R) combined; SB 1T+1L; University 1L+1R (east leg incl. in on-site segment)

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Clear and Grub (including subgrade preparation)	17,200	s.f.	\$0.18	\$3,096.00
2.	Pavement Removal (including saw cut)	1,603	s.f.	\$1.70	\$2,725.10
3.	Utility Pole Relocation	0	l.f.	\$50.00	\$0.00
4.	Roadway Excavation (section plus median, as required)	1,380	c.y.	\$30.00	\$41,400.00
5.	5.5" Asphaltic Concrete Paving	17,200	s.f.	\$3.85	\$66,220.00
6.	20.5" Aggregate Base	17,200	s.f.	\$5.75	\$98,900.00
7.	Curb & Gutter, Type 2 (Vertical Curb & Gutter)	0	l.f.	\$25.00	\$0.00
8.	Median Curb, Type 5 (6" Barrier Curb)	0	l.f.	\$18.00	\$0.00
9.	Median Curb, Type 4	0	l.f.	\$10.00	\$0.00
10.	Median landscaping (shrubs - water truck irrigation)	0	s.f.	\$6.00	\$0.00
11.	PCC Sidewalk w/ 6" AB	0	s.f.	\$6.00	\$0.00
12.	24" Root Barrier	0	l.f.	\$24.00	\$0.00
13.	Pedestrian Ramps	0	ea.	\$5,500.00	\$0.00
14.	Pedestrian Landings w/ 3-5/8" PCC & 6" AB	0	ea.	\$3,000.00	\$0.00
15.	Local Drainage - Roadside Ditch	1,510	l.f.	\$17.00	\$25,670.00
16.	Local Drainage - Street Storm Drain System	0	l.f.	\$25.00	\$0.00
17.	Traffic Signal Interconnect	0	l.f.	\$13.00	\$0.00
18.	Traffic Signal	0	ea.	\$300,000.00	\$0.00
19.	Striping removal and slurry seal of affected area	57,600	sf	\$0.50	\$28,800.00
20.	Signing & Striping	1	L.S.	\$3,500.00	\$3,500.00
21.	Erosion Control	1,600	LF	\$6.00	\$9,600.00
22.	Right of Way Acquisition	0.00	ac.	\$50,000.00	\$0.00
Subtotal					\$279,911.10
35% Cost Contingency					\$97,968.89
Total					\$377,879.99
Use					\$377,900.00

Notes:

- This estimate excludes the following:
 - Joint Trench costs
 - Frontage Landscaping, and Soundwall
 - Erosion Control
 - utility pole relocation - assumes relocation by SMUD as part of 69kV bring-up to project
- On-site improvements east of curb return (full improvements, Section 4A) incl. in on-site CIP
- Improvements include full northern and southern legs of intersection (widening of exist). - no segment widening contemplated at this threshold.
- On-site ROW to be dedicated; West-side ROW owned by County

Preliminary Cost Estimate
Cordova Hills SPA
Proposed Off-Site Intersections

Grant Line Rd. x University Blvd.
Sacramento County
(@ 1,250 DUE)

Signalize, NB T+R+U-turn; SB 1T+1L+receiving lane; WB 2L+1R
(east leg/University built to full section - incl. in on-site costs east of C.R.)

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Clear and Grub (including subgrade preparation)	15,600	s.f.	\$0.18	\$2,808.00
2.	Pavement Removal (including saw cut)	1,400	s.f.	\$1.70	\$2,380.00
3.	Utility Pole Relocation	0	l.f.	\$50.00	\$0.00
4.	Roadway Excavation (section plus median, as required)	1,200	c.y.	\$30.00	\$36,000.00
5.	5.5" Asphaltic Concrete Paving	15,600	s.f.	\$3.85	\$60,060.00
6.	20.5" Aggregate Base	15,600	s.f.	\$5.75	\$89,700.00
7.	Median Curb, Type 5 (6" Barrier Curb)	0	l.f.	\$18.00	\$0.00
8.	PCC Sidewalk w/ 6" AB	0	s.f.	\$6.00	\$0.00
9.	24" Root Barrier	0	l.f.	\$24.00	\$0.00
10.	Pedestrian Ramps	0	ea.	\$5,500.00	\$0.00
11.	Pedestrian Landings w/ 3-5/8" PCC & 6" AB	0	ea.	\$3,000.00	\$0.00
12.	Local Drainage - Roadside Ditch	0	l.f.	\$17.00	\$0.00
13.	Local Drainage - Street Storm Drain System	0	0	\$25.00	\$0.00
14.	Traffic Signal Interconnect	980	l.f.	\$13.00	\$12,740.00
15.	Traffic Signal (3-way)	1	ea.	\$200,000.00	\$200,000.00
16.	Striping removal and slurry seal of affected area	50,700	sf	\$0.50	\$25,350.00
17.	Signing & Striping	1	L.S.	\$6,000.00	\$6,000.00
18.	Erosion Control	1,600	LF	\$6.00	\$9,600.00
19.	Right of Way Acquisition	0.00	ac.	\$50,000.00	\$0.00
			Subtotal		\$444,638.00
			35% Cost Contingency		\$155,623.30
			Total		\$600,261.30
			Use		\$600,300.00

Notes:

1. This estimate excludes the following:
 - a. Joint Trench costs
 - b. Frontage Landscaping, and Soundwall
 - c. Erosion Control
 - d. utility pole relocation - assumes relocation by SMUD as part of 69kV bring-up to project
2. On-site improvements east of curb return (full improvements, Section 4A) incl. in on-site CIP
3. Improvements include full southern and northern legs of intersection (widening of exist).
4. On-site ROW to be dedicated; West-side ROW owned by County

Preliminary Cost Estimate
Cordova Hills SPA
Proposed Off-Site Intersections

Grant Line Rd. x University Blvd.
Sacramento County

(@ 3,200 DUE) 4-lane widening of adjoining segment south of intersection

Signal, NB 2T+free-R+U-turn, SB 2T+2L, WB 2L+R (east leg/University built to full section - incl. in on-site costs east of C.R.)

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Clear and Grub (including subgrade preparation)	34,000	s.f.	\$0.18	\$6,120.00
2.	Pavement Removal (including saw cut)	7,000	s.f.	\$1.70	\$11,900.00
3.	Utility Pole Relocation	0	l.f.	\$50.00	\$0.00
4.	Roadway Excavation (section plus median, as required)	2,740	c.y.	\$30.00	\$82,200.00
5.	5.5" Asphaltic Concrete Paving	33,600	s.f.	\$3.85	\$129,360.00
6.	20.5" Aggregate Base	33,600	s.f.	\$5.75	\$193,200.00
7.	Median Curb, Type 5 (6" Barrier Curb)	1,720	l.f.	\$18.00	\$30,960.00
8.	PCC Sidewalk w/ 6" AB	0	s.f.	\$6.00	\$0.00
9.	24" Root Barrier	900	l.f.	\$24.00	\$21,600.00
10.	Pedestrian Ramps	7	ea.	\$5,500.00	\$38,500.00
11.	Pedestrian Landings w/ 3-5/8" PCC & 6" AB	3	ea.	\$3,000.00	\$9,000.00
12.	Local Drainage - Roadside Ditch	980	l.f.	\$17.00	\$16,660.00
13.	Local Drainage - Street Storm Drain System	0	0	\$25.00	\$0.00
14.	Traffic Signal Interconnect	0	l.f.	\$13.00	\$0.00
15.	Traffic Signal Modification (single pedestal)	1	ea.	\$50,000.00	\$50,000.00
16.	Striping removal and slurry seal of affected area	46,200	sf	\$0.50	\$23,100.00
17.	Signing & Striping	1	L.S.	\$4,500.00	\$4,500.00
18.	Erosion Control	900	LF	\$6.00	\$5,400.00
19.	Right of Way Acquisition	0.00	ac.	\$50,000.00	\$0.00
			Subtotal		\$622,500.00
			35% Cost Contingency		\$217,875.00
			Total		\$840,375.00
			Use		\$840,400.00

Notes:

1. This estimate excludes the following:
 - a. Joint Trench costs
 - b. Frontage Landscaping, and Soundwall
 - c. utility pole relocation - assumes relocation by SMUD as part of 69kV bring-up to project
2. On-site improvements east of curb return (full improvements, Section 4A) incl. in on-site CIP
3. Improvements include full southern leg and 450 lf of northern leg of of intersection (widening of exist).
4. 4-lane segment widening improvements south of intersection estimated separately.
5. On-site ROW to be dedicated; West-side ROW owned by County

Roadway Cross Section Index
Summary of Preliminary Per Foot Cost Estimates

PROJECT NAME	TOTAL COST PER L.F.
Shoulder Widening to Provide Minimum Pavement Width (incl. Bike & Ped.)	\$404.00
96' R/W (Thoroughfare) Center Section - 4 Lanes	\$1,545.00
96' R/W (Thoroughfare) Center Section - 4 Lanes (no existing roadway)	\$1,387.00
96' R/W (Thoroughfare) Center Section Only - 2 Lanes (off-site)	\$1,053.00
96' R/W (Thoroughfare) Center Section Only - 2 Lanes (Project frontage	\$982.00
outside lane widening (exist. 2- or 4-lane center section)	\$500.00
Frontage - one side only	\$470.00
96' R/W (Thoroughfare) Full Section - 6 Lanes, Curb & Gutter with walk	\$2,014.00
6-Lane Class "C" section w/roadside drainage	\$1,948.00
5' paved walk (2" AC/4" AB) - one side	\$16.28
4-lane Connectorized arterial frontage	\$1,123
4-lane Connectorized arterial section (off-site)	\$815

Roadway Cross Section Index

Preliminary Per Foot Cost Estimate

Shoulders Widening to Provide Minimum Pavement Width (incl. Bike and Ped. Paths)

Project Description:

1' Travel lane, 6' Paved Shoulders & Roadside Ditch (Each Side) = 26'

ITEM	QUANTITY	UNIT	UNIT PRICE	PER FT COST
1. Clear and Grub (including subgrade preparation)	38	s.f.	\$0.18	\$6.84
2. Pavement Removal (including saw cut)	2	s.f.	\$1.70	\$3.40
3. Roadway Excavation (section plus median, as required)	1.0	c.y.	\$30.00	\$30.00
4. 5.5" Asphaltic Concrete Paving	14	s.f.	\$3.85	\$53.90
5. 20.5" Aggregate Base	14	s.f.	\$5.75	\$80.50
6. Local Drainage - Roadside Ditch	2	l.f.	\$17.00	\$34.00
7. Signing & Striping	2	l.f.	\$2.00	\$4.00
8. Erosion Control	1	ea.	\$6.00	\$6.00
9. Traffic Control	1	l.f.	\$10.00	\$10.00
10. Utility Pole Relocation	1	l.f.	\$50.00	\$50.00

Subtotal **\$278.64**

35% (surveys, design, inspection and contingency)

\$97.52

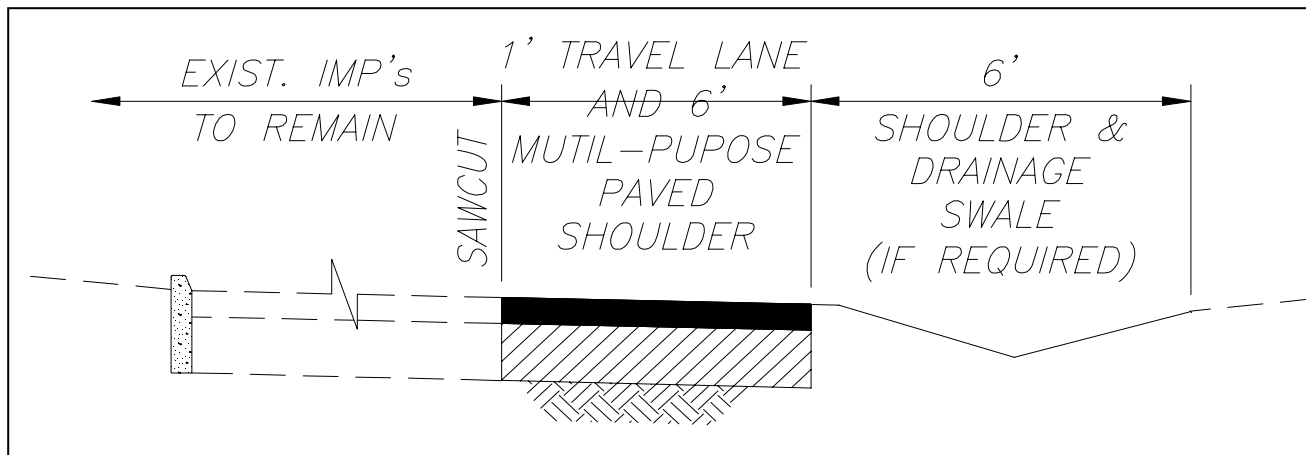
10% (Right-of-Way Acquisition)

\$27.86

Grand Total per Foot **\$404.03**

Notes:

1. Joint Trench costs are excluded.
2. Landscaping and soundwall are excluded.
3. Environmental mitigation not included.
4. incl. 1' of travel lane widening to 12' County standard.

Use **\$404.00**

Roadway Cross Section Index

Preliminary Per Foot Cost Estimate

Typical 96' R/W (Thoroughfare) Center Section Only - 4 Lanes

Project Description:

12' Landscaped Median, 29' Pavement and 6' Roadside Ditch (Each Side) = 82'

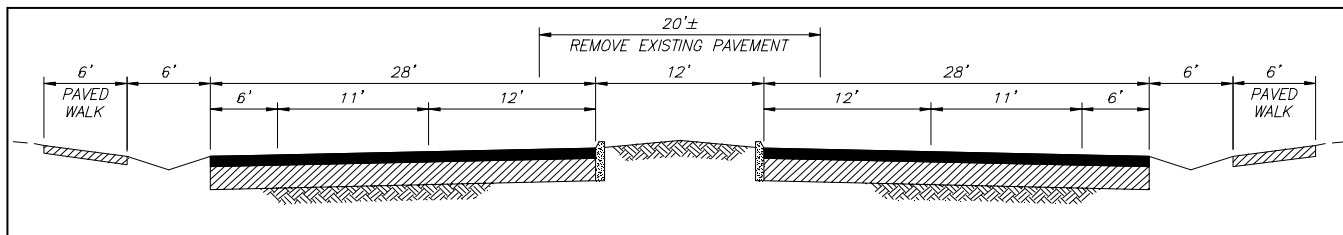
ITEM	QUANTITY	UNIT	UNIT PRICE	PER FT COST
1. Clear and Grub (including subgrade preparation)	82	s.f.	\$0.18	\$14.76
2. Pavement Removal (including saw cut)	20	s.f.	\$1.70	\$34.00
3. Roadway Excavation (section plus median, as required)	5.6	c.y.	\$30.00	\$168.00
4. 5.5" Asphaltic Concrete Paving	58	s.f.	\$3.85	\$223.30
5. 20.5" Aggregate Base	58	s.f.	\$5.75	\$333.50
6. Median Curb, Type 5 (6" Barrier Curb)	2	l.f.	\$18.00	\$36.00
7. 2" Asphaltic Concrete Paving	6	s.f.	\$1.40	\$8.40
8. 4" Aggregate Base	6	s.f.	\$1.12	\$6.72
9. 24" Root Barrier	2	l.f.	\$24.00	\$48.00
10. Median landscaping & Irrigation (shrubs & street trees)	11	s.f.	\$6.00	\$66.00
11. Local Drainage - Roadside Ditch	2	l.f.	\$17.00	\$34.00
12. Signing & Striping	4	l.f.	\$2.00	\$8.00
13. Traffic Signal Interconnect	1	l.f.	\$13.00	\$13.00
14. Erosion Control	2	ea.	\$6.00	\$12.00
15. Traffic Control	1	l.f.	\$10.00	\$10.00
16. Utility Pole Relocation	1	l.f.	\$50.00	\$50.00
Subtotal				\$1,065.68
35% (surveys, design, inspection and contingency)				\$372.99
10% (Right-of-Way Acquisition)				\$106.57
Grand Total per Foot				\$1,545.24
Use				\$1,545.00

For Grant Line Road (Univ. Blvd. to Douglas) assume new 69 kv poles (no relocation)
and 20' wide median

Use **\$1,441.00**

Notes:

1. Joint Trench costs are excluded.
2. Frontage Landscaping and soundwall are excluded.
3. Environmental mitigation not included.
4. Outside 11' travel lane, curb, gutter & s/w are not included.

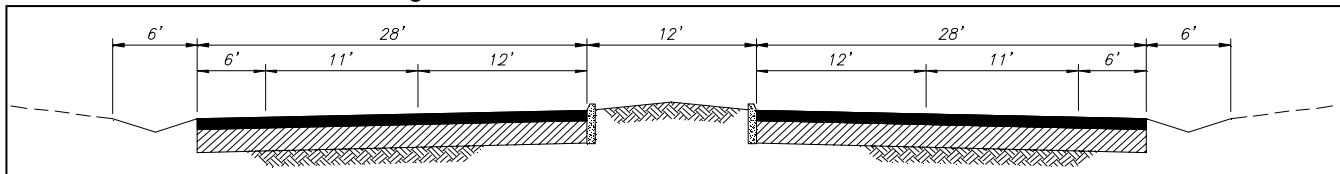


Roadway Cross Section Index**Preliminary Per Foot Cost Estimate****Typical 96' R/W (Thoroughfare) Center Section Only - 4 Lanes (nothing existing)****Project Description:****12' Landscaped Median, 29' Pavement and 6' Roadside Ditch (Each Side) = 82'**

<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1. Clear and Grub (including subgrade preparation)	82	s.f.	\$0.18	\$14.76
2. Roadway Excavation (section plus median, as required)	5.6	c.y.	\$30.00	\$168.00
3. 5.5" Asphaltic Concrete Paving	58	s.f.	\$3.85	\$223.30
4. 20.5" Aggregate Base	58	s.f.	\$5.75	\$333.50
5. Median Curb, Type 5 (6" Barrier Curb)	2	l.f.	\$18.00	\$36.00
6. 24" Root Barrier	2	l.f.	\$24.00	\$48.00
7. Median landscaping & Irrigation (shrubs & street trees)	11	s.f.	\$6.00	\$66.00
8. Local Drainage - Roadside Ditch	2	l.f.	\$17.00	\$34.00
9. Signing & Striping	4	l.f.	\$2.00	\$8.00
10. Traffic Signal Interconnect	1	l.f.	\$13.00	\$13.00
11. Erosion Control	2	ea.	\$6.00	\$12.00
Subtotal				\$956.56
35% (surveys, design, inspection and contingency)				\$334.80
10% (Right-of-Way Acquisition)				\$95.66
Grand Total per Foot				\$1,387.01
Use				\$1,387.00

Notes:

1. Joint Trench costs are excluded.
2. Frontage Landscaping and soundwall are excluded.
3. Environmental mitigation not included.
4. Outside 11' travel lane, curb, gutter & s/w are not included.



Roadway Cross Section Index**Preliminary Per Foot Cost Estimate****Douglas Road: 4-lane widening of exist. 2+ section, RC Pkwy to Americanos Blvd (5,030 l****Project Description:****1' to 4' pvm't removal; constr. landscaped median, 29' new pvm't (westbound), striping; & 6' AC Path**

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Clear and Grub (including subgrade preparation)	186,150	s.f.	\$0.18	\$33,507.00
2.	Pavement Removal (including saw cut)	18,850	s.f.	\$1.70	\$32,045.00
3.	Roadway Excavation (section plus median, as required)	19,870.0	c.y.	\$30.00	\$596,100.00
4.	6.5" Asphaltic Concrete Paving	162,050	s.f.	\$4.55	\$737,327.50
5.	22.0" Aggregate Base	162,050	s.f.	\$6.17	\$999,848.50
6.	2" Asphaltic Concrete Paving	30,180	s.f.	\$1.40	\$42,252.00
7.	4" Aggregate Base	30,180	s.f.	\$1.12	\$33,801.60
8.	Median Curb, Type 5 (6" Barrier Curb)	9,014	l.f.	\$18.00	\$162,252.00
9.	24" Root Barrier	7,510	l.f.	\$24.00	\$180,240.00
10.	Median landscaping & Irrigation (shrubs & street trees)	82,650	s.f.	\$6.00	\$495,900.00
11.	Local Drainage - Roadside Ditch	5,030	l.f.	\$17.00	\$85,510.00
12.	Signing & Striping	20,120	l.f.	\$2.00	\$40,240.00
13.	Traffic Signal Interconnect	5,030	l.f.	\$13.00	\$65,390.00
14.	Erosion Control	5,030	ea.	\$6.00	\$30,180.00
15.	Traffic Control	1	LS	\$20,000	\$20,000.00
	Subtotal				\$3,554,593.60
	35% (surveys, design, inspection and contingency)				\$1,244,107.76
	10% (Right-of-Way Acquisition)				\$355,459.36
	Grand Total per Foot				\$5,154,160.72
	Use				\$5,154,000.00

Notes:

1. Joint Trench costs are excluded.
2. Frontage Landscaping and soundwall are excluded.
3. Environmental mitigation not included.
4. Outside 11' travel lane, curb, gutter & s/w are not included.

(see Sunridge - Douglas Road Plan B Roadway Improvement Plans, City of Rancho Cordova, re ongoing eastbound half section and frontage improvements)

Roadway Cross Section Index
Preliminary Per Foot Cost Estimate
Frontage - one side only

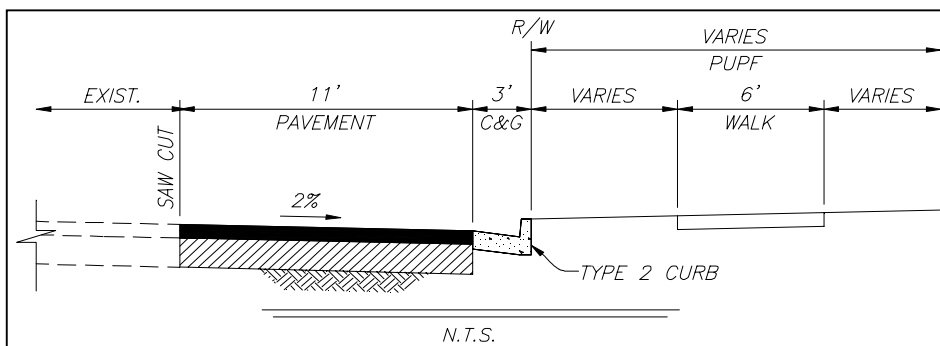
Project Description:
11' Pavement, 3' C&G, 5' Sidewalk = 18' (w/o Soundwall)
Widening/Outside Travel Lane - (One Side)

ITEM	QUANTITY	UNIT	UNIT PRICE	PER FT COST
1. Clear and Grub (including subgrade preparation)	19	s.f.	\$0.18	\$3.42
2. Pavement Removal (including saw cut)	1	s.f.	\$1.70	\$1.70
3. Roadway Excavation (section plus median, as required)	0.9	c.y.	\$30.00	\$27.00
4. 5.5" Asphaltic Concrete Paving	11	s.f.	\$3.85	\$42.35
5. 20.5" Aggregate Base	11	s.f.	\$5.75	\$63.25
6. Curb & Gutter, Type 2 (6" Vertical Curb)	1	l.f.	\$25.00	\$25.00
7. PCC Sidewalk w/ 6" AB	6	s.f.	\$6.00	\$36.00
8. 24" Root Barrier	3	l.f.	\$24.00	\$72.00
8. Local Drainage - Street Storm Drain System	1	l.f.	\$25.00	\$25.00
10. Street Lights - Major Road, Type A 220' spacing	1	l.f.	\$13.00	\$13.00
11. Utility Pole Relocation	0	l.f.	\$50.00	\$0.00
12. Signing & Striping	2	l.f.	\$2.00	\$4.00
13. Traffic Control	1	l.f.	\$10.00	\$10.00
Subtotal				\$322.72
35% (surveys, design, inspection and contingency)				\$112.95
10% (Right-of-Way Acquisition)				\$32.27
(Note: Project frontage to exclude ROW acquisition cost)				
Grand Total per Foot				\$467.94

Use	\$468.00
In Case of Both Sides of Street Use	\$936.00
For Cordova Hills Frontage w/10' S/W (not incl. ROW acq.) Use	\$470.00
For off-site frontage (one side) not including sidewalk, use	\$346.00

Notes:

1. Joint Trench costs are excluded.
2. Frontage Landscaping and soundwall are excluded.
3. Environmental mitigation not included.
4. Assumes utility pole relocation to final location as part of center section improvements.



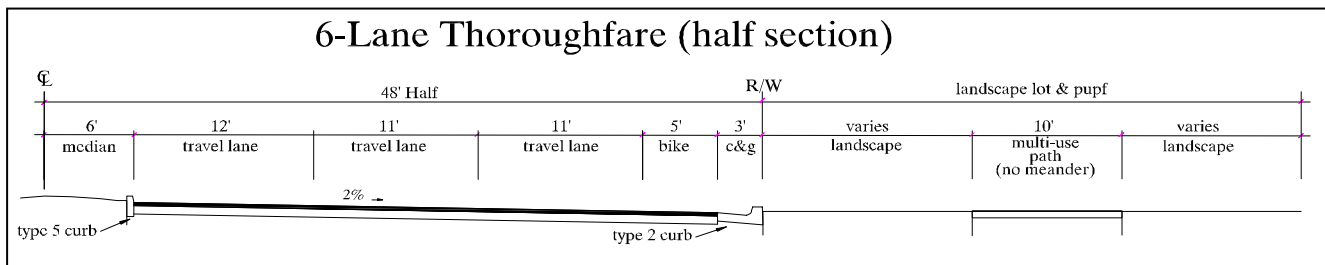
Roadway Cross Section Index**Preliminary Per Foot Cost Estimate****Typical 96' R/W (Thoroughfare) Full Section - 6 Lanes (Off-Site)****Project Description:****12' Landscaped Median, 39' Pavement, Curb & Gutter (Each Side) = 96'**

ITEM	QUANTITY	UNIT	UNIT PRICE	PER FT COST
1. Clear and Grub (including subgrade preparation)	106	s.f.	\$0.18	\$19.08
2. Pavement Removal (including saw cut)	20	s.f.	\$1.70	\$34.00
3. Roadway Excavation (section plus median, as required)	7.8	c.y.	\$30.00	\$234.00
4. 5.5" Asphaltic Concrete Paving	78	s.f.	\$3.85	\$300.30
5. 20.5" Aggregate Base	78	s.f.	\$5.75	\$448.50
6. Curb & Gutter, Type 2 (Vertical Curb & Gutter)	2	l.f.	\$25.00	\$50.00
7. Median Curb, Type 5 (6" Barrier Curb)	2	l.f.	\$18.00	\$36.00
8. PCC Sidewalk w/ 6" AB	0	s.f.	\$6.00	\$0.00
9. 24" Root Barrier	4	l.f.	\$24.00	\$96.00
10. Median landscaping & Irrigation (shrubs & street trees)	4	s.f.	\$6.00	\$24.00
11. Local Drainage - Street Storm Drain System	2	l.f.	\$25.00	\$50.00
12. Signing & Striping	6	l.f.	\$2.00	\$12.00
13. Traffic Signal Interconnect	1	l.f.	\$13.00	\$13.00
14. Erosion Control	2	ea.	\$6.00	\$12.00
15. Traffic Control	1	l.f.	\$10.00	\$10.00
16. Utility Pole Relocation	1	l.f.	\$50.00	\$50.00
Subtotal				\$1,388.88
35% (surveys, design, inspection and contingency)				\$486.11
10% (Right-of-Way Acquisition)				\$138.89
Grand Total per Foot				\$2,013.88
Use				\$2,014.00

For Grant Line Road (University to Douglas) assume new 69 kv power poles (no pole relocation),
and ROW acq. only on Tracy's property (exist. maps on RC side)

Notes:

1. Joint Trench costs are excluded.
2. Right-of-way costs are excluded.
3. Frontage Landscaping and soundwall are excluded.
4. Environmental mitigation not included.

Use \$1,874.00

Preliminary Cost Estimate
Cordova Hills SPA
Off-site Roadway Cross Sections

7968.10
revised: 4/24/12
by: HF

Roadway Cross Section Index
Preliminary Per Foot Cost Estimate
6-Lane Grant Line Rd. Section - Class "C" (Off-Site)

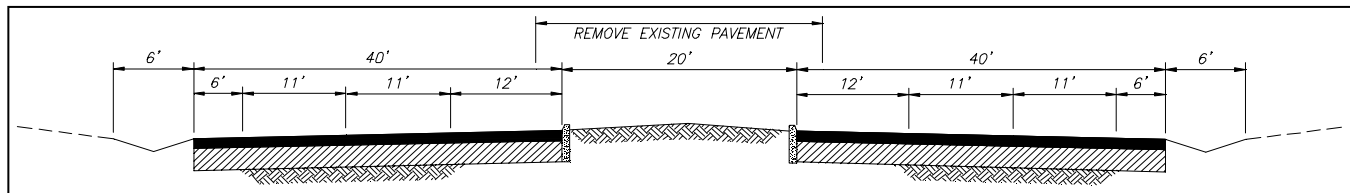
Project Description:

20' Landscaped Median, 40' Pavement, & Roadside Drainage, as req'd (Each Side) = 112'

ITEM	QUANTITY	UNIT	UNIT PRICE	PER FT COST
1. Clear and Grub (including subgrade preparation)	112	s.f.	\$0.18	\$20.16
2. Pavement Removal (including saw cut)	20	s.f.	\$1.70	\$34.00
3. Roadway Excavation (section plus median, as required)	6.4	c.y.	\$30.00	\$192.00
4. 5.5" Asphaltic Concrete Paving	80	s.f.	\$3.85	\$308.00
5. 20.5" Aggregate Base	80	s.f.	\$5.75	\$460.00
6. Curb & Gutter, Type 2 (Vertical Curb & Gutter)	0	l.f.	\$25.00	\$0.00
7. Median Curb, Type 5 (6" Barrier Curb)	2	l.f.	\$18.00	\$36.00
8. 24" Root Barrier	2	l.f.	\$24.00	\$48.00
9. Median landscaping & Irrigation (shrubs & street trees)	19	s.f.	\$6.00	\$114.00
10. Local Drainage - Roadside Ditch	2	l.f.	\$17.00	\$34.00
11. Signing & Striping	6	l.f.	\$2.00	\$12.00
12. Traffic Signal Interconnect	1	l.f.	\$13.00	\$13.00
13. Erosion Control	2	ea.	\$6.00	\$12.00
14. Traffic Control	1	l.f.	\$10.00	\$10.00
15. Utility Pole Relocation	1	l.f.	\$50.00	\$50.00
Subtotal				\$1,343.16
35% (surveys, design, inspection and contingency)				\$470.11
10% (Right-of-Way Acquisition, both sides of segment)				\$134.32
Grand Total per Foot				\$1,947.58
Use				\$1,948.00
For Grant Line Road (Glory Ln. to Douglas) assume new 69 kv power poles (no pole relocation), and ROW acq. only on Tracy's property (exist. maps on RC side)				
Use				\$1,810.00

Notes:

1. Joint Trench costs are excluded.
3. Frontage Landscaping and soundwall are excluded.
4. Environmental mitigation not included.



Roadway Cross Section Index**Preliminary Per Foot Cost Estimate****Typical 96' R/W (Thoroughfare) Center Section Only - 2 Lanes****Project Description:**

12' Landscaped Median, 18' Pavement & 6' Roadside Ditch (Each Side), 6' AC Walk (County side) = 66' & varies

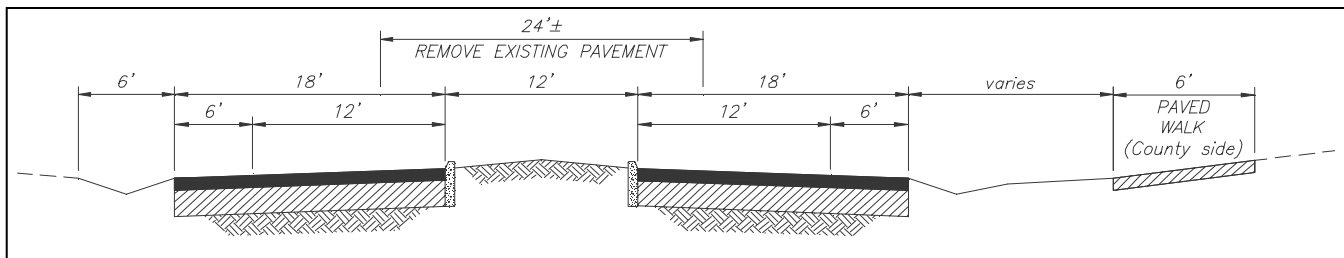
<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1. Clear and Grub (including subgrade preparation)	54	s.f.	\$0.18	\$9.72
2. Pavement Removal (including saw cut)	24	s.f.	\$1.70	\$40.80
3. Roadway Excavation (section plus median, as required)	1.9	c.y.	\$30.00	\$57.00
4. 5.5" Asphaltic Concrete Paving	36	s.f.	\$3.85	\$138.60
5. 20.5" Aggregate Base	36	s.f.	\$5.75	\$207.00
6. Median Curb, Type 5 (6" Barrier Curb)	2	l.f.	\$18.00	\$36.00
7. 24" Root Barrier	2	l.f.	\$24.00	\$48.00
8. Median landscaping & Irrigation (shrubs & street trees)	11	s.f.	\$6.00	\$66.00
9. Local Drainage - Roadside Ditch	2	l.f.	\$17.00	\$34.00
10. Signing & Striping	2	l.f.	\$2.00	\$4.00
11. Traffic Signal Interconnect	1	l.f.	\$13.00	\$13.00
12. Erosion Control	2	ea.	\$6.00	\$12.00
13. Traffic Control	1	l.f.	\$10.00	\$10.00
14. Utility Pole Relocation	1	l.f.	\$50.00	\$50.00
Subtotal				\$726.12
35% (surveys, design, inspection and contingency)				\$254.14
10% (Right-of-Way Acquisition)				\$72.61
Grand Total per Foot				\$1,052.87
Use				\$1,053.00

**For Project frontage on Grant Line Road, assume new 69 kv poles (no relocation)
and 20' wide median**

Use \$982.00

Notes:

1. Joint Trench costs are excluded.
2. Frontage Landscaping and soundwall are excluded.
3. Environmental mitigation not included.
4. Outside 11' travel lane, curb, gutter & s/w are not included.



Roadway Cross Section Index

Preliminary Per Foot Cost Estimate

4-lane widening (exist. 2-lane center section)

Project Description:

11' Paved Travel Lane and Roadside Ditch (Each Side) = 34' (AC Path exist. on County side)

ITEM	QUANTITY	UNIT	UNIT PRICE	PER FT COST
1. Clear and Grub (including subgrade preparation)	34	s.f.	\$0.18	\$6.12
2. Pavement Removal (including saw cut)	2	s.f.	\$1.70	\$3.40
3. Roadway Excavation (section plus median, as required)	1.8	c.y.	\$30.00	\$54.00
4. 5.5" Asphaltic Concrete Paving	22	s.f.	\$3.85	\$84.70
5. 20.5" Aggregate Base	22	s.f.	\$5.75	\$126.50
6. Local Drainage - Roadside Ditch	2	l.f.	\$17.00	\$34.00
7. Signing & Striping	2	l.f.	\$2.00	\$4.00
8. Erosion Control	2	ea.	\$6.00	\$12.00
9. Traffic Control	2	l.f.	\$10.00	\$20.00

Subtotal **\$344.72**

35% (surveys, design, inspection and contingency) \$120.65

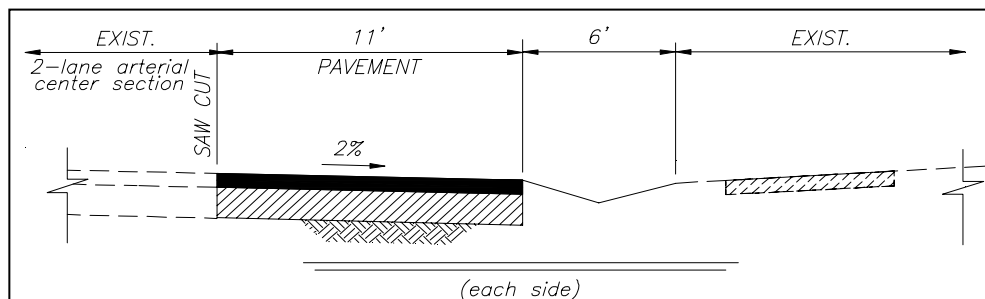
10% (Right-of-Way Acquisition) \$34.47

Grand Total per Foot **\$499.84**

Notes:

1. Joint Trench costs are excluded.
2. Landscaping and soundwall are excluded.
3. Environmental mitigation not included.
4. Assumes existing utility poles already in ultimate location

Use **\$500.00**

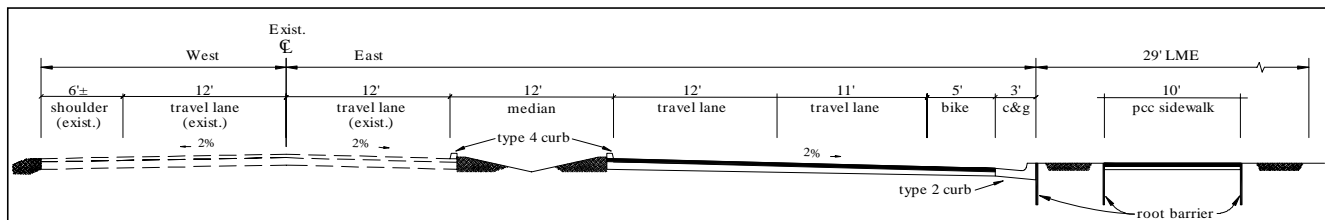


Preliminary Cost Estimate
Cordova Hills SPA
Proposed Project Roadway Cross Sections

7968.10
 prepared by: HF
 rev.: 09/05/12

Preliminary Cost Per Linear Foot
"Connectorized" Grant Line Road Improvements
 Cordova Hills Frontage - 4-Lane Section using exist pavement

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Clear and Grub (including subgrade preparation)	72.0	s.f	\$0.18	\$12.96
2.	Roadway Excavation (section plus median, as required)	2.5	c.y.	\$30.00	\$75.00
3.	Pavement Removal (including saw cut)	5	s.f.	\$1.70	\$8.50
4.	5.5" Asphaltic Concrete Paving	28.5	s.f.	\$3.85	\$109.73
5.	20.5" Aggregate Base	28.5	s.f.	\$5.75	\$163.88
6.	Curb & Gutter, Type 2 (Vertical Curb & Gutter)	1	l.f.	\$25.00	\$25.00
7.	Conc. Curb, Type 4	2	l.f.	\$10.00	\$20.00
8.	Median landscaping (shrubs - water truck irrigation)	11.0	s.f.	\$6.00	\$66.00
9.	Planting Strip/LID Swale & Irrigation	19	s.f.	\$6.00	\$114.00
10.	Root Barrier	3	l.f.	\$24.00	\$72.00
11.	PCC Sidewalk w/ 6" AB	10	s.f.	\$6.00	\$60.00
12.	Signing & Striping	3	l.f.	\$2.00	\$6.00
13.	Erosion Control	1	LS	\$6.00	\$6.00
14.	Street Lights - Major Road, Type A 220' spacing	1	l.f.	\$13.00	\$13.00
15.	Traffic Signal Interconnect	1.0	l.f.	\$13.00	\$13.00
16.	Joint Trench (one side only)	1.0	l.f.	\$75.00	\$75.00
	Subtotal				\$840.06
	35% (surveys, design, inspection and contingency)				\$294.02
	(ROW to be dedicated)				\$0.00
	Grand Total per Foot				\$1,134.08
Note:	Assumes utility pole relocation as part of SMUD 69 kV utility bringup to project			Use	\$1,135.00



Preliminary Cost Estimate
Cordova Hills SPA
Proposed Project Roadway Cross Sections

7968.10
 prepared by: HF
 rev.: 08/29/12

Preliminary Cost Per Linear Foot
"Connectorized" Grant Line Road Improvements
 4-Lane Section using exist pavement (off-site)

	ITEM	QUANTITY	UNIT	UNIT PRICE	PER FT COST
1.	Clear and Grub (including subgrade preparation)	52	s.f	\$0.18	\$9.36
2.	Roadway Excavation (section plus median, as required)	2.3	c.y.	\$30.00	\$69.00
3.	Pavement Removal (including saw cut)	4.0	s.f.	\$1.70	\$6.80
4.	5.5" Asphaltic Concrete Paving	29.5	s.f.	\$3.85	\$113.58
5.	20.5" Aggregate Base	29.5	s.f.	\$5.75	\$169.63
6.	Conc. Curb, Type 4	2	l.f.	\$10.00	\$20.00
7.	Median landscaping (shrubs - water truck irrigation)	11.0	s.f.	\$6.00	\$66.00
8.	Local Drainage - Roadside Ditch	1	l.f	\$17.00	\$17.00
9.	Root Barrier	0	l.f.	\$24.00	\$0.00
10.	2" Asphaltic Concrete Paving	6	s.f.	\$1.40	\$8.40
11.	4" Aggregate Base	6	s.f.	\$1.12	\$6.72
11.	Signing & Striping	3	l.f.	\$2.00	\$6.00
13.	Erosion Control	1	LS	\$6.00	\$6.00
13.	Utility Pole Relocation	1	l.f.	\$50.00	\$50.00
14.	Street Lights - Major Road, Type A 220' spacing	0	l.f.	\$13.00	\$0.00
16.	Traffic Signal Interconnect	1.0	l.f.	\$13.00	\$13.00
17.	Joint Trench (one side only)	0.0	l.f.	\$75.00	\$0.00
Subtotal					\$561.48

35% (surveys, design, inspection and contingency)

\$196.52

10% (Right-of-Way Acquisition)

\$56.15

Grand Total per Foot

\$814.15

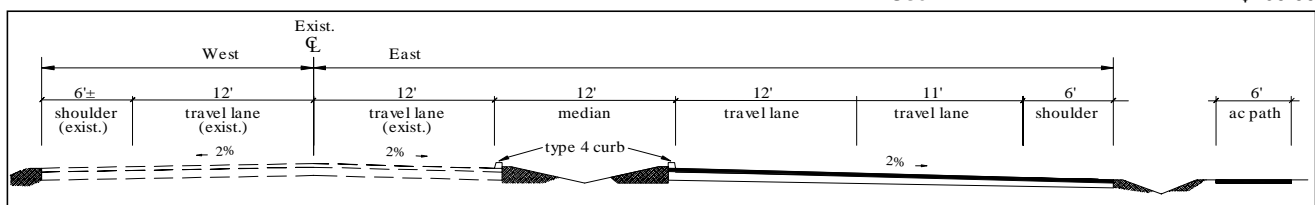
Use

\$815.00

For reaches of Grant Line Rd. located within Kiefer Landfill Bufferlands (County-owned), no ROW acq. Req'd

Use

\$760.00



Preliminary Cost Estimate
Cordova Hills SPA
Proposed Project Roadway Cross Sections

7968.10
 prepared by: HF
 re.: 05/21/12

Preliminary Cost Per Linear Foot
"Connectorized" Grant Line Road Improvements

Cordova Hills Frontage - 6-Lane widening of exist 4-lane "Connectorized" Section (frontage)

	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>PER FT COST</u>
1.	Clear and Grub (including subgrade preparation)	83.5	s.f	\$0.18	\$15.03
2.	Roadway Excavation (section plus median, as required)	3.8	c.y.	\$30.00	\$114.00
3.	Pavement Removal (including saw cut)	31	s.f.	\$1.70	\$52.70
4.	5.5" Asphaltic Concrete Paving	51.5	s.f.	\$3.85	\$198.28
5.	20.5" Aggregate Base	51.5	s.f.	\$5.75	\$296.13
6.	Curb & Gutter, Type 2 (Vertical Curb & Gutter)	0	l.f.	\$25.00	\$0.00
7.	Median Curb, Type 5 (6" Barrier Curb)	2	l.f.	\$18.00	\$36.00
8.	Median landscaping (shrubs - water truck irrigation)	25.0	s.f.	\$6.00	\$150.00
9.	Planting Strip/LID Swale & Irrigation	0	s.f.	\$6.00	\$0.00
10.	Root Barrier	2	l.f.	\$24.00	\$48.00
11.	PCC Sidewalk w/ 6" AB	0	s.f.	\$6.00	\$0.00
12.	Signing & Striping	4	l.f.	\$2.00	\$8.00
13.	Local Drainage - Roadside Ditch	1	l.f.	\$17.00	\$17.00
14.	Erosion Control	1	LS	\$6.00	\$6.00
15.	Street Lights - Major Road, Type A 220' spacing	0	l.f.	\$13.00	\$0.00
16.	Traffic Signal Interconnect	0	l.f.	\$13.00	\$0.00
17.	Joint Trench (one side only)	0	l.f.	\$75.00	\$0.00
Subtotal					\$941.13

35% (surveys, design, inspection and contingency)

\$329.40

10% (Right-of-Way Acquisition)

\$94.11

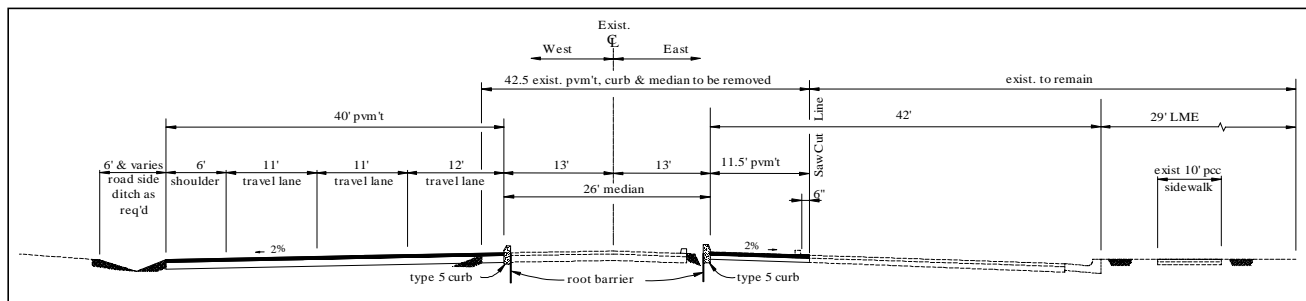
Grand Total per Foot

\$1,364.64

Note: Assumes utility pole relocation as part of SMUD 69 kV utility bringup to project

Use

\$1,365.00



Preliminary Cost Estimate
Cordova Hills SPA
Proposed Project Roadway Cross Sections

7968.10
 prepared by: HF
 rev.: 05/21/12

Preliminary Cost Per Linear Foot
"Connectorized" Grant Line Road Improvements
 6-lane widening of exist. 4-Lane "Connectorized" Section (off-site)

	ITEM	QUANTITY	UNIT	UNIT PRICE	PER FT COST
1.	Clear and Grub (including subgrade preparation)	83.5	s.f.	\$0.18	\$15.03
2.	Roadway Excavation (section plus median, as required)	3.8	c.y.	\$30.00	\$114.00
3.	Pavement Removal (including saw cut)	31.0	s.f.	\$1.70	\$52.70
4.	5.5" Asphaltic Concrete Paving	51.5	s.f.	\$3.85	\$198.28
5.	20.5" Aggregate Base	51.5	s.f.	\$5.75	\$296.13
6.	Median Curb, Type 5 (6" Barrier Curb)	2	l.f.	\$18.00	\$36.00
7.	Median landscaping (shrubs - water truck irrigation)	25.0	s.f.	\$6.00	\$150.00
8.	Root Barrier	2	l.f.	\$24.00	\$48.00
9.	Signing & Striping	4	l.f.	\$2.00	\$8.00
10.	Local Drainage - Roadside Ditch	1	l.f.	\$17.00	\$17.00
11.	Erosion Control	1	LS	\$6.00	\$6.00
12.	Street Lights - Major Road, Type A 220' spacing	0	l.f.	\$13.00	\$0.00
13.	Traffic Signal Interconnect	0	l.f.	\$13.00	\$0.00
14.	Joint Trench (one side only)	0	l.f.	\$75.00	\$0.00
Subtotal					\$941.13
35% (surveys, design, inspection and contingency)					\$329.40
10% (Right-of-Way Acquisition)					\$94.11
Grand Total per Foot					\$1,364.64
Note:	Assumes utility pole relocation as part of SMUD 69 kV utility bringup to project				
	Use				\$1,365.00
	For reaches of Grant Line Rd. located within Kiefer Landfill Bufferlands (County-owned), no ROW acq. Req'd				
	Use				\$1,270.00

