Appendix B:
Draft EIR Comments

STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse and Planning Unit

Edmund G. Brown Jr.
Governor

Ken Alex
Director

November 15, 2011

RECEIVED
NOV 17 2011
SACRAMENTO LOCAL AGENCY
FORMATION COMMISSION

Don Lockhart
Sacramento County Local Agency Formation Commission (LAFCo)
1112 I Street, Suite #100
Sacramento, CA 95818-2836

Subject: Proposed City of Elk Grove Sphere of Influence (SOI) Amendment (LAFCO #09-10)
SCH#: 2010092076

Dear Don Lockhart:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. The review period closed on November 14, 2011, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Scott Morgan
Director, State Clearinghouse

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL (916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Document Details Report
State Clearinghouse Data Base

SCH# 2010092076
Project Title Proposed City of Elk Grove Sphere of Influence (SOI) Amendment (LAFCO #09-10)
Lead Agency Sacramento County Local Agency Formation Commission

Type EIR Draft EIR

Description The proposed project consists of a request initiated by the Elk Grove City Council (Resolution #2008-54) to Sacramento Local Agency Formation Commission (LAFCo) to amend to the City of Elk Grove's SOI. The current SOI is coterminous with the City boundary. The application to amend the SOI includes 7,869 acres generally described as the areas south of Bilby Road/Kammerer Road and Grant Line Road. Current City of Elk Grove land use projections indicates that future growth may require additional lands outside of the current city boundary. The City's available residential, industrial, and commercial land inventory is in the process of building out and may be unable to accommodate all anticipated urban growth within the city limits. As a result, the City needs to establish a direction to accommodate its anticipated future growth by designating an area for long-term planning. For purposes of analyzing environmental impacts, LAFCo has developed land use assumptions in the following sections that would allow LAFCo to understand environmental effects that may result from future anticipated growth during future annexations.

Lead Agency Contact

Name Don Lockhart
Agency Sacramento County Local Agency Formation Commission (LAFCo)
Phone 916 874-6458 **Fax** 916 874-2939
email Don.Lockhart@saclafco.org
Address 1112 I Street, Suite #100
City Sacramento **State** CA **Zip** 95818-2836

Project Location

County Sacramento
City
Region
Lat / Long 38° 21' 37" N / 121° 23' 02" W
Cross Streets Kammerer Road and Hwy 99
Parcel No. Multiple
Township 6N **Range** 5E **Section** 13 **Base**

Proximity to:

Highways Hwy 99, I-5
Airports Franklin Field
Railways UPRR
Waterways Consumnes River, Dry Creek, Sacramento River
Schools Multiple
Land Use Primarily Agricultural Cropland/General Agriculture (GP) and AG80 (zoning)

Project Issues Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Drainage/Absorption; Economics/Jobs; Flood Plain/Flooding; Geologic/Seismic; Minerals; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Sewer Capacity; Septic System; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Growth Inducing; Landuse; Cumulative Effects; Other Issues; Aesthetic/Visual

Reviewing Agencies Resources Agency; Department of Conservation; Department of Fish and Game, Region 2; Office of Historic Preservation; Department of Parks and Recreation; Department of Water Resources; Caltrans, Division of Aeronautics; California Highway Patrol; Caltrans, District 3; Regional Water Quality Control Bd., Region 5 (Sacramento); Department of Toxic Substances Control; Native American Heritage Commission; Public Utilities Commission; State Lands Commission

Note: Blanks in data fields result from insufficient information provided by lead agency.

Document Details Report
State Clearinghouse Data Base

Date Received 09/29/2011 ***Start of Review*** 09/29/2011 ***End of Review*** 11/14/2011

Note: Blanks in data fields result from insufficient information provided by lead agency.

STATE OF CALIFORNIA

GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH

STATE CLEARINGHOUSE AND PLANNING UNIT

EDMUND G. BROWN JR.
GOVERNOR

KEN ALEX
DIRECTOR

December 29, 2011

Don Lockhart
Sacramento County Local Agency Formation Commission (LAFCo)
1112 I Street, Suite #100
Sacramento, CA 95818-2836

Subject: Proposed City of Elk Grove Sphere of Influence (SOI) Amendment (LAFCO #09-10)
SCH#: 2010092076

Dear Don Lockhart:

The enclosed comment (s) on your Draft EIR was (were) received by the State Clearinghouse after the end of the state review period, which closed on November 14, 2011. We are forwarding these comments to you because they provide information or raise issues that should be addressed in your final environmental document.

The California Environmental Quality Act does not require Lead Agencies to respond to late comments. However, we encourage you to incorporate these additional comments into your final environmental document and to consider them prior to taking final action on the proposed project.

Please contact the State Clearinghouse at (916) 445-0613 if you have any questions concerning the environmental review process. If you have a question regarding the above-named project, please refer to the ten-digit State Clearinghouse number (2010092076) when contacting this office.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Enclosures
cc: Resources Agency

RECEIVED
JAN 03 2012
SACRAMENTO LOCAL AGENCY
FORMATION COMMISSION

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

DEPARTMENT OF TRANSPORTATION
DISTRICT 3—SACRAMENTO AREA OFFICE
2379 GATEWAY OAKS DRIVE, SUITE 150
PHONE (916) 274-0635
FAX (916) 274-0602
TTY 711
www.dot.ca.gov

Flex your power!
Be energy efficient!

November 21, 2011

032011SAC0050
03-SAC-VAR
City of Elk Grove Sphere of Influence Amendment
Draft Environmental Impact Report
SCH#2010092076

Don Lockhart, AICP
Sacramento Local Agency Formation Commission
1112 I Street, Suite 100
Sacramento, CA 95818

Dear Mr. Lockhart:

Thank you for the opportunity to review and comment on the Draft Environmental Impact Report (DEIR) for the proposed City of Elk Grove Sphere of Influence Amendment (SOIA). The SOIA includes 7,869 acres south of Bilby Road/Kammerer Road and Grant Line Road towards Cosumnes River and just past Freeman Road, and west toward Interstate 5 (I-5) and the Union Pacific Railroad tracks. Approximately 6,882 acres will be for development (such as housing and commercial centers) and most of the remaining acres for open space. Our comments are as follows:

Traffic Operations

- Caltrans previously requested that the Traffic Impact Study (TIS) include impacts to all State Highway System (SHS) ramps, ramp intersections, and mainline segments on State Route (SR) 99 from Elk Grove Boulevard to Dillard Road and on I-5 from Elk Grove Boulevard to Twin Cities Road in a letter dated October 27, 2010 (attached). In addition, Caltrans suggested the use of Select Zone Analysis to identify the trip distribution of the proposed project on the SHS. Also, a queuing analysis and merge/diverge analysis should have been completed, in particular where the highway facility is already operating at Level of Service (LOS) F. The methodology used in the TIS appears to have omitted these analyses. Daily Capacity and Daily Demand were used to analyze LOS for roadway performance. Traffic is not generated uniformly throughout the day. Instead, traffic congestion occurs during AM and PM peak periods. The TIS should be augmented to show this peak period traffic congestion and impacts. In addition, a freeway mainline weaving analysis, an LOS of interchanges analysis, and queue length for each off-ramp were missing from the study and must be included in the subsequent study.

Weaving analysis, ramp metering, HOV bypass, ramp intersection queue discharge, and coordination between on/off-ramp intersections with local street intersections should be the focus of freeway access analysis. For example, limited space on the freeway overcrossing/undercrossing may end up with long left-turn queues at the off-ramp that may eventually back onto freeway mainlines, and insufficient onramp storage behind ramp meters may cause traffic to overspill onto local streets.

Please refer to the October 27, 2010 letter for additional information the TIS should include.

- Caltrans looks forward to continuing work with the City of Elk Grove to improve mobility on I-5 and SR 99. The TIS identified impacts to I-5 and SR 99. Caltrans would like to be consulted for annexation and specific project development. If the TIS for annexation and/or particular projects identify impacts, please coordinate with Caltrans to investigate feasible mitigation measures. Potential mitigation measures could include ramp widening and metering, ramp intersection improvements, signalization modifications, auxiliary lane, mainline improvements, off-highways projects as well as fair share.

Encroachment Permits

- An Encroachment permit will be required for any work conducted in the State's right of way such as, sign placement, traffic control, light installation, culvert maintenance, or drainage pattern changes. For more information on Encroachment Permit requirements or to secure an application contact the Encroachment Permits Central Office at (530) 741-4403.

Hydrology

- The proposed SOIA is expected to incorporate a Flood Protection Plan. The plan is to include identification of all flood hazards including levee failure inundation, 100-year, 200-year, and 500-year floodplain. The plan should specifically include the impacts of all the flood hazards on SR 99 and I-5.

- The DEIR states under paragraph "Localized Drainage" that "…drainage courses in the area have been altered by agricultural activities, surface water flows are channeled into agricultural and roadside ditches". When the drainage master plan is developed and stormwater is designed to be released into waterways crossing SR 99 and I-5, the impact at each crossing of the highway should be studied and the appropriate mitigation measures included in the Master Plan.

- The DEIR states that "Flooding and drainage problems in the Beach Stone Lakes basin are primarily a result of inadequate channel capacities..." The Master Plan should identify the channels and locations where capacity inadequacies lie. The Master Plan should also assess the capacities of bridges across SR 99 and SR-5 associated with the inadequate channels and identifies the need for additional bridge capacity if necessary.

Signing

- Any propose d advertising signs or billboards that would be directed toward travelers on I-5 or SR 99, and located within 500 feet of Caltrans' right of way, would need to be reviewed by the Outdoor Advertising Branch in the Office of Traffic Operations. Please contact Jan Hoehn at (530) 741-5757.

If you have any questions regarding these comments , please contact Jorge Rivas, Sacramento County Intergovernmental Review Coordinator, at (916) 274-0679 or jorge_rivas@dot.ca.gov.

Sincerely,

Eric Fredericks

Eric Fredericks, Chief
Office of Transportation Planning—South

COSUMNES
PARKS RECREATION FIRE
CSD

ADMINISTRATIVE SERVICES DEPARTMENT
8820 Elk Grove Blvd.
Elk Grove, CA 95624

(916) 405-7150
Fax (916) 685-5216
www.yourcsd.com

November 2, 2011

Sacramento Local Agency Formation Commission
1112 I Street, Suite 100
Sacramento, CA 95814
Attn. Don Lockhart, AICP, Assistant Executive Officer

Re: City of Elk Grove Sphere of Influence Amendment – Draft Environmental Impact Report

Dear Mr. Lockhart:

Thank you for the opportunity to comment on the City of Elk Grove's Sphere of Influence Amendment Draft Environmental Impact Report (EIR).

The Cosumnes Community Services District currently provides all parks, recreation, fire protection and emergency medical services within Elk Grove's current city limits as well as the proposed Sphere of Influence expansion area. Our comments will be limited to the impact such an expansion and possible future development would have on parks, recreation and fire services provided by the Cosumnes Community Services District.

With respect to the provision of fire protection and emergency medical response, we concur with the conclusions contained within the Draft EIR and revised MSR that the CCSD would remain the most logical provider of these services.

In our review of the Draft EIR and revised MSR, the CCSD found several inaccuracies that should be addressed:

1) Draft EIR, Page 3.14-6, Parks – the draft EIR states "The Cosumnes Community Services District (CCSD) provides parks and recreation to the cities of Elk Grove and Galt, as well as unincorporated areas in the region."

This statement is incorrect in that the CCSD does not provide parks and recreation services to the City of Galt.

2) Draft MSR, Page 4.0-48 – within the description of the Cosumnes Community Services District, the MSR states "The Cosumnes Community Services District (CCSD) provides parks and recreation to the cities of Elk Grove and Galt, as well as unincorporated areas in the region."

This statement is incorrect in that the CCSD does not provide parks and recreation services to the City of Galt.

Once these inaccuracies are corrected, the CCSD fully expects to adopt a position in support of the proposed amendment and work in cooperation with the City of Elk Grove.

Again, thank you for the opportunity to comment on the City of Elk Grove's Sphere of Influence Amendment Draft Environmental Impact Report (EIR).

Sincerely,

Jeff Ramos
General Manager

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY EDMUND G. BROWN JR., GOVERNOR

CENTRAL VALLEY FLOOD PROTECTION BOARD
3310 El Camino Ave., Rm. 151
SACRAMENTO, CA 95821
(916) 574-0609 FAX: (916) 574-0682
PERMITS: (916) 574-2380 FAX: (916) 574-0682

December 27, 2011

Mr. Don Lockhart
Sacramento County Local Agency Formation Commission
1112 I Street, Suite #100
Sacramento, California 95818-2836

Subject: Proposed City of Elk Grove Sphere of Influence (SOI) Amendment (LAFCO #09-10)
SCH Number: 2010092076
Document Type: EIR - Draft EIR

Dear Mr. Lockhart:

Staff of the Central Valley Flood Protection Board (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 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 (CCR Section 131).

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. 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 flood flows, reroute flood flows, and/or increase sediment accumulation. The DEIR 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.

If you have any questions, please contact me by phone at (916) 574-0651, or via email at jherota@water.ca.gov.

Sincerely,

James Herota
Staff Environmental Scientist
Flood Projects Improvement Branch

cc: Governor's Office of Planning and Research
State Clearinghouse
1400 Tenth Street, Room 121
Sacramento, California 95814

November 21, 2011

Don Lockhart, AICP
Assistant Executive Officer
Sacrmento Local Agency Formation Commission
11121 I Street, #100
Sacramento, CA 95814

PROPOSED CITY OF ELK GROVE SPHERE OF INFLUENCE AMENDMENT (LAFC #09-10) DRAFT EIR – ELK GROVE WATER DISTRICT COMMENTS

The Elk Grove Water District has reviewed the subject documents and appreciates the opportunity to offer comments. Take note that the text bolded in the comments below reflect our requested amendments.

1. Section 3.16 Utilities and Service Systems

   At various locations in this section, Elk Grove Water Service and its acronym EGWS needs to be changed to Elk Grove Water District (EGWD). This includes the reference shown in the legend on the map identified as Exhibit 3.16-1.

2. Section 3.16.1 Introduction (Page 3.16-5, 1st paragraph)

   "Elk Grove Water ~~Service~~ **District** ~~(EGWS)~~ **(EGWD)** currently provides municipal water service to the southeastern portion of the City of Elk Grove, **generally** bounded by Sheldon Road…"

   "~~EGWS~~ **EGWD** provides water to approximately ~~11,914~~ **12,050** connections, with a…"

3. Section 3.16.1 Introduction (Page 3.16-5, 2nd paragraph)

9257 Elk Grove Blvd. Elk Grove, CA 95624 (916) 685-3556 Fax (916) 685-5376

"Tariff Area No. 2 is located…groundwater~~,~~ **and** surface water~~,~~. ~~and recycled water~~.

4. Section 3.16.2 Regulatory Framework (Page 3.16-18, PF-3-Action 1, second bullet)

   This policy states "All required water infrastructure for the project shall be in place at the time of the project, or shall be assured through the use of bonds or other sureties to the City's satisfaction."

   Considering that if growth were to occur in the Sphere of Influence (SOI), and that proposed specific developments may exceed 500 single family homes (or their equivalent if developed as commercial, industrial, or institutional, be advised that the second portion of this policy may not meet with legal requirements of SB 221. It is suggested that the City of Elk Grove research those legal requirements and make an appropriate policy change, if required.

5. Section 3.16.2 Regulatory Framework (Page 3.16-20, Sacramento County Water Agency Zone 41 Urban Water Management Plan and Zone 40 Water Supply Plan)

   It is suggested that the author cite the most recent Urban Water Management Plan (UWMP) adopted by the Sacramento County Water Agency, and also cite its principal findings relative to the SOI area, if the SOI area is reflected in the UWMP.

Again, the Elk Grove Water District appreciates the opportunity to comment on this Draft EIR. Please call me at (916) 685-3556 if you have any questions or require additional information.

MARK J. MADISON
GENERAL MANAGER

MJM/sp

Municipal Services Agency
Robert B. Leonard, Administrator

Department of Transportation
Michael J. Penrose, Director

County Executive
Bradley J. Hudson

County of Sacramento

December 13, 2011

Don Lockhart
Sacramento Local Agency Formation Commission
1112 I Street, Suite 100
Sacramento, California 95814
Don.Lockhart@SacLAFCo.org

SUBJECT: COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE CITY OF ELK GROVE PROPOSED SPHERE OF INFLUENCE AMENDMENT (LAFC #09-10)

Dear Mr. Lockhart:

The Sacramento County Department of Transportation planning staff has reviewed the draft environmental impact report (DEIR) for the City of Elk Grove proposed sphere of influence amendment (LAFC # 09-10). We appreciate the opportunity to review this document and have the following comments to offer:

1. **Page 3.15-31.** Under the list of improvements for existing plus project conditions, please add widening of Eschinger Road from Bruceville Road to SR-99. Please note that this widening is triggered by the changes in the land uses requested by the City of Elk Grove and not caused by Sacramento County. Sacramento County Department of Transportation does not anticipate making any financial contributions towards the widening of shared roadways that will be on the border of the City of Elk Grove limits and the County jurisdiction.

2. **Page 3.15-31.** As shown on this page, the project has significant impact on 1) Franklin Boulevard between Hood Franklin Road and Lambert Road and 2) Eschinger Road between Bruceville Road and SR-99 under existing plus project conditions. The widening of both of these roadways is required to mitigate the project impacts. We ask the City of Elk Grove to enter into an agreement with the County of Sacramento to pay its fair share towards the mitigation measures affecting County roadways.

If you have any questions, please feel free to contact me at (916) 875-2844.

Sincerely,

Kamal Atwal

Kamal Atwal, P.E.
Department of Transportation

KA/ka

Cc:
Mike Penrose, DOT
Dan Shoeman, DOT
Dean Blank, DOT
Ron Vicari, DOT
Matt Darrow DOT
Bob Davison, County Engineering
Tom Zlotkowski, Capitol Southeast Connector JPA

Lockhart. Don

From: Eck. Darrell (MSA)
Sent: Monday, November 14, 2011 10:57 AM
To: Lockhart. Don
Cc: Schmitz. Kerry (MSA)
Subject: Comments to the proposed City of Elk Grove Sphere of Influence Amendment (LAFC # 09-10) Draft EIR

Don, the Sacramento County Water Agency has the following comments on the proposed City of Elk Grove Sphere of Influence Amendment (LAFC # 09-10) Draft EIR.

A conflict exists within the document as to whether the groundwater basin underlying the project site is in overdraft. The second paragraph under Groundwater Resources (p. 3.9-7) states, in part, "Significant groundwater overdraft problems have been identified in three areas of Sacramento County, including Elk Grove." The fifth paragraph in the Impact Analysis under Groundwater Supplies and Recharge (p. 3.9-27) states, in part, "The Central Basin is not adjudicated and is not considered to be in overdraft according to the DWR Bulletin 118 (DWR, 2011)." The statement that the basin is not in overdraft is repeated in the second paragraph under Sacramento County Water Agency (p. 3.16-1) where the document states, "This groundwater basin is not adjudicated, and the groundwater trend levels do not indicate the basin to be in an overdraft condition." The text on page 3.9-7 should be revised to be consistent with the other two references and indicate that the basin is not in overdraft.

Data represented in Tables 3.16-1 and 3.16-2 (p. 3.16-2) have changed as a result of the development of the 2010 Zone 41 Urban Water Management Plan (UWMP). To match the data shown in the current UWMP these two tables should be updated as follows:

Table 3.16-1: Zone 40 Current and Projected Water Demand (acre-feet annually)

Water Demand	2010	2015	2020	2025	2030	2035
Total Water Use	34,511	44,425	50,662	57,583	67,565	77,712
Source: SCWA Urban Water Management Plan, 2010.						

Table 3.16-2: Zone 40 Water Supply -2035 (acre-feet annually)

Water Supply	Normal Year	Single Dry Year	Multiple Dry Years		
			Year 1	Year 2	Year 3
Total Water Supply	109,500	109,500	109,500	109,500	109,500
Source: SCWA Urban Water Management Plan, 2010.					

Modify the last sentence in paragraph two under Elk Grove Water Service (p. 3.16-5) to read, "As a recipient of water supplies from SCWA as a wholesaler for Tariff Area No. 2, EGWS is indirectly part of SCWA's Zone 40 ***Water Supply Master Plan***."

If you should have any questions regarding these comments do not hesitate to call me.

Darrell K. Eck, Senior Civil Engineer
Water Supply Planning & Development
Sacramento County Water Agency
Tel (916) 874-5039
Fax (916) 874-5698

From: CHARLENE McGHEE <CMcGHEE@airquality.org>
To: Trevor Macenski <TMacenski@brandman.com>
CC: Chryss Meier <CMeier@brandman.com>, "Don.Lockhart@SacLAFCo.org" <Don.Loc...
Date: 11/23/2011 8:22 AM
Subject: RE: Elk Grove - Potential AQ and GHG Edits
Attachments: SAC201101395_EG draftCAP cmt ltr_LG 5-25-11.pdf

Trevor

First of all, thank you very much for getting the revised language to us. We have taken a look at what you have provided and the following are our thoughts:

Section 3.3
The inclusion of 35% Air Quality Mitigation Plan mitigation is consistent with other SOI mitigation in the Sacramento area. The restating of the fact that the document is not to be used for "tiering" is also a good clarification in this section of the document.

Section 3.7
The inclusion of the choice of a performance criteria menu including the Efficiency Metric, the Percent Reduction and the Climate Action Plan (CAP) is a strong improvement. However, we are concerned that including the Climate Action Plan as one of the metrics may be premature and not a strong performance criterion at this point. The CAP has not yet adopted and contained measures in the December 2010 draft that we felt [i.e. commented on - see attached] could be strengthened to ensure better GHG reduction. Not being certain about what, if any, revisions to the CAP may be forthcoming, we believe your document is stronger with only the two choices in MM GHG-1. Additionally, an explanation of the origin of the Efficiency and Percent metrics (i.e. ARB Scoping Plan and the BAAQMD GHG Guidance) will be helpful to the reader as well.

Certainly if you have any questions please feel free to contact me or Larry Robinson at 916.874.4816.

Charlene McGhee
916.874.4883

-----Original Message-----
From: Trevor Macenski [mailto:TMacenski@brandman.com]
Sent: Tuesday, November 22, 2011 6:15 AM
To: CHARLENE McGHEE
Cc: Chryss Meier; Don.Lockhart@SacLAFCo.org
Subject: Fw: Elk Grove - Potential AQ and GHG Edits

Charlene- Please see the attached word files, that include our suggested revisions.

Please let us know if you have any questions or concerns.

Cheers,

Trevor Macenski
-----Original Message-----
From: Chryss Meier
Cc: Trevor Macenski <TMacenski@brandman.com>
Cc: Madeline Miller <madeline@motlaw.com>
Cc: Brundage. Peter <BrundageP@saccounty.net>
To: Don Lockhart <Don.Lockhart@SacLAFCo.org>

Sent: 11/16/2011 4:10:24 PM

Subject: Elk Grove - Potential AQ and GHG Edits

Attached are the track-changes versions of the Air Quality and Greenhouse Gas sections. I just got off the phone with Charlene at SMAQMD, and she is looking forward to seeing the revised language. I spoke with her a bit about the approach, and she requested that the sections be sent to the following persons once you have reviewed the language and OK'd it for transmittal.

jberry@airquality.org
lrobinson@airquality.org (mailto:lrobinson@airquality.org) cmcghee@airquality.org

Please let me know if you have any questions, see need for revisions/additions, etc.

Thank you,
Chryss

SACRAMENTO METROPOLITAN
AIR QUALITY
MANAGEMENT DISTRICT

Larry Greene
AIR POLLUTION CONTROL OFFICER

December 21, 2011

SENT VIA EMAIL

Mr. Don Lockhart
Sacramento Local Agency Formation Commission
1112 I Street, Suite 100
Sacramento, CA 95814

RE: City of Elk Grove Sphere of Influence Amendment Draft Environmental Impact Report

Dear Mr. Lockhart:

Thank you for the opportunity to review and comment on the above referenced project document.

The Sacramento Metropolitan Air Quality Management District (SMAQMD) staff appreciates the cooperation of the Local Agency Formation Commission staff through our many discussions regarding the appropriate language for the greenhouse gas mitigation which is represented by the GHG-1 section in the Draft EIR for the Elk Grove SOIA. Although we will continue to have concerns about the reference to the not yet approved Elk Grove Climate Action Plan; the language as presented on December 14, 2011 is a workable compromise.

Please contact me (lrobinson@airquality.org or 916.874.4816) or Charlene McGhee (cmcghee@airquality.org or 916.874.4883) of my staff if we can provide any further assistance.

Sincerely,

Larry Robinson
Program Coordinator
Land Use and Transportation

c: Charlene McGhee, Sacramento Metropolitan AQMD

777 12th Street, 3rd Floor ▪ Sacramento, CA 95814-1908
916/874-4800 ▪ 916/874-4899 fax
www.airquality.org

SRCSD

Wastewater Management

Main Office

10060 Goethe Road

Sacramento, CA 95827-3553

Tele: [916] 876-6000

Fax: [916] 876-6160

Sacramento Regional Wastewater Treatment Plant

8521 Laguna Station Road

Elk Grove, CA 95758-9550

Tele: [916] 875-9000

Fax: [916] 875-9068

November 1, 2011

Peter Brundage
Executive Officer
Sacramento Local Agency Formation Commission
1112 I Street, Suite 100
Sacramento, CA 95814

Subject: Elk Grove Sphere of Influence Amendment Draft Environmental Impact Report (DEIR) Update

Dear Mr. Brundage:

Sacramento Regional County Sanitation District (SRCSD) and Sacramento Area Sewer District (SASD) have received the Elk Grove Sphere of Influence Amendment DEIR Update and have the following comments:

The Sphere of Influence area is located outside the SRCSD and SASD Service Areas. This area will need to be annexed into both the SASD and the SRCSD Service Areas through LAFCo in order to receive sewer service. This process is to be initiated by the City of Elk Grove.

Once annexed, local sewer service for this Sphere of Influence (SOI) will be provided by the SASD. Conveyance from local trunk sewers to the Sacramento Regional Wastewater Treatment Plant (SRWTP) will be provided by SRCSD through large pipelines called interceptors. The SRCSD Interceptor Master Plan 2000 provides information regarding interceptor planning.

Customers receiving service from SASD and SRCSD are responsible for rates and fees outlined within the latest SASD and SRCSD ordinances. SRCSD and SASD fees for connecting to the sewer system are set up to recover the capital investment of sewer and treatment facilities that serve new customers.

Neither SASD nor SRCSD is a land-use authority. Projects identified within SRCSD and SASD planning documents are based on growth projections by land-use authorities. Impacts associated with constructing sanitary sewers and treatment facilities must be included in applicable environmental impact reports.

Specific Section comments are as follows:

3.16.1 – Introduction – Wastewater – Sacramento Regional County Sanitation District, Wastewater Collection, page 3.16-6: Please replace paragraph 3 with the following:

SRCSD is in the process of finalizing an Interceptor Sequencing Study that will aid SRCSD in planning and implementing regional conveyance projects and assisting contributing agencies in coordinating collection system facilities.

Please move paragraph 2 to page 3-16-5, Wastewater - Sacramento Area Sewer District and add: *SASD is also in the process of finalizing a System Capacity Plan that identifies future relief and expansion projects within their service area.*

3.16.1 – Introduction – Potable Water, Table 3.16-1 and Table 3.16-2: Both of these tables state that recycled water is used, but there is no discussion of recycled water within the document. SRCSD and SCWA have a joint water recycling program to produce, wholesale and retail recycled water to select areas. Recycled water is produced by the SRCSD and wholesaled to SCWA and is used for non-potable purposes (e.g. landscape and irrigation). Recycled water is used in portions of the Laguna West, Lakeside and Stone Lakes communities located within the City of Elk Grove.

3.16.1 – Introduction - Page 3.16-6 Wastewater Treatment: Please replace the language in the EIR with the following

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.

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 may not occur until late 2011 or beyond. 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.

Currently, the SRWTP can treat up to 5 MGD of wastewater to Title 22 tertiary standards. This recycled water is used for landscape irrigation as well as wastewater treatment processes.

3.16.2 – Regulatory Framework – Page 3.16-13. The section regarding CWA addresses stormwater only. The CWA also addresses NPDES requirements for POTWs. It is suggested that this section be expanded to include a general discussion of the CWA as it relates to POTWs.

3.16.3 - Regulatory Framework – Page 3.16-21. There are two inaccurate and out of date statements as noted below:

- The discussion of SRCSD, namely "under the direction of the County of Sacramento's Water Quality Division", is inaccurate and out of date and should be updated to reflect the current Sanitation Districts Agency (SDA).
- The discussion regarding the 2000 Permit is out of date and should be updated (see comments regarding page 3.16-13).

3.16.5 – Project Impacts and Mitigation Measures – Page 3.16-29. The SRCSD Interceptor Sequencing Study (ISS) did evaluate the South of Elk Grove area for future sewer services.

If you have any questions regarding these comments, please contact me at (916) 875-7123.

Sincerely,

Michael Meyer
SRCSD/SASD
Policy and Planning

cc: Prabhakar Somavarapu
Dave Ocenosak
Sarenna Moore
Bob Seyfried
Jose Ramirez
SRCSD Development Services
SASD Development Services
Taro Echiburu

Sacramento Audubon Society
P. O. Box 160694, Sacramento, CA 95816-0694

November 17, 2011

Sacramento LAFCo
1112 I Street, Suite 100
Sacramento, Ca. 95814
Attention: Don Lockhart

City of Elk Grove Proposed Sphere of Influence Amendment Draft Environmental Impact Report [LAFC # 09-10] SCH No. 2010092076

Dear LAFCo:

Sacramento Audubon is committed to the preservation of fish and wildlife species within the Sacramento Region. Audubon has a long history of involvement with the lower Cosumnes River area, as detailed in our July 26, 2006, letter to Mayor Rick Soares, City of Elk Grove (attached). Audubon also commented on the Notice of Preparation for the subject DEIR (also attached).

Audubon volunteers have reviewed the Draft Environmental Impact Report for Elk Grove's proposed Sphere of Influence and find it to be deficient in almost every respect, falling far short of the relevant legal standards. The DEIR preparers ignored the NOP comments of Audubon and others. This DEIR fails to clearly and accurately assess the major issues associated with the project and includes a great deal of extraneous, inaccurate, and conflicting information. We are told – erroneously – by the document, for example, that the Fremont Weir, Natomas East Main Drain Canal, Yolo Bypass, and Arcade Creek levees provide flood protection to the project area, but we get no assessment at all of North Delta flood management projects and status.

In its current version, the DEIR has only limited utility for LAFCo decision-makers. The LAFCo Board, as well as the interested public and concerned agencies, deserve a document that treats the substantive issues associated with urban expansion accurately and clearly, and the law requires such as well. We strongly urge that LAFCo revise and recirculate the DEIR.

In revising the DEIR, the preparers should consult the record of the environmental review of the City of Elk Grove's general plan, adopted in late 2003 – something that they apparently failed to do. Had they done so, they would have found a range of relevant comments, including detailed citations to available information that was ignored in that environmental review. Pertinent comments from governmental agencies expressed serious, substantive concerns about development within the proposed SOI area, covering drainage and flood control (SAFCA, the Delta Protection Commission, and CA DWR), wildlife resources (USFWS, CDFG), and farmland resources (CA Dept of Conservation, Delta Protection Commission). Non-governmental organizations expressed similar concerns and provided additional information. These comments and citations to available information resources are directly relevant to the proposed project.

As an example, the California Department of Fish and Game letter (City of Elk Grove, General

Plan, FEIR letter "C", September 19, 2003) explicitly pointed out the misuse of the California NDDB in that DEIR, explained its correct use, and specifically used the treatment of the greater sandhill crane in that document as an illustration of its misuse. The preparers of this DEIR repeated exactly the same mistake that was advised against in that prior letter. In addition, the CDFG letter provided evidence of substantial crane roosting within 2 miles of the proposed SOI area, and provided a detailed listing of actual information resources available to, but not used by, the preparers of that DEIR – information resources available to, but also ignored by, the preparers of this DEIR.

Because it is LAFCo'S responsibility to prepare a legally adequate environmental document, and this document falls so far short of legal adequacy, we present our concerns in summary fashion below and look forward to reviewing in detail a subsequent DEIR.

Biological Resources

The DEIR misuses the CNDDB by pretending that the data base is a record of absence. Please review the CDFG letter cited above.

This abuse of the CNDDB leads to inaccurate conclusions that, as examples, there are no northern harriers, white tailed kites, or greater sandhill cranes using the project area. For all of these species (and many more), there is genuine data available (Audubon Christmas counts, Cosumnes surveys, Stone Lakes surveys, and others) that should be used.

The document mentions the proximity of the Stone Lakes, but largely ignores the Cosumnes River Preserve. It fails to discuss habitat relationships, i.e. the importance of the project area to the species using these core protected areas.

The draft fails to use or reference any of the data or analysis developed for the SSHCP draft. It concludes (without support and contrary to available information) that there is no conflict between the SSHCP and sphere expansion.

The SOI area is an integral part of one of the richest and most unique wildlife areas in the continental United States, an area important to sandhill cranes and many waterfowl species, and an area that experiences one of the densest concentrations of wintering raptors in the country. Although these questions are central to the decision at hand, they are absent from the document.

Hydrology and Flooding

The document identifies a significant problem (severe floods every three years in the Point Pleasant area) and mischaracterizes the problem as one of inadequate channel capacity rather than one of cumulative volume. The cumulative potential contribution to Point Pleasant and North Delta flood risks are significant and warrant focused analysis of both impacts and potential mitigation measures. The document fails to estimate the impact on flood frequencies and elevations in Pt Pleasant and the North Delta as a result of the project, or to identify potential mitigation measures. It also fails to consider the potential impacts of climate change on flood elevations and frequency.

The document refers in passing to the North Delta Flood Control Project as one that will not abate flood risks in this area. It fails to describe the North Delta Flood Control Project or the potential for project-associated runoff to impact the North Delta Flood Control Project and flood risks in the North Delta. This set of issues warrants detailed, substantive analysis. The document makes no mention of ongoing flood control efforts in the Morrison/Laguna Creek watersheds or to consider the cumulative downstream impacts with SOI buildout.

The document discloses that the Cosumnes River presents a "major flood hazard" to the south and east portions of the planning area - but nothing more. For a river with well-studied hydrology, and the clear potential to exceed its historic flood, this is inexcusable.

The proposed SOI expansion area includes and abuts a currently-mapped FEMA 100-year floodplain. With changing conditions and subsequent reanalysis, the proposed SOI area will likely extend well into a future flood hazard area. The SOI expansion area is immediately upstream from the Sacramento-San Joaquin Delta, an area that experiences severe and increasing flood hazard as a result of both upstream flows and sea level rise. Urban development eliminates the floodwater holding capacity of the natural and agricultural landscapes and increases the rate and quantity of runoff to downstream areas. Although these questions are central to the decision at hand, they are absent from the document.

Water Supply and Demand

The analysis of current- and post-project water consumption is abstract, not specific to the project area (and assumes that commercial table grapes are produced in the project area – they are not). A useful analysis would reflect actual local conditions, actual cropping and irrigation patterns within the proposed SOI, and the probable net effect on water use. Since the area is limited and well-studied, it's reasonable to provide an actual calculation, not an abstract comparison with no clear conclusion.

Groundwater is discussed in the abstract, with no clear reference to actual conditions. Modeling and assessments conducted for the Water Forum, the Water Forum Successor Effort, the Central Basin Groundwater Forum, and the Zone 40 Master Plan EIR have provided detailed information on the status of groundwater overdraft in the project area, as well as a specific analysis of the effect on flows and temperatures in the Cosumnes River. Since additional urbanization southward is likely to exacerbate these conditions, this is a potentially serious impact requiring mitigation.

Water management within the Sacramento region is governed broadly by the Water Forum Agreement, a document that specifies how and where urban water supplies will be available. The SOI area lies largely outside the boundaries of "Zone 40," the County's administrative entity for delivering municipal water supplies. "Zone 40" provides urban customers with a conjunctively-managed mix of water from wells and from the American River. Zone 40's current boundaries are coincident with the "Place of Use" for American River water, a federal designation. Further expansion of the "Place of Use" will be controversial and difficult to achieve; a previous expansion of the Place of Use was linked to the County's promise to prepare a legally sufficient Habitat Conservation Plan for the South County (the SSHCP). Similarly, to secure federal approval of the Freeport Diversion (by which American River water is delivered to the Zone 40

service area), Sacramento County again promised to prepare a legally sufficient Habitat Conservation Plan. Approval of the SOI will make it significantly more difficult to complete the SSHCP in a legally acceptable manner; conversely, failure to complete the SSHCP will make it more difficult to expand the American River Place of Use. Although these complex and interrelated questions are central to the decision at hand, the document provides no substantive or detailed analysis.

Summary

LAFCo has an essential role in shaping long term growth plans, consistent with its clear statutory mandate. How well LAFCo meets it obligation will have a broad impact on the resilience of local economies, the quality of life in our communities, and on our fish and wildlife resources. LAFCo, uniquely, takes a "big picture" view, asking basic questions about urban form in relation to larger natural resource and landscape realities.

The subject DEIR fails to provide LAFCo with the information and analysis it needs to perform its legal duty. For that reason, we urge that the LAFCo Board direct staff to withdraw this draft, correct its deficiencies, and reissue it when complete.

Sincerely,

Don Schmoldt

Don Schmoldt, President
Sacramento Audubon Society, Inc.

Sean Wirth 11-2-2011

Sees the DEIR as inaccurate not utilizing any resource databases example being sees that the SSCHCP was not properly used. Called the resource that was used in forming the DEIR, the CNDDB, as being inaccurate, does not present foraging data for the habitat, which will be impacted. Sandhill Crane uses much of the land for foraging, which is not, addressed how this species will be potential impacted. Asks to use all available data, HCP does not adequately address the issue of flooding for the potential of animals having to move further upland.

Robert Burness 11-2-2011

Requests were ignored for information to be included within the DEIR and comments from the NOP were ignored. Should include Hydro data and biological data to better improve the report and make a better decision on expanding the SOI area. The DEIR was inaccurate, did not utilize SSCHCP database. Requests that evaluation of growth induce impacts on the wildlife refuge are assess, which is surrounded partly by the project site on three parts. In addition, wants to assess the impacts of waterfowl in the area, their nesting and foraging land is not addressed. Wishes that an extension be granted to comment on the DIER further.

ECOS
ENVIRONMENTAL
COUNCIL
OF SACRAMENTO

Post Office Box 1526 • Sacramento, CA • 95812 • (916) 444-0022

Via Electronic Mail **18 November 2011**

Don Lockhart, Assistant Executive Officer
Sacramento Local Agency Formation Commission
1112 I Street, #100
Sacramento, CA 95814
Email: *don.lockhart@sacLAFCo.org*

Re: Comments on Elk Grove Sphere of Influence Amendment Draft Environmental Impact Report (LAFC #09-10)

Dear Mr. Lockhart,

These comments are submitted on behalf of the Environmental Council of Sacramento (ECOS) on the Elk Grove Sphere of Influence Amendment (EG-SOIA or Project) Draft Environmental Impact Report (DEIR), dated 29 September 2011. 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.

Although the DEIR states in several places that it is not intended to be tiered from and that no construction is planned for under this DEIR, the DEIR does serve as: (1) a document to inform the public and LAFCo as to whether Elk Grove's SOIA request should be approved; and if so what conditions must be applied to future annexation requests; and (2) as an informational foundation for future programmatic and project level DEIR's that may result from this process. ECOS has written its comments with these points in mind.

ECOS has identified numerous flaws in the analysis contained in this DEIR, specifically in the areas of biological resources, agricultural resources, water supply, greenhouse gases, growth inducement and cumulative impacts. These specific concerns are addressed below.

BIOLOGICAL RESOURCES

Given the large number of errors and omissions in this section, large overarching comments will be laid out initially, followed by a more in depth illustrative examination of the treatment of a single species as a demonstration of how far from complete this report is. Similar levels of re-examination and research will need to be undertaken for all potential species by the EIR preparers 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 Guidelines, 15003(i) and 15151). As well this DEIR needs to substantially support its conclusions with evidence (CEQA Guideline, 15064(f)(5)).

General Comments

- Impact determinations are faulty. The biological resource section misuses the California Natural Diversity Database (CNDDB) throughout by indicating that the data base is a record of absence (i.e. by assuming that if a species does not show up in the CNDDB, then it's not there). The CNDDB has a clear disclaimer for users on this point. This does not constitute a good faith effort at full disclosure (see CEQA Guidelines, 15003(i) and 15151).

- The misuse of the CNDDB leads to bizarre results such as the conclusion that, for example, there are no northern harriers within 5 miles of the project site (and a listing of the potential for such as "moderate" based on habitats), no recorded occurrences within 5 miles and low potential for occurrence of white tailed kite, no recorded occurrence within 5 miles and moderate potential for occurrence of greater sandhill cranes. For all of these species (and many more), there is real data available (Audubon Christmas counts, Cosumnes River Preserve surveys, the South Sacramento Habitat Conservation Plan (SSHCP) mapping and incidence of occurrence data, as well as resources from the Stone Lakes National Wildlife Refuge surveys) that should be used. All discussed species must be re-examined using the more complete resources available.

- While the DEIR mentions the proximity of Stone Lakes, but only as a geographical fact; no mention is made of the Cosumnes River Preserve. No discussion is included of the habitat relationships (the SOIA area as buffer and foraging area for species using those core protected areas), cumulative public investment, uniqueness, etc. Again, this does not constitute a good faith effort at full disclosure (see CEQA Guidelines, 15003(i) and 15151).

- The DEIR fails to use or reference any of the data or analysis developed for the SSHCP draft. It concludes (without support) that there's no conflict between the SSHCP and the SOI expansion. This information is clearly inaccurate and does not constitute "substantial evidence" (see CEQA Guidelines, 15064(f)(5)) of a less than significant impact.

- The conclusion that there is no conflict between the SOI expansion and the SSHCP is unsupportable based on the flooding issue with the greater sandhill crane that is discussed further below (see CEQA Guidelines, 15064(f)(5). Additional conflicts exist with the Swainson's hawk habitat.

- Mitigation measures are inadequate. MM LU-3, which requires participation in the SSHCP when it is completed, is deferred mitigation and not acceptable to mitigate potentially significant and unavoidable impacts to a less than significant impact. CEQA Guideline 15126.4(a)(1)(B) states that "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 and which may be accomplished in more than one specific way." In this instance, formulation of mitigation measures for biological impacts is clearly deferred to the future development of a "habit conservation plan" whose contents are presently unknown. Notably, this mitigation measure contains NO performance standard. The requirement that such a plan be developed "in consultation with" US Fish and Wildlife Service (FWS) and California State Department of Fish and Game (DFG) does not require that the plan and its mitigation strategy be approved by those agencies--only that the City consults with these agencies. Mitigation is thus improperly deferred. Substantial evidence does not support the proposed Finding of the DEIR that the "plan" will mitigate biological impacts to less than

significant, because the measures of the plan are not known. In a situation nearly identical to the proposed Elk Grove SOIA DEIR, the Court of Appeal found a violation of CEQA where a mitigation measure called for development of an undefined habitat management plan developed by a biologist in consultation with the appropriate agencies, including FWS and DFG, *San Joaquin Raptor Rescue Center v County of Merced (Jaxon Enterprises, Inc.)* (2007) 149 Cal.App.4th 645, 669, 670; see also Kostka & Zischke, Practice under the California Environmental Quality Act (2nd ed.) Cal CEB 2008, January 2011 update, §14.12, pp, 696 - 700, and the numerous cases cited therein

- Mitigation measures MM BIO 1a and MM BIO 1b are also deferred mitigation and as such not acceptable to mitigate potential significant and unavoidable impacts to a less than significant level (CEQA Guidelines 15126.4(a)(B)).

- Beyond the inadequacy of MM BIO 1a and 1b, the wording of these measures is also imprecise and confusing.

- There is an implicit argument in this section that actual impacts cannot be determined or analyzed because the land use patterns are as yet undetermined. However, annexation and eventual build out are the inevitable goals of the applicant in this process, as SOI is "a plan for the probable physical boundaries and service area of a local agency." (Gov. Code 56076.) Since the annexation process may occur slowly over time, this DEIR is potentially the only opportunity to analyze the SOIA expansion area in its totality for impacts on biological resources. This DEIR must examine the potential impact on special status species and biological resources as a whole in the context of the entire SOIA expansion area being built out. Only this examination can determine the biological viability of this SOIA expansion area being developed. What would it mean to special status species if this entire area was lost as habitat? The greater sandhill crane comments that follow are one example of what this could potentially mean to at least one species. This is another example of a bad faith effort (CEQA Guidelines,15003(i) and 15151).

An illustration of the General Level of Inaccuracy Using the Greater Sandhill as an Example

The Habitat description for greater sandhill crane in table 3.4.2 states: "Found in open, freshwater wetlands, particularly habitats that contain open sedge meadows in wetlands that are adjacent to short vegetation wetlands." This description portrays what would constitute one example of acceptable ROOSTING habitat for greater sandhill crane, but is by no means instructive as to what constitutes viable greater sandhill crane habitat, particularly when it comes to the Fall and Winter habitat they utilize in our region. There are several important habitat factors that must be included in an accurate habitat description. For roosting habitat, the water must be 3"- 8" deep with open sight lines, which means low or no vegetation – of which sedge would be an example of low vegetation. So a flooded agricultural field at the right depth and the right acreage (20 acres or more) would be just as suitable as an actual wetland. This is easily evidenced on Staten Island and in the Cosumnes River Preserve where greater sandhill cranes routinely roost in flooded corn fields. Thus, the availability of row crop fields in the SOIA expansion area that can be artificially flooded to 3"-8" constitutes suitable available habitat for roosting.

Greater sandhill cranes require grist for their crops (the expanded muscular pouch near the gullet or throat) so they can grind up their food, particularly waste grain which is abundant in harvested agricultural fields. So, nearby bare ground uplands that have suitable grist matrix are

important, and these are not uncommon in agricultural areas with berms or where the crops have been harvested, which is the Fall and Winter condition for much of the SOIA expansion area. Greater sandhill crane use foraging habitat within a two mile diameter of their roosting sites (Gary Ivey, unpublished research for Phd). Greater sandhill crane in our area forage extensively in harvested row crop fields and irrigated cropland. They consume the residual waste grain and whatever small animals they can find. Freshly flooded fields also result in the flushing out of small animals which makes them popular forage sites as well.

The majority of the SOIA expansion area would make very suitable foraging habitat for greater sandhill crane as long as some roosting sites are established which could be easily accomplished by shallowly flooding some harvested fields.

The SSHCP has a very good species account that could be utilized to improve table 3.4.2 and the treatment of greater sandhill crane in general in this DEIR. Given that the SOIA expansion area is within the plan area for the SSHCP, it is somewhat surprising that SSHCP mapping and species accounts were not relied upon. The entire area of the SOIA expansion is included in the primary conservation area for greater sandhill cranes in the most recent draft of the SSHCP (see attached figure 7-20: Primary Conservation Area for Greater Sandhill Crane in the SSHCP Plan Area). An examination of the primary conservation area map included as figure 7-20 clearly indicates "consolidated species occurrences" well within 5 miles of the SOIA. Given this and the availability of all habitat components and the fact that there are regularly greater sandhill cranes in the vicinity (both to the south and to the west), the "potential for presence" status needs to be changed from moderate to HIGH. Interestingly, in the special status species impact analysis (3.4-36) the DEIR states: "State fully protected greater sandhill crane and state threatened Swainson's hawk have a high potential to occur within the project area." This appears to be an admission that our assertion is indeed correct. Moreover, in addition to being fully protected the greater sandhill crane is also a state listed "threatened" species. Greater sandhill crane is listed by DFG as a fully protected species (which means that a special statute was passed at some time to protect it: http://www.dfg.ca.gov/wildlife/nongame/t_e_spp/fully_pro.html#Birds. Greater sandhill crane was also listed under CESA in 1983 http://www.dfg.ca.gov/wildlife/nongame/t_e_spp/fully_pro.html#Birds.

Further substantiation for the change in the status of "potential for presence" to HIGH is found in the fact there are recorded occurrences of greater sandhill cranes in the SOI expansion area. Dr. John Trochet worked for the Nature Conservancy and Gary Ivey in 2005 between January and March and documented greater Sandhill crane usage of the SOIA expansion area during a flood event (Ivey, "Mitigating Loss of Sandhill Crane Habitat in South Sacramento County", March 25,2005). The greater sandhill crane does not at present use this area during "normal" water conditions, but these upland areas like the SOIA expansion area are critical for the long term health of the greater sandhill crane population because they allow for foraging areas above water during the frequent periodic flood events in the lower Cosumnes basin.

The SOIA expansion area has provided critical upland foraging habitat for the greater sandhill crane during the frequent flood events in the lower Cosumnes basin. Beyond the fact that portions of the added inventory are at or below sea level, no investigation or scientific analysis has been made as to the impact of removing so much upland foraging habitat for the greater sandhill crane, given its importance during flood episodes. Most of the preservation of sandhill crane habitat has been within the floodplain, and significant areas that are not technically within the floodplain, such as Staten Island, are at risk of catastrophic failure during significant flood events if their antiquated levees fail – this nearly happened to the Staten Island levees during such an event in the last decade and it was only emergency repairs that kept it from becoming a

lake. Greater sandhill crane can't swim. A significant flood episode with inadequate upland foraging habitat remaining could have catastrophic consequences for the greater sandhill crane. Before so much upland foraging habitat is removed for urban/suburban/commercial development within the SOIA expansion area, a scientific study must be undertaken to determine how significant the impacts on the crane are, as well as create a regional management plan to ensure that adequate upland habitat is available during flood events Such a study should list mitigations for the greater sandhill crane. This is also an issue that needs to be addressed by the SSHCP if this expansion is approved and its eventual development after annexation is to be given incidental take coverage.

It is not acceptable to claim that this issue can be resolved at the time of annexation(s) as this may be the only opportunity to consider the totality of the landscape being considered for development. The SSHCP had always assumed, until a last minute maneuver by Elk Grove, that all of the land in the SOIA expansion area would be part of the "receiving" side of the SSHCP. This relatively new change of use has not been either fully or properly vetted within the SSHCP. It is in fact a point of major of contention. Concerns have been frequently expressed that adjusting the math between the "take" and the "receiving" side of the SSHCP by increasing the plan area to the west of I-5 does not constitute a scientifically defensible position. This is one of a list of contentious issues that need to be worked out. It is not at all accurate to say that the SOIA expansion is not in conflict with the SSHCP. THIS STILL NEEDS TO BE DETERMINED! It also needs to be determined if the SOIA will undermine the conservation strategy of the SSHCP.

We would like to reiterate that the preceding examination of how the DEIR handled the greater sandhill crane is presented to demonstrate not just the deficiencies in the DEIR as pertains to the crane, but also as indicative of the poor handling of species and biological resources in general and the project's potential impacts in general within the DEIR. All other species will need to be re-examined in the light of more complete data resources, and the impacts on them will need to be determined looking at the totality of habitat removal due to the eventual annexation of the SOIA. Anything less would be a bad faith effort at informing the public and decision makers about the environmental impacts on these species (CEQA Guidelines,15003(i) and 15151). A failure in this regard would also mean the conclusions are unsupportable and without "substantial evidence" (CEQA Guidelines, 15064(f)(5)).

A Closer Examination of MM LU-3, and MM BIO 1a and 1b

As already indicated, the greater sandhill crane is briefly mentioned here as solely a "fully protected" species, and then is basically dropped. All further information provided pertains to the Swainson's hawk or the burrowing owl. Given the complexity of crane habitat requirements and the flood related issues involved, it is necessary to have a similarly full discussion of cranes here as well.

As for mitigation measure LU-3, though commitment to participation in the SSHCP is important, this does not actually constitute mitigation point since the Plan has not been completed. And, given that it has been in preparation for almost 20 years and there is no accurate timeline for completion, it is unclear if and when it will be available. We refer you to the comments that FWS made about using the SSHCP as the mitigation strategy in the DEIR for the Sacramento County General Plan update. Whereas we acknowledge that MM LU-3 would be the primary mitigation measure when and if the SSHCP is completed, it is not actual mitigation until the SSHCP is completed. The approach in the DEIR constitutes impermissible deferral of mitigation (CEQA Guidelines,1526.4(a)(1)(B)).

Moving on to MM BIO 1a, we see this section as an explication of mitigation in the absence of the SSHCP. If the SSHCP is completed, then all of these measures would be fulfilled, but in the

absence of the SSHCP they need to be considered for adequacy, with the SSHCP as the exemplar. The way that the DEIR structurally handles this section in relation to the SSHCP requires such an approach. The SSHCP is offered as the preferred mitigation and the following measures are offered as back up in the absence of the SSHCP.

For MM BIO 1a Part A, it is unclear who is intended as the lead agency. Is this indicating LAFCo would be the lead agency in accepting annexation request? If so this is an inaccurate and misleading use of "lead" agency because in the annexation process LAFCo would be a responsible agency and Elk Grove would in fact be the lead agency. The fact that, for annexations, Elk Grove would be the lead agency potentially means that the SOIA process is the only venue to consider the totality of impacts to species if the entire SOIA eventually was developed. Given the technical nature of the relationship between an SOIA and expansion, the use of "lead" agency should be fully defined, identified and explicated such that it is understandable to the public.

It is also unclear how a reconnaissance level biological survey will allow the "lead" agency to track impacts on special status species on a regional basis, rather than on a project by project basis. For starters, such a survey, if done well, would establish a baseline. The baseline should be determined at the outset of CEQA review (CEQA Guidelines, 15125). Tracking would be another matter altogether. Is it being suggested that an ongoing effort is considered here to track ongoing impacts based upon development and other changes on the ground? How would this work exactly? What is the specific plan for such tracking, and how is it to be financed? Is the as yet unclear "lead" agency responsible for the management of the tracking?

It is also unclear how this will allow the as yet unclear "lead" agency to track impacts on special status species on a regional basis. Since the survey is a base level assessment of biological resources, how does this translate into regional tracking? Is it being suggested that the reconnaissance survey is to inform an EIR that can be tiered off of for biological resource impacts for projects in the expansion area during annexations? This needs to be fully explained. The use of "when feasible" to complete MM BIO 1a Part A further adds to the confusion. So this survey and the tracking will be used by the as yet unclear "lead" agency for handling impacts on special status species on a regional basis when it is feasible. What is feasibility based on? Is the tracking where feasible as well? With a reconnaissance level survey and ongoing tracking of impacts, it would seem that a regional perspective of the impacts on special status would be available. Not using such a resource because it is not feasible seems to suggest that feasibility relates to monetary aspects of a particular project rather than the limitations of the resource. Is it then the case that "when feasible" means when it is "affordable?" If so, who determines when it is affordable? What does "affordability" do to the ability to properly identify and mitigate for the impacts on special status species?

For MM BIO 1a Part B, the entirety of the SOIA expansion area is considered habitat for the Swainson's hawk and the greater sandhill crane in the SSHCP. Any development in any area of the proposed SOIA expansion would be a failed attempt at avoidance and would necessitate mitigation. Any development would make avoidance "infeasible" and require mitigation. The DEIR should disclose these facts.

For MM BIO 1a Part C, the requirement that a Habitat Conservation Management Plan (HCMP) be prepared is equivalent to MM LU-3 in that what is being offered for mitigation as of now does not exist and as such cannot be analyzed for effectiveness or completeness. The measure basically states that the mitigation will be handled by as yet undetermined mitigation. This is not acceptable and makes it impossible to assess the effectiveness of the eventual mitigation measures. Basically, what is set up here is an argument that potentially significant impacts on special status species will be adequately mitigated by an as yet to be completed SSHCP, and in the absence of the SSHCP on as yet to be developed HCMP. As there are no performance

standards, this is an impermissible deferral of mitigation and not acceptable per CEQA (see CEQA Guidelines, 15126.4(a)(1)(B).

Relying on a future agreement with the DFG for appropriate Swainson's hawk mitigation is also unacceptable because such an agreement does not at this point in time exist, and as such the suitability of such agreement cannot be ascertained. It is also deferred mitigation and not acceptable per CEQA.

Additional General Biological Resources Comments

In the Agricultural Cropland section 3.4.1, the list of species expected to occur is quite incomplete and seasonally skewed. It does not include any of the winter complement of migratory waterfowl that use cropland for winter forage. It is also so incomplete that the inclusion of the few species listed appears to indicate that this habitat is hardly to barely utilized by wild species, which is untrue. This error is exacerbated, as previously explained, by the misuse of the CNDDB database throughout the biological resources section.

The same is also true of the Irrigation ditches and Irrigated Cropland sections that follow. For Wetlands this trend is broken and no species are listed at all. From a practical perspective, the erratic incomplete listing of potential species that occur or might occur in a given habitat type is more confusing than helpful and falls far below the minimum disclosure requirements of CEQA.

AGRICULTURAL RESOURCES

Farmland of Local Importance Discussion is Inadequate

Farmland of Local Importance is land of importance to the local economy, as defined by each county's local advisory committee and adopted by its Board of Supervisors. Farmland of Local Importance is either currently producing, or has the capability of production, but does not meet the criteria of Prime Farmland, Farmland of Statewide Importance, or Unique Farmland.

Sacramento County has defined Farmland of Local Importance as follows:

> Lands which do not qualify as Prime, Statewide, or Unique designation but are currently irrigated crops or pasture or non-irrigated 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.

The primary intent of this definition was to ensure that land that at one time was Prime or Statewide in Importance but has been removed from those designations because the land was no longer being irrigated (as per requirement of the Farmland Mapping Act), was captured by the Farmland Mapping and Monitoring Program. This is a reflection of the trend in rapidly urbanizing counties for landowners to cease irrigated crop production in anticipation of future urban development.

The data in Table 3.2-1 indicates that 1929 acres or 26% of the project area is now classified as Locally Important. It is a reasonable assumption that most of this acreage was previously classified as Prime or Statewide in Importance. The Sacramento definition and its purpose are important to fully understand the appropriate mitigation and needs to be included in the document under the discussion of Farmland Classifications on page 2.3-2. A review of the prior classification history of these locally important lands would be informative.

Mitigation Measure AG-1 Inadequate

The measure inaccurately refers to open space and conservation easements in conjunction with farmland mitigation. More importantly, the mitigation measure should utilize at least a 1:1 mitigation ratio for farmland lost. This mitigation ratio is more appropriate for the following reasons:

- One of the primary charges of LAFCo is to guide development away from open space and prime agricultural lands
- The DEIR finds that the project is inconsistent with LAFCo Policy III.E.1 (page 3.10-48)
- DEIR finds that the project is inconsistent with Sacramento County General Plan Policies AG-1, AG-5 and AG-19 (page 3.10-23)
- It is more consistent with the past practice of mitigation for agricultural land loss in Sacramento County.

The recently adopted mitigation policy AG-5 in the Sacramento County General Plan provides important guidance for agricultural mitigation. The policy requires that conversion of more than fifty acres of prime, statewide importance, unique and local importance farmlands located inside or outside of the Urban Service Boundary (USB) be mitigated for inside Sacramento County at a ratio of 1:1 with in-kind or similar resource value protection.

The Mitigation Measure should be modified as follows:

> MM AG-1: At the time of submittal of any application to annex territory within the Sphere of Influence Amendment (SOIA) Area, the City of Elk Grove will identify lands to be set aside in permanent agricultural easements at a ratio of at least one acre of prime, statewide importance, unique and locally important agricultural land converted to urban land uses to one acre of in-kind or similar value of farmland preserved. The easements shall include an adequate endowment to be provided to manage the easement in perpetuity and be held by a qualified land trust or conservation entity, such as the Central Valley Farmland Trust or the Sacramento Valley Conservancy. Stacking of mitigation values, where acceptable to the land trust, will be permitted in order to serve multiple overlapping conservation purposes. The preserved farmland shall be located inside Sacramento County and within five miles of the SOIA Area.

WATER SUPPLY

Overview

The DEIR makes that statement: “No new water infrastructure is proposed because no new development is proposed. SCWA is the water service provider and would need to provide for water services. However this is not part of the subject SOIA and is beyond scope of the EIR” (page 2-28). This is a confusing and inaccurate statement in that the ability of the Sacramento County Water Agency (SCWA) to provide water with minimal environmental impact and consistent with existing agreements IS within the scope of the DEIR. It is a reflection of the careless and inadequate discussion of water supply in the document.

Water is an essential service for prospective urban development and an important factor in the LAFCo approval process. The availability of water to meet the competing needs of habitat, agriculture and urban uses is an ongoing and increasingly acute issue in the Sacramento region and elsewhere in the state. This is one of the threshold issues facing LAFCo. It presents itself at three levels:

> 1) Is there adequate water supply to the area to meet potential urban needs?
> 2) If so, where would it come from, and how does its withdrawal from the ecosystem impact the environment?
> 3) How does the project impact the ability of water providers to meet the cumulative demand of growth from approved land use plans consistent with existing agreements, notably the Water Forum Agreement?

On the first point, the SOIA Area west of Highway 99 could potentially annex to the SCWA Zone 40 area, water distribution tie-ins are reasonably close, and water could be pumped from the aquifer. The remaining issues are more complicated and here the analysis in the DEIR falls considerably short of appropriately informing the City and LAFCo of the environmental consequences of increased water demand associated with putting the SOIA Area on the path of urban development,

Environmental Impact of Increased Water Use

With regard to the second point, the primary direct environmental impact would come from increased withdrawal of groundwater from the project area. Yet the analysis in the DEIR on water demand is very limited. The Agricultural Lands chapter presents data on the number of acres of prime, unique, statewide importance and local importance farmland but there is no data on crop acreage in the report. The analysis is based solely on Tables 3.9-1 and 2.9 2. The first table presents annual consumption per acre of three crops—table grapes, corn and stone fruit--without any reference to their relative abundance in the project area. In fact there are no table grapes grown in the project area, although there are plenty of wine grapes, and there is very little, if any, acreage devoted to stone fruits. The second table lists the demand for water consumption based on broad regional *per capita* averages. The document states on page 3.9-27 that the "Central Basin is not adjudicated and is not considered to be in overdraft according [sic]the DWR Bulletin 118 (DWR, 2011)", but it does not include any information from the Central Sacramento County Groundwater Management Plan indicating the presence of a large cone of depression in the project area. From this sparse data the DEIR concludes that "future development indirectly resulting from the proposed project may result in increased consumption volume over what is currently drawn from the groundwater basin." (page 3.9-27)

This vague and tentative conclusion is inadequately supported by minimal, generalized data not specific to the project area. As such it does not meet the 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) nor does substantially support the conclusion with evidence (CEQA 15064(f)(5).

Habitat 2020 and ECOS recommended both in oral testimony and written communication in response to the project NOP that:

> The EIR on the EG SOI Request needs to carefully evaluate the water impacts of urban development within the SOI. To do this it must consider the potential water demand from a reasonably likely development scenario that would have a high demand for water, such as low-density residential use throughout the proposed SOI. Assumptions regarding water conservation should be in line with targets established by the Water Forum Agreement.
>
> The potential demand for water needs to be compared with the historic pumping of groundwater and any diversion of any Cosumnes River water for irrigation within the SOI. The EIR must look at the range of irrigated acreage over the last 20-30 years, crops grown on that acreage and their associated water demand, and pumping data to

arrive at a reasonable estimate of average or typical consumption of water within the SOI for agricultural purposes. (email from Rob Burness of Habitat 2020 to LAFCo, dated October 27, 2010 and included in the DEIR appendix)

The DEIR must incorporate essential elements of the above recommendations in order to adequately disclose the impact of urbanization on groundwater withdrawals. This analysis is feasible. Acreage estimates of crops under cultivation over a reasonable time period in the study can be derived from aerial data and information from the County Agricultural Commissioner's office. Industry accepted standards for water consumption for those crops can yield a reasonable estimate of agricultural water use patterns. The analysis of urban water demand needs to include more nuanced evaluation based on the proposed land use projections within the SOIA Area set forward in Table 2-6 of the document. The water demand analysis needs to distinguish between that portion of the SOIA Area west of Highway 99 from the area east of Highway 99 as the hydrologic issues are different for each area.

Cumulative Water Demand and Water Forum Agreement Consistency

The third point, specifically the ability of water providers to meet the cumulative demand of growth from approved land use plans consistent with existing agreements, notably the Water Forum Agreement, is critically important to understanding the impact of SOIA Area expansion on a potentially limiting factor affecting the region's growth.

The SCWA is the water provider for much of the rapidly growing area within the City of Rancho Cordova, Elk Grove and unincorporated south Sacramento County. SCWA is signatory to the groundbreaking Water Forum Agreement, a document that allows the region to meet its needs in a balanced way by ensuring adequate water to meet in-stream flow habitat requirements and maintain safe yield groundwater withdrawals in the long term. The Agreement establishes a safe groundwater yield of 273,000 Acre Feet per Annum (AFA) from Central Sacramento County Groundwater Basin and allocates up to 78,000 AFA surface water from the Sacramento River for SCWA use.

The EIR for the Sacramento County General Plan Update (adopted November 9, 2011) examined the environmental impacts associated with the incorporation the Jackson Highway and Grantline East Growth Areas, together comprising approximately 20,000 acres, in the County's plan for urban growth through 2030. The document identified the SCWA as one of three water purveyors that have an inadequate supply of water to meet demand by new growth (Summary of Impacts, page 1-13). For SCWA Zone 40 the demand for water at buildout, including the new growth areas, would exceed the projected supply by 4913 AFA (Sacramento County General Plan Update FEIR, page 6-47).

The Jackson Highway and Grantline East Growth Areas are within the USB of the Sacramento County General Plan. The USB is the area within which urban services are planned to be provided over the long term. They were included within the ultimate growth projections that were part of the Water Forum Agreement.

The newly adopted General Plan does not include the Jackson Highway and Grantline East Growth Areas within its Urban Policy Area identifying lands planned for development by 2030. However, it does include criteria which, if met, would allow development of these areas to proceed prior to 2030. In fact, one application for development has already been accepted and is undergoing environmental review, two other requests for entitlements have been presented to the County for acceptance and a third is anticipated in the near future. It is therefore likely that planned growth in the SCWA Zone 40 area and within the USB will lead to water demands which exceed the projected safe yield water supply.

The portion of the Elk Grove SOIA application east of Highway 99 is inside the USB, but the area west of Highway 99 is beyond the USB. Growth in that area was not included within the ultimate water demand projected by the Water Forum. It is therefore reasonable to conclude that the annexation and development of the Elk Grove SOIA Area will lead to additional water demand, which when combined with water demand associated with approved general plans inside the USB and pending applications for development under the new growth management criteria of the Sacramento County General Plan, could very well exceed the projected safe yield water supply for the Central Sacramento County Groundwater Basin.

This possibility represents a threshold decision for Sacramento LAFCo in considering the approval of Elk Grove's request. It is essential that the EIR's analysis for the project provide a clear understanding of how the potential urban development of the area would impact the SCWA's capacity to provide sufficient surface water and maintain safe groundwater yields.

The DEIR fails completely to provide that analysis. It provides data from the SWCA Urban Water Management Plan that indicates that 2030 water demand will be within the annual water supply (page 3.16-2). The document states that the "SCWA is capable of expanding infrastructure and services to provide adequate municipal water services in the SOI Area…SCWA can conduct master planning for adequate infrastructure during its next master plan update for Zone 40." (page 3.16-23). It does not address at all the question of whether SCWA can provide water to the area, in addition to other development that is part of approved general plans, in a manner that assures maintenance of safe groundwater yields.

The matter of surface water also needs to be more thoroughly examined, since delivering surface water is the SCWA's primary strategy for providing water to meet demands while maintaining safe groundwater yield, and by extension is an important means of mitigating adverse impacts on groundwater. However it is not entirely clear that the SCWA can deliver any surface water to the area. All, if not most, of the project area is outside the American River Place of Use. This raises the question as to whether American River water pumped through the Freeport Diversion facility can be utilized outside the place of use. The Draft EIR needs to assess whether there are constraints on delivering surface water to the SOIA Area to mitigate for increased groundwater pumping for urban uses. (See *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal. 4th 412, 432 ("CEQA requires some discussion of possible replacement sources or alternatives to use of the anticipated water, and of the environmental consequences of those contingencies").)

Proposed Mitigation Measure HYD-2 also constitutes impermissibly deferred mitigation. It states that:

> Prior to annexation of any or part of the Sphere of Influence Amendment (SOIA) Area, the city of Elk Grove demonstrate provide [sic] a Plan for Services that demonstrates that sufficient, sustainable potable water supplies adequate for projected demand needs are available and would not result in depletion of groundwater quantities greater than that under the without project baseline.

This mitigation measure is similar to that stuck down in *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal. 4th 412, 427-447. Mitigation in that case required that "entitlements for development within the Sunrise Douglas project shall not be granted without firm proof of available water supplies, assures that water will be available for later phases of the project." (*Id*. at 444.) As explained in the opinion, the EIR relied "on a provision for curtailing later stages of development if water supplies do not materialize without disclosing, or proposing mitigation for, the environmental effects of such truncation." Similarly,

this DEIR may not assume that future impacts will be mitigated by development of a future plan for services.

The analysis and mitigation in this DEIR must be corrected to comply with water analysis, mitigation and planning requirements.

GREENHOUSE GASES

Good Faith Effort to Inform Decision-Makers and Public Is Inadequate

The DEIR is woefully inadequate and incomplete at informing decision-makers and the public regarding the impacts of this project and cannot be considered a good faith effort at disclosure of environmental impacts (per CEQA 15003((i) and 15151). The analysis of alternatives is not adequate and incomplete; the impact analysis is flawed; there is no analysis of how SOIA greenhouse gas (GHG) emissions will affect Sacramento County's overall ability to meet State GHG reduction targets; and flooding impacts due to climate change are not addressed.

Analysis of Alternatives Is Incomplete

ECOS accepts the range of alternatives selected for the DEIR, however ECOS' primary concern with the alternatives was that a good faith effort at discussing "comparative merits" and "fostering informed decision-making" (per CEQA 15126.6) regarding environmental impacts was inadequate. This included the lack of a discussion of how this project effects meeting Sacramento Area Council of Government's (SACOG) regional greenhouse gas (GHG) reduction goals.

SB375 was passed in 2008 to <u>better integrate local land use planning with regional transportation</u> needs. As part of the process, SACOG was assigned the task of reducing transportation related GHG levels by 7% per capita by 2020 and 16% per capita by 2035.

Although these goals are identified in section 3.7, there is no discussion or analysis of how the different alternatives would comply with the SACOG targets. As a minimum, the following should be answered in the DEIR:

- If SACOG was contacted and no information was available, the DEIR could explain that "SACOG reviewed the alternatives and indicated that there is insufficient data to be able to inform decision makers about any alternatives ability to help meet 2020 and 2035 targets"
- If possible, provide quantitative information such as:
    - Has SACOG modeled the Chapter 5 alternatives to see how well they might comply with meeting GHG reduction goals?
        - If so, what are the results?
        - If data quality is sufficient, DEIR should state that the preferred alternative results in EG's per capita emissions to drop by x% by 2020 and y% by 2035 whereas the ERA is a bit better at c% and d%.

Impact Analysis Is Flawed

Section 3.7.6, page 3.7-20 discusses two GHG Impacts; the GHG emissions for the SOIA; estimates how Air Resource Board (ARB) measures might reduce those gross emissions; and how the Elk Grove Sustainability Element and Climate Action Plan (SECAP) process is trying to develop a plan to reduce GHG emissions by 15% by 2020. The DEIR conclusion was that if MM-GHG-1 were implemented, GHG levels would be less than significant. ECOS believes that

important information and analysis is missing from the DEIR that is important to assessing the significance of the impact.

Table 3.7-7 indicates that SOIA GHG emissions will be 553,992 Metric Tons/year (MT/yr) for 2020. This is an admittedly large number. However the analysis provides no indication as to how the potential development of the SOIA area would impact the ability of Elk Grove, Sacramento County and the SACOG region to meet emission reduction targets. One way to provide perspective is through comparison of emission reduction thresholds. A threshold of significance more easily allows a lead agency to determine whether an environmental impact is significant. The degree to which a project meets or exceeds the threshold provides a measure of the scale of significance. A large project that would generate GHG emissions well above the threshold may make it difficult or impossible for a jurisdiction to meet GHG reduction targets.

The State of California has developed an estimate of per capita or per service population significance thresholds for year 2020 by dividing statewide GHG emission targets for that year by projected population plus employment as illustrated in the following table. The populations and GHG Emission Levels are in millions.

Table 1- GHG Emissions Metrics

Year	Population	Work Force	Pop + WF (sp)	GHG Emissions (MT/yr)	Allowable Emissions (MT/yr-sp)
2020	44.1	20.2	64.3	295.5	4.6

Population + Work force = Service Population (sp)

The Bay Area Air Quality Management District (BAAQMD) has subsequently adopted the 4.6 MT/yr-sp threshold for project level developments in the Bay Area. Santa Barbara has adopted the Bay Area's significance threshold of 4.6 MT/yr-sp knowing that the evidence used by the Bay Area is substantial and thus per CEQA is reasonable to use. More locally, the Folsom Specific Plan, realizing that data from Table 1 indicates that GHG thresholds need to be reduced over time, developed two separate thresholds: 4.4 MT/yr-sp for projects permitted before 2020 and 3.7 MT/yr-sp for projects permitted after 2020.

Table 3.13-2 and Table 3.13-3 assume for analysis purposes that employment and households within the EG SOIA Area at buildout will respectively total 35,500 and 20,685. The population, based on a 2035 average household size of 2.78 (Population and Housing Estimates, 2005-2035, SACOG, 2008), would total 57,500. The service population of the project at buildout would be 35,500 plus 57,500, or 93,000. The resulting GHG efficiency metric for the SOIA is therefore:

553,992 MT/yr/ 93,000 service population = 5.96 MT/yr-sp

That is 30% greater than the 4.6 MT/yr-sp 2020 threshold referenced above and 61% greater than Folsom Specific Plan's 2035 threshold of 3.7 MT/yr-sp. This information needs to be included in the DEIR analysis.

The above numbers suggest that it will be a considerable challenge for Elk Grove to reconcile the SOIA Area GHG emissions with their need to meet 2020 and subsequent emission reduction targets. The question is just how might that be accomplished? The DEIR offers no perspective on the reasonableness of attaining these targets, nor does it offer any perspective on how the alternatives to the project would impact the City's ability to meet GHG reduction targets. This information is essential in order to assess the assumption that the mitigation

measure can in fact succeed in reducing the impact to less than significant levels, as blithely assumed in the DEIR.

The above numbers also suggest that the development of SOIA Area may well conflict with the draft 2035 MTP and Sustainable Community Strategy scheduled for adoption in Spring 2012, possibly before LAFCo takes action on the Elk Grove SOIA. Yet the DEIR only casually mentions the MTP/SCS on page 3.7-20 and there is no discussion of consistency/conflict potential with that draft plan, which is now available for public review. The DEIR must review the project for consistency with this draft plan.

ECOS Recommended GHG Reduction Mitigation Measures

The GHG reduction mitigation measure should more specifically state the need for consistency with SACOG's Metropolitan Transportation Plan and Sustainable Communities Strategy Thus, ECOS suggests that the mitigation measure be revised as follows:

MM-GHG-1: Prior to annexation of any or part of the SOIA, the City of Elk Grove shall amend or augment the City's greenhouse gas emissions inventory projections to account for development of the SOIA area. Emission factors used by the City shall be submitted for public review and concurrence to the SMAQMD and the ARB. The City shall assess the potential emission reductions from development of the SOIA area consistent with the City's Sustainability Element, Climate Action Plan; other applicable General Plan policies, and applicable city, county, and/or state programs that reduce GHG's. The City shall demonstrate that development of the SOIA will be consistent with the SACOG MTP/SCS, any future GHG thresholds adopted by the Sacramento Metropolitan Air Quality District, and with SB97, AB32, S-3-05, and SB375 regional emission reduction targets, or other emission reduction targets adopted by the State of California or regional agencies in effect at the time of application for annexation.

Impact on Sacramento County Greenhouse Gas Targets Is Not Provided

LAFCO decision makers and the public need to understand the GHG emissions of not only Elk Grove and the SOIA area, but the County as a whole. The DEIR needs to include a section on the County inventory (and 7 incorporated cities) that was completed in June 2009 and how the SOIA will affect the baselines of the unincorporated County and Elk Grove and of the County's ability as a whole to meet 2020 and subsequent GHG reduction targets. As a minimum, the discussion should include:

Pertinent facts and inferences that County inventory was 13,938,537 metric tons per yr (MT/yr) in 2005; that the County's target for 2020 needs to be approximately 11,847,000 MT/yr (2005 -15%) and by 2050; 2,370,000 MT/yr (2020 – 80%).

Pertinent facts and inferences that if the County's GHG emissions must follow this trajectory, then the 7 incorporated cities must also.

Concerns over how GHG reductions are handled by "growing communities" versus "built-out communities" have been heated over the past 4 years- centering on per capita (or per sp) vs. gross reductions. ECOS believes that since Elk Grove and Sacramento

County are still “growing communities”, it would be reasonable to achieve the LEAST restrictive of the following metrics:

- Gross emissions identified above
- Per service personnel (sp) emissions per significance threshold discussion

The City of Elk Grove with the SOIA area included need to develop an overall strategy to live within the budget of: (1) 842,971 MT/yr identified for Elk Grove in the County inventory (as amended by Table 3.7-4) and (2) the transferred allocation from unincorporated County for the SOIA area.

Flooding Impacts Due to Climate Change Is Not Addressed

DEIR pages 3.7-5 and 3.7-6 discuss sea level rise, sea-level storm surge, rain, and Sierra snowpack. Other references, not found in DEIR, discuss: (1) rapid climate change in which ice shelves in Greenland and Antarctica degrade quickly and cause sea levels to rise faster than predicted and (2) annual rainfall levels per month. All of these items are pertinent to a discussion on flooding.

DEIR section 3.9.2 (page 3.9-7) and to a lesser extent section 6.3.1 discusses flood plains and issues associated with flooding, but ECOS could find no discussion of the following climate change related issues. The questions below should be included in DEIR to better inform decision makers and the public:

- Discuss rapid climate change
- Discuss annual rain fall probabilities
- Provide 100 year flood maps for 2100 if NO upgrades were made to levees or water reservoirs- i.e. NO water infrastructure upgrades except maintenance of existing systems
- Discuss the present value of the cost of the water infrastructure that will be required to address expected climate change impacts.
    - And the per capita cost to Elk Grove residents if these infrastructure upgrade costs are fully recovered

GROWTH INDUCEMENT

Inaccurate Information in Population and Housing Section

The growth inducement impacts of the project are considered in the Population and Housing Section. The section begins with the recitation of basic population data and projections. This section fails to provide accurate and up-to-date projections. Section 3.13.1 includes the statement that Elk Grove will reach a population of 192,889 by 2035 based on SACOG 2008 numbers. These numbers are outdated and inconsistent with the 2035 population projection of 177,500 in the Municipal Service Review prepared by Elk Grove for submittal to LAFCo with their SOI Amendment application (Municipal Service Review, Revised August 18, 2010, Table 3.0-3).

The same section also includes the statement that based on SACOG projections, employment land uses could more than double and housing land uses could almost double by 2035. (3.13-4). This statement is inaccurate and needs to be revised with the most current available data and the supporting data included in the document.

The document also includes the following statement: “In addition, because the project includes more jobs than housing, it would have, by definition, a beneficial effect on the jobs/housing balance and would provide additional opportunities for the City/County to improve jobs to housing ratio (page 3.13-5).” This statement is based on growth assumptions from Fehr and Peers (Table 3.13-2) that are wildly optimistic and not supported by the historic record of job development within the Sacramento Region. The analysis needs to be grounded in some degree of reality and not based on self-serving employment growth data.

Analysis of Growth Inducing Impacts is Inadequate

The DEIR fails to adequately examine the growth inducing impacts of the project. It states that there are no direct growth-inducing impacts associated with the project and that the only indirect growth-inducing impacts are those within the SOIA area itself:

> In summary, the proposed project would maintain existing land use designations and zoning and would not result on [sic] the construction of new homes, businesses, roads, or utilities. Therefore, the proposed project would not directly induce substantial population growth and impacts; however, the project may indirectly induce substantial population growth (page3.13-5).”

This conflicts with the conclusion later on the same page that the “proposed project could lead to eventual development of the area and direct and indirect population growth.” The DEIR should be revised to characterize growth within the SOIA Area as direct growth inducement and the potential for growth beyond the project area as indirect growth inducement.

Yet the DEIR does not even consider the more important growth inducing impact beyond the SOIA project area. It is a historically demonstrable fact that new development on the fringe of a metropolitan area generates land speculation, ownership changes and economic circumstances that lead to land use requests to extend development beyond established boundaries. The current application is itself an example of the growth inducing effects of developing to the edge of the current Urban Service Boundary west of Highway 99. Yet incredibly, there is no analysis of the potential for this project to introduce growth on land adjacent and beyond the proposed SOIA boundary--in spite of the fact that Elk Grove City and Sacramento County have drafted a Memorandum of Understanding that specifically proposes an agricultural residential buffer to mitigate for the project’s growth inducing impacts. We can find no reference to this MOU anywhere in the DEIR.

Growth Inducement is also a concern on the west side of the SOIA boundary across Interstate 5 at the southwest corner of the interchange of Hood Franklin Road and the freeway. This property is located at the planned western terminus of the Southeast Connector, a major expressway that would link Interstate 5 and Highway 50 between Elk Grove and Rancho Cordova. The interchange would be the first urban interchange entering the Sacramento urban area for northbound traffic on Interstate 5. Although the property at the southwest corner of the interchange is inside the legislative boundary of the Stone Lakes National Wildlife Refuge, it is not subject to conservation easements or other restrictive covenants (unlike the property at the northwest corner, which is publicly owned), and the USFWS exercises no authority over the property. Inclusion of the land on the east side of the freeway within the SOIA for the purpose of urban development, together with the construction of the Southeast Connector will make it particularly attractive for commercial development, and greatly increase the likelihood of requests to Sacramento County for development of travel related commercial uses that would not need public sewer and water connections. The DEIR must discuss this growth inducement potential.

Despite the very limited and incomplete analysis in the DEIR, the document does conclude that "even with mitigation, the proposed project could lead to eventual development of the area and direct and indirect population growth, rendering impacts significant and unavoidable. (page 3.13-5)"

The Recommended Mitigation Measure is Inadequate

The DEIR recommends mitigation measure MM POP-1 to deal with growth-inducing impacts:

> "At the time of submittal of any application to annex territory within the Sphere of Influence Amendment (SOIA) Area, the city of Elk Grove will consult with the Sacramento Area Council of Governments (SACOG)s regarding the Regional Blueprint and consistency with the Metropolitan Transportation Plan (3.13-6)."

The proposed mitigation is inadequate for two reasons. First it simply requires a consultation, not consistency, with the Regional Blueprint and therefore does nothing to actually mitigate, contrary to the requirement that mitigation be fully enforceable (CEQA Guidelines 15126.4(a)(2). The Mitigation Measure should be revised to be enforceable mitigation as follows:

> At the time of submittal of any application to annex territory within the Sphere Influence Amendment (SOIA) Area, the city of Elk Grove shall demonstrate consistency with the Sacramento Area Council of Government's Metropolitan Transportation Plan and Sustainable Communities Strategy.

Secondly, it does not recognize other potential mitigation measures to reduce the indirect growth inducement impacts of the project. The proposed Memorandum of Understanding between Sacramento County and Elk Grove City suggests one strategy--that growth be mitigated by providing a buffer of agricultural residential land south of Kammerer Road. This is by no means the only potential strategy. The environmental document should consider an environmentally superior mitigation measure that would require that any annexation proposal include provisions for securing the acquisition of development rights for a ½ to 1 mile buffer south of Kammerer Road and for the property at the southwest corner of Hood Franklin Road and Interstate 5. Although ECOS supports the environmentally superior option, the DEIR should identify both these mitigation options and at the very least require that Elk Grove demonstrate compliance with one of them at the time of annexation.

CUMULATIVE IMPACTS

The Cumulative Impacts Analysis is Inadequate and Incomplete

The EG SOIA is a request to annex 7869 acres for future urban development. Development of this land will significantly increase the holding capacity of the region. In addition, most of the acreage (the DEIR never bothers to identify how much) is west of Highway 99 and outside the County USB, meaning that long range plans to provide water, wastewater treatment and other services have not taken into account the potential that this land will become urban and require services. This makes the cumulative impacts of the project particularly important for evaluating and deciding on the merits of the proposed project.

Yet the cumulative impact discussion is overly general, incomplete, and inadequate.

First, the DEIR does not rely on proper basis for selection of a list of cumulative projects. According to the DEIR, "The Proposed project was considered in conjunction with other

proposed and approved projects that concern or involve some level of authority or involvement with LAFCo." (DEIR, p. 4-1.)

The list of projects relevant for analysis of cumulative projects does not include the Folsom Annexation request. Since this land also is outside of the County Adopted USB and since it will also add to the holding capacity of the region, it must be included in the cumulative analysis of impacts.

The list also does not include the Bay Delta Conservation Plan (BDCP). The BDCP is a major water diversion and conveyance project in the area just west of the SOIA. The BDCP includes construction of 5 new water intakes, a one-mile mile square forebay, a canal or tunnel with a capacity of 15,000 cubic feet per second, and over one-hundred thousand acres of habitat restoration/creation. This project of an unprecedented scale in the region would cause significant construction and operational impacts, which in combination with the SOIA, would create cumulative impacts ignored by the DEIR.

When revising the list of cumulative projects and the nature of resources being examined, the location of the project and its type should be considered. (CEQA Guidelines 15130(b)(2).)

The analysis of cumulative impacts also makes no attempt to describe or quantify how the identified projects will cumulatively create environmental impacts. Moreover, for several impacts, the analysis simply says that either the SOI project impacts will be less than significant, or with mitigation measures, will be reduced to less than significant. For example, in section 4.2.9 the DEIR states that mitigation will reduce water quality, groundwater, flooding and drainage impacts to less than significant, and that other projects that result in similar impacts would be required to mitigate for their impacts. It therefore concludes that the project would not have "a related cumulative considerable impact." The same reasoning is applied in section 4.2.7, Greenhouse Gas Emissions, 4.2.11, Mineral Resources and, 4.2.13 Population and Housing. This approach is not acceptable under CEQA, as "the discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence." (CEQA Guidelines 15130(b).)

Comments specific to particular sections of the Cumulative Growth chapter of the DEIR are as follows:

- The cumulative impact on Agricultural Resources (4.2.2) is incomplete. The project mention's the impact that the Southeast Connector will have on farmland but does not include impacts from other projects in the list, particularly the 20,000 acres of land that will be made available for urban development in the newly adopted Sacramento County General Plan. The DEIR includes no cumulative agricultural land loss data of these projects and the proposed project.

- The cumulative impact on Air Quality (4.2.3) analysis incorrectly assumes that a 35% reduction in precursor emissions associated with an Air Quality Mitigation Plan would mitigate the air quality impacts to less than significant and be consistent with the SMAQMD's Air Quality Attainment Plan. Likewise, the cumulative impact on Greenhouse Gas Emissions (4.2.7) initially identifies the wrong air basin and then incorrectly concludes that this and other projects would mitigate their impacts to less than cumulatively significant. How can this conclusion be reached?

- The cumulative impact on Biological Resources (4.2.4). The statement that "generally biological resource impacts tend to be localized depending on the species or habitat to

be considered; therefore, a 2-mile buffer around the SOIA Area provides for a conservative evaluation of cumulative impacts" is confusing, unfounded, and untrue. No substantiation is provided for this statement. It is also unclear if a "conservative evaluation" is one that examines a buffer that is minimal or maximal in terms of its relevance to impacts. Either way, the 2 mile buffer in this specific case is arbitrary and inappropriate. The SOIA is in geographic proximity to both the Stone Lakes National Wildlife Refuge and the Cosumnes River Preserve, and species from both these locations use the SOIA for foraging. Impacts must be considered using the boundaries of these conserved areas as buffers and not an arbitrary mileage.

The comments presented in the Biological Resource section detailed the problems with, and the inadequacy of, the suggested mitigation measures. They did not meet the CEQA standard to achieve a less than significant impact.

Structurally, the treatment of the cumulative impacts here is identical to that of "significant impacts" in the Biological Resources section. As explained in our Biological Resources comments:

There is an implicit argument in this section that actual impacts cannot be determined or analyzed because the land use patterns are as yet undetermined. However, annexation and eventual build out are the inevitable goals of the applicant in this process. The annexation process could proceed in a piece meal fashion. This DEIR is potentially the only opportunity to look at the SOI expansion area in its totality for its impacts on biological resources. This EIR must examine the potential impact on special status species and biological resources as a whole in the context of the entire SOI expansion area being built out. Only this examination can determine the biological viability of this SOI expansion area being developed. What would it mean to special status species if this entire area was lost as habitat? See the greater sandhill crane comments to follow for one example of what this could potentially mean to at least one species. This is another example of a bad faith effort (CEQA 15003(i) and 15151).

- Cumulative impacts need to be examined and analyzed as if the entire SOIA area was going to be developed. This is the intent of the SOIA effort and the inevitable outcome in terms of development. This is potentially the only opportunity to look at the "cumulative impact" on species of the entire SOIA area being developed. The cumulative impacts need to be determined on a species by species basis and using the scenario that all of the SOIA will be lost as viable habitat.

- The cumulative impact on hydrology and water quality (4.2.9) is inadequate in that the analysis does not take into account the cumulative impact of the project on water demand and the ability for water providers—particularly the SCWA—to provide water to the project to meet the cumulative demands of the project. (See also comments in water section.)

  With respect to stormwater runoff, the analysis does not identify whether any of the projects under consideration for their cumulative impacts will also impact the drainage systems within the project area.

- The cumulative impact on Population and Housing (4.2.13) reaches a similar conclusion as with the other sections, i.e. "because the proposed project can mitigate all of its population and housing impacts to a level of less than significant, it would not have a related cumulative considerable impact.

This is an incredibly narrow and inadequate analysis of a critical threshold question related to the approval of the SOIA, specifically, how does the inclusion of the SOIA relate to regional (or at least Countywide) projections of population and job growth, and how does the approval of the SOI for potential urban expansion affect the cumulative holding capacity of the region (or County) to provide for that growth?

The analysis of cumulative impacts on population and housing must look at holding capacity data for unincorporated Sacramento and its cities, as well as the holding capacity of the 20,000 acres included within the scope of the newly adopted Sacramento County General Plan, the proposed Folsom annexation and the Galt SOI. The analysis must compare this holding capacity with projected population for the region (or County) and consider the degree to which cumulatively the proposed project contributes to the over-commitment of undeveloped land to urban uses.

CONCLUSION

In closing, the Environmental Council of Sacramento has significant concerns regarding the adequacy of the DEIR. Numerous impacts were not adequately addressed as required by CEQA. The document is fatally flawed, inadequate and incomplete and must be redrafted and recirculated.

If you wish to discuss any of these issues and concerns, please contact Rob Burness rmburness@comcast.net, Sean Wirth wirthsoscranes@yahoo.com, Keith Roberts keitheroberts@aol.com, or Ron Maertz ronmaertz@sbcglobal.net.

Yours very truly,

Cc: Mike McKeever, SACOG Executive Director
Lisa Trankley. Deputy Attorney General

SACRAMENTO COUNTY FARM BUREAU

8970 Elk Grove Boulevard • Elk Grove, California 95624-1946
(916) 685-6958 • Fax (916) 685-7125

November 21, 2011

Don Lockhart, AICP
Sacramento Local Agency Formation Commission
1112 I Street, Suite 100
Sacramento, CA 95814

RE: Draft Environmental Impact Report for the City of Elk Grove Sphere of Influence Amendment

Dear Mr. Lockhart;

On behalf of the Sacramento County Farm Bureau (Farm Bureau), we are providing the following comments on the DEIR for the City of Elk Grove's pending Sphere of Influence Amendment.

The Sacramento County Farm Bureau (Farm Bureau) is a non-governmental, non-profit, voluntary membership organization whose purposes are to protect and promote agricultural interests throughout Sacramento County and to find solutions to the problems of the farm, the farm home, and the rural community. Farm Bureau strives to protect and improve the ability of farmers and ranchers engaged in production agriculture to provide a reliable supply of food and fiber through responsible stewardship of California's resources.

Agriculture provides over $1.2 billion in economic impact to the County. The ability to have a vital and thriving agriculture economy is a direct result of the availably of farmland. The need for growth must be balanced with the need to protect the economic engine that drives the vitality of the area and provides food and fiber for people locally, regionally and around the world. Urban sprawl not only impacts agricultural operations, but also negatively impacts agribusinesses such as feed stores, equipment repair shops, tractor dealerships, and other agricultural support businesses which depend on the rural community, agriculture, small farms and backyard enthusiasts to stay in business. When agricultural land is converted to non-agricultural uses, what is lost is the ability to produce

food and fiber, provide for wildlife habitat, flood protection, open space, and other benefits to natural resources.

Farm Bureau has the following concerns with the DEIR:

- **Conversion of more than 7,600 acres of agriculturally zoned land.** The DEIR indicates a significant and unavoidable impact to the conversion of farmland with a mitigation measure of 1 acre of farmland converted to .5 acre of farmland preserved. With a significant impact to farmland in the proposed Elk Grove SOI, a 1:1 mitigation ratio is more appropriate and should apply for the following reasons;
    - Farmland is irreplaceable.
    - A farmland mitigation program of at least 1:1 is consistent with other farmland mitigation policies from around the State, including Sacramento County.
    - Impact AG-1 is in direct conflict with LAFCO's goals.
    - Section 3.2.5 is unacceptable and adversely affects agriculture in the county and region.

- **The DEIR indicates there are 2,474 acres with active Williamson Act contracts.** The Williamson Act is a voluntary program in which private landowners enter into a contract with the County to restrict development activities on agricultural land in return for a lower assessed property tax. Farm Bureau has championed this program as an effective tool for protecting farmland from conversion to urban uses. Farm Bureau supports landowners who have voluntarily entered the program and maintain active contracts. Cancellation of Williamson Act contracts is significant and unacceptable.

- **There is not adequate, unbiased evidence that a Sphere of Influence expansion is needed**. The DEIR does not address projected market demands to substantiate the need to expand Elk Grove's Sphere of Influence.

- **Land located on the east side of Highway 99** and south of Grant Line Road will be impacted differently than land west of Highway 99. The proposed SOI boundary uses the 100-year floodplain line which is not clearly defined. Furthermore, this line dissects parcels and will result in conflicts with landowners who could potentially have land in two jurisdictions.

- **Impact AG-3**. Farm Bureau understands that the proposed Sphere of Influence does not change the existing environment or directly convert farmland to non-

agricultural uses. However, allowing the Sphere of Influence boundary to incorporate active farming operations will negatively impact farmers' viability because they will be unable to make long-term investments to their operations. The mitigation measure for AG-3 is unacceptable.

- **Section 3.2 Agricultural Resources**. The mitigation measures for Impact AG-1, AG-2, AG-3 do not lessen the level of significance on agricultural resources. Farm Bureau believes that the DEIR does not adequately address any of the impacts to agriculture.

Finally, it will be impossible to protect the viability of agriculture and our incredibly productive and important family farms and ranches if we do not encourage efficient development regionally and require cities to make efficient use of lands already within their jurisdiction before expanding further into agricultural areas. Every jurisdiction must carefully consider any request to expand, annex or make land use changes. As urban sprawl takes place, farmland is paved over, and farm operations are closed down due to urban-rural conflicts. The loss is forever.

Thank you for the opportunity to provide comments.

Sincerely,

Kevin Steward,
President

cc. Don Nottoli, County Board of Supervisor

James Pachl 11-2-2011

DEIR relied on inaccurate data and projections of the area. Relied on 2003 growth projections, which were exaggerated and obsolete. NOP comments were not addressed properly in the formation of the report. Sees SOI expansion as diminishing the value of property. Possibility of over development or too much land for development more than can the market can absorb. The effects of urban blight should be considered under CEQA.

Judith Lamare 11-2-2011

DEIR contains numerous errors, assumptions, and omissions. Excludes information used to access the impacts on Swanson's Hawk, which uses the area. No mitigation is presented with in the document. In the DFG letter in 2010, this addresses the concern of what the take will be. Must insure that mitigation can be done. NOP comments were not addressed within the DEIR.

LAW OFFICES OF DONALD B. MOONEY

DONALD B. MOONEY

129 C Street, Suite 2
Davis, California 95616
Telephone (530) 758-2377
Facsimile (530) 758-7169
dbmooney@dcn.org

November 21, 2011

VIA ELECTRONIC MAIL
AND REGULAR MAIL
Email: *don.lockhart@sacLAFCo.org*

Don Lockhart
Sacramento Local Agency Formation Commission
1112 I Street, Suite 100
Sacramento, Ca. 95814

RE: Comment on City of Elk Grove Proposed Sphere of Influence Amendment Draft Environmental Impact Report [LAFC # 09-10] SCH No. 2010092076

Dear Mr. Lockhart:

This office represents the Friends of Swainson's Hawk ("FOSH"), which has an interest in the above-referenced City of Elk Grove Proposed Sphere of Influence Amendment Draft Environmental Impact Report ("Project"). As explained below, the draft Environmental Impact Report ("DEIR") does not comply with the requirements of the California Environmental Quality Act ("CEQA") (Public Resources Code § 2100 et seq.; *see also*, CEQA Guidelines § 15165.)[1] FOHS objects to the City's Sphere of Influence Amendment as the Draft EIR fails to comply with CEQA. These comments focus on the CEQA requirements.

I. Legal Standards

A. The California Environmental Quality Act

CEQA requires that an agency analyze the potential environmental impacts of its proposed actions in an environmental impact report ("EIR") (except in certain limited circumstances). (See, e.g., Pub. Resources Code § 21100.) The EIR is the very heart of CEQA. (*Dunn-Edwards v. Bay Air Quality Management District* (1992) 9 Cal.App.4th

[1] The CEQA Guidelines (the "Guidelines") are found at California Code of Regulations, title 14, section 15000 et seq. Courts have found the Guidelines to be binding on public agencies. (See, e.g., *City of Santa Ana* v. *City of Garden Grove* (1979) 100 Cal.App.3d 521, 528-29.) The Guidelines must be interpreted "so as to afford the fullest possible protection to the environment within the reasonable scope of their language." (*San Franciscans for Reasonable Growth* v. *City and County of San Francisco* (1984) 151 Cal.App.3d 61, 74.)

644, 652.) "The 'foremost principle' in interpreting CEQA is that the Legislature intended the act to be read so as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language." (*Communities for a Better Environment v. Calif. Resources Agency* (2002) 103 Cal. App. 4th 98, 109.)

CEQA has two primary purposes. First, CEQA is designed to inform decision makers and the public about the potential, significant environmental effects of a project. (14 Cal. Code Regs. ["Guidelines"] § 15002(a)(1).) "Its purpose is to inform the public and its responsible officials of the environmental consequences of their decisions before they are made. Thus, the EIR 'protects not only the environment but also informed self-government.'" (*Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal. 3d 553, 564.) The EIR has been described as "an environmental 'alarm bell' whose purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return." (*Berkeley Keep Jets Over the Bay v. Bd. of Port Comm'rs* (2001) 91 Cal. App. 4th 1344, 1354 ["*Berkeley Jets*"]; *County of Inyo v. Yorty* (1973) 32 Cal.App.3d 795, 810.)

"The environmental impact report, with all its specificity and complexity, is the mechanism prescribed by CEQA to force informed decision making and to expose the decision-making process to public scrutiny.." (*Planning and Conservation League v. Department of Water Resources* (2000) 83 Cal.App.4th 892, 910; citing *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 86.) This interpretation remains the benchmark for judicial interpretation of CEQA. (*Laurel Heights Improvement Association v. Regents of the University of California ("Laurel Heights I")* (1988) 47 Cal.3d 376, 390, quoting *Bozung* v. *Local Agency Formation Commission* (1975) 13 Cal.3d 263, 274.) As the *Laurel Heights I* court noted, "[i]t is, of course, too late to argue for a grudging, miserly reading of CEQA." (*Laurel Heights I, supra*, 47 Cal.3d at p. 390.) CEQA's fundamental goals are to foster informed decision-making and to fully inform the public about the project and its impacts. (CEQA Guidelines, § 15003.)

An EIR must provide public agencies and the public in general with detailed information about the effect that a project is likely to have on the environment, to list ways in which the significant effects of a project might be minimized, and to indicate alternatives to such a project. (Pub. Resources Code, § 21061.) CEQA Guidelines section 15126.2, requires that the Final EIR identify the significant environmental impacts of the project, including direct and indirect impacts. CEQA Guidelines section 15126.4 requires that the Final EIR describe all feasible measures that can minimize significant adverse impacts of the project. CEQA does not allow an agency to defer analysis of impacts and mitigation measures. (CEQA Guidelines, § 15126.4(a)(1)(B).)

Informed decision making and public participation are fundamental cornerstones of the CEQA process. (See *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553; *Laurel Heights I, supra*, 47 Cal.3d 376.) With this primary purpose of CEQA in mind, the California Supreme Court has stated that "[t]he environmental impact

report ("EIR") is the primary means of achieving the Legislature's considered declaration that it is the policy of this State to take all action necessary to protect, rehabilitate, and enhance the environmental quality of the State" (*Sierra Club v. State Board of Forestry* (1994) 7 Cal.4th 1215, 1229 [emphasis added].)

Second, CEQA requires public agencies to avoid or reduce environmental damage when "feasible" by requiring "environmentally superior" alternatives and mitigation measures. (CEQA Guidelines § 15002(a)(2) and (3); See also, *Berkeley Jets, supra*, 91 Cal.App.4th at 1354; *Citizens of Goleta Valley, supra*, 52 Cal.3d at 564.) The EIR serves to provide agencies and the public with information about the environmental impacts of a proposed project and to "identify ways that environmental damage can be avoided or significantly reduced." (Guidelines §15002(a)(2).) If the project will have a significant effect on the environment, the agency may approve the project only if it finds that it has "eliminated or substantially lessened all significant effects on the environment where feasible" and that any unavoidable significant effects on the environment are "acceptable due to overriding concerns." (Pub. Resources Code § 21081; Guidelines § 15092(b)(2)(A) & (B).)

B. Deferral of analysis and/or formulation of mitigation measures violates the requirements of CEQA

CEQA disallows deferring the formulation of mitigation measures to post-approval studies. (Guidelines § 15126.4(a)(1)(B); *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 308-309.) An agency may only defer the formulation of mitigation measures when it possesses "'meaningful information' reasonably justifying an expectation of compliance." (*Sundstrom, supra,* 202 Cal.App.3d at 308; see also *Sacramento Old City Association v. City Council of Sacramento* (1991) 229 Cal.App.3d 1011, 1028-29 [mitigation measures may be deferred only "for kinds of impacts for which mitigation is known to be feasible"].) A lead agency is precluded from making the required CEQA findings unless the record shows that all uncertainties regarding the mitigation of impacts have been resolved; an agency may not rely on mitigation measures of uncertain efficacy or feasibility. (*Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 727 [finding groundwater purchase agreement inadequate mitigation because there was no evidence that replacement water was available].) This approach helps "insure the integrity of the process of decision-making by precluding stubborn problems or serious criticism from being swept under the rug." (*Concerned Citizens of Costa Mesa, Inc. v. 32nd Dist. Agricultural Assn.* (1986) 42 Cal.3d 929, 935.)

Moreover, as discussed below, by deferring the development of specific mitigation measures, LAFCO has effectively precluded public input into the development of those measures. CEQA prohibits this approach. As explained by the *Sundstrom* court:

An EIR "[is] subject to review by the public and interested agencies.

> This requirement of "public and agency review" has been called "the strongest assurance of the adequacy of the EIR." The final EIR must respond with specificity to the "significant environmental points raised in the review and consultation process." . . . Here, the hydrological studies envisioned by the use permit would be exempt from this process of public and governmental scrutiny. (*Sundstrom, supra,* 202 Cal.App.3d at 308.)

As noted below, LAFCO has proposed mitigation measures in such a way as to preclude public scrutiny.

C. Mitigation measures must be enforceable and effective

"Mitigation measures must be fully enforceable through permit conditions, agreements, or other legally-binding instruments. In the case of adoption of a plan, policy, regulation, or other public project, mitigation measures can be incorporated into the plan, policy, regulation, or project design." (Guidelines § 15126.4(a)(2).)

In *Gentry v. City of Murrieta* the court of appeal explained that CEQA's normal requirement that mitigation be adopted prior to project approval may be met if an agency prepares a draft EIR that (1) analyzes the "whole" of the project; (2) identifies and disclosed with particularity the project's potentially significant impacts; (3) establishes measurable performance standards that will clearly reduce all of the identified impacts to less-than-significant levels; and (4) describes a range of particularized mitigation measures that, when taken in combination, are able to meet the specified performance standards. (*Gentry v. City of Murrieta* (1995) 36 Cal.App.4th 1359, 1394-1395, comparing and contrasting *Sacramento Old City Assn. v. City Council* (1991) 229 Cal.App.3d 1011 with *Sundstrom v. County of Mendocino, supra,* 202 Cal.App.3d 296.) The *Gentry* court further explained that promises by a lead agency to implement future recommendations that other agencies might make after project approval is not sufficient to find that a proposed project's potentially significant effects have been mitigated to less-than-significant levels. (*Id.*)

I. Specific Comments on the Draft EIR's Failure to Comply With CEQA

A. The Draft EIR Fails to Mitigate Impacts to Agricultural Resources

The requirement that mitigation measures be adopted depends upon the economic and technical feasibility and practicality of the measures, and whether they will substantially lessen the significant environmental effects of the project. (Pub. Resources, Code, §§ 21002, 21081(a)(3); *A Local & Regional Monitor v. City of Los Angeles* (1993) 12 Cal.App.4th 1773, 1790.) The requirement is not abated simply because the measures will not lessen the effects to below a level of significance. Accordingly, a statement of overriding considerations does not exempt a project from mitigation if there are feasible

measures that would reduce substantially, albeit not eliminate, the significant environmental effects of the project.

Mitigation may include "[c]ompensating for the impact by replacing or providing substitute resources or environments." (Guidelines, § 15370(e).) Conservation easements are an appropriate and desirable means of protecting agricultural lands against conversion to urban use. (Pub. Resources Code, §§ 10201-10202.) The Legislature has determined that the preservation of the limited supply of agricultural land is necessary for the maintenance of California's agricultural economy and the state's economy. (Gov't Code, § 51220.)[2] In 1979, the Legislature provided for the enforceability of conservation easements. (See Civ. Code, §§ 815-816.) The Legislature found and declared that "the preservation of land in its natural, scenic, agricultural, historical, forested, or open-space condition is among the most important environmental assets of California." (Civ. Code, § 815.) The Agricultural Land Stewardship Program Act of 1995 establishes a state program to promote the establishment of agricultural easements. (Pub. Resources Code, § 10200 et seq.)[3]

---

[2] The Williamson Act provides that:

> (a) That the preservation of a maximum amount of the limited supply of agricultural land is necessary to the conservation of the state's economic resources, and is necessary not only to the maintenance of the agricultural economy of the state, but also for the assurance of adequate, healthful and nutritious food for future residents of this state and nation. [¶] ... [¶] (c) That the discouragement of premature and unnecessary conversion of agricultural land to urban uses is a matter of public interest and will be of benefit to urban dwellers themselves in that it will discourage discontiguous urban development patterns which unnecessarily increase the costs of community services to community residents. [¶] (d) That in a rapidly urbanizing society agricultural lands have a definite public value as open space, and the preservation in agricultural production of such lands, the use of which may be limited under the provisions of this chapter, constitutes an important physical, social, esthetic and economic asset to existing or pending urban or metropolitan developments.... (Gov't Code, § 51220.)

[3] The Legislature found and declared that:

> (b) The growing population and expanding economy of the state have had a profound impact on the ability of the public and private sectors to conserve land for the production of food and fiber, especially agricultural land around urban areas. [¶] (c) Agricultural lands near urban areas that are maintained in productive agricultural use are a significant part of California's agricultural heritage. These lands contribute to the economic betterment of local areas and the entire state and are an important source of food, fiber, and other agricultural products. Conserving

The Legislature also declared the intent, among other things, to "(c) Encourage long-term conservation of productive agricultural lands in order to protect the agricultural economy of rural communities, as well as that of the state, for future generations of Californians. [¶] (d) Encourage local land use planning for orderly and efficient urban growth and conservation of agricultural land. [¶] (e) Encourage local land use planning decisions that are consistent with the state's policies with regard to agricultural land conservation...." (Pub. Resources Code, § 10202.)

CEQA does not limit mitigation measures to those that would entirely avoid the environmental impacts of a project. Instead, CEQA requires that mitigation include measures that would substantially lessen the significant environmental effects of the project. (Pub. Resources Code, § 21002.) Thus, a project converts farmland to urban use, conservation easements on other land may not replace the converted land, but such conservation easements can diminish the development pressures created by the conversion of farmland and provide important assistance to the public and private sectors in preserving other farmland against the danger of the domino effect created by the project.

While conservation easements do not create replacement farmland, they certainly qualify as feasible mitigate because easements ameliorate a range of impacts associated agricultural conversions. As set forth in the unpublished opinion of Third District Court of Appeals (*South County Citizens for Responsible Growth, et al., v. City of Elk Grove, et al.*, No. CO2302, 2004 WL 219789)(AR 844-869), conservation easements reduce the development pressures on agricultural lands created projects such as the SOIA.

In the present action, the Project will impact up to 7,360 acres of farmland. (Draft EIR at p. 3.2-2.) Appropriately, the Draft EIR identifies this impact as significant. (Draft at p. 3.2-3.) Mitigation Measure AG-1 provides that the mitigation for this impact is for the City of Elk Grove to identify lands to be aside in permanent conservation easements at a ratio of one open space area converted to urban land uses to one-half open space acre preserved and at a ratio of one agriculture acre converted to urban land uses to one-half agriculture acre preserved. (*Id.* at p. 3.2-8.) This mitigation measure is fatally flawed. First, the mitigation measure only requires the City to identify lands to be set aside in permanent conservation. The mitigation measure does not require that the land be set aside, it only requires the City to identify the lands. The mitigation measure also does not indicate what entity would hold the conservation easement. Will the City hold the

---

these lands is necessary due to increasing development pressures and the effects of urbanization on farmlands close to cities. [¶] (d) The long-term conservation of agricultural land is necessary to safeguard an adequate supply of agricultural land and to balance the increasing development pressures around urban areas...." (Pub. Resources Code, § 10201.)

conservation easements? Thus, there is no certainty to the mitigation and it is merely speculative at best. (See *Federation of Hillside & Canyon Associations v. City of Los Angeles* (2000) 83 Cal.App.4th 1252, 1261.) This does not constitute enforceable or legally binding mitigation as required by CEQA and the CEQA Guidelines. (See Guidelines, § 15126.4(a)(1)(D)(2).) This is particularly egregious when the Legislature has repeatedly stressed the importance of preserving California's diminishing agricultural land through the use of conservation easements. (See Gov't Code, § 51220; Pub. Resources Code, § 10200, Civ. Code, § 815-816.)

The mitigation measure also mixes open space mitigation with agricultural land. The Draft EIR, however, fails to provide sufficient discussion or analysis of open space or identify the amount of acreage that would be deemed open space as compared to agricultural.

Additionally, Mitigation Measure AG-1 is fatally flawed in that the mitigation ratio for mitigating agricultural impacts should be at least 1:1. Such a mitigation ratio has become the minimum standard and is feasible. (See Mitigation policy AG-5 in the Sacramento County General Plan; see also *Building Industry Association of Central California v. County of Stanislaus* (2010) 190 cal.App.4th 582, 588.)

B. Biological Resources

The comment letters submitted by the FOSH, the Sacramento County Audubon Society, and the Environmental Council of Sacramento provide detailed comments regarding the Draft EIR failure to adequately disclose, analyze, and mitigate the Project's impacts to biological resources. These comments demonstrate the that Draft EIR failed to include important biological data that was readily available to LAFCO; improperly relied upon the California NDDB; fails to identify the project and adjacent area population of nesting Swainson's hawks; fails to identify availability of suitable habitat to mitigate for loss of foraging habitat in the SOI; and unlawfully defers mitigation of biological impacts.

The Draft EIR claims that since future development in the SOI will be subject to CEQA, implementation of LU-3, which requires participation in the South Sacramento County Habitat Conservation Plan", and "MM Bio-1a" a measure to demonstrate Elk Grove's compliance with four quite general measures required by LAFCO. (Draft EIR at pp. 3.4-37 to 38.) The discussion, however, does not deal with the loss of foraging habitat and essentially defers mitigation to post-approval studies. CEQA disallows deferring the formulation of mitigation measures to post-approval studies. (Guidelines § 15126.4(a)(1)(B); *Sundstrom v. County of Mendocino, supra,* 202 Cal.App.3d at pp. 308-309.) An agency may only defer the formulation of mitigation measures when it possesses "'meaningful information' reasonably justifying an expectation of compliance." (*Id.*, at p. 308.)

In the present case, the Draft EIR defers mitigation for biological impacts to Swainson's Hawk to the future development of the habitat conservation plan and contains no performance standards by which to judge the deferred mitigation measures. (See *San Joaquin Raptor Rescue Center v. County of Merced* (2007) 149 Cal.App.4th 645, 669-670.) As such, the Draft EIR must be revised to provide mitigation measures for nesting and foraging habitat of the Swainson's hawk. To the extent, such mitigation measures are deferred the EIR must contain specific performance standards for the mitigation measures.

C. Greenhouse Gas Emissions

The Draft EIR contains an inadequate discussion of Greenhouse Gas Emissions ("GHG") and fails to provide adequate mitigation measures regarding the Project's impacts emission reductions mandated by the State of California.

In April of 2010, the First District Court of Appeal published the first decision on greenhouse gas emissions and CEQA. In *Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70 ("*CBE v. Richmond*"), the court set aside the EIR for Chevron's Richmond refinery upgrade, in part on the basis that the EIR did not adequately describe mitigation measures for greenhouse gas emissions. The court's ruling on greenhouse gas mitigation measures is significant in that the court applied *existing* CEQA rules on mitigation measures in determining that the mitigation was inadequate. The court cited to Guidelines section 15126.4(a)(1)(B); *Sundstrom v. County of Mendocino, supra,* 202 Cal.App.3d at 311; *San Joaquin Raptor/Wildlife Rescue Center v. County of Merced* (2007) 149 Cal.App.4th 645670; *Gentry v. City of Murrieta* (1995) 36 Cal.App.4th 1359, 1396; *Defend the Bay v. City of Irvine* (2004) 119 Cal.App.4th 1261; and *Endangered Habitats League, Inc. v. County of Orange* (2005) 131 Cal.App.4th 777, 794. (*CBE v. Richmond, supra,* 184 Cal.App.4th at 92-93.) These authorities are not new, nor do they present a "moving target."

In *CBE v. Richmond,* the mitigation plan that was adopted required Chevron to hire an expert to prepare an inventory of greenhouse gas emissions and to identify emissions reduction opportunities. Chevron was required to consider various measures that were specified in the EIR, and to submit to the City a proposed plan to achieve a complete reduction of the increased greenhouse gas emissions from the project. (*Id.* at 90-92.) The First District Court of Appeal held that this mitigation scheme impermissibly deferred the required formulation of mitigation measures. The court rejected Chevron's arguments that the City had proceeded appropriately by setting a performance standard and setting forth a menu of potential mitigation measures. (*Id.* at 94.) Even though several cases have allowed such an approach, the court said that the City had offered no assurance that the plan was feasible and efficacious, and created no objective criteria for determining the success of the measures. (*Id.*) The mitigation strategy in the present case includes the same flaws.

In enacting Assembly Bill 32 ("AB 32"), the California Global Warming Solutions Act of 2006, the State of California confirmed that "[g]lobal warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California." (Health & Safety Code § 38501(a).)

California has set greenhouse gas emission reduction targets in an effort to avoid the catastrophic impacts projected with higher emissions scenarios. AB 32 requires California to return to 1990 levels of greenhouse gas emissions by the year 2020. (Health & Safety Code § 38550.)[4] Looking beyond 2020, Executive Order S-3-05 sets an emissions reduction target of 80 percent below 1990 levels by 2050. (Exec. Order S-3-05.)

The discussion of GHG emissions fails to provide sufficient information regarding thresholds of significance. Additionally, Mitigation Measure GHG-1 fails to provide sufficient information as to what efforts will be made to reduce GHG emissions. The mitigation measure simply states that future development will be consistent with regional emission reduction targets in effect at the time of application for annexation. It should not be at the time of application, but at the time of development. The time of application and time of development may differ by years, in which time the reduction targets may have dramatically changed.

D. The Draft EIR Fails to Provide an Adequate Discussion and Analysis of the Alternatives

The EIR fails to provide an adequate discussion of the alternatives that fosters informed decision-making and informed public participation. Additionally, the alternatives analysis in the EIR does not meet the requirement of a reasonable range of alternatives that lessen the Project's significant environmental impacts as it does not focus on alternatives that either eliminate adverse impacts to Swainson's hawks or reduce the impacts to insignificance, even if they would to some degree impede the Project's objectives, as required by CEQA.

CEQA mandates a lead agency to adopt feasible alternatives or feasible mitigation measures that can substantially lessen the project's significant environmental impacts. (Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15002(a)(3), 15126.6(a); *Sierra Club v. Gilroy City Council* (1990) 222 Cal.App.3d 30, 41.) For that reason, "[t]he core of an EIR is the mitigation and alternatives sections." (*Citizens of Goleta Valley v. Board of Supervisors, supra,* 52 Cal.3d at p. 564.) "The purpose of an environmental impact report is to identify the significant effects on the environment of a project, *to identify alternatives to the project*, and to indicate the manner in which those significant effects

---

[4] In the first reported case on greenhouse gas emissions and CEQA, the court relied in large part upon Health & Safety Code section 38500 *et seq.* (*CBE v. Richmond, supra*, 184 Cal.App.4th at 90-91.)

can be mitigated or avoided. (Pub. Resources Code, § 21002.1(a) (emphasis added); see also Pub. Resources Code, § 21061.) In preparing an EIR, a lead agency must ensure "that all reasonable alternatives to proposed projects are thoroughly assessed." (*San Joaquin Raptor/Wildlife Rescue Center* v. *County of Stanislaus, supra*, 27 Cal.App.4th at p. 717; quoting *Wildlife Alive v. Chickering* (1976) 18 Cal.3d 190, 197; Pub. Resources Code, § 21001(g) (lead agency must "consider alternatives to proposed actions affecting the environment"); *Laurel Heights I, supra,* 47 Cal.3d at p. 400.)

The EIR must "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, and evaluate the comparative merits of the alternatives." (CEQA Guidelines, § 15126.6(a).) The alternatives discussion must focus on alternatives that avoid or substantially lessen any significant effects of the project. (*Id.*, § 15126.6(b); *Goleta Valley, supra,* 52 Cal.3d at 556, [EIR must consider alternatives that "offer substantial environmental advantages"].) The range must be sufficient "to permit a reasonable choice of alternatives so far as environmental aspects are concerned." (*San Bernardino Valley Audubon Soc'y* v. *County of San Bernardino* (1984) 155 Cal.App.3d 738, 750; see also *Sierra Club* v. *Contra Costa County* (1992) 10 Cal.App.4th 1212, 1217-18, 1222, [EIR that only considered two alternatives for less development was not a range of reasonable alternatives.].)

The range of potential alternatives to the proposed Project shall include those that could feasibly accomplish most of the basic objectives of the Project and could avoid or substantially lessen one or more of the significant effects. (CEQA Guidelines, § 15126.6(c); *see Citizens of Goleta Valley* v. *Board of Supervisors, supra,* 52 Cal.3d at 566.) The EIR must "include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project." (CEQA Guidelines, § 15126.6(d); see also *Kings County, supra, 221* Cal.App.3d at 733, [The alternatives discussion must contain specific quantitative information for an adequate comparison.].) An EIR's discussion of alternatives must be reasonably detailed, but not exhaustive. (*In re Bay-Delta Programmatic Environmental Impact Report Coordinated Proceedings* (2008) 43 Cal.4th 1143, 1163, ["An EIR need not consider every conceivable alternative to a project or alternatives that are infeasible."]; CEQA Guidelines, § 15126.6.) The key issue is whether the alternatives discussion encourages informed decision-making and public participation. (*Laurel Heights I, supra*, 47 Cal.3d at p. 404.) The burden of identifying and evaluating alternatives rests with the agency, not the public. (*Laurel Heights I, supra,* 47 Cal.3d at pp. 405-406.) Contrary to CEQA's directive, LAFCO's alternative analysis fails to provide sufficient information and analysis of the alternatives for informed decision-making by the LAFCO Board and the public.

The alternatives analysis fails to include an alternative that would reduce of avoid the Project's significant impacts on Swainson's hawk. (See Comment letter from FOSH regarding Notice of Preparation.) FOSH proposed an alternative of a smaller SOI

amendment that would increase the SOI by 500 to 600 acres at Highway 99 and Kammerer Road that would be limited exclusively to development of office and industrial parks. By contrast, the alternatives considered in the Draft EIR do not reduce or avoid the impacts to Swainson's hawks. As such, the alternative's discussion and analysis fail to meet CEQA's requirements.

III. Conclusion

For the reasons stated in this comment letter, the comment letters submitted by Friends of Swainson's Hawk, the Sacramento Audubon Society, the Environmental Council of Sacramento, and others, the Draft EIR fails to meet the legal requirements of the California Environmental Quality Act. As such, LAFCO must recirculate the Draft EIR after it has made the necessary and required revisions.

Sincerely,

Donald B. Mooney
Attorney

cc: Jude Lamare

Friends of the Swainson's HAWK

915 L Street, C-425
Sacramento, Ca. 95814
916-447-4956 voice
916-244-0507 fax
www.swainsonshawk.org
swainsonshawk@sbcglobal.net

Submitted to Sacramento LAFCo on November 21, 2011

Comment Letter and Attachments

Elk Grove SOI DEIR

Friends of the Swainson's Hawk

915 L Street, C-425
Sacramento, Ca. 95814
916-447-4956
www.swainsonshawk.org

November 21, 2011

Sacramento LAFCo
1112 I Street, Suite 100
Sacramento, Ca. 95814
Attention: Don Lockhart

Comments of the Friends of the Swainson's Hawk, Inc. on the Draft Environmental Impact Report of City of Elk Grove Proposed Sphere of Influence Amendment [LAFC # 09-10] SCH No. 2010092076,

Dear LAFCo Commissioners, Mr. Brundage, Mr. Lockhart,

Wildlife is part of California's future. Friends of the Swainson's Hawk is dedicated to seeing the California population of Swainson's Hawks flourish for all generations to come. FOSH is a volunteer group providing grassroots vigilance for wildlife and habitat in the Central Valley. We, along with others, have major concerns about the pending Application to LAFCo by the City of Elk Grove to expand its Sphere of Influence ("SOI") by approximately 8,000 acres onto land presently zoned and used for agricultural purposes immediately south of Grantline and Kammerer Roads. These are the comments of Friends of the Swainson's Hawk about the EIR for the proposal by the City of Elk Grove to expand its Sphere of Influence by approximately 8,000 acres, onto land which is mostly zoned and used for agricultural purposes in southern Sacramento County.

On October 27, 2010, attorney James Pachl submitted comments on the NOP for this DEIR on behalf of Friends of the Swainson's Hawk. This comment letter is incorporated into our current comment letter on the draft EIR. The issues and concerns raised then were not addressed in the EIR, or were scantily addressed without bringing forth available evidence and data. Nor was there a response to our letter. We again raise these issues as key ones that should be addressed in the DEIR on the SOI application.

We request that the deficiencies in the DEIR be corrected and the DEIR be recirculated for public review and comment before this proposal goes to LAFCo for action.

There is abundant evidence that the claim made in Impact Bio-1 is false. Impact Bio-1 states "The project would not have a substantial adverse effect, either directly or through habitat modifications, on special-status wildlife species."

First, the EIR discussion of impacts on Swainson's Hawk starts by describing a false baseline using the County's zoning-based formula ("Methodology") which was promulgated by County Department of Environmental Review. It was not adopted as an ordinance, regulation or resolution by the Board of Supervisors, nor did it receive CEQA review.

Under the County's formula, the amount of Swainson's Hawk foraging habitat is determined by a formula based exclusively on the zoning designation of the subject land. Land zoned AG-40 and above are presumed to have 100 percent SWH habitat value. Land zoned under AG-40 are presumed to have fractional SWH foraging habitat without consideration of the existing physical environmental conditions on the ground. For example, a 100-acre tract of land zoned AG-40 is presumed to be 100 percent Swainson's Hawk foraging habitat; but the identical parcel zoned AR-10 is presumed to have 25 acres of Swainson's Hawk foraging habitat, or "foraging value." (The County uses acres of foraging habitat and foraging value interchangeably.) County's zoning-based formula is a clear violation of CEQA, including but not limited to CEQA Guideline 15125(a), which requires that an environmental document fully describe the actual physical environmental conditions that exist on the ground on the date the NOP was published. "This environmental setting will normally constitute the baseline physical conditions by which a Lead Agency determines whether an impact is significant." County's unlawful formula is the subject of a lawsuit challenging the Florin Vineyard Gap Community Plan in Sacramento County Superior Court.

The DEIR fails to disclose that the County's methodology, which the DEIR is apparently using to determine the amount of SWH habitat within the proposed SOI area, is inconsistent with the City's current Swainson's Hawk Mitigation Ordinance, and related policies, which call for assessment of the actual acres of Swainson's Hawk foraging habitat and mitigation at the ratio of one acre of land preserved for each acre developed.

Please explain why the DEIR is using County's zoning-based formula to assess SWH foraging habitat instead of the City's current Swainson's Hawk mitigation ordinance.

Page 2-16 of the DEIR shows 7,381 acres of the area as having current zoning of AG 80 or AG 40. The remaining designations total 488 acres, of which 302 acres is AG-20 and 186 is various urban or agricultural residential designations. Under the County's methodology, the SWH "SWH habitat value" of the 488 acres would be less than 100 percent. However review of the aerial photos in the DEIR and on Goggle Earth shows that the footprint of existing urban and agricultural development appears to be very small.

We do not disagree with the EIR statement that over 90 percent of the SOI area is Swainson's Hawk foraging habitat. However, there is no evidence that most of the remaining land which is zoned for parcels less than AG-40 is not. Similarly, the EIR describes Swainson's Hawk habitat value in the SOI area based on County's baseline habitat assumptions (3.4-37). These assumptions did not undergo CEQA review. The EIR assertions about the value of foraging habitat in the SOI area (p. 3.4-37) are based on an understanding of a Sacramento County policy, and not on an analysis of the land use and occupation of the habitat by the species.

As for each tract of land zoned for greater densities than AG-40, please explain why the area of SWH habitat or "SWH foraging value" is less than those lands zoned AG-40 or greater.

The DEIR says that the City's Swainson's Hawk mitigation program requires protection of existing habitat, but fails to provide even a minimal description of that program, which calls for one acre of habitat preserved for each acre of SWH habitat removed. (3.4-37). This is an inadequate description under CEQA. City programs are subject to change by a majority vote of the City Council. LAFCo has no assurance that programs will not change. Moreover, the existing City program did not undergo any CEQA review of its effectiveness to mitigate for impacts to Swainson's Hawk in the SOI area. Therefore the assumption that continuing existing City programs (which are not described) is not supported by substantial evidence.

The impact analysis says that the future development in the SOI area "would comply with the City's conditions," but fails to describe those conditions, thereby violating CEQA. Please describe the City's "conditions."

Please explain why there is NO mitigation measure proposed to mitigate for loss of Swainson's Hawk foraging habitat due to new development that would occur within the SOI area after it is annexed. MM BIO-1b describes only those measures to avoid take of individual raptors, including SWH) and their nests, but nothing about loss of foraging habitat.

Unlawful Deferral of Mitigation Violates CEQA

The EIR at 3.4-37-38 states that future development in the SOI area will be mitigated through future CEQA review of projects, "implementation of LU-3, which requires participation in the South Sacramento County Habitat Conservation Plan", and "MM Bio-1a" a measure to demonstrate Elk Grove's compliance with four quite general measures required by LAFCo. The measures include a biological survey, avoidance measures in project design, and a Habitat Conservation Management Plan, developed with the CDFG and USFWS for listed species, and meeting certain named general criteria (D.)

CEQA Guideline 15126.4(a)(1)(B) states that "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 and which may be accomplished in more than one specific way."

In this instance, formulation of mitigation measures for biological impacts is clearly deferred to the future development of a "habit conservation plan" whose contents are presently unknown. Notably, this MM contains NO performance standard. The requirement that such a plan be developed "in consultation with" USFWS and CDFG does not require that the plan and its mitigation strategy be approved by those agencies -- only that the City consult with these agencies.

Mitigation is thus improperly deferred. Substantial evidence does not support the proposed Finding of the DEIR that the "plan" will mitigate biological impacts to less than significant, because the measures of the plan are not known. In a situation nearly identical to the proposed

Elk Grove SOI DEIR, the Court of Appeal found a violation of CEQA where a MM called for development of an undefined habitat management plan developed by a biologist in consultation with the appropriate agencies, including USFWS and CDFG. *San Joaquin Raptor Rescue Center v County of Merced (Jaxon Enterprises, Inc.)* (2007)149 Cal. App.4th 645, 669, 670. See also Kostka & Zischke, Practice under the California Environmental Quality Act (2nd ed) Cal CEB 2008, January 2011 update, §14.12, pp, 696 - 700, and the numerous cases cited therein.

There will be significant direct and indirect impacts on Swainson's Hawks from the adoption by LAFCo of the SOI proposed by Elk Grove. Initially, there will be impacts due to landowner anticipation of selling property for urban use. There may be destruction of known nesting site trees to "enhance" marketability of properties for urban use. While there is no incentive to destroy nesting sites when land is used for farming or grazing (and some incentive not to since raptors prey on agricultural pests), once the landowner expects to urbanize the land, a Swainson's Hawk nesting site simply poses more potential economic costs to development because of additional mitigation responsibilities. Foraging values on the farm and range lands in the SOI may also become depressed due to landowner changes in agricultural practices, such as reduced grazing and reduced irrigation, or simply no longer farming.

In addition, due to the agricultural mitigation measures proposed in this DEIR, landowners will be at an economic advantage to cease irrigation of lands so that they are not required to mitigate for farmland loss upon development. The SOI DEIR does not identify, analyze or mitigate for these and other impacts of prematurely designated 8,000 acres of farmland that serves as mostly high quality Swainson's Hawk foraging habitat.

One indirect impact is that suitable mitigation lands for Swainson's hawk impacts will become higher priced, and less available. In time, properties inside the current urban limit that are approved for development but require Swainson's Hawk mitigation, will not be able to find suitable foraging habitat mitigation at an affordable price. The Natomas Joint Vision area is a classic example, where land prices skyrocketed to ridiculous heights after the adoption of the MOU for the Joint Vision for Natomas. The owners of much of the land in Sacramento County outside of the City ceased farming after the City adopted the Joint Vision for Natomas MOU, which is not even an SOI, but an intent to urbanize some of the area at some unknown future date.

We discuss in more detail below the direct and indirect effects of the SOI approval and consequent urbanization. The SOI is a significant step in the urbanization process, without which annexation cannot be done. The impact on the Swainson's hawk species in Sacramento County and in the City of Elk Grove from urbanization in the SOI will be significant since the loss of foraging habitat and impacts on nesting sites will reduce the number of nesting pairs in the County, result in direct mortality of chicks during the urbanization process, and have cumulative and indirect impacts. The EIR should require a take permit under Fish and Game Code Section 2081 for the SOI approval.

We request that an adequate biological resources analysis be prepared and the EIR be recirculated to allow review and comment on a properly prepared biological analysis.

EIR Ignores Important Biological Data Available on the SOI area and adjacent lands.

The poor Biological Assessment in the EIR does not give public and decisionmakers a reasonably accurate picture of the impact of the project on Swainson's Hawks and other raptors.

In our NOP comment letter, October 27, 2010 (James P. Pachl, Attorney), we requested that preparers consult specific available sources of information about Swainson's Hawk in and near the project area and address key questions about what project impacts would likely be.

> **Impacts on Swainson's Hawk:**
> The NOP, p. 5, states that Swainson's Hawks ("SWH") nest in mature riparian habitat along the Cosumnes River. In fact, there are a number of documents SWH nest sites throughout the area between Elk Grove and the Cosumnes River, and within Elk Grove, with one of the highest densities of SWH nests being within and close to the proposed SOI area. Jude Lamare e-mailed maps of SWH nest sites to you yesterday for the use of LAFCo's consultant who is preparing the EIR.
>
> We are particularly concerned about Elk Grove's proposed urban expansion because Elk Grove is located within a dense and significant nesting area for the SWH, listed as threatened under the California Endangered Species Act. Nesting sites both within the City and the proposed SOI area, and southward, depend upon foraging habitat within the nearly 8000 acres proposed for eventual urbanization. The loss of foraging and nesting habitat will be significant. The EIR analysis should recognize that the density of nesting in the Elk Grove area is among the highest densities recorded for the species.
>
> The EIR analysis should include all the data available from studies conducted by Jim Estep for the City and the South Sacramento County HCP effort, and the California Department of Fish and Game over the last six years. Information in the NDDB is often incomplete and outdated, and thus cannot be relied upon.
>
> The success of SWH reproductive activity and survival of SWH young is directly dependent upon availability of food supply (small rodents) which is reasonably available to nesting SWH during the breeding and nesting season. Destruction of foraging habitat (low-growing vegetation which harbors small rodents) by development eliminates this food supply and forces SWH to travel greater distances to find prey, resulting in less food for the nest and a greater likelihood of nest failure and nestling mortality.
>
> 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 within the City of Elk Grove;
> b) potential impacts on reproductive activity in nesting sites within the SOI area;
> c) potential impacts on reproductive activity of other nesting sites within 2 - 5 miles;
> d) potential impacts on survivability of fledged juveniles from these nesting sites;
> e) 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.
> f) discuss other reasonably foreseeable projects that would eliminate SWH foraging and nesting habitat, as part of the EIR discussion of cumulative impacts. These would include but are not limited to the proposed Bay Delta Conservation Plan, which proposes to convert large areas of agricultural land in Yolo County and the Yolo

Bypass, which is SWH foraging habitat, with managed marshes for fish habitat, eventual build-out of Rancho Cordova and of the Florin-Vineyard area, all of which are SWH foraging habitat, and predicted sea-level rise which will inundate low-lying areas west of Elk Grove which are currently agricultural land that serve as SWH foraging habitat.

Our NOP comments were ignored. Our questions were not addressed and the EIR shows no sign that the preparers' consulted the documents and sources that we recommended. Nor does the EIR establish the credentials of the preparers to make judgments about adequacy of mitigation and the significance of impacts on Swainson's Hawks independent of the scientific body of knowledge available on the species in the project area. No information at all is provided on the credentials, training and experience of those who prepared the biological findings in the EIR.

Improper Reliance on CNDDB.

Despite our NOP comment to LAFCo on this subject explaining why CNDDB should not be relied upon, the EIR relies on CNDDB to identify species presence. CNDDB records are poorly maintained, out of date, and are therefore not complete and often underestimate species presence and recent nesting behavior.

CNDDB is not intended to provide definitive data for purposes of CEQA review of a project. The CNDDB webpage says:

> ". . .we cannot and do not portray the CNDDB 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)

CNDDB is a first stop for biological assessment, indicating where likely rare plants and animals may be found. When assessing Swainson's Hawk impacts, LAFCo should insist that their environmental consultants 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 CNDDB.

In the attached email from CDFG's CNDDB 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, LAFCo had access, and was requested by us in the NOP process to use that access, to recent, high quality data commissioned by the City of Elk Grove.

Failure to Identify the Project and Adjacent Area Populations of Nesting Swainson's Hawks

In terms of assessing impacts on Swainson's Hawks, the amount of nesting in the project area, the distance of non-project area nesting activity from the project area and the type of land cover

are important factors. The EIR cannot properly assess the impact of the project and its significance if it has not identified the size and characteristics of the nesting populations of Swainson's Hawk in and near the project site. The City of Elk Grove has commissioned several relevant recent studies of Swainson's Hawk nesting. The South Sacramento County Habitat Conservation Planning team has also assembled and analyzed all available data. We have submitted to LAFCo on two occasions a copy of the South Sacramento Habitat Conservation Plan map entitled "Range of Swainson's Hawk in the SSHCP Plan Area," a copy of Estep's 2006 South County nesting sites map, and a map showing nesting sites identified by Department of Fish and Game and labeled 2005 and 2009 survey nesting sites. These maps show quite a few more nesting sites in and near the SOI area than are shown in the EIR Exhibit 3.4-2b.

The California Department of Fish and Game has participated in the HCP process and is well aware of the data available, particularly their own recent data. The EIR shows no evidence that preparers consulted any of these sources of information about the activities of Swainson's Hawk in and around the project area. The City of Elk Grove is well aware of these data because it has conducted numerous studies and has consulted numerous times with the Department of Fish and Game about the Swainson's Hawk population in the City of Elk Grove and how the impact of development in the City can be fully mitigated. Yet the EIR describes the population using outdated and imprecise CNDDB records.

FOSH has examined the data in the following maps to determine what information is provided on the Swainson's Hawk use of the area in and near the project area (SOI). These maps were provided to LAFCo on October 27, 2010 and November 2, 2011. Jim Estep, Estep Environmental Consulting, Distribution, Abundance, and Habitat Associations of Swainson's Hawk (2007) (results of 2006 census level surveys in South Sacramento County) and The Distribution, Abundance, and Habitat Associations of the Swainson's Hawk (Buteo swainsoni) in the City of Elk Grove, California (2009) (results of census level surveys within City limits in 2008); South Sacramento County Habitat Conservation Plan, "Range of Swainson's Hawk in the SSHCP Plan Area."

At our request, Melinda Bradbury, biological consultant, used these data to summarize the findings about Swainson's Hawks in and near the SOI area [Memorandum to FOSH]:

- There are approximately 12 nest territories reported in the section of the County south of the City limit, east of I-5 and west of 99 to Eschinger Road, in the proposed SOI;
- There are approximately 18 nest territories reported in the section of the County east of 99 and north of the Cosumnes River.
- There are approximately ten active nesting territories in the City between State Route 99 on the east and Bruceville Road on the west, immediately north (within one mile) of the SOI area.
- There are two active nesting territories on Grant Line Road east of State Route 99, on the border of the SOI area to the east.
- There were many nesting territories along the Cosumnes River and just south that would have the potential to forage north or south of the river depending on available habitat. Those birds would be impacted by loss of foraging habitat north of the Cosumnes River.
- There are several nesting territories in and near the Franklin area part of the SOI.
- Seventy-four percent of the nesting sites in South County (south of Elk Grove City boundary) were concentrated within the interior portion of the study area between approximately I-5 and Clay Station Road on the east side. (Estep, 2007)

- In this area the "territory density is lower than in Yolo County, but is high compared with other portions of the species' range and indicated the value of the agricultural habitats within this region to Swainson's hawks and the importance of the 'core' Central Valley population." (Estep, 2007)
-
- The SOI area is primarily the best forage type for Swainson's Hawks – Irrigated cropland/irrigated pasture.

These studies indicate that the availability of thousands of acres of contiguous high quality foraging habitat consisting largely of irrigated crop land and irrigated pasture, underlies the remarkable number of nesting territories and the density of nesting territories in and near the SOI area.

Given the close proximity of many of the nesting sites inside the City limits to the SOI area, there is reason to believe that the loss of the SOI foraging habitat will impact the viability of nesting and the degree of nesting success for nest sites within at least two miles of the SOI.

Likelihood of Take of Swainson's Hawks as a Result of SOI Approval; EIR provides no mitigation for take.

As noted above, but largely ignored in the EIR, the SOI area is nesting and foraging habitat for 30-50 Swainson's Hawk pairs. The urbanization of over 6,000 acres of foraging habitat in very close proximity to this many nesting sites will inevitably lead to loss of chicks (inadequate forage to sustain nesting success) and the abandonment of traditional nesting sites. Projects within the SOI area will also have direct impacts on nesting sites inside the City which will lead to abandonment of nesting, mortality to young and greater risk to fledglings.

The likelihood of "take" of Swainson's Hawks due to the SOI is very high. Yet the EIR does not acknowledge the potential for "take" and the resulting necessity for a "take" permit from California Department of Fish and Game under Section 2081 of the Fish and Game Code. It is quite important that LAFCo conduct a public review of the environmental consequences of "take" and that it require a "take" permit be issued before the SOI is approved. Otherwise the impact of this important consequence of SOI approval will not be known and evaluated by decision makers prior to approval of the expanded urban area.

Availability of Suitable Habitat to Mitigate for Loss of Foraging Habitat in the SOI Area – Cumulative Impacts

Among others, the California Department of Fish and Game (CDFG) has questioned whether there is suitable land available to render feasible the mitigation for the impacts of urbanizing the SOI. On March 25, 2010, CDFG wrote to the liaison for the South Sacramento Habitat Conservation Plan (c: Peter Brundage, LAFCo) about ensuring "adequate cropland and irrigated pasture-grassland reserve lands to accommodate the Swainson's hawks adequate persistence over time in the Plan Area." A copy of this letter was submitted to LAFCo by FOSH at the November 2 hearing on the DEIR. The letter said in part:

> "Within the Plan Area, the highest densities of nesting Swaisnon's hawks occur within and adjacent to cover types identified in the Draft Plan as

> cropland and irrigated pasture-grassland in the western portion of the Plan Area (Zones 4, 5, 8, 9, 11, 12). **The DFG believes that these cover types are essential to the continued persistence of the hawk within their California breeding range and any conservation strategy for this species should place high value on these cover types."** (*emp. added*)

The letter went on to say that the plan should "guarantee preservation and maintenance of a minimum of an equal amount of cropland and irrigated pasture-grassland to that being impacted within the Plan Area." To do so, CDFG recommended reducing the size of the SOI, and decreasing the take coverage for cropland and irrigated pasture-grassland.

The EIR completely ignores this critical issue affecting a key biological resource of the SOI area and adjacent lands in the City and the County. The impact of proceeding with the SOI is that there will not be adequate mitigation land to mitigate for impacts on Swainson's Hawk for the already approved development in the City and County, as well as for the SOI area.

Attached are two maps currently used by local jurisdictions to define areas best suited for acquiring Swainson's Hawk habitat as mitigation to offset impacts for already approved development within the City of Elk Grove and South Sacramento County. These maps were developed with input from the Department of Fish and Game and represent Fish and Game's recommendations for suitable mitigation habitat. Both maps show large areas within the proposed SOI as suitable habitat. Please note also the portion of the SOI west of Franklin Boulevard is largely suitable habitat and is bounded on the north by protected conservation area.

LAFCo should consider the suitability of available mitigation lands before assuming that mitigation land will be readily available to offset impacts of urbanizing the SOI area. Current research indicates that lands west of I-5 are not all suitable mitigation lands for Swainson's Hawks and the analysis necessary to quantify the amount of available land that is suitable is not publicly available. A study commissioned by the City of Elk Grove included analysis of the habitat and nesting patterns within the Delta Zone of the South Sacramento County study area as compared with a representative area in the interior (between I-5 and 99, South of Elk Grove and north of Galt) and the area east of 99 (within the Eastern Foothill Zone of the South Sacramento County Study Area). Each area contained 36 square miles. A comparison of the SOI project area with these survey areas will demonstrate that the project area is foraging habitat to a significantly higher number of pairs, and has a larger expanse of good quality foraging habitat. The impacts to the species by approving the SOI cannot be adequately mitigated in the Delta Zone where nesting is less dense, nesting habitat is less abundant, and unsuitable habitat (orchards and vineyards) is common. [Estep Environmental Consulting, Monitoring Swainson's Hawk (Buteo swainsoni) Nesting Activity in South Sacramento County, Results of 2008 Surveys (February, 2009) pp. 10- 14, 20. Attached]

LAFCo should proceed cautiously in approving SOI status, ensuring that any SOI expansion can be mitigated and fully compliant with all state laws protecting state listed species. In this regard, the alternatives analysis in the EIR (see below) is woefully inadequate.

Issue of Impact of the SOI Approval on the South County Habitat Conservation Plan and the Feasibility of Mitigation for Other Projects, Already Approved, within the Urban Area

The EIR should identify available suitable habitat in close proximity to the project area, over and above the amount of such habitat needed to mitigate for already approved development in Elk Grove and the County of Sacramento. It should address the issue of willing sellers, land inventory and price of mitigation land. It should consider the impacts on the species of the scenario in which available mitigation land is captured by development at the edge, leaving already approved development sites further inside the urban area with no suitable mitigation land available. It should address the issue of SOI approval creating mitigation land scarcity and consequently driving mitigation land prices up for all development in the South Sacramento County area.

Conflict with Local Policies – 1993 Urban Limit and 1993 Conservation Element of the County General Plan

On November 2, 2011, FOSH submitted to LAFCo pages of the County General Plan stating County policies that were in the General Plan to protect special status species in the South County, including the SOI area. This SOI approval would conflict with those policies. This issue was not addressed in the EIR. These policies indicate that the County's environmental analysis in 1993 anticipated significant impacts on wildlife, including the Swainson's hawk species in Sacramento County, if development were to extend beyond the current urban line into the proposed SOI area.

Inconsistencies with LAFCo policies IV.C.3.b and c.
The EIR must disclose the project's inconsistencies with applicable plans and policies, and analyze the environmental effects of such inconsistencies. The part of the SOI between Franklin Boulevard and I-5 would be inconsistent with LAFCo Policy IV.C.3.b. which states that LAFCo will not approve applications with boundaries which result in peninsulas of incorporated territory or otherwise cause distortion of existing boundaries. That portion of the SOI between Franklin Boulevard and I-5 is a peninsula bounded on the north by the USFWS Stone Lake Refuge (land owned by AKT, with perpetual easement to USFWS for management as part of the Refuge); and on the south by agricultural land in a 100-year floodplain.

The SOI peninsula between Franklin Boulevard and I-5 would also be inconsistent with LAFCo Policy IV.C.3.c. which states that LAFCo will not approve applications with boundaries drawn for the exclusive purpose of encompassing revenue-producing territories. The Connector expressway will run the length of the peninsula from I-5 to Franklin Blvd, to Hwy 99, and ultimately to Hwy 50 in El Dorado County, and will attract many more times traffic onto the Connector than presently use the existing Hood- Franklin Road. Elk Grove included the peninsula SOI within the proposed SOI so that Elk Grove may later annex it and line the Connector and/or Hood-Franklin Road with intense revenue-producing retail and commercial development between I-5 and Franklin Blvd. Otherwise, developing the peninsula makes no sense due to infrastructure costs, constrained area, the 100-year floodplain, and incompatibility with the neighboring Refuge and agricultural uses.

Inconsistencies with Government Code §§ 56001, 56300(a),
The Legislature has charged LAFCos with encouraging orderly growth and development, discouraging urban sprawl, and preserving open space and prime agricultural lands. (Government Code §§ 56001). LAFCos shall adopt policies which encourage and provide well-ordered and efficient urban development patterns with appropriate consideration for preserving open space and agricultural lands. (Government Code 56300(a)). See LAFCo Policy Manual (pg. 3).

The EIR must disclose inconsistencies between LAFCo's statutory charge and the proposed SOI, and analyze the environmental impacts of such inconsistencies. The EIR (p. 2-18 and Table 2-4, page 2-25) claims that Elk Grove has only 2,918 acres of available vacant land within existing city and requires 6,327 additional acreage from outside the existing city boundary to meet the need for growth to 2035. These numbers are unsupported and at odds with previous estimates that there are 8,000 acres of undeveloped land within the Elk Grove City limit which could be developed but are not. This includes properties that have been permitted for new development which has not occurred and properties where development started but then stalled or was abandoned. The 2000-acre Laguna Ridge project is one example; another is Lent Ranch Mall. The EIR must disclose the undeveloped areas (including project starts which have stalled) within Elk Grove that could be developed, and the status of development efforts on each such property. The EIR must disclose the environmental impacts of LAFCo approval of an 8000-acre SOI while substantial areas of developable land within Elk Grove remain undeveloped, and the consistency or inconsistency with Government Code §§ 56001, and 56300(a) and LAFCo policies of the proposed approval of the proposed SOI while large tracts within Elk Grove remain undeveloped.

There is further discussion of the inconsistency analysis in this letter in the section addressing the Agricultural Resources portion of the DEIR.

The DEIR violates CEQA because it relies on outdated land use assumptions which do reflect reality, and FAILS TO DISCLOSE or consider the Elk Grove Market Study, December 29, 2010, commissioned by the City of Elk Grove. which shows much smaller growth predictions.

The land use assumptions of the DEIR relies on the land use projections of the 2003 Elk Grove General Plan Update. (DEIR p. 2-25.) The DEIR and Application to LAFCo asserts that the SOI area will be needed to accommodate future urban growth predicted by the 2003 Elk Grove General Plan. The population projections have been discredited by the current reality and were contradicted by SACOG's growth projections in 2008 and its 2011 updated growth projections. The EIR must evaluate the studies and data relied upon by Elk Grove to determine if they are currently credible and show a need for future urban development of the proposed SOI area.

The recently completed *Elk Grove Market Study* December 29, 2010, commissioned by the City of Elk Grove and prepared by Center for Strategic Economic Research, clearly demonstrates that Elk Grove's claims that it needs over 6,000 acres of new development by 2035 are not supported by independent economic analysis. At the most optimistic the Market study estimates the need for acres outside the current City limit as 1,422 by 2029. SEE copies of pages iii, and 77, which

state that Elk Grove is projected to need an additional 200 acres to 1,442 acres (high end) by 2029. The Market Study estimates are based on the then SACOG 2035 MTP population projects for 2035 (see for example, p.83 footnote 1 to Figure 60). SACOG has since updated these population projections (which were adopted in 2008), as described in the attached Memo Item #10-4-12C Information, March 31, 2010, resulting in lower population projections. A complete copy of Market Study accompanies this letter.

Detrimental effects of prematurely committing more land to urbanization than can be absorbed.

For the reasons stated above, there is a good likelihood that approval of the SOI, in combination with the existence of 8,000 acres of undeveloped but developable land within the City and thousands of foreclosed homes needing a market, would result in the premature commitment of more land to urbanization than can be absorbed. 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. Such analysis should take into consideration that once approved, the SOI allows multiple patchwork of annexation proposals driven by individual landowner development agendas.

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 an SOI which would very foreseeably lead to the annexation and urban development of nearly 8000 acres 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", and Elk Grove is the major foreclosure "hot spot" within the Sacramento region, with thousands of new or foreclosed homes remaining unsold on the market. This includes the 2000-acre Laguna Ridge development, immediately north of the SOI area, which was abandoned after millions of dollars of infrastructure was installed. The Promenade is the classic example of failed retail mega development projects. There are also many other vacant storefronts and offices, and uncompleted approved projects, throughout Elk Grove and the Sacramento region.

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.

Approval of the proposed SOI which will very likely lead to annexation for the purpose of new development. New housing and retail development competing with existing development would 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.

Alternatives Analysis Fails to Recognize Importance of Alternatives with Little to No Impact on Swainson's hawks

The Alternatives Analysis could have helped decision makers to consider alternatives with less impact on Swainson's hawk, but the EIR did not provide them with this option. By avoiding analysis of the Swainson's hawk populations affected by SOI development, the EIR denied decision makers the opportunity to tailor an SOI that avoided impacts.

In our NOP comment letter, we requested an alternative that would have had minimal impact on Swainson's hawks while meeting the City's need for additional large scale employment land uses within the City limits. The letter said:

> "the EIR should consider the alternative of a smaller SOI amendment of 500 - 600 acres, at

Highway 99 and Kammerer Road, that would be limited exclusively to development of office and industrial parks."

The only alternative considered was a 2700 acre SOI blanketing the area south of Kammerer Road, arguably the area within the application that is adjacent to the existing city and most valuable to the remaining SWH nesting sites in the City and in the SOI. It is an alternative that does little or nothing to reduce potential take of Swainson's hawks or its foraging habitat.

Agricultural Resources Section Incomplete; No Justification for a .5:1 mitigation ratio for Agricultural Land Loss

We concur in the comments by ECOS on the agricultural resources impacts. Considering the magnitude of this agricultural area and its significance in the agricultural economy of Sacramento County, and the economic and physical role of this area in the south Sacramento farming community, the analysis and mitigation are entirely inadequate. The EIR fails to address the cumulative impacts over time of permanent loss of agricultural resources. It also fails to address the temporal impacts on agricultural uses of patchwork urbanization over an extended and unknown period of time.

On page 3.2-6, the EIR wrongly states that Elk Grove's policy is that agricultural land cannot be mitigated without creating new farmland. That policy was litigated in *South County Citizens for Responsible Growth et al. v. City of Elk Grove et.al* (2001); the Appeals court upheld the trial court finding that this Elk Grove policy is inconsistent with CEQA. CEQA requires mitigation of loss of farmland to less than significant or if that is not possible, to the extent feasible. In February, 2006, Elk Grove received an easement (see attached easement) to farmland to mitigate 1:1 for loss of farmland from the development of Lent Ranch Mall. The easement (p. 2) refers to Resolution No. 2004-200, approved on August 4, 2004, which imposes on the Lent Ranch Marketplace project the requirement to mitigate the loss of agricultural land through the conservation in perpetuity of an equal amount of land. Elk Grove's policy therefore has been to mitigate 1:1 for loss of farmland.

The Legislature has charged LAFCos with encouraging orderly growth and development, discouraging urban sprawl, and preserving open space and prime agricultural lands. (Government Code §§ 56001). LAFCos shall adopt policies which encourage and provide well-ordered and efficient urban development patterns with appropriate consideration for preserving open space and agricultural lands. (Government Code 56300(a)). See LAFCo Policy Manual (pg. 3). However, Sacramento LAFCo has decided to proceed on case-by-case rather than to have an adopted policy to govern agricultural land preservation. LAFCo's **Sacramento LAFCo Policy, Standards and Procedures Manual,** Chapter IV, pp 16-18 describes the standards used by Sac LAFCo to preserve agricultural lands. The EIR references the Sacramento LAFCo manual on pp. 1-3 to discuss LAFCo compliance with CEQA. The EIR reviews the unique statutory role and part of the policy for meeting this statutory obligation on pp. 3.10-48 to 3.10-50, and conclude without analysis or discussion that "the proposed project is inconsistent with this policy. . . . Refer to Section 3.2, Agricultural Resources for further discussion." However, there is no further discussion of the **Policy, Standards and Procedures Manual**, Section E. Agricultural Land Conservation, at that location. The proposed mitigation measures do not seem

to have any relationship with the policy standards in the manual.

Below are reprinted the LAFCo policies (Chapter IV, pp 16-18). Note that Section E2 of this section is completely missing from the EIR. The analysis and mitigation measures in the Agricultural Resources Section of the DEIR should be revised to take into consideration these policies and standards. The DEIR should be recirculated for public comment.

1. LAFCo will approve a change of organization or reorganization which will result in the conversion of prime agricultural land in open space use to other uses only if the Commission finds that the proposal will lead to the planned, orderly and efficient development of an area. For purposes of this standard, a proposal leads to the planned, orderly and efficient development of an area only if all of the following criteria are met:

   a. The land subject to the change of organization or reorganization is contiguous to either lands developed with an urban use or lands which have received all discretionary approvals for urban development.

   b. The proposed development of the subject lands is consistent with the Spheres of Influence Plan, including the Master Services Element of the affected agency or agencies.

   c. Development of all or a substantial portion of the subject land is likely to occur within five years. In the case of very large developments, annexation should be phased whenever feasible. If the Commission finds phasing infeasible for the specific reasons, it may approve annexation if all or a substantial portion of the subject land is likely to develop within a reasonable period of time.

   d. Insufficient vacant non-prime lands exists within the applicable Spheres of Influence that are planned, accessible, and developable for the same general type of use.

   e. The proposal will have no significant adverse effect on the physical and economic integrity of other agricultural lands. In making this determination, LAFCo will consider the following factors:

      (1) The agricultural significance of the subject and adjacent areas relative to other agricultural lands in the region.

      (2) The use of the subject and the adjacent areas.

      (3) Whether public facilities related to the proposal would be sized or situated so as to facilitate the conversion of adjacent or nearby agricultural land, or will be extended through or adjacent to, any other agricultural lands which lie between the project site and existing facilities.

      (4) Whether natural or man-made barriers serve to buffer adjacent or nearby agricultural land from the effects of the proposed development.

(5) Applicable provisions of the General Plan open space and land use elements, applicable growth-management policies, or other statutory provisions designed to protect agriculture.

2. LAFCo will not make the affirmative findings that the proposed development of the subject lands is consistent with the Spheres of Influence in the absence of an approved Sphere of Influence Plan. LAFCo will not make the affirmative findings that insufficient vacant non- prime land exists within the Spheres of Influence Plan unless the applicable jurisdiction has:

   a. Identified within its Spheres of Influence all "prime agricultural land" as defined herein.

   b. Enacted measures to preserve prime agricultural land identified within its Sphere of Influence for agricultural use.

   c. Adopted as part of its General Plan specific measures to facilitate and encourage in-fill development as an alternative to the development of agricultural lands.

Permitting an 8,000 acre SOI with unknown timing, location and phasing of development can hardly be consistent with LAFCo's statutory charge of "encouraging orderly growth and development." It will wreck havoc with a stable agricultural economy. Approval of the SOI must consider impacts of the SOI on farmland and the farm economy and not simply wave these away with requiring annexation mitigation measures. LAFCo decisionmakers cannot fairly evaluate the environmental impact of the SOI on agriculture and on its statutory charge to conserve agricultural land given the incomplete and misleading analysis in this DEIR. Measures requiring annexation related mitigation do not adequately address the direct and indirect consequences of approving an 8,000 acre SOI instead of a much smaller alternative with fewer impacts on farmland and the agricultural economy.

Further Comment on Inconsistency with LAFCo Policies.

The EIR analysis of Sacramento LAFCo consistency completely ignores Section E2, printed above, related to standards for LAFCo determination whether insufficient vacant non-prime land exists inside the City boundaries. On page 3.10-39 the consistency analysis does not recognize the conflict between LAFCo policy and City General Plan in regard to the standards for LAFCo to approve the SOI and defers mitigation to a future CEQA analysis. Such deferral of mitigation for the core impact under LAFCo responsibility ("LAFCo will exercise its powers to conserve agricultural land") is inexcusable. The largest area of prime agricultural land mapped in the EIR is found in both the proposed SOI and in the smaller 2,700 acre alternative. No alternative other than the no project alternative excludes prime agricultural land. As lead agency, LAFCo could have and should have insisted upon an alternative that conserved agricultural land, including all the prime agricultural land identified.

Finally, we believe that any reliance by LAFCo on the 2003 Elk Grove General Plan and EIR adoption to address the environmental impacts of the SOI would be inappropriate. The 2003 EIR on the General Plan is now out of date.

Please keep us informed regarding the availability of a recirculated DEIR, 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

Email from Brian Acord dated September 15, 2011, about CNDDB

Email to Don Lockhart, with attached maps

Map of Swainson's Hawk range, South Sacramento County Habitat Conservation Plan

Map of Swainson's Hawk nesting sites, *Distribution, Abundance, and Habitat Associations of Swainson's Hawk.* Results of 2006 census level surveys in South Sacramento County

The Distribution, Abundance, and Habitat Associations of the Swainson's Hawk (Buteo swainsoni) in the City of Elk Grove, California. Census level surveys within City limits in 2008.

Map of Potential Swainson's Hawk Mitigation Areas, prepared by the Sacramento County Planning and Community Development Department with information from the California Department of Fish and Game.

Map of Swainson's Hawk suitable habitat for mitigation of development in the City, prepared by City of Elk Grove and Department of Fish and Game to guide City of Elk Grove mitigation location decisions (provided to FOSH by City of Elk Grove).

Department of Fish and Game letter of March 25, 2010, to Michele McCormick, copy to Eric Tattersall, and Peter Brundage,

Monitoring Swainson's Hawk (Buteo swainsoni) Nesting Activity in South Sacramento County Results of 2008 Surveys. (2009)

1993 County of Sacramento General Plan Policies

Elk Grove Market Study, December 29, 2010

SACOG Item #10-4-12C, March 31, 2010 "Draft Regional Growth Projections) 4 pp.

Sacramento County County's staff report (Agenda for 10/13/10, 2030 General Plan Update Adoption Hearings) with relevant pages 6 – 11

City of Elk Grove Agricultural Easement, 2006, pp 1-2 and certificate.

COMMENT LETTER W21/11 ATTACHMENT

From: BACORD@dfg.ca.gov
Subject: **Re: backlog at CNNDB?**
Date: September 15, 2011 4:22:57 PM PDT

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 CNDDB 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/cnddb_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 CNDDB, 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 CNDDB 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

FRIENDS OF THE SWAINSON'S HAWK SUPPLEMENTAL SOI EIR COMMENT LETTER 11/21/11 ATTACHMENT (4pp)

From: swainsonshawk@sbcglobal.net
Subject: **maps of Swainson's Hawk nesting locations**
Date: October 26, 2010 9:23:43 PM PDT
To: Donald.Lockhart@SacLAFCo.org
Cc: jpachl@sbcglobal.net

Dear Don

Your EIR consultant would be well served to request from DFG and the City of Elk Grove, and the HCP team, all maps they have for observations of Swainson's Hawk nesting activities in the City of Elk Grove and in the SOI area.

I am appending some maps that we have obtained from those various sources to show you what is available.

First is a map prepared for the SSHCP which we believe includes all nesting sites identified in recent (2005-2009) surveys by both DFG and Jim Estep (both inside and outside the USB). However there may be some confusion regarding observations vs. nesting site confirmations. We haven't been allowed to look at the data layers in detail. However, the dots look consistent with the other studies we have examined in detail.

Second, a nesting site map from Jim Estep's 2007 study of the South County.

His study of nesting density and land use types was done for the City of Elk Grove and documents both nesting sites and reproductive success as well as type of farming practices.

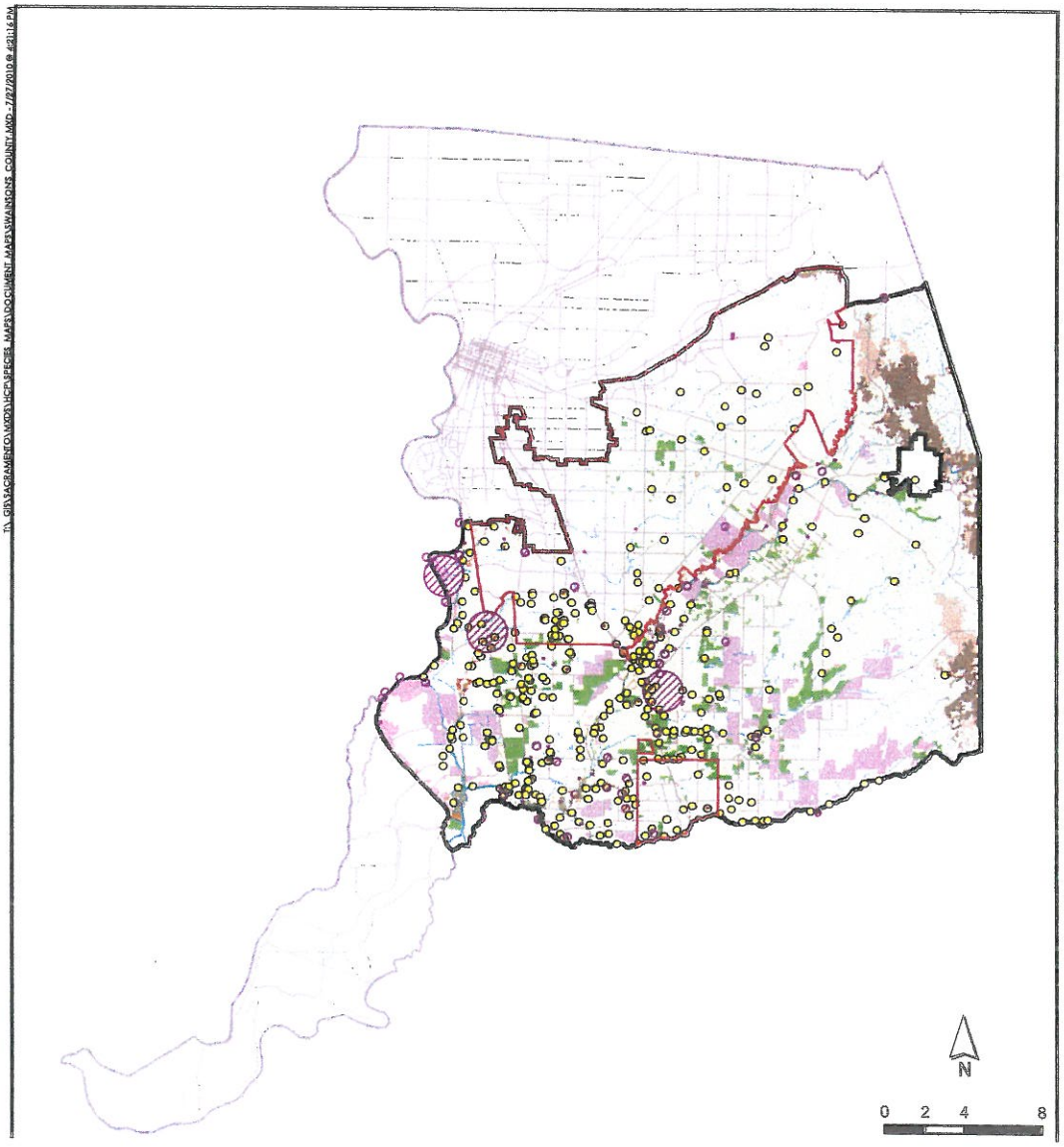
Third a map of nesting observations by Fish and Game in 2009 and 2005 surveys in the Elk Grove area.

It is best to keep these maps closely held and used for analysis. We wouldn't want to see any of these trees cut down by misguided folks.

Thanks for passing this info on to EIR Consultant.

Judith Lamare, President
Friends of the Swainson's Hawk
swainsonshawk@sbcglobal.net
915 L Street, C-425
Sacramento, CA 95814
916 447 4956

From: Friends of the Swainson's Hawk <swainsonshawk@sbcglobal.net>
Subject: **maps of Swainson's Hawk nesting locations**
Date: October 26, 2010 9:23:43 PM PDT
To: Don Lockhart <Donald.Lockhart@SacLAFCo.org>
Cc: Jim Pachl <jpachl@sbcglobal.net>
3 Attachments, 7.9 MB Save Slideshow



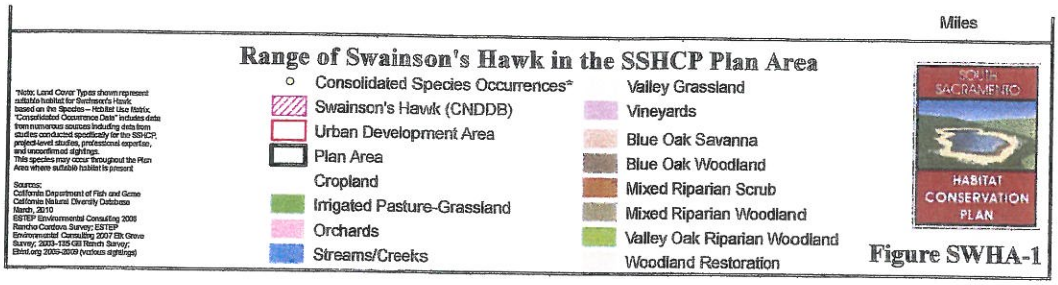
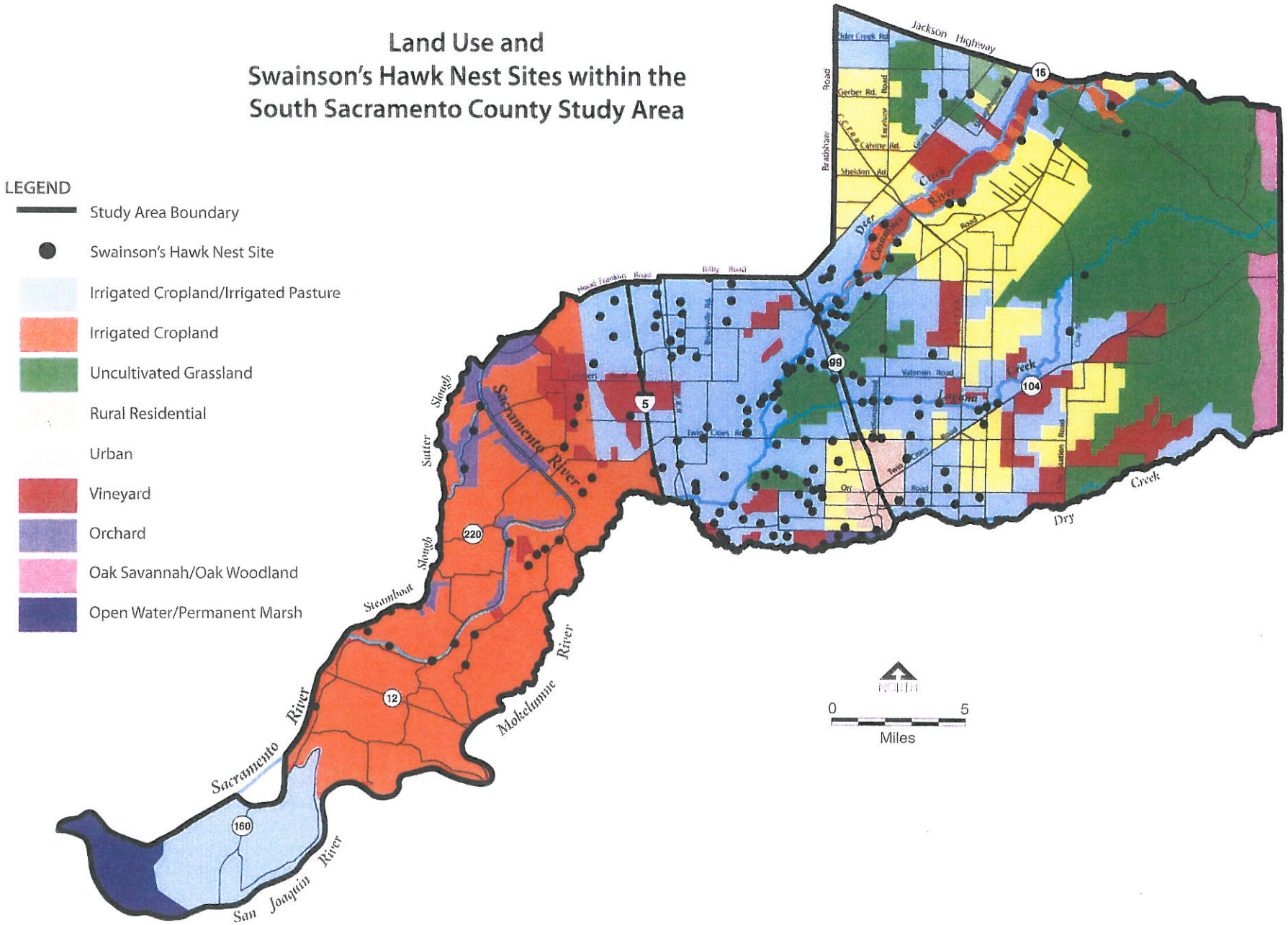


Figure SWHA-1

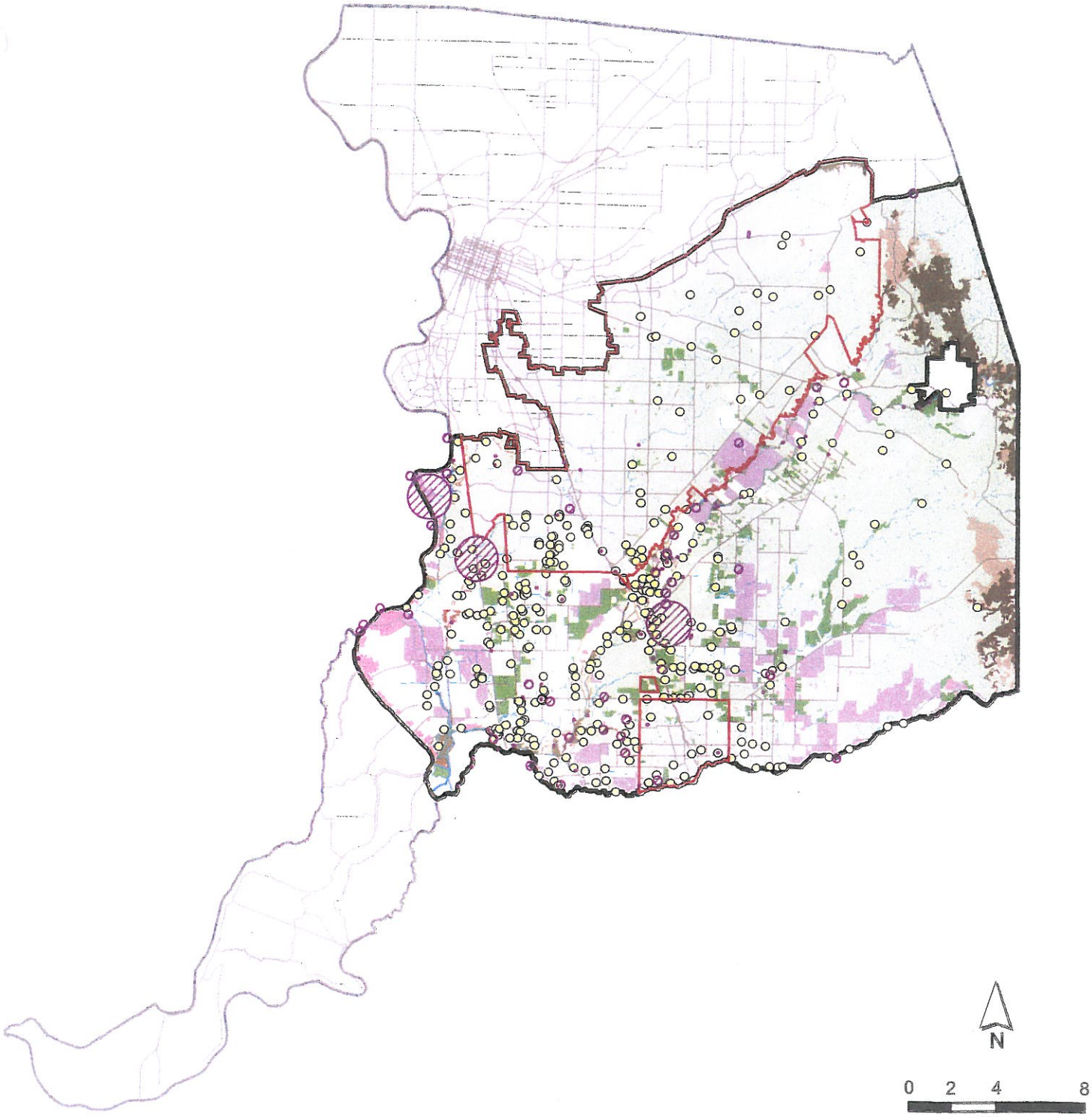
estepsocolu....doc (784 KB)

Land Use and Swainson's Hawk Nest Sites within the South Sacramento County Study Area



ESTEP, 2007

SOI EIR COMMENT LETTER 11/21/11 ATTACHMENT



Range of Swainson's Hawk in the SSHCP Plan Area

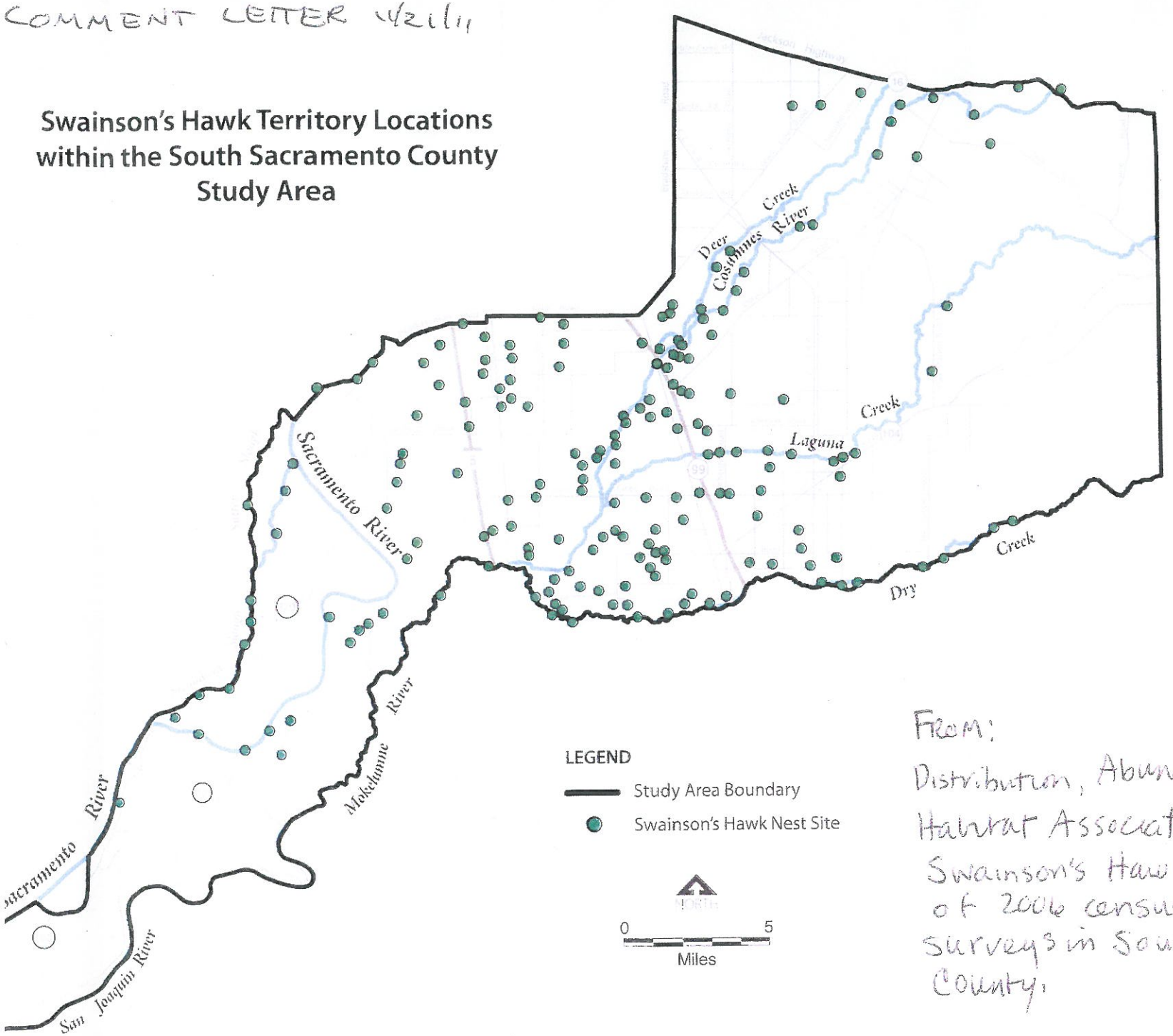
- Consolidated Species Occurrences*
- Swainson's Hawk (CNDDB)
- Urban Development Area
- Plan Area
- Cropland
- Irrigated Pasture-Grassland
- Valley Grassland
- Vineyards
- Blue Oak Savanna
- Blue Oak Woodland
- Mixed Riparian Scrub
- Mixed Riparian Woodland

SOUTH SACRAMENTO HABITAT CONSERVATION PLAN

ote: Land Cover Types shown represent
itable habitat for Swainson's Hawk
sed on the Species – Habitat Use Matrix.
onsolidated Occurrence Data" includes data
merous sources including data from
nducted specifically for the SSHCP,
el studies, professional expertise,
nfirmed sightings.
pecies may occur throughout the Plan
ea where suitable habitat is present

urces:
lifornia Department of Fish and Game
lifornia Natural Diversity Database
rch, 2010
TEP Environmental Consulting 2006

INSON'S HAWK
COMMENT LETTER 4/21/11



FROM:
Distribution, Abundance, and Habitat Associations of Swainson's Hawk. Results of 2006 census and surveys in South Sacramento County.

The Distribution, Abundance, and Habitat Associations of the Swainson's Hawk *(Buteo swainsoni)* in the City of Elk Grove, California

January 2009

Prepared for:

CITY OF ELK GROVE CALIFORNIA

Prepared by:

ESTEP

Environmental Consulting

The Distribution, Abundance, and Habitat Associations of the Swainson's Hawk (*Buteo swainsoni*) in the City of Elk Grove, California

Prepared for:

City of Elk Grove
8401 Laguna Palms Way
Elk Grove, CA 95758
Contact: Taro Echiburú
(916) 478-3619

Prepared by:

Estep Environmental Consulting
3202 Spinning Rod Way
Sacramento, CA 95833
Contact: Jim Estep
(916) 921-2515

January 2009

Table of Contents

Executive Summary

The Swainson's Hawk (*Buteo swainsoni*) is a state-listed threatened species in California that occurs throughout much of the Central Valley. The City of Elk Grove (City) is within the region of the Central Valley – which includes Sacramento, Yolo, Solano, and San Joaquin Counties – that supports the largest concentration of nesting Swainson's Hawks in the state. Associated with large, open grassland and agricultural landscapes, the Swainson's Hawk is closely tied to an agricultural pattern in the Central Valley that provides high value foraging opportunities. This pattern, an agricultural landscape matrix of hay, grain, and row crops; irrigated pasture; and grazed annual grasslands is characteristic of this region.

The City has been actively developing a conservation strategy for the Swainson's Hawk in response to continuing urbanization and the resulting loss of high value agricultural habitats needed to sustain nesting populations – as well as the need for compliance with California Department of Fish and Game (DFG) habitat protection guidelines. The City instituted an ordinance in 2003 that requires mitigation for losses of Swainson's Hawk habitat due to urbanization. Conservation is achieved through selection of appropriate replacement lands and through management of suitable habitat values on those lands in perpetuity. With the assistance of DFG, the City has taken a landscape approach in their conservation strategy by using various habitat suitability and proximity criteria in the selection of potential conservation sites in an effort to provide meaningful conservation through consolidation of protected habitats and protection of landscape values that focus on sustainability of the breeding population.

In order to evaluate potential conservation lands in the context of a landscape approach to Swainson's Hawk population sustainability, the City recognized the need for a comprehensive baseline survey of the nesting population in South Sacramento County. In 2006, the baseline survey was conducted to provide the City with a more complete understanding of the distribution and abundance of the Swainson's Hawk in south Sacramento County and to further assist the City in establishing criteria for conservation site selection and approval. However, the study area for the baseline survey did not include lands within the city limits of Elk Grove.

As the City continues to implement its General Plan, information on Swainson's hawk distribution and abundance within the city limit boundary would be useful in assessing the effects on continued urbanization of remaining open space lands and exploring additional conservation opportunities. Thus, to provide additional information on Swainson's hawk nesting distribution and abundance within the city limit boundary, a survey was conducted in 2008, the results of which are presented in this report.

The study area for this survey and assessment was defined as all lands within the Elk Grove city limit boundary. A total of 14 active Swainson's Hawk breeding territories were documented within this 26,974-acre area, equating to a territory density of 0.33

breeding territories per square mile and 0.67 breeding territories per square mile of undeveloped land. Of these, 13 (92.9%) were confirmed to have nested, and of the active nests, 11 (84.6%) successfully reared young to fledging. One pair failed to produce young and the reproductive outcome of one pair was undetermined.

Approximately 88 percent of the study area was urbanized and approximately 22 percent remained open agricultural land or uncultivated grasslands, all of which was considered suitable Swainson's hawk foraging habitat. Agricultural lands consisted of annually rotated irrigated croplands, hayfields, and irrigated pastures. These types were combined into a single land use type – irrigated cropland/irrigated pastureland. Four land use types were defined within the study area, 1) high density urban, 2) low density urban, 3) irrigated cropland/irrigated pastureland, and 4) uncultivated grassland.

Twelve of the nest site locations (85.7%) were associated with the irrigated cropland/irrigated pastureland type and two (14.3%) were associated with uncultivated grasslands. This is consistent with other studies, including the South Sacramento County baseline survey and assessment. However, the size and configuration of remaining suitable habitat patches and the extent of fragmentation were probably greater influences on the distribution and abundance in the study area than the differing foraging values between irrigated lands and annual grasslands.

Due to the distribution of available habitat within the study area, all nesting sites were in close proximity to urban areas. All but one site was within 0.25 miles of urban areas, and many were immediately adjacent to urban areas, mostly newly developed residential neighborhoods. The majority of nest trees (42.9%) were along roadsides, either remnant mature valley oak trees retained for landscaping or eucalyptus trees planted for windbreaks or visual barriers. Others were associated with rural residences (14.3%), riparian habitat (14.3%), farmyards (7.1%), oak groves (7.1%), or isolated trees (7.1%). Eucalyptus was the most frequently used nest tree (42.9%) followed by valley oak (35.7%). The remaining nest trees included walnut, willow, and locust. A total of 15 fledged young were recorded equating to 1.36 young per successful nest, which is generally consistent with other past and ongoing studies of Swainson's hawk in the Central Valley.

While Swainson's hawks were distributed throughout most of the remaining open habitats in the study area, the majority (71.4%) were found within the largest remaining open space area between State Route 99 and Bruceville Road in the south-central portion of the study area. This area remains contiguous with open agricultural lands south of the city limit line and retains high value for Swainson's hawks due to the size, agricultural land use, availability of nesting habitat, and proximity to open agricultural landscapes to the south. Other suitable habitats within the study area are smaller, more fragmented, and subject to higher levels of human disturbances, and thus have less long-term conservation value.

1.0 Introduction

1.1 Historical Background

1.1.1 Statewide

The Swainson's hawk (*Buteo swainsoni*) (Plate 1-1) is a state-listed threatened species in California that occurs throughout much of the Central Valley. Reliant on certain types of agricultural land uses and remaining uncultivated grasslands, the largest remaining populations occur in the rapidly urbanizing region that includes Yolo, Solano, Sacramento, and San Joaquin Counties. Because of the inherent conflicts between urbanization, the preservation of agricultural and valley grassland habitats, and compliance with state laws and regulations, addressing land use-related impacts that affect the Swainson's hawk continues to be a key issue for land use decision-making in the Central Valley.

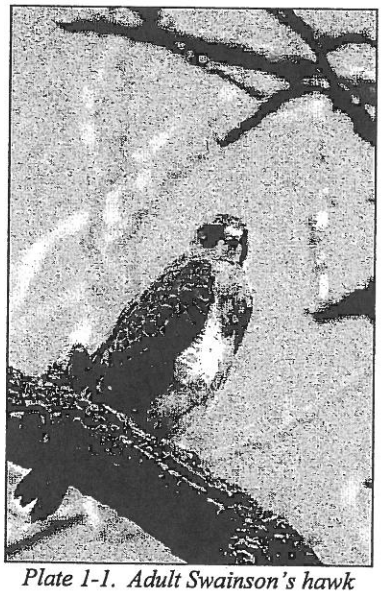


Plate 1-1. Adult Swainson's hawk

In 1994, the California Department of Fish and Game (DFG) took an initial step in addressing the issue of habitat conservation for Swainson's hawks by issuing guidelines for mitigating development-related impacts (California Department of Fish and Game 1994). Since then, the DFG Swainson's Hawk Mitigation Guidelines have been used by local agencies as a method to mitigate habitat impacts on individual development projects

pursuant to the California Environmental Quality Act (CEQA). In an attempt to standardize mitigation costs for impacts to Swainson's hawk habitat and consolidate conservation efforts, some local agencies including the City of Elk Grove, established local ordinances or similar programs that required payment of mitigation fees. The fees are applied to all development projects that would remove Swainson's hawk habitat and used to compensate for this loss through acquisition and management of offsite lands.

Concurrent with these activities, larger regional habitat conservation plans were also being considered or developed for lands within the range of the Swainson's hawk. Driven by the presence of federally listed species, habitat conservation plans (HCPs) are prepared pursuant to Section 10 of the federal Endangered Species Act under consultation with the U.S. Fish and Wildlife Service. State-listed species can be included as 'covered' species in HCPs under agreement and permit authorization of DFG (Section 2081 or 2080.1 of DFG Code). At the state level, Natural Community Conservation Plans (NCCPs) can also be prepared pursuant to Fish and Game Code (Sections 2800-2835) to provide a means of complying with the California endangered species act (CESA). An NCCP is similar to an HCP in that it is designed to protect and conserve intact natural landscapes and biological communities, biological diversity, and species listed under CESA while allowing appropriate development and economic growth. The HCP and NCCP processes can provide a more regional approach to addressing impacts and mitigation and potentially allowing for consolidation of conservation lands and a greater potential for conservation at a regional population level. Several multispecies HCPs have either been completed (e.g., Natomas Basin, San Joaquin County) or are in preparation (e.g., South Sacramento County) and several others are in progress that combine the HCP and NCCP processes (e.g., Yolo County, Solano County, Butte County) within the range of the Central Valley population of Swainson's hawk.

1.1.2 City of Elk Grove

With the incorporation of the City of Elk Grove in 2001, lands within the jurisdiction of the new city were no longer subject to the Sacramento County Swainson's Hawk ordinance. In 2003, the City of Elk Grove established their own City ordinance, began collecting mitigation fees, and began to formulate strategies to mitigate development-related impacts on Swainson's Hawk. While there is no conservation plan in place to direct or consolidate conservation efforts, the City took the preliminary steps to require developers to either pay fees or acquire mitigation lands within a specified area of the county. This mitigation 'receiving' area was designed to ensure compliance with provisions of CEQA that require a nexus between impacts and mitigation, and to begin to consolidate conservation lands in order to address issues of habitat connectivity and regional population stability.

To further support the City's efforts in the selection of appropriate conservation lands, a GIS-based model was developed that modeled Swainson's Hawk habitat suitability in south Sacramento County (Jones & Stokes 2005a). The model identified and ranked all areas of south Sacramento County with respect to their suitability for potential conservation based on several model variables. One element of the model was the

current nesting distribution of Swainson's Hawk within the study area. Because the model was sensitive to the locations of active nest sites, inaccuracies in the nesting distribution could result in some areas potentially devalued and thus not considered for conservation.

This, along with the interest on the part of the City, Sacramento County, and DFG to have an accurate baseline nesting distribution of Swainson's Hawks in south Sacramento County resulted in the City's funding of a 2006 baseline survey and habitat assessment for South Sacramento County (Estep 2007a). The City has also undertaken continued monitoring of this population by funding the monitoring of selected portions of the South Sacramento study area during the 2008 breeding season.

In 2008, the City also funded a Swainson's hawk nesting survey within the City of Elk Grove city limits, an area that was not previously included within the South Sacramento County study area. The results of that survey are the focus of this report.

1.2 Regulatory Background

The Swainson's hawk was listed as a state-threatened species by the California Fish and Game Commission in 1983 largely as a result of a statewide survey conducted in the late 1970s that estimated a population decline of greater than 90% (Bloom 1980). Species that are listed as threatened or endangered receive protection under the provisions of the California Endangered Species Act (CESA) (Section 2050 of the Fish and Game Code), and related Fish and Game Code Sections, including Section 2080 that prohibits the "take" of any threatened or endangered species. Take is defined in Section 86 as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill."

While not specifically defined in the definition of take, loss of essential habitat can result in the direct or indirect loss of breeding territories and reproductive potential leading to further population declines, and thus can potentially be included in the definition of take. However, most habitat-related impacts on the Swainson's hawk are addressed through CEQA.

CEQA defines the significance of an impact on a state-listed species based on the following:

- Appendix G of the State CEQA guidelines states that a biological resource impact is considered significant (before considering offsetting mitigation measures) if the lead agency determines that project implementation would result in "substantial adverse effects, either directly or through habitat modifications, on any species identified as being a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFG or USFWS"; and

- CEQA Section 15065 (Mandatory Findings of Significance), a biological resource impact is considered significant if the project has the potential to "substantially

reduce the number or restrict the range of an endangered, rare or threatened species".

It has been pursuant to both the CESA and CEQA processes that mitigation and management, including the development of regional strategies, have been developed to address land use issues related to Swainson's hawk conservation.

1.3 Purpose

The purpose of this study is several-fold and includes:

- Determining the distribution and abundance of the Swainson's hawk in the City of Elk Grove.
- Determining nesting and foraging habitat associations of Swainson's hawk in the City of Elk Grove.
- Determining the reproductive performance of Swainson's hawks in the City of Elk Grove.
- Providing additional baseline information to assist the City of Elk Grove in the development of their Swainson's hawk conservation strategy.

2.0 Monitoring and Management of Swainson's Hawk Populations in the Central Valley

2.1 Monitoring of Populations

Data have been collected on the distribution and abundance of Swainson's hawk in the Central Valley since the late 1970s. Bloom (1980) conducted the initial statewide survey that described a 90% reduction in the historic population and led to the state-listing of the species. At this time, the statewide estimate of breeding pairs was 375. Beginning in the early 1980s, long-term monitoring of selected survey sites was conducted to assess population trends. In 1988, DFG conducted a second and more intensive statewide survey, which recalibrated the statewide estimate to 550 breeding pairs. Neither the initial Bloom (1980) or 1988 statewide surveys were conducted using a standardized survey protocol that would lend itself to statistical analysis sufficient to reliably estimate population size. Thus, it was acknowledged that these early statewide estimates were not necessarily an accurate estimate of the statewide population and were cautiously used to describe the status of the species. The survey efforts were, however, important in establishing the current distribution of the species in California.

Since the mid-1980s, several survey and long-term monitoring efforts have been conducted in the Central Valley, particularly in Yolo, Solano, Sacramento, and San Joaquin Counties. These studies have provided additional information on distribution and abundance of the species, as well as providing additional life history data on the Central Valley population. Some of these efforts are listed below in Table 1.

As a result of these efforts and the increasing understanding of Swainson's hawk distribution and abundance in the Central Valley, but in the absence of any statistically-based analysis, the Swainson's Hawk Technical Advisory Committee (TAC) – an ad hoc group of researchers that conducts and facilitates research on the Swainson's hawk and advises DFG and local jurisdictions regarding Swainson's hawk ecology – provided a new estimated population range. In 2001 the TAC conservatively estimated that there were between 700 and 1,000 breeding pairs in the state with approximately 90% of these in the Central Valley.

In an effort to more conclusively estimate the population size, DFG and the TAC began a comprehensive, standardized, statistically-based statewide survey effort in 2005 (Anderson et al. 2007). Using a standardized sampling approach across the current range of the species in California, this two-year study estimates the current population at 2,081 breeding pairs (SE = 157.1 at 95% CI), 1,948 (94%) of which are estimated to occur in the Central Valley (Anderson et al. 2007). This is considered the most reliable estimate

to date and is thought to more accurately reflect the total number of breeding pairs in the Central Valley and throughout California.

Table 2-1. Survey and Monitoring Studies of Swainson's Hawks in the Central Valley.

Location	Date	Purpose	Reference
Statewide	1980	Statewide survey to estimate population	Bloom 1980
Yolo, Sacramento, and San Joaquin Counties	1984 - 1988	Selected survey blocks to examine population trends	DFG 1984, 1985, 1986, 1987, 1988
Yolo, Sacramento, and San Joaquin Counties	1987-89	Biology, movements, habitat relationships	Estep 1989
Yolo County	1986-2007	Long-term population monitoring	Estep *in preparation*
Statewide	1988	Statewide survey to estimate population	DFG 1988
San Joaquin County	1990	Development of county-wide conservation plan	Jones & Stokes 1990
Yolo County	1995	Home ranges and habitat associations/use	Babcock 1995
Yolo, Sacramento, and San Joaquin Counties	1995	Nest site selection and reproduction of urban nesting population	England et al. 1995
City of Stockton	1990s	Monitoring of urban nesting population	Holt unpublished reports
UC Davis campus – Putah Creek	1990s	Monitoring of local UC Davis population	England, Maurer unpublished data
Sacramento-San Joaquin Delta	2000s	Monitoring/impact avoidance associated with DWR projects.	Bradbury – unpublished agency reports
Natomas Basin, northern Sacramento and southern Sutter Counties	1999-2006	Compliance biological monitoring for Natomas Basin HCP	Swainson's Hawk TAC 1999, 2000, 2001, Estep 2002, 2003, Jones & Stokes 2004, 2005, 2006
Multi-county survey	2002 - 2003	Distribution/abundance surveys – estimate regional population	Gifford et al. 2004
Northeastern San Joaquin County	2002-2004	Habitat use study	Swolsgard 2004
Statewide	2005-06	Statewide survey to estimate population.	Anderson et al. 2007
South Sacramento County	2006	South Sacramento County baseline surveys	Estep 2007a, 2007b
Yolo County	2007	Yolo County baseline surveys	Estep 2008

The extent to which this revised statewide estimate reflects simply a more accurate estimation or whether it may represent an increasing population since the early 1980s is unclear. However, a long-term population study in Yolo County from 1986 to 2007 indicates that following an initial increase in population in the late-1980s – which could be attributed to refined survey technique and increased survey experience – this population remained relatively stable from the late 1980s to present (Estep *in preparation*), suggesting that the current higher statewide estimate may be primarily due to more reliable estimation techniques.

While the current estimate is higher than the original statewide estimate that led to the state listing of the species (Bloom 1980) and subsequent estimates through the 1980s and 1990s, it cannot be reliably used to measure trends. It does, however, continue to represent a substantial decline (50-90%) of the historic statewide breeding population in California (Bloom 1980).

2.2 Population Declines and Management Issues

Initial population declines of Swainson's hawk in California were attributed to loss of habitat from urbanization and conversion of native habitats to agriculture. Urbanization, agricultural conversion, channelization of watercourses and other factors have reduced the extent of nesting habitat (e.g., riparian forests, oak woodland) and foraging habitat, primarily native grasslands. As a result, the species is no longer found in southern California (with the exception of a few known nest sites in the Mojave Desert) or in coastal valleys. The species has persisted, however, in much of the Central Valley, particularly in the southern Sacramento and northern San Joaquin Valleys. While intensively farmed for over 100 years, much of this area retains a relative abundance of nesting habitat – narrow riparian corridors along rivers and streams, remnant oak groves and trees, roadside trees – and an agricultural pattern that is conducive to Swainson's hawk foraging. Thus, the species is relatively common in the central portion of the Central Valley and perhaps on a local basis - even more common than it was historically.

However, this area appears to support a disproportionate percentage of the Central Valley population. While the breeding range extends to the northern and southern extent of the Central Valley, the majority of the population resides between Stanislaus County on the south and Butte County on the north. Within this area, the largest number of breeding pairs and the highest breeding densities are found in Yolo, Sacramento, Solano, and San Joaquin Counties (Anderson et al. 2007).

Each of these counties has also been subject to the largest amount of urban growth relative to the rest of the Central Valley. This has clear implications related to conflicts between urban expansion and sustainability of the Swainson's hawk population.

Within this 'effective' range of the Swainson's hawk in the Central Valley, there are two primary issues that influence management and long-term sustainability of the species, 1) permanent loss of habitat from continuing urbanization; and 2) temporary, but long term loss of habitat from conversion to unsuitable crop patterns, such as vineyards. In addition, there are other issues that can influence management of this species, including:

- difficulty managing a species that occurs almost entirely on private lands;
- loss and lack of regeneration of valley oak and other native trees;
- loss of riparian vegetation from levee projects, agricultural practices, and local development along watercourses; and
- conflicts with management of other species with different habitat needs.

2.3 Current Management Strategies

2.3.1 Regional Conservation Plans

Because the Swainson's hawk occurs across large agricultural landscapes in the Central Valley, regional conservation planning designed to accommodate both urban growth and habitat conservation was initially explored as a concept that could be developed and implemented by local agencies (Estep and Teresa 1992). Until relatively recently, the state endangered species act relied on the preparation of management agreements and issuance of a 2081 permit, which authorizes take under the state endangered species act but does not necessarily address conservation issues at a landscape level. However, with several federally listed species also occurring within the range of the Swainson's hawk, local agencies also found a need for a federal incidental take permit through the development of HCPs pursuant to Section 10 of the federal endangered species act. Thus, in some cases (e.g,. Natomas Basin HCP) the HCP was the supporting document for both the Section 10(a)(1)(B) permit, authorizing take under the federal endangered species act, and the Section 2081 permit, authorizing take under the state endangered species permit. More recently, the state's NCCP process has also provided local agencies a means of addressing conservation of habitats and sensitive species at a landscape level. Several cities and counties have or are undergoing the development of multi-species HCPs and/or NCCPs with the intent of planning for both urban development and protection of resources, including Swainson's hawk habitat. Table 2 lists the HCPs and HCP/NCCPs that are permitted or in plan development within this geographic area.

Table 2-2. Local HCPs/NCCPs completed or in progress.

Plan	Geographic Area	Status
Natomas Basin HCP	Natomas Basin (portions of Sacramento and Sutter County)	10a(1)(B) permit re-issued in 2003
San Joaquin County HCP	San Joaquin County	10a(1)(B) permit issued in 2001
Yolo County HCP/NCCP (Yolo County Natural Heritage Program)	Yolo County	In Plan Development
South Sacramento County HCP	South Sacramento County, south of Highway 50, not including Delta	In Review
Solano County HCP/NCCP	Solano County	In Review
Contra Costa County HCP/NCCP	Contra Costa County (includes western edge of Central Valley and Swainson's hawk range)	10a(1)(B) permit issued in 2007
Butte County HCP/NCCP	Western Butte County	In Plan Development
Placer County HCP/NCCP (Placer County Conservation Plan)	Western Placer County	In Plan Development
Yuba/Sutter HCP/NCCP	Eastern Sutter County, western Yuba County	In Plan Development

2.3.2 DFG Guidelines

In 1994, DFG issued guidelines for assessing and mitigating impacts on Swainson's hawk for use by local agencies during CEQA review. These guidelines (California Department of Fish and Game 1994) have been referred to extensively throughout DFG's Region 2 as a means for local agencies to mitigate impacts on Swainson's hawk. The guidelines rely on a compensation ratio for loss of foraging habitat based on proximity to known nest sites. While not unreasonable in concept, application of the guidelines is problematic for two main reasons: 1) acquiring suitable compensation land with approval of DFG is uncertain due to escalating land values, the difficulties establishing conservation easements on agricultural lands, and responsibility for long-term management; and 2) the guidelines do not provide an approach to consolidation of compensation lands potentially reducing their value over the long term as neighboring land uses change.

2.3.3 Mitigation Banking

To some extent, mitigation banking has helped to resolve the two issues noted above pertaining to use of the DFG guidelines. Mitigation banks, usually owned and operated by private entities, have prior approval by DFG based on their suitability to provide high value Swainson's hawk habitat. Long term management is provided by the operator as dictated through conservation easements approved by DFG; and depending on their size they can consolidate compensation into larger blocks of suitable habitat. However, there are relatively few mitigation banks that provide credit for Swainson's hawk habitat. This is due in part to the escalating value of agricultural lands and the relatively low return on minimally improved agricultural lands compared with specific habitat types for other sensitive species (e.g., vernal pools and other wetlands).

2.3.4 Local Fees and Ordinances

Some local agencies have established programs to mitigate development-related impacts on Swainson's hawk habitat. This is usually done by requiring fees or compensation lands before grading permits are issued, and are often established through the local ordinance process. This process is often used in the absence of a regional plan or as a precursor to development of a more comprehensive conservation planning process. Fees are usually calculated based on a 1:1 replacement ratio. In some cases because of the difficulty and cost associated with land acquisition, applicants are required to find and acquire compensation land themselves. For example, the City of Elk Grove allows the applicant to pay a fee for compensation totaling less than 40 acres; but for compensation totaling more than 40 acres, the applicant is responsible for direct land preservation. Table 3 shows the existing local fee programs.

Table 2-3. Local Agency Fee Programs for Swainson's Hawk Habitat Conservation.

Local Agency	Instrument	Amount
Yolo County JPA	Interim Fee - agreement between Yolo HCP/NCCP Joint Powers Authority and DFG	$5,800 per acre
Sacramento County	Ordinance	$18,375 per acre ($16,000 land acquisition fee plus $2,375 land management fee)
City of Elk Grove	Ordinance	$18,325 per acre ($15,950 land acquisition fee plus $2,375 land management fee)
City of Rancho Cordova	Ordinance - pending	Undetermined

3.0 Description of Study Area

3.1 Location

The City of Elk Grove is located in the west-central portion of Sacramento County, a relatively large county located in the mid-section of the Central Valley, east of the Sacramento-San Joaquin River Delta (Figure 3-1). Within this primarily agricultural region, Sacramento County has undergone rapid urbanization in recent decades, primarily focused around the City of Sacramento metropolitan area. The City of Elk Grove is contiguous with the City of Sacramento along its northern border. Its southern and eastern borders currently define the southern and eastern limits of urbanization in the southwestern corner of the Sacramento metropolitan area (Figure 3-2).

The study area is defined by the city limit boundary of the City of Elk Grove (Figure 3-2). This 26,974-acre area is generally bordered by Interstate 5 on the west, Kammerer Road on the south, Calvine Road on the north, and Grant Line Road and a portion of the Deer Creek watershed on the east. State Route 99 extends through the center of the study area northwest to southeast.

3.2 Land Use

Approximately 78 percent of the study area is urbanized. Most of this area (approximately 60 percent) is considered high density urbanization, most of which is relatively recent. The remaining (approximately 18 percent) is considered low-density urbanization, mostly small ranchette developments in the northeastern corner of the study area (Figure 3-2).

Other than parks, golf courses, and small undeveloped infill parcels, approximately 22 percent of the study area remains as open space. Most of these lands continue to be used as dryland or irrigated pastureland or irrigated croplands and are considered suitable as Swainson's hawk foraging habitat (Plates 3-1 to 3-6). The largest remaining open space area is in the south-central portion of the study area generally bordered by State Route 99 on the east, Kammerer Road on the south, Bruceville Road on the west, and Elk Grove Boulevard on the north. Smaller remaining open spaces include a portion of the Laguna Creek corridor; undeveloped parcels west of Franklin Boulevard, north of Grant Line Road, and east of Bradshaw Road; and open grasslands along and adjacent to the transmission line corridor extending north-south through the study area east of Waterman Road.

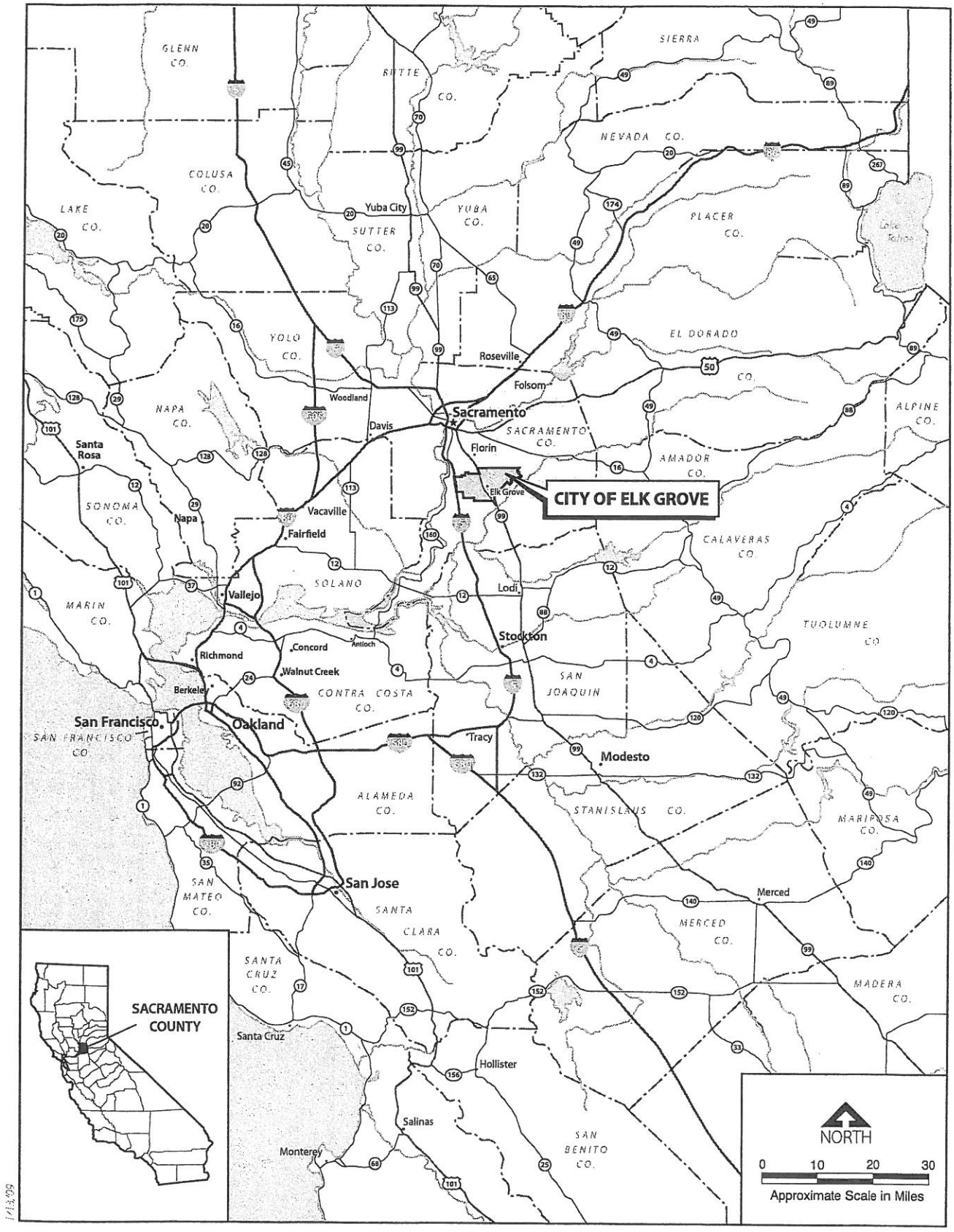


Figure 3-1
City of Elk Grove Regional Location

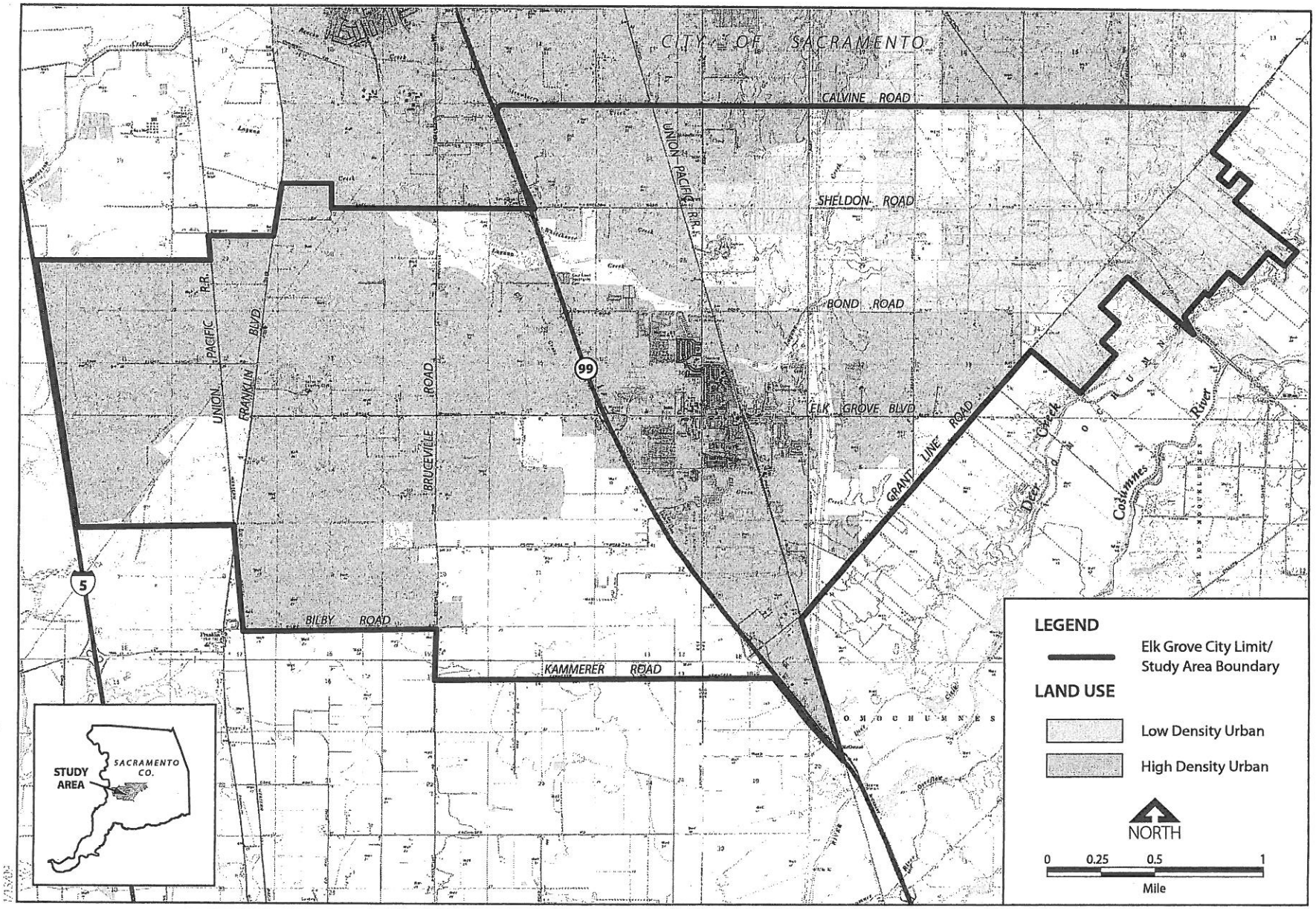


Figure 3-2
City of Elk Grove Study Area

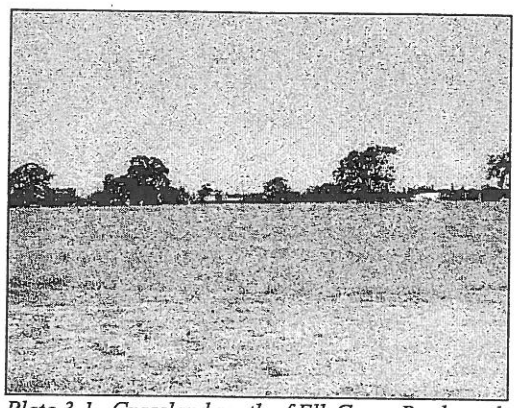


Plate 3-1. Grassland south of Elk Grove Boulevard, west of State Route 99.

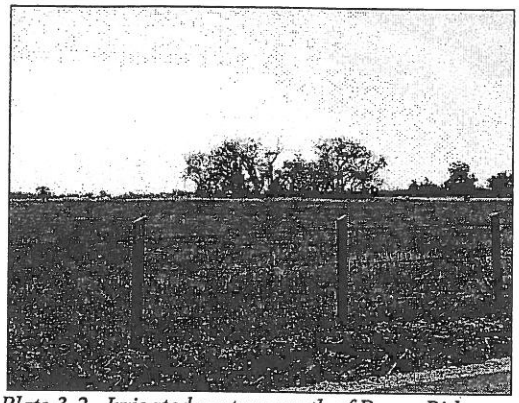


Plate 3-2. Irrigated pasture south of Poppy Ridge Road, west of State Route 99.

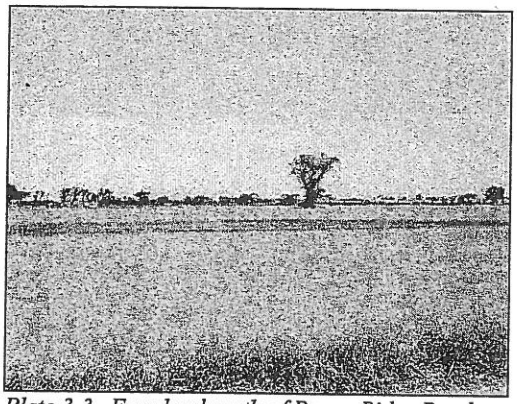


Plate 3-3. Farmland north of Poppy Ridge Road, east of Bruceville Road.

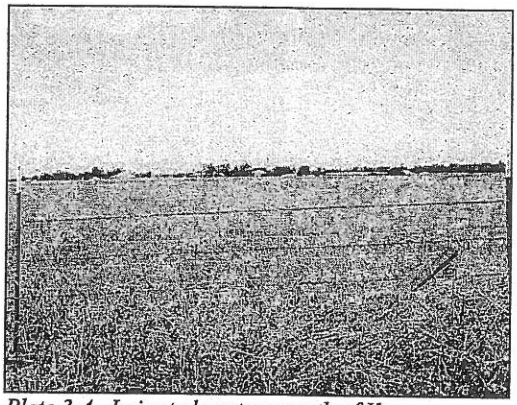


Plate 3-4. Irrigated pasture north of Kammerer Road, west of State Route 99.

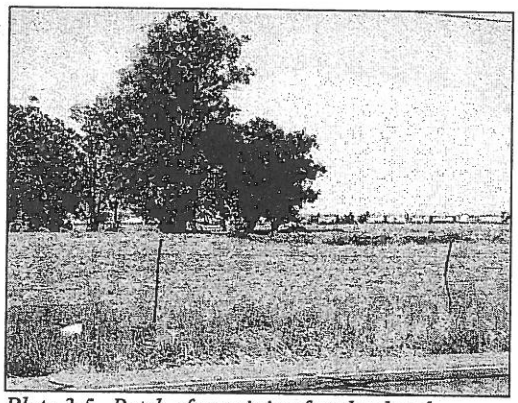


Plate 3-5. Patch of remaining farmland and eucalyptus grove north of Grant Line Road, east of Waterman Road. New residential development in background.

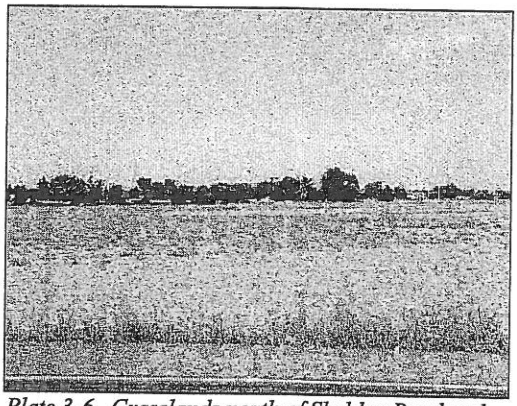


Plate 3-6. Grasslands north of Sheldon Road and east of Waterman Road.

3.3 Climate and Physiography

3.3.1 Climate

Sacramento County's climate is characterized as Mediterranean with hot dry summers and temperate wet winters. During the summer months, a marine influence from the Sacramento-San Joaquin River Delta (Delta winds) moderates the hot summer temperatures. The average annual air temperature is from 60-62 degrees Fahrenheit. The average winter temperature in Elk Grove is 42 degrees Fahrenheit and the average summer temperature is 80 degrees Fahrenheit. Average rainfall in the City of Elk Grove is 21.66 inches falling mostly between October and April.

3.3.2 Physiography

The study area can be generally characterized as flat farmland or urban areas with no distinguishing topographical or geologic features. One major drainage, Laguna Creek, extends generally east-west through the northern portion of the study area. No other major drainages or other water bodies are present in the study area. The northeast corner of the study area extends southeast across Grant Line Road where it is adjacent to the Deer Creek/Cosumnes River corridor (Figure 3-2).

The study area is composed primarily of sediments from the Sierra Nevada deposited primarily by the Cosumnes River, Deer Creek, and Laguna Creek. Soil associations are primarily associated with alluvial fans or basins, which have created reasonably high value agricultural lands, some of which is used for irrigated crops and pasturelands or uncultivated grazing lands.

The elevation within the study area ranges from approximately 15 feet above sea level near the western edge of the study area to approximately 85 feet above sea level along the eastern edge of the study area. Sloping imperceptibly from east to west toward the Sacramento River, the majority of the study area is between 25 and 55 feet above sea level.

4.0 Description of the Species

4.1 Distinguishing Characteristics (Plumage and Morphology)

Swainson's hawk is a medium-sized buteo with an overall body size similar to the red-tailed hawk (*Buteo jamaicensis*), the species for which it is most often confused in the Central Valley. However, with its more streamlined body shape and longer wings, the Swainson's hawk is designed for soaring and is most often observed in flight, compared with the more robust red-tailed hawk, which is often observed perching.

As with most raptors, males are smaller than females. Using data from the Central Valley population, mean weight in males is 701.7g (range = 600 to 860g, N = 55), and mean wing length is 123.1 cm (range = 111.0 to 128.0, N=47); female mean weight is 954.9g (range = 820 to 1,130g, N=49), and mean wing length is 132.6 cm (range=126.0 to 139.7 cm, N=43) (Anderson and Estep unpublished data). While somewhat smaller than range-wide estimates, size difference between sexes is generally consistent with other parts of the species range (England et al 1997).

The Swainson's hawk is characterized by its long, narrow, and tapered wings held in flight in a slight dihedral shape (Plate 4-1). The body size is somewhat smaller, thinner, and less robust than other buteos, although the wings are at least as long as other buteos. This body and wing shape allows for efficient soaring flight and aerial maneuverability, important for foraging, which Swainson's hawks do primarily from the wing, and during courtship and inter-specific territorial interactions.

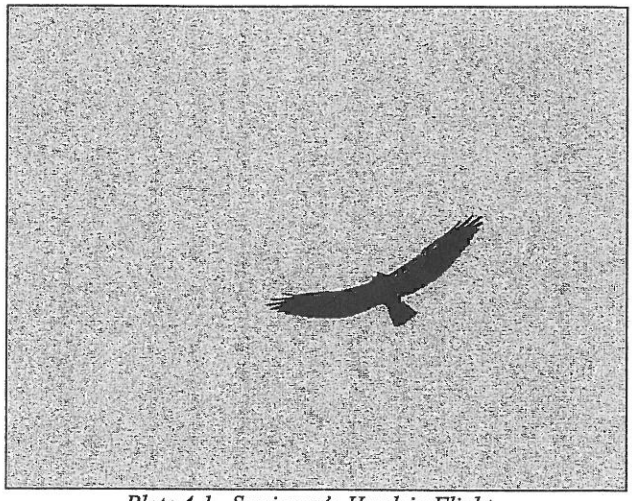


Plate 4-1. Swainson's Hawk in Flight.

There are three definitive plumage morphs: light, rufous, and dark (Plates 4-2 through 4-4). However, there are numerous intermediate variations between these plumage morphs. The two most distinguishing plumage characteristics are a dark breast band and the contrasting darker flight feathers and lighter wing lings on the underwings giving most individuals a distinctive bicolored underwing pattern. These characteristics are most pronounced in lighter morph birds and become less so as the plumage darkens, and can be indistinguishable in the definitive dark morph, which is completely melanistic. All three definitive plumage morphs are present in the Central Valley with a relatively large proportion of the population categorized as intermediate morph, with varying amounts of streaking or coloration in the belly and wing linings (Plate 4-5).

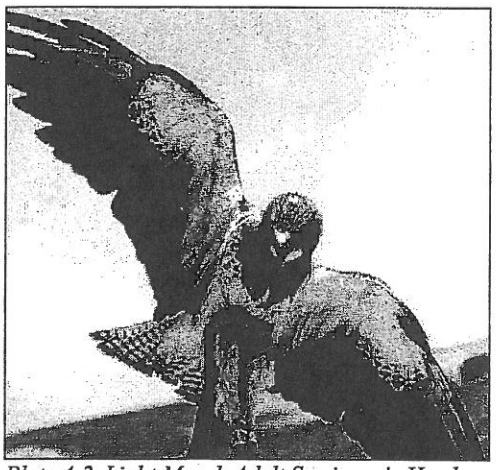


Plate 4-2. Light Morph Adult Swainson's Hawk

Plate 4-3. Rufous Morph Adult Swainson's Hawk.

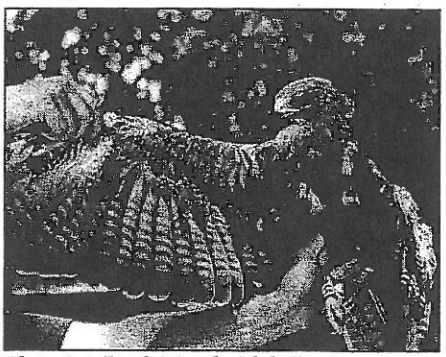


Plate 4-4. Dark Morph Adult Swainson's Hawk

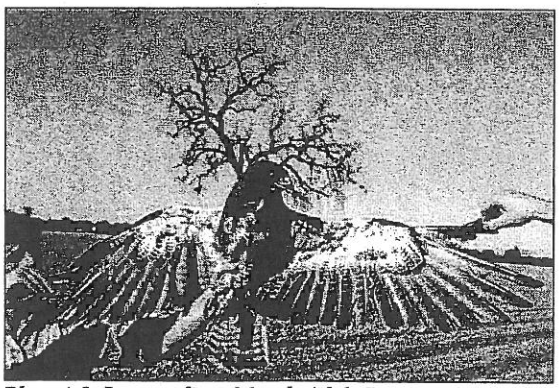


Plate 4-5. Intermediate Morph Adult Swainson's Hawk

4.2 Life History

4.2.1 Range and Populations

Swainson's hawk inhabits grassland plains and agricultural regions of western North America during the breeding season and winters in grassland and agricultural regions from Central Mexico to southern South America (England et al. 1997; Bradbury et al. *in preparation*). Early accounts described Swainson's hawk as one of the most common raptors in the state, occurring throughout much of lowland California (Sharp 1902). Since the mid-1800s, the native habitats that supported the species have undergone a gradual conversion to agricultural uses. Today, native grassland habitats are virtually nonexistent in the state, and only remnants of the once vast riparian forests and oak woodlands still exist (Katibah 1983). This habitat loss has caused a substantial reduction in the breeding range and in the size of the breeding population in California (Bloom 1980; England et al. 1997) (Figure 4-1). Swainson's hawks are also sensitive to habitat fragmentation. Foraging use declines as suitable foraging patch size decreases even though suitable prey conditions may exist (Estep and Teresa 1992). However, Swainson's hawks are also known to re-inhabit dense urban areas to nest if suitable nesting trees are present and suitable foraging habitat exists within 3.2 kilometers (2 miles) of the nest (England et al. 1995). The most recent statewide population estimate is 2,081 breeding pairs (Anderson et al. 2007). While this estimate is higher than the original statewide estimate that led to the state listing of the species (Bloom 1980) and subsequent estimates through the 1980s and 1990s, it represents a substantial decline (50-90%) of the statewide breeding population in California (Bloom 1980).

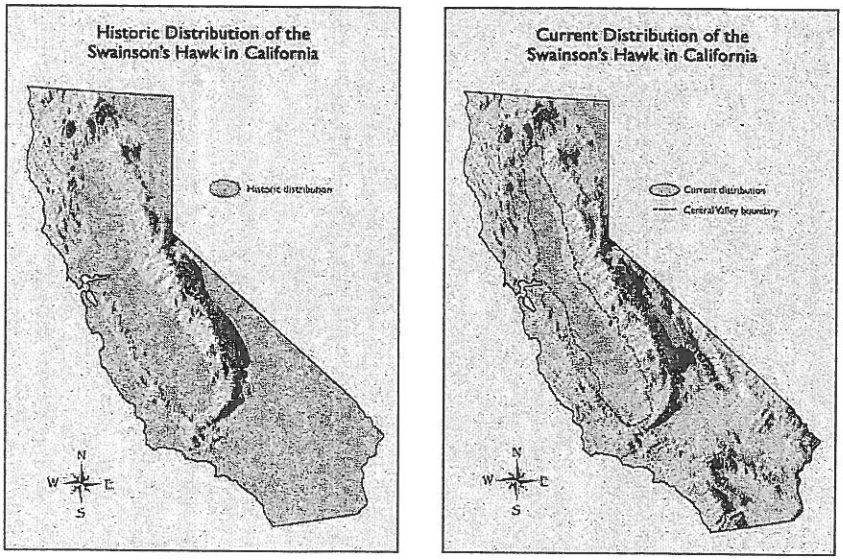


Figure 4-1. Historic and current distribution of the Swainson's hawk in California.

The Central Valley population (currently estimated at 1,948 breeding pairs) extends from Tehama County south to Tulare and Kings Counties. The optimum foraging and nesting habitat conditions in portions of Yolo, Solano, Sacramento, and San Joaquin Counties support the bulk of this Central Valley population (Estep 1989, Anderson et al. 2007) (Figure 4-2). The Central Valley is surrounded by mountains—the Sierra Nevada on the east and the Cascade Range on the north—that geographically isolate it from the rest of the species' range. Extensive banding (Anderson, Bloom, Estep, Woodbridge unpublished data) suggests that no movement occurs between the Central Valley breeding population and other populations. Results of satellite radio telemetry studies of migratory patterns further indicate minimal interaction between the Central Valley population and other populations of Swainson's hawks (Bradbury et al. *in preparation*).

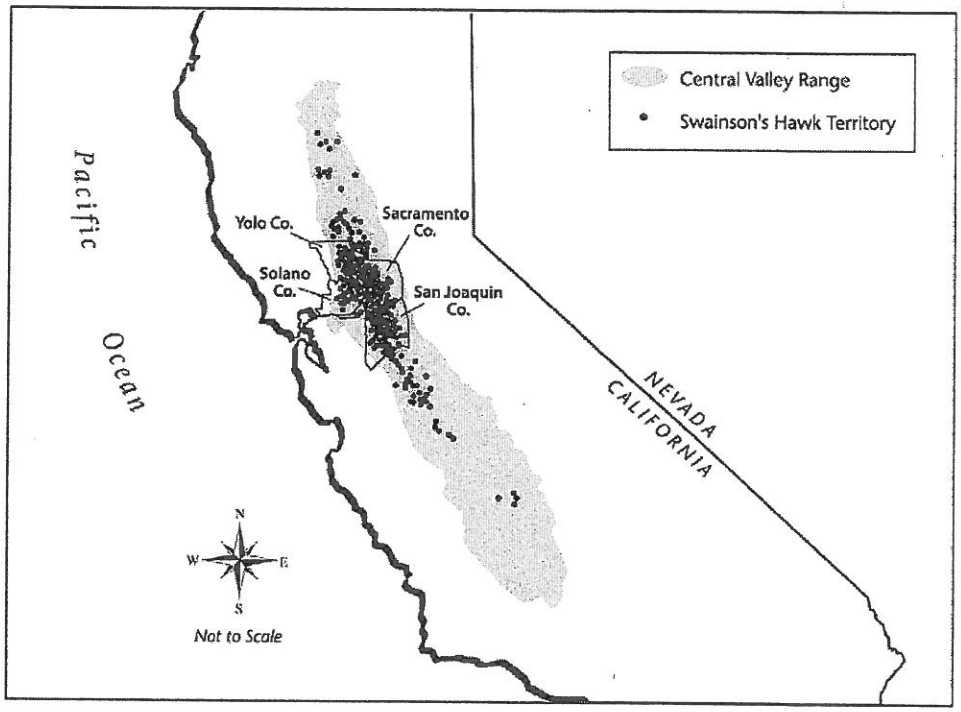


Figure 4-2. Distribution of the Swainson's hawk in the Central Valley of California

Despite the loss of native habitats in the Central Valley, Swainson's hawks appear to have adapted relatively well to certain types of agricultural patterns in areas where suitable nesting habitat remains (Plate 4-6). However, nesting habitat for Swainson's hawks continues to decline in the Central Valley because of flood control projects, agricultural practices, and urban expansion.

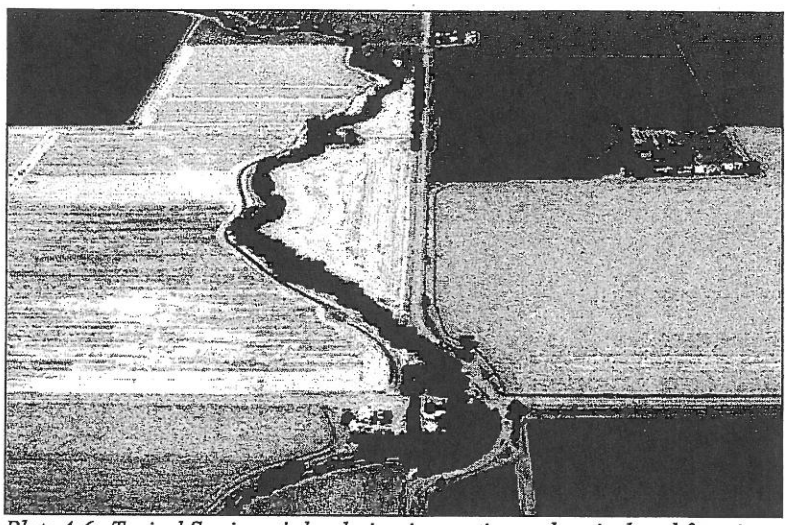


Plate 4-6. Typical Swainson's hawk riparian nesting and agricultural foraging habitat in the Central Valley.

4.2.2 Habitats and Habitat Use

Nesting

Swainson's hawks usually nest in large native trees such as valley oak (*Quercus lobata*), cottonwood (*Populus fremontia*), walnut (*Juglans californica*), and willow (*Salix* spp.), and occasionally in nonnative trees, such as eucalyptus (*Eucalyptus* spp.) (Plates 4-7 through 4-10). Nests occur in riparian woodlands, roadside trees, trees along field borders, isolated trees, small groves, and on the edges of remnant oak woodlands. Stringers of remnant riparian forest along drainages contain the majority of known nests in the Central Valley (Estep 1984; Schlorff and Bloom 1984; England et al. 1997). However, this is a function of nest tree availability rather than dependence on riparian forest. Nests are usually constructed as high as possible in the tree, providing protection to the nest as well as visibility from it (Plate 4-11).

Nesting pairs are highly traditional in their use of nesting territories and nesting trees. Many nesting territories in the Central Valley have been occupied annually since at least the 1970s and banding studies conducted since 1986 confirm a high degree of nest and mate fidelity (Estep *in preparation*).

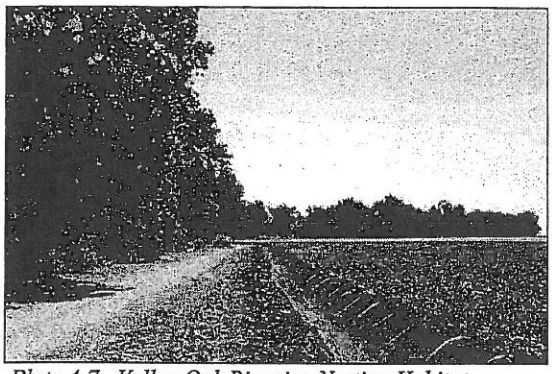


Plate 4-7. Valley Oak Riparian Nesting Habitat

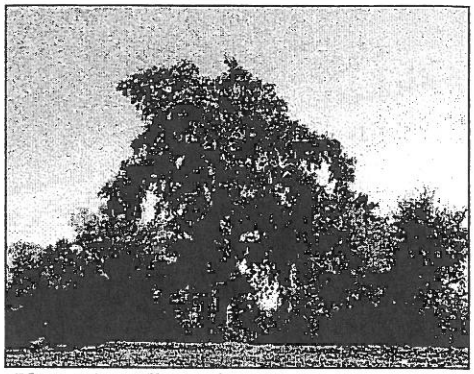


Plate 4-8. Valley Oak Nest Tree

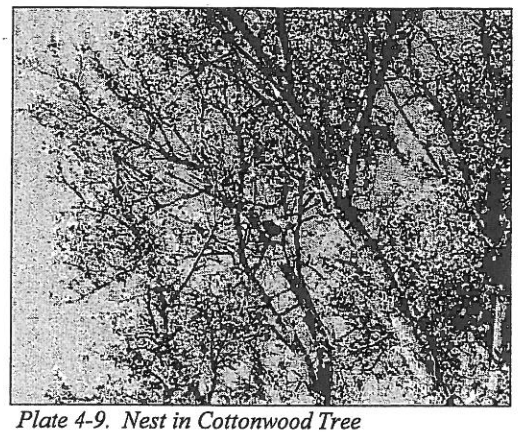


Plate 4-9. Nest in Cottonwood Tree

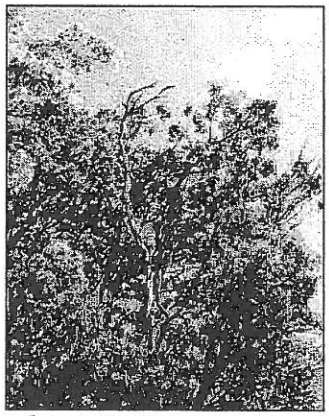


Plate 4-10. Nest in Eucalyptus Tree

Plate 4-11. Typical Swainson's Hawk Nest

Foraging

In the Central Valley, Swainson's hawks feed primarily on small rodents, usually in large fields that support low vegetative cover (to provide access to the ground) and high densities of prey (Bechard 1982; Estep 1989). These habitats include hay fields, grain crops, certain row crops, and lightly grazed pasturelands. Fields lacking adequate prey populations (e.g., flooded rice fields) or those that are inaccessible to foraging birds (e.g., vineyards and orchards) are rarely used (Estep 1989; Babcock 1995, Swolsgard 2004). Urban expansion and conversion to unsuitable crop types (e.g., vineyards and orchards) are responsible for a continuing reduction of available Swainson's hawk foraging habitat in the Central Valley.

Meadow vole (*Microtus californicus*) is the principal prey item taken by Swainson's hawks in the Central Valley. Pocket gopher (*Thomomys bottae*) is also an important prey item. Other small rodents, including deer mouse (*Peromyscus californicus*) and house mouse (*Mus musculus*) are also taken, along with a variety of small birds, reptiles, and insects (Estep 1989).

Foraging habitat value is a function of patch size (i.e., Swainson's hawk is sensitive to fragmented landscapes; use will decline as suitable patch size decreases), prey accessibility (i.e., the ability of hawks to access prey depending on the vegetative structure), and prey availability (i.e., the abundance of prey populations in a field). In the Central Valley, agricultural land use or specific crop type determine the foraging value of a field at any given time. Cover types were evaluated by Estep (1989) and ranked based on these factors. However, suitability ranking is based on a variety of site-specific issues and at a landscape level should be characterized only on a general basis. On a site-specific level – important for land management purposes to maximize foraging value – individual cover types can be assessed based on site-specific and management conditions.

A relative ranking of agricultural foraging habitat suitability was developed during a Swainson's hawk habitat use study in the Central Valley in the late 1980s (Estep 1989) (Table 4). This ranking was based on recorded foraging use and availability of these cover types during the two-year telemetry study.

Table 4-1. Relative Ranking of Foraging Cover Types based on Use and Availability (Estep 1989)

Ranking	Cover Type
1	Alfalfa
2	Disced/harvested Field
3	Fallow
4	Dryland Pasture
5	Beets
6	Tomatoes
7	Irrigated Pasture
8	Grains (e.g., wheat)
9	Other row crops
10	Other

adults for about 4 weeks, after which they permanently leave the breeding territory (Anderson et al. *in progress*). By mid-August, breeding territories are no longer defended and Swainson's hawks begin to form communal groups. These groups begin their fall migration from late August to mid-September.

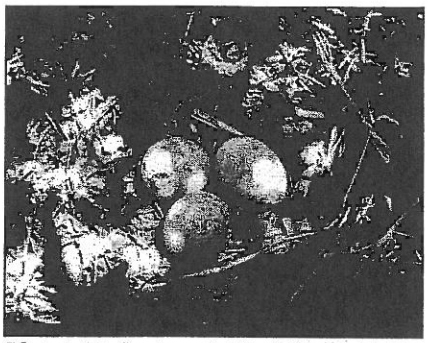


Plate 4-12. Swainson's Hawk Nest with Eggs

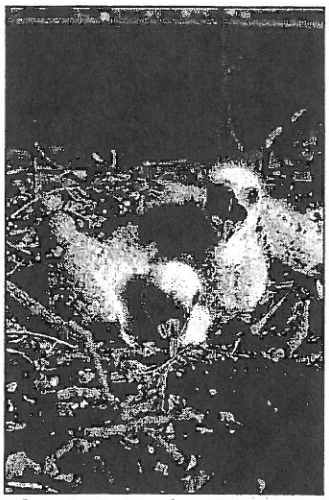


Plate 4-13. Nestling Swainson's Hawks

Plate 4-14. Five-Week-Old Nestlings

Plate 4-15. Nearly Fledged Swainson's Hawks

Central Valley Swainson's hawks winter primarily in Central Mexico and, to a lesser extent, throughout portions of Central and South America (Bradbury et al. *in preparation*). This differs from what is known about the migratory pattern and wintering grounds of Swainson's hawk populations outside of the Central Valley, most of which take a different migratory route and winter entirely in southern South America, with the largest wintering populations known to occur in northern Argentina (England et al 1997).

5.0 Methods

5.1 Assessment of Populations

The goal of the nesting raptor survey was to record all active nests within the study area to the extent feasible. While the survey focused primarily on nesting Swainson's hawks, activity and nesting data were also collected on several other species that compete for nesting and/or foraging habitat resources and may influence the distribution and abundance of Swainson's hawk, including red-tailed hawk, red-shouldered hawk (*Buteo lineatus*), white-tailed kite (*Elanus leucurus*), and great-horned owl (*Bubo virginianus*). The intent was to generally indicate how these species were distributed across the landscape and to compare particularly the differences in distribution, abundance, and habitat characteristics between Swainson's hawk and red-tailed hawk.

The survey was designed as a complete census. All potential nesting areas within the study area were surveyed equally according to the protocol described below regardless of past survey effort or existing data on Swainson's hawk nests.

Surveys were conducted by systematically driving all available roads within the study area. Where roads were not available to drive or where there were no roads to access potential nest trees, the survey was conducted on foot unless access to private property was not granted. All potential nest trees were searched for nests and adult Swainson's Hawks using binoculars and/or a spotting scope. Photographs were taken of each active nest site and surrounding land use.

Surveys were conducted in three phases. Phase one surveys were conducted early in the breeding season (late March to mid-April) to detect Swainson's Hawk activity in the vicinity of all suitable nesting habitat. All suitable nesting habitats were checked for the presence of adult Swainson's Hawks and to note all nesting activity and behavior (e.g., nest construction, courtship flights, defensive behavior). Nest site, habitat, and activity data were recorded on a standardized field form and field maps; locations of active nests were documented on 7.5 minute USGS quadrangle maps and a hand-held GPS unit was used to record latitude-longitude locations of each nest.

Phase two surveys were conducted in mid-May through June to determine if breeding pairs detected during phase one surveys were actively nesting, to detect nest failures, and to resurvey all previously unoccupied potential nesting habitat for active nests. All active nest sites were mapped and characterized with respect to reproductive status and all relevant activities noted.

Phase three surveys were conducted from July through mid-August to determine nesting success. Each active nest was revisited to determine activity and reproductive status and to record the number of fledged young per nest.

Most nesting territories were visited on multiple occasions over the course of each survey phase in order to collect the necessary data.

Activity data were recorded based on the following definitions:

- An *active nesting territory* is defined as a nesting area that was occupied by a breeding pair of Swainson's hawks throughout all or a significant portion of the breeding season. The location of the nesting territory was based on the location of the nest or if the nest was not located based on the primary area of observed activity within potential nesting habitat.

- An *active nesting territory with confirmed nesting status* includes all active nesting territories for which reproductive outcome (i.e., successful or unsuccessful) was confirmed.

- An *active nesting territory with unconfirmed nesting status* includes all active nesting territories for which reproductive outcome (i.e., successful or unsuccessful) of the nest was not confirmed. This includes active nesting territories where access was not sufficient to determine nesting activity or repeat visits were inconclusive to determine success or failure of the nest.

- A *non-nesting territory* is defined as an active territory for which subsequent surveys confirmed the absence of an active nest.

- A *successful nest* is defined as an active nesting territory with confirmed nesting status that produced fledged young.

- An *unsuccessful nest* is defined as an active nesting territory with confirmed nesting status that did not produce fledged young.

Each active territory was characterized with respect to overall habitat conditions and availability, land use patterns, and potential threats. Each active nest site was characterized with respect to nesting habitat type and condition, tree species, and estimated tree and nest height.

5.2 Distribution of Nesting and Foraging Habitats

The distribution and characterization of land uses and habitat types throughout the study area were mapped from aerial photographs and updated through ground-truthing conducted during the survey.

For purposes of this study, foraging habitat associations were assessed on the basis of broad land use categories rather than the specific cover types. The agricultural crop

pattern mosaic is dynamic in portions of the study area and throughout the Sacramento Valley and is subject to change annually and seasonally. Therefore, specific agricultural crop types were grouped into broad categories that represent long-term land use patterns in the study area and that were used to characterize relative habitat suitability at the landscape level (Estep 1989, Babcock 1995, Jones & Stokes 2005). As a result, land use/cover type categories in the study area include the following:

- Irrigated Cropland (includes hay [including alfalfa], grain, and row crops)/Irrigated Pastureland
- Uncultivated Grassland
- Low Density Urban
- High Density Urban

Land use acreages were estimated to provide a relative abundance of the four land uses and the distribution and abundance of Swainson's Hawk and other raptor species was analyzed with respect to these broad habitat associations. The data collected during this survey and assessment were not subjected to statistical analysis for purposes of analyzing habitat use preferences or differences between data sets. The data were used solely to report and describe the nesting distribution and habitat associations of Swainson's Hawk and other raptors within the City of Elk Grove.

6.0 Results

6.1 Distribution, Abundance, and Habitat Associations of Swainson's Hawk

6.1.1 Distribution and Abundance

Figure 6-1 illustrates the distribution of Swainson's hawk territories in the study area in 2008. Appendix A (Table A-1) provides the location, activity, habitat association, and reproductive data for each nesting territory. Table 6-1 summarizes activity data.

Table 6-1. Activity Data for Swainson's Hawk Territories in the City of Elk Grove, 2008.

	Number	Percent of Total Active Territories	Percent of Total Active Nests
Active Territories	14		
Not Nesting (NN)	1	7.1	
Active Nests (S, U, UO)	13	92.9	
Successful Nests (S)	11		84.6
Unsuccessful Nests (U)	1		7.7
Unknown Outcome (UO)	1		7.7
Total		100	100

A total of 14 active nesting territories were located during the survey. Of these, 13 (92.9%) actively nested and one (7.1%) occupied the territory during most of the breeding season but did not nest. Of the 13 active nests, 11 (84.6%) successfully reared young to fledging; one nest (7.7%) failed; and reproductive outcome at one nest (7.7%) was undetermined.

Swainson's hawk nests were distributed in the study area based on the distribution of remaining suitable open farmland/pastureland habitat (Figure 6-1). All nest sites occurred on or immediately adjacent to open farmland, irrigated pastureland, or uncultivated grasslands. Ten of the nest sites were in the largest remaining open space area in the south-central portion of the study area between State Route 99 on the east and Bruceville Road on the west (Figure 6-1). Two sites were in remaining open space patches along Grant Line Road and adjacent to open farmland/pastureland south of Grant Line Road. The remaining two were in open grassland patches associated with the Laguna Creek watershed, one south of Calvine Road and east of Waterman Road, and the other south of Sheldon Road and west of State Route 99.

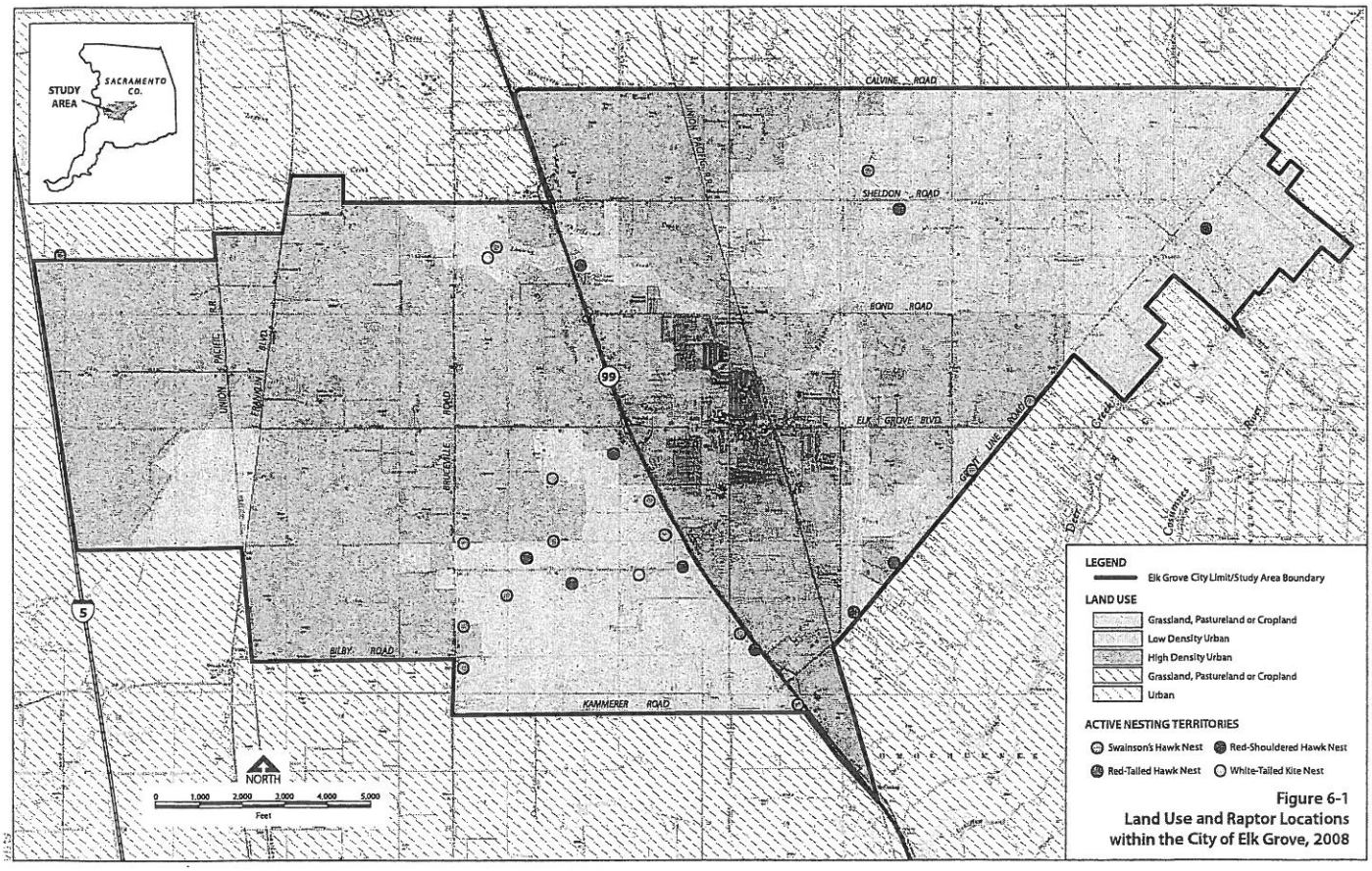


Figure 6-1
Land Use and Raptor Locations within the City of Elk Grove, 2008

All of the nesting territories in the study area were also near urban areas and subject to substantial levels of human disturbance. All but one was within _ mile of urban areas (Figure 6-1) and seven were immediately adjacent to urban areas (Plate 6-1).

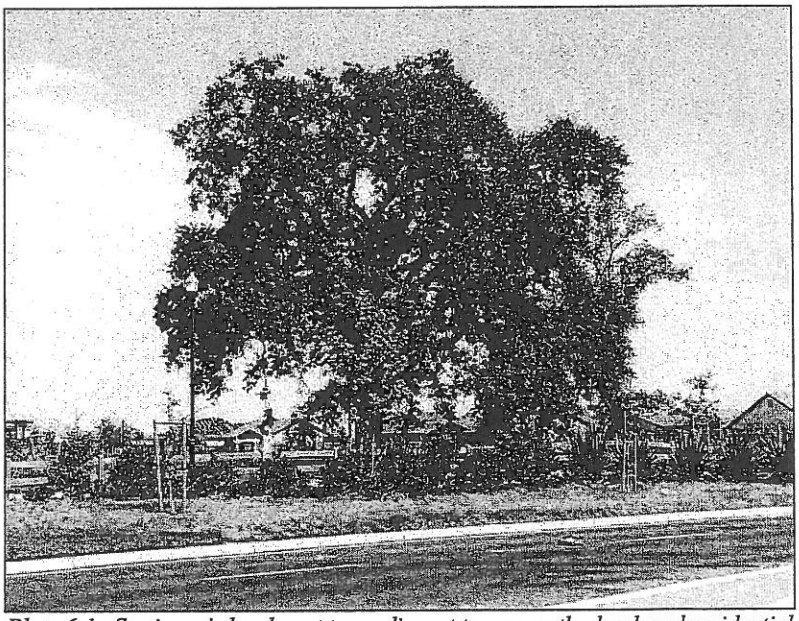


Plate 6-1. Swainson's hawk nest tree adjacent to a recently-developed residential area along Whitelock Parkway.

Nest site density was similar to that found in other areas of South Sacramento County (Estep 2007a). Using the entire study area, nest site density was 0.33 nest sites per square mile. However, using only the undeveloped portion of the study area, nest site density increased to 0.67 nest sites per square mile. While lower than in some other Central Valley locations, such as portions of Yolo County, this is a high density compared with other portions of the species' breeding range (Table 6-2). It indicates the value of the agricultural habitats within this region to Swainson's Hawks and the importance of the 'core' Central Valley population (Yolo, Solano, Sacramento, and San Joaquin Counties).

Table 6-2. Territory Density in the City of Elk Grove Study Area Relative to other Geographic Areas.

Location	Territory Density (Territories per sq mi [km])	Source
City of Elk Grove	0.33 (0.85)	This study
Yolo County	0.58 (1.50)	Estep (2008)
South Sacramento County	0.37 (0.96)	Estep (2007a)
Butte Valley	0.14 (0.37)	Woodbridge et al. 1995
Alberta, Canada	0.09 (0.23)	Schmutz 1987
New Mexico	0.07 (0.17)	Bednarz et al. 1990

ESTEP JAN 2009

6.1.2 Habitat Associations

Foraging Habitat

Figure 6-1 also illustrates the distribution of suitable Swainson's hawk foraging habitat throughout the study area. Within the study area, suitable foraging habitat includes irrigated croplands and pasturelands, and uncultivated grasslands. With the exception of parks, golf courses, and several smaller undeveloped in-fill parcels, these areas (approximately 22% of the study area) represent the only available foraging habitat for Swainson's hawks in the study area. While there are differences in the foraging quality of different irrigated crops, there are no unsuitable perennial crop types such as orchards or vineyards in the study area. Thus, all lands designated for purposes of this assessment as irrigated cropland/irrigated pastureland are considered suitable as foraging habitat. Each land use type is described below.

- Irrigated Cropland/Irrigated Pastureland. This type is defined as areas that are dominated by a mixture of irrigated croplands and irrigated pasture (Plates 6-2 and 6-3). Approximately 15% of the study area consists of this land use type (Table 6-3). The irrigated croplands are annually cultivated and seasonally or annually rotated. The pastures are often grazed and/or regularly cut for hay. Most of these lands occur in the south-central portion of the study area west of State Route 99 and along the north side of Grant Line Road east of State Route 99.

- Uncultivated Grasslands. This type is defined as uncultivated annual grassland habitat that is regularly or irregularly grazed by livestock and that has retained most topographical and other natural features (e.g., vernal pools and swales, native oak trees, etc.) (Plate 6-4). Approximately 7.4% of the study area consists of this land use type (Table 6-3). Uncultivated grasslands are found primarily along and adjacent to the broad transmission line corridor paralleling the east side of Waterman Road, west of Franklin Boulevard and south of Elk Grove Boulevard, and remaining open spaces associated with the Laguna Creek corridor (Figure 6-1).

- High Density Urban. This type consists of dense small-lot residential or commercial development. Open space areas consist mainly of community parks and golf courses. While it is possible that Swainson's hawks could nest in these areas if suitable trees existed and if they were within 1 to 2 miles of suitable foraging habitat (England et al. 1995), there are no foraging opportunities within this type. Approximately 60 percent of the study area is currently defined as high density urban (Table 6-3) and additional conversion to high density urban is planned within the study area.

- Low Density Urban. This type consists of large lot (1 to 10-acre) residential or ranchette development. In the study area, this type is found primarily in the northeastern corner between Deer Creek and Calvine Road (Figure 6-1). In

general, smaller lots are landscaped with lawns, ponds, and native or ornamental plantings, and larger lots retain small pastures for horses and other livestock. While it is possible (and a greater likelihood than in high density urban areas) that Swainson's hawks may nest in suitable trees in these areas as long as suitable foraging habitat remains nearby, there are very limited foraging opportunities within this type, and thus it is considered an unsuitable land use type for Swainson's hawk foraging habitat. Approximately 18 percent of the study area is currently defined as low density urban (Table 6-3).

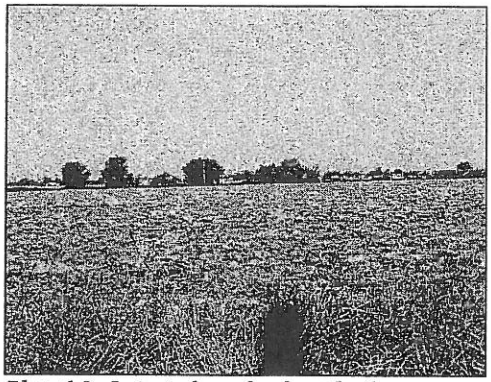


Plate 6-2. Irrigated cropland north of Kammerer Road.

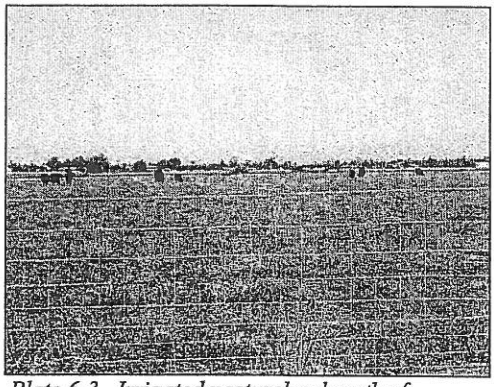


Plate 6-3. Irrigated pastureland north of Kammerer Road.

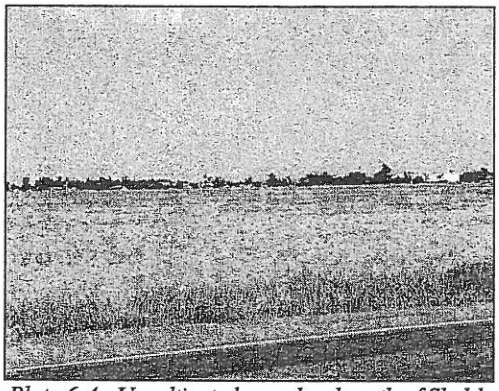


Plate 6-4. Uncultivated grassland north of Sheldon Road and east of Waterman Road.

Table 6-3. Relative Abundance of Estimated Land Cover Type Acreages in the City of Elk Grove, 2008.

Cover Type	Estimated Acres	Percent of Total
Irrigated Cropland/Pasture	4,000	14.8
Uncultivated Grassland	2,000	7.4
High Density Urban	16,000	59.3
Low Density Urban	5,000	18.5
Total	27,000	100

Unlike the South Sacramento County baseline survey and assessment (Estep 2007a) where habitat associations were based on a 0.5 mile radius around the nest, because of the constrained and fragmented open landscape in the study area, habitat associations for this assessment is based on the dominant land use (Irrigated cropland/irrigated pastureland or uncultivated grasslands) in the immediate vicinity of the nest.

Table 6-4 indicates that the majority of nest sites (85.7%) were associated with the remaining patches of irrigated cropland/pastureland in the study area and only two (14.3%) were associated with uncultivated grasslands. While this is consistent with other studies, including the 2006 South Sacramento County baseline survey and assessment (Estep 2007a), the size and configuration of remaining suitable habitat patches and the extent of fragmentation within the study area are likely more influential in determining the distribution and abundance of nesting sites than is the differing foraging values of these land uses. As noted above, all nests were in close proximity to urban areas; however, no nests were found within urban areas (Table 6-4).

Table 6-4. Land Use/Habitat Associations of Swainson's Hawk Nests in the City of Elk Grove, 2008.

Habitat Association	Number of Territories	Percent of Total
Irrigated cropland/pastureland	12	85.7
Uncultivated grassland	2	14.3
High density urban	0	
Low density urban	0	
Total	14	100

Figure 6-1 also illustrates the general land use type adjacent to the study area. Lands south, east, and west of the study area are primarily open agricultural lands, most of which are suitable for Swainson's hawk foraging. The northern boundary of the study area is contiguous with the City of Sacramento and is mostly urbanized with the exception of the Sacramento Regional County Sanitation District Bufferlands located north of the northern boundary and west of Franklin Road (Figure 6-1).

Nesting Habitat

Several different nesting habitat types occur in the study area and are defined as follows:

- *Riparian.* This includes valley oak, cottonwood, and willow-dominated riparian woodland along natural or channelized stream corridors. Laguna Creek represents the only significant riparian corridor in the study area. The majority of the creek within the study area is confined within a relatively narrow corridor surrounded by dense urbanization. Mature riparian woodland is discontinuous along the creek with some areas supporting mature trees and others areas lacking any overstory vegetation.

- *Isolated Trees*. Isolated trees are single trees that are not associated with roadsides, residences or other features. Many are large, mature valley oak trees in the middle of agricultural fields that are remnants of pre-agricultural oak woodlands. This type is limited in the study area and occurs primarily in the south-central portion of the study area west of State Route 99. Mature valley oak trees have also been retained in some locations within the urban areas.

- *Roadside Trees*. Roadside trees can be remnant native valley oak trees, naturally occurring 'volunteer' native or non-native trees, or ornamental trees planted for landscaping or as wind breaks or roadside barriers. This type is also distributed throughout most of the remaining open spaces in study area as well as in some urban areas (e.g., native valley oak trees along Bruceville Road).

- *Tree Row*. Tree row refers to planted rows of trees that are not associated with roadsides. These often occur along field borders or rural driveways and were usually planted as windbreaks or for landscaping purposes.

- *Rural Residential*. Rural residential refers to trees that are planted for windbreak cover, shade, or ornamentals around rural farmsteads. These trees are of a variety of species, including valley oak, walnut, eucalyptus, and pine.

- *Eucalyptus Groves*. Several small eucalyptus groves occur in the study area, planted as windbreaks or sound and visual barriers.

- *Farmyard Trees*. Farmyard trees refer to trees planted around agricultural farmyards used for equipment staging and shade. Farmyard trees are typically walnut, eucalyptus, or valley oak trees.

- *Urban Trees*. Urban trees are large remnant native or nonnative ornamental trees within urban areas. Swainson's hawks will occasionally occupy these sites if the tree is large and the nest can be visually protected from disturbance, and the site is within 1 to 2 miles from foraging habitat (England et al. 1995). Nest trees tend to be tall and dense to allow protection from direct disturbances and a panoramic view of the surrounding landscape. Most urban nest trees are ornamental pines or redwoods or remnant native valley oaks (England et al. 1995).

Within the study area, roadside trees were the most frequently used nest tree (Table 6-5). Of the six roadside tree nest sites, two were remnant valley oak trees that were retained during construction of Whitelock Road (Plate 6-1), and four were eucalyptus trees planted along roadsides (Plate 6-5).

Two sites were associated with rural residences (Plate 6-6), two in riparian, and one each in isolated tree, tree row, oak grove, and farmyard types (Table 6-5).

Table 6-5. Nesting Habitat Associations of Swainson's Hawk Territories in the City of Elk Grove, 2008.

Nesting Habitat Type	Number of Territories	Percent of Total
Roadside Tree	6	42.9
Rural Residence	2	14.3
Riparian	2	14.3
Isolated Tree	1	7.1
Tree Row	1	7.1
Oak Grove	1	7.1
Farmyard	1	7.1
Total	14	100

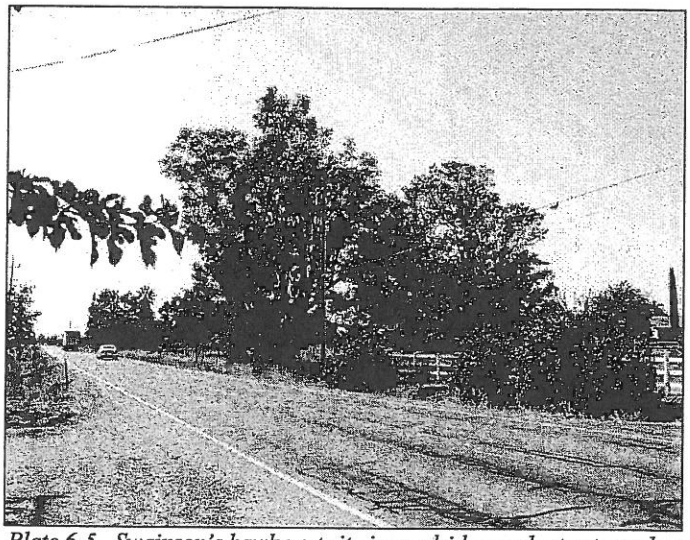


Plate 6-5. Swainson's hawk nest site in roadside eucalyptus tree along Grant Line Road.

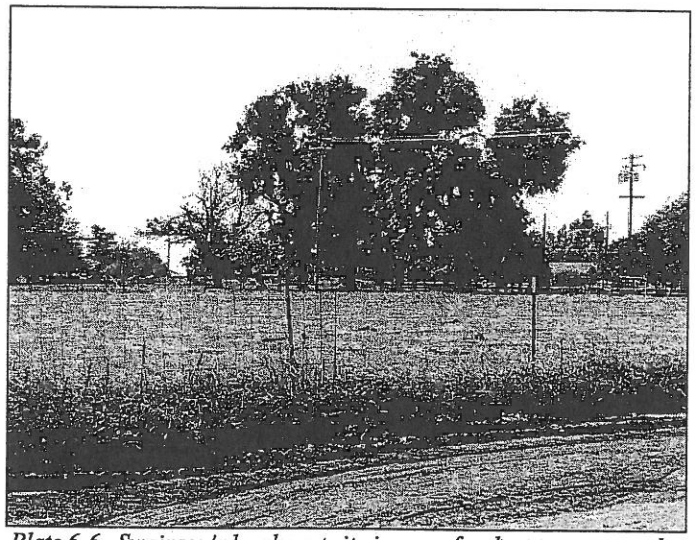


Plate 6-6. Swainson's hawk nest site in row of walnut trees at rural residence near Bilby Road and Bruceville Road.

Table 6-6 indicates the tree species used by nesting Swainson's Hawks within the study area. Eucalyptus was the most frequently used nest tree (42.9%), following by valley oak (35.7%). While not quantified for this study, these also appear to be the tree species that occur in the greatest frequency in the study area. Other tree species used were walnut, willow, and locust (Table 6-6) (Plates 6-7 through 6-9).

Table 6-6. Nest Tree Species used by Nesting Swainson's Hawks in the City of Elk Grove, 2008.

Tree Species	Number of Active Nest Sites	Percent of Total
Eucalyptus	6	42.9
Valley Oak	5	35.7
Walnut	1	7.1
Willow	1	7.1
Locust	1	7.1
Total	14	100

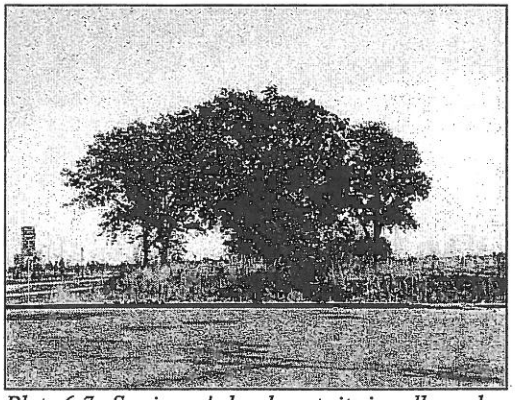


Plate 6-7. Swainson's hawk nest site in valley oak tree along Whitelock Parkway.

Plate 6-8. Swainson's hawk nest site in eucalyptus tree along Grant Line Road.

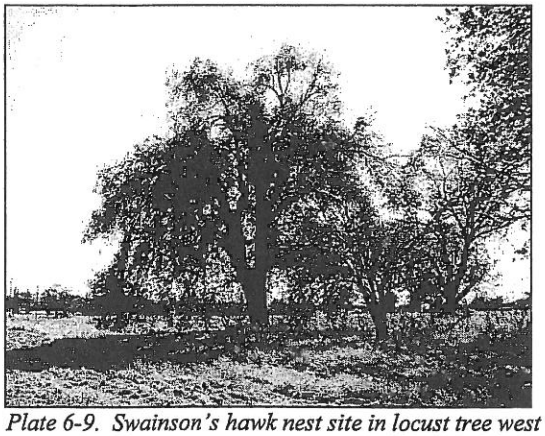


Plate 6-9. Swainson's hawk nest site in locust tree west of State Route 99 and north of Poppy Ridge Road.

6.1.3 Reproduction

Reproductive performance is calculated on the basis of the number of fledged young. While data are collected on the number of nestlings at various ages, these data are inconsistent due to the inability to observe nests sufficiently to confirm the number of nestlings from all nests at various stages of the breeding cycle. Data on the number of eggs per nest are also not calculated because of the risk of nest abandonment during the sensitive incubation phase of the breeding cycle. Reproductive data are presented in Table 6-7.

Table 6-7. Reproductive Performance of Swainson's Hawks in the City of Elk Grove, 2008.

Active Nests (S, U, UO)	13	
Successful Nests (S)	11	
Unsuccessful Nests (U)	1	
Unknown Outcome (UO)	1	
Total Number of Young		15
Number of Young per Nesting Attempt (S+U)		1.25
Number of Young per Successful Nest		1.36

A total of 15 fledged young were recorded (Table 6-7). This equates to 1.36 young per successful nest, which is generally consistent with other past and ongoing studies of Swainson's Hawk in the Central Valley, but is low compared with reported success outside of the Central Valley (Table 6-8).

Table 6-8. Comparison of Reproductive Performance of Swainson's Hawk Populations in the Central Valley and other North American Populations.

Location	Years of Study	Young per Nesting Attempt	Young per Successful Nest	Source
Elk Grove	1	1.25	1.36	This study
Yolo County	1	1.24	1.45	Estep (2008)
South Sacramento County	1	0.76	1.46	Estep (2007a)
Yolo County	15	1.16	1.49	Estep (in prep)
Natomas Basin	7	1.21	1.65	Jones & Stokes (2006)
Rancho Cordova	1	1.20	1.33	Estep (2007b)
Central Valley	5	1.35	1.65	England et al. 1995
S.E. Washington	3	1.50	1.85	Fitzner 1978
N.E. Colorado	3	1.19	2.18	Olendorff 1978
S.E. Alberta	3	1.41	1.98	Schmutz et al. 1980
S.E. New Mexico	3	1.76	1.94	Bednarz 1988
S.E. Idaho	3	1.24	1.62	Hansen and Flake 1995

6.2 Distribution and Abundance of Other Surveyed Raptor Species

Several other species compete with Swainson's hawk for nesting and food resources that can affect distribution, abundance, and reproductive performance. Interspecific competition for nesting and food resources is a normal ecological process in raptor communities that influences local and regional population structure (Newton 1979, Rothfels and Lein 1983, Thurow and White 1983, Janes 1984, Hansen and Flake 1995). However, in an environment with depleting or uncertain resources, such as much of the southern Sacramento and northern San Joaquin Valleys, these interactions can have a greater negative affect on some raptor populations. This can be particularly important to Swainson's hawks because spring arrival onto breeding territories is later than other raptor species. Other raptor species, particularly red-tailed hawk, white-tailed kite, and great-horned owl sometimes occupy traditional Swainson's hawk nesting areas prior to the arrival of Swainson's hawks. This can result in aggressive territorial interactions with variable results depending on the species involved. For example, white-tailed kites are often displaced from traditional Swainson's hawk nesting areas by late-arriving Swainson's hawks leading to poor kite nesting success (Erichsen 1995). Conversely, red-tailed hawks and great-horned owls are rarely displaced resulting in the selection of alternative nesting sites by the returning Swainson's hawk pair or occasionally resulting in the temporary or permanent abandonment of Swainson's hawk nesting territories (Estep *in preparation*). However, other studies have shown that while nest sites were not relinquished, red-tailed hawks forfeited portions of their breeding territories to late-arriving Swainson's hawks, potentially affecting the reproductive success of the red-tailed hawk pair (Janes 1994, Hansen and Flake 1995). Over time, as nesting and food resources are reduced due to urbanization or other factors, local or regional Swainson's hawk and other raptor populations could be negatively affected as a result of both habitat loss and increased interspecific competition.

In addition, evaluation of the distribution and habitat relationships of other species – particularly red-tailed hawk – can reveal differences in habitat relationships and use at a landscape level that may be helpful in assessing different geographic areas with respect to their suitability for species conservation. In other words, certain areas may be more suitable for red-tailed hawk than for Swainson's hawk, and thus would not be considered high priority conservation areas for Swainson's hawk.

Figure 6-1 illustrates the distribution and abundance of other surveyed raptor species in the study area in 2008. Red-tailed hawk, the most abundant nesting buteo in the Central Valley, was distributed similarly as the Swainson's hawk occurred throughout the study area and sufficient information was gathered to make general comparisons with Swainson's hawks regarding distribution, activity, and reproduction (See below). Data were also collected for red-shouldered hawk, white-tailed kite, and great-horned owl, species that compete with Swainson's hawks for nesting or food resources and influence Swainson's hawk nesting distribution. Table A-2 provides the location, activity, habitat association, and reproductive data for other raptor species.

6.2.1 Red-shouldered Hawk

Red-shouldered hawks typically nest in wooded areas, often along riparian corridors. They forage primarily on small rodents, passerine birds, and some amphibians and reptiles (Crocoll 1994). In the Central Valley, the species can be locally common in mature riparian forests and other native woodland habitats, but is also found with increasing frequency in eucalyptus groves and occasionally in sites subject to substantial levels of human disturbance. Only one red-shouldered hawk nesting site was detected during the survey (Figure 6-1, Table A-2). The site is in a eucalyptus grove in the low-density urban area south of Grant Line Road, north of Sheldon. Because of the difficulty detecting nest sites in urban areas, this is likely an under-representation of the species' occurrence in the study area, particularly in the low-density urban area in the northeast corner of the study area. Red-shouldered hawk competes with Swainson's hawk for nesting sites and food resources.

6.2.2 White-tailed Kite

White-tailed kites nest in a variety of wooded habitats, including riparian woodlands, oak woodlands, and oak savannah. They can be found in narrow channelized riparian habitats and occasionally in roadside trees or tree rows. Two white-tailed kite nesting sites were located during the survey (Figure 6-1, Table A-2). One was associated with savannah-like habitat in the Laguna Creek corridor west of State Route 99 and one was associated with a roadside tree along Poppy Ridge Road. White-tailed kite competes with Swainson's hawk for nesting sites and food resources (Erichsen 1995). Like Swainson's hawk, California vole is the principal prey item for white-tailed kite (Warner and Rudd 1975, Dunk 1995). While the presence of white-tailed kite can influence the distribution and nesting activity of Swainson's hawk, there are data that suggest that the opposite scenario is more likely and that Swainson's hawk is relatively successful at dislodging white-tailed kite from nest sites and forcing them to renest elsewhere (Erichsen 1995).

6.2.3 Great-horned Owl

Great-horned owl was also included in the survey because it can have a more significant local influence on Swainson's hawk nesting distribution and success compared with red-shouldered hawk and white-tailed kite. Great-horned owls do not typically construct their own nest, but instead occupy the nests of other stick-nest-build raptors (Houston *et al.* 1998). Because they nest earlier in the season than most other raptors (often initiating nesting as early as January), their nesting cycle is well underway by the time Swainson's hawks arrive onto their breeding territories. Great-horned owls often occupy Swainson's hawk nests, and Swainson's hawks are usually unsuccessful at dislodging great-horned owls from their nest once they arrive onto the breeding territory (Estep *personal observation*). This can result in the Swainson's hawk pair not nesting or causes them to construct a nest in an alternative and potentially less desirable location. Great-horned owls also prey on Swainson's hawk young, so proximity to an owl nest can also influence

Swainson's hawk productivity. This species will nest in most woodland habitats, including riparian woodlands and oak woodlands. It will also nest in isolated trees, tree rows, and eucalyptus groves.

Two great-horned owl nests were found during the survey (Figure 6-1, Table A-2). One was in a valley oak tree along Laguna Creek west of State Route 99. This is also the location of a non-nesting Swainson's hawk territory (SWHA-8, Table A-1). The presence of the great-horned owl nest at this location may have been responsible for the lack of a nesting attempt by the Swainson's hawk pair reported from that location. The nest the owls used may have been constructed by the Swainson's hawk pair the previous year and occupied by the owls prior to the return of the Swainson's hawk pair. The second nest was in a valley oak tree south of Elk Grove Boulevard and east of Big Horn Boulevard (Figure 6-1).

6.2.4 Red-tailed Hawk

Among the species surveyed, red-tailed hawk may influence the distribution and abundance of Swainson's hawk more than any other species in the study area (Rothfels and Lein 1983, Janes 1984, Bechard et al. 1990, Janes 1995, Hansen and Flake 1995). Territorial competition influences red-tailed hawk and Swainson's hawk territory occupancy and reproductive performance depending on specific habitat elements (Janes 1984, 1994). Red-tailed hawk is similar size to the Swainson's hawk and uses similar nesting and foraging habitat. More of a generalist with respect to foraging habitat, prey species, and foraging behavior, the red-tailed hawk uses a variety of nesting and foraging habitats. A total of 10 red-tailed hawk nesting territories were recorded during surveys (Figure 6-1, Table A-2).

Overall, Swainson's hawk and red-tailed hawk were distributed similarly across the landscape (Figure 6-1). While similar, there are differences in habitat selection between the two species particularly with respect to the use of cultivated and uncultivated habitats and the type of prey found in each. Results of surveys conducted throughout South Sacramento County in 2006 (Estep 2007a), indicated that the red-tailed hawk was distributed more evenly across the landscape while the Swainson's hawk distribution suggested a greater preference for cultivated habitats.

With a more diverse diet and the ability to capture small rodent prey (e.g., *Microtus* and other mice) and larger prey, such as black-tailed jackrabbit (*Lepus californicus*) and California ground squirrel (*Spermophilus beechii*), the red-tailed hawk can more effectively utilize uncultivated grassland habitats where these species are more common. Bechard et al. (1990) showed that Swainson's hawk and red-tailed hawk in Washington State selected nesting areas based on specific habitat parameters (e.g., distance to water, distance to human disturbance, nest tree diameter, foraging habitat type) that resulted in a relatively clear partitioning of the available landscape. However, because the study area occurs in the largely agricultural interior of the Central Valley and supports only small patches of uncultivated habitats, resource partitioning between the two species is less clear. With a wider range of acceptable habitat parameters, the red-tailed hawk occurs

throughout the valley floor as well as in foothill and mountainous areas where the Swainson's hawk does not occur. This level of landscape partitioning is clear throughout the county as a whole. But within the study area, partitioning becomes more subtle and with the exception of some relatively minor differences (e.g., proximity to human disturbance, nest tree size), both species occupy and compete for the same nesting and foraging resources. Because of this – and because of their earlier nest initiation, red-tailed hawks occasionally occupy traditional Swainson's hawk nest sites, which in some cases have resulted in the permanent abandonment of Swainson's hawk nesting territories (Estep *in preparation.*).

Interestingly, Swainson's hawk has been and continues to be significantly more abundant in the interior of Sacramento County and surrounding Central Valley counties than the red-tailed hawk (Estep 2007a, 2008, *in preparation*). Information from Schmutz et al. (1980) and Cottrell (1981) suggest that valley floor may be a sub-optimal habitat for red-tailed hawks. Both studies indicate the red-tailed hawk productivity declines markedly where they are forced to nest in close proximity to cogeners, such as Swainson's hawk, independent of food supply. Note, however, that as noted below, red-tailed hawk productivity is higher in the study area than that of Swainson's hawk, which is consistent with findings from other related studies in the Central Valley (Estep 2007a, 2008, *in preparation*).

On a more speculative note, this could also be in part a function of the foraging behavior of each species. The Swainson's hawk is a highly active hunter, hunting almost entirely from the wing and known to travel long distances in search of prey (Estep 1989, Babcock 1995). Red-tailed hawks are less active hunters, hunting to large extent from a perch, and have very small foraging ranges compared with Swainson's hawk (Preston and Beane 1993). The foraging behavior of the Swainson's hawk allows it to adapt to the dynamic agricultural foraging landscape and adjust its foraging range as prey accessibility changes with the crop growth and harvesting regime. The red-tailed hawk may be less likely to adjust to this dynamic condition, which may restrict their abundance on the valley floor.

Activity and Reproduction

Table 6-9 compares activity data between Swainson's hawk and red-tailed hawk. While there were several more Swainson's hawk nesting territories (14) than red-tailed hawk nesting territories (10), successful nesting activity was confirmed for all ten red-tailed hawk sites compared with 11 of the 14 Swainson's hawk territories.

Table 6-10 compares reproductive performance data for Swainson's hawk and red-tailed hawk. Red-tailed hawks produced 19 fledged young from 10 successful nests, and perhaps in contrast with the findings of Schmutz et al. (1980) and Cottrell (1981) noted above, resulting in a greater reproductive performance (i.e., number of young per nesting attempt and number of young per successful nest) compared with Swainson's hawk.

Table 6-9. Comparison of Activity Data for Swainson's Hawk and Red-tailed Hawk in the City of Elk Grove, 2008.

	Swainson's Hawk			Red-tailed Hawk		
	No.	Percent of Active Nesting Territories	Percent of Total Active Nests	No.	Percent of Active Nesting Territories	Percent of Total Active Nests
Active Territories	14			10		
Not Nesting (NN)	1	7.1		0	0	
Active Nests (S, U, UO)	13	92.9		10	100	
Successful Nests (S)	11		84.6	10		100
Unsuccessful Nests (U)	1		7.7	0		0
Unknown Outcome(UO)	1		7.7	0		0
Total		100	100		100	100

Table 6-10. Comparison of Reproductive Performance Data for Swainson's Hawk and Red-tailed Hawk in the City of Elk Grove, 2008.

	Swainson's Hawk		Red-tailed Hawk	
Active Nests (S, U, UO)	13		10	
Successful Nests (S)	11		10	
Unsuccessful Nests (U)	1		0	
Unknown Outcome (UO)	1		0	
Total Number of Young		15		19
Number of Young/Nesting Attempt (S+U)		1.25		1.9
Number of Young/Successful Nest		1.36		1.9

Habitat Associations

Table 6-11 compares the habitat associations between Swainson's hawk and red-tailed hawk. Both species were similar in their selection of irrigated croplands/irrigated pastures over uncultivated grasslands. However, as noted above, within the study area this is likely a function of the size and fragmentation of suitable habitats rather than habitat value.

Table 6-11. Comparison of Land Use/Habitat Associations of Swainson's Hawk and Red-tailed Hawk Nests in the City of Elk Grove, 2008.

	Swainson's Hawk		Red-tailed Hawk	
Habitat Association	Number of Territories	Percent of Total	Number of Territories	Percent of Total
Irrigated cropland/pastureland	12	85.7	8	80.0
Uncultivated grassland	2	14.3	2	20.0
High density urban	0		0	
Low density urban	0		0	
Total	14	100	10	100

Jones & Stokes. 2006. Biological effectiveness monitoring for the Natomas Basin Habitat Conservation Plan Area – 2005 annual survey results. (J&S 04002.04) Prepared for the Natomas Basin Conservancy, Sacramento, CA.

Katibah, E. F. 1983. A brief history of riparian forests in the Central Valley of California. Pages 23–29 in R. E. Warner, and K. M. Hendrix (eds), California Riparian Systems: Ecology, Conservation, and Productive Management. Berkeley, CA: University of California Press.

Newton, I. 1979. Population Ecology of Raptors. Buteo Books, Vermillion, SD.

Olendorff, R.R. 1978. Population status of large raptors in northeastern Colorado – 1970-1972. Raptor Res. Rep. 3:185-205.

Preston, C. R., and R. D. Beane. 1993. Red-tailed Hawk (*Buteo jamaicensis*), The Birds of North America Online (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: http://bna.birds.cornell.edu/bna/species/052

Rothfels, M. and M.R. Lein. 1983. Territoriality in sympatric populations of red-tailed and Swainson's hawks. Can. J. Zool. (61): 60-63.

Schlorff, R., and P. H. Bloom. 1984. Importance of Riparian Systems to Nesting Swainson's Hawks in the Central Valley of California. Pages 612–618 in R. E. Warner, and K. M. Hendrix (eds), California Riparian Systems: Ecology, Conservation, and Productive Management. Berkeley, CA: University of California Press.

Schumtz, J.K., S.M. Schumtz, and D.A. Boag. 1980. Coexistence of three species of hawks (*Buteo* spp.) in the prairie-parkland ecotone. Can. J. Zool. 58:1075-1089.

Schmutz, J.K. 1987. The effect of agriculture on Ferruginous and Swainson's hawks. Journal of Range Management 40(5): 438-440.

Sharp, C. S. 1902. Nesting of Swainson's hawk. Condor 4:116–118.

Swainson's Hawk Technical Advisory Committee. 1999. Nesting Swainson's Hawks (*Buteo swainsoni*) in the Natomas Basin Habitat Conservation Plan Area, 1999 Annual Survey Results. Prepared for The Natomas Basin Conservancy, Sacramento, CA.

Swainson's Hawk Technical Advisory Committee. 2000. Nesting Swainson's Hawks (*Buteo swainsoni*) in the Natomas Basin Habitat Conservation Plan Area, 2000 Annual Survey Results. Prepared for The Natomas Basin Conservancy, Sacramento, CA.

Swainson's Hawk Technical Advisory Committee. 2001. Nesting Swainson's Hawks (*Buteo swainsoni*) in the Natomas Basin Habitat Conservation Plan Area, 2001 Annual Survey Results. Prepared for The Natomas Basin Conservancy, Sacramento, CA.

Swolsgard, C.A. 2004. Nesting density and habitat use of Swainson's hawk in a vineyard landscape in northern San Joaquin County, California. Masters Thesis, California State University, Sacramento, 196 pp.

Thurow, T.L. and C.M. White. Nest site relationship between the Ferruginous Hawk and Swainson's hawk. J. Field Ornithol. 54(4): 401-406.

Warner, J. S., and R. L. Rudd. 1975. Hunting by the white-tailed kite (*Elanus leucurus*). Condor 77:226-230.

Woodbridge , B., K.K. Finley, and P.H. Bloom. 1995. Reproductive performance, age structure, and natal dispersal of Swainson's hawks in the Butte Valley, California. J. Raptor Res. 29:187-192.

FRIENDS OF THE SWAINSON'S HAWK / ELK GROVE SUPER
COMMENT LETTER 11/21/11 ATTACHMENT

California Natural Resources Agency
DEPARTMENT OF FISH AND GAME
North Central Region
1701 Nimbus Road, Suite A
Rancho Cordova, CA 95670-4599
916-358-2900
http://www.dfg.ca.gov

ARNOLD SCHWARZENEGGER, Governor
JOHN McCAMMAN, Director

March 25, 2010

Michele McCormick, Liaison
South Sacramento Habitat Conservation Plan
Circle Point
455 Capitol Mall
Sacramento, CA 95814

Dear Ms. McCormick:

The Department of Fish and Game (DFG) has reviewed the current preliminary draft, South Sacramento Habitat Conservation Plan (Draft Plan), and wishes to offer our feedback and guidance for covered species, particularly the California threatened Swainson's hawk (*Buteo swainsoni*), within the mixed agricultural habitats primarily located in the western portion of the Draft Plan area. We intend to continue to provide additional feedback on other species and aspects of the Draft Plan in subsequent correspondence and venues.

As trustee for the State's fish and wildlife resources, the DFG has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of such species. In that capacity the DFG administers the California Endangered Species Act (CESA), the Native Plant Protection Act (NPPA), and other provisions of the California Fish and Game Code that affords protection to the State's fish and wildlife trust resources. The DFG also considers issues as related to the Migratory Bird Treaty Act of 1918, as amended (16 U.S.C. 703-712) (MBTA).

The DFG has historically worked collaboratively with Sacramento County, the cities of Elk Grove, Galt, Rancho Cordova, and the U.S. Fish and Wildlife Service, as well as other agency staff, private landowners, and concerned citizens in an open transparent manner, to provide a foundation to develop the Draft Plan. However, we've had limited involvement and input over most of the past year during the drafting of this Plan and have concerns regarding the current conservation strategy for species which depend on mixed agriculture, primarily in the western Plan Area. We are particularly concerned with impacts to cover types identified in the Draft Plan as cropland and irrigated pasture-grassland.

The DFG recently met with County staff to better understand the intended conservation strategy for the Swainson's hawk. County staff provided specific acreages for the above cover types expected to be impacted by authorized activities associated with the Draft Plan, and expected to be preserved to offset these impacts. Ultimately, the strategy presented relies on acquiring approximately 86% of all cropland and irrigated pasture-grassland within Zone 9 of the Plan Area, as well as acquiring some additional lands with these cover types in Zones 8 and 11, for impacts to these same cover types throughout the Plan Area. The DFG believes that it may be difficult to acquire nearly 86% of all cropland and irrigated pasture-grassland within Zone 9 considering the Draft Plan relies on willing sellers to acquire preserved lands, and that the Draft Plan may not adequately portray this assessment. We understand areas that currently contain cropland and irrigated pasture grassland, which are anticipated to be impacted include portions of Zones 4 and 5, and approximately a 5,000-acre area south of Kammerer Road and west of Highway 99 that is currently under study for annexation in the City of Elk Grove referred to as the proposed Elk Grove Sphere of Influence (SOI), and the City of Galt's proposed SOI.

Inclusion of analyzing impacts to these SOI areas is an aspect of the Draft Plan that we were not aware of until our recent meeting with County Staff and review of the current Draft Plan.

Within the Plan Area, the highest densities of nesting Swainson's hawks occur within and adjacent to cover types identified in the Draft Plan as cropland and irrigated pasture-grassland in the western portion of the Plan Area (Zones 4, 5, 8, 9, 11, 12). The DFG believes that these cover types are essential to the continued persistence of the hawk within their California breeding range and any conservation strategy for this species should place high value on these cover types.

The DFG believes that the current Draft Plan's conservation strategy is not specific regarding this issue and may not ensure adequate cropland and irrigated pasture-grassland reserve lands to accommodate the Swainson's hawks adequate persistence over time in the Plan Area. Ultimately this may not meet California Fish and Game Code Section 2081(b) standards of minimizing and fully mitigating the impacts associated with the Draft Plan; a standard which must be met in order to issue the County's anticipated incidental take authorization for this species. In order to meet these standards, we recommend that the Plan accommodate and guarantee preservation and maintenance of a minimum of an equal amount of cropland and irrigated pasture-grassland to that being impacted within the Plan Area. We believe this could be accomplished by accommodating a combination of the following three suggested solutions:

- Decrease the size of the above referenced SOI's
- Decrease the take coverage area impacting cropland and irrigated pasture-grassland
- Expanding the Plan Area to increase guaranteed reserves containing cropland and irrigated pasture-grassland

We understand the difficulties involved in orchestrating the aspects necessary to produce a viable conservation plan, and hope to participate in a transparent process which involves all stakeholders and agencies when developing biological solutions associated with the Draft Plan.

Thank you for the opportunity to provide our input on this effort. If the DFG can be of further assistance, please contact Mr. Todd Gardner, Staff Environmental Scientist, at (209) 745-1968.

Sincerely,

Jeff Drongesen

Jeff Drongesen
Acting Environmental Program Manager

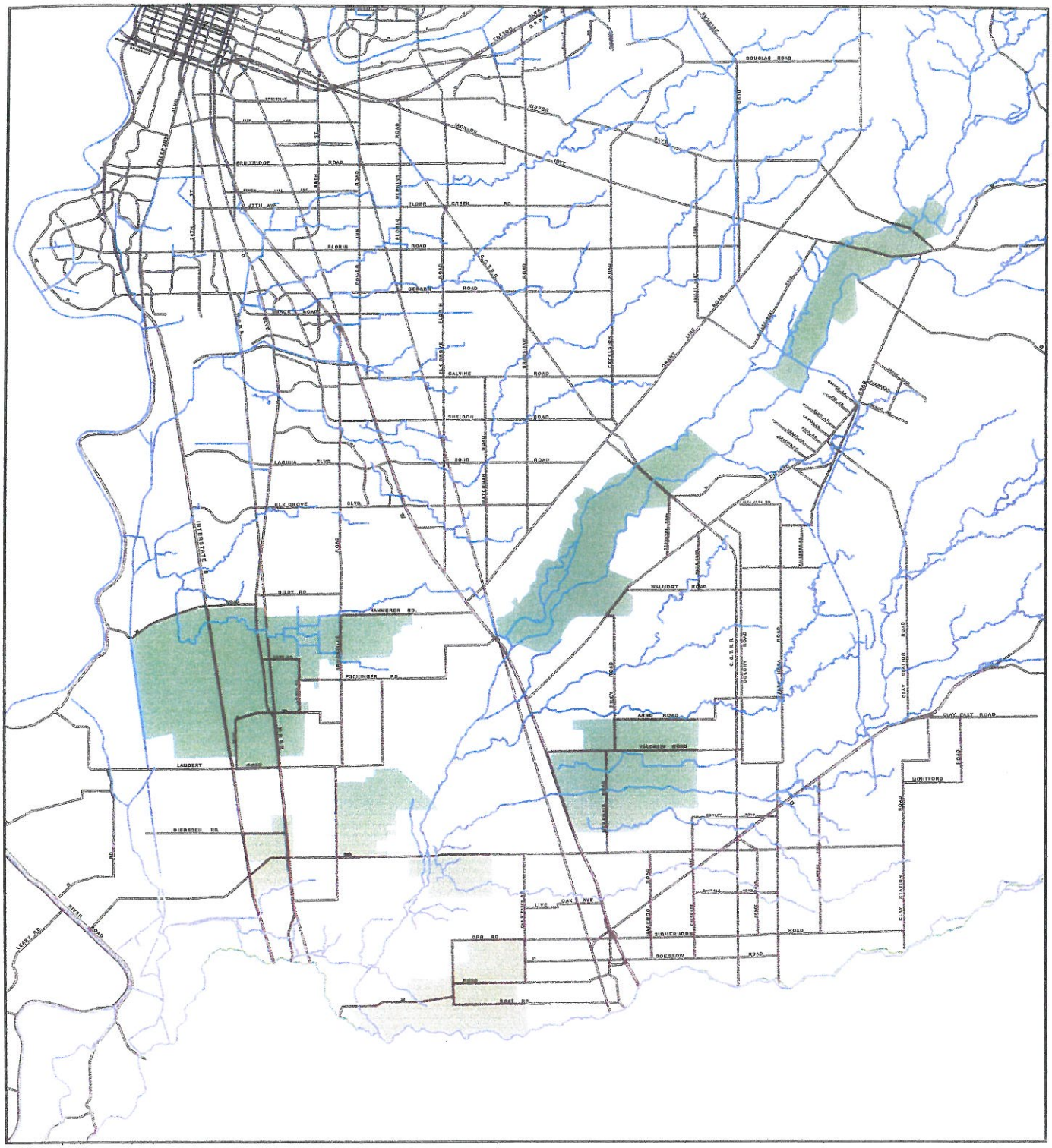
cc: Eric Tattersall
U.S. Fish and Wildlife Service
2800 Cottage Way, Room W2605
Sacramento, CA 95825-1888

(cc cont'd)

cc: Peter Brundage
Executive Officer
Don Lockhart
Assistant Executive Officer
Sacramento Local Agency Formation Commission
1112 'I' Street, Suite 100
Sacramento, CA 95814

ec: Jeff Drongesen
Todd Gardner
Department of Fish and Game

jdronges@dfg.ca.gov
tgardner@dfg.ca.gov



Potential Swainson's Hawk Mitigation Areas

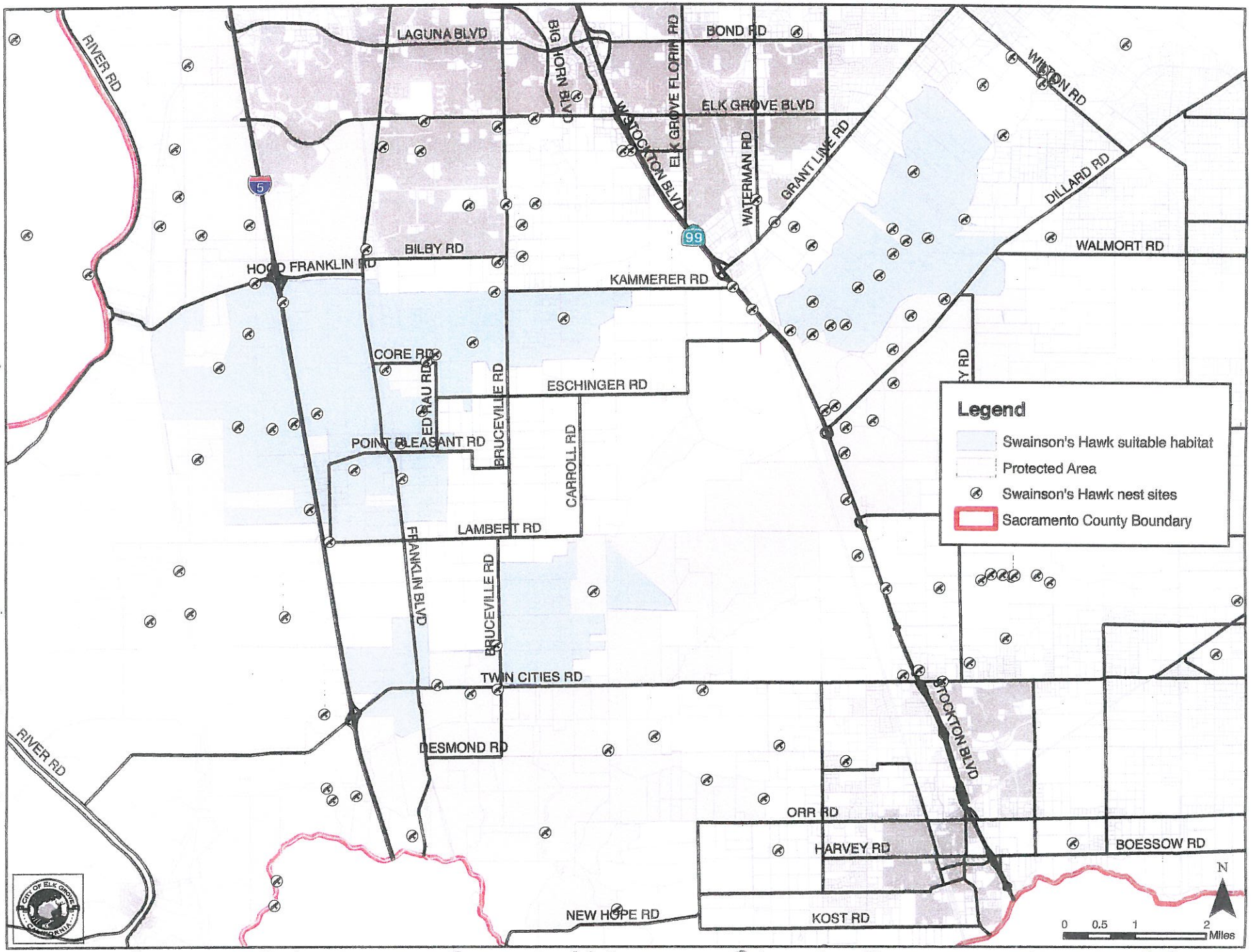
Disclaimer: The green regions on this map represent information provided to the Planning Department from the California Department of Fish and Game. The purpose is to guide project applicants in selecting areas for potential Swainson's Hawk mitigtion lands.
Not all areas shown in green will be acceptable, however the green regions represent geographic areas where there is a high likelyhood that a particular parcel will be approved for Swainson's Hawk mitigation. It is possible that areas outside the green regions will be approved as mitigation as well.
All requests for approval of a particular parcel for mitigation should be directed to the Planning Department.
A form and instructions to request approval of a parcel(s) for mitigation is available at www.saccounty.net/planning/swainsons-hawk-ordinance/index.html.

Prepared by the Sacramento County Planning and Community Development Department
Updated November 8, 2005

N
W E
S

FRIENDS OF THE SWAINSON'S HAWK, ELK GROVE SOI EIR COMMENT LETTER ATTACHMENT 1 2/21/11

FRIENDS OF THE SWAINSON'S HAWK ELK GROVE SOI EIR
COMMENT LETTER LV2-1 ATTACHMENT

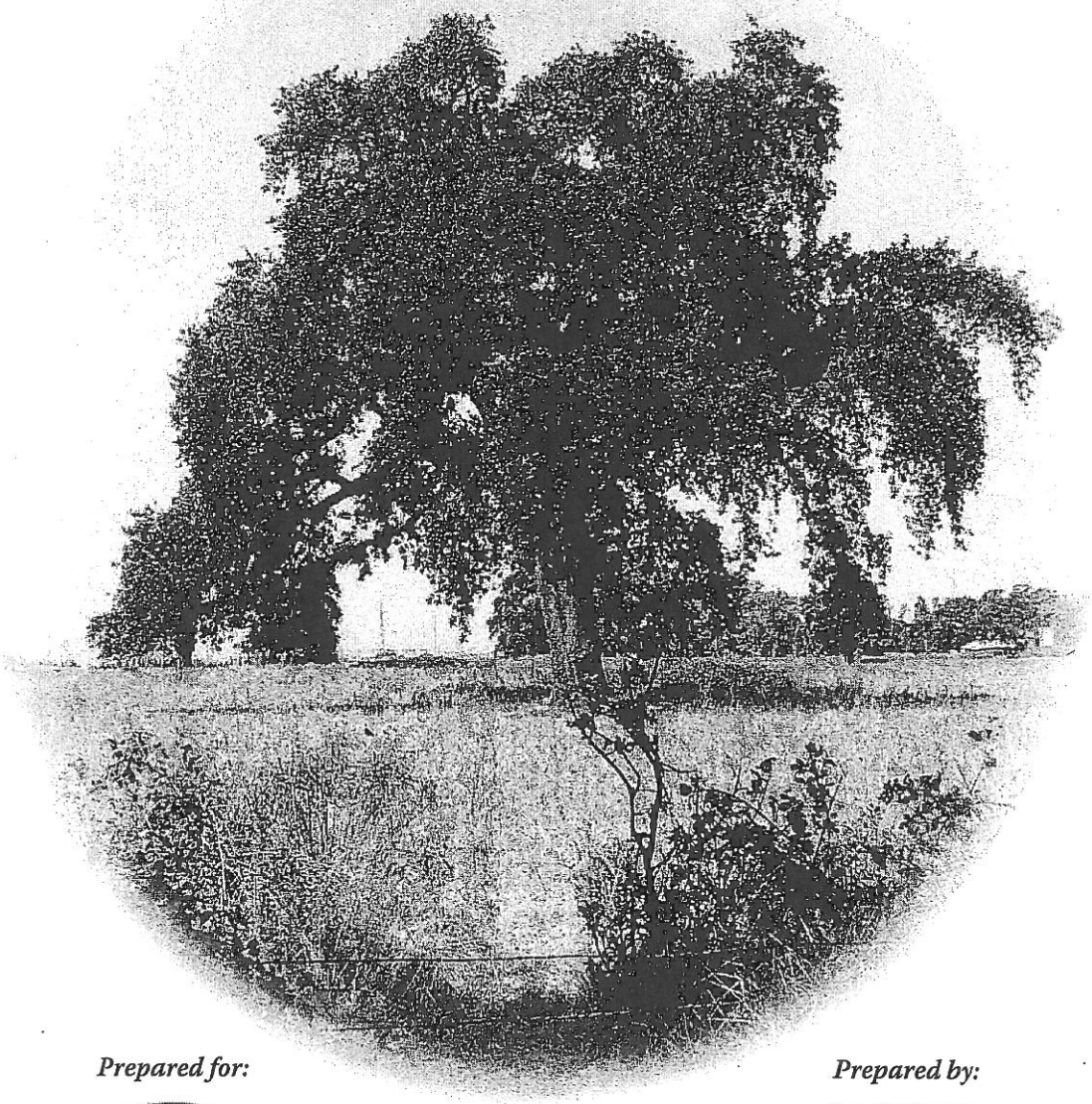


City of Elk Grove, Suitable Mitigation Sites for Development in the City

Monitoring Swainson's Hawk (*Buteo swainsoni*) Nesting Activity in South Sacramento County

Results of 2008 Surveys

February 2009



Prepared for:

CITY OF ELK GROVE CALIFORNIA

Prepared by:

ESTEP

Environmental Consulting

Monitoring Swainson's Hawk (*Buteo swainsoni*) Nesting Activity in South Sacramento County

Results of 2008 Surveys

Prepared for:

City of Elk Grove
8401 Laguna Palms Way
Elk Grove, CA 95758
Contact: Taro Echiburú
(916) 478-3619

Prepared by:

Estep Environmental Consulting
3202 Spinning Rod Way
Sacramento, CA 95833
Contact: Jim Estep
(916) 921-2515

February 2009

Table of Contents

List of Figures

List of Color Plates

List of Tables

Executive Summary

In 2006, the City of Elk Grove conducted a baseline nesting survey of the state-threatened Swainson's hawk in South Sacramento County. The study was conducted to 1) provide the City with a more complete understanding of the distribution and abundance of the Swainson's hawk in south Sacramento County and 2) to assist the City in establishing criteria for conservation site selection and approval related to its development of a conservation strategy to offset impacts from urbanization within the city limits. The results of the baseline survey are found in Estep (2007).

One of the purposes of the 2006 survey was to establish a baseline from which future monitoring efforts would be compared in order to detect trends in the nesting population over time. This report represents the first of these monitoring surveys.

Three 36-square-mile survey areas were selected from within the 2006 South Sacramento County baseline study area. One survey area was selected from each of the three geographic regions (Delta, Interior, and Eastern) described in the 2006 study (Estep 2007). A census-based survey was conducted for nesting Swainson's and other stick-nest-building raptors using the same techniques and assumptions as the 2006 effort. These data were then compared with the 2006 data to evaluate changes in distribution and abundance of nesting Swainson's hawks.

There were four fewer active nesting territories within the three survey areas in 2008 (37) compared with the 2006 baseline survey (41). Territory density was also slightly less but similar within the combined survey areas (0.34 territories per square mile) to the 2006 baseline survey (0.37 territories per square mile). While there were changes in activity and distribution within each survey area (i.e., some 2006 locations were inactive in 2008 and other locations were new in 2008), the general distribution has not changed significantly since 2006.

A total of 37 fledged young were recorded. This equates to 1.6 young per successful nest, which is higher than that reported for the 2006 baseline survey (1.46 young per successful nest). Nesting and foraging habitat associations were similar to that recorded in 2006. However, the use of eucalyptus trees for nesting increased from 15% to 25%.

Results of the 2008 survey suggest that the distribution and abundance of the South Sacramento County Swainson's hawk nesting population has not changed significantly since the 2006 baseline survey and that differences between the two survey years are likely attributable to local movements of breeding pairs and annual variation in nesting activity. Additional years of monitoring will be required in order to detect trends in the distribution and abundance of this population, to assess the effects of additional urbanization and other land use changes within the study area, and to assess the effectiveness of conservation activities.

Background

The Swainson's hawk (*Buteo swainsoni*) is a state-listed threatened species in California that occurs throughout much of the Central Valley. The City of Elk Grove (City) is within the region of the Central Valley – which includes Sacramento, Yolo, Solano, and San Joaquin Counties – that supports the largest concentration of nesting Swainson's Hawks in the state. Associated with large, open grassland and agricultural landscapes, the Swainson's hawk is closely tied to an agricultural pattern in the Central Valley that provides high value foraging opportunities. This pattern, an agricultural landscape matrix of hay, grain, and row crops; irrigated pasture; and grazed annual grasslands is characteristic of this region.

The City has been actively developing a conservation strategy for the Swainson's hawk in response to continuing urbanization and the resulting loss of high value agricultural habitats needed to sustain nesting populations – as well as the need for compliance with California Department of Fish and Game (DFG) habitat protection guidelines (California Department of Fish and Game 1994). The City instituted an ordinance in 2003 that requires mitigation for losses of Swainson's hawk habitat due to urbanization. Conservation is achieved through selection of appropriate replacement lands and through management of suitable habitat values on those lands in perpetuity. With the assistance of DFG, the City has taken a landscape approach in their conservation strategy by using various habitat suitability and proximity criteria in the selection of potential conservation sites in an effort to provide meaningful conservation through consolidation of protected habitats and protection of landscape values that focus on sustainability of the breeding population.

In order to evaluate potential conservation lands in the context of a landscape approach to Swainson's hawk population sustainability, the City recognized the need for a comprehensive baseline survey of the nesting population in South Sacramento County (Figure 1). In 2006, the baseline survey was conducted to provide the City with a more complete understanding of the distribution and abundance of the Swainson's hawk in south Sacramento County and to further assist the City in establishing criteria for conservation site selection and approval. The results of the baseline survey are found in Estep (2007).

The purpose of this effort was several-fold and included:

- Determining the distribution and abundance of the Swainson's hawk in South Sacramento County.
- Determining nesting and foraging habitat associations of Swainson's hawk in South Sacramento County.
- Determining the reproductive performance of Swainson's Hawks in South Sacramento County.

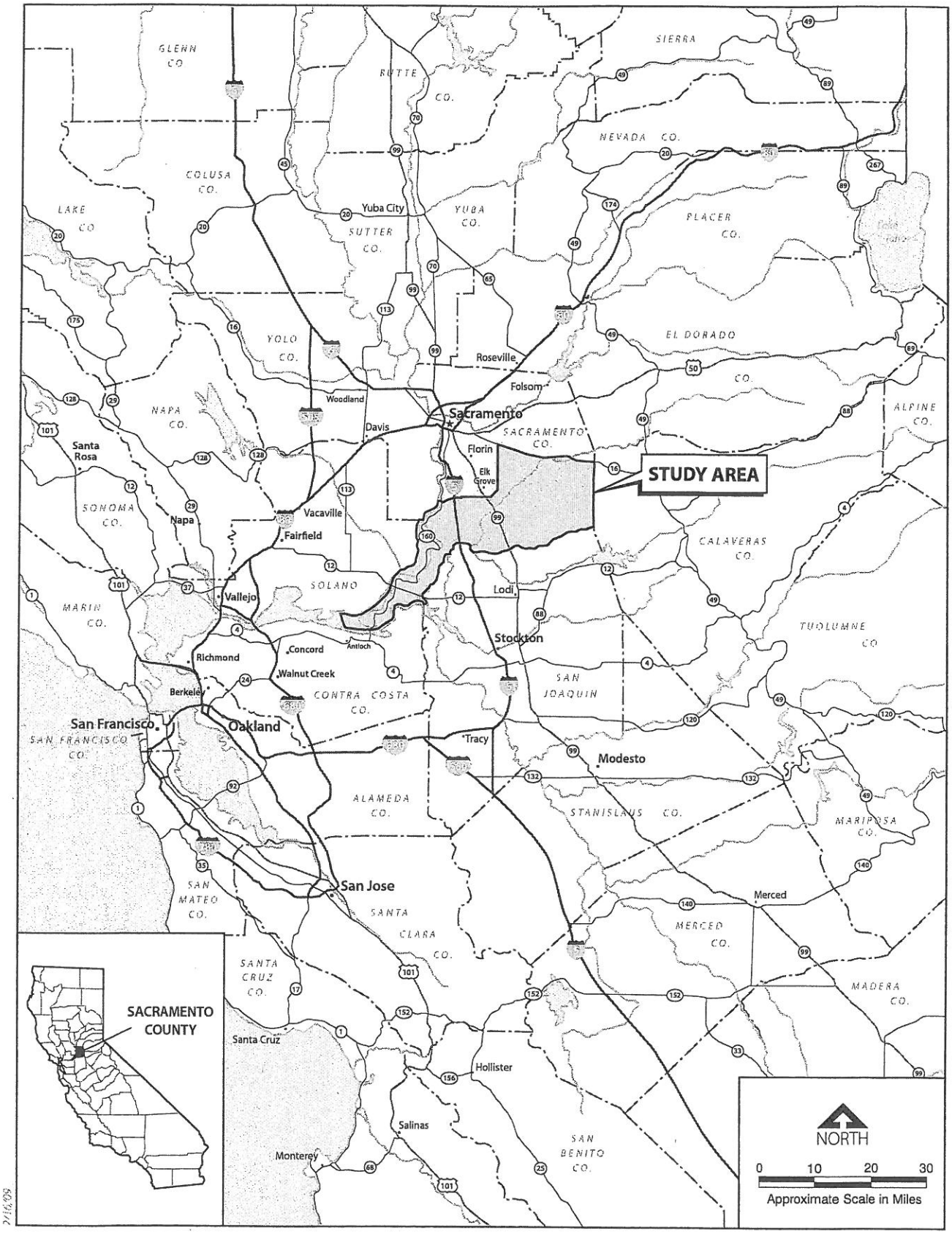


Figure 1
Regional Location Map

- Providing additional baseline information to assist the City of Elk Grove in the development of their Swainson's hawk conservation strategy.

Conducting a census-level survey, the resulting report characterized the distribution and abundance of Swainson's hawk and other stick-nest building diurnal raptors in south Sacramento County and illustrated the distribution of nesting and foraging habitats throughout the study area (Estep 2007).

The City also recognized the need to continue monitoring this population in order to document trends in distribution and abundance over time and to assess the effectiveness of conservation programs, and thus funded the first systematic monitoring of this population since completion of the baseline survey. The results of this 2008 monitoring effort are described in this report.

The purpose of this report is to present the results of the 2008 monitoring survey and compare and contrast these results with the results of the 2006 baseline survey. Refer to Estep (2007) for information on Swainson's hawk life history, the distribution and characterization of land uses and habitat types, and the abundance and distribution of the nesting Swainson's hawk population within the South Sacramento County study area.

Methods

The general method was to select representative survey areas within the South Sacramento County study area (Estep 2007) and conduct a census-level survey within each survey area. The South Sacramento County study area was characterized by three distinct geographic areas, the Delta Zone (all lands west of Interstate 5), the Interior Zone (lands between Interstate 5 and Clay Station Road), and the Eastern Foothill Zone (lands east of Clay Station Road) (Figure 2). Data were analyzed in the 2007 report according to these geographic zones. Because of the distinct vegetation and topographic characteristics of these geographic zones, they were also used as the basis for selecting survey areas for this monitoring effort.

The survey area consisted of one township-size (36 square mile [93 square kilometer]) block randomly selected from each of the three geographic zones for a total of 108 square miles (280 square kilometers) or 69,120 acres (27,972 hectares). This represents approximately 20 percent of the South Sacramento County study area.

Selection of Survey Areas

Selection of survey areas was determined using the following methods:

1. The objective was to select one 36-square-mile area within each of the three South Sacramento County study area zones (Figure 2). A grid with 1-square-mile cells was placed over the entire South Sacramento County study area. Each cell

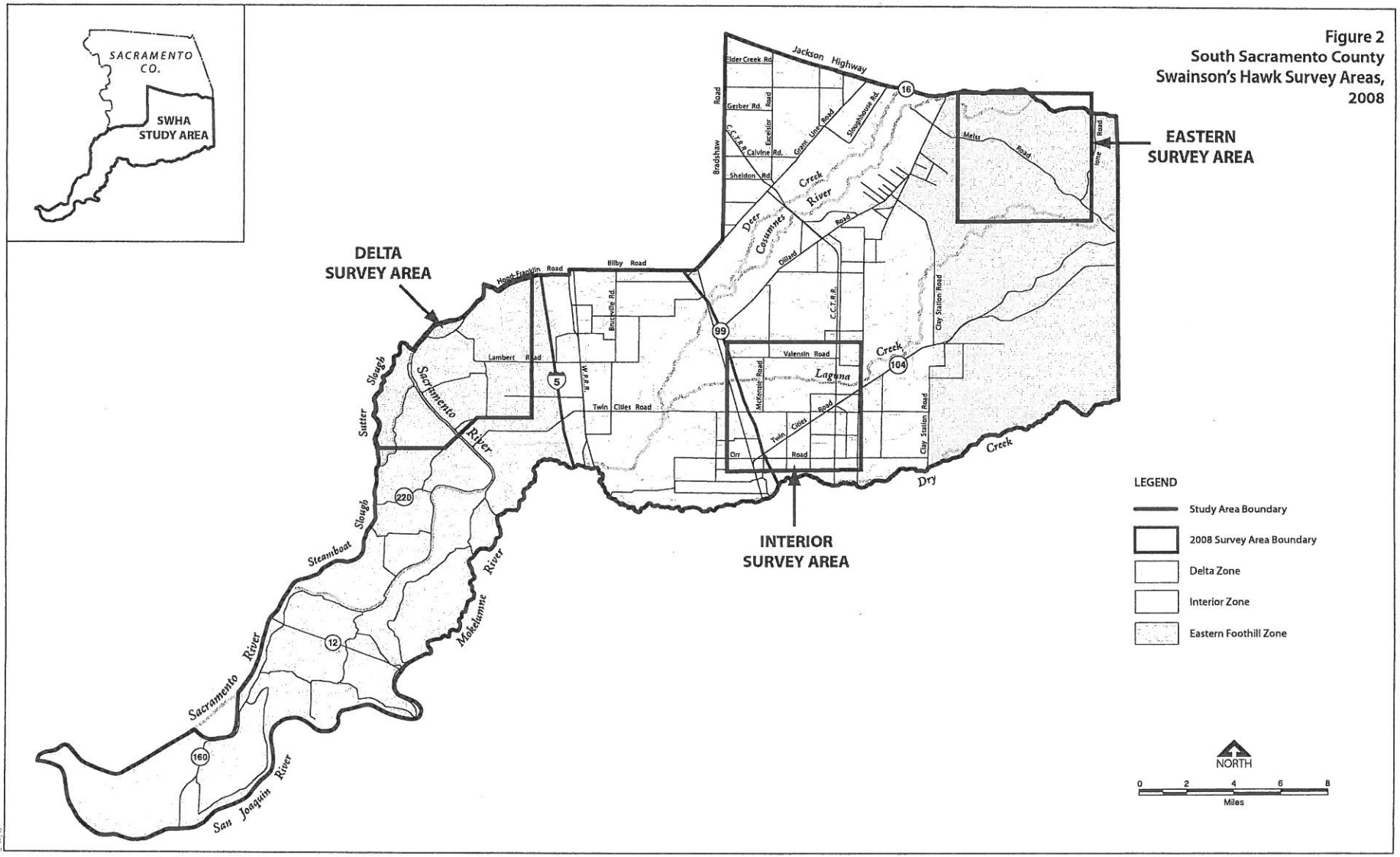


Figure 2
South Sacramento County
Swainson's Hawk Survey Areas,
2008

was numbered and one number was randomly selected from each of the geographic zones.

2. The selected number represented the southwest section within the central quadrant of a 36-square-mile township (six by six mile), or roughly the center of the survey area.
3. While constructing the 36-square-mile survey area from this one-square-mile central cell, if the survey area extended beyond the boundary of either the South Sacramento County study area or the South Sacramento County study area zone (i.e., Delta, Interior, Eastern Foothill) from which it was selected, and if the area outside of the boundary represented less than 10 percent of the entire survey area, then the six by six square-mile configuration would be retained and the area outside of the boundary was included in the survey area. However, if greater than 10 percent was outside of the boundary, then the shape of the survey area would be reconfigured to fit into the study area or study area zone using roads or other geographic features as boundaries to the extent possible – but would still be roughly 36 sq mi.

Using this method, three survey areas were selected (Figure 2). The Delta Survey Area was reconfigured into the South Sacramento County study area as described above. The Interior Survey Area was entirely within the study area and Interior Zone. Less than 10 percent of the Eastern Foothill Survey Area was outside of the study area boundary, and so it was retained within the survey area (Figure 2).

Surveys

The goal of the survey was to record all active nests within the study area to the extent feasible. While the survey focused primarily on nesting Swainson's hawks, activity and nesting data were also collected on several other species that compete for nesting and/or foraging habitat resources and may influence the distribution and abundance of Swainson's hawk, including red-tailed hawk (*Buteo jamaicensis*), red-shouldered hawk (*Buteo lineatus*), white-tailed kite (*Elanus leucurus*), and great-horned owl (*Bubo virginianus*). The intent was to generally indicate how these species were distributed across the landscape.

The survey was designed as a complete census. All potential nesting areas within the study area were surveyed equally according to the protocol described below regardless of past survey effort or existing data on Swainson's hawk nests.

Surveys were conducted by systematically driving all available roads within each survey area. Where roads were not available to drive or where there were no roads to access potential nest trees, the survey was conducted on foot unless access to private property was not granted. All potential nest trees were searched for nests and adult Swainson's Hawks using binoculars and/or a spotting scope. Photographs were taken of each active nest site and surrounding land use.

Surveys were conducted in three phases. Phase one surveys were conducted early in the breeding season (late March to mid-April) to detect Swainson's hawk activity in the vicinity of all suitable nesting habitat. All suitable nesting habitats were checked for the presence of adult Swainson's Hawks and to note all nesting activity and behavior (e.g., nest construction, courtship flights, defensive behavior). Activity was noted and mapped on field maps; locations of active nests were documented on 7.5 minute USGS quadrangle maps and a hand-held GPS unit was used to record latitude-longitude locations of each nest.

Phase two surveys were conducted in mid-May through June to determine if breeding pairs detected during phase one surveys were actively nesting, to detect nest failures, and to resurvey all previously unoccupied potential nesting habitat for active nests. All active nest sites were mapped and characterized with respect to reproductive status and all relevant activities noted.

Phase three surveys were conducted from July through mid-August to determine nesting success. Each active nest was revisited to determine activity and reproductive status and to record the number of fledged young per nest.

Most nesting territories were visited on multiple occasions over the course of each survey phase in order to collect the necessary data.

All suitable nesting habitats were checked for the presence of adult Swainson's hawks and to note all nesting activity and behavior (e.g., nest construction, courtship flights, defensive behavior). All trees were searched for the presence of active nests. Nest site and habitat data were recorded on a standardized field form. Activity was noted and mapped on field maps; locations of active nests were documented on 7.5 minute USGS quadrangle maps and a hand-held GPS unit was used to record latitude-longitude locations of each nest.

Activity data were recorded based on the following definitions:

- An *active nesting territory* is defined as a nesting area that was occupied by a potentially breeding pair of Swainson's hawks throughout all or a significant portion of the breeding season. The location of the nesting territory was based on the location of the nest or if the nest was not located based on the primary area of observed activity within potential nesting habitat.

    - A *non-nesting pair* is defined as an active territory for which subsequent surveys confirmed the absence of an active nest.

    - An *unknown nesting pair* is defined as an active territory for which subsequent surveys were unable to confirm the presence or absence of an active nest.

- An *active nest* is defined as a nest site that is occupied by a breeding pair of Swainson's hawks, regardless of the reproductive outcome (i.e., independent of any reproductive parameter, including egg laying).
    - A *successful nest* is defined as an active nest that produced fledged young.
    - An *unsuccessful nest* is defined as an active nest that did not produce fledged young.
    - An *unknown outcome nest* is defined as an active nest for which subsequent surveys were unable to confirm the reproductive status of the nest.

Each active territory was also characterized with respect to broad habitat associations. The 2006 report identified nine land use/cover type categories that represented long-term land use patterns in the South Sacramento County study area, and were used to characterize relative habitat suitability at the landscape level. To further characterize these habitat associations with respect to nest site selection, a one-half mile radius area around each nest was evaluated according to these broad land use/cover type categories. The categories include the following:

- Irrigated Cropland (includes hay, grain, and row crops)
- Irrigated Cropland/Irrigated Pastureland
- Uncultivated Grassland
- Orchards
- Vineyards
- Oak Woodlands
- Rural Residential (Low Density)
- Urban (High Density)
- Open Water

Of these types, only Irrigated Cropland, Irrigated Pastureland, and Uncultivated Grasslands represent suitable foraging habitat for Swainson's hawk.

Each active nest site was characterized with respect to nesting habitat type and condition, tree species, and estimated tree and nest height. Nesting habitat types identified during the 2006 baseline survey include the following:

- *Riparian.* This includes valley oak, cottonwood, willow-dominated (and in some cases non-native trees [e.g., eucalyptus]) woodland along natural or channelized stream corridors.
- *Isolated Trees*. This includes isolated trees that are not associated with roadsides, residences, or other features.

- *Isolated Roadside Trees*. These are isolated trees found along roadsides, including native trees retained during road construction, 'volunteer' trees in road shoulders, and ornamental landscape trees.
- *Roadside Tree Row*. These are roadside trees that have been planted as windbreaks or barriers, but can also be a collection of remnant valley oak or other naturally-occurring trees allowed to grow and mature along the roadside.
- *Tree Row*. These are rows of trees along field borders or rural driveways and were usually planted as windbreaks or for landscaping.
- *Rural Residential*. These are trees that were planted for windbreaks, cover, shade, or ornamentals around rural farmsteads.
- *Groves and Savannahs*. These are small groves of valley oak or cottonwood trees or planted eucalyptus or other non-native trees.
- *Farmyard Trees*. These are trees planted around agricultural farmyards used for equipment staging and shade.

Results

Description of the Survey Areas

Delta Survey Area

The Delta survey area (Figure 3) is within the Delta Zone of the South Sacramento County study area. It is an irregularly-shaped area west of Interstate 5 and south of Hood-Franklin Road. From the northeast corner, the survey area boundary follows Hood-Franklin Road west to the Sacramento River. From that point, the boundary follows the county line southwest along the Sacramento River to Sutter Slough where it continues southward for approximately 0.7 miles before turning eastward. The boundary continues eastward across Steamboat Slough until it reaches Leary Road. The boundary continues northeast along Leary Road to the Sacramento River, then continues across the river to Vorden Road, where it continues eastward for 1.2 miles and then turns due north toward Hood-Franklin Road.

Several large watercourses border or extend through the Delta Survey Area including the Sacramento River, Sutter Slough, Steamboat Slough, Snodgrass Slough, and Stone Lake. The survey area consists primarily of intensively-farmed irrigated croplands, including a variety of annually rotated grain and row crops, alfalfa and other hay crops, vineyards, and orchards, which are common along the edges of the major watercourses (Refer to Estep 2007). The Delta Survey Area supports the highest proportion of orchards and vineyards of the three survey areas. There are also some areas, particularly east of Stone Lake and north of Lambert Road, that consist largely of grazed irrigated pastureland. Other than a very small urban area associated with the town of Hood in the far northwest corner and scattered rural residences, there is no urban development within the Delta Survey Area.

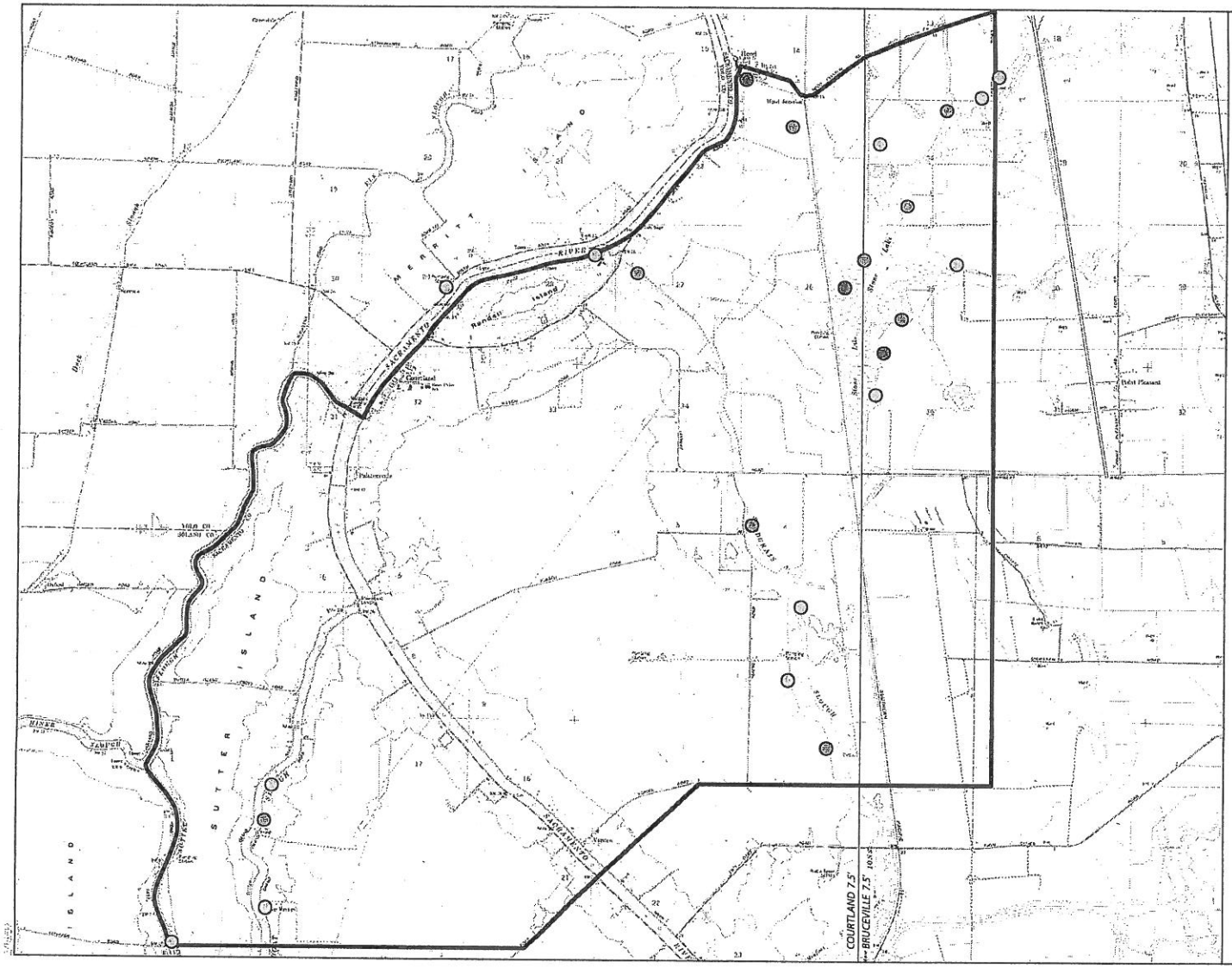
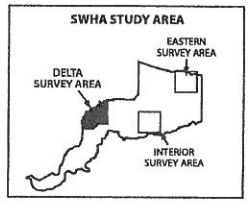


Figure 3
Delta Survey Area

LEGEND

- 2008 Survey Area Boundary
- Swainson's hawk
- Red-tailed hawk
- Red-shouldered hawk



NORTH

0 1,000 2,000 3,000 4,000 5,000

Feet

Base Map: USGS 7.5'-Series Bruceville (1968, PR 1980) and Courtland (1978, Rev. 1993) Quadrangles

With the exception of orchards and vineyards, the Delta Survey Area generally supports high value Swainson's hawk foraging habitat in the form of irrigated croplands and irrigated pasturelands (Plates 1 and 2).

Potential nesting habitat in the Delta Survey Area consists primarily of riparian woodland found along the major watercourses. The most extensive riparian woodlands occur along the edges of Stone Lake and portions of Snodgrass Slough. Additional potential nesting habitat includes roadside trees, trees associated with rural residences and farmyards, trees along fence rows and irrigated ditches, and occasional isolated trees (Plates 3 and 4).

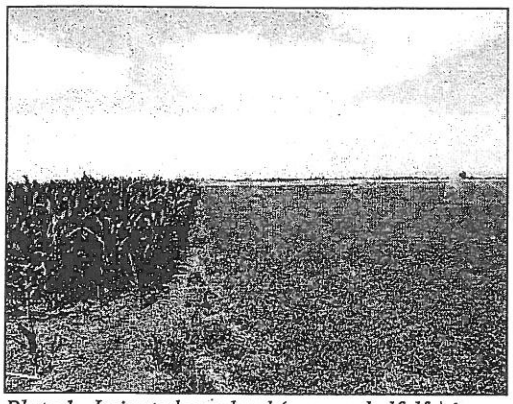


Plate 1. Irrigated cropland (corn and alfalfa) in the Delta Survey Area.

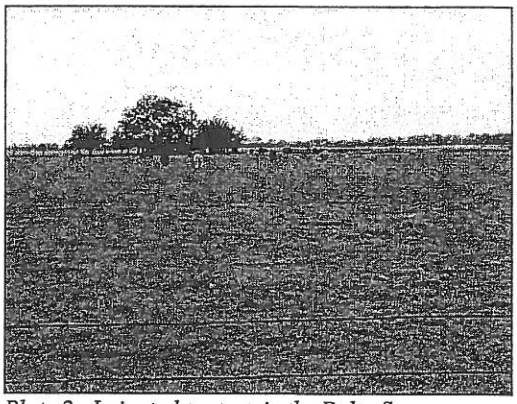


Plate 2. Irrigated pasture in the Delta Survey Area.

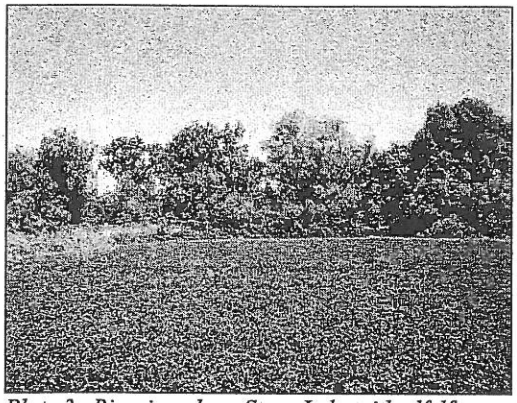


Plate 3. Riparian along Stone Lake with alfalfa field in foreground.

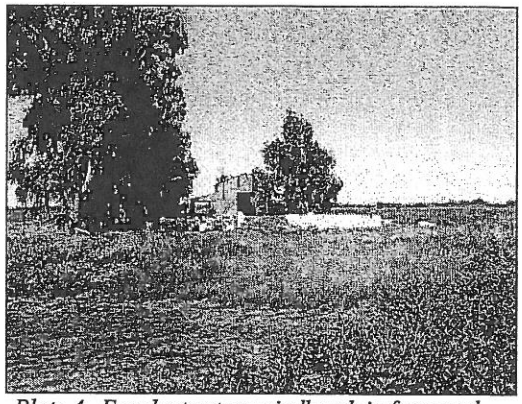
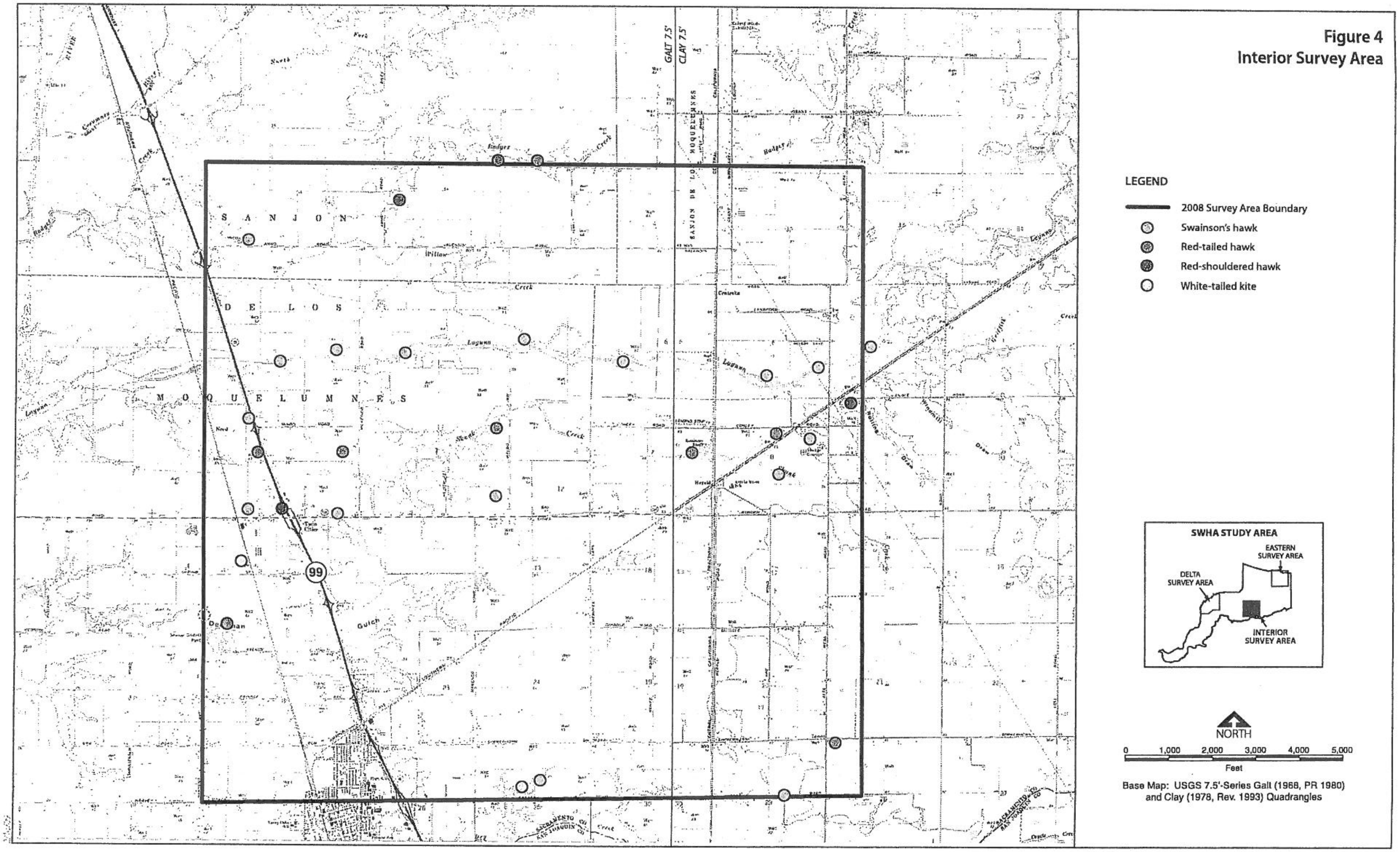


Plate 4. Eucalyptus tree windbreak in farmyard near Stone Lake.

Interior Survey Area

The Interior Survey Area (Figure 4) is within the Interior Zone of the South Sacramento County study area. The survey area is a six-by-six-mile township-sized area in the south-central portion of Sacramento County. The northern boundary is partially defined by Arno Road and extends westward to 0.25 miles east of State Route 99 and eastward to

Figure 4
Interior Survey Area



Base Map: USGS 7.5'-Series Galt (1968, PR 1980) and Clay (1978, Rev. 1993) Quadrangles

0.25 miles east of Alta Mesa Road. From the southwest corner, the western boundary extends northward along Sargent Avenue and Midway Road. The southern boundary is Harvey Road west of State Route 99 and Boessow Road east of State Route 99, and the eastern boundary extends along a north-south line 0.25 miles east of Alta Mesa Road.

The Interior Survey Area is characterized by a mixture of irrigated croplands and irrigated pasturelands (Plates 5 and 6). This area is less intensively cultivated than the Delta Survey Area, supporting large areas of grazed irrigated pastures as well as numerous smaller irrigated pastures around rural residences. A portion of the northwest corner consists of uncultivated grazed grasslands just south of Badger Creek. Much of the southwest corner is urbanized around the City of Galt, and compared with the Delta and Eastern Foothill Survey Areas, the Interior Survey Area supports a higher density of rural residential development (Refer to Estep 2007). One major watercourse, Laguna Creek, extends east-west through the northern portion of the survey area. Several smaller drainages, including Deadman Gulch and Skunk Creek, also extend through portions of the survey area.

With the exception of the high density urban areas around Galt, much of the area associated with low-density urban areas, and a vineyard near the northeast corner, the entire survey area is considered suitable Swainson's hawk foraging habitat.

Nesting habitat is relatively abundant in the Interior Survey Area compared with the Delta and Eastern Survey Areas. Potential riparian nesting habitat occurs along Laguna Creek and several small drainages. Roadside trees, small groves, and tree rows occur throughout the area (Plates 7 and 8).

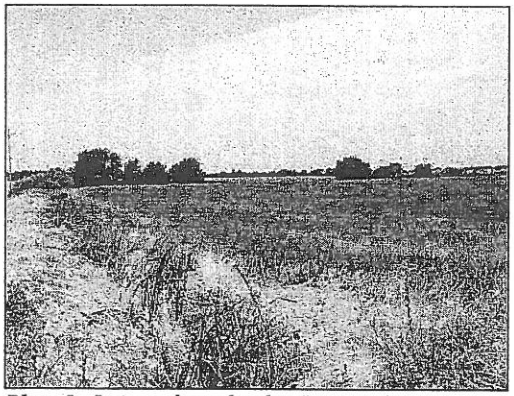


Plate 5. Irrigated cropland in Interior Survey Area.

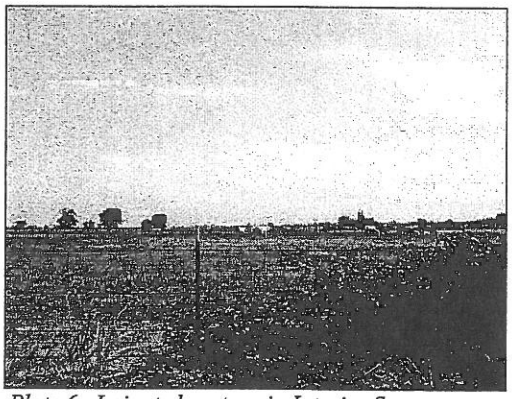


Plate 6. Irrigated pasture in Interior Survey Area.

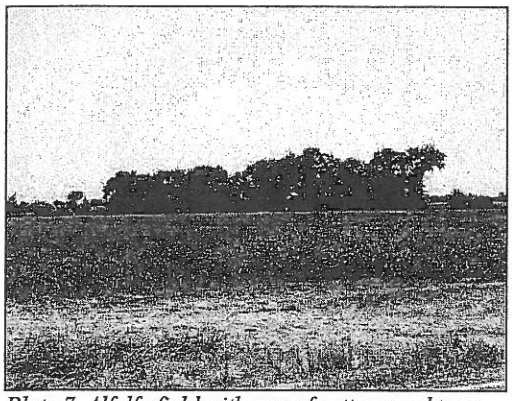


Plate 7. Alfalfa field with row of cottonwood trees along field border south of Simmerhorn Road.

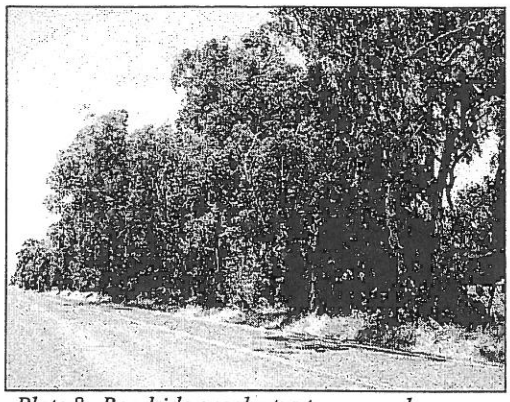


Plate 8. Roadside eucalyptus tree row along Marengo Road near Galt.

Eastern Survey Area

The Eastern Survey Area (Figure 5) is within the Eastern Foothill Zone of the South Sacramento County Study Area. It is 36-square-mile block located in the northwest corner of the study area. The northwest corner of the survey area is approximately 0.3 miles northeast of the Highway 16 and Dillard Road intersection. The western border extends 6 miles due south from the northwest corner. The northern border extends roughly along Highway 16, which is the northern border of the South Sacramento County Study Area; but continues north of the highway due eastward to the northeast corner. Thus, a small portion of the survey area (less than 10 percent) is outside of the South Sacramento County Study Area. The northeast corner is at approximately Michigan Bar Road 0.8 miles north of Highway 16. The eastern border generally follows Ione Road to approximately the Laguna Creek/Willow Creek confluence. The southern border extends 6 miles due west from this confluence.

The Eastern Survey Area is characterized primarily by rolling hills with open uncultivated grasslands (Plate 9). The Cosumnes River extends east-west across the northern portion of the survey area and Laguna Creek extends through much of the southern portion of the survey area. Cattle grazing is the principal land use throughout the survey area. However, patches of irrigated croplands occur in the Cosumnes River and Laguna Creek floodplains. A large patch of dredge tailings from early mining activity extends northeast to southwest across the survey area from the Cosumnes River to the southwest corner of the survey area. While the majority of the survey area is open, mostly treeless grassland, cottonwood groves have developed in association with the dredge tailings and scattered valley oak trees occur throughout much of the survey area but primarily in the southeast corner (Plates 10 and 11). In addition, the Cosumnes River supports mature cottonwood/valley oak riparian forest and Laguna Creek supports intermittent trees along its length (Plate 12).

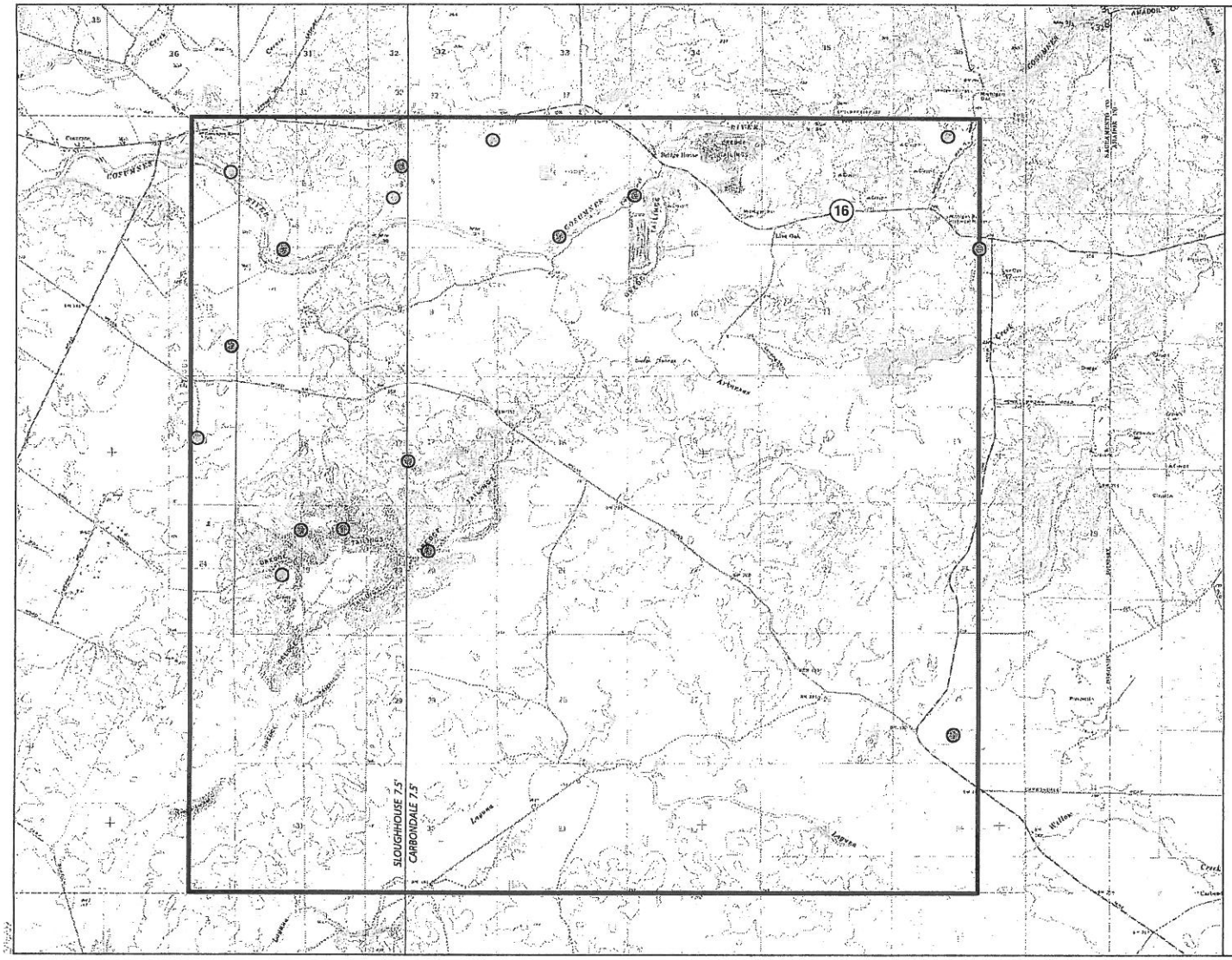
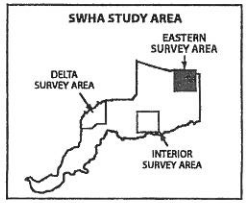


Figure 5
Eastern Survey Area

LEGEND

- 2008 Survey Area Boundary
- Swainson's hawk
- Red-tailed hawk



NORTH

0 1,000 2,000 3,000 4,000 5,000

Feet

Base Map: USGS 7.5'-Series Sloughhouse (1968, PR 1980) and Carbondale (1978, Rev. 1993) Quadrangles

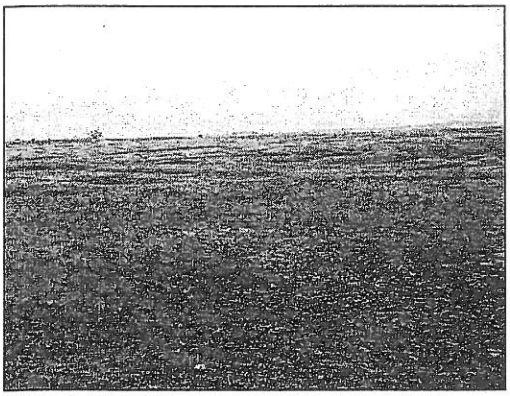


Plate 9. Uncultivated grasslands along Meiss Road.

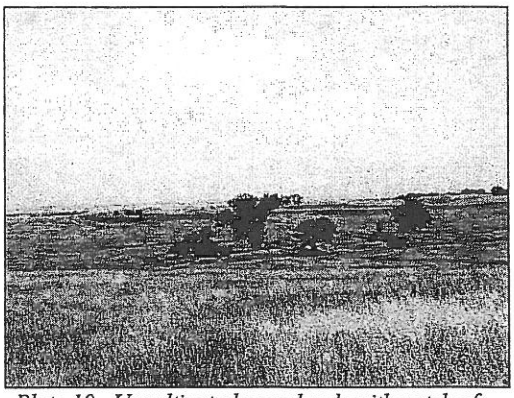


Plate 10. Uncultivated grasslands with patch of cottonwood trees in dredge tailings.

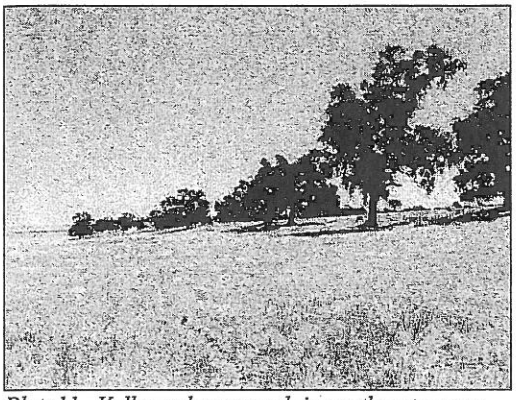


Plate11. Valley oak savannah in southeast corner of Eastern Survey Area.

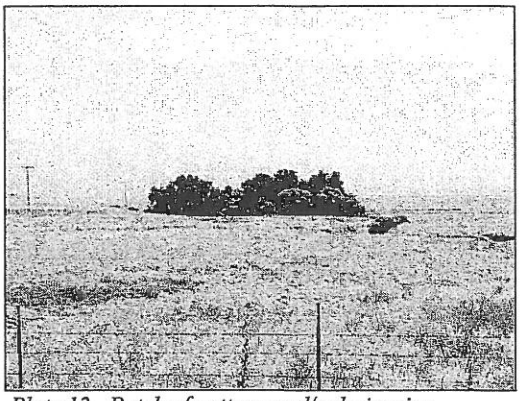


Plate 12. Patch of cottonwood/oak riparian woodland along Laguna Creek.

Distribution and Abundance

Delta Survey Area

Figure 3 illustrates the distribution of Swainson's hawk territories in the Delta Survey Area in 2008. Table A-1 (Appendix A) provides the location, activity, habitat association, and reproductive data for each territory. Table 1 summarizes activity data.

A total of 13 active Swainson's hawk territories were identified. All 13 were confirmed to have nested, and of the active nests, ten (76.9%) successfully reared young to fledging. Similar to the 2006 baseline survey, nests were concentrated along the major watercourses, where most of the available nesting habitat exists.

Table 1. Activity Data for Swainson's Hawk Nesting Territories within the South Sacramento County Study Area, Delta Survey Area, 2008.

	Number	Percent of Total Active Territories	Percent of Total Active Nests
Active Territories	13		
Not Nesting (NN)	0		
Unknown Nesting (UN)	0		
Active Nests (S, U, UO)	13	100	
Successful Nests (S)	10		76.9
Unsuccessful Nests (U)	2		15.4
Unknown Outcome (UO)	1		7.7
Total		100	100

Fourteen active territories were identified within the Delta Survey Area during the 2006 baseline survey. Five of these were not active in 2008. Of the 13 active territories identified in 2008, nine were active in 2006 and four were new locations not recorded in 2006.

Territory density was similar within the Delta Survey Area in 2006 (0.39 territories per square mile) and 2008 (0.36 territories per square mile), and was higher than the territory density for the Delta Zone in 2006 (0.27 territories per square mile).

In general, the distribution and abundance of Swainson's hawks within the Delta Survey Area is similar to 2006 baseline survey. No significant changes have occurred in terms of the distribution and abundance of the species, land uses, or land management.

Interior Survey Area

Figure 4 illustrates the distribution of Swainson's hawk territories in the Interior Survey Area in 2008. Table A-2 (Appendix A) provides the location, activity, habitat association, and reproductive data for each territory. Table 2 summarizes activity data.

Table 2. Activity Data for Swainson's Hawk Nesting Territories within the South Sacramento County Study Area, Interior Survey Area, 2008.

	Number	Percent of Total Active Territories	Percent of Total Active Nests
Active Territories	18		
Not Nesting (NN)	0		
Unknown Nesting (UN)	0		
Active Nests (S, U, UO)	18	100	
Successful Nests (S)	13		72.2
Unsuccessful Nests (U)	2		11.1
Unknown Outcome (UO)	3		16.7
Total		100	100

A total of 18 active Swainson's hawk territories were identified in the Interior Survey Area. All 18 were confirmed to have nested, and of the active nests 13 (72.2%) successfully reared young to fledging. Similar to the 2006 baseline survey, nests were concentrated along Laguna Creek, and along roadsides, tree rows, and isolated trees. The abundance and diversity of nesting habitat is greater in the Interior Survey Area compared with the Delta and Eastern Survey Areas.

Twenty-three active territories were identified within the Interior Survey Area during the 2006 baseline survey. Nine of these were not active in 2008. Of the 18 active territories identified in 2008, 14 were active in 2006 and four were new locations not recorded in 2006.

Territory density was lower within the Interior Survey Area in 2008 (0.50 territories per square mile) than in 2006 (0.64 territories per square mile), but is only slightly lower than the density for the Interior Zone in 2006 (0.56 territories per square mile).

The distribution of Swainson's hawk territories within the Interior Survey Area is generally similar to 2006 baseline survey; however, the number of active territories declined by 22 percent. Consistent with the 2006 baseline survey results, the Interior Survey Area supported the highest nesting density of the three survey areas. While there has been some additional urban development around the City of Galt and some additional rural development, there have been no significant land use changes within the survey area that could be directly attributed to the reduction in active territories. Instead, differences between these survey results and the 2006 baseline results are likely attributable to local movements of breeding pairs and annual variation in nesting activity.

Eastern Survey Area

Figure 5 illustrates the distribution of Swainson's hawk territories in the Eastern Survey Area in 2008. Table A-3 (Appendix A) provides the location, activity, habitat association, and reproductive data for each territory. Table 3 summarizes activity data.

Table 3. Activity Data for Swainson's Hawk Nesting Territories within the South Sacramento County Study Area, Eastern Survey Area, 2008.

	Number	Percent of Total Active Territories	Percent of Total Active Nests
Active Territories	6		
Not Nesting (NN)	0		
Unknown Nesting (UN)	0		
Active Nests (S, U, UO)	6	100	
Successful Nests (S)	5		83.3
Unsuccessful Nests (U)	1		16.7
Unknown Outcome (UO)	0		0.0
Total		100	100

A total of 6 active Swainson's hawk territories were identified in the Interior Survey Area. All 6 were confirmed to have nested, and of the active nests 5 (83.3%) successfully reared young to fledging. Similar to the 2006 baseline survey, most nests were concentrated along the Cosumnes River floodplain. Four of the six sites were associated with riparian habitat, one in an isolated tree, and one in a cottonwood grove.

Four active territories were identified within the Interior Survey Area during the 2006 baseline survey, three of which were not active in 2008. Of the six active territories identified in 2008, 2 were active in 2006 and four were new locations not recorded in 2006.

Territory density was higher within the Interior Survey Area in 2008 (0.17 territories per square mile) than in 2006 (0.11 territories per square mile), and higher than the density for the Interior Zone in 2006 (0.09 territories per square mile).

While two additional nesting territories were identified in 2008, in general the distribution and abundance of Swainson's hawks within the Eastern Survey Area is similar to 2006 baseline survey. Also, consistent with the 2006 baseline survey results, the Eastern Survey Area supports the lowest nesting density of the three survey areas. No significant changes have occurred in terms of the distribution and abundance of the species, land uses, or land management.

Combined Data

Table 4 summarizes the combined data for the three survey areas. A total of 37 active territories were identified. All 37 were confirmed to have nested, and of the active nests 28 (75.7%) successfully reared young to fledging.

Table 4. Activity Data for Swainson's Hawk Territories within the South Sacramento County Study Area; Combined Data for the Delta, Interior, and Eastern Survey Areas, 2008.

	Number	Percent of Total Active Territories	Percent of Total Active Nests
Active Territories	37		
Not Nesting (NN)	0		
Unknown Nesting (UN)	0		
Active Nests (S, U, UO)	37	100	
Successful Nests (S)	28		75.7
Unsuccessful Nests (U)	5		13.5
Unknown Outcome (UO)	4		10.8
Total		100	100

Territory density was similar within the combined survey areas (0.34 territories per square mile) to the 2006 baseline survey (0.37 territories per square mile). Distribution and abundance has not changed significantly, and observed changes may be attributed to local movements of breeding pairs and annual differences in activity patterns.

Habitat Associations

Land Use/Foraging Habitat

Consistent with the 2006 baseline survey, habitat associations were evaluated on the basis of land use/cover type categories within a one-half mile radius of each nest. This was done to characterize foraging habitat associations in the immediate vicinity of nest sites and to characterize land use patterns associated with nest site selection.

Delta Survey Area. The general land use pattern in the Delta Survey Area consists primarily of intensively-farmed irrigated cropland. Irrigated pasturelands occur in the area east of Stone Lake and orchards and vineyards are common along the edges of the major watercourses. Urbanization within the survey area consists of widely scattered rural residences and has little influence on Swainson's hawk distribution and abundance or habitat use. The entire survey area with the exception of orchards, vineyards, and open water areas (i.e., Stone Lake) represent suitable foraging habitat for Swainson's hawks.

All 13 nest sites in the Delta Survey Area were associated with irrigated cropland. Three were also associated with irrigated pasturelands in the vicinity of Stone Lake. Because orchards and vineyards were common along the edges of the major watercourses where most nesting habitat occurs in the Delta Survey Area, seven of the 13 sites were also associated with either orchards or vineyards. One site was associated with a rural residence and one with open water at Stone Lake (Table 5).

Interior Survey Area. The general land use pattern in the Interior Survey Area consists predominantly of a mixture of irrigated pastures and irrigated croplands, both considered high value Swainson's hawk foraging habitat types. The extent of irrigated pasturelands intermixed with irrigated farmland in the Interior Zone resulted in these types being combined during the 2006 baseline survey into a single land use/cover type: irrigated cropland/irrigated pastureland. The entire survey area, with the exception of urban areas in and around the City of Galt and some low-density residential areas, and a vineyard near the northeast corner of the survey area, represent suitable foraging habitat for Swainson's hawks.

Sixteen of the eighteen territories in the Interior Survey Area and 51.4 percent of all territories were associated exclusively with the irrigated cropland/irrigated pasture type (Table 5). Two sites were also associated with urban development.

Eastern Survey Area. The general land use pattern in the Eastern Survey Area consists predominantly of uncultivated grazed grasslands. Irrigated cropland and irrigated

pastures are restricted mainly to the floodplains of the Cosumnes River in the northern portion of the survey area and Laguna Creek in the southern portion of the survey area. With the exception of a vineyard in the northwest corner of the survey area, the entire survey area is considered suitable Swainson's hawk foraging habitat.

All six nesting territories in the Eastern Survey Area were associated with uncultivated grasslands, three of which were also associated with irrigated croplands (Table 5).

Table 5. Land Use/Habitat Associations within a one-half mile radius around Swainson's Hawk Nest Sites, South Sacramento County Study Area, 2008.

Habitat Association	Number of Territories				Percent of Total
	Delta	Interior	Eastern	Total	
IC	1			1	2.7
IC/IP	3	16		19	51.4
IC/O	5			5	13.5
IC/V	2			2	5.4
IC/IP/RR	1			1	2.7
IC/IP/U		1		1	2.7
IC/IP/OW	1			1	2.7
IC/IP/RR/U		1		1	2.7
UG			3	3	8.1
UG/IC			2	2	5.4
UG/IC/IP			1	1	2.7
Total	13	18	6	37	100

Key: IC – Irrigated Cropland; IP – Irrigated Pasture; O – Orchard; V – Vineyard; RR – Rural Residential; U – Urban; OW – Open Water; UG – Uncultivated Grassland;

Land use/habitat associations were similar to the results in the 2006 baseline survey, particularly the predominant association with irrigated cropland/irrigated pastureland type (55.3% were associated with this type in 2006 and 51.4% were associated with this type during this survey [Table 5]). Also, the 2006 baseline report did not differentiate orchards and vineyards from irrigated cropland, as is done in Table 5. When these types are combined, the results (21.6%) are also similar to the 2006 baseline report (20.7%).

Nesting Habitat

Table 6 indicates the nesting habitat associations of each Swainson's hawk nesting territory. Consistent with the results from the 2006 baseline survey (62.8%), the majority of sites were associated with riparian habitat (55.6%). The associations with other nesting habitat types were also generally similar to the 2006 baseline survey results.

Table 6. Nesting Habitat Associations of Swainson's Hawk Territories in the South Sacramento County Study Area, 2008

Nesting Habitat Type	Number of Territories				Percent of Total
	Delta	Interior	Eastern	Total	
Riparian	7	10	3	20	55.6
Channelized Riparian			1	1	2.8
Roadside Tree	2	1		3	8.3
Roadside Tree Row	2	1		3	8.3
Tree Row	1	2		3	8.3
Isolated Tree		1	1	2	5.6
Rural Residential	1			1	2.8
Mixed Grove		1		1	2.8
Eucalyptus Grove		1		1	2.8
Cottonwood Grove			1	1	2.8
Total	13	17	6	36	100

Table 7 indicates the tree species used by nesting Swainson's hawks. Consistent with the 2006 baseline survey, cottonwood (27.8%) and valley oak (25.0%) are used predominantly. However, eucalyptus is also an increasingly important nest tree species for Swainson's hawks comprising 25% of all nest trees (Table 7), compared with 15.1 percent in 2006 (Estep 2007) (Plates 13 through 17).

Table 7. Nest Tree Species used by Nesting Swainson's Hawks in the South Sacramento County Study Area, 2008.

Tree Species	Number of Active Nest Sites				Percent of Total
	Delta	Interior	Eastern	Total	
Cottonwood	6	1	3	10	27.8
Valley Oak	1	7	1	9	25.0
Eucalyptus	3	5	1	9	25.0
Willow	2	2	1	5	13.9
Walnut		1		1	2.8
Locust		1		1	2.8
Redwood	1			1	2.8
Total	13	17	6	36	100

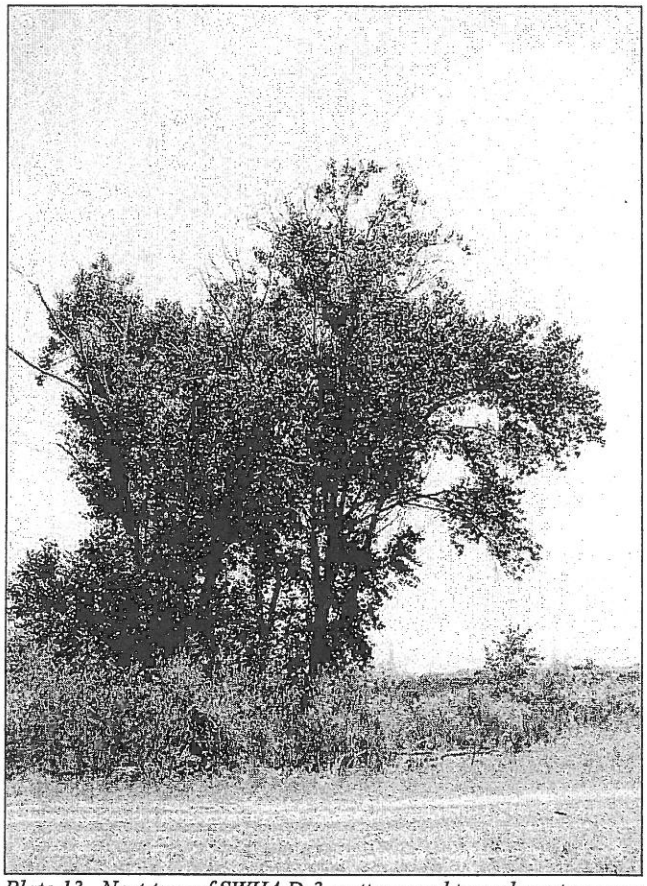


Plate 13. Nest tree of SWHA D-3, cottonwood tree along tree row, Delta Survey Area.

Plate 14. Nest of SWHA D-3, Delta Survey Area.

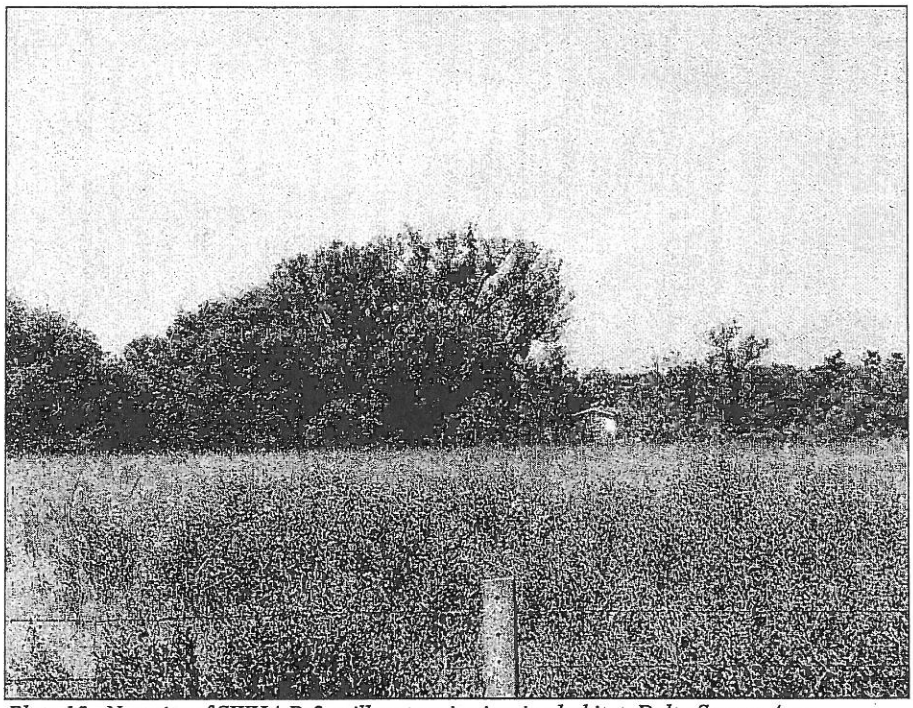


Plate 15. Nest site of SWHA D-2, willow tree in riparian habitat, Delta Survey Area.

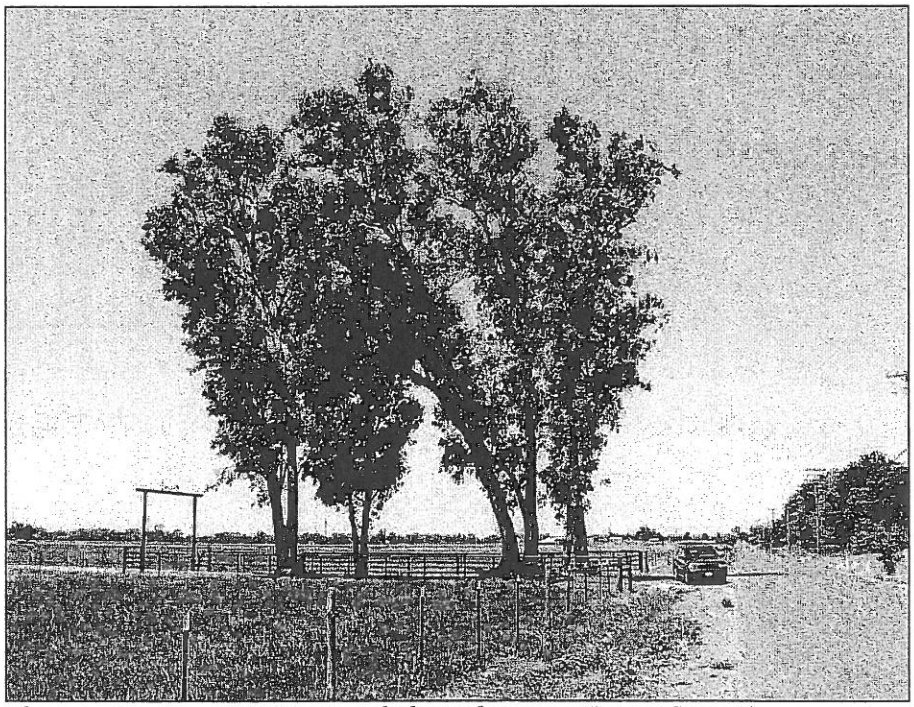


Plate 16. Nest tree of SWHA I-17, roadside eucalyptus tree, Interior Survey Area.

Plate 17. Nest of SWHA E-2, valley oak tree in riparian habitat, Eastern Survey Area.

Reproduction

Reproductive performance is calculated on the basis of the number of fledged young. While data are collected on the number of nestlings at various ages, these data are inconsistent due to the inability to observe nests sufficiently to confirm the number of nestlings from all nests at various stages of the breeding cycle. Data on the number of eggs per nest are also not calculated because of the risk of nest abandonment during the sensitive incubation phase of the breeding cycle. Reproductive data are presented in Table 8.

A total of 37 fledged young were recorded. This equates to 1.6 young per successful nest, which is higher than that reported for the 2006 baseline survey (1.46 young per successful nest).

Table 8. Reproductive Performance of Swainson's Hawks in the South Sacramento County Study Area, 2008.

	Delta	Interior	Eastern	Total	
Active Nests (S, U, UO)	13	18	6	37	
Successful Nests (S)	10	13	5	28	
Unsuccessful Nests (U)	2	2	1	5	
Unknown Outcome (UO)	1	3	0	4	
Number of Young	16	21	8	45	
Total Number of Young					45
Number of Young per Nesting Attempt (S+U)					1.22
Number of Young per Successful Nest					1.61

Distribution and Abundance of Other Nesting Raptors

Figures 4 through 6 illustrate the locations of other diurnal stick-nest-building raptors in the survey areas. Tables A-4 through A-6 (Appendix A) provides the location, activity, habitat association, and reproductive data for each territory. Distribution and abundance of other raptors is similar to that reported in the 2006 baseline survey. Active sites for red-shouldered hawk, white-tailed kite, and great-horned owl are likely under-reported due to some access restrictions within the survey areas, particularly along riparian corridors where these species are likely to occur and are less detectable from offsite vantage points due to their behavior and concealed nest site locations compared with Swainson's hawk and red-tailed hawk. Detectability of red-tailed hawk is similar to Swainson's hawk and the data sets for these species are more comparable and relevant due to similar habitat selection and use between the two species. Consistent with the 2006 baseline report, Table 9 compares combined activity data of Swainson's hawks and red-tailed hawks in the three survey areas.

Similar to results from the 2006 baseline survey, nesting Swainson's hawks were more common in the combined survey area than red-tailed hawks by approximately 20 percent; however, red-tailed hawks were more common in the Eastern Survey Area than Swainson's hawks. Also consistent with the 2006 results, reproductive performance (number of young per successful nest) was higher among red-tailed hawks than Swainson's hawks.

Table 9. Comparison of Activity and Reproductive Data for Swainson's Hawk and Red-tailed Hawk within the South Sacramento County Study Area: Combined Data for the Delta, Interior, and Eastern Survey Areas, 2008.

	Swainson's Hawk			Red-tailed Hawk		
	No.	Percent of Active Nesting Territories	Percent of Total Active Nests	No.	Percent of Active Nesting Territories	Percent of Total Active Nests
Active Territories	37			29		
Not Nesting (NN)	0			0	0	
Unknown Nesting (UN)	0			0		
Active Nests (S, U, UO)	37	100		29	100	
Successful Nests (S)	28		75.7	21		72.4
Unsuccessful Nests (U)	5		13.5	2		6.9
Unknown Outcome(UO)	4		10.8	6		20.7
Total number of young	45			39		
Young per nesting attempt	1.22			1.34		
Young per successful nest	1.61			1.86		
Total		100	100		100	100

Conclusions and Recommendations

Results of the 2008 survey suggest that the distribution and abundance of the South Sacramento County Swainson's hawk nesting population has not changed significantly since the 2006 baseline survey and that differences between the two survey years are likely attributable to annual variation in nesting activity. Additional years of monitoring will be required in order to detect trends in the distribution and abundance of this population, to assess the effects of additional urbanization and other land use changes within the study area, and to assess the effectiveness of conservation activities.

Recommendations

1. Continue to monitor the South Sacramento County Swainson's hawk nesting population sufficient to detect trends in the population and to monitor and assess the effectiveness of conservation activities.
2. Monitor the population according to a consistent time interval and using randomly selected sampling plots stratified by the geographic areas identified in the baseline survey report.
3. Strategize preserve acquisition efforts with the goal of sustaining the existing Swainson's hawk population levels in South Sacramento County. This requires a broad landscape vision that considers long-term land use patterns, land

management, and understanding of the species at the site-specific and landscape levels.

4. Consolidate planned urbanization to reduce fragmentation of agricultural landscapes.

Literature Cited

California Department of Fish and Game (CDFG). 1994. Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (*Buteo swainsoni*) in the Central Valley of California. California Department of Fish and Game, Sacramento, CA.

Estep, J.A. 2007. The Distribution, Abundance, and Habitat Associations of the Swainson's Hawk (Buteo swainsoni) in South Sacramento County. Prepared by Estep Environmental Consulting for the City of Elk Grove.

Appendix A. Swainson's Hawk and Other Raptor Data

Table A-1. Swainson's Hawk Nesting Territories within the South Sacramento County Study Area, Delta Survey Area, 2008.

Territory Number	Quad Map	Location	Lat-long	Status	Nesting Habitat	Nest Tree Species	Land Use Association	Number of Young
SWHA-D1	Bruceville	Sprock Rd at Stone Lake	38 22.012/121 28.912	F	Roadside Tree	Eucalyptus	IC/IP	0
SWHA-D2	Bruceville	W of Sprock Rd at Stone Lake	38 21.872/121 29.038	S	Riparian	Willow	IC/IP/RR	1
SWHA-D3	Bruceville	0.8mi S Hood-Franklin, W of Stone Lake	38 21.559/121 29.915	S	Tree Row	Cottonwood	IC	1
SWHA-D4	Bruceville	Stone Lake, 1mi S of Hood-Franklin	38 21.388/121 29.630	F	Riparian	Cottonwood	IC/IP	0
SWHA-D5	Bruceville	Stone Lake, 2 mi S of Hood-Franklin	38 20.719/121 29.254	S	Riparian	Cottonwood	IC/IP	2
SWHA-D6	Bruceville	Stone Lake, 0.6 mi N of Lambert	38 19.790/121 29.950	S	Riparian	Willow	IC/IP/OW	2
SWHA-D7	Courtland	E side Sacramento R on Randall Island	38 20.804/121 32.237	S	Rural Residential	Redwood	IC/O	2
SWHA-D8	Courtland	W side Sacramento R at County Road 143	38 20.561/121 33.703	UO	Roadside Tree	Cottonwood	IC/O	
SWHA-D9	Courtland	Steamboat Slough, 1.5 mi S of Sacramento R.	38 17.046/121 35.232	S	Roadside Tree Row	Eucalyptus	IC/O	1
SWHA-D10	Courtland	Steamboat Slough, 2.2 mi S of Sacramento R.	38 16.115/121 35.276	S	Roadside Tree Row	Eucalyptus	IC/O	2
SWHA-D11	Courtland	Sutter Slough, 0.7 mi N of Steamboat Slough	38 15.935/121 36.100	S	Riparian	Valley Oak	IC/O	2
SWHA-D12	Courtland	Snodgrass Slough, 1.3 mi N of Twin Cities Rd	38 17.813/121 30.682	S	Riparian	Cottonwood	IC/V	2
SWHA-D13	Courtland	Snodgrass Slough, 2.0 mi N of Twin Cities Rd	38 18.291/121 30.601	S	Riparian	Cottonwood	IC/V	1

Key: S – Successful; F – Failed; UO – Unknown Outcome; IC – Irrigated Cropland; IP – Irrigated Pasture; RR – Rural Residential; OW – Open Water; O – Orchard; V - Vineyard

Table A-2. Swainson's Hawk Nesting Territories within the South Sacramento County Study Area, Interior Survey Area, 2008.

Territory Number	Quad Map	Location	Lat-long	Status	Nesting Habitat	Nest Tree Species	Land Use Association	Number of Young
SWHA-I1	Galt	Hicksville Cemetery, Arno Road	38 19.590/121 19.139	S	Grove	Locust	IC/IP	2
SWHA-I2	Galt	Laguna Creek, 0.8mi W of McKenzie Road	38 18.646/121 18.867	S	Riparian	Valley Oak	IC/IP	1
SWHA-I3	Galt	Laguna Creek, 0.3mi W of McKenzie Road	38 18.749/121 18.278	S	Riparian	Valley Oak	IC/IP	2
SWHA-I4	Galt	Laguna Creek, 0.4mi E of McKenzie Road	38 18.722/121 17.638	S	Riparian	Walnut	IC/IP	2
SWHA-I5	Galt	Laguna Creek, 1.5mi E of McKenzie Road	38 18.807/121 16.482	UO	Riparian	Valley Oak	IC/IP	
SWHA-I6	Galt	Laguna Creek, 2.3mi E of McKenzie Road	38 18.655/121 15.547	UO	Riparian	Valley Oak	IC/IP	
SWHA-I7	Galt	W. side of Hwy99 at Mingo Road	38 18.197/121 19.121	S	Roadside Eucalyptus Grove	Eucalyptus	IC/IP	1
SWHA-I8	Galt	0.3mi W Hwy99, 0.1mi N of Twin Cities Rd	38 17.581/121 19.143	S	Tree Row	Eucalyptus Snag	IC/IP/U	2
SWHA-I9	Galt	Twin Cities Road, 0.4mi E of Hwy99	38 17.488/121 18.297	S	Roadside Tree Row	Eucalyptus	IC/IP/RR/U	1
SWHA-I10	Galt	Northwest of Twin Cities and Waldo Road	38 17.573/121 16.736	F	Tree Row	Eucalyptus	IC/IP	0
SWHA-I11	Galt	0.2mi N of Boessow Rd 0.5mi E of Marengo Rd	38 15.438/121 16.333	S	Riparian	Willow	IC/IP	2
SWHA-I12	Clay	Laguna Creek, 0.6mi W of Alta Mesa	38 18.552/121 14.224	S	Riparian	Valley Oak	IC/IP	2
SWHA-I13	Clay	Laguna Creek, 0.1mi W of Alta Mesa	38 18.634/121 13.680	S	Riparian	Valley Oak	IC/IP	1
SWHA-I14	Clay	Laguna Creek, 0.3mi E of Alta Mesa	38 18.749/121 13.270	UO	Riparian	Valley Oak	IC/IP	
SWHA-I15	Clay	SW of Conley Road and Alta Mesa	38 18.059/121 13.796	F	Isolated Tree	Cottonwood	IC/IP	0
SWHA-I16	Clay	Skunk Creek, 0.4mi N of Borden Road	38 17.816/121 14.034	S	Riparian	Willow	IC/IP	2

SWHA-I17	Clay	Boessow Road, 0.4mi W of Alta Mesa	38 15.329/121 13.982	S	Isolated Roadside Tree	Eucalyptus	IC/IP	2
SWHA-118	Galt	N of Boessow Road, W of Marengo Road	38 15.356/121 17.216	S	Unconfirmed	Unconfirmed	IC/IP	1

Key: S – Successful; F – Failed; UO – Unknown Outcome; IC – Irrigated Cropland; IP – Irrigated Pasture; RR – Rural Residential; U - Urban

Table A-3. Swainson's Hawk Nesting Territories within the South Sacramento County Study Area, Eastern Survey Area, 2008.

Territory Number	Quad Map	Location	Lat-long	Status	Nesting Habitat	Nest Tree Species	Land Use Association	Number of Young
SWHA-E1	Sloughhouse	Cosumnes River, 0.6mi E of Dillard Rd	38 29.373/121 09.044	S	Riparian	Cottonwood	UG/IC	2
SWHA-E2	Sloughhouse	0.2mi S of Hwy 16, 2 mi E of Dillard Rd.	38 29.206/121 07.740	S	Riparian	Valley Oak	UG/IC	2
SWHA-E3	Sloughhouse	0.5mi S of Meiss Rd, 1.3mi E of Dillard Rd	38 27.587/121 09.364	F	Isolated Tree	Eucalyptus	UG	0
SWHA-E4	Sloughhouse	1.4mi S of Meiss Rd, 2.3mi E of Dillard Rd	38 26.658/121 08.593	S	Cottonwood Grove	Cottonwood	UG	2
SWHA-E5	Carbondale	0.2mi S Hwy16, 0.7mi W Lone Pine	38 29.631/121 06.868	S	Channelized Riparian	Cottonwood	UG/IC/IP	1
SWHA-E6	Carbondale	0.2m W Mich.Bar Rd, 0.7mi N Hwy16	38 29.672/121 03.033	S	Riparian	Willow	UG	1

Key: S – Successful; F – Failed; IC – Irrigated Cropland; IP – Irrigated Pasture; UG – Uncultivated Grassland

Table A-5. Other Raptor Nesting Territories within the South Sacramento Study Area, Interior Survey Area, 2008.

Territory Number	Quad Map	Location	Lat-long	Status	Nesting Habitat	Nest Tree Species	Land Use Association	Number of Young
RTHA-I1	Galt	Arno Road, 0.7mi W of Kerry Lane	38 20.188/121 16.814	S	Roadside Tree Row	Eucalyptus	IP/IC	2
RTHA-I2	Galt	Arno Road, 0.4mi W of Kerry Lane	38 20.188/121 16.389	F	Isolated Roadside Tree	Eucalyptus	IP/IC	0
RTHA-I3	Galt	W. side of Hwy99, 0.2mi S of Mingo Road	38 17.991/121 19.031	S	Isolated Roadside Tree	Eucalyptus	IP/IC	1
RTHA-I4	Galt	Skunk Creek, 0.1mi W of McKenzie Road	38 17.971/121 18.215	S	Riparian	Willow	IP/IC	2
RTHA-I5	Galt	Skunk Creek near Waldo Road	38 18.180/121 16.717	S	Eucalyptus Grove	Eucalyptus	IP/IC	2
RTHA-I6	Galt	Deadman Gulch, 0.2mi E of Midway	38 16.628/121 19.404	S	Riparian	Cottonwood	IP/IC/RR	2
RTHA-I7	Clay	Conley and Twin Cities Road	38 18.112/121 14.086	S	Small Eucalyptus Grove	Eucalyptus	IC/IP	2
RTHA-I8	Clay	0.2mi S of Conley, 1.2mi W of Alta Mesa	38 17.957/121 14.828	UO	Tree Row	Eucalyptus	IC/IP	
RTHA-I9	Clay	Simmerhorn Road at Alta Mesa Road	38 15.775/121 13.568	F	Roadside Tree	Eucalyptus	IC/IP	0
RSHA-I1	Galt	W. side of Hwy99 at Twin Cities Road	38 17.537/121 18.815	S	Eucalyptus Grove	Eucalyptus	IP/IC	3
RSHA-I2	Galt	0.1mi E of Arno Rd, 0.4mi N of Valensin	38 19.848/121 17.708	UO	Tree Row	Eucalyptus	IP/IC	
RSHA-I3	Clay	Angle Road at Twin Cities Road	38 18.420/121 13.285	UO	Tree Row	Eucalyptus	IP/IC/U	
WTKI-I1	Galt	0.1mi N of Spring St, 0.3mi E of Midway	38 17.023/121 19.390	S	Channelized Riparian	Cottonwood	IP/IC/RR	3
WTKI-I2	Galt	0.1mi N of Boessow, 0.4mi E of Marengo	38 15.370/121 16.505	S	Riparian	Willow	IP/IC	3

Key: S – Successful; F – Failed; UO – Unknown Outcome; IC – Irrigated Cropland; IP – Irrigated Pasture; RR – Rural Residential

Table A-6. Other Raptor Nesting Territories within the South Sacramento Study Area, Eastern Survey Area, 2008.

Territory Number	Quad Map	Location	Lat-long	Status	Nesting Habitat	Nest Tree Species	Land Use Association	Number of Young
RTHA-E1	Sloughhouse	Cosumnes River, 1.5mi E of Dillard	38 28.795/121 08.508	S	Riparian	Cottonwood	IC/UG	2
RTHA-E2	Sloughhouse	0.4mi S of Hwy16, 2mi E of Dillard Rd	38 29.382/121 07.572	S	Riparian	Valley Oak	UG/IC	2
RTHA-E3	Sloughhouse	0.2mi N of Meiss Rd, 1.3mi E of Dillard	38 28.115/121 09.070	S	Isolated Tree	Valley Oak	UG	2
RTHA-E4	Sloughhouse	1.3mi S of Meiss Rd, 2.5mi E of Dillard	38 26.863/121 08.452	S	Transmission Tower	Artificial	UG	2
RTHA-E5	Sloughhouse	1.2mi S of Meiss Rd, 2.7mi E of Dillard	38 26.957/121 08.154	UO	Cottonwood Grove	Cottonwood	UG	
RTHA-E6	Carbondale	Cosumnes River, 1mi SW of Hwy16	38 28.930/121 06.413	S	Riparian	Cottonwood	UG/IC/IP	2
RTHA-E7	Carbondale	Cosumnes River, 0.3 mi SW of Hwy16	38 29.271/121 05.713	S	Riparian	Cottonwood	UG	2
RTHA-E8	Carbondale	Southwest corner of Hwy 16 at Ione Road	38 28.895/121 02.739	UO	Mixed Woodland	Foothill Pine	UG	
RTHA-E9	Carbondale	0.6mi S of Meiss Rd, 3mi E of Dillard Rd	38 27.373/121 07.375	UO	Cottonwood Grove	Cottonwood	UG	

Key: S – Successful; F – Failed; UO – Unknown Outcome; IC – Irrigated Cropland; IP – Irrigated Pasture; UG – Uncultivated Grassland

FRIENDS OF THE SWAINSON'S HAWK, ELK GROVE SOI EIR COMMENT LETTER 11/21/11 ATTACHMENT

SACRAMENTO COUNTY GENERAL PLAN
CONSERVATION ELEMENT

SECTION V

VEGETATION AND WILDLIFE

E. RARE AND ENDANGERED SPECIES

GOAL: Increase population of threatened and endangered species found in Sacramento County.

INTRODUCTION

State and local biologists view most threatened (defined as likely to become endangered without special protection) and endangered (in danger of extinction) species populations as declining or stable, signaling a continuing degradation in the quality of the county's ecosystems. Expanding urban development and agricultural production are limiting successful habitat preservation and population gain efforts. In this document the term "special status" refers to threatened, endangered, and special status species.

The County's riparian environs along the Sacramento, American, and Cosumnes Rivers and other drainages provide some of the most important habitat areas for threatened and endangered species. One resident of the county's riparian area, the valley elderberry longhorn beetle which feeds only on blue elderberry, is in danger of extinction due to loss of habitat primarily from river channelization and levee stabilization. The threatened Swainson's hawk, another inhabitant of riparian areas, nests along the 32 mile stretch of the Sacramento River between Freeport up river to the county line. Fifteen nesting pairs have been observed along this stretch, the greatest concentration along the entire river. The Sacramento River system is also home to the endangered winter-run chinook salmon. This species, distinct from its fall and spring migrating cousins, dropped to only 600 individuals during the 1989 migration, compared to a presumed stable population of 2,000 during the last decade and the 60,000-120,000 spawners observed in the 1960s. Plant species, such as the California hibiscus and the Antioch Dunes evening primrose, are also severely threatened by riparian habitat destruction.

Wetland and vernal pool areas of the County provide habitat for a significant number of threatened and endangered species. The Beach/Stone Lakes area, currently being studied for National Wildlife Refuge status, is a vibrant habitat for many species in need of protection, including the giant garter snake, American white pelican, double-crested cormorant, northern harrier, and peregrine falcon. Vernal pool concentrations, found in the south central and southeastern section of the county sustain special and unique flora adapted to the ephemeral nature of these small unpretentious habitats. Several of the approximate 200 species associated with vernal pools are candidates for protection. They include, dwarf downingea, Boggs lake hedgehyssop, slender orcutt grass, and bearded popcorn flower.

CO-148. Habitat conservation plans shall be adopted by the county for any listed species that are year-round inhabitants of the county, are subject to significant cumulative impacts from development, and are not otherwise adequately protected by designated systems of riparian corridors, vernal pool and wetland preserves and mitigation banks, or other nature preserves or wildlife refuges.

CO-149. Acquisition programs for acquiring open space located within natural areas shall, wherever possible, review the significance of obtaining areas known to contain threatened, endangered, and special status species.

CO-150. To the extent feasible, plans for urban development and flood control projects shall incorporate habitat corridors connecting on-site or adjoining areas (if any) not designated for alteration.

Implementation Measures:

A. Identify habitat suitable for rare and endangered species. (PLANNING, in conjunction with STATE and FEDERAL AGENCIES)

B. Prepare a biannual report to the Board of Supervisors on rare threatened, endangered, special status species populations within the County. (PLANNING).

C. Coordinate with Department of Fish and Game in planning and developing programs to encourage species propagation. (PARKS and PLANNING)

D. Assist habitat management programs aimed at responding to declining populations of threatened and endangered species. (PLANNING and PARKS, in conjunction with STATE and FEDERAL AGENCIES)

E. Monitor populations of threatened and endangered species with assistance of staff from the Department of Fish and Game's Natural Diversity Data Base office. (Planning and Parks, in conjunction with state agencies)

Available on Supervisor's website, Agenda for 10/13/10 Supervisors' meeting, GP 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

FRIENDS OF THE SWAINSON'S HAWK ELK GROVE SOI COMMENT, DEIR, 11/21/11, ATTACHMENT

SACOG

Item #10-4-12C

Government Relations & Public Affairs Committee — Information

March 31, 2010

Draft Regional Growth Projections

Issue: SACOG's consultant has delivered draft growth projections for the Metropolitan Transportation Plan (MTP) update.

Recommendation: None, this item is for information only. This item is an action item for the Transportation Committee.

Discussion: Stephen Levy of the Center for Continuing Study of the California Economy has produced a draft growth projection for the six-county SACOG region. These projections are based on the most recent national and state projections and on current information on the region's economy and housing.

While in this comment period, the consultants and SACOG staff will continue to develop data to refine these projections. The comments and ongoing analysis will be incorporated into a revised projection set and brought to the committee and board in May. At the May meeting, staff will recommend that the revised projections be used in the MTP planning process, but that the official adoption be delayed until December 2011 when the MTP is adopted.

During this time period, SACOG will work with the state Department of Housing and Community Development (HCD) and the Department of Finance (DOF) with the goal of making the regional and state projections consistent for use in this MTP process and in the Regional Housing Needs Assessment process. The draft population projections for 2020 are 3.9 percent lower than DOF and for 2035 they are 4.7 percent lower. State law allows for a 3 percent difference. The DOF population projection will have an interim update early in 2011, which provides the opportunity to have consistent projections. The housing projections process at HCD also has opportunities to coordinate growth assumptions. We will work carefully with HCD and DOF to try to make more consistent growth assumptions prior to final Board action next year.

These projections are summarized in Tables 1 through 3 attached. Detailed documentation of the analysis which underlies the projections will be prepared and distributed soon. The basic process is as follows:

- The SACOG region job projections were based on projections of U.S. and California job growth and the competitive position of the SACOG region to capture a share of the state and national job growth.
- The SACOG population projections by age, sex, and ethnic group were developed based on the projected job growth starting with the actual regional population in 2008.
- The household projections are preliminary and are based on projecting forward the household formation trends of the current population by age and ethnic group. The preliminary household projections are demographic projections and do not yet reflect considerations of housing supply, income, and affordability.

Table 1. Projections of Employment by Sector, Six-County SACOG Region

Economic Sector	2008	2020	2035
Farm	12,800	12,965	13,998
Natural Resources and Mining	1,100	1,009	758
Construction	58,100	80,949	100,146
Manufacturing	41,300	37,694	18,695
Wholesale Trade	27,800	30,210	31,633
Retail Trade	101,300	110,659	117,699
Transportation, Warehousing and Utilities	26,300	28,100	30,768
Information	19,600	20,558	22,127
Financial Activities	58,900	68,659	77,922
Professional and Business Services	112,900	153,414	194,268
Educational and Health Services	105,700	131,258	173,005
Leisure and Hospitality	89,500	99,610	115,875
Other Services	30,300	34,123	43,160
Government	249,600	268,381	308,948
Self Employed	86,272	94,495	114,974
Total Jobs	1,021,472	1,172,053	1,364,000

Source: CCSCE, March 2010.

Table 2. Projections of Population by Age, Six-County SACOG Region

Age Cohort	2008	2020	2035
0-4	146,031	163,025	186,688
5-9	150,597	164,000	195,736
10-14	161,638	165,444	200,681
15-19	173,953	166,485	205,015
20-24	166,541	171,979	199,759
25-29	151,922	182,628	194,447
30-34	146,694	178,139	186,578
35-39	154,771	166,498	195,191
40-44	167,801	158,863	210,391
45-49	173,619	160,370	206,174
50-54	162,593	167,630	187,882
55-59	141,831	175,740	172,190
60-64	114,796	168,289	168,579
65-69	87,691	151,456	176,398
70-74	70,440	126,508	176,757
75-79	54,809	80,955	148,079
80-84	42,689	53,753	106,385
85+	41,551	58,365	101,770
Total	2,309,968	2,660,127	3,218,700

Source: CCSCE, March 2010.

Table 3. Projections of Households by Age of Householder, Six-County SACOG Region

Age of Householder	2008	2020	2035
15-24	39,960	38,245	44,099
25-34	140,412	165,009	161,532
35-54	337,279	328,085	397,408
55-64	139,799	188,031	172,522
65+	174,064	269,632	346,331
Total	831,513	989,002	1,121,892

Source: CCSCE, March 2010.

Table 4. Comparison of Current Projections to Last Projections

	Draft Projections March 2010					MTP2035 Projections			
	Pop	HHs	Jobs	DUs	Vacancy Rate	Pop	HHs	Jobs	DUs (5%)
2005	2,245,700	805,400	1,024,500	847,789	5%	2,245,700	805,400	1,024,500	847,789
2008	2,309,968	831,513	1,021,472	913,750	9%	2,324,800	839,948	1,069,467	884,156
2020	2,660,127	989,002	1,172,053	1,063,443	7%	2,769,200	1,030,240	1,282,426	1,084,463
2035	3,218,700	1,121,892	1,364,000	1,180,939	5%	3,413,136	1,268,920	1,529,100	1,335,705

	Differences in Projections			
	Pop	HHs	Jobs	DUs
2008	-14,832	-8,435	-47,995	29,594
2020	-109,073	-41,238	-110,373	-21,020
2035	-194,436	-147,028	-165,100	-154,766

Source: CCSCE and SACOG, March 2010.

FRIEND OF THE SWAINSON'S HAWK, ELK GROVE SOI COMMEN ON EIR 11/21/11, ATTACHMENT, pp 1-2 and Certificate
D 06-013

Recording requested, and when recorded, return to:

City of Elk Grove
Attn: City Clerk
8380 Laguna Palms Way
Elk Grove, CA 95758

with a conformed copy to:

Sacramento County Recording
Craig A Kramer, Clerk/Recorder
BOOK 20060313 PAGE 0212
Monday, MAR 13, 2006 8:03:00 AM
Tkl Pd $0.00 Nbr-0004181765
REB/51/1-31

No Transfer Tax Due as this conveyance is for the benefit of the City of Elk Grove
R&T Code Section 11922

No Recording Fees Needed per Government Code §6103

DEED OF AGRICULTURAL CONSERVATION EASEMENT

This Deed of Agricultural Conservation Easement is granted on this 22nd day of February, 2006, (the "Effective Date") by M&H Realty Partners Affiliated Fund III L.P., a California limited partnership ("Grantor"), to the City of Elk Grove, a municipal corporation ("Grantee"), for the purpose of forever conserving the agricultural productive capacity and open space character of the subject property.

Witness that:

The Grantor is the sole owner in fee simple of the farm property ("Property") legally described in Exhibit A ("Legal Description"), attached to and made a part of this Agricultural Conservation Easement ("Easement"), which consists of approximately 295 acres of land and is commonly known as the "Brannan Realty Farm/Ranch," together with buildings and other improvements, located in Sacramento County, California. Any existing buildings and improvements on the Property are shown within Building Envelope as depicted in Exhibit B ("Building Envelope and Existing Improvements"), also attached to and made a part of this Easement. Except as shown in Exhibit B, the Property is open farmland, whose soils have been classified as prime farmland by the Natural Resource Conservation Service, U.S. Department of Agriculture, and by the California Department of Conservation Farmland Mapping and Monitoring Program, because this land has a soil quality, growing season, and moisture supply needed for sustained agricultural production.

The agricultural and other characteristics of the Property, its current use and state of improvement, are documented and described in a Baseline Documentation Report dated February, 2006 prepared by Conservation Land Group, Inc. ("Baseline Report"), on behalf of Grantee with the cooperation of the Grantor and incorporated herein by this reference. Grantor and Grantee acknowledge that it is complete and accurate as of the date of this Easement. Both the Grantor and Grantee shall retain copies of this report. The Baseline

original

CERTIFICATE OF ACCEPTANCE

This is to certify that the interest in real property conveyed to the City of Elk Grove, a municipal corporation, by the within instrument, the provisions of which are incorporated by this reference as though fully set forth in this Certification, is hereby accepted by the undersigned officer(s) on behalf of the City pursuant to authority conferred by the Elk Grove City Council Resolution No. 2000-52 adopted on November 1, 2000, and the Grantee consents to recordation thereof by its duly authorized officer.

Dated: _____ By: _____
Robert Lee, City Engineer

OR

Dated: March 1, 2006 By: _____
John Danielson, City Manager

ACKNOWLEDGEMENT

State of California)
) ss.
County of Sacramento)

On March 8, 2006 before me, Peggy Jackson, personally appeared

JOHN DANIELSON

✓ personally known to me

or

☐ 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 the entity upon behalf of which the person(s) acted, executed the instrument.

CITY OF ELK GROVE INCORPORATED July 1, 2000 STATE OF CALIFORNIA

WITNESS my hand and official seal

_____
Peggy E Jackson, City Clerk
City of Elk Grove

915 L Street, C-425
Sacramento, Ca. 95814
916-447-4956 voice
916-244-0507 fax
www.swainsonshawk.org
swainsonshawk@sbcglobal.net

Submitted to Sacramento LAFCo on November 21, 2011

Comment Letter and Attachments

Elk Grove SOI DEIR

Friends of the Swainson's Hawk

915 L Street, C-425
Sacramento, Ca. 95814
916-447-4956
www.swainsonshawk.org

November 21, 2011

Sacramento LAFCo
1112 I Street, Suite 100
Sacramento, Ca. 95814
Attention: Don Lockhart

Comments of the Friends of the Swainson's Hawk, Inc. on the Draft Environmental Impact Report of City of Elk Grove Proposed Sphere of Influence Amendment [LAFC # 09-10] SCH No. 2010092076,

Dear LAFCo Commissioners, Mr. Brundage, Mr. Lockhart,

Wildlife is part of California's future. Friends of the Swainson's Hawk is dedicated to seeing the California population of Swainson's Hawks flourish for all generations to come. FOSH is a volunteer group providing grassroots vigilance for wildlife and habitat in the Central Valley. We, along with others, have major concerns about the pending Application to LAFCo by the City of Elk Grove to expand its Sphere of Influence ("SOI") by approximately 8,000 acres onto land presently zoned and used for agricultural purposes immediately south of Grantline and Kammerer Roads. These are the comments of Friends of the Swainson's Hawk about the EIR for the proposal by the City of Elk Grove to expand its Sphere of Influence by approximately 8,000 acres, onto land which is mostly zoned and used for agricultural purposes in southern Sacramento County.

On October 27, 2010, attorney James Pachl submitted comments on the NOP for this DEIR on behalf of Friends of the Swainson's Hawk. This comment letter is incorporated into our current comment letter on the draft EIR. The issues and concerns raised then were not addressed in the EIR, or were scantily addressed without bringing forth available evidence and data. Nor was there a response to our letter. We again raise these issues as key ones that should be addressed in the DEIR on the SOI application.

We request that the deficiencies in the DEIR be corrected and the DEIR be recirculated for public review and comment before this proposal goes to LAFCo for action.

There is abundant evidence that the claim made in Impact Bio-1 is false. Impact Bio-1 states "The project would not have a substantial adverse effect, either directly or through habitat modifications, on special-status wildlife species."

First, the EIR discussion of impacts on Swainson's Hawk starts by describing a false baseline using the County's zoning-based formula ("Methodology") which was promulgated by County Department of Environmental Review. It was not adopted as an ordinance, regulation or resolution by the Board of Supervisors, nor did it receive CEQA review.

Under the County's formula, the amount of Swainson's Hawk foraging habitat is determined by a formula based exclusively on the zoning designation of the subject land. Land zoned AG-40 and above are presumed to have 100 percent SWH habitat value. Land zoned under AG-40 are presumed to have fractional SWH foraging habitat without consideration of the existing physical environmental conditions on the ground. For example, a 100-acre tract of land zoned AG-40 is presumed to be 100 percent Swainson's Hawk foraging habitat; but the identical parcel zoned AR-10 is presumed to have 25 acres of Swainson's Hawk foraging habitat, or "foraging value." (The County uses acres of foraging habitat and foraging value interchangeably.) County's zoning-based formula is a clear violation of CEQA, including but not limited to CEQA Guideline 15125(a), which requires that an environmental document fully describe the actual physical environmental conditions that exist on the ground on the date the NOP was published. "This environmental setting will normally constitute the baseline physical conditions by which a Lead Agency determines whether an impact is significant." County's unlawful formula is the subject of a lawsuit challenging the Florin Vineyard Gap Community Plan in Sacramento County Superior Court.

The DEIR fails to disclose that the County's methodology, which the DEIR is apparently using to determine the amount of SWH habitat within the proposed SOI area, is inconsistent with the City's current Swainson's Hawk Mitigation Ordinance, and related policies, which call for assessment of the actual acres of Swainson's Hawk foraging habitat and mitigation at the ratio of one acre of land preserved for each acre developed.

Please explain why the DEIR is using County's zoning-based formula to assess SWH foraging habitat instead of the City's current Swainson's Hawk mitigation ordinance.

Page 2-16 of the DEIR shows 7,381 acres of the area as having current zoning of AG 80 or AG 40. The remaining designations total 488 acres, of which 302 acres is AG-20 and 186 is various urban or agricultural residential designations. Under the County's methodology, the SWH "SWH habitat value" of the 488 acres would be less than 100 percent. However review of the aerial photos in the DEIR and on Goggle Earth shows that the footprint of existing urban and agricultural development appears to be very small.

We do not disagree with the EIR statement that over 90 percent of the SOI area is Swainson's Hawk foraging habitat. However, there is no evidence that most of the remaining land which is zoned for parcels less than AG-40 is not. Similarly, the EIR describes Swainson's Hawk habitat value in the SOI area based on County's baseline habitat assumptions (3.4-37). These assumptions did not undergo CEQA review. The EIR assertions about the value of foraging habitat in the SOI area (p. 3.4-37) are based on an understanding of a Sacramento County policy, and not on an analysis of the land use and occupation of the habitat by the species.

As for each tract of land zoned for greater densities than AG-40, please explain why the area of SWH habitat or "SWH foraging value" is less than those lands zoned AG-40 or greater.

The DEIR says that the City's Swainson's Hawk mitigation program requires protection of existing habitat, but fails to provide even a minimal description of that program, which calls for one acre of habitat preserved for each acre of SWH habitat removed. (3.4-37). This is an inadequate description under CEQA. City programs are subject to change by a majority vote of the City Council. LAFCo has no assurance that programs will not change. Moreover, the existing City program did not undergo any CEQA review of its effectiveness to mitigate for impacts to Swainson's Hawk in the SOI area. Therefore the assumption that continuing existing City programs (which are not described) is not supported by substantial evidence.

The impact analysis says that the future development in the SOI area "would comply with the City's conditions," but fails to describe those conditions, thereby violating CEQA. Please describe the City's "conditions."

Please explain why there is NO mitigation measure proposed to mitigate for loss of Swainson's Hawk foraging habitat due to new development that would occur within the SOI area after it is annexed. MM BIO-1b describes only those measures to avoid take of individual raptors, including SWH) and their nests, but nothing about loss of foraging habitat.

Unlawful Deferral of Mitigation Violates CEQA

The EIR at 3.4-37-38 states that future development in the SOI area will be mitigated through future CEQA review of projects, "implementation of LU-3, which requires participation in the South Sacramento County Habitat Conservation Plan", and "MM Bio-1a" a measure to demonstrate Elk Grove's compliance with four quite general measures required by LAFCo. The measures include a biological survey, avoidance measures in project design, and a Habitat Conservation Management Plan, developed with the CDFG and USFWS for listed species, and meeting certain named general criteria (D.)

CEQA Guideline 15126.4(a)(1)(B) states that "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 and which may be accomplished in more than one specific way."

In this instance, formulation of mitigation measures for biological impacts is clearly deferred to the future development of a "habit conservation plan" whose contents are presently unknown. Notably, this MM contains NO performance standard. The requirement that such a plan be developed "in consultation with" USFWS and CDFG does not require that the plan and its mitigation strategy be approved by those agencies -- only that the City consult with these agencies.

Mitigation is thus improperly deferred. Substantial evidence does not support the proposed Finding of the DEIR that the "plan" will mitigate biological impacts to less than significant, because the measures of the plan are not known. In a situation nearly identical to the proposed

Elk Grove SOI DEIR, the Court of Appeal found a violation of CEQA where a MM called for development of an undefined habitat management plan developed by a biologist in consultation with the appropriate agencies, including USFWS and CDFG. *San Joaquin Raptor Rescue Center v County of Merced (Jaxon Enterprises, Inc.)* (2007)149 Cal. App.4th 645, 669, 670. See also Kostka & Zischke, Practice under the California Environmental Quality Act (2nd ed) Cal CEB 2008, January 2011 update, §14.12, pp, 696 - 700, and the numerous cases cited therein.

There will be significant direct and indirect impacts on Swainson's Hawks from the adoption by LAFCo of the SOI proposed by Elk Grove. Initially, there will be impacts due to landowner anticipation of selling property for urban use. There may be destruction of known nesting site trees to "enhance" marketability of properties for urban use. While there is no incentive to destroy nesting sites when land is used for farming or grazing (and some incentive not to since raptors prey on agricultural pests), once the landowner expects to urbanize the land, a Swainson's Hawk nesting site simply poses more potential economic costs to development because of additional mitigation responsibilities. Foraging values on the farm and range lands in the SOI may also become depressed due to landowner changes in agricultural practices, such as reduced grazing and reduced irrigation, or simply no longer farming.

In addition, due to the agricultural mitigation measures proposed in this DEIR, landowners will be at an economic advantage to cease irrigation of lands so that they are not required to mitigate for farmland loss upon development. The SOI DEIR does not identify, analyze or mitigate for these and other impacts of prematurely designated 8,000 acres of farmland that serves as mostly high quality Swainson's Hawk foraging habitat.

One indirect impact is that suitable mitigation lands for Swainson's hawk impacts will become higher priced, and less available. In time, properties inside the current urban limit that are approved for development but require Swainson's Hawk mitigation, will not be able to find suitable foraging habitat mitigation at an affordable price. The Natomas Joint Vision area is a classic example, where land prices skyrocketed to ridiculous heights after the adoption of the MOU for the Joint Vision for Natomas. The owners of much of the land in Sacramento County outside of the City ceased farming after the City adopted the Joint Vision for Natomas MOU, which is not even an SOI, but an intent to urbanize some of the area at some unknown future date.

We discuss in more detail below the direct and indirect effects of the SOI approval and consequent urbanization. The SOI is a significant step in the urbanization process, without which annexation cannot be done. The impact on the Swainson's hawk species in Sacramento County and in the City of Elk Grove from urbanization in the SOI will be significant since the loss of foraging habitat and impacts on nesting sites will reduce the number of nesting pairs in the County, result in direct mortality of chicks during the urbanization process, and have cumulative and indirect impacts. The EIR should require a take permit under Fish and Game Code Section 2081 for the SOI approval.

We request that an adequate biological resources analysis be prepared and the EIR be recirculated to allow review and comment on a properly prepared biological analysis.

EIR Ignores Important Biological Data Available on the SOI area and adjacent lands.

The poor Biological Assessment in the EIR does not give public and decisionmakers a reasonably accurate picture of the impact of the project on Swainson's Hawks and other raptors.

In our NOP comment letter, October 27, 2010 (James P. Pachl, Attorney), we requested that preparers consult specific available sources of information about Swainson's Hawk in and near the project area and address key questions about what project impacts would likely be.

Impacts on Swainson's Hawk:
The NOP, p. 5, states that Swainson's Hawks ("SWH") nest in mature riparian habitat along the Cosumnes River. In fact, there are a number of documents SWH nest sites throughout the area between Elk Grove and the Cosumnes River, and within Elk Grove, with one of the highest densities of SWH nests being within and close to the proposed SOI area. Jude Lamare e-mailed maps of SWH nest sites to you yesterday for the use of LAFCo's consultant who is preparing the EIR.

We are particularly concerned about Elk Grove's proposed urban expansion because Elk Grove is located within a dense and significant nesting area for the SWH, listed as threatened under the California Endangered Species Act. Nesting sites both within the City and the proposed SOI area, and southward, depend upon foraging habitat within the nearly 8000 acres proposed for eventual urbanization. The loss of foraging and nesting habitat will be significant. The EIR analysis should recognize that the density of nesting in the Elk Grove area is among the highest densities recorded for the species.

The EIR analysis should include all the data available from studies conducted by Jim Estep for the City and the South Sacramento County HCP effort, and the California Department of Fish and Game over the last six years. Information in the NDDB is often incomplete and outdated, and thus cannot be relied upon.

The success of SWH reproductive activity and survival of SWH young is directly dependent upon availability of food supply (small rodents) which is reasonably available to nesting SWH during the breeding and nesting season. Destruction of foraging habitat (low-growing vegetation which harbors small rodents) by development eliminates this food supply and forces SWH to travel greater distances to find prey, resulting in less food for the nest and a greater likelihood of nest failure and nestling mortality.

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 within the City of Elk Grove;
b) potential impacts on reproductive activity in nesting sites within the SOI area;
c) potential impacts on reproductive activity of other nesting sites within 2 - 5 miles;
d) potential impacts on survivability of fledged juveniles from these nesting sites;
e) 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.
f) discuss other reasonably foreseeable projects that would eliminate SWH foraging and nesting habitat, as part of the EIR discussion of cumulative impacts. These would include but are not limited to the proposed Bay Delta Conservation Plan, which proposes to convert large areas of agricultural land in Yolo County and the Yolo

Bypass, which is SWH foraging habitat, with managed marshes for fish habitat, eventual build-out of Rancho Cordova and of the Florin-Vineyard area, all of which are SWH foraging habitat, and predicted sea-level rise which will inundate low-lying areas west of Elk Grove which are currently agricultural land that serve as SWH foraging habitat.

Our NOP comments were ignored. Our questions were not addressed and the EIR shows no sign that the preparers' consulted the documents and sources that we recommended. Nor does the EIR establish the credentials of the preparers to make judgments about adequacy of mitigation and the significance of impacts on Swainson's Hawks independent of the scientific body of knowledge available on the species in the project area. No information at all is provided on the credentials, training and experience of those who prepared the biological findings in the EIR.

Improper Reliance on CNDDB.

Despite our NOP comment to LAFCo on this subject explaining why CNDDB should not be relied upon, the EIR relies on CNDDB to identify species presence. CNDDB records are poorly maintained, out of date, and are therefore not complete and often underestimate species presence and recent nesting behavior.

CNDDB is not intended to provide definitive data for purposes of CEQA review of a project. The CNDDB webpage says:

> ". . .we cannot and do not portray the CNDDB 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)

CNDDB is a first stop for biological assessment, indicating where likely rare plants and animals may be found. When assessing Swainson's Hawk impacts, LAFCo should insist that their environmental consultants 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 CNDDB.

In the attached email from CDFG's CNDDB 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, LAFCo had access, and was requested by us in the NOP process to use that access, to recent, high quality data commissioned by the City of Elk Grove.

Failure to Identify the Project and Adjacent Area Populations of Nesting Swainson's Hawks

In terms of assessing impacts on Swainson's Hawks, the amount of nesting in the project area, the distance of non-project area nesting activity from the project area and the type of land cover

are important factors. The EIR cannot properly assess the impact of the project and its significance if it has not identified the size and characteristics of the nesting populations of Swainson's Hawk in and near the project site. The City of Elk Grove has commissioned several relevant recent studies of Swainson's Hawk nesting. The South Sacramento County Habitat Conservation Planning team has also assembled and analyzed all available data. We have submitted to LAFCo on two occasions a copy of the South Sacramento Habitat Conservation Plan map entitled "Range of Swainson's Hawk in the SSHCP Plan Area," a copy of Estep's 2006 South County nesting sites map, and a map showing nesting sites identified by Department of Fish and Game and labeled 2005 and 2009 survey nesting sites. These maps show quite a few more nesting sites in and near the SOI area than are shown in the EIR Exhibit 3.4-2b.

The California Department of Fish and Game has participated in the HCP process and is well aware of the data available, particularly their own recent data. The EIR shows no evidence that preparers consulted any of these sources of information about the activities of Swainson's Hawk in and around the project area. The City of Elk Grove is well aware of these data because it has conducted numerous studies and has consulted numerous times with the Department of Fish and Game about the Swainson's Hawk population in the City of Elk Grove and how the impact of development in the City can be fully mitigated. Yet the EIR describes the population using outdated and imprecise CNDDB records.

FOSH has examined the data in the following maps to determine what information is provided on the Swainson's Hawk use of the area in and near the project area (SOI). These maps were provided to LAFCo on October 27, 2010 and November 2, 2011. Jim Estep, Estep Environmental Consulting, Distribution, Abundance, and Habitat Associations of Swainson's Hawk (2007) (results of 2006 census level surveys in South Sacramento County) and The Distribution, Abundance, and Habitat Associations of the Swainson's Hawk (Buteo swainsoni) in the City of Elk Grove, California (2009) (results of census level surveys within City limits in 2008); South Sacramento County Habitat Conservation Plan, "Range of Swainson's Hawk in the SSHCP Plan Area."

At our request, Melinda Bradbury, biological consultant, used these data to summarize the findings about Swainson's Hawks in and near the SOI area [Memorandum to FOSH]:

- There are approximately 12 nest territories reported in the section of the County south of the City limit, east of I-5 and west of 99 to Eschinger Road, in the proposed SOI;
- There are approximately 18 nest territories reported in the section of the County east of 99 and north of the Cosumnes River.
- There are approximately ten active nesting territories in the City between State Route 99 on the east and Bruceville Road on the west, immediately north (within one mile) of the SOI area.
- There are two active nesting territories on Grant Line Road east of State Route 99, on the border of the SOI area to the east.
- There were many nesting territories along the Cosumnes River and just south that would have the potential to forage north or south of the river depending on available habitat. Those birds would be impacted by loss of foraging habitat north of the Cosumnes River.
- There are several nesting territories in and near the Franklin area part of the SOI.
- Seventy-four percent of the nesting sites in South County (south of Elk Grove City boundary) were concentrated within the interior portion of the study area between approximately I-5 and Clay Station Road on the east side. (Estep, 2007)

- In this area the "territory density is lower than in Yolo County, but is high compared with other portions of the species' range and indicated the value of the agricultural habitats within this region to Swainson's hawks and the importance of the 'core' Central Valley population." (Estep, 2007)
-
- The SOI area is primarily the best forage type for Swainson's Hawks – Irrigated cropland/irrigated pasture.

These studies indicate that the availability of thousands of acres of contiguous high quality foraging habitat consisting largely of irrigated crop land and irrigated pasture, underlies the remarkable number of nesting territories and the density of nesting territories in and near the SOI area.

Given the close proximity of many of the nesting sites inside the City limits to the SOI area, there is reason to believe that the loss of the SOI foraging habitat will impact the viability of nesting and the degree of nesting success for nest sites within at least two miles of the SOI.

Likelihood of Take of Swainson's Hawks as a Result of SOI Approval; EIR provides no mitigation for take.

As noted above, but largely ignored in the EIR, the SOI area is nesting and foraging habitat for 30-50 Swainson's Hawk pairs. The urbanization of over 6,000 acres of foraging habitat in very close proximity to this many nesting sites will inevitably lead to loss of chicks (inadequate forage to sustain nesting success) and the abandonment of traditional nesting sites. Projects within the SOI area will also have direct impacts on nesting sites inside the City which will lead to abandonment of nesting, mortality to young and greater risk to fledglings.

The likelihood of "take" of Swainson's Hawks due to the SOI is very high. Yet the EIR does not acknowledge the potential for "take" and the resulting necessity for a "take" permit from California Department of Fish and Game under Section 2081 of the Fish and Game Code. It is quite important that LAFCo conduct a public review of the environmental consequences of "take" and that it require a "take" permit be issued before the SOI is approved. Otherwise the impact of this important consequence of SOI approval will not be known and evaluated by decision makers prior to approval of the expanded urban area.

Availability of Suitable Habitat to Mitigate for Loss of Foraging Habitat in the SOI Area – Cumulative Impacts

Among others, the California Department of Fish and Game (CDFG) has questioned whether there is suitable land available to render feasible the mitigation for the impacts of urbanizing the SOI. On March 25, 2010, CDFG wrote to the liaison for the South Sacramento Habitat Conservation Plan (c: Peter Brundage, LAFCo) about ensuring "adequate cropland and irrigated pasture-grassland reserve lands to accommodate the Swainson's hawks adequate persistence over time in the Plan Area." A copy of this letter was submitted to LAFCo by FOSH at the November 2 hearing on the DEIR. The letter said in part:

> "Within the Plan Area, the highest densities of nesting Swaisnon's hawks occur within and adjacent to cover types identified in the Draft Plan as

> cropland and irrigated pasture-grassland in the western portion of the Plan Area (Zones 4, 5, 8, 9, 11, 12). **The DFG believes that these cover types are essential to the continued persistence of the hawk within their California breeding range and any conservation strategy for this species should place high value on these cover types."** (*emp. added*)

The letter went on to say that the plan should "guarantee preservation and maintenance of a minimum of an equal amount of cropland and irrigated pasture-grassland to that being impacted within the Plan Area." To do so, CDFG recommended reducing the size of the SOI, and decreasing the take coverage for cropland and irrigated pasture-grassland.

The EIR completely ignores this critical issue affecting a key biological resource of the SOI area and adjacent lands in the City and the County. The impact of proceeding with the SOI is that there will not be adequate mitigation land to mitigate for impacts on Swainson's Hawk for the already approved development in the City and County, as well as for the SOI area.

Attached are two maps currently used by local jurisdictions to define areas best suited for acquiring Swainson's Hawk habitat as mitigation to offset impacts for already approved development within the City of Elk Grove and South Sacramento County. These maps were developed with input from the Department of Fish and Game and represent Fish and Game's recommendations for suitable mitigation habitat. Both maps show large areas within the proposed SOI as suitable habitat. Please note also the portion of the SOI west of Franklin Boulevard is largely suitable habitat and is bounded on the north by protected conservation area.

LAFCo should consider the suitability of available mitigation lands before assuming that mitigation land will be readily available to offset impacts of urbanizing the SOI area. Current research indicates that lands west of I-5 are not all suitable mitigation lands for Swainson's Hawks and the analysis necessary to quantify the amount of available land that is suitable is not publicly available. A study commissioned by the City of Elk Grove included analysis of the habitat and nesting patterns within the Delta Zone of the South Sacramento County study area as compared with a representative area in the interior (between I-5 and 99, South of Elk Grove and north of Galt) and the area east of 99 (within the Eastern Foothill Zone of the South Sacramento County Study Area). Each area contained 36 square miles. A comparison of the SOI project area with these survey areas will demonstrate that the project area is foraging habitat to a significantly higher number of pairs, and has a larger expanse of good quality foraging habitat. The impacts to the species by approving the SOI cannot be adequately mitigated in the Delta Zone where nesting is less dense, nesting habitat is less abundant, and unsuitable habitat (orchards and vineyards) is common. [Estep Environmental Consulting, Monitoring Swainson's Hawk (Buteo swainsoni) Nesting Activity in South Sacramento County, Results of 2008 Surveys (February, 2009) pp. 10- 14, 20. Attached]

LAFCo should proceed cautiously in approving SOI status, ensuring that any SOI expansion can be mitigated and fully compliant with all state laws protecting state listed species. In this regard, the alternatives analysis in the EIR (see below) is woefully inadequate.

Issue of Impact of the SOI Approval on the South County Habitat Conservation Plan and the Feasibility of Mitigation for Other Projects, Already Approved, within the Urban Area

The EIR should identify available suitable habitat in close proximity to the project area, over and above the amount of such habitat needed to mitigate for already approved development in Elk Grove and the County of Sacramento. It should address the issue of willing sellers, land inventory and price of mitigation land. It should consider the impacts on the species of the scenario in which available mitigation land is captured by development at the edge, leaving already approved development sites further inside the urban area with no suitable mitigation land available. It should address the issue of SOI approval creating mitigation land scarcity and consequently driving mitigation land prices up for all development in the South Sacramento County area.

Conflict with Local Policies – 1993 Urban Limit and 1993 Conservation Element of the County General Plan

On November 2, 2011, FOSH submitted to LAFCo pages of the County General Plan stating County policies that were in the General Plan to protect special status species in the South County, including the SOI area. This SOI approval would conflict with those policies. This issue was not addressed in the EIR. These policies indicate that the County's environmental analysis in 1993 anticipated significant impacts on wildlife, including the Swainson's hawk species in Sacramento County, if development were to extend beyond the current urban line into the proposed SOI area.

Inconsistencies with LAFCo policies IV.C.3.b and c.
The EIR must disclose the project's inconsistencies with applicable plans and policies, and analyze the environmental effects of such inconsistencies. The part of the SOI between Franklin Boulevard and I-5 would be inconsistent with LAFCo Policy IV.C.3.b. which states that LAFCo will not approve applications with boundaries which result in peninsulas of incorporated territory or otherwise cause distortion of existing boundaries. That portion of the SOI between Franklin Boulevard and I-5 is a peninsula bounded on the north by the USFWS Stone Lake Refuge (land owned by AKT, with perpetual easement to USFWS for management as part of the Refuge); and on the south by agricultural land in a 100-year floodplain.

The SOI peninsula between Franklin Boulevard and I-5 would also be inconsistent with LAFCo Policy IV.C.3.c. which states that LAFCo will not approve applications with boundaries drawn for the exclusive purpose of encompassing revenue-producing territories. The Connector expressway will run the length of the peninsula from I-5 to Franklin Blvd, to Hwy 99, and ultimately to Hwy 50 in El Dorado County, and will attract many more times traffic onto the Connector than presently use the existing Hood- Franklin Road. Elk Grove included the peninsula SOI within the proposed SOI so that Elk Grove may later annex it and line the Connector and/or Hood-Franklin Road with intense revenue-producing retail and commercial development between I-5 and Franklin Blvd. Otherwise, developing the peninsula makes no sense due to infrastructure costs, constrained area, the 100-year floodplain, and incompatibility with the neighboring Refuge and agricultural uses.

Inconsistencies with Government Code §§ 56001, 56300(a),
The Legislature has charged LAFCos with encouraging orderly growth and development, discouraging urban sprawl, and preserving open space and prime agricultural lands. (Government Code §§ 56001). LAFCos shall adopt policies which encourage and provide well-ordered and efficient urban development patterns with appropriate consideration for preserving open space and agricultural lands. (Government Code 56300(a)). See LAFCo Policy Manual (pg. 3).

The EIR must disclose inconsistencies between LAFCo's statutory charge and the proposed SOI, and analyze the environmental impacts of such inconsistencies. The EIR (p. 2-18 and Table 2-4, page 2-25) claims that Elk Grove has only 2,918 acres of available vacant land within existing city and requires 6,327 additional acreage from outside the existing city boundary to meet the need for growth to 2035. These numbers are unsupported and at odds with previous estimates that there are 8,000 acres of undeveloped land within the Elk Grove City limit which could be developed but are not. This includes properties that have been permitted for new development which has not occurred and properties where development started but then stalled or was abandoned. The 2000-acre Laguna Ridge project is one example; another is Lent Ranch Mall. The EIR must disclose the undeveloped areas (including project starts which have stalled) within Elk Grove that could be developed, and the status of development efforts on each such property. The EIR must disclose the environmental impacts of LAFCo approval of an 8000-acre SOI while substantial areas of developable land within Elk Grove remain undeveloped, and the consistency or inconsistency with Government Code §§ 56001, and 56300(a) and LAFCo policies of the proposed approval of the proposed SOI while large tracts within Elk Grove remain undeveloped.

There is further discussion of the inconsistency analysis in this letter in the section addressing the Agricultural Resources portion of the DEIR.

The DEIR violates CEQA because it relies on outdated land use assumptions which do reflect reality, and FAILS TO DISCLOSE or consider the Elk Grove Market Study, December 29, 2010, commissioned by the City of Elk Grove. which shows much smaller growth predictions.

The land use assumptions of the DEIR relies on the land use projections of the 2003 Elk Grove General Plan Update. (DEIR p. 2-25.) The DEIR and Application to LAFCo asserts that the SOI area will be needed to accommodate future urban growth predicted by the 2003 Elk Grove General Plan. The population projections have been discredited by the current reality and were contradicted by SACOG's growth projections in 2008 and its 2011 updated growth projections. The EIR must evaluate the studies and data relied upon by Elk Grove to determine if they are currently credible and show a need for future urban development of the proposed SOI area.

The recently completed *Elk Grove Market Study* December 29, 2010, commissioned by the City of Elk Grove and prepared by Center for Strategic Economic Research, clearly demonstrates that Elk Grove's claims that it needs over 6,000 acres of new development by 2035 are not supported by independent economic analysis. At the most optimistic the Market study estimates the need for acres outside the current City limit as 1,422 by 2029. SEE copies of pages iii, and 77, which

state that Elk Grove is projected to need an additional 200 acres to 1,442 acres (high end) by 2029. The Market Study estimates are based on the then SACOG 2035 MTP population projects for 2035 (see for example, p.83 footnote 1 to Figure 60). SACOG has since updated these population projections (which were adopted in 2008), as described in the attached Memo Item #10-4-12C Information, March 31, 2010, resulting in lower population projections. A complete copy of Market Study accompanies this letter.

Detrimental effects of prematurely committing more land to urbanization than can be absorbed.

For the reasons stated above, there is a good likelihood that approval of the SOI, in combination with the existence of 8,000 acres of undeveloped but developable land within the City and thousands of foreclosed homes needing a market, would result in the premature commitment of more land to urbanization than can be absorbed. 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. Such analysis should take into consideration that once approved, the SOI allows multiple patchwork of annexation proposals driven by individual landowner development agendas.

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 an SOI which would very foreseeably lead to the annexation and urban development of nearly 8000 acres 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", and Elk Grove is the major foreclosure "hot spot" within the Sacramento region, with thousands of new or foreclosed homes remaining unsold on the market. This includes the 2000-acre Laguna Ridge development, immediately north of the SOI area, which was abandoned after millions of dollars of infrastructure was installed. The Promenade is the classic example of failed retail mega development projects. There are also many other vacant storefronts and offices, and uncompleted approved projects, throughout Elk Grove and the Sacramento region.

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.

Approval of the proposed SOI which will very likely lead to annexation for the purpose of new development. New housing and retail development competing with existing development would 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.

Alternatives Analysis Fails to Recognize Importance of Alternatives with Little to No Impact on Swainson's hawks

The Alternatives Analysis could have helped decision makers to consider alternatives with less impact on Swainson's hawk, but the EIR did not provide them with this option. By avoiding analysis of the Swainson's hawk populations affected by SOI development, the EIR denied decision makers the opportunity to tailor an SOI that avoided impacts.

In our NOP comment letter, we requested an alternative that would have had minimal impact on Swainson's hawks while meeting the City's need for additional large scale employment land uses within the City limits. The letter said:

> "the EIR should consider the alternative of a smaller SOI amendment of 500 - 600 acres, at

Highway 99 and Kammerer Road, that would be limited exclusively to development of office and industrial parks."

The only alternative considered was a 2700 acre SOI blanketing the area south of Kammerer Road, arguably the area within the application that is adjacent to the existing city and most valuable to the remaining SWH nesting sites in the City and in the SOI. It is an alternative that does little or nothing to reduce potential take of Swainson's hawks or its foraging habitat.

Agricultural Resources Section Incomplete; No Justification for a .5:1 mitigation ratio for Agricultural Land Loss

We concur in the comments by ECOS on the agricultural resources impacts. Considering the magnitude of this agricultural area and its significance in the agricultural economy of Sacramento County, and the economic and physical role of this area in the south Sacramento farming community, the analysis and mitigation are entirely inadequate. The EIR fails to address the cumulative impacts over time of permanent loss of agricultural resources. It also fails to address the temporal impacts on agricultural uses of patchwork urbanization over an extended and unknown period of time.

On page 3.2-6, the EIR wrongly states that Elk Grove's policy is that agricultural land cannot be mitigated without creating new farmland. That policy was litigated in *South County Citizens for Responsible Growth et al. v. City of Elk Grove et.al* (2001); the Appeals court upheld the trial court finding that this Elk Grove policy is inconsistent with CEQA. CEQA requires mitigation of loss of farmland to less than significant or if that is not possible, to the extent feasible. In February, 2006, Elk Grove received an easement (see attached easement) to farmland to mitigate 1:1 for loss of farmland from the development of Lent Ranch Mall. The easement (p. 2) refers to Resolution No. 2004-200, approved on August 4, 2004, which imposes on the Lent Ranch Marketplace project the requirement to mitigate the loss of agricultural land through the conservation in perpetuity of an equal amount of land. Elk Grove's policy therefore has been to mitigate 1:1 for loss of farmland.

The Legislature has charged LAFCos with encouraging orderly growth and development, discouraging urban sprawl, and preserving open space and prime agricultural lands. (Government Code §§ 56001). LAFCos shall adopt policies which encourage and provide well-ordered and efficient urban development patterns with appropriate consideration for preserving open space and agricultural lands. (Government Code 56300(a)). See LAFCo Policy Manual (pg. 3). However, Sacramento LAFCo has decided to proceed on case-by-case rather than to have an adopted policy to govern agricultural land preservation. LAFCo's **Sacramento LAFCo Policy, Standards and Procedures Manual,** Chapter IV, pp 16-18 describes the standards used by Sac LAFCo to preserve agricultural lands. The EIR references the Sacramento LAFCo manual on pp. 1-3 to discuss LAFCo compliance with CEQA. The EIR reviews the unique statutory role and part of the policy for meeting this statutory obligation on pp. 3.10-48 to 3.10-50, and conclude without analysis or discussion that "the proposed project is inconsistent with this policy. . . . Refer to Section 3.2, Agricultural Resources for further discussion." However, there is no further discussion of the **Policy, Standards and Procedures Manual**, Section E. Agricultural Land Conservation, at that location. The proposed mitigation measures do not seem

to have any relationship with the policy standards in the manual.

Below are reprinted the LAFCo policies (Chapter IV, pp 16-18). Note that Section E2 of this section is completely missing from the EIR. The analysis and mitigation measures in the Agricultural Resources Section of the DEIR should be revised to take into consideration these policies and standards. The DEIR should be recirculated for public comment.

1. LAFCo will approve a change of organization or reorganization which will result in the conversion of prime agricultural land in open space use to other uses only if the Commission finds that the proposal will lead to the planned, orderly and efficient development of an area. For purposes of this standard, a proposal leads to the planned, orderly and efficient development of an area only if all of the following criteria are met:

   a. The land subject to the change of organization or reorganization is contiguous to either lands developed with an urban use or lands which have received all discretionary approvals for urban development.

   b. The proposed development of the subject lands is consistent with the Spheres of Influence Plan, including the Master Services Element of the affected agency or agencies.

   c. Development of all or a substantial portion of the subject land is likely to occur within five years. In the case of very large developments, annexation should be phased whenever feasible. If the Commission finds phasing infeasible for the specific reasons, it may approve annexation if all or a substantial portion of the subject land is likely to develop within a reasonable period of time.

   d. Insufficient vacant non-prime lands exists within the applicable Spheres of Influence that are planned, accessible, and developable for the same general type of use.

   e. The proposal will have no significant adverse effect on the physical and economic integrity of other agricultural lands. In making this determination, LAFCo will consider the following factors:

      (1) The agricultural significance of the subject and adjacent areas relative to other agricultural lands in the region.

      (2) The use of the subject and the adjacent areas.

      (3) Whether public facilities related to the proposal would be sized or situated so as to facilitate the conversion of adjacent or nearby agricultural land, or will be extended through or adjacent to, any other agricultural lands which lie between the project site and existing facilities.

      (4) Whether natural or man-made barriers serve to buffer adjacent or nearby agricultural land from the effects of the proposed development.

(5) Applicable provisions of the General Plan open space and land use elements, applicable growth-management policies, or other statutory provisions designed to protect agriculture.

2. LAFCo will not make the affirmative findings that the proposed development of the subject lands is consistent with the Spheres of Influence in the absence of an approved Sphere of Influence Plan. LAFCo will not make the affirmative findings that insufficient vacant non- prime land exists within the Spheres of Influence Plan unless the applicable jurisdiction has:

   a. Identified within its Spheres of Influence all "prime agricultural land" as defined herein.

   b. Enacted measures to preserve prime agricultural land identified within its Sphere of Influence for agricultural use.

   c. Adopted as part of its General Plan specific measures to facilitate and encourage in-fill development as an alternative to the development of agricultural lands.

Permitting an 8,000 acre SOI with unknown timing, location and phasing of development can hardly be consistent with LAFCo's statutory charge of "encouraging orderly growth and development." It will wreck havoc with a stable agricultural economy. Approval of the SOI must consider impacts of the SOI on farmland and the farm economy and not simply wave these away with requiring annexation mitigation measures. LAFCo decisionmakers cannot fairly evaluate the environmental impact of the SOI on agriculture and on its statutory charge to conserve agricultural land given the incomplete and misleading analysis in this DEIR. Measures requiring annexation related mitigation do not adequately address the direct and indirect consequences of approving an 8,000 acre SOI instead of a much smaller alternative with fewer impacts on farmland and the agricultural economy.

Further Comment on Inconsistency with LAFCo Policies.

The EIR analysis of Sacramento LAFCo consistency completely ignores Section E2, printed above, related to standards for LAFCo determination whether insufficient vacant non-prime land exists inside the City boundaries. On page 3.10-39 the consistency analysis does not recognize the conflict between LAFCo policy and City General Plan in regard to the standards for LAFCo to approve the SOI and defers mitigation to a future CEQA analysis. Such deferral of mitigation for the core impact under LAFCo responsibility ("LAFCo will exercise its powers to conserve agricultural land") is inexcusable. The largest area of prime agricultural land mapped in the EIR is found in both the proposed SOI and in the smaller 2,700 acre alternative. No alternative other than the no project alternative excludes prime agricultural land. As lead agency, LAFCo could have and should have insisted upon an alternative that conserved agricultural land, including all the prime agricultural land identified.

Finally, we believe that any reliance by LAFCo on the 2003 Elk Grove General Plan and EIR adoption to address the environmental impacts of the SOI would be inappropriate. The 2003 EIR on the General Plan is now out of date.

Please keep us informed regarding the availability of a recirculated DEIR, 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

Email from Brian Acord dated September 15, 2011, about CNDDB

Email to Don Lockhart, with attached maps

Map of Swainson's Hawk range, South Sacramento County Habitat Conservation Plan

Map of Swainson's Hawk nesting sites, *Distribution, Abundance, and Habitat Associations of Swainson's Hawk.* Results of 2006 census level surveys in South Sacramento County

The Distribution, Abundance, and Habitat Associations of the Swainson's Hawk (Buteo swainsoni) in the City of Elk Grove, California. Census level surveys within City limits in 2008.

Map of Potential Swainson's Hawk Mitigation Areas, prepared by the Sacramento County Planning and Community Development Department with information from the California Department of Fish and Game.

Map of Swainson's Hawk suitable habitat for mitigation of development in the City, prepared by City of Elk Grove and Department of Fish and Game to guide City of Elk Grove mitigation location decisions (provided to FOSH by City of Elk Grove).

Department of Fish and Game letter of March 25, 2010, to Michele McCormick, copy to Eric Tattersall, and Peter Brundage,

Monitoring Swainson's Hawk (Buteo swainsoni) Nesting Activity in South Sacramento County Results of 2008 Surveys. (2009)

1993 County of Sacramento General Plan Policies

Elk Grove Market Study, December 29, 2010

SACOG Item #10-4-12C, March 31, 2010 "Draft Regional Growth Projections) 4 pp.

Sacramento County County's staff report (Agenda for 10/13/10, 2030 General Plan Update Adoption Hearings) with relevant pages 6 – 11

City of Elk Grove Agricultural Easement, 2006, pp 1-2 and certificate.

Kenneth Shawn Smallwood
Curriculum Vitae

3108 Finch Street
Davis, CA 95616
Phone (530) 756-4598
Cell (530) 601-6857
puma@dcn.org

Born May 3, 1963 in
Sacramento, California.
Married, father of two.

Expertise

- Finding solutions to controversial problems related to wildlife interactions with human industry, infrastructure, and activities; and,

- Using systems analysis and experimental design principles to identify meaningful ecological patterns that can inform conclusions and management decisions.

Education

Ph.D. Ecology, University of California, Davis. September 1990.
M.S. Ecology, University of California, Davis. June 1987.
B.S. Anthropology, University of California, Davis. June 1985.
Corcoran High School, Corcoran, California. June 1981.

Experience

- 329 professional publications, including:
- 61 peer reviewed publications
- 24 in non-reviewed proceedings
- 236 reports, declarations, and book reviews
- 8 in mass media outlets
- 75 public presentations of research results at meetings
- Reviewed many professional papers and reports
- Testified in 4 court cases.

Associate Editor, *Journal of Wildlife Management*, March 2004 to 30 June 2007.

Editorial Board Member, *Environmental Management*, 10/1999 to 8/2004.

Associate Editor, *Biological Conservation*, 9/1994 to 9/1995. Administered independent scientific reviews of submitted, professional papers in ecology and conservation biology, and made recommendations to the Editors.

Member, Alameda County Scientific Review Committee (SRC), 8/06 to 4/11. As part of a five member committee, I investigated the causes of bird and bat collisions in the Altamont Pass Wind Resource Area, and I recommended mitigation and monitoring measures. The SRC reviews the science underlying the Alameda county Avian Protection Program, and advises the County on how to reduce wildlife fatalities.

Research Ecologist, 2/06 to 12/07, under contract to East Bay Regional Parks District. Performed research of how fossorial mammals and raptors responded to grazing treatments and wind turbines at Vasco Caves Regional Preserve. I designed the study, trained the fatality monitors and behavior observers, mapped the burrows of fossorial mammals, analyzed the data, and took the lead on writing the report.

Consulting Ecologist, 7/04 to 12/07, California Energy Commission (CEC). In collaboration with Lawrence-Livermore National Lab, I performed independent research funded by the CEC on bird behavior in the Altamont Pass Wind Resources Area. I also provided consulting services as needed to the CEC. I produced several reports to the CEC and the CEC's Public Interest Energy Research program.

Consulting Ecologist, 11/99 to present, U.S. Navy. I provide endangered species surveys at multiple Navy facilities, hazardous waste site monitoring, and habitat restoration for the endangered Fresno kangaroo rat, California tiger salamander, California red-legged frog, California clapper rail, western burrowing owl, and other species. I have worked at Naval Air Station Lemoore; Naval Weapons Station, Seal Beach, Detachment Concord; Naval Security Group Activity, Skaggs Island; National Radio Transmitter Facility, Dixon.

Part-time Lecturer, 1/98 to 2005, California State University, Sacramento. I taught Contemporary Environmental Issues, Natural Resources Conservation (twice), Mammalogy, Behavioral Ecology, and Ornithology Lab.

Senior Ecologist, 1999 to 2005, BioResource Consultants. I planned and carried out research and monitoring projects, and analyzed complex data related to avian fatalities at wind turbines, avian electrocutions on electric distribution poles across California, and avian fatalities at transmission lines.

Systems Ecologist, 7/96 to present, Consulting in the Public Interest, www.cipi.com. I am part of a multi-disciplinary consortium of scientists facilitating large-scale, environmental planning projects and litigation. We provide risk assessments, assessments of management practices, and expert witness testimony.

Chairman, Conservation Affairs Committee, The Wildlife Society--Western Section, 1999-2001. I prepared position statements and led efforts directed toward conservation issues, including travel to Washington, D.C. to lobby Congress for more wildlife conservation funding.

Systems Ecologist, 1/95 until about 2000, Institute for Sustainable Development. I headed ISD's program on integrated resources management. I developed indicators of ecological integrity for large areas, using remotely sensed data, local community involvement and GIS.

Associate, 1997-1998, Department of Agronomy and Range Science, University of California, Davis. I worked with Shu Geng and Mingua Zhang on several projects related to wildlife interactions with agriculture and patterns of fertilizer and pesticide residues in groundwater across a large landscape.

Lead Scientist, 6/96 to 6/99, National Endangered Species Network. I headed NESN's efforts to inform academic scientists and environmental activists about emerging issues regarding the

Endangered Species Act and other environmental laws pertaining to special status species. I also testified at public hearings on behalf of environmental groups and endangered species.

Ecologist, 1/97 to 6/98, Western Foundation of Vertebrate Zoology. I conducted field research to determine the impact of past mercury mining on the status of California red-legged frogs in Santa Clara County, California.

Senior Systems Ecologist, 7/94 to 12/95, EIP Associates, Sacramento, California. Provided consulting services in environmental planning. I also developed a quantitative assessment of land units for their conservation and restoration opportunities, using the ecological resource requirements of 29 special status species. I mapped vegetation and land use, and derived new spatial data from a GIS overlay of these variables with soil types, flood zones, roads, and other spatially referenced data. Using these derived data, I developed a set of indicators for prioritizing areas within Yolo County that will receive mitigation funds for habitat easements and restoration.

Post-Graduate Researcher, 10/90 to 6/94, with Dr. Shu Geng, Department of Agronomy and Range Science, *U.C. Davis*. Studied landscape and management effects on temporal and spatial patterns of abundance among pocket gophers and species of Falconiformes and Carnivora in the Sacramento Valley. I also developed and analyzed a data base of energy use in California agriculture, and I assisted with a landscape (GIS) study of groundwater contamination across Tulare County, California.

Co-teacher, 1/91 to 6/91 and 1/93 to 6/93, Graduate Group in Ecology, U.C. Davis. Co-taught conservation biology with Dr. Christine Schonewald.

Reader, 3/90 to 6/90, Department of Psychology, U.C. Davis. Assisted students of Psychobiology (taught by Dr. Richard Coss) with research and writing term papers.

Research Assistant, 11/88 to 9/90, with Dr. Walter E. Howard, Department of Wildlife and Fisheries Biology, U.C. Davis. Tested durable baits for pocket gopher control in forest plantations, and developed gopher sampling methods.

Fulbright Research Fellow, Indonesia, 7/88 to 11/88. Tested use of new sampling methods for monitoring the number of Sumatran tigers and six other species of endemic felids, and evaluated methods used by other researchers.

Research Assistant, 7/87 to 6/88, with Dr. Terrell P. Salmon, Wildlife Extension, Department of Wildlife and Fisheries Biology, U.C. Davis. Developed empirical models of mammal and bird invasions in North America, and a rating system for priority research and control of exotic species based on economic, environmental, and human health hazards in California.

Student Assistant, 3/85 to 6/87, with Dr. E. Lee Fitzhugh, Wildlife Extension, Department of Wildlife and Fisheries Biology, U.C. Davis. Developed and implemented a statewide mountain lion track count for long-term monitoring of numbers and distribution. I've continued the statewide track count since 1985 (the last count was in 2008). I also developed quantitative methods to identify individual mountain lions by their tracks, and to differentiate mountain lion and dog tracks.

Projects

Research to reduce avian mortality due to wind turbines at Altamont Pass. I used GPS and GIS to map and study environmental impacts of 5,400 wind turbines. I related the number of raptor fatalities at wind turbines to the degree of aggregation of prey species around the turbines, as well as many other factors related to where the turbines are located, how they are designed and operated, and how raptors behave in the Altamont Pass Wind Resource Area. I also serve on the Alameda County Scientific Review Committee, charged with recommending scientific monitoring methods and mitigation measures for reducing avian mortality.

Research to reduce avian mortality on electric distribution poles. Since about 2000 I have performed research directed toward reducing bird electrocutions on electric distribution poles. I led fatality monitoring efforts at 10,000 poles multiple times in California, spanning Orange County to Glenn County, and I have produced two large reports.

Cook *et al*. v. Rockwell International *et al*., No. 90-K-181 (D. Colorado). I provided expert testimony on the role of burrowing animals in affecting the fate of buried and surface-deposited radioactive and hazardous chemical wastes at the Rocky Flats Plant, Colorado. I provided expert reports based on four site visits and the most extensive document review of burrowing animals ever conducted. I conducted transect surveys for evidence of burrowing animals and other wildlife on and around waste facilities. I also discovered substantial intrusion of waste structures by burrowing animals. I testified in federal court in November 2005, and my clients were subsequently awarded a $553,000,000 judgment by a jury.

Hanford Nuclear Reservation Litigation. I am providing expert testimony on the role of burrowing animals in affecting the fate of buried radioactive wastes at the Hanford Nuclear Reservation, Washington. I provided three expert reports based on three site visits and extensive document review. I predicted and verified a certain population density of pocket gophers on buried waste structures, as well as incidence of radionuclide contamination in body tissue. I conducted transect surveys for evidence of burrowing animals and other wildlife on and around waste facilities. I also discovered substantial intrusion of waste structures by burrowing animals.

Expert Testimony and Declarations on Residential and Commercial Development Proposals. I have testified before the California Coastal Commission, California Energy Commission, County Boards of Supervisors, and City Councils, and I have participated with press conferences and have been deposed by attorneys. I prepared expert witness reports and court declarations, which are summarized under Reports (below).

Expert Testimony on Proposed Gas-fired Power Plants. I provided comments letters, declarations, expert reports, and oral testimony on the impacts and appropriate mitigation of about eight natural gas-fired power plants in California.

Expert Testimony on Proposed Wind Farms. I provided comment letters and oral testimony to administrative law courts in Klickitat and Skamania Counties, Washington, which convinced the court in Skamania County to require the replacement of a negative declaration with an EIS. I provided written testimony and deposition in support of litigation brought against the development of wind turbines in Cook County, Texas, which resulted in a settlement. I also

provided written comments on the first EIR for the Buena Vista Wind Energy Project in Contra County, California, prompting the withdrawal of that EIR and the preparation of an improved EIR which was later certified.

Protocol-level endangered species searches and recovery efforts. I search for special-status species using Department of Fish and Game and US Fish and Wildlife Service protocols. I have searched for, or otherwise worked with, California red-legged frog, arroyo southwestern toad, California tiger salamander, blunt-nosed leopard lizard, western pond turtle, giant kangaroo rat, Fresno kangaroo rat, San Joaquin kit fox, Sumatran tiger, willow flycatcher, least Bell's vireo, western burrowing owl, Swainson's hawk, Valley elderberry longhorn beetle and many other special-status species. I also help with recovery of the Fresno kangaroo rat at Lemoore Naval Air Station.

Conservation of the endangered Fresno kangaroo rat. I am performing applied research to identify the factors responsible for the decline of this endangered species at Lemoore Naval Air Station, and am implementing habitat enhancements designed to reverse the trend and to expand the area occupied by this species.

Impact of West Nile Virus on yellow-billed magpies. Since 2005 I have worked under contract to the Sacramento-Yolo Mosquito and Vector Control District to gather post-West Nile Virus epidemic data to pre-epidemic data I had gathered on multiple bird species in the Sacramento Valley in the 1990s, but particularly on yellow-billed magpie and American crow, which are particularly susceptible to WNV.

Workshops on HCPs. Assisted Dr. Michael Morrison with organizing and conducting a 2-day workshop on Habitat Conservation Plans, sponsored by Southern California Edison, and another 1-day workshop sponsored by PG&E. These Workshops were attended by academics, attorneys, and consultants with HCP experience. We guest-edited a Proceedings published in Environmental Management.

Mapping of biological resources along Highways 101, 46 and 41. I used GPS and GIS to delineate vegetation complexes and locations of special-status species along 26 miles of highway in San Luis Obispo County, 14 miles of highway and roadway in Monterey County, and in a large area north of Fresno, including within reclaimed gravel mining pits.

GPS mapping and monitoring at restoration sites and at Caltrans mitigation sites. I am monitoring the success of elderberry shrubs at one location, the success of willows at another location, and the response of wildlife to the succession of vegetation at both these sits. I am also using GPS to monitor the response of fossorial animals to yellow star-thistle eradication and natural grassland restoration efforts at Bear Valley, Colusa County, and at the decommissioned Mather Air Force Base in Sacramento County.

Mercury effects on Red-legged Frog. I assisted Dr. Michael Morrison and US Fish and Wildlife Service in assessing the possible impacts of historical mercury mining on the federally listed California red-legged frog in Santa Clara County. I also measured habitat variables in numerous streams.

Opposition to proposed No Surprises rule. I wrote a white paper and summary letter explaining scientific grounds for opposing the incidental take permit (ITP) rules providing ITP applicants and holders with general assurances they will be free of compliance with the Endangered Species Act once they adhere to the terms of a "properly functioning HCP." I obtained 188 signatures of scientists and environmental professionals on the letter submitted to the US Fish and Wildlife Service and the National Marine Fisheries Service. The letter was also provided to all US Senators. It helped change the prevailing view of HCPs as beneficial to listed species.

Natomas Basin Habitat Conservation Plan alternative. I designed narrow channel marsh to increase the likelihood of survival and recovery in the wild of giant garter snake, Swainson's hawk and Valley Elderberry Longhorn Beetle. The design included replication and interspersion of treatments for experimental testing of critical habitat elements. I provided a report to Northern Territories, Inc.

Assessment of Environmental Technology Transfer to China, and Assessment of Agricultural Production System. I twice traveled to China and interviewed scientists, industrialists, agriculturalists, and the Directors of the Chinese Environmental Protection Agency and the Department of Agriculture to assess the need and possible pathways for environmental clean-up technologies and trade opportunities between the US and China. I spent a total of five weeks in China, including in Shandong and Linxion Provinces and in Beijing.

Yolo County Habitat Conservation Plan. I conducted the landscape ecology study of Yolo County to identify the priority land units to receive mitigation so as to most improve the ecosystem functionality within the County from the perspective of 29 special-status species of wildlife and plants. I used a hierarchically structured indicators approach to apply principles of landscape and ecosystem ecology, conservation biology, and local values in rating land units. I derived GIS maps to help guide the conservation area design, and then I developed implementation strategies.

Mountain Lion Track Count. I developed and conducted the carnivore monitoring program throughout California since 1985. Species counted include mountain lion, bobcat, black bear, coyote, red and gray fox, raccoon, striped skunk, badger, and black-tailed deer. Vegetation and land use are also monitored. The transect was established on dusty, dirt roads within randomly selected quadrats. These roads are searched for tracks of the carnivores, which routinely use the roads for travel paths.

Sumatran Tiger and other Felids. I designed and conducted track counts for seven species of wild cats in Sumatra, including the Sumatran tiger, fishing cat, and golden cat. I spent four months on Sumatra and Java, and learned Bahasa Indonesia (the official Indonesian language). I was awarded a Fulbright Research Fellowship to complete the project.

Wildlife in Agriculture. Beginning as my post-graduate research, I have studied pocket gophers and other wildlife in 40 alfalfa fields throughout the Sacramento Valley, and I surveyed for wildlife along a 200 mile road transect for six years. The data were analyzed using GIS and methods from landscape ecology, and the results were published and presented orally to farming groups in California and elsewhere. I also conducted the first study of wildlife in cover crops used on vineyards and orchards.

Agricultural Energy Use and Tulare County Groundwater Study. I developed and analyzed a data base of energy use in California agriculture, and collaborated on a landscape (GIS) study of groundwater contamination across Tulare County, California.

Pocket Gopher Damage in Forest Clearcuts. I tested various poison baits and baiting regimes for pocket gopher control in forest plantations, and I developed gopher sampling methods. I conducted the most extensive field study of pocket gophers ever, involving thousands of gophers in 68 research plots on 55 clearcuts among 6 National Forests in northern California.

Risk Assessment of Exotic Species in North America. I developed empirical models of mammal and bird species invasions in North America, as well as a rating system for assigning priority research and control to exotic species in California, based on economic, environmental, and human health hazards.

Representative Clients

Law offices and environmental groups	Government agencies
Law Offices of Stephan C. Volker	
Law Offices of Berger & Montague	US Department of Agriculture
Law Offices of Roy Haber	US Forest Service
Law Offices of Edward MacDonald	US Fish & Wildlife Service
Law Office of John Gabrielli	US Navy
Law Office of Bill Kopper	California Energy Commission
Law Office of Donald B. Mooney	California Office of the Attorney General
Law Office of Veneruso & Moncharsh	California Department of Fish & Game
Law Office of Steven Thompson	California Department of Transportation
California Wildlife Federation	California Department of Forestry
Defenders of Wildlife	California Department of Food & Agriculture
Sierra Club	Ventura County Counsel
National Endangered Species Network	County of Yolo
Spirit of the Sage Council	Tahoe Regional Planning Agency
The Humane Society	Sustainable Agriculture Research & Education Program
Hagens Berman LLP	Sacramento-Yolo Mosquito and Vector Control District
Environmental Protection Information Center (EPIC)	East Bay Regional Park District
Goldberg, Kamin & Garvin, Attorneys at Law	County of Alameda
Californians for Renewable Energy (CARE)	
Seatuck Environmental Association	
Friends of the Columbia Gorge, Inc.	
Save Our Scenic Area	
Alliance to Protect Nantucket Sound	
Friends of the Swainson's Hawk	
Alameda Creek Alliance	
Center for Biological Diversity	

Businesses	Other organizations and Individuals
NEXTera Energy Resources, LLC	Don & LaNelle Silverstien
Pacific Gas & Electric Co.	Seventh Day Adventist Church
Southern California Edison Co.	Escuela de la Raza Unida
Georgia-Pacific Timber Co.	Susan Pelican and Howard Beeman
Northern Territories Inc.	Residents Against Inconsistent Development, Inc.
National Renewable Energy Lab	Bob Sarvey
David Magney Environmental Consulting	Mike Boyd
Wildlife History Foundation	Hillcroft Neighborhood Fund
Emerald Farms	Joint Labor Management Committee of the Retail Food Industry
Terry Preston, Wildlife Ecology Research Center	Lisa Rocca
G3 Energy and enXco	Kevin Jackson
Comstocks Business (magazine)	Dawn Stover and Jay Letto
Californians for Renewable Energy	Nancy Havassy
BioResource Consultants	Catherine Portman (for Brenda Cedarblade)
FloDesign Wind Turbine	

Representative special-status species experience

Common name	Species name	Status[1]	Description
Field experience			
California red-legged frog	*Rana aurora draytonii*	FT, CSC	Protocol searches & detected at multiple sites
Foothill yellow-legged frog	*Rana boylii*	FSC, CSC	Research and search detections at multiple sites
Western spadefoot	*Spea hammondii*	FSC, CSC	Searches and search detections
California tiger salamander	*Ambystoma californiense*	FC, CSC	Protocol searches & detections at multiple sites
Coast range newt	*Taricha torosa torosa*	CSC	Searches and multiple detections
Blunt-nosed leopard lizard	*Gambelia sila*	FE, CE	Detected in San Luis Obispo County
California Horned Lizard	*Phrynosoma coronatum frontale*	FSC, CSC	Search and detected in San Luis Obispo Co.
Western pond turtle	*Clemmys marmorata*	FSC, CSC	Searches and detected at multiple sites
San Joaquin kit fox	*Vulpes macrotis mutica*	FE, CT	Protocol searches and detections
Sumatran tiger	*Panthera tigris*		Research in Sumatra
Mountain lion	*Puma concolor californicus*	CFP	Research and publications
Point Arena mountain beaver	*Aplodontia rufa nigra*	FE, CSC	Remote camera operation
Giant kangaroo rat	*Dipodomys ingens*	FE, CE	Detected in Cholame Valley
Fresno kangaroo rat	*Dipodomys nitratoides*	FE, CE	Research and conservation at Lemoore Naval Air Station – reports
Monterey dusky-footed woodrat	*Neotoma fuscipes luciana*	FSC, CSC	Non-target captures and mapping of dens
Salt marsh harvest mouse	*Reithrodontomys raviventris*	FE, CE	Habitat assessment, monitoring
Salinas harvest mouse	*Reithrodontomys megalotus distichlus*	G5T1S1	Captures in the Salinas area; habitat assessment
California clapper rail	*Rallus longirostris*	FE, CE	Surveys at Concord Naval Weapons Station
Golden eagle	*Aquila chrysaetos*	CSC	Research in Sacramento Valley
Swainson's hawk	*Buteo swainsoni*	CT	Research in Sacramento Valley
Northern harrier	*Circus cyaeneus*	CSC	Research and publication
White-tailed kite	*Elanus leucurus*	CFP	Research and publication
Loggerhead shrike	*Lanius ludovicianus*	FSC, CSC	Research in Sacramento Valley
Least Bell's vireo	*Vireo bellii pusillus*	FE, CE	Detected in Monterey County
Willow flycatcher	*Empidonax traillii extimus*	FE, CE	Research at Sierra Nevada breeding sites
Burrowing owl	*Athene cunicularia hypugia*	FSC, CSC	Research at multiple locations
Valley elderberry longhorn beetle	*Desmocerus californicus dimorphus*	FT	Research on mitigation site and publication
Analytical			
Arroyo southwestern toad	*Bufo microscaphus californicus*	FE, CSC	Research and report.
Giant garter snake	*Thamnophis gigas*	FT, CE	Research and publication.
Northern goshawk	*Accipiter gentilis*	FSC, CSC	Research and publication.
Northern spotted owl	*Strix occidentalis*	FT	Research and reports. Publication in progress.

[1] FE = Federal Endangered, FT = Federal threatened, FC = Federal candidate for listing, FSC = Federal species of concern, CE = California Endangered, CT = California threatened, CFP = California Fully Protected, CSC = California Species of Concern, G5T1S1 = CNDDB rating of imperiled throughout California range.

Peer Reviewed Publications

Smallwood, K. S., D. A. Bell, S. A. Snyder, and J. E. DiDonato. 2010. Novel scavenger removal trials increase estimates of wind turbine-caused avian fatality rates. Journal of Wildlife Management 74: 1089-1097 + Online Supplemental Material.

Smallwood, K. S., L. Neher, and D. A. Bell. 2009. Map-based repowering and reorganization of a wind resource area to minimize burrowing owl and other bird fatalities. Energies 2009(2):915-943. http://www.mdpi.com/1996-1073/2/4/915

Smallwood, K. S. and B. Nakamoto. 2009. Impacts of West Nile Virus Epizootic on Yellow-Billed Magpie, American Crow, and other Birds in the Sacramento Valley, California. The Condor 111:247-254.

Smallwood, K. S., L. Rugge, and M. L. Morrison. 2009. Influence of Behavior on Bird Mortality in Wind Energy Developments: The Altamont Pass Wind Resource Area, California. Journal of Wildlife Management 73:1082-1098.

Smallwood, K. S. and B. Karas. 2009. Avian and Bat Fatality Rates at Old-Generation and Repowered Wind Turbines in California. Journal of Wildlife Management 73:1062-1071.

Smallwood, K. S. 2008. Wind power company compliance with mitigation plans in the Altamont Pass Wind Resource Area. Environmental & Energy Law Policy Journal 2(2):229-285.

Smallwood, K. S., C. G. Thelander. 2008. Bird Mortality in the Altamont Pass Wind Resource Area, California. Journal of Wildlife Management 72:215-223.

Smallwood, K. S. 2007. Estimating wind turbine-caused bird mortality. Journal of Wildlife Management 71:2781-2791.

Smallwood, K. S., C. G. Thelander, M. L. Morrison, and L. M. Rugge. 2007. Burrowing owl mortality in the Altamont Pass Wind Resource Area. Journal of Wildlife Management 71:1513-1524.

Cain, J. W. III, K. S. Smallwood, M. L. Morrison, and H. L. Loffland. 2005. Influence of mammal activity on nesting success of Passerines. J. Wildlife Management 70:522-531.

Smallwood, K.S. 2002. Habitat models based on numerical comparisons. Pages 83-95 *in* Predicting species occurrences: Issues of scale and accuracy, J. M. Scott, P. J. Heglund, M. Morrison, M. Raphael, J. Haufler, and B. Wall, editors. Island Press, Covello, California.

Morrison, M. L., K. S. Smallwood, and L. S. Hall. 2002. Creating habitat through plant relocation: Lessons from Valley elderberry longhorn beetle mitigation. Ecological Restoration 21: 95-100.

Zhang, M., K. S. Smallwood, and E. Anderson. 2002. Relating indicators of ecological health and integrity to assess risks to sustainable agriculture and native biota. Pages 757-768 *in* D.J. Rapport, W.L. Lasley, D.E. Rolston, N.O. Nielsen, C.O. Qualset, and A.B. Damania (eds.), Managing for Healthy Ecosystems, Lewis Publishers, Boca Raton, Florida USA.

Wilcox, B. A., K. S. Smallwood, and J. A. Kahn. 2002. Toward a forest Capital Index. Pages 285-298 *in* D.J. Rapport, W.L. Lasley, D.E. Rolston, N.O. Nielsen, C.O. Qualset, and A.B. Damania (eds.), Managing for Healthy Ecosystems, Lewis Publishers, Boca Raton, Florida USA.

Smallwood, K.S. 2001. The allometry of density within the space used by populations of Mammalian Carnivores. Canadian Journal of Zoology 79:1634-1640.

Smallwood, K.S., and T.R. Smith. 2001. Study design and interpretation of Sorex density estimates. Annales Zoologi Fennici 38:141-161.

Smallwood, K.S., A. Gonzales, T. Smith, E. West, C. Hawkins, E. Stitt, C. Keckler, C. Bailey, and K. Brown. 2001. Suggested standards for science applied to conservation issues. Transactions of the Western Section of the Wildlife Society 36:40-49.

Geng, S., Yixing Zhou, Minghua Zhang, and K. Shawn Smallwood. 2001. A Sustainable Agro-ecological Solution to Water Shortage in North China Plain (Huabei Plain). Environmental Planning and Management 44:345-355.

Smallwood, K. Shawn, Lourdes Rugge, Stacia Hoover, Michael L. Morrison, Carl Thelander. 2001. Intra- and inter-turbine string comparison of fatalities to animal burrow densities at Altamont Pass. Pages 23-37 in S. S. Schwartz, ed., Proceedings of the National Avian-Wind Power Planning Meeting IV. RESOLVE, Inc., Washington, D.C.

Smallwood, K.S., S. Geng, and M. Zhang. 2001. Comparing pocket gopher (*Thomomys bottae*) density in alfalfa stands to assess management and conservation goals in northern California. Agriculture, Ecosystems & Environment 87: 93-109.

Smallwood, K. S. 2001. Linking habitat restoration to meaningful units of animal demography. Restoration Ecology 9:253-261.

Smallwood, K.S. 2000. A crosswalk from the Endangered Species Act to the HCP Handbook and real HCPs. Environmental Management 26, Supplement 1:23-35.

Smallwood, K.S., J. Beyea and M. Morrison. 1999. Using the best scientific data for endangered species conservation. Environmental Management 24:421-435.

Smallwood, K.S. 1999. Scale domains of abundance among species of Mammalian Carnivora. Environmental Conservation 26:102-111.

Smallwood, K.S. 1999. Suggested study attributes for making useful population density estimates. Transactions of the Western Section of the Wildlife Society 35: 76-82.

Smallwood, K.S. and M.L. Morrison. 1999. Estimating burrow volume and excavation rate of pocket gophers (Geomyidae). Southwestern Naturalist 44:173-183.

Smallwood, K.S. and M.L. Morrison. 1999. Spatial scaling of pocket gopher (*Geomyidae*) density. Southwestern Naturalist 44:73-82.

Smallwood, K.S. 1999. Abating pocket gophers (*Thomomys* spp.) to regenerate forests in clearcuts. Environmental Conservation 26:59-65.

Smallwood, K.S. 1998. Patterns of black bear abundance. Transactions of the Western Section of the Wildlife Society 34:32-38.

Smallwood, K.S. 1998. On the evidence needed for listing northern goshawks (*Accipter gentilis*) under the Endangered Species Act: a reply to Kennedy. J. Raptor Research 32:323-329.

Smallwood, K.S., B. Wilcox, R. Leidy, and K. Yarris. 1998. Indicators assessment for Habitat Conservation Plan of Yolo County, California, USA. Environmental Management 22: 947-958.

Smallwood, K.S., M.L. Morrison, and J. Beyea. 1998. Animal burrowing attributes affecting hazardous waste management. Environmental Management 22: 831-847.

Smallwood, K.S, and C.M. Schonewald. 1998. Study design and interpretation for mammalian carnivore density estimates. Oecologia 113:474-491.

Zhang, M., S. Geng, and K.S. Smallwood. 1998. Nitrate contamination in groundwater of Tulare County, California. Ambio 27(3):170-174.

Smallwood, K.S. and M.L. Morrison. 1997. Animal burrowing in the waste management zone of Hanford Nuclear Reservation. Proceedings of the Western Section of the Wildlife Society Meeting 33:88-97.

Morrison, M.L., K.S. Smallwood, and J. Beyea. 1997. Monitoring the dispersal of contaminants by wildlife at nuclear weapons production and waste storage facilities. The Environmentalist 17:289-295.

Smallwood, K.S. 1997. Interpreting puma (*Puma concolor*) density estimates for theory and management. Environmental Conservation 24(3):283-289.

Smallwood, K.S. 1997. Managing vertebrates in cover crops: a first study. American Journal of Alternative Agriculture 11:155-160.

Smallwood, K.S. and S. Geng. 1997. Multi-scale influences of gophers on alfalfa yield and quality. Field Crops Research 49:159-168.

Smallwood, K.S. and C. Schonewald. 1996. Scaling population density and spatial pattern for terrestrial, mammalian carnivores. Oecologia 105:329-335.

Smallwood, K.S., G. Jones, and C. Schonewald. 1996. Spatial scaling of allometry for terrestrial, mammalian carnivores. Oecologia 107:588-594.

Van Vuren, D. and K.S. Smallwood. 1996. Ecological management of vertebrate pests in agricultural systems. Biological Agriculture and Horticulture 13:41-64.

Smallwood, K.S., B.J. Nakamoto, and S. Geng. 1996. Association analysis of raptors on an agricultural landscape. Pages 177-190 in D.M. Bird, D.E. Varland, and J.J. Negro, eds., Raptors in human landscapes. Academic Press, London.

Erichsen, A.L., K.S. Smallwood, A.M. Commandatore, D.M. Fry, and B. Wilson. 1996. White-tailed Kite movement and nesting patterns in an agricultural landscape. Pages 166-176 in D.M. Bird, D.E. Varland, and J.J. Negro, eds., Raptors in human landscapes. Academic Press, London.

Smallwood, K.S. 1995. Scaling Swainson's hawk population density for assessing habitat-use across an agricultural landscape. J. Raptor Research 29:172-178.

Smallwood, K.S. and W.A. Erickson. 1995. Estimating gopher populations and their abatement in forest plantations. Forest Science 41:284-296.

Smallwood, K.S. and E.L. Fitzhugh. 1995. A track count for estimating mountain lion *Felis concolor californica* population trend. Biological Conservation 71:251-259

Smallwood, K.S. 1994. Site invasibility by exotic birds and mammals. Biological Conservation 69:251-259.

Smallwood, K.S. 1994. Trends in California mountain lion populations. Southwestern Naturalist 39:67-72.

Smallwood, K.S. 1993. Understanding ecological pattern and process by association and order. Acta Oecologica 14(3):443-462.

Smallwood, K.S. and E.L. Fitzhugh. 1993. A rigorous technique for identifying individual mountain lions *Felis concolor* by their tracks. Biological Conservation 65:51-59.

Smallwood, K.S. 1993. Mountain lion vocalizations and hunting behavior. The Southwestern Naturalist 38:65-67.

Smallwood, K.S. and T.P. Salmon. 1992. A rating system for potential exotic vertebrate pests. Biological Conservation 62:149-159.

Smallwood, K.S. 1990. Turbulence and the ecology of invading species. Ph.D. Thesis, University of California, Davis.

Peer-reviewed Reports

Smallwood, K. S., L. Neher, D. Bell, J. DiDonato, B. Karas, S. Snyder, and S. Lopez. 2009. Range Management Practices to Reduce Wind Turbine Impacts on Burrowing Owls and Other Raptors in the Altamont Pass Wind Resource Area, California. Final Report to the California Energy Commission, Public Interest Energy Research – Environmental Area, Contract No. CEC-500-2008-080. Sacramento, California. 183 pp. http://www.energy.ca.gov/2008publications/CEC-500-2008-080/CEC-500-2008-080.PDF

Smallwood, K. S., and L. Neher. 2009. Map-Based Repowering of the Altamont Pass Wind Resource Area Based on Burrowing Owl Burrows, Raptor Flights, and Collisions with Wind Turbines. Final Report to the California Energy Commission, Public Interest Energy Research – Environmental Area, Contract No. CEC-500-2009-065. Sacramento, California. 63 pp. http://www.energy.ca.gov/2009publications/CEC-500-2009-065/CEC-500-2009-065.PDF

Smallwood, K. S., K. Hunting, L. Neher, L. Spiegel and M. Yee 2007. Indicating Threats to Birds Posed by New Wind Power Projects in California. Final Report to the California Energy Commission, Public Interest Energy Research – Environmental Area, Contract No. Pending. Sacramento, California. 22 pp.

Smallwood, K. S. and C. Thelander. 2005. Bird mortality in the Altamont Pass Wind Resource Area, March 1998 – September 2001 Final Report. National Renewable Energy Laboratory, NREL/SR-500-36973. Golden, Colorado. 410 pp.

Smallwood, K. S. and C. Thelander. 2004. Developing methods to reduce bird mortality in the Altamont Pass Wind Resource Area. Final Report to the California Energy Commission, Public Interest Energy Research – Environmental Area, Contract No. 500-01-019. Sacramento, California. 531 pp.

Thelander, C.G. S. Smallwood, and L. Rugge. 2003. Bird risk behaviors and fatalities at the Altamont Pass Wind Resource Area. Period of Performance: March 1998—December 2000. National Renewable Energy Laboratory, NREL/SR-500-33829. U.S. Department of Commerce, National Technical Information Service, Springfield, Virginia. 86 pp.

Thelander, C.G., S. Smallwood, and L. Rugge. 2001. Bird risk behaviors and fatalities at the Altamont Wind Resource Area – a progress report. Proceedings of the American Wind Energy Association, Washington D.C. 16 pp.

Non-Peer Reviewed Publications

Smallwood, K. S. 2009. Methods manual for assessing wind farm impacts to birds. Bird Conservation Series 26, Wild Bird Society of Japan, Tokyo. T. Ura, ed., in English with Japanese translation by T. Kurosawa. 90 pp.

Smallwood, K. S. 2009. Mitigation in U.S. Wind Farms. Pages 68-76 in H. Hötker (Ed.), Birds of Prey and Wind Farms: Analysis of problems and possible solutions. Documentation of an International Workshop in Berlin, 21st and 22nd October 2008. Michael-Otto-Instiut im NABU, Goosstroot 1, 24861 Bergenhusen, Germany. http://bergenhusen.nabu.de/forschung/greifvoegel/

Smallwood, K. S. 2007. Notes and recommendations on wildlife impacts caused by Japan's wind power development. Pages 242-245 in Yukihiro Kominami, Tatsuya Ura, Koshitawa, and Tsuchiya, Editors, Wildlife and Wind Turbine Report 5. Wild Bird Society of Japan, Tokyo.

Thelander, C.G. and S. Smallwood. 2007. The Altamont Pass Wind Resource Area's Effects on Birds: A Case History. Pages 25-46 in Manuela de Lucas, Guyonne F.E. Janss, Miguel Ferrer Editors, Birds and Wind Farms: risk assessment and mitigation. Madrid: Quercus.

Neher, L. and S. Smallwood. 2005. Forecasting and minimizing avian mortality in siting wind turbines. Energy Currents. Fall Issue. ESRI, Inc., Redlands, California.

Jennifer Davidson and Shawn Smallwood. 2004. Laying plans for a hydrogen highway. Comstock's Business, August 2004:18-20, 22, 24-26.

Jennifer Davidson and Shawn Smallwood. 2004. Refined conundrum: California consumers demand more oil while opposing refinery development. Comstock's Business, November 2004:26-27, 29-30.

Smallwood, K.S. 2002. Review of "The Atlas of Endangered Species." By Richard Mackay. Environmental Conservation 30:210-211.

Smallwood, K.S. 2002. Review of "The Endangered Species Act. History, Conservation, and Public Policy." By Brian Czech And Paul B. Krausman. Environmental Conservation 29: 269-270.

Smallwood, K.S. 1997. Spatial scaling of pocket gopher (Geomyidae) burrow volume. Abstract in Proceedings of 44th Annual Meeting, Southwestern Association of Naturalists. Department of Biological Sciences, University of Arkansas, Fayetteville.

Smallwood, K.S. 1997. Estimating prairie dog and pocket gopher burrow volume. Abstract in Proceedings of 44th Annual Meeting, Southwestern Association of Naturalists. Department of Biological Sciences, University of Arkansas, Fayetteville.

Smallwood, K.S. 1997. Animal burrowing parameters influencing toxic waste management. Abstract in Proceedings of Meeting, Western Section of the Wildlife Society.

Smallwood, K.S, and Bruce Wilcox. 1996. Study and interpretive design effects on mountain lion density estimates. Abstract, page 93 in D.W. Padley, ed., *Proceedings 5th Mountain Lion Workshop*, Southern California Chapter, The Wildlife Society. 135 pp.

Smallwood, K.S, and Bruce Wilcox. 1996. Ten years of mountain lion track survey. Page 94 in D.W. Padley, ed. Abstract, page 94 in D.W. Padley, ed., *Proceedings 5th Mountain Lion Workshop*, Southern California Chapter, The Wildlife Society. 135 pp.

Smallwood, K.S, and M. Grigione. 1997. Photographic recording of mountain lion tracks. Pages 75-75 in D.W. Padley, ed., *Proceedings 5th Mountain Lion Workshop*, Southern California Chapter, The Wildlife Society. 135 pp.

Smallwood, K.S., B. Wilcox, and J. Karr. 1995. An approach to scaling fragmentation effects. Brief 8, Ecosystem Indicators Working Group, 17 March, 1995. Institute for Sustainable Development, Thoreau Center for Sustainability – The Presidio, PO Box 29075, San Francisco, CA 94129-0075.

Wilcox, B., and K.S. Smallwood. 1995. Ecosystem indicators model overview. Brief 2, Ecosystem Indicators Working Group, 17 March, 1995. Institute for Sustainable Development,

Thoreau Center for Sustainability – The Presidio, PO Box 29075, San Francisco, CA 94129-0075.

EIP Associates. 1996. Yolo County Habitat Conservation Plan. Yolo County Planning and Development Department, Woodland, California.

Geng, S., K.S. Smallwood, and M. Zhang. 1995. Sustainable agriculture and agricultural sustainability. Proc. 7th International Congress SABRAO, 2nd Industrial Symp. WSAA. Taipei, Taiwan.

Smallwood, K.S. and S. Geng. 1994. Landscape strategies for biological control and IPM. Pages 454-464 in W. Dehai, ed., Proc. International Conference on Integrated Resource Management for Sustainable Agriculture. Beijing Agricultural University, Beijing, China.

Smallwood, K.S. and S. Geng. 1993. Alfalfa as wildlife habitat. California Alfalfa Symposium 23:105-8.

Smallwood, K.S. and S. Geng. 1993. Management of pocket gophers in Sacramento Valley alfalfa. California Alfalfa Symposium 23:86-89.

Smallwood, K.S. and E.L. Fitzhugh. 1992. The use of track counts for mountain lion population census. Pages 59-67 in C. Braun, ed. Mountain lion-Human Interaction Symposium and Workshop. Colorado Division of Wildlife, Fort Collins.

Smallwood, K.S. and E.L. Fitzhugh. 1989. Differentiating mountain lion and dog tracks. Pages 58-63 in Smith, R.H., ed. Proc. Third Mountain Lion Workshop. Arizona Game and Fish Department, Phoenix.

Fitzhugh, E.L. and K.S. Smallwood. 1989. Techniques for monitoring mountain lion population levels. Pages 69-71 in Smith, R.H., ed. Proc. Third Mountain Lion Workshop. Arizona Game and Fish Department, Phoenix.

Reports to or by Alameda County SRC

Smallwood, K. S. 2011. Draft Study Design for Testing Collision Risk of Flodesign Wind Turbine in Patterson Pass Wind Farm in the Altamont Pass Wind Resource Area (APWRA). SRC P-223. Unpublished report.

Smallwood, K. S. 2011. Sampling Burrowing Owls Across the Altamont Pass Wind Resource Area. http://www.altamontsrc.org/alt_doc/p205_smallwood_neher_progress_on_sampling_burrowing_owls_across_apwra.pdf

Smallwood, K. S. 2011. Proposal to Sample Burrowing Owls Across the Altamont Pass Wind Resource Area. http://www.altamontsrc.org/alt_doc/p198_smallwood_proposal_to_sample_burrowing_owls_across_apwra.pdf

Smallwood, K. S. 2010. Comments on APWRA Monitoring Program Update**.** http://www.altamontsrc.org/alt_doc/p191_smallwood_comments_on_apwra_monitoring_program_update.pdf

Smallwood, K. S. 2010. Inter-turbine Comparisons of Fatality Rates in the Altamont Pass Wind Resource Area. http://www.altamontsrc.org/alt_doc/p189_smallwood_report_of_apwra_fatality_rate_patterns.pdf

Smallwood, K. S. 2010. Review of the December 2010 Draft of M-21: Altamont Pass Wind Resource Area Bird Collision Study. http://www.altamontsrc.org/alt_doc/p190_smallwood_review_of_december_2010_monitoring_report.pdf

Alameda County SRC (Shawn Smallwood, Jim Estep, Sue Orloff, Joanna Burger, and Julie Yee). Comments on the Notice of Preparation for a Programmatic Environmental Impact Report on Revised CUPs for Wind Turbines in the Alameda County portion of the Altamont Pass. http://www.altamontsrc.org/alt_doc/p183_src_integrated_comments_on_nop.pdf

Smallwood, K. S. 2010. Review of Monitoring Implementation Plan. http://www.altamontsrc.org/alt_doc/p180_src_comments_on_dip.pdf

Burger, J., J. Estep, S. Orloff, S. Smallwood, and J. Yee. 2010. SRC Comments on CalWEA Research Plan. http://www.altamontsrc.org/alt_doc/p174_smallwood_review_of_calwea_removal_study_plan.pdf

Alameda County SRC (Smallwood, K. S., S. Orloff, J. Estep, J. Burger, and J. Yee). SRC Comments on Monitoring Team's Draft Study Plan for Future Monitoring. http://www.altamontsrc.org/alt_doc/p168_src_comments_on_m53_mt_draft_study_plan_for_future_monitoring.pdf

Smallwood, K. S. 2010. Second Review of American Kestrel-Burrowing owl (KB) Scavenger Removal Adjustments Reported in Alameda County Avian Monitoring Team's M21 for the Altamont Pass Wind Resource Area. http://www.altamontsrc.org/alt_doc/p171_smallwood_kb_removal_rates_follow_up.pdf

Smallwood, K. S. 2010. Assessment of Three Proposed Adaptive Management Plans for Reducing Raptor Fatalities in the Altamont Pass Wind Resource Area. http://www.altamontsrc.org/alt_doc/p161_smallwood_assessment_of_amps.pdf

Smallwood, K. S. and J. Estep. 2010. Report of Additional Wind Turbine Hazard Ratings in the Altamont Pass Wind Resource Area by Two Members of the Alameda County Scientific Review Committee. http://www.altamontsrc.org/alt_doc/p153_smallwood_estep_additional_hazard_ratings.pdf

Smallwood, K. S. 2010. Alternatives to Improve the Efficiency of the Monitoring Program. http://www.altamontsrc.org/alt_doc/p158_smallwood_response_to_memo_on_monitoring_costs.pdf

Smallwood, S. 2010. Summary of Alameda County SRC Recommendations and Concerns and Subsequent Actions. http://www.altamontsrc.org/alt_doc/p147_smallwood_summary_of_src_recommendations_and_concerns_1_11_10.pdf

Smallwood, S. 2010. Progress of Avian Wildlife Protection Program & Schedule. http://www.altamontsrc.org/alt_doc/p148_smallwood_progress_of_avian_wildlife_protection_program_1_11_10.pdf

Smallwood, S. 2010. Old-Generation Wind Turbines Rated for Raptor Collision Hazard by Alameda County Scientific Review Committee in 2010, an Update on those Rated in 2007, and an Update on Tier Rankings. http://www.altamontsrc.org/alt_doc/p155_smallwood_src_turbine_ratings_and_status.pdf

Smallwood, K. S. 2010. Review of American Kestrel-Burrowing owl (KB) Scavenger Removal Adjustments Reported in Alameda County Avian Monitoring Team's M21 for the Altamont Pass Wind Resource Area. http://www.altamontsrc.org/alt_doc/p154_smallwood_kb_removal_rates_041610.pdf

Smallwood, K. S. 2010. Fatality Rates in the Altamont Pass Wind Resource Area 1998-2009. P145_Smallwood Fatality Monitoring Results 12-31-09.

Smallwood, K. S. 2010. Comments on Revised M-21: Report on Fatality Monitoring in the Altamont Pass Wind Resource Area. P144 SRC Comments on 2009 Draft Monitoring Report M21.

Smallwood, K. S. 2009. http://www.altamontsrc.org/alt_doc/p129_smallwood_search_interval_summaries_supplemental_to_m39.pdf

Smallwood, K. S. 2009. Smallwood's review of M32. Alameda County SRC document P-111. 6 pp. http://www.altamontsrc.org/alt_doc/p111_smallwoods_review_of_m32.pdf

Smallwood, K. S. 2009. 3rd Year Review of 16 Conditional Use Permits for Windworks, Inc. and Altamont Infrastructure Company, LLC. Comment letter to East County Board of Zoning Adjustments. 10 pp + 2 attachments.

Smallwood, K. S. 2008. Weighing Remaining Workload of Alameda County SRC against Proposed Budget Cap. Alameda County SRC document not assigned. 3 pp.

Alameda County SRC (Smallwood, K. S., S. Orloff, J. Estep, J. Burger, and J. Yee). 2008. SRC Comments on August 2008 Fatality Monitoring Report, M21. Alameda County SRC document P-107. 21 pp. http://www.altamontsrc.org/alt_doc/p107_smallwood_review_of_july_2008_monitoring_report_m21.pdf

Smallwood, K. S. 2008. Burrowing Owl Carcass Distribution around Wind Turbines. Alameda County SRC document 106. 8 pp. http://www.altamontsrc.org/alt_doc/p106_smallwood_burrowing_owl_carcass_distribution_around_wind_turbines.pdf

Smallwood, K. S. 2008. Assessment of Relocation/Removal of Altamont Pass Wind Turbines Rated as Hazardous by the Alameda County SRC. Alameda County SRC document P-103. 10 pp. http://www.altamontsrc.org/alt_doc/p103_assessment_of_src_recommendations_to_relocate_rated_turbines.pdf

Smallwood, K. S. and L. Neher. 2008. Summary of wind turbine-free ridgelines within and around the APWRA. Alameda County SRC document P-102. 4 pp. http://www.altamontsrc.org/alt_doc/p102_smallwood_neher_wind_turbine_free_ridgelines.pdf

Smallwood, K. S. and B. Karas. 2008. Comparison of Mortality Estimates in the Altamont Pass Wind Resource Area when Restricted to Recent Fatalities. Alameda County SRC document P-101. 14 pp. http://www.altamontsrc.org/alt_doc/p101_smallwood_karas_mortality_restricted_to_recent.pdf

Smallwood, K. S. 2008. On the Misapplication of Mortality Adjustment Terms to Fatalities Missed During one Search and Found Later. Alameda County SRC document P-97. 3 pp. http://www.altamontsrc.org/alt_doc/p97_double_counting_of_missed_fatalities.pdf

Smallwood, K. S. 2008. Relative abundance of raptors outside the APWRA. Alameda County SRC document P-88. 6 pp. http://www.altamontsrc.org/alt_doc/p88_smallwood_relative_-abundance_of_birds_offsite.pdf

Smallwood, K. S. 2008. Comparison of mortality estimates in the Altamont Pass Wind Resource Area. Alameda County SRC document P-76. 19 pp. http://www.altamontsrc.org/alt_doc/p76_-mortality_estimates_apwra_2005_07.pdf

Alameda County SRC (Smallwood, K. S., S. Orloff, J. Estep, J. Burger, and J. Yee). 2010. Guidelines for siting wind turbines recommended for relocation to minimize potential collision-related mortality of four focal raptor species in the Altamont Pass Wind Resource Area. Alameda County SRC document P-70. P70 SRC Hazardous Turbine Relocation Guidelines

Alameda County SRC (Smallwood, K. S., S. Orloff, J. Estep, J. Burger, and J. Yee). December 11, 2007. SRC selection of dangerous wind turbines. Alameda County SRC document P-67. 8 pp. http://www.altamontsrc.org/alt_doc/p67_src_turbine_selection_12_11_07.pdf

Smallwood, S. October 6, 2007. Smallwood's Answers to Audubon's Queries about the SRC's Recommended Four Month Winter Shutdown of Wind Turbines in the Altamont Pass. Alameda County SRC document P-23. 7 pp. http://www.altamontsrc.org/alt_doc/s23_ss_answers_to_audubons_queries_on_winter_shutdown_recommendation.pdf

Smallwood, K. S. October 1, 2007. Dissenting Opinion on Recommendation to Approve of the AWI Blade Painting Study. Alameda County SRC document P-60. 4 pp. http://www.altamontsrc.org/alt_doc/p60_smallwood_dissenting_opinion_awi_blade_painting_study_10_2_07.pdf

Smallwood, K. S. July 26, 2007. Effects of Monitoring Duration and Inter-Annual Variability on Precision of Wind-Turbine Caused Mortality Estimates in the Altamont Pass Wind Resource

Area, California. SRC Document P44, 16 pp. http://www.altamontsrc.org/alt_doc/p44_smallwood_effects_of_monitoring_period_and_variability_7_26_07.pdf

Smallwood, K. S. July 26, 2007. Memo: Opinion of some SRC members that the period over which post-management mortality will be estimated remains undefined. SRC Document P43, 5 pp. http://www.altamontsrc.org/alt_doc/p43_smallwood_on_monitoring_period_7_26_07.pdf

Smallwood, K. S. July 19, 2007. Smallwood's response to P24G. SRC Document P41, 4 pp. http://www.altamontsrc.org/alt_doc/p41_smallwood_response_to_p24_docs.pdf

Smallwood, K. S. April 23, 2007. New Information Regarding Alameda County SRC Decision of 11 April 2007 to Grant FPLE Credits for Removing and Relocating Wind Turbines in 2004. SRC Document P26, 12 pp. http://www.altamontsrc.org/alt_doc/p26_new_information_on_fple_credits.pdf

Alameda County SRC (Smallwood, K. S., S. Orloff, J. Estep, and J. Burger [J. Yee abstained]). April 17, 2007. SRC Statement in Support of the Monitoring Program Scope and Budget. 1pp.

Smallwood, K. S. April 15, 2007. Verification of Tier 1 & 2 Wind Turbine Shutdowns and Relocations. SRC Document P22, 5 pp. http://www.altamontsrc.org/alt_doc/p22_verification_to_tier_shutdowns_smallwood_4_15_07.pdf

Smallwood, S. April 15, 2007. Progress of Avian Wildlife Protection Program & Schedule. 4 pp.

Alameda County SRC (Smallwood, K. S., S. Orloff, J. Estep, J. Burger, and J. Yee). April 3, 2007. Alameda County Scientific Review Committee Replies to the Parties' Responses to its Queries and to Comments from the California Office of the Attorney General. SRC Document S20, http://www.altamontsrc.org/alt_doc/alt_settlement/s20_src_replies_to_parties_answers_04_03_07.pdf. 12 pp.

Smallwood, S. March 19, 2007. Estimated Effects of Full Winter Shutdown and Removal of Tier I & II Turbines. SRC Document S19, http://www.altamontsrc.org/alt_doc/alt_settlement/s19_smallwood_estimated_effects_shutdown_and_tier_1_2_removal_3_19_07.pdf. 1 pp.

Smallwood, S. March 8, 2007. Smallwood's Replies to the Parties' Responses to Queries from the SRC and Comments from the California Office of the Attorney General. SRC Document S16, http://www.altamontsrc.org/alt_doc/alt_settlement/s16_smallwoods_replies_to_parties_response_3_9_07.pdf. 9 pp.

Smallwood, S. March 8, 2007. Estimated Effects of Proposed Measures to be Applied to 2,500 Wind Turbines in the APWRA Fatality Monitoring Plan. SRC Document S15, http://www.altamontsrc.org/alt_doc/alt_settlement/s15_smallwood_estimated_effects_proposed_measures_3_8_07.pdf. 2 pp.

Alameda County SRC (Smallwood, K. S., S. Orloff, J. Estep, J. Burger, and J. Yee). February 7, 2007. Analysis of Monitoring Program in Context of 1/1//2007 Settlement Agreement. 7 pp.

Smallwood, S. January 8, 2007. Smallwood's Concerns over the Agreement to Settle the CEQA Challenges. SRC Document S5, http://www.altamontsrc.org/alt_doc/alt_settlement/s5_smallwood_on_proposed_settlement_agreement.rtf. 5 pp.

Alameda County SRC (Smallwood, K. S., S. Orloff, J. Estep, J. Burger, and J. Yee). December 19, 2006. Altamont Scientific Review Committee (SRC) Recommendations to the County on the Avian Monitoring Team Consultants' Budget and Organization. 3 pp.

Reports

Smallwood, K. S. 2011. Comments on Marbled Murrelet Collision Model for the Radar Ridge Wind Resource Area. Unpublished report to EcoStat, Inc., and ultimately to US Fish and Wildlife Service. 17 pp.

Smallwood, K. S. 2011. Avian Fatality Rates at Buena Vista Wind Energy Project, 2008-2011. Unpublished report to Pattern Energy. 10 pp.

Smallwood, K. S. and L. Neher. 2011. Siting Repowered Wind Turbines to Minimize Raptor Collisions at Tres Vaqueros, Contra Costa County, California. Unpublished report to Pattern Energy. 13 pp.

Smallwood, K. S. and M. L. Morrison. 2011. San Joaquin kangaroo rat (*Dipodomys n. nitratoides*) Conservation Research in Resource Management Area 5, Lemoore Naval Air Station: 2010 Progress Report (Inclusive of work during 2000-2010). Naval Facilities Engineering Command, Southwest, Desert Integrated Products Team, San Diego, California. 68 pp.

Smallwood, K. S. 2010. Wind Energy Development and Avian Issues in the Altamont Pass, California. Unpublished report to Black & Veatch. 9 pp.

Smallwood, K. S. and L. Neher. 2010. Siting Repowered Wind Turbines to Minimize Raptor Collisions at the Tres Vaqueros Wind Project, Contra Costa County, California. Draft Report to the East Bay Regional Park District, Oakland, California. 39 pp.

Smallwood, K. S. and L. Neher. 2010. Siting Repowered Wind Turbines to Minimize Raptor Collisions at Vasco Winds. Unpublished report to NextEra, Inc., Livermore, California. 32 pp.

Smallwood, K. S. 2010. Baseline Avian and Bat Fatality Rates at the Tres Vaqueros Wind Project, Contra Costa County, California. Report to the East Bay Regional Park District, Oakland, California. 41 pp.

Smallwood, K. S. and M. L. Morrison. 2010. San Joaquin kangaroo rat (*Dipodomys n. nitratoides*) Conservation Research in Resource Management Area 5, Lemoore Naval Air Station: 2009 Progress Report (Inclusive of work during 2000-2009). Naval Facilities Engineering Command, Southwest, Desert Integrated Products Team, San Diego, California. 86 pp.

Smallwood, K. S. 2009. Mammal surveys at naval outlying landing field Imperial Beach, California, August 2009. Report to Tierra Data, Inc. 5 pp

Smallwood, K. S. 2009. Mammals and other Wildlife Observed at Proposed Site of Amargosa Solar Power Project, Spring 2009. Report to Tierra Data, Inc. 13 pp

Smallwood, K. S. 2009. Avian Fatality Rates at Buena Vista Wind Energy Project, 2008-2009. Report to members of the Contra Costa County Technical Advisory Committee on the Buena Vista Wind Energy Project. 8 pp.

Smallwood, K. S. 2009. Repowering the Altamont Pass Wind Resource Area more than Doubles Energy Generation While Substantially Reducing Bird Fatalities. Report prepared on behalf of Californians for Renewable Energy. 2 pp.

Smallwood, K. S. and M. L. Morrison. 2009. Surveys to Detect Salt Marsh Harvest Mouse and California Black Rail at Installation Restoration Site 30, Military Ocean Terminal Concord, California: March-April 2009. Report to Insight Environmental, Engineering, and Construction, Inc., Sacramento, California. 6 pp.

Smallwood, K. S. 2008. Avian and Bat Mortality at the Big Horn Wind Energy Project, Klickitat County, Washington. Unpublished report to Friends of Skamania County. 7 pp.

Smallwood, K. S. 2009. Monitoring Fossorial Mammals in Vasco Caves Regional Preserve, California: report of progress for the period 2006-2008. Unpublished report to East Bay Regional Park District. 5 pp.

Smallwood, K. S. and M. L. Morrison. 2008. San Joaquin kangaroo rat (*Dipodomys n. nitratoides*) Conservation Research in Resource Management Area 5, Lemoore Naval Air Station: 2008 Progress Report (Inclusive of work during 2000-2008). Naval Facilities Engineering Command, Southwest, Desert Integrated Products Team, San Diego, California. 84 pp.

Smallwood, K. S. and M. L. Morrison. 2008. Habitat Assessment for California Red-Legged Frog at Naval Weapons Station, Seal Beach, Detachment Concord, California. Naval Facilities Engineering Command, Southwest, Desert Integrated Products Team, San Diego, California. 48 pp.

Smallwood, K. S. and B. Nakamoto 2008. Impact of 2005 and 2006 West Nile Virus on Yellow-billed Magpie and American Crow in the Sacramento Valley, California. 22 pp.

Smallwood, K. S. and M. L. Morrison. 2008. Former Naval Security Group Activity (NSGA), Skaggs Island, Waste and Contaminated Soil Removal Project (IR Site #2), San Pablo Bay, Sonoma County, California: Re-Vegetation Monitoring. Report to U.S. Navy, Letter Agreement – N68711-04LT-A0045. Naval Facilities Engineering Command, Southwest, Desert Integrated Products Team, San Diego, California. 10 pp.

Smallwood, K. S. and M. L. Morrison. 2008. Burrowing owls at Dixon Naval Radio Transmitter Facility. Report to U.S. Navy. Naval Facilities Engineering Command, Southwest, Desert Integrated Products Team, San Diego, California. 28 pp.

Smallwood, K. S. and M. L. Morrison. 2008. San Joaquin kangaroo rat (*Dipodomys n. nitratoides*) Conservation Research in Resource Management Area 5, Lemoore Naval Air Station: 2007

Progress Report (Inclusive of work during 2001-2007). Naval Facilities Engineering Command, Southwest, Desert Integrated Products Team, San Diego, California. 69 pp.

Smallwood, K. S. and M. L. Morrison. 2007. A Monitoring Effort to Detect the Presence of the Federally Listed Species California Clapper Rail and Salt Marsh Harvest Mouse, and Wetland Habitat Assessment at the Naval Weapons Station, Seal Beach, Detachment Concord, California. Installation Restoration (IR) Site 30, Final Report to U.S. Navy, Letter Agreement – N68711-05LT-A0001. U.S. Navy Integrated Product Team (IPT), West, Naval Facilities Engineering Command, San Diego, California. 8 pp.

Smallwood, K. S. and M. L. Morrison. 2007. San Joaquin kangaroo rat (*Dipodomys n. nitratoides*) Conservation Research in Resource Management Area 5, Lemoore Naval Air Station: 2006 Progress Report (Inclusive of work during 2001-2006). U.S. Navy Integrated Product Team (IPT), West, Naval Facilities Engineering Command, Southwest, Daly City, California. 165 pp.

Smallwood, K. S. and C. Thelander. 2006. Response to third review of Smallwood and Thelander (2004). Report to California Institute for Energy and Environment, University of California, Oakland, CA. 139 pp.

Smallwood, K. S. 2006. Biological effects of repowering a portion of the Altamont Pass Wind Resource Area, California: The Diablo Winds Energy Project. Report to Altamont Working Group. Available from Shawn Smallwood, puma@yolo.com . 34 pp.

Smallwood, K. S. 2006. Impact of 2005 West Nile Virus on Yellow-billed Magpie and American Crow in the Sacramento Valley, California. Report to Sacramento-Yolo Mosquito and Vector Control District, Elk Grove, CA. 38 pp.

Smallwood, K. S. and M. L. Morrison. 2006. San Joaquin kangaroo rat (*Dipodomys n. nitratoides*) Conservation Research in Resource Management Area 5, Lemoore Naval Air Station: 2005 Progress Report (Inclusive of work during 2001-2005). U.S. Navy Integrated Product Team (IPT), West, Naval Facilities Engineering Command, South West, Daly City, California. 160 pp.

Smallwood, K. S. and M. L. Morrison. 2006. A monitoring effort to detect the presence of the federally listed species California tiger salamander and California red-legged frog at the Naval Weapons Station, Seal Beach, Detachment Concord, California. Letter agreements N68711-04LT-A0042 and N68711-04LT-A0044, U.S. Navy Integrated Product Team (IPT), West, Naval Facilities Engineering Command, South West, Daly City, California. 60 pp.

Smallwood, K. S. and M. L. Morrison. 2006. A monitoring effort to detect the presence of the federally listed species California Clapper Rail and Salt Marsh Harvest Mouse, and wetland habitat assessment at the Naval Weapons Station, Seal Beach, Detachment Concord, California. Sampling for rails, Spring 2006, Installation Restoration (IR) Site 1. Letter Agreement – N68711-05lt-A0001, U.S. Navy Integrated Product Team (IPT), West, Naval Facilities Engineering Command, South West, Daly City, California. 9 pp.

Morrison, M. L. and K. S. Smallwood. 2006. Final Report: Station-wide Wildlife Survey, Naval Air Station, Lemoore. Department of the Navy Integrated Product Team (IPT) West, Naval

Facilities Engineering Command Southwest, 2001 Junipero Serra Blvd., Suite 600, Daly City, CA 94014-1976. 20 pp.

Smallwood, K. S. and M. L. Morrison. 2006. Former Naval Security Group Activity (NSGA), Skaggs Island, Waste and Contaminated Soil Removal Project, San Pablo Bay, Sonoma County, California: Re-vegetation Monitoring. Department of the Navy Integrated Product Team (IPT) West, Naval Facilities Engineering Command Southwest, 2001 Junipero Serra Blvd., Suite 600, Daly City, CA 94014-1976. 8 pp.

Dorin, Melinda, Linda Spiegel and K. Shawn Smallwood. 2005. Response to public comments on the staff report entitled *Assessment of Avian Mortality from Collisions and Electrocutions* (CEC-700-2005-015) (Avian White Paper) written in support of the 2005 Environmental Performance Report and the 2005 Integrated Energy Policy Report. California Energy Commission, Sacramento. 205 pp.

Smallwood, K. S. 2005. Estimating combined effects of selective turbine removal and winter-time shutdown of half the wind turbines. Unpublished CEC staff report, June 23. 1 p.

Erickson, W. and S. Smallwood. 2005. Avian and Bat Monitoring Plan for the Buena Vista Wind Energy Project Contra Costa County, California. Unpubl. report to Contra Costa County, Antioch, California. 22 pp.

Lamphier-Gregory, West Inc., Shawn Smallwood, Jones & Stokes Associates, Illingworth & Rodkin Inc. and Environmental Vision. 2005. Environmental Impact Report for the Buena Vista Wind Energy Project, LP# 022005. County of Contra Costa Community Development Department, Martinez, California.

Morrison, M. L. and K. S. Smallwood. 2005. A monitoring effort to detect the presence of the federally listed species California clapper rail and salt marsh harvest mouse, and wetland habitat assessment at the Naval Weapons Station, Seal Beach, Detachment Concord, California. Targeted Sampling for Salt Marsh Harvest Mouse, Fall 2005 Installation Restoration (IR) Site 30. Letter Agreement – N68711-05lt-A0001, U.S. Department of the Navy, Naval Facilities Engineering Command Southwest, Daly City, California. 6 pp.

Morrison, M. L. and K. S. Smallwood. 2005. A monitoring effort to detect the presence of the federally listed species California clapper rail and salt marsh harvest mouse, and wetland habitat assessment at the Naval Weapons Station, Seal Beach, Detachment Concord, California. Letter Agreement – N68711-05lt-A0001, U.S. Department of the Navy, Naval Facilities Engineering Command Southwest, Daly City, California. 5 pp.

Morrison, M. L. and K. S. Smallwood. 2005. Skaggs Island waste and contaminated soil removal projects, San Pablo Bay, Sonoma County, California. Report to the U.S. Department of the Navy, Naval Facilities Engineering Command Southwest, Daly City, California. 6 pp.

Smallwood, K. S. and M. L. Morrison. 2004. 2004 Progress Report: San Joaquin kangaroo rat (*Dipodomys nitratoides*) Conservation Research in Resources Management Area 5, Lemoore Naval Air Station. Progress report to U.S. Department of the Navy, Lemoore, California. 134 pp.

Smallwood, K. S. and L. Spiegel. 2005a. Assessment To Support An Adaptive Management Plan For The APWRA. Unpublished CEC staff report, January 19. 19 pp.

Smallwood, K. S. and L. Spiegel. 2005b. Partial Re-assessment of An Adaptive Management Plan For The APWRA. Unpublished CEC staff report, March 25. 48 pp.

Smallwood, K. S. and L. Spiegel. 2005c. Combining biology-based and policy-based tiers of priority for determining wind turbine relocation/shutdown to reduce bird fatalities in the APWRA. Unpublished CEC staff report, June 1. 9 pp.

Smallwood, K. S. 2004. Alternative plan to implement mitigation measures in APWRA. Unpublished CEC staff report, January 19. 8 pp.

Smallwood, K. S., and L. Neher. 2005. Repowering the APWRA: Forecasting and minimizing avian mortality without significant loss of power generation. California Energy Commission, PIER Energy-Related Environmental Research. CEC-500-2005-005. 21 pp. [Reprinted (in Japanese) in Yukihiro Kominami, Tatsuya Ura, Koshitawa, and Tsuchiya, Editors, Wildlife and Wind Turbine Report 5. Wild Bird Society of Japan, Tokyo.]

Morrison, M. L., and K. S. Smallwood. 2004. Kangaroo rat survey at RMA4, NAS Lemoore. Report to U.S. Navy. 4 pp.

Morrison, M. L., and K. S. Smallwood. 2004. A monitoring effort to detect the presence of the federally listed species California clapper rails and wetland habitat assessment at Pier 4 of the Naval Weapons Station, Seal Beach, Detachment Concord, California. Letter Agreement N68711-04LT-A0002. 8 pp. + 2 pp. of photo plates.

Smallwood, K. S. and M. L. Morrison. 2003. 2003 Progress Report: San Joaquin kangaroo rat (*Dipodomys nitratoides*) Conservation Research at Resources Management Area 5, Lemoore Naval Air Station. Progress report to U.S. Department of the Navy, Lemoore, California. 56 pp. + 58 figures.

Smallwood, K. S. 2003. Comparison of Biological Impacts of the No Project and Partial Underground Alternatives presented in the Final Environmental Impact Report for the Jefferson-Martin 230 kV Transmission Line. Report to California Public Utilities Commission. 20 pp.

Morrison, M. L., and K. S. Smallwood. 2003. Kangaroo rat survey at RMA4, NAS Lemoore. Report to U.S. Navy. 6 pp. + 7 photos + 1 map.

Smallwood, K. S. 2003. Assessment of the Environmental Review Documents Prepared for the Tesla Power Project. Report to the California Energy Commission on behalf of Californians for Renewable Energy. 32 pp.

Smallwood, K. S., and M. L. Morrison. 2003. 2002 Progress Report: San Joaquin kangaroo rat (*Dipodomys nitratoides*) Conservation Research at Resources Management Area 5, Lemoore

Naval Air Station. Progress report to U.S. Department of the Navy, Lemoore, California. 45 pp. + 36 figures.

Smallwood, K. S., Michael L. Morrison and Carl G. Thelander 2002. Study plan to test the effectiveness of aerial markers at reducing avian mortality due to collisions with transmission lines: A report to Pacific Gas & Electric Company. 10 pp.

Smallwood, K. S. 2002. Assessment of the Environmental Review Documents Prepared for the East Altamont Energy Center. Report to the California Energy Commission on behalf of Californians for Renewable Energy. 26 pp.

Thelander, Carl G., K. Shawn Smallwood, and Christopher Costello. 2002 Rating Distribution Poles for Threat of Raptor Electrocution and Priority Retrofit: Developing a Predictive Model. Report to Southern California Edison Company. 30 pp.

Smallwood, K. S., M. Robison, and C. Thelander. 2002. Draft Natural Environment Study, Prunedale Highway 101 Project. California Department of Transportation, San Luis Obispo, California. 120 pp.

Smallwood, K.S. 2001. Assessment of ecological integrity and restoration potential of Beeman/Pelican Farm. Draft Report to Howard Beeman, Woodland, California. 14 pp.

Smallwood, K. S., and M. L. Morrison. 2002. Fresno kangaroo rat (*Dipodomys nitratoides*) Conservation Research at Resources Management Area 5, Lemoore Naval Air Station. Progress report to U.S. Department of the Navy, Lemoore, California. 29 pp. + 19 figures.

Smallwood, K.S. 2001. Rocky Flats visit, April 4th through 6th, 2001. Report to Berger & Montaque, P.C. 16 pp. with 61 color plates.

Smallwood, K.S. 2001. Affidavit of K. Shawn Smallwood, Ph.D. in the matter of the U.S. Fish and Wildlife Service's rejection of Seatuck Environmental Association's proposal to operate an education center on Seatuck National Wildlife Refuge. Submitted to Seatuck Environmental Association in two parts, totaling 7 pp.

Magney, D., and K.S. Smallwood. 2001. Maranatha High School CEQA critique. Comment letter submitted to Tamara & Efren Compeán, 16 pp.

Smallwood, K.S. 2001. Preliminary Comments on the Proposed Blythe Energy Project. Submitted to California Energy Commission on March 15 on behalf of Californians for Renewable Energy (CaRE). 14 pp.

Smallwood, K. S. and D. Mangey. 2001. Comments on the Newhall Ranch November 2000 Administrative Draft EIR. Prepared for Ventura County Counsel regarding the Newhall Ranch Specific Plan EIR. 68 pp.

Magney, D. and K. S. Smallwood. 2000. Newhall Ranch Notice of Preparation Submittal. Prepared for Ventura County Counsel regarding our recommended scope of work for the Newhall Ranch Specific Plan EIR. 17 pp.

Smallwood, K. S. 2000. Comments on the Preliminary Staff Assessment of the Contra Costa Power Plant Unit 8 Project. Submitted to California Energy Commission on November 30 on behalf of Californians for Renewable Energy (CaRE). 4 pp.

Smallwood, K. S. 2000. Comments on the California Energy Commission's Final Staff Assessment of the MEC. Submitted to California Energy Commission on October 29 on behalf of Californians for Renewable Energy (CaRE). 8 pp.

Smallwood, K. S. 2000. Comments on the Biological Resources Mitigation Implementation and Monitoring Plan (BRMIMP). Submitted to California Energy Commission on October 29 on behalf of Californians for Renewable Energy (CaRE). 9 pp.

Smallwood, K. S. 2000. Comments on the Preliminary Staff Assessment of the Metcalf Energy Center. Submitted to California Energy Commission on behalf of Californians for Renewable Energy (CaRE). 11 pp.

Smallwood, K. S. 2000. Preliminary report of reconnaissance surveys near the TRW plant south of Phoenix, Arizona, March 27-29. Report prepared for Hagens, Berman & Mitchell, Attorneys at Law, Phoenix, AZ. 6 pp.

Morrison, M.L., K.S. .Smallwood, and M. Robison. 2001. Draft Natural Environment Study for Highway 46 compliance with CEQA/NEPA. Report to the California Department of Transportation. 75 pp.

Morrison, M.L., and K.S. Smallwood. 1999. NTI plan evaluation and comments. Exhibit C in W.D. Carrier, M.L. Morrison, K.S. Smallwood, and Vail Engineering. Recommendations for NBHCP land acquisition and enhancement strategies. Northern Territories, Inc., Sacramento.

Smallwood, K. S. 1999. Estimation of impacts due to dredging of a shipping channel through Humboldt Bay, California. Court Declaration prepared on behalf of EPIC.

Smallwood, K. S. 1998. 1998 California Mountain Lion Track Count. Report to the Defenders of Wildlife, Washington, D.C. 5 pages.

Smallwood, K.S. 1998. Draft report of a visit to a paint sludge dump site near Ridgewood, New Jersey, February 26th, 1998. Unpublished report to Consulting in the Public Interest.

Smallwood, K.S. 1997. Science missing in the "no surprises" policy. Commissioned by National Endangered Species Network and Spirit of the Sage Council, Pasadena, California.

Smallwood, K.S. and M.L. Morrison. 1997. Alternate mitigation strategy for incidental take of giant garter snake and Swainson's hawk as part of the Natomas Basin Habitat Conservation Plan. Pages 6-9 and *iii* illustrations in W.D. Carrier, K.S. Smallwood and M.L. Morrison, Natomas Basin Habitat Conservation Plan: Narrow channel marsh alternative wetland mitigation. Northern Territories, Inc., Sacramento.

Smallwood, K.S. 1996. Assessment of the BIOPORT model's parameter values for pocket gopher burrowing characteristics. Report to Berger & Montague, P.C. and Roy S. Haber, P.C., Philadelphia. (peer reviewed).

Smallwood, K.S. 1997. Assessment of plutonium releases from Hanford buried waste sites. Report Number 9, Consulting in the Public Interest, 53 Clinton Street, Lambertville, New Jersey, 08530.

Smallwood, K.S. 1996. Soil Bioturbation and Wind Affect Fate of Hazardous Materials that were Released at the Rocky Flats Plant, Colorado. Report to Berger & Montague, P.C., Philadelphia.

Smallwood, K.S. 1996. Second assessment of the BIOPORT model's parameter values for pocket gopher burrowing characteristics and other relevant wildlife observations. Report to Berger & Montague, P.C. and Roy S. Haber, P.C., Philadelphia.

Smallwood, K.S., and R. Leidy. 1996. Wildlife and Their Management Under the Martell SYP. Report to Georgia Pacific, Corporation, Martel, CA. 30 pp.

EIP Associates. 1995. Yolo County Habitat Conservation Plan Biological Resources Report. Yolo County Planning and Development Department, Woodland, California.

Smallwood, K.S. and S. Geng. 1995. Analysis of the 1987 California Farm Cost Survey and recommendations for future survey. Program on Workable Energy Regulation, University-wide Energy Research Group, University of California.

Smallwood, K.S., S. Geng, and W. Idzerda. 1992. Final report to PG&E: Analysis of the 1987 California Farm Cost Survey and recommendations for future survey. Pacific Gas & Electric Company, San Ramon, California. 24 pp.

Fitzhugh, E.L. and K.S. Smallwood. 1987. Methods Manual – A statewide mountain lion population index technique. California Department of Fish and Game, Sacramento.

Salmon, T.P. and K.S. Smallwood. 1989. Final Report – Evaluating exotic vertebrates as pests to California agriculture. California Department of Food and Agriculture, Sacramento.

Smallwood, K.S. and W. A. Erickson (written under supervision of W.E. Howard, R.E. Marsh, and R.J. Laacke). 1990. Environmental exposure and fate of multi-kill strychnine gopher baits. Final Report to USDA Forest Service –NAPIAP, Cooperative Agreement PSW-89-0010CA.

Fitzhugh, E.L., K.S. Smallwood, and R. Gross. 1985. Mountain lion track count, Marin County, 1985. Unpublished report on file at Wildlife Extension, University of California, Davis.

Comments on Environmental Documents

I was retained or commissioned to comment on environmental planning and review documents, including:

- Comment on Sutter Landing Park Solar Photovoltaic Project MND (2011; 9 pp);

- Statement of Shawn Smallwood, Ph.D. Regarding Proposed Rabik/Gudath Project, 22611 Coleman Valley Road, Bodega Bay (CPN 10-0002) (2011; 4 pp);
- Declaration of K. Shawn Smallwood on Biological Impacts of the Ivanpah Solar Electric Generating System (ISEGS) (2011; 9 pp);
- Comments on Draft Eagle Conservation Plan Guidance (2011; 13 pp);
- Comments on Draft EIR/EA for Niles Canyon Safety Improvement Project (2011; 16 pp);
- Declaration of K. Shawn Smallwood, Ph.D., on Biological Impacts of the Route 84 Safety Improvement Project (2011; 7 pp);
- Rebuttal Testimony of Witness #22, K. Shawn Smallwood, Ph.D, on Behalf of Intervenors Friends of The Columbia Gorge and Save Our Scenic Area (2010; 6 pp);
- Prefiled Direct Testimony of Witness #22, K. Shawn Smallwood, Ph.D, on Behalf of Intervenors Friends of the Columbia Gorge and Save Our Scenic Area. Comments on Whistling Ridge Wind Energy Power Project DEIS, Skamania County, Washington (2010; 41 pp);
- Evaluation of Klickitat County's Decisions on the Windy Flats West Wind Energy Project (2010; 17 pp);
- St. John's Church Project Draft Environmental Impact Report (2010; 14 pp.);
- Initial Study/Mitigated Negative Declaration for Results Radio Zone File #2009-001 (2010; 20 pp);
- Rio del Oro Specific Plan Project Final Environmental Impact Report (2010;12 pp);
- Answers to Questions on 33% RPS Implementation Analysis Preliminary Results Report (2009: 9 pp);
- SEPA Determination of Non-significance regarding zoning adjustments for Skamania County, Washington. Second Declaration to Friends of the Columbia Gorge, Inc. and Save Our Scenic Area (Dec 2008; 17 pp);
- Comments on Draft 1A Summary Report to CAISO (2008; 10 pp);
- Categorical Exemption of Hilton Manor Project, as determined by County of Placer (2009; 9 pp);
- Protest of CARE to Amendment to the Power Purchase and Sale Agreement for Procurement of Eligible Renewable Energy Resources Between Hatchet Ridge Wind LLC and PG&E (2009; 3 pp);
- Tehachapi Renewable Transmission Project EIR/EIS (2009; 142 pp);
- Delta Shores Project EIR, south Sacramento (2009; 11 pp + addendum 2 pp);
- Declaration of Shawn Smallwood in Support of Care's Petition to Modify D.07-09-040 (2008; 3 pp);
- The Public Utility Commission's Implementation Analysis December 16 Workshop for the Governor's Executive Order S-14-08 to implement a 33% Renewable Portfolio Standard by 2020 (2008; 9 pp);
- The Public Utility Commission's Implementation Analysis Draft Work Plan for the Governor's Executive Order S-14-08 to implement a 33% Renewable Portfolio Standard by 2020 (2008; 11 pp);
- Draft 1A Summary Report to California Independent System Operator for Planning Reserve Margins (PRM) Study (2008; 7 pp.);
- SEPA Determination of Non-significance regarding zoning adjustments for Skamania County, Washington. Declaration to Friends of the Columbia Gorge, Inc. and Save Our Scenic Area (Sep 2008; 16 pp);

- California Energy Commission's Preliminary Staff Assessment of the Colusa Generating Station (2007; 24 pp);
- Rio del Oro Specific Plan Project Recirculated Draft Environmental Impact Report (2008: 66 pp);
- Replies to Response to Comments Re: Regional University Specific Plan Environmental Impact Report (2008; 20 pp);
- Regional University Specific Plan Environmental Impact Report (2008: 33 pp.);
- Clark Precast, LLC's "Sugarland" project, Negative Declaration (2008: 15 pp.);
- Cape Wind Project Draft Environmental Impact Statement (2008; 157 pp.);
- Yuba Highlands Specific Plan (or Area Plan) Environmental Impact Report (2006; 37 pp.);
- Replies to responses to comments on Mitigated Negative Declaration of the proposed Mining Permit (MIN 04-01) and Modification of Use Permit 96-02 at North Table Mountain (2006; 5 pp);
- Mitigated Negative Declaration of the proposed Mining Permit (MIN 04-01) and Modification of Use Permit 96-02 at North Table Mountain (2006; 15 pp);
- Windy Point Wind Farm Environmental Review and EIS (2006; 14 pp and 36 Powerpoint slides in reply to responses to comments);
- Shiloh I Wind Power Project EIR (2005; 18 pp);
- Buena Vista Wind Energy Project Notice of Preparation of EIR (2004; 15 pp);
- Negative Declaration of the proposed Callahan Estates Subdivision (2004; 11 pp);
- Negative Declaration of the proposed Winters Highlands Subdivision (2004; 9 pp);
- Negative Declaration of the proposed Winters Highlands Subdivision (2004; 13 pp);
- Negative Declaration of the proposed Creekside Highlands Project, Tract 7270 (2004; 21 pp);
- On the petition California Fish and Game Commission to list the Burrowing Owl as threatened or endangered (2003; 10 pp);
- Conditional Use Permit renewals from Alameda County for wind turbine operations in the Altamont Pass Wind Resource Area (2003; 41 pp);
- UC Davis Long Range Development Plan of 2003, particularly with regard to the Neighborhood Master Plan (2003; 23 pp);
- Anderson Marketplace Draft Environmental Impact Report (2003: 18 pp + 3 plates of photos);
- Negative Declaration of the proposed expansion of Temple B'nai Tikyah (2003: 6 pp);
- Antonio Mountain Ranch Specific Plan Public Draft EIR (2002: 23 pp);
- Response to testimony of experts at the East Altamont Energy Center evidentiary hearing on biological resources (2002: 9 pp);
- Revised Draft Environmental Impact Report, The Promenade (2002: 7 pp);
- Recirculated Initial Study for Calpine's proposed Pajaro Valley Energy Center (2002: 3 pp);
- UC Merced -- Declaration of Dr. Shawn Smallwood in support of petitioner's application for temporary restraining order and preliminary injunction (2002: 5 pp);
- Replies to response to comments in Final Environmental Impact Report, Atwood Ranch Unit III Subdivision (2003: 22 pp);
- Draft Environmental Impact Report, Atwood Ranch Unit III Subdivision (2002: 19 pp + 8 photos on 4 plates);
- California Energy Commission Staff Report on GWF Tracy Peaker Project (2002: 17 pp + 3 photos; follow-up report of 3 pp);

- Initial Study and Negative Declaration, Silver Bend Apartments, Placer County (2002: 13 pp);
- UC Merced Long-range Development Plan DEIR and UC Merced Community Plan DEIR (2001: 26 pp);
- Initial Study, Colusa County Power Plant (2001: 6 pp);
- Comments on Proposed Dog Park at Catlin Park, Folsom, California (2001: 5 pp + 4 photos);
- Pacific Lumber Co. (Headwaters) Habitat Conservation Plan and Environmental Impact Report (1998: 28 pp);
- Final Environmental Impact Report/Statement for Issuance of Take authorization for listed species within the MSCP planning area in San Diego County, California (Fed. Reg. 62 (60): 14938, San Diego Multi-Species Conservation Program) (1997: 10 pp);
- Permit (PRT-823773) Amendment for the Natomas Basin Habitat Conservation Plan, Sacramento, CA (Fed. Reg. 63 (101): 29020-29021) (1998);
- Draft Recovery Plan for the Giant Garter Snake (*Thamnophis gigas*). (Fed. Reg. 64(176): 49497-49498) (1999: 8 pp);
- Review of the Draft Recovery Plan for the Arroyo Southwestern Toad (*Bufo microscaphus californicus*) (1998);
- Ballona West Bluffs Project Environmental Impact Report (1999: oral presentation);
- California Board of Forestry's proposed amended Forest Practices Rules (1999);
- Negative Declaration for the Sunset Skyranch Airport Use Permit (1999);
- Calpine and Bechtel Corporations' Biological Resources Implementation and Monitoring Program (BRMIMP) for the Metcalf Energy Center (2000: 10 pp);
- California Energy Commission's Final Staff Assessment of the proposed Metcalf Energy Center (2000);
- US Fish and Wildlife Service Section 7 consultation with the California Energy Commission regarding Calpine and Bechtel Corporations' Metcalf Energy Center (2000: 4 pp);
- California Energy Commission's Preliminary Staff Assessment of the proposed Metcalf Energy Center (2000: 11 pp);
- Site-specific management plans for the Natomas Basin Conservancy's mitigation lands, prepared by Wildlands, Inc. (2000: 7 pp);
- Affidavit of K. Shawn Smallwood in Spirit of the Sage Council, et al. (Plaintiffs) vs. Bruce Babbitt, Secretary, U.S. Department of the Interior, et al. (Defendants), Injuries caused by the No Surprises policy and final rule which codifies that policy (1999: 9 pp).

I also issued formal comments on the following documents:

- Draft Program Level EIR for Covell Village (2005; 19 pp);
- Bureau of Land Management Wind Energy Programmatic EIS Scoping document (2003: 7 pp.);
- NEPA Environmental Analysis for Biosafety Level 4 National Biocontainment Laboratory (NBL) at UC Davis (2003: 7 pp);
- Notice of Preparation of UC Merced Community and Area Plan EIR, on behalf of The Wildlife Society—Western Section (2001: 8 pp.);
- Preliminary Draft Yolo County Habitat Conservation Plan (2001; 2 letters totaling 35 pp.);
- Merced County General Plan Revision, notice of Negative Declaration (2001: 2 pp.);

- Notice of Preparation of Campus Parkway EIR/EIS (2001: 7 pp.);
- Draft Recovery Plan for the bighorn sheep in the Peninsular Range (*Ovis candensis*) (2000);
- Draft Recovery Plan for the California Red-legged Frog (*Rana aurora draytonii*), on behalf of The Wildlife Society—Western Section (2000: 10 pp.);
- Sierra Nevada Forest Plan Amendment Draft Environmental Impact Statement, on behalf of The Wildlife Society—Western Section (2000: 7 pp.);
- State Water Project Supplemental Water Purchase Program, Draft Program EIR (1997);
- Davis General Plan Update EIR (2000);
- Turn of the Century EIR (1999: 10 pp);
- Proposed termination of Critical Habitat Designation under the Endangered Species Act (Fed. Reg. 64(113): 31871-31874) (1999);
- NOA Draft Addendum to the Final Handbook for Habitat Conservation Planning and Incidental Take Permitting Process, termed the HCP 5-Point Policy Plan (Fed. Reg. 64(45): 11485 - 11490) (1999; 2 pp + attachments);
- Covell Center Project EIR and EIR Supplement (1997).

Position Statements I prepared the following position statements for the Western Section of The Wildlife Society, and one for nearly 200 scientists:

- Recommended that the California Department of Fish and Game prioritize the extermination of the introduced southern water snake in northern California. The Wildlife Society--Western Section (2001);
- Recommended that The Wildlife Society—Western Section appoint or recommend members of the independent scientific review panel for the UC Merced environmental review process (2001);
- Opposed the siting of the University of California's 10th campus on a sensitive vernal pool/grassland complex east of Merced. The Wildlife Society--Western Section (2000);
- Opposed the legalization of ferret ownership in California. The Wildlife Society--Western Section (2000);
- Opposed the Proposed "No Surprises," "Safe Harbor," and "Candidate Conservation Agreement" rules, including permit-shield protection provisions (Fed. Reg. Vol. 62, No. 103, pp. 29091-29098 and No. 113, pp. 32189-32194). This statement was signed by 188 scientists and went to the responsible federal agencies, as well as to the U.S. Senate and House of Representatives.

Printed Mass Media

Smallwood, K.S., D. Mooney, and M. McGuinness. 2003. We must stop the UCD biolab now. Op-Ed to the Davis Enterprise.

Smallwood, K.S. 2002. Spring Lake threatens Davis. Op-Ed to the Davis Enterprise.

Smallwood, K.S. Summer, 2001. Mitigation of habitation. The Flatlander, Davis, California.

Entrikan, R.K. and K.S. Smallwood. 2000. Measure O: Flawed law would lock in new taxes. Op-Ed to the Davis Enterprise.

Smallwood, K.S. 2000. Davis delegation lobbies Congress for Wildlife conservation. Op-Ed to the Davis Enterprise.

Smallwood, K.S. 1998. Davis Visions. The Flatlander, Davis, California.

Smallwood, K.S. 1997. Last grab for Yolo's land and water. The Flatlander, Davis, California.

Smallwood, K.S. 1997. The Yolo County HCP. Op-Ed to the Davis Enterprise.

Radio/Television

KXJZ Capital Public Radio -- Insight (Host Jeffrey Callison). Mountain lion attacks (with guest Professor Richard Coss). 23 April 2009;

KXJZ Capital Public Radio -- Insight (Host Jeffrey Callison). Wind farm Rio Vista Renewable Power. 4 September 2008;

KQED QUEST Episode #111. Bird collisions with wind turbines. 2007;

KDVS Speaking in Tongues (host Ron Glick), Yolo County HCP: 1 hour. December 27, 2001;

KDVS Speaking in Tongues (host Ron Glick), Yolo County HCP: 1 hour. May 3, 2001;

KDVS Speaking in Tongues (host Ron Glick), Yolo County HCP: 1 hour. February 8, 2001;

KDVS Speaking in Tongues (host Ron Glick & Shawn Smallwood), California Energy Crisis: 1 hour. Jan. 25, 2001;

KDVS Speaking in Tongues (host Ron Glick), Headwaters Forest HCP: 1 hour. 1998;

Davis Cable Channel (host Gerald Heffernon), Burrowing owls in Davis: half hour. June, 2000;

Davis Cable Channel (hosted by Davis League of Women Voters), Measure O debate: 1 hour. October, 2000;

KXTV 10, In Your Interest, The Endangered Species Act: half hour. 1997.

Posters at Professional Meetings

Smallwood, K. S. and C. G. Thelander. 2005. Lessons learned from five years of avian mortality research in the Altamont Pass WRA. AWEA conference, Denver, May 2005.

Neher, L., L. Wilder, J. Woo, L. Spiegel, D. Yen-Nakafugi, and K.S. Smallwood. 2005. Bird's eye view on California wind. AWEA conference, Denver, May 2005.

Smallwood, K. S., C. G. Thelander and L. Spiegel. 2003. Toward a predictive model of avian fatalities in the Altamont Pass Wind Resource Area. Windpower 2003 Conference and Convention, Austin, Texas.

Smallwood, K.S. and Eva Butler. 2002. Pocket Gopher Response to Yellow Star-thistle Eradication as part of Grassland Restoration at Decommissioned Mather Air Force Base, Sacramento County, California. White Mountain Research Station Open House, Barcroft Station.

Smallwood, K.S. and Michael L. Morrison. 2002. Fresno kangaroo rat (*Dipodomys nitratoides*) Conservation Research at Resources Management Area 5, Lemoore Naval Air Station. White Mountain Research Station Open House, Barcroft Station.

Smallwood, K.S. and E.L. Fitzhugh. 1989. Differentiating mountain lion and dog tracks. Third Mountain Lion Workshop, Prescott, AZ.

Smith, T. R. and K. S. Smallwood. 2000. Effects of study area size, location, season, and allometry on reported *Sorex* shrew densities. Annual Meeting of the Western Section of The Wildlife Society.

Presentations at Professional Meetings and Seminars

Comparing Wind Turbine Impacts across North America. California Energy Commission Staff Workshop: Reducing the Impacts of Energy Infrastructure on Wildlife, 20 July 2011.

Siting Repowered Wind Turbines to Minimize Raptor Collisions. California Energy Commission Staff Workshop: Reducing the Impacts of Energy Infrastructure on Wildlife, 20 July 2011.

Siting Repowered Wind Turbines to Minimize Raptor Collisions. Alameda County Scientific Review Committee meeting, 17 February 2011

Comparing Wind Turbine Impacts across North America. Conference on Wind energy and Wildlife impacts, Trondheim, Norway, 3 May 2011.

Update on Wildlife Impacts in the Altamont Pass Wind Resource Area. Raptor Symposium, The Wildlife Society—Western Section, Riverside, California, February 2011.

Siting Repowered Wind Turbines to Minimize Raptor Collisions. Raptor Symposium, The Wildlife Society—Western Section, Riverside, California, February 2011.

Wildlife mortality caused by wind turbine collisions. Ecological Society of America, Pittsburgh, Pennsylvania, 6 August 2010.

Map-based repowering and reorganization of a wind farm to minimize burrowing owl fatalities. California burrowing Owl Consortium Meeting, Livermore, California, 6 February 2010.

Environmental barriers to wind power. Getting Real About Renewables: Economic and Environmental Barriers to Biofuels and Wind Energy. A symposium sponsored by the Environmental & Energy Law & Policy Journal, University of Houston Law Center, Houston, 23 February 2007.

Lessons learned about bird collisions with wind turbines in the Altamont Pass and other US wind farms. Meeting with Japan Ministry of the Environment and Japan Ministry of the Economy, Wild Bird Society of Japan, and other NGOs Tokyo, Japan, 9 November 2006.

Lessons learned about bird collisions with wind turbines in the Altamont Pass and other US wind farms. Symposium on bird collisions with wind turbines. Wild Bird Society of Japan, Tokyo, Japan, 4 November 2006.

Responses of Fresno kangaroo rats to habitat improvements in an adaptive management framework. California Society for Ecological Restoration (SERCAL) 13th Annual Conference, UC Santa Barbara, 27 October 2006.

Fatality associations as the basis for predictive models of fatalities in the Altamont Pass Wind Resource Area. EEI/APLIC/PIER Workshop, 2006 Biologist Task Force and Avian Interaction with Electric Facilities Meeting, Pleasanton, California, 28 April 2006.

Burrowing owl burrows and wind turbine collisions in the Altamont Pass Wind Resource Area. The Wildlife Society—Western Section Annual Meeting, Sacramento, California, February 8, 2006.

Mitigation at wind farms. Workshop: Understanding and resolving bird and bat impacts. American Wind Energy Association and Audubon Society. Los Angeles, CA. January 10 and 11, 2006.

Incorporating data from the California Wildlife Habitat Relationships (CWHR) system into an impact assessment tool for birds near wind farms. Shawn Smallwood, Kevin Hunting, Marcus Yee, Linda Spiegel, Monica Parisi. Workshop: Understanding and resolving bird and bat impacts. American Wind Energy Association and Audubon Society. Los Angeles, CA. January 10 and 11, 2006.

Toward indicating threats to birds by California's new wind farms. California Energy Commission, Sacramento, May 26, 2005.

Avian collisions in the Altamont Pass. California Energy Commission, Sacramento, May 26, 2005.

Ecological solutions for avian collisions with wind turbines in the Altamont Pass Wind Resource Area. EPRI Environmental Sector Council, Monterey, California, February 17, 2005.

Ecological solutions for avian collisions with wind turbines in the Altamont Pass Wind Resource Area. The Wildlife Society—Western Section Annual Meeting, Sacramento, California, January 19, 2005.

Associations between avian fatalities and attributes of electric distribution poles in California. The Wildlife Society—Western Section Annual Meeting, Sacramento, California, January 19, 2005.

Minimizing avian mortality in the Altamont Pass Wind Resources Area. UC Davis Wind Energy Collaborative Forum, Palm Springs, California, December 14, 2004.

Selecting electric distribution poles for priority retrofitting to reduce raptor mortality. Raptor Research Foundation Meeting, Bakersfield, California, November 10, 2004.

Responses of Fresno kangaroo rats to habitat improvements in an adaptive management framework. Annual Meeting of the Society for Ecological Restoration, South Lake Tahoe, California, October 16, 2004.

Lessons learned from five years of avian mortality research at the Altamont Pass Wind Resources Area in California. The Wildlife Society Annual Meeting, Calgary, Canada, September 2004.

The ecology and impacts of power generation at Altamont Pass. Sacramento Petroleum Association, Sacramento, California, August 18, 2004.

Burrowing owl mortality in the Altamont Pass Wind Resource Area. California Burrowing Owl Consortium meeting, Hayward, California, February 7, 2004.

Burrowing owl mortality in the Altamont Pass Wind Resource Area. California Burrowing Owl Symposium, Sacramento, November 2, 2003.

Raptor Mortality at the Altamont Pass Wind Resource Area. National Wind Coordinating Committee, Washington, D.C., November 17, 2003.

Raptor Behavior at the Altamont Pass Wind Resource Area. Annual Meeting of the Raptor Research Foundation, Anchorage, Alaska, September, 2003.

Raptor Mortality at the Altamont Pass Wind Resource Area. Annual Meeting of the Raptor Research Foundation, Anchorage, Alaska, September, 2003.

California mountain lions. Ecological & Environmental Issues Seminar, Department of Biology, California State University, Sacramento, November, 2000.

Intra- and inter-turbine string comparison of fatalities to animal burrow densities at Altamont Pass. National Wind Coordinating Committee, Carmel, California, May, 2000.

Using a Geographic Positioning System (GPS) to map wildlife and habitat. Annual Meeting of the Western Section of The Wildlife Society, Riverside, CA, January, 2000.

Suggested standards for science applied to conservation issues. Annual Meeting of the Western Section of The Wildlife Society, Riverside, CA, January, 2000.

The indicators framework applied to ecological restoration in Yolo County, California. Society for Ecological Restoration, September 25, 1999.

Ecological restoration in the context of animal social units and their habitat areas. Society for Ecological Restoration, September 24, 1999.

Relating Indicators of Ecological Health and Integrity to Assess Risks to Sustainable Agriculture and Native Biota. International Conference on Ecosystem Health, August 16, 1999.

A crosswalk from the Endangered Species Act to the HCP Handbook and real HCPs. Southern California Edison, Co. and California Energy Commission, March 4-5, 1999.

Mountain lion track counts in California: Implications for Management. Ecological & Environmental Issues Seminar, Department of Biological Sciences, California State University, Sacramento, November 4, 1998.

"No Surprises" -- Lack of science in the HCP process. California Native Plant Society Annual Conservation Conference, The Presidio, San Francisco, September 7, 1997.

In Your Interest. A half hour weekly show aired on Channel 10 Television, Sacramento. In this episode, I served on a panel of experts discussing problems with the implementation of the Endangered Species Act. Aired August 31, 1997.

Spatial scaling of pocket gopher (*Geomyidae*) density. Southwestern Association of Naturalists 44th Meeting, Fayetteville, Arkansas, April 10, 1997.

Estimating prairie dog and pocket gopher burrow volume. Southwestern Association of Naturalists 44th Meeting, Fayetteville, Arkansas, April 10, 1997.

Ten years of mountain lion track survey. Fifth Mountain Lion Workshop, San Diego, February 27, 1996.

Study and interpretive design effects on mountain lion density estimates. Fifth Mountain Lion Workshop, San Diego, February 27, 1996.

Small animal control. Session moderator and speaker at the California Farm Conference, Sacramento, California, Feb. 28, 1995.

Small animal control. Ecological Farming Conference, Asylomar, California, Jan. 28, 1995.

Habitat associations of the Swainson's Hawk in the Sacramento Valley's agricultural landscape. 1994 Raptor Research Foundation Meeting, Flagstaff, Arizona.

Alfalfa as wildlife habitat. Seed Industry Conference, Woodland, California, May 4, 1994.

Habitats and vertebrate pests: impacts and management. Managing Farmland to Bring Back Game Birds and Wildlife to the Central Valley. Yolo County Resource Conservation District, U.C. Davis, February 19, 1994.

Management of gophers and alfalfa as wildlife habitat. Orland Alfalfa Production Meeting and Sacramento Valley Alfalfa Production Meeting, February 1 and 2, 1994.

Patterns of wildlife movement in a farming landscape. Wildlife and Fisheries Biology Seminar Series: Recent Advances in Wildlife, Fish, and Conservation Biology, U.C. Davis, Dec. 6, 1993.

Alfalfa as wildlife habitat. California Alfalfa Symposium, Fresno, California, Dec. 9, 1993.

Management of pocket gophers in Sacramento Valley alfalfa. California Alfalfa Symposium, Fresno, California, Dec. 8, 1993.

Association analysis of raptors in a farming landscape. Plenary speaker at Raptor Research Foundation Meeting, Charlotte, North Carolina, Nov. 6, 1993.

Landscape strategies for biological control and IPM. Plenary speaker, International Conference on Integrated Resource Management and Sustainable Agriculture, Beijing, China, Sept. 11, 1993.

Landscape Ecology Study of Pocket Gophers in Alfalfa. Alfalfa Field Day, U.C. Davis, July 1993.

Patterns of wildlife movement in a farming landscape. Spatial Data Analysis Colloquium, U.C. Davis, August 6, 1993.

Sound stewardship of wildlife. Veterinary Medicine Seminar: Ethics of Animal Use, U.C. Davis. May 1993.

Landscape ecology study of pocket gophers in alfalfa. Five County Grower's Meeting, Tracy, California. February 1993.

Turbulence and the community organizers: The role of invading species in ordering a turbulent system, and the factors for invasion success. Ecology Graduate Student Association Colloquium, U.C. Davis. May 1990.

Evaluation of exotic vertebrate pests. Fourteenth Vertebrate Pest Conference, Sacramento, California. March 1990.

Analytical methods for predicting success of mammal introductions to North America. The Western Section of the Wildlife Society, Hilo, Hawaii. February 1988.

A state-wide mountain lion track survey. Sacramento County Dept Parks and Recreation. April 1986.

The mountain lion in California. Davis Chapter of the Audubon Society. October 1985.

Ecology Graduate Student Seminars, U.C. Davis, 1985-1990: Social behavior of the mountain lion; Mountain lion control; Political status of the mountain lion in California.

Other forms of Participation at Professional Meetings

- Workshop co-presenter at Birds & Wind Energy Specialist Group (BAWESG) Information sharing week, Bird specialist studies for proposed wind energy facilities in South Africa, Endangered Wildlife Trust, Darling, South Africa, 3-7 October 2011.

- Scientific Committee, Conference on Wind energy and Wildlife impacts, Trondheim, Norway, 2-5 May 2011.

- Chair of Animal Damage Management Session, The Wildlife Society, Annual Meeting, Reno, Nevada, September 26, 2001.

- Chair of Technical Session: Human communities and ecosystem health: Comparing perspectives and making connection. Managing for Ecosystem Health, International Congress on Ecosystem Health, Sacramento, CA August 15-20, 1999.

- Student Awards Committee, Annual Meeting of the Western Section of The Wildlife Society, Riverside, CA, January, 2000.

- Student Mentor, Annual Meeting of the Western Section of The Wildlife Society, Riverside, CA, January, 2000.

Reviews of Journal Papers (Scientific journals for whom I've provided peer review)

Journal	**Journal**
American Naturalist	Journal of Animal Ecology
Journal of Wildlife Management	Western North American Naturalist
Auk	Journal of Raptor Research
Biological Conservation	National Renewable Energy Lab reports
Canadian Journal of Zoology	Oikos
Ecosystem Health	The Prairie Naturalist
Environmental Conservation	Restoration Ecology
Environmental Management	Southwestern Naturalist
Functional Ecology	The Wildlife Society--Western Section Trans.
Journal of Zoology (London)	Proc. Int. Congress on Managing for Ecosystem Health
Journal of Applied Ecology	Transactions in GIS
Ecology	Tropical Ecology
Biological Control	The Condor

Committees

- Scientific Review Committee, Alameda County, Altamont Pass Wind Resource Area
- Ph.D. Thesis Committee, Steve Anderson, University of California, Davis
- MS Thesis Committee, Marcus Yee, California State University, Sacramento

Other Professional Activities or Products

Testified in Federal Court in Denver during 2005 over the fate of radio-nuclides in the soil at Rocky Flats Plant after exposure to burrowing animals. My clients won a judgment of $553,000,000. I

have also testified in many other cases of litigation under CEQA, NEPA, the Warren-Alquist Act, and other environmental laws. My clients won most of the cases for which I testified.

Testified in Skamania County Hearing in 2009 on the potential impacts of zoning the County for development of wind farms and hazardous waste facilities.

Testified in deposition in 2007 in the case of O'Dell et al. vs. FPL Energy in Houston, Texas.

Testified in Klickitat County Hearing in 2006 on the potential impacts of the Windy Point Wind Farm.

Memberships in Professional Societies

The Wildlife Society
Raptor Research Foundation
American Museum of Natural History

Honors and Awards

Certificate of Appreciation, The Wildlife Society—Western Section, 2000, 2001
Fulbright Research Fellowship to Indonesia, 1987.
Northern California Athletic Association Most Valuable Cross Country Runner, 1984.
J.G. Boswell Full Academic Scholarship, 1981 (Paid expenses for undergraduate education).
American Legion Award, Corcoran High School, 1981, and John Muir Junior High, 1977.
CIF Section Champion, Cross Country in 1978 and Track & Field 2 mile run in 1981.
National Junior Record, 20 kilometer run, 1982.
National Age Group Record, 1500 meter run, 1978

Community Activities

District 64 Little League Umpire, 2003-2007
Dixon Little League Umpire, 2006-07
Davis Little League Chief Umpire and Board member, 2004-2005
Davis Little League Safety Officer, 2004-2005
Davis Little League Certified Umpire, 2002-2004
Davis Little League Scorekeeper, 2002
Davis Visioning Group member
Petitioner for Writ of Mandate under the California Environmental Quality Act against City of Woodland decision to approve the Spring Lake Specific Plan, 2002
Served on campaign committees for City Council candidates

K. Shawn Smallwood, Ph.D.
3108 Finch Street
Davis, CA 95616

Don Lockhart, AICP, Assistant Executive Officer
Sacramento Local Agency Formation Commission
1112 I Street, Suite 100
Sacramento, CA 95814
Donald.Lockhart@SacLAFCo.org 21 November 2011

RE: **Comment on City of Elk Grove Sphere of Influence EIR**

Dear Mr. Lockhart,

Friends of the Swainson's Hawk asked me to comment on the City of Elk Grove Proposed Sphere of Influence Amendment Draft Environmental Impact Report (LAFC # 09-10) (Sacramento LAFCo 2011). My qualifications for preparing expert comments on this EIR are the following. I earned a Ph.D. degree in Ecology from the University of California at Davis in 1990, where I subsequently worked for 4 years as a post-graduate researcher in the Department of Agronomy and Range Sciences. My research has been on the ecology of invading species, animal density and distribution, habitat selection, habitat restoration, interactions between wildlife and human infrastructure and activities, and on conservation of rare and endangered species. I have authored numerous papers on special-status species issues, including "Using the best scientific data for endangered species conservation," published in Environmental Management (Smallwood et al. 1999), and "Suggested standards for science applied to conservation issues" published in the Transactions of the Western Section of The Wildlife Society (Smallwood et al. 2001). I served as Chair of the Conservation Affairs Committee for The Wildlife Society – Western Section. I am a member of The Wildlife Society and the Raptor Research Foundation, and I've been a part-time lecturer at California State University, Sacramento. I was also Associate Editor of wildlife biology's premier scientific journal, The Journal of Wildlife Management, as well as of Biological Conservation, and I was on the Editorial Board of Environmental Management.

I have performed avian surveys in California for twenty-two years (Smallwood et al. 1996, Smallwood and Nakamoto 2009). Over these years, I studied the impacts of human activities and human infrastructure on birds and other animals, including on Swainson's hawks (Smallwood 1995), burrowing owls (Smallwood et al. 2007), white-tailed kites (Erichsen et al. 1996, Smallwood and Nakamoto 2009), and other species. I studied fossorial animals (i.e., animals that burrow into soil, where they live much of their lives), including pocket gophers, ground squirrels, kangaroo rats, voles, harvester ants, and many other functionally similar groups. My qualifications are further summarized in my curriculum vitae, which is attached.

SITE VISITS

I visited the western aspect of the proposed City of Elk Grove Sphere of Influence for 65 minutes, 16:00-17:05 hours, on 9 November 2011 (Photos 1 and 2). I had also visited the Sunset Skyranch Airport for 90 minutes on 12 August 1999. I observed 39 species of birds and mammals during my 2.5 hours on site, including two species listed as Threatened under the California Endangered Species Act (Table 1). From the roadway at Skyranch Airport, I observed what appeared to be vernal pools and

wetland swales (Photos 1 and 2). I also observed inundated ponds and a riverine environment suitable for giant garter snakes nearby the runway (Photo 3).

Photo 1. Long-billed curlew covering an alfalfa field in the study area for the proposed City of Elk Grove Sphere of Influence Amendment, on 9 November 2011.

Photo 2. Pasture in the study area for the proposed City of Elk Grove Sphere of Influence Amendment, on 9 November 2011.

Table 1. Species observed by Smallwood in 65 minute visit to western aspect of proposed new Elk Grove Sphere of Influence, 16:00-17:05 hours, 9 November 2011, and during a 90 minute visit to SkyRanch Airport on 12 August 1999.

Common name	**Scientific name**	**Status**[a]	**Visit**	**Note(s)**
Great blue heron	*Ardea herodius*		11/9/11	Several
Great egret	*Casmerodius albus*		8/12/99	
Snowy egret	*Egretta thula*		8/12/99	
Long-billed curlew	*Numenius americanus*	SSC	11/9/11	Hundreds
Sandhill crane	*Grus canadensis tabida*	CT	11/9/11	Several large flocks
Northern pintail	*Anus acuta*		8/12/99	18 birds
Willit	*Catoptrophorus semipalmatus*		8/12/99	25 birds
Killdeer	*Charadrius vociferus*		11/9/11	Several
Turkey vulture	*Cathartes aura*		8/12/99	
Cooper's hawk	*Accipter cooperii*	SSC	8/12/99	
Swainson's hawk	*Buteo swainoni*	CT	8/12/99	Several
Red-tailed hawk	*Buteo jamaicensis*		11/9/11	Scattered over site
Northern harrier	*Circus cyaneus*	SSC	11/9/11	3 birds
White-tailed kite	*Elanus leucurus*	CFP	11/9/11	5 birds
American kestrel	*Falco sparverius*		11/9/11	2 birds; 1 captured mouse
Mourning dove	*Zenaida macroura*		11/9/11	Multiple groups
California quail	*Callipepla californica*		11/9/11	Large covey
Common raven	*Corvus corax*		11/9/11	1 bird
American crow	*Corvus brachyrhynchos*		11/9/11	Some
Western scrub-jay	*Aphelocoma coerulescens*		11/9/11	Few birds
Yellow-billed magpie	*Pica nuttalli*		11/9/11	One bird
Northern mockingbird	*Mimus polyglottos*		11/9/11	Few birds
Black phoebe	*Sayornis nigricans*		11/9/11	1 bird
Loggerhead shrike	*Lanius ludovicianus*	SSC	11/9/11	1 bird
Song sparrow	*Melospiza melodia*		11/9/11	1 bird
White-crowned sparrow	*Zonotrichia leucophrys*		11/9/11	Several
Golden-crowned sparrow	*Zonotrichia atricapilla*		11/9/11	Several
Rufous-crowned sparrow	*Aimophila ruficeps*		11/9/11	Many
Brewer's blackbird	*Euphagus cyanocephalus*		11/9/11	Many
Red-winged blackbird	*Agelaius phoeniceus*		11/9/11	Many
Western meadowlark	*Sturnella neglecta*		11/9/11	Many
House finch	*Carpodacus mexicanus*		11/9/11	Some
European starling	*Sturnus vulgaris*		11/9/11	Many
Virginia opossum	*Didelphis virginianus*		8/12/99	Tracks
Botta's pocket gopher	*Thomomys bottae*		11/9/11	Burrow systems
Raccoon	*Procyon lotor*		11/9/11	Road-killed (3)
Striped skunk	*Mephitis mephitis*		11/9/11	Road-killed (1)
Black-tailed deer	*Odocoileus hemionus*		8/12/99	Tracks
Northern Pacific rattlesnake	*Crotalus viridis oreganus*		8/12/99	

[a] See Table 2 legend for a key to the acronyms indicating special status.

Photo 3. A wetland structure that looks like a vernal pool at Sunset Skyranch Airport, within the proposed Elk Grove Sphere of Influence Amendment study area, on 12 August 1999.

Photo 4. A wetland structure that looks like a vernal pool or swale at Sunset Skyranch Airport, within the proposed Elk Grove Sphere of Influence Amendment study area, on 12 August 1999.

Photo 5. A riverine environment at Sunset Skyranch Airport, within the proposed Elk Grove Sphere of Influence Amendment study area, on 12 August 1999.

SUFFICIENCY OF EIR AS AN INFORMATIVE DOCUMENT

Under CEQA,[1] "[A] paramount consideration is the right of the public to be informed in such a way that it can intelligently weigh the environmental consequences of any contemplated action and have an appropriate voice in the formulation of any decision." The public needs information that is thorough, relevant, unbiased, and honest; the public needs full disclosure of the environmental setting and possible cumulative impacts. Documents presenting information from a biased perspective will tend to include omissions, logical fallacies, internal contradictions, and unfounded responses to substantial issues. In my review of the EIR, I found these types of problems, indicating that the EIR was insufficient in its provision of relevant information to the public.

The EIR was insufficiently informative about the biological resources occurring on the study area. It was insufficient because it relied on (1) a very cursory field survey performed by one person, and (2) a flawed use of the California Natural Diversity Data Base (CNDDB) to identify biological resources likely occurring on the project area. It also made no effort to identify wildlife and fish movement corridors, nor did it use much of the available information on wildlife resources developed by professionals. Below I explain further.

Biological Resources Survey

On page 3.4-1, Dale Hameister performed reconnaissance survey on 11 October 2010. Thus, the most useful type of information on the biological resources occurring over 8,000 acres of project area was gathered by one person performing a single survey of unknown duration on one day in 2010. This level of effort gives new meaning to the term "reconnaissance" when applied to a professional survey of a proposed project site. However, not only was the survey much too cursory to be of much use, but the EIR did not even include a list of species detected by Mr. Hameister. I cannot see how the public can meaningfully participate with an environmental review if the review fails to report on the results of a biological survey.

LAFCo's justification for performing an extremely cursory and ambiguous biological survey was the following: "Since no physical development is associated with the proposed project, a general biological resources assessment was conducted to document existing conditions" (page 3.4-1). This justification seems unsatisfactory, however, as LAFCo had earlier admitted that "The City's available residential, industrial, and commercial land inventory is in the process of building out and may be unable to accommodate all anticipated urban growth within the city limits" (page ES-2). In other words, the City authorized the conversion of all lands within its current sphere of influence, so it is preparing to build out an expanded sphere of influence. The act of establishing the current Sphere of Influence resulted in the conversion of all available land to urban, commercial and industrial uses. Establishing an expanded Sphere of Influence would likely result in the same outcome, assuming the City of Elk Grove will stay consistent with its land-use decisions. It is reasonable to conclude that the proposed project is associated with physical development.

Even if one truly believes that the expansion of the Sphere of Influence would be an action that can be decoupled from physical development, then it would still be necessary to describe the state of biological resources in the project area. Decision-makers and the public need to be reasonably informed about the likely impacts and mitigation options that future development projects would need

[1] Environmental Planning and Information Council vs. County of El Dorado (1982) 131 Cal. App. 3d 350, 354.

to consider after the sphere of influence has been expanded in the manner proposed. For example, the City of Elk Grove's General Plan Policy CAQ-7, which encourages clustering of development to minimize impacts to wildlife habitat, would be much more effective if it the clustering was planned out at the earliest stage, i.e., in a programmatic EIR, rather than on a project-by-project basis. Development clustering, if that is truly the style of development the City of Elk Grove intends, could be planned in a programmatic EIR to avoid wildlife and fish movement corridors and to minimize habitat fragmentation. Otherwise, those who prepare project-specific EIRs will cluster development (assuming they cluster at all) to suit their desired project outcomes without being informed of the intended clustering at other potential future project sites. Without landscape-level guidance, development clustering will be ineffective at strategically minimizing impacts to wildlife habitat and movement corridors

The most fundamental information needed in a programmatic EIR such as this one is a list of biological species likely to occur in the project area. A species list is needed to begin to understand the likely extent of the project's impacts and how those impacts might be mitigated. A species list is often developed from biological surveys performed in the project area, but they can also be developed from reports of other surveys in the area, from observations reported in CNDDB, and from habitat relationships models, so long as the geographic ranges of the species also overlap the project area. However, CNDDB records cannot be used to conclude a species' absence from a site, as was done repeatedly in this EIR (to be discussed later). The EIR did not include a comprehensive list of species documented in the project area, so it failed to provide readers with fundamental information. The EIR provide conclusions of the likelihood of occurrence of most special-status species, but I will also point out that the EIR's characterization of special-status was outdated (see Table 2).

In Table 2, I listed species of birds, mammals, amphibians, reptiles, and a few invertebrates potentially occurring on the project area. This list was derived from a query of the California Wildlife Habitat Relationships System (CWHR), and amended by my observations of wildlife on site, and my review of CNDDB and of geographic range maps. My review identified 235 species of terrestrial vertebrate species possibly, probably, or certainly occurring on the study area, indicating a biological richness that warrants a much more rigorous environmental review than was provided in the EIR.

Of the 235 species of terrestrial vertebrates at least possibly using the study area, 49 are special-status species (Table 2). That is, 21% of the species possibly occurring there are considered to be in trouble and in need of conservation actions, according to the California Department of Fish and Game and US Fish and Wildlife Service. The EIR should divulge this percentage of species with special-status, and it should closely examine the likely impacts to each species that would be caused by expanding the City of Elk Grove's Sphere of Influence.

My list of species potentially occurring on the project site is more comprehensive than what appears in the EIR, but it is also more accurate. In fact, the likelihoods of occurrence attributed to some species discussed in the EIR indicated the preparers of the EIR were relatively unfamiliar with wildlife in this part of California. For example, the EIR characterized the likelihood of white-tailed kites occurring on the site as "low" (Table 2), but I encountered the first of five individuals of this species within eight minutes of my arrival on site on 9 November 2011 (Photo 6). Based on what I know about the species (e.g., Erichsen et al. 1995, Smallwood et al. 1995), I never would have thought white-tailed kites would be absent from this project area.

Photo 6. White-tailed kite seen hovering over the study area of the proposed City of Elk Grove Sphere of Influence Amendment, 9 November 2011.

The EIR characterizes the likelihood of greater sandhill crane occurrence as "moderate" (EIR Table 3.4-2), though the EIR also states that sandhill crane has high potential to occur on the project site (page 3.4-36). Given the vegetation and soil conditions, and given the geographic range and habitat affinities of the species, I am confused why the preparer of the EIR would have thought that greater sandhill cranes would be attributed any other occurrence likelihood category than "high." The only explanation provided was that no records appeared in CNDDB, but this explanation was unsatisfactory (see discussion to follow). I saw multiple large flocks of this species flying across the project area, and some birds were on the ground.

The EIR characterized the likelihood of northern harrier occurrence as "moderate" (Table 2). Again, given the habitat and geographic range of the species, I am curious as to why the occurrence likelihood was not "high." Furthermore, I observed multiple individuals of this species during both of my visits to the project area. The species' occurrence in the project area is obvious. It appears, however, that the occurrence likelihood was downgraded due to lack of CNDDB records. This explanation was flawed (see discussion to follow).

The EIR characterized the likelihood of burrowing owl occurrence as "moderate." However, burrowing owls are known to occur in the project area (see EIR), so the occurrence likelihood is most certainly greater than moderate. The EIR also was inconsistent in its characterization of the likelihood of occurrence of this species. On page 3.4-37, the EIR states that burrowing owls have a high potential to occur on the project site, but in Table 3.4-2 it characterizes the potential as moderate.

The EIR attributed low likelihood of occurrence to sharp-shinned hawk, golden eagle, ferruginous hawk, prairie falcon, and merlin. However, the habitats of these species occur in the project area, and the geographic ranges of these species overlap the project area. Based on my experience with these species, I would be surprised if these species were truly unlikely to occur on the project site. The EIR implies that it is the agricultural setting of the project area that precludes golden eagles, but I have

observed golden eagles numerous times foraging in alfalfa fields and cattle range in the Central Valley (e.g., Smallwood and Geng 1993).

The EIR attributed no likelihood of occurrence on the project area by peregrine falcon and coast horned lizard. The EIR claims there is no foraging habitat available for peregrine falcons, but I have seen them multiple times in similar environmental settings. Coast horned lizards are claimed to be absent due to agricultural activity in the area. However, agriculture is not conflicting with coast horned lizards over much of the western aspect of the project area, or over multiple other parts of the project area, such as at Sunset Skyranch Airport.

The EIR attributed low likelihood of occurrence and no likelihood of occurrence to multiple species of special-status bats. I wonder how the preparers of the EIR could have come to the conclusion that these bat species were unlikely to occur in the study area? The preparers did not rely on any acoustic surveys or any bat surveys of any kind. A more appropriate conclusion in the face of uncertainty would be to err on the side of caution (National Research Council 1986, Shrader-Frechette and McCoy 1992, Smallwood et al. 1999, 2001), and to conclude the bats possibly or probably occur in the project area.

Overall, the EIR too often attributed occurrence likelihoods to special-status species that were lower than they should have been, and some special-status species were not considered in the EIR at all.

In characterizing vegetation cover types and habitat types, the EIR was also unsatisfactory. For example, LAFCo wrote, "There is very little riparian habitat within the project area" (page 3.4-1). The EIR could have clarified that the abundance of riparian habitat lies just beyond the boundary of the proposed Sphere of Influence amendment. By converting the land within the proposed amended Sphere of Influence, the project would most certainly have profound adverse impacts on riparian habitat.

Similarly, the EIR was inadequate in its portrayal of wetland habitat on the proposed study area. The EIR relied on the National Wetlands Inventory to conclude that there are 162.4 acres of freshwater emergent wetlands and 44.61 acres of freshwater ponds in the study area (page 3.4-5). However, the maps of wetland areas in the EIR appear incomplete (EIR Exhibit 3.4-1). I have seen what appear to me to be additional wetlands that are not mapped. For example, I saw swales and possible vernal pools at Sunset Skyranch Airport.

California Natural Diversity Data Base

It appears that lack of records in the CNDDB served as the foundation for many of the conclusions that special-status species were unlikely to occur in the study area. LAFCo has made a fundamental error in its use of CNDDB. CNDDB records are voluntarily reported and many are not derived from scientific sampling, which means that lack of CNDDB records does not equal species absence. CNDDB records cannot be relied upon to determine the extent of habitat. To help get this message across, the California Department of Fish and Game posts a disclaimer on its California Natural Diversity Data Base web site: "*We work very hard to keep the CNDDB and the Spotted Owl Database as current and up-to-date as possible given our capabilities and resources. However, we cannot and do not portray the CNDDB 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*." Similarly, the California Native Plant Society's Inventory of Rare and Endangered Species states the following: "***A reminder:** Species not recorded*

for a given area may nonetheless be present, especially where favorable conditions occur." All of LAFCo's conclusions of species' likelihood of occurrence based on CNDDB records are invalid.

Wildlife Movement Corridors

The EIR made no attempt to identify or characterize wildlife movement corridors in the study area. Its justification for this neglected topic was that no wildlife movements had been identified by anyone else prior to the preparation of the EIR. The implication was that the preparer of the EIR is not responsible for performing any original analysis of potential biological impacts. I do not believe this justification is valid under CEQA.

Wildlife movement corridors can be routes used for migration, dispersal, home range patrol, or other types of movements, and they can include various vegetation cover types and terrain, depending on local conditions. A significant effect under CEQA, as I understand it, is whether the project will "interfere substantially with the movement of any resident or migratory fish or wildlife species." Converting nearly eight thousand acres of wildlife habitat to houses will indeed interfere with the movement of wildlife between the undeveloped areas to the east, west, and south of the study area.

Wildlife movement patterns can be characterized to identify movement corridors. There is an established literature for addressing this issue. For example, Beier and Loe (1992) presented corridor functionality criteria. A little time on the site, which would be warranted by the size of the proposed project, could document wildlife movement patterns, leading to recognition of movement corridors.

Stop-over Habitat for Migrating Birds

The EIR does not discuss or even mention the use of the study area by migrating birds. Habitat patches are often critical for the persistence of special-status species, including for willow flycatcher, yellow warbler, white-faced ibis, and sandhill crane, among others. In fact, stop-over habitat is no less critical to bird species than is nesting habitat, the latter of which appears to have been the sole type of habitat assessed by the preparers of the EIR. Without considering the project's impacts on stop-over habitat, the EIR is incomplete.

Table 2. Species of terrestrial vertebrates and select invertebrates potentially occurring and known to occur within the Elk Grove Sphere of Influence project site. Under **Status**, species are listed as FE = federal endangered, FT = threatened, BCC = federal bird species of conservation concern, CE = California endangered, CT = California threatened, SSC = California species of special concern (not threatened with extinction, but rare, very restricted in range, declining throughout range, peripheral portion of species' range, associated with habitat that is declining in extent), CFP = California Fully Protected, CSA = California Special Animal, CDFS = California Department of Forestry sensitive, and CNPS = California Native Plant Society listing. Recent listings were taken from CDFG (2011). Birds were assigned the new special status developed by Shuford and Gardali (2008): BSSC = Bird Species of Special Concern, BSSC1 = BSSC species with first priority special concern, BSSC2 = second priority, and BSSC3 = third priority; BCC = Birds of conservation concern, CBRL = California Bird Responsibility List. Under **CWHR ratings**, L, M, and H represent California Wildlife Habitat Relationships ratings of Low, Medium, and High for the habitats' fulfillment of the species need to reproduce, find cover and forage. The input parameters used in the CWHR analysis included the following: Sacramento County, annual grassland, fresh emergent wetland, riverine, vineyards, orchards, annual field crops, oak woodland (dense small trees, and sparse large trees), and Eucalyptus. The ratings used in the table were the highest ratings associated with habitat cover types used in the analysis. I excluded a few of the species that were listed in the CWHR output file based on my knowledge of the species regarding the likelihood of their occurrence at the project site.

Common name	***Species name***	**Status** [a]	**EIR rating of occurrence potential**	**CWHR ratings** [b]	**Smallwood assessment**	**Documented on site?**
Arthropods						
Valley elderberry longhorn beetle	*Desmocerus californicus dimorphis*	FT, CE	Moderate		Probable	
Vernal pool fairy shrimp	*Branchinecta lynchi*	FT	Moderate		Probable	
Vernal pool tadpole shrimp	*Lepidurus packardi*	FE	Moderate		Probable	
Conservancy fairy shrimp	*Branchinecta conservatio*	FE	Moderate		Probable	
California linderiella	*Linderiella occidentalis*				Probable	
Birds						
Pied-billed grebe	*Podilymbus podiceps*			HHH	Probable	
Eared grebe	*Podiceps nigricollis*			HHH	Probable	
American white pelican	*Pelecanus erythrorhynchos*	BSSC1		_MM	Possible	
Double-crested cormorant	*Phalacrocorax auritus*	SSC		LLM	Probable	
Black-crowned Night Heron	*Nycticorax nycticorax*	CSA		HHH	Probable	
Green heron	*Butorides striatus*			MHH	Probable	
Cattle egret	*Bubulcus ibis*			LHH	Certain	

Snowy egret	*Egretta thula*	CSA,CDFS		HHH	Certain	Yes
Great egret	*Ardea alba*	CSA,CDFS		MHH	Certain	Yes
Great blue heron	*Ardea herodius*	CSA,CDFS		HHH	Certain	Yes
White-faced ibis	*Plegadis chihi*	SSC			Certain	
Greater sandhill crane	*Grus canadensis tabida*	CT, CFP	Moderate		Certain	Yes
Lesser sandhill crane	*Grus Canadensis canadensis*	BSSC3			Probably	
Greater white-fronted goose	*Anser albifrons*			_HH	Probable	
Snow goose	*Chen caerulescens*			_HH	Possible	
Ross's goose	*Chen rossii*			_HH	Possible	
Canada goose	*Branta Canadensis*			HHH	Probable	
Mallard	*Anas platyrhynchos*			HHH	Certain	
Northern pintail	*Anas acuta*			HHH	Probable	Yes
Northern shoveler	*Anas clypeata*			HHH	Possible	
Green-winged teal	*Anas crecca*			HHH	Probable	
Blue-winged teal	*Anas discors*			HHM	Probable	
Eurasian wigeon	*Anas Penelope*			_HH	Possible	
American wigeon	*Anas Americana*			HHH	Probable	
Wood duck	*Aix sponsa*			_HH	Unlikely	
Lesser scaup	*Aythya affinis*			HHH	Possible	
Common goldeneye	*Bucephala clangula*			_HH	Possible	
Barrow's goldeneye	*Bucephala islandica*	BSSC		_MM	Unlikely	
Bufflehead	*Bucephala albeola*			_LL	Certain	
Hooded merganser	*Lophodytes cucullatus*			_HH	Possible	
Common merganser	*Mergus merganser*			_HH	Possible	
Virginia rail	*Rallus limicola*				Probable	
Sora	*Porzana Carolina*				Probable	
Common moorhen	*Gallinula chloropus*				Probable	
American coot	*Fulicra Americana*				Probable	
Spotted sandpiper	*Actitis macularia*			LMH	Probable	
Whimbrel	*Numenius phaeopus*	BCC		_HH	Possible	
Western sandpiper	*Calidris mauri*			_HH	Possible	
Least sandpiper	*Calidris minutilla*			_HH	Possible	
Baird's sandpiper	*Calidris bairdii*			_HH	Possible	
Common snipe	*Gallinago gallinago*			HHH	Certain	

Wilson's phalarope	*Phalaropus tricolor*			HHH	Probable	
Greater yellowlegs	*Tringa melanoleuca*			_HH	Certain	
Lesser yellowlegs	*Tringa flaviceps*			_HH	Possible	
Willet	*Catoptrophorus semipalmatus*			_HH	Probable	Yes
Long-billed curlew	*Numenius americanus*	BCC, SSC		HHH	Certain	Yes
Dunlin	*Calidris alpine*			_HH	Certain	
Long-billed dowitcher	*Limnodromus scolopaceus*			_HH	Possible	
Black-bellied plover	*Pluvialis squatarola*			_HH	Possible	
Semi-palmated plover	*Charadrius semipalmatus*			_LL	Unlikely	
Killdeer	*Charadrius vociferus*			HHH	Certain	Yes
Mountain plover	*Charadrius montanus*	BCC, BSSC2		_HH	Probable	
Black-necked stilt	*Himantopus mexicanus*			MMH	Certain	
American avocet	*Recurvirostra Americana*			MMH	Certain	
Bonaparte's gull	*Larus philadelphia*			_LL	Possible	
Mew gull	*Larus canus*			_LL	Possible	
Ring-billed gull	*Larus delawarensis*			_HH	Probable	
California gull	*Larus californicus*	SSC		_HH	Certain	
Herring gull	*Larus argentatus*			_MM	Probable	
Glaucous-winged gull	*Larus glaucescens*			_LL	Unlikely	
Black tern	*Chlidonias niger*	BSSC2		HHH	Possible	
Caspian tern	*Sterna caspia*			_MH	Possible	
Forster's tern	*Sterna forsteri*			LMH	Possible	
Turkey vulture	*Cathartes aura teter*			HHH	Certain	
Osprey	*Pandion haliaetus*	SSC		LLH	Unlikely	
Bald eagle	*Haliaetus leucocephalus*	FT, CE	None	LLH	Unlikely	
Golden eagle	*Aquila chysaetos*	CFP	Low	HHH	Certain	
Cooper's hawk	*Accipiter cooperii*	SSC		HHH	Certain	Yes
Sharp-shinned hawk	*Accipter striatus velox*	SSC	Low	MHH	Probable	
Northern harrier	*Circus cyaneus*	BSSC3	Moderate	HHH	Certain	Yes
White-tailed kite	*Elanus leucurus*	CFP	Low	HHH	Certain	Yes
Red-tailed hawk	*Buteo jamaicensis*			HHH	Certain	Yes
Ferruginous hawk	*Buteo regalis*	SSC	Low	_HH	Certain	
Swainson's hawk	*Buteo swainsoni*	BCC, CT	High	MMH	Certain	Yes
Red-shouldered hawk	*Buteo lineatus*			HHH	Certain	

Rough-legged hawk	*Buteo lagopus*			_MH	Probable	
Peregrine falcon	*Falco peregrinus anatum*	BCC, CE	None	HHH	Probable	
Prairie falcon	*Falco mexicanus*	BCC, SSC	Low	HHH	Probable	
American kestrel	*Falco sparverius*			HHH	Certain	Yes
Merlin	*Falco columbarius*	SSC	Low	_MH	Certain	
Wild turkey	*Melleagris gallopavo*			HHH	Probable	
California quail	*Callipepla californica*			HHH	Probable	Yes
Ring-necked pheasant	*Phasianus colchicus*			HHH	Certain	
Mourning dove	*Zenaida macroura*			HHH	Certain	Yes
Rock dove	*Columba livea*			HHH	Certain	
Band-tailed pigeon	*Columba fasciata*			MMH	Possible	
Greater roadrunner	*Geococcyx californicus*			LLL	Unlikely	
Barn owl	*Tyto alba*			HHH	Certain	
Western screech owl	*Otus kennicottii*			HHH	Probable	
Great horned owl	*Bubo virginianus pacificus*			HHH	Certain	
Northern pygmy owl	*Glaucidium gnoma*			HHH	Possible	
Western burrowing owl	*Athene cuniculana hypugea*	BCC, BSSC2	Moderate	HHH	Certain	Yes
Short-eared owl	*Asio flammeus*	BSSC3		HHH	Probable	
Lesser nighthawk	*Chordeiles acutipennis*			MMH	Possible	
Common poorwill	*Phalaenoptilus nuttallii*			HHH	Possible	
White-throated swift	*Aeronautes saxatalis*			HHH	Unlikely	
Black-chinned hummingbird	*Archilochus alexandri*			HHH	Possible	
Anna’s hummingbird	*Calypte anna*			HHH	Certain	
Calliope hummingbird	*Stellula calliope*			_MM	Unlikely	
Rufous hummingbird	*Selasphorus rufus*			_MM	Unlikely	
Allen’s hummingbird	*Selasphorus sasin*	CBRL		HHH	Certain	
Belted kingfisher	*Ceryle alcyon*			HHH	Certain	
Lewis’ woodpecker	*Melanerpes lewis*	BCC		HHH	Probable	
Downy woodpecker	*Picoides pubescens*			HHH	Certain	
Red-breasted sapsucker	*Sphyrapicus ruber*			_HH	Unlikely	
Nuttall’s woodpecker	*Picoides nuttalli*	CBRL		HHH	Possible	
Northern flicker	*Colaptes auratus cafer*			HHH	Certain	
Western wood-pewee	*Contopus sordidulus*			HHH	Probable	
Hammond’s flycatcher	*Empidonax hammondii*			_LL	Unlikely	

Dusky flycatcher	*Empidonax oberholseri*			_LL	Unlikely	
Gray flycatcher	*Empidonax wrightii*			_LL	Unlikely	
Pacific-slope flycatcher	*Empidonax difficilis*			_HH	Unlikely	
Black phoebe	*Sayornis nigricans semiatra*				Certain	Yes
Say's phoebe	*Sayornis saya*			_HH	Probable	
Ash-throated flycatcher	*Myiarchus cinerascens*			HHH	Probable	
Western kingbird	*Tyrannus verticalis*			MMH	Certain	
California horned lark	*Eremophila alpestris actia*	CBRL		HHH	Probable	
Purple martin	*Progne subis*	BSSC2	Low	_MH	Unlikely	
Tree swallow	*Tachycineta bicolor*			MHH	Probable	
Violet-green swallow	*Tachycineta thalassina*			HHH	Probable	
Northern rough-winged swallow	*Stelgidopteryx serripennis*			HHH	Probable	
Bank swallow	*Riparia riparia*	CT		HHH	Possible	
Cliff swallow	*Hirundo pyrrhonota*			HHH	Certain	
Barn swallow	*Hirundo rustica*			HHH	Certain	
Western scrub-jay	*Aphelocoma coerulescens*				Certain	Yes
Yellow-billed magpie	*Pica nuttalli*	CBRL		HHH	Certain	Yes
Common raven	*Corvus corax*				Certain	Yes
American crow	*Corvus brachyrhynchos*			HHH	Certain	Yes
Oak titmouse	*Parus inornatus*	CBRL		HHH	Probable	
Bushtit	*Psaltriparus minimus*			HHH	Certain	
Red-breasted nuthatch	*Sitta canadensis*			_MM	Unlikely	
White-breasted nuthatch	*Sitta carolinensis aculeata*			HHH	Probable	
Brown creeper	*Certhia americana*			_LL	Unlikely	
Rock wren	*Salpinctes obsoletus*			HHL	Unlikely	
Bewick's wren	*Thryomanes bewickii*			HHH	Probable	
House wren	*Troglodytes aedon*			HHH	Probable	
Winter wren	*Cistothorus*			LLL	Possible	
American dipper	*Cinclus mexicanus*			HHM	Unlikely	
Golden-crowned kinglet	*Regulus satrapa*			_MM	Unlikely	
Ruby-crowned kinglet	*Reguls calendula*			_HH	Probable	
Blue-gray gnatcatcher	*Polioptila caerulea*			HHH	Possible	
Western bluebird	*Sialia mexicana*			HHH	Certain	
Mountain bluebird	*Sialia currucoides*			_MH	Possible	

Swainson's thrush	*Catharus ustulatus*			LMM	Possible	
Hermit thrush	*Catharus guttatus*			_MM	Possible	
American robin	*Turdus migratorius*			MHH	Certain	
Varied thrush	*Ixoreus naevius*			_MM	Possible	
Wrentit	*Chamaea fasciata*	CBRL		LLL	Unlikely	
Loggerhead shrike	*Lanius ludovicianus*	BCC, BSSC2		HHH	Certain	Yes
Northern mockingbird	*Mimus polyglottos*			HHH	Certain	Yes
California thrasher	*Toxostoma redivivum*	CBRL		LLL	Unlikely	
American pipit	*Anthus rubescens*			_HH	Possible	
Cedar waxwing	*Bombycilla cedrorum*			_HH	Possible	
Phainopepla	*Phainopepla nitens*			MMH	Possible	
European starling	*Sturnus vulgaris*			HHH	Certain	Yes
Hutton's vireo	*Vireo huttoni*			HHH	Possible	
Warbling vireo	*Vireo gilvus*			HHH	Probable	
Orange-crowned warbler	*Vermivora celata*			HHH	Probable	
Nashville warbler	*Vermivora ruficapilla*			_MM	Unlikely	
Yellow-rumped warbler	*Dendroica coronata*			LHH	Certain	
Yellow warbler	*Dendroica petachia brewsteri*	BSSC2	Low	LHH	Possible	
Black-throated gray warbler	*Dendroica nigrescens*			_MH	Unlikely	
Townsend's warbler	*Dendroica townsendi*			_HH	Possible	
Hermit warbler	*Dendroic occidentalis*			_MM	Possible	
MacGillivray's warbler	*Oporonis tolmiei*			_LL	Unlikely	
Common yellowthroat	*Geothlypis trichas*			HHH	Probable	
Wilson's warbler	*Wilsonia pusilla*			_HH	Possible	
Black-headed grosbeak	*Pheucticus melanocephalus*			MMM	Probable	
Blue grosbeak	*Guiraca caerulea*			_MH	Probable	
Lazuli bunting	*Passerina amoena*			HHH	Possible	
California towhee	*Pipilo fuscus*	CBRL		LMM	Probable	
Sacramento spotted towhee	*Pipilo erythrophthamnus*	CBRL		LHH	Probable	
Chipping sparrow	*Spizella passerina*			HHH	Probable	
Grasshopper sparrow	*Ammodramus savannarum*	BSSC2		HHH	Probable	
Vesper sparrow	*Pooecetes gramineus*			LHH	Possible	
Modesto song sparrow	*Melospiza melodia malliardi*	BSSC3		HHH	Certain	Yes
Lincoln's sparrow	*Melospiza lincolnii*			_MM	Possible	

Savannah sparrow	*Passerculus sandwichensis*			HHH	Probable	
Rufous-crowned sparrow	*Aimophila ruficeps*			HHH	Certain	Yes
Lark sparrow	*Chondestes grammacus*			HHH	Probable	
Fox sparrow	*Passerella iliaca*			_MM	Possible	
White-crowned sparrow	*Zonotrichia leucophrys*			LMM	Certain	Yes
Golden-crowned sparrow	*Zonotrichia atricapilla*			_HH	Probable	Yes
Dark-eyed junco	*Junco hyemalis*			HHH	Certain	
Western meadowlark	*Sturnella neglecta*			HHH	Certain	Yes
Tricolored blackbird	*Agelaius tricolor*	BCC, BSSC1	Moderate	HHH	Probable	
Red-winged blackbird	*Agelaius phoeniceus*			HHH	Certain	Yes
Yellow-headed blackbird	*Xanthocephalus xanthocephalus*	BSSC3	Moderate	HHH	Probable	
Brewer's blackbird	*Euphagus cyanocephalus*			HHH	Certain	Yes
Brown-headed cowbird	*Molothrus ater*			MHH	Certain	
Hooded oriole	*Icterus cucullatus*			MMM	Possible	
Bullock's oriole	*Icterus galbula*			HHH	Probable	
Western tanager	*Piranga ludoviciana*			_HH	Possible	
Pine siskin	*Carduelis pinus*			LMH	Possible	
American goldfinch	*Carduelis tristis*			LMH	Certain	
Lesser goldfinch	*Carduelis psaltria*			HHH	Probable	
Lawrence's goldfinch	*Carduelis lawrencei*	BCC, CBRL		HHH	Possible	
Purple finch	*Carpodacus purpureus*			LLL	Probable	
House finch	*Carpodacus mexicanus*			HHH	Certain	Yes
House sparrow	*Passer domesticus*			MMH	Certain	
Mammals						
Virginia opossum	*Didelphis virginianus*			MMM	Certain	Yes
Ornate shrew	*Sorex ornatus*	SSC		MMM	Possible	
Trowbridge shrew	*Sorex trowbridgei*			LLL	Unlikely	
Broad-footed mole	*Scapanus latimanus*			HHH	Unlikely	
Pallid bat	*Antrozous pallidus pacificus*	SSC	Low	MMH	Probable	
Spotted bat	*Euderma maculatum*	SSC	Low	__L	Possible	
Townsend's big-eared bat	*Plecotis townsendii*	SSC	Low	MMM	Possible	
Western mastiff bat	*Eumops perotis*	SSC	None	MMH	Possible	
Yuma myotis	*Myotis yumanensis saturatus*			HHH	Possible	
California myotis	*Myotis californicus*			MMM	Probable	

Silver-haired bat	*Lasionycteris noctivagans*			MMM	Unlikely	
Western pipestrelle	*Pipestrellus Hesperus merriami*			MMM	Probable	
Big brown bat	*Eptisicus fuscus bernardinus*			HHH	Probable	
Western red bat	*Lasiurus borealis teleotis*	SSC	Low	MMM	Probable	
Hoary bat	*Lasiusrus cinereus cinereus*			HHH	Probable	
Brazilian free-tailed bat	*Tadarida brasiliensis muscula*			MMM	Possible	
Brush rabbit	*Sylvilagus bachmani*			MMH	Unlikely	
Desert cottontail	*Sylvilagus audubonii*			MMH	Certain	
Black-tailed jackrabbit	*Lepus californicus*			MMH	Certain	
California ground squirrel	*Spermophilus beecheyi*			HHH	Certain	
Eastern gray squirrel	*Sciurus carolinensis*			LLL	Probable	
Western gray squirrel	*Sciurus griseus*			HHH	Probable	
Eastern fox squirrel	*Sciurus niger*			MMM	Possible	
Botta's pocket gopher	*Thomomys bottae*			HHH	Certain	Yes
Heerman’s kangaroo rat	*Dipodomys heermanni*			MMM	Possible	
California kangaroo rat	*Dipodomys californicus*	SSC		HHH	Possible	
San Joaquin pocket mouse	*Perognathus inornatus*			HHH	Probable	
California pocket mouse	*Chaetodipus californicus*			HHH	Possible	
Western harvest mouse	*Reithrodontomys megalotis*			HHH	Probable	
Deer mouse	*Peromyscus maniculatus*			MMM	Certain	
Brush mouse	*Peromyscus boylei*			LLL	Unlikely	
Pinon mouse	*Peromyscus truei*			LLH	Unlikely	
Dusky-footed woodrat	*Neotoma fuscipes*			MMM	Unlikely	
California vole	*Microtis californicus*			HHH	Certain	
House mouse	*Mus musculus*			HHH	Certain	
Norway rat	*Rattus norvegicus*			MMM	Certain	
Black rat	*Rattus rattus*			MMM	Certain	
Common porcupine	*Erethizon dorsatum*			LLH	Unlikely	
American badger	*Taxidea taxus*	SSC	Moderate	HHH	Probable	
Long-tailed weasel	*Mustela frenata*			MMH	Possible	
Western spotted skunk	*Spilogale gracilis*			MMM	Probable	
Striped skunk	*Mephitis mephitis*			MMH	Certain	Yes
Ringtail	*Bassariscus astutus*	CFP		LLH	Unlikely	
Raccoon	*Procyon lotor*			MMH	Certain	Yes

Mountain lion	*Puma concolor*	CFP		LLL	Unlikely	
Bobcat	*Felis rufus*			MMM	Possible	
Coyote	*Canis latrans lestes*			LMH	Certain	
San Joaquin kit fox	*Vulpes macrotis mutica*		None	HHH	Unlikely	
Gray fox	*Urocyon cinereoargenteus*			MMH	Probable	
Red fox	*Vulpes vulpes*			LMH	Possible	
Reptiles						
Western skink	*Eumeces skiltonianus*			MMM	Probable	
Gilbert's skink	*Eumeces gilberti*			MMM	Probable	
Western fence lizard	*Sceloporus occidentalis*			HHH	Certain	
Western whiptail	*Aspidoscelis tigris*			MMM	Possible	
Northern alligator lizard	*Gerrhonotus coeruleus*			MMM	Probable	
Coast horned lizard	*Phrynosoma coronatum*	SSC	None	MMM	Possible	
Slider	*Pseudemys scripta*			LLL	Probable	
Western pond turtle	*Clemmys m. marmorata*	SSC	Moderate	HHH	Probable	
Ringneck snake	*Diadophis punctatus*			MMM	Unlikely	
Sharp-tailed snake	*Contia tenuis*			MMM	Unlikely	
Racer	*Coluber constrictor*			HHH	Probable	
Striped racer	*Masticophis lateralis*			LLL	Unlikely	
Common garter snake	*Thamnophis sirtalis*			HHH	Certain	
Western terrestrial garter snake	*Thamnophis elegans*			HHH	Probable	
Giant garter snake	*Thamnophis gigas*	FT, CT	Moderate	HHH	Probable	
Night snake	*Hypsiglena torquata*			MMM	Possible	
Common kingsnake	*Lampropeltis getulus*			MMM	Probable	
California mountain kingsnake	*Lampropeltis zonata*			LLL	Possible	
Gopher snake	*Pituophis melanoleucus*			HHH	Certain	
Western rattlesnake	*Crotalus viridis*			MMM	Probable	Yes
Amphibians						
California newt	*Taricha torosa sierrae*			HHH	Unlikely	
California slender salamander	*Batrachoseps attenuatus*			MMM	Unlikely	
Long-toed salamander	*Ambystoma macrodactylum*			HHH	Unlikely	
California tiger salamander	*Ambystoma californiense*	FT, SSC	Low	HHH	Possible	
Ensatina	*Ensatina eschscholtzii*			LLL	Unlikely	
Arboreal salamander	*Aneides lugubris*			MMM	Possible	

Pacific chorus frog	*Hyla regilla*			HHH	Certain	
Foothill yellow-legged frog	*Rana boylii*	SSC	None	LLL	Unlikely	
California red-legged frog	*Rana aurora draytonii*	FT, SSC	None	HHH	Unlikely	
Bullfrog	*Rana catesbeiana*			MHH	Probable	
Western spadefoot	*Scaphiopus hammondi*	SSC	Low	HHH	Probable	
Western toad	*Bufo boreas*			MMM	Certain	

.

IMPACT ASSESSMENT

The EIR relied on CNDDB to conclude presence or absence of special-status species. CNDDB records can only be used to conclude presence, but they cannot be used to conclude absence (see earlier discussion on this topic). The impacts assessment was therefore fundamentally flawed, and many impact conclusions were unfounded.

On page 3.4-36 the EIR discusses project impacts on special-status species. It discusses Swainson's hawks, sandhill cranes and burrowing owls, but did not address impacts to giant garter snake or multiple other species.

Even though the EIR mentions Swainson's hawk, the EIR does not disclose that the study area occurs within the high density zone of the Central Valley, and that the Central Valley is where 95% of the remaining nesting pairs of Swainson's hawks reside (Anderson et al. 2007). It also does not disclose that the Swainson's hawks nesting within the current Sphere of Influence of the City of Elk Grove (Estep 2009) would likely lose their nest sites as foraging areas in the proposed amended Sphere of Influence are converted to residential, commercial, and industrial uses (England et al. 1995).

The EIR appropriately describes habitat fragmentation as a threat to the conservation of Swainson's hawk (pages 3.4-36 and 3.4-37). It then describes the methodology that Sacramento County uses to assess habitat fragmentation, comparing the final habitat area to the pre-project habitat acreage. However, this before and after comparison, or net habitat acreage removed and net remaining, incompletely characterizes the effects of habitat fragmentation. Habitat fragmentation not only reduces the habitat area of a species and of its food and nesting resources, but it also impedes access of the species or its food resources to habitat patches surrounded by the barriers creating the fragmentation (e.g., non-habitat). Habitat patches that are smaller than a certain size threshold or isolated by a certain distance threshold to other habitat patches are no longer able to support the species. Habitat fragmentation results in the reduction of a net larger habitat area than can be measured by summing the remaining, apparent habitat patches (Wilcox and Murphy 1985, Saunders et al. 1991, Hall et al. 1997). The Sacramento County methodology, as described in the EIR, appears to be inconsistent with the scientific concept of habitat fragmentation, and therefore is a flawed methodology.

All in all, the EIR (pages 3.4-36 to 3.4-37) devotes 47 lines of text to discussing the project's potential impacts to biological resources resulting from the desired conversion of nearly 8,000 acres of wildlife habitat to residential, commercial, and industrial uses. The impacts discussion made no mention of the project's impacts on wildlife movement corridors, even though the EIR later recognized that the development of the Sphere of Influence will adversely affect wildlife movement (Measure BIO-1a (D), page 3.4-38).

The EIR made no mention of the likely adverse edge effects created by habitat fragmentation and the interface of remaining habitat patches and urban, commercial, and industrial uses. Changes in species occurrence and distribution can and should be predicted based on the change in distribution of habitat edges (Askins et al. 1987, Laurence and Yensen 1990, McCollin 1993) and based on changes to hydrology (Moyle et al. 1986). Also, no mention was made of the

impacts likely to be caused to wildlife due to artificial lights and noise, and the introduction of exotic pets that accompany residential, commercial, and industrial development.

CUMULATIVE IMPACTS ANALYSIS

The cumulative impacts analysis was limited to the study area and within a two mile buffer around the study area boundary. There was no real basis for the two mile buffer, other than the claim that biological impacts will be local. This claim contradicts many years of data and theory developed in the scientific discipline of wildlife ecology, which understands that wildlife populations are necessarily connected via dispersal and migration, and that the more significant demographic unit is the metapopulation (Hanski and Gilpin 1997, Smallwood 2001, 2002). A two mile buffer around the study area boundary is arbitrary and has nothing to do with the scale or reach of project impacts on wildlife. A two mile buffer is a grossly inadequate basis for a cumulative effects analysis of a project that would change the development status of nearly 8,000 acres of habitat used by up to 49 special-status species of terrestrial vertebrates.

Other than claiming that a two mile buffer would suffice as a basis for a cumulative effects analysis, the second and only other paragraph of the analysis in fact did not address cumulative effects. It merely claimed that measures are adequate for mitigating project-specific impacts. The EIR did not present an analysis of cumulative impacts to biological resources.

To perform an adequate cumulative impact assessment for each species, the thresholds of significance need to be established, along with margins of safety around these significance thresholds (MacDonald 2000). In the scoping phase of cumulative effects analysis, the EIR needs to identify the temporal and spatial scales of the assessment, i.e., a much larger scale than a two mile buffer. The temporal scale should be set by the recovery time of the species or other environmental resources at issue (e.g., resources upon which the special-status species depend). According to Smallwood et al. (1999), the cumulative effects analysis should extend over the amortized life of the project or the permit duration, and should consider how long the types of project impacts generally last. They argued that the effects of housing developments are permanent, so the cumulative effects analysis should extend to the time when all land in the region has been converted to houses. The spatial scale should be set by the ecological process that is most critical to the species or resource at issue. For setting the spatial scale, the countable ecosystem approach (Cousins 1990) might be most appropriate, thus requiring estimates of the adult male home range size of the largest carnivore in the project area. However, the size of the area normally occupied by a species' population might be more appropriate as the basis for setting the spatial scale of the analysis (Smallwood 2001). The most common method for establishing the minimum spatial scale for cumulative effects assessment is to identify and delineate the watershed as the area within which to consider cumulative impacts (Bedford and Preston 1988, Reid 1998a,b). The City of Elk Grove Sphere of Influence Amendment EIR performed none of these steps.

MITIGATION

Mitigation Measure BIO-1 defers the formulation of mitigation measure LU-3 -- participation with the South Sacramento Habitat Conservation Plan (SSHCP) -- to an unspecified, later date.

The SSHCP has not been certified, so the environmental review for that plan is unfinished and its final mitigation measures unknown. Should the Elk Grove Sphere of Influence project participate with the SSHCP, then I will be unable to provide meaningful comments or to participate with the formulation of what appears to be the EIR's central mitigation measure.

Mitigation Measure BIO-1a (A) defers the performance of reconnaissance-level surveys to an unstated, later date. Reconnaissance surveys needed to have been performed prior to this EIR, because it is this EIR which needs to inform decision-makers and the public of potential regional impacts to special-status species. Waiting for some unstated later date will preclude me and the decision-makers from adequately understanding regional impacts.

According to Mitigation Measure BIO-1a (B), avoidance of all special-status species or their habitats shall be attempted during project design. This measure might look nice to someone unfamiliar with how wildlife use the project area, but special-status species are so pervasive on the project area that avoidance will be impossible. Swainson's hawks use the entirety of the project area, as do white-tailed kites and golden eagles. Many bird species protected by the Migratory Bird Treaty Act use the entirety of the site. Burrowing owls use portions of the site during any given year, and their centers of activity will shift from year to year. Giant garter snakes likely use the western area, and sandhill cranes likely use the western and middle areas. There is simply no avoiding special-status species and their habitats in the project area.

Mitigation Measure BIO-1a (C) promises to develop a Habitat Conservation Management Plan (HCMP) at some unspecified, later date. The EIR effectively defers the formulation of this measure to some unspecified, later date, thereby denying me and the public from participating meaningfully with the environmental review of this project.

Mitigation Measure BIO-1a (D) provides some examples of what the HCMP might include, but the details in these examples are insufficient. Any of these measures might be dropped or changed substantially between this EIR and project-specific EIRs.

Mitigation Measure BIO-1b promises pre-construction surveys for Swainson's hawks and other raptors prior to construction of specific projects. However, surveys performed by qualified biologists are needed prior to the certification of this EIR, not afterwards. Decision-makers and the public need to be aware of where Swainson's hawks and other raptors nest, forage, and find cover within the entirety of the project area. These surveys are not difficult to perform, as has been amply demonstrated in Yolo County (Estep 2008) and elsewhere.

According to Mitigation Measure BIO-1b, if no Swainson's hawks are found during pre-construction surveys, no further mitigation will be needed. This measure is obviously directed at nesting habitat, but in reality the entirety of the study area is used by foraging Swainson's hawks, including by Swainson's hawks that are nesting during the nesting season.

Mitigation Measure BIO-1b concludes that impacts would be less than significant after mitigation. Given the impacts analysis performed in this EIR, this conclusion lacks foundation. The impacts analysis was too cursory to be of any use, and it was based on a flawed methodology used to describe the environmental setting.

The impacts analysis for Mitigation Measure BIO-2 (page 3.4-39) incorrectly associates giant garter snakes with riparian habitat. Giant garter snakes utilize riverine and fresh water marsh, and not riparian areas. The EIR appears to lump riverine and riparian cover types, which can mislead the public and decision-makers about which species are likely to occur on the project site.

Mitigation Measure BIO-2 promises that "wetland habitat shall be restored, enhanced, and/or replaced at an acreage and location and by methods agreeable to…" the regulatory agencies. This measure defers the formulation of the mitigation measure(s) to an unspecified, later date, effectively preventing me and the public from participating meaningfully with the formulation of the measure directed towards the project's impacts on wetland areas.

Furthermore, the measure gives the public the false notion that wetlands can be replaced. It gives the impression that the quality and value of wetlands can be measured in terms of acreage. However, every wetland is uniquely composed of constituent biology, soils, water, and location, and the complexity of each is beyond the capabilities of environmental consultants to replace them. That wetlands can be replaced is an unscientific, ridiculous notion.

Wetlands can be restored or enhanced, so long as the restoration and enhancement actions are directed toward specific success criteria. Again, wetlands are so complex that "restoration" and "enhancement" are meaningless terms without specifying success criteria. Often, achieving specific success criteria may benefit some species to the detriment of others.

Habitat restoration could adversely affect plants and wildlife. The Wildlife Society (Hammer et al. 1994) accepted wetland creation as a form of mitigation only if the following conditions apply: (1) Creation of similar types of wetland in the region has been successful and documented; (2) The project proponent funds research on other similar wetlands in the region in order to learn how to most effectively create wetlands; (3) Only competent biologists are used; (4) The project proponent funds long-term monitoring to ensure that the created wetland is functioning properly and is self-perpetuating; and (5) The project proponent provides an irrevocable trust for long-term funding of management of the wetland. The EIR offered no evidence that creation of similar types of wetlands or upland habitats have been successful in the region. Neither did the EIR commit to any of the other four conditions expected by The Wildlife Society.

Habitat restoration as a mitigation measure is the type of measure that requires rigorous standards, given its poor track record. CNPS (1998) and CDFG (1997) insist that the mitigation design, implementation measures, and reporting methods be clearly documented, along with who or which agencies will be responsible for achieving clearly defined success criteria. Assurances must be provided in writing that certain performance criteria of the mitigation plan will be realized, and guaranteed by a negotiable performance security large enough to complete the mitigation and to pursue alternative mitigation measures should the implementation be incomplete or the objectives fail to be achieved. Not only did the EIR fail to address any of these specific standards, but it did not even identify where restoration would be attempted.

Mitigation Measure BIO-3 concludes that impacts to wetlands would be less than significant after mitigation. The mitigation consists of City of Elk Grove General Plan Policy CAQ-21, which requires 50-foot stream buffer zones. However, much of the wetlands affected by the project would be pond and marsh environments, not just streams. For example, I observed what appeared to be vernal pools and wetland swales at Sunset SkyRanch Airport – these were not streams (Photos 3 and 4).

Furthermore, Policy CAQ-21 assumes that the only upland area needed to maintain the integrity of biological resources within a stream environment is 50 feet to either side of the stream. This assumption is incorrect, as many species that use stream environments also require much more expansive areas of upland environments for finding refuge, food resources, and nesting opportunities.

Mitigation Measure BIO-4 concludes that impacts to wildlife movement corridors would be less than significant after mitigation. It claims that there are no formerly identified fish or wildlife movement corridors in the project area, but that if there are any, then impacts to them would be mitigated by a 50 foot stream buffer required under City of Elk Grove's General Plan Policy CAQ-21, and by the City's encouragement to cluster development under its General Plan Policy CAQ-7. The EIR failed to demonstrate, however, that General Plan Policy CAQ-7 resulted in the preservation of any fish or wildlife movement corridors in the current Sphere of Influence. In fact, examining Google Earth imagery dated 13 June 2011, I was unable to identify a single reach of undeveloped land extending north-south, east-west, or in any other direction through Elk Grove. One stream channel extends through Elk Grove, but development has extended to the stream's banks along much of the stream's reach. Before claiming that Policies CAQ-7 and CAQ-21 will minimize impacts to wildlife and fish movement corridors to less than significant impacts within the City of Elk Grove's proposed amended Sphere of Influence, LAFCo should demonstrate where and to what extent these policies were effective within the current Sphere of Influence.

Mitigation Measure BIO-6 concludes that impacts to existing Habitat Conservation Plans would be less than significant after mitigation. LAFCo claims that any conflicts with the South Sacramento Habitat Conservation Plan (SSHCP) will be remedied through CEQA review of specific projects falling within the expanded City of Elk Grove Sphere of Influence. However, it is unknown when or if the SSHCP will be certified. As a case example, development of the Yolo County HCP was begun in 1990, but it still remains uncertified. Until the SSHCP is certified, it will remain unknown whether conflicts will exist or whether the conflicts can be mitigated.

LITERATURE CITED

Anderson, R. L., J. L. Dinsdale, and R. Schlorff. 2007. California Swainson's hawk inventory 2005-2006. Unpublished report to Wildlife Health Center, California Fish and Game Resource Assessment Program, Sacramento, California.

Askins, R. A., M. J. Philbrick, and D. S. Sugeno. 1987. Relationship Between the Regional Abundance of Forest and the Composition of Forest Bird Communities. *Biological Conservation* 39:129-152.

Bedford, B. L. and E. M. Preston. 1988. Developing the scientific basis for assessing cumulative effects of wetland loss and degradation on landscape functions: status, perspectives, and prospects. Environmental Management 12:751-771.

Beier, P., and S. Loe. 1992. A Checklist for Evaluating Impacts to Wildlife Movement Corridors. *Wildlife Society Bulletin* 20:434-440.

CDFG (California Department of Fish and Game). 1997. Guidelines for assessing the effects of proposed developments on rare, threatened, and endangered plants and plant communities. California Department of Fish and Game, Sacramento.

CDFG (California Department of Fish and Game). 2011. Special Animals (898 Taxa). Biogeographic Data Branch, Natural Diversity Data Base, Sacramento, California.

CNPS (California Native Plant Society). 1998. Mitigation guidelines regarding impacts to rare, threatened, and endangered plants. California Native Plant Society. http://www.cnps.org/archives/mitigation2.htm

Cousins, S.H. 1990. Countable Ecosystems Deriving from a New Food Web Entity. Oikos 57:270-275.

England, A. S., J. A. Estep, and W. R. Holt. 1995. Nest-site selection and reproductive performance of urban-nesting Swainson's Hawks in the Central Valley of California. Journal of Raptor Research 29:179-186.

Erichsen, A.L., K.S. Smallwood, A.M. Commandatore, D.M. Fry, and B. Wilson. 1996. White-tailed Kite movement and nesting patterns in an agricultural landscape. Pages 166-176 in D.M. Bird, D.E. Varland, and J.J. Negro, eds., Raptors in human landscapes. Academic Press, London.

Estep. J. 2008. The Distribution, Abundance, and Habitat Associations of the Swainson's Hawk (*Buteo swainsoni*) in Yolo County, California. Unpublished report to Technology Associates International Corporation and the Yolo Natural Heritage Program, Woodland, CA.

Estep, J. 2009. The Distribution, Abundance, and Habitat Associations of the Swainson's Hawk (*Buteo swainsoni*) in the City of Elk Grove, California. Unpublished report to City of Elk Grove, California.

Hall, L. S., P. R. Krausman, and M. L. Morrison. 1997. The habitat concept and a plea for standard terminology. Wildlife Society Bulletin 25:173-182.

Hanski, I. A., and M. E. Gilpin. 1997. *Metapopulation Biology: Ecology, Genetics, and Evolution.* Academic Press, San Diego, CA.

Laurence, W. F. and E. Yensen. 1990. Predicting the Impacts of Edge Effects in Fragmented Habitats. *Biological Conservation* 55:77-92.

MacDonald, L. H. 2000. Evaluating and managing cumulative effects: Process and constraints. Environmental Management 26:299-316.

McCollin, D. 1993. Avian Distribution Patterns in a Fragmented Wooded Landscape (North Humberside, U.K.): the Role of Between-patch and Within-patch Structure. *Global Ecology and Biogeography Letters* 3:48-62.

Moyle, P. B., H. C. Li, and B. Barton. 1986. The Frankenstein Effect: Impact of Introduced Fishes on Native Fishes in North America. In *Fish Culture in Fisheries Management*, ed. R. H. Stroud, pp. 415-26. Maryland: American Fisheries Society, Bethesda, Maryland.

National Research Council. 1986. *Ecological Knowledge and Environmental Problem-solving: Concepts and Case Studies*. National Academy Press, Washington, D.C.

Shrader-Frechette, K. S., and E. D. McCoy. 1992. Statistics, costs and rationality in ecological inference. Tree 7: 96-99.

Reid, L. M. 1998a. Chapter 19. Cumulative watershed effects and watershed analysis. Pages 476-501, in: Naiman, Robert J., and Robert E. Bilby, eds. River Ecology and Management: Lessons from the Pacific Coastal Ecoregion. Springer-Verlag, N.Y.

Reid, L. M. 1998b. Cumulative watershed effects: Caspar Creek and beyond. In: Ziemer, Robert R., technical coordinator. Proceedings of the conference on coastal watersheds: the Caspar Creek story, 1998 May 6; Ukiah, California. General Tech. Rep. PSW GTR-168. Albany, California: Pacific Southwest Research Station, Forest Service, U.S. Department of Agriculture; 117-127.

Sacramento LAFCo (Local Agency Formation Commission). 2011. Draft Environmental Impact Report: City of Elk Grove Proposed Sphere of Influence Amendment (LAFC # 09-10). State Clearinghouse No. 2010092076. City of Elk Grove, Sacramento County, California.

Saunders, D.A., R.J. Hobbs, and C. Margules. 1991. Biological Consequences of Ecosystem Fragmentation: a Review. *Conservation Biology* 5:18-32.

Shuford, W. D., and T. Gardali, [eds.]. 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.

Smallwood, K.S. 1995. Scaling Swainson's hawk population density for assessing habitat-use across an agricultural landscape. J. Raptor Research 29:172-178.

Smallwood, K. S. 2001. Linking habitat restoration to meaningful units of animal demography. Restoration Ecology 9:253-261.

Smallwood, K.S. 2002. Habitat models based on numerical comparisons. Pages 83-95 *in* Predicting species occurrences: Issues of scale and accuracy, J. M. Scott, P. J. Heglund, M. Morrison, M. Raphael, J. Haufler, and B. Wall, editors. Island Press, Covello, California.

Smallwood, K.S. and S. Geng. 1993. Alfalfa as wildlife habitat. California Alfalfa Symposium 23:105-8.

Smallwood, K. S. and B. Nakamoto. 2009. Impacts of West Nile Virus Epizootic on Yellow-Billed Magpie, American Crow, and other Birds in the Sacramento Valley, California. The Condor 111:247-254.

Smallwood, K.S., B.J. Nakamoto, and S. Geng. 1996. Association analysis of raptors on an agricultural landscape. Pages 177-190 in D.M. Bird, D.E. Varland, and J.J. Negro, eds., Raptors in human landscapes. Academic Press, London.

Smallwood, K.S., J. Beyea and M. Morrison. 1999. Using the best scientific data for endangered species conservation. Environmental Management 24:421-435.

Smallwood, K.S., A. Gonzales, T. Smith, E. West, C. Hawkins, E. Stitt, C. Keckler, C. Bailey, and K. Brown. 2001. Suggested standards for science applied to conservation issues. Transactions of the Western Section of the Wildlife Society 36:40-49.

Smallwood, K. S., C. G. Thelander, M. L. Morrison, and L. M. Rugge. 2007. Burrowing owl mortality in the Altamont Pass Wind Resource Area. Journal of Wildlife Management 71:1513-1524.

Wilcox, B. A., and D. D. Murphy. 1985. Conservation strategy: the effects of fragmentation on extinction. American Naturalist 125:879-887.

Chryss Meier - FW: Proposed City of Elk Grove Sphere of Influence Amendment

From: "Lockhart. Don" <Don.Lockhart@SacLAFCo.org>
To: "Trevor Macenski" <TMacenski@brandman.com>, "Chryss Meier" <CMeier@brandman.com>
Date: 10/11/2011 9:27 AM
Subject: FW: Proposed City of Elk Grove Sphere of Influence Amendment
CC: "Bob Klousner" <bklousner@e-planningpartners.com>

PG&E DEIR comment below.

Don Lockhart, AICP
Assistant Executive Officer
Sacramento LAFCo
1112 I Street, Suite 100
Sacramento, CA 95814-2836
916.874.2937
916.874.2939 (FAX)
Don.Lockhart@SacLAFCo.org
Please consider the environment before printing this email.

From: Kennedy, Donald [mailto:DLKn@pge.com]
Sent: Monday, October 10, 2011 3:31 PM
To: Lockhart. Don
Subject: Proposed City of Elk Grove Sphere of Influence Amendment

Mr. Lockhart,

RE: Notice of Availability - Public Review of the Draft Environmental Impact Report for the Proposed City of Elk Grove Sphere of Influence Amendment
(LAFC# 09-10 / SCH # 2010092076)

Thank you for giving PG&E the opportunity to comment on the Notice of Availability for the above referenced project. PG&E has the following comments to offer.

PG&E operates and maintains gas and electric facilities within and/or adjacent to the 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. To ensure compliance with these standards, project proponents should coordinate with PG&E early in the development of their 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.

We would like to note that continued development will have a cumulative impact on PG&E's gas system 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. Upgrades or additional load on the gas system could include facilities such as regulator stations, odorizer stations, valve lots, distribution and transmission lines.

We would like to recommend that environmental documents for proposed development projects include adequate evaluation of cumulative impacts to utility systems, the utility facilities needed to serve those developments and any potential environmental issues associated with extending utility service to the proposed project, and any possible relocations. This will assure the projects compliance with CEQA and reduce potential delays to the project schedule.

Should PG&E's facilities have the potential of being affected on development/improvement projects, PG&E requests improvement plans (with accurate potholed depths for underground facilities) be sent to PG&E to ensure consistent uses around PG&E's facilities areas. Please work closely with PG&E on your improvement plans around PG&E facilities to minimize impacts. PG&E requests that the Project Proponent obtain a no objection letter from PG&E prior to any construction activities taking place around PG&E's facilities to ensure the safety of the public and consistent uses. 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.

PG&E remains committed in providing timely, reliable and cost effective gas service to the area. 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.

The California Constitution vests in the California Public Utilities Commission (CPUC) exclusive power and sole authority with respect to the regulation of privately owned or investor owned public utilities such as PG&E. This exclusive power extends to all aspects of the location, design, construction, maintenance and operation of public utility facilities. Nevertheless, the CPUC has provisions for regulated utilities to work closely with local governments and give due consideration to their concerns. PG&E must balance our commitment to provide due consideration to local concerns with our obligation to provide the public with a safe, reliable, cost-effective energy supply in compliance with the rules and tariffs of the CPUC.

Please contact me with any questions.

Thanks,

Donny Kennedy
Pacific Gas & Electric Company
343 Sacramento Street
Auburn, CA 95603
Internal: (8) 732-5089
External: (530) 889-5089
Fax: (530) 889-3392

Stone Lakes National Wildlife Refuge

AKT Wetland Preserve Unit

N
W E
S

Legend

- Seasonal Wetlands & Vernal Pools
- Passive_Seasonal_Wetlands
- Stone Lakes NWR Project Boundary

Dedicated to the appreciation of wildlife

November 21, 2011

Don Lockhart, Assistant Executive Officer
Sacramento Local Agency Formation Commission
1112 I Street, Suite 100
Sacramento, CA 95814

RE: Draft Environmental Impact for Proposed City of Elk Grove Sphere of Influence Amendment (LAFCo File No. 09-10)

Dear Mr. Lockhart:

This letter provides the comments of the Stone Lakes National Wildlife Refuge Association (Association) on the Elk Grove Proposed Sphere of Influence Amendment Draft EIR (DEIR). The Association is a nonprofit organization dedicated to preserving and protecting the Stone Lakes National Wildlife Refuge (Stone Lakes NWR). Among other activities, the Association has worked to ensure that Stone Lakes NWR is protected from adverse impacts relating to changes in flows and water quality due to surrounding development in coordination with local, state and federal agencies.

The Refuge is the single largest complex of natural wetlands, lakes and riparian areas remaining in the Sacramento-San Joaquin Delta, and provides critical habitat for waterfowl and other migratory birds of international concern, as well as a number of endangered plant and animal species. Stone Lakes NWR and the surrounding agricultural areas are home to several special status species, including the tri-colored blackbird, greater sandhill crane, white-face ibis, long-billed curlew, Swainson's hawk, burrowing owl, giant garter snake and valley elderberry longhorn beetle.

Description of Stone Lakes NWR and its Relation to Project Area Is Inaccurate and Incomplete

The Stone Lakes NWR is inaccurately described in a number of instances in the DEIR. The description of surrounding land uses in sections 2.1.2 and 3.10.2.3 identifies the presence of the Stone Lakes NWR to the west but neglects to identify grazing land within the NWR boundary to the north between Franklin Blvd and Interstate 5 that is under permanent conservation easement. Similarly the land south of the project area between Franklin Blvd and Interstate 5 is within the legislative boundary of the NWR, although it is not under easement.

The description of the Stone Lakes NWR under Section 3.10, Regulatory Framework (page 3.10-8) is incomplete. The section should reference the map showing the legislative boundary of the Stone Lakes NWR and note that it surrounds on three sides the westernmost extension of the project area between Franklin Blvd and I-5. The section should explain that the basis for determining the Stone Lakes NWR boundary included the presence of wetlands and supporting upland habitat that sustain migratory waterfowl and other species of Federal and State concern. The National Wildlife Service is authorized to acquire fee title or easements for lands within (and under certain circumstances near) the boundary.

More importantly, the DEIR fails to describe the basis for and importance of the Stone Lakes NWR and treats the Refuge only as a geographical fact. The document must identify the resource values that justified the creation of the Stone Lakes NWR and acknowledge that those resource values are not exclusively dependent on the land within the Refuge boundary. In particular, the important role that surrounding farmlands play in implementing Stone Lake NWR's management objectives must be disclosed and analyzed in the context of the project.

The "Draft Comprehensive Conservation Plan and Environmental Assessment for the Stone Lakes National Wildlife Refuge", available at http://library.fws.gov/CCPs/stonelakes_draft.pdf should be consulted for specific information regarding Refuge Stone Lakes NWR resources.

CEQA requires that an accurate setting description be provided prior to analysis of potential impacts of the project. (CEQA Guidelines 15125.) The DEIR's failure to accurately describe the resources within Stone Lakes NWR renders the remainder of the analysis in the DEIR incomplete and the DEIR fails as an informational document.

The Analysis of Land Use Impacts Relative to the Stone Lakes NWR is Inaccurate and Incomplete

The Project Description on page 2-2, includes the statement that "No conservation or mitigation sites exist with [sic] the project area except in the westernmost portions, where some parcels, within the Stone Lakes NWR, are protected by a perpetual conservation agreement or owned by a conservancy group." There is no further elaboration of the Stone Lakes NWR and this statement is later contradicted by the analysis of land use impacts on the Stone Lakes NWR on page 3.10-52: "As shown in Exhibit 3.10-2, the SOIA Area would not encroach onto the refuge boundaries."

However, Exhibit 3.10-2 does not relate to Stone Lakes NWR, but Exhibit 3.10-3 does relate to Stone Lakes NWR,, and it clearly shows that a portion of the Stone Lakes NWR boundary is within the SOIA Area. The National Wildlife Service holds a permanent conservation easement intended to protect vernal pools and grasslands on this acreage a well as the large area immediately to the north of the SOIA area. The DEIR should identify and describe this easement.

Please also see the attached exhibit for the AKT Wetland Preserve Unit, which shows the vernal pool resources on the AKT property under conservation easement within Stone Lakes NWR. Note the presence of significant vernal pool resources in and adjacent the SOIA area. The DEIR must discuss these resources and how the potential urban development of the SOIA could impact the vernal pools and their management by the Stone Lakes NWR.

The discussion of the land use impacts on the Stone Lakes NWR does not include any analysis of how the annexation and ultimate development of the SOIA would impact the ability of the Refuge to implement its mandate to protect and enhance wildlife resources. The project would increase land values for surrounding land within the Refuge boundary, reduce opportunity to acquire conservation easements, and increase urban use conflicts with resource management activities.

Description of Wetlands in Biological Resources Section Is Inaccurate and Fails to Note Natural Preserve Designation of County Plan

The DEIR description of wetlands under Biological Resources beginning at page 3.4-1 is inaccurate and incomplete. Exhibit 3.4-1 identifies the freshwater emergent wetlands in the SOIA area totaling 162.4 acres (page 3.4-5). The majority of this acreage—on the order of 130 acres—is west of Franklin Road. The DEIR states that "The majority of the pond and wetland areas appear to be associated with agricultural activities, including water storage and irrigation runoff." This statement does not stand up to scrutiny. The freshwater emergent wetlands in the southern portion of the project area that is west of Franklin Blvd comprise a natural drainage that drains Watershed C in the City of Elk Grove. This natural drainage flows into South Stone Lakes in the Stone Lakes NWR. The DEIR must describe the nature and character of this wetland and identify its relationship to the hydrology of the Stone Lakes drainage.

Moreover, this natural drainage is identified on the Sacramento County General Plan Map as a Nature Preserve, a portion of which, as identified in Exhibit 207 of the DEIR, is within the project boundary. The DEIR does not further elaborate on the designation, either as to what it means or what it represents on the County General Plan map. The DEIR must provide this additional information in order to correctly describe the biological setting for the project.

Errors and Omissions in Land Use Policy Consistency Analysis

The DEIR must disclose the project's inconsistencies with applicable plans and policies, and analyze the environmental effects of such inconsistencies.

The DEIR evaluates the policies of the Sacramento County General Plan for policy consistency beginning on page 3.10-16. The policies evaluated are from the 1993 Sacramento County General Plan. The Sacramento County Board of Supervisors adopted a new General Plan on November 9, 2011. The DEIR must consider the project's consistency with the General Plan policies now in effect.

In the Land Use section, page 3.10-25, the DEIR identifies Sacramento County General Plan Policy CO-60, which establishes that marshland and riparian areas of special significance shall be designated as natural preserves on the General Plan. The analysis concludes that the project is consistent with this policy because the SOIA Area is not identified as natural preserve on the County GP, which is incorrect.

Although this specific policy is no longer in the Sacramento County General Plan, project consistency with the Natural Preserve designation of the plan diagram as described on page 12 of the Land Use Element and with the policies under the Habitat Preserve and Management section of the Conservation Element (page 36 must be addressed and the environmental effect of the policy conflict analyzed.

Consistency with LAFCo Policy IV.C.3.b and c is discussed on page 3.10-47 (where it is misidentified as Policy III.C.3). The DEIR concludes that the project is consistent with these policies. However, the part of the SOIA Area between Franklin Boulevard and Interstate 5 (I-5) is inconsistent with LAFCo Policy IV.C.3.b, which states that LAFCo will not approve applications with boundaries resulting in peninsulas of incorporated territory or otherwise cause distortion of existing boundaries. That portion of the SOIA Area between Franklin Boulevard and I-5 is a peninsula bounded on the north by the Stone Lake NWR boundary with land under perpetual easement to the FWS for management as part of the Refuge and on the south by agricultural land in a 100-year floodplain that is also part of the Congressionally approved boundary of the Stone Lakes NWR.

The SOIA peninsula between Franklin Boulevard and I-5 is also inconsistent with LAFCo Policy IV.C.3.c which obligates LAFCo to not approve applications with boundaries drawn for the exclusive purpose of encompassing revenue-producing territories. The Southeast Connector expressway will run the length of the peninsula from I-5 to Franklin Blvd to Highway 99 and ultimately to Highway 50 in El Dorado County, and will greatly increase traffic along the Connector. Elk Grove included the peninsula within the proposed SOIA Area so that Elk Grove may later annex it and line the connector and/or Hood-Franklin Road with intense revenue-producing retail and commercial development between I-5 and Franklin Blvd. Otherwise, developing the peninsula makes no sense due to infrastructure costs, constrained area, the 100-year floodplain, and incompatibility with the neighboring Refuge and agricultural uses.

It is telling that the area between I-5 and Franklin Blvd was not include in the Urban Study Area of the Elk Grove City General Plan, but that it was included in the SOIA application to "serve as a gateway from I-5 to the City" (DEIR, page 2-29). Note that Elk Grove and Laguna Blvd exits off I-5 already serve as a gateway to the City.

The land use implications of placing "a gateway from I-5 to the City" adjacent to Stone Lakes NWR and sensitive biological resources must be disclosed in the DEIR. Due to the significant impacts that would result from such a decision, comprehensive alternatives to avoid or mitigate the resulting impacts are required. (CEQA Guidelines 15126.2, 15126.4, 15126.6.)

Inadequate Discussion on Impacts to Migratory Waterfowl

The DEIR Analysis of Impact BIO-4, Wildlife or Fish Movement, page 3.4-41 et seq, ignores potential impacts on migratory waterfowl, particularly those that use cropland for winter forage. Observations

derived from management activities at Stone Lakes NWR reveal the important relationship between seasonal wetlands and adjacent agricultural lands. Stone Lakes NWR supports land management units containing seasonal wetland complexes adjacent to large tracts of private and public uplands farmed in wildlife compatible crops such as wheat, corn or alfalfa and grasslands and wet meadows that are grazed or hayed. Shorebirds, geese and waterbirds--including long billed curlews, black bellied plover, greater white fronted geese and sandhill cranes--will move daily between seasonal wetlands, where they roost at night, to adjacent uplands to forage throughout the day. These upland areas are generally free from disturbance and hazards (light, noise, loose pets, roads and power lines) are minimal—factors that increase the quality of the habitat for foraging.

Conversion of upland foraging habitat to urban or industrial development threatens the success of wintering birds. As suitable habitat diminishes and becomes fragmented, wintering birds are constricted to smaller areas located farther apart. Removing viable uplands near managed wetlands increases the distance migratory birds have to travel each day to forage, thereby taxing their energy reserves and exposing them to additional hazards.

We understand that others are commenting abundantly on the inadequate treatment of sandhill cranes in the impact analysis of the DEIR. We would add that the USFWS manages and protects three greater sandhill crane (GSHC) roost sites on the Refuge. One of the most compelling arguments for cranes is the impact from loss of foraging habitat. Data from crane specialist Gary Ivey shows that the GSHC forages within a one mile radius of their roost sites as compared to lesser sandhill cranes, which will travel as far as five miles from their roost sites. Most of the lesser roost sites in the upper Delta are at Cosumnes and Staten Island Preserves. The change in land management from the current agricultural crops--including corn, wheat, alfalfa and hay--that support dairy and cattle to housing and urban infrastructure will require the GSHC to increase its foraging range and may displace or cause roost sites to be abandoned. The GSHC is very territorial and sensitive to disturbance and changes in both roost and foraging sites. The wintering population, estimated at around 6,000 birds, needs both habitats to survive the winter in the northern Delta. Other species that share the same habitat criteria are long billed curlews and black bellied plover (Communication from Bart McDermott, Stone Lakes Refuge Manager).

There are also other potential impacts to migratory waterfowl of urban development within the SOIA Area beyond loss of foraging area that have not been evaluated in the DEIR. As noted elsewhere in these comments, as well in our comments responding to the NOP for the DEIR, the approval of the EG SOIA would lead to urbanization around the I-5/Hood Franklin Road interchange. As the first interchange entering the Sacramento urban area for northbound traffic on Interstate 5 there is a high probability for intensive development of travel commercial uses, including hotels, truck stops and related travel commercial facilities. The DEIR fails to examine the impact of intensive travel commercial development on migratory waterfowl, including, but not necessarily limited to the potential increased avoidance of the refuge wetlands by migratory waterfowl and increase in bird strikes associated with multi-story buildings.

Dedicated to the appreciation of wildlife

Inadequate Discussion of Special Status Species

Stone Lakes NWR Association agrees with and supports the comments of other respondents that the DEIR discussion of special status species is inadequate. The analysis relies entirely on the California Natural Diversity Database (CNDDB). This database is out of date and recognized as incomplete. The DEIR preparers do not appear to have consulted Audubon Christmas counts, Cosumnes River Preserve and Stone Lakes NWR surveys, and South Sacramento Habitat Conservation Plan data. Nor is there any indication that they have contacted any wildlife professionals who work and study the area. All discussed species must be re-examined using the more complete resources available.

Exhibit 3.4-2a map shows location of recorded occurrences of several special status plants close to and near the project areas. They are Boggs Lake hedge hyssop, Heckard's pepper grass, Sanford's arrowhead, dwarf downingia, legenere, slender Orcutt grass and watershield (Northern Hardpan vernal pool and valley oak riparian habitats are also identified). Yet none of these species are identified in Table 3.4-1, Summary of Special-Status Plant Species Review, and discussed with respect to their potential for presence within the SOIA area. This omission should be corrected.

Inadequate Discussion of Impact on Town of Franklin

The DEIR addresses the potential impact of the long established town of Franklin in Section 3.10.6 only in the context of not dividing communities (page 3.10-15). But the analysis fails to consider the potential impacts of entirely surrounding a historical rural community with intensive urban development. To conclude that the inclusion of the town of Franklin in the SOIA Area for the purpose of urban development would have no impact on the town of Franklin defies credibility.

Growth Inducement Impacts on West Side of Freeway Are Not Identified and Discussed

The Stone Lakes NWR Association is particularly concerned about the growth inducement of the SOIA on the west side of the SOIA boundary across Interstate 5 at the southwest corner of the interchange of Hood Franklin Road and the freeway. This property is located at the planned western terminus of the Southeast Connector, a major expressway that would link Interstate 5 and Highway 50 between Elk Grove and Rancho Cordova. The interchange would be the first urban interchange entering the Sacramento urban area for northbound traffic on Interstate 5. Although the property at the southwest corner of the interchange is inside the legislative boundary of the Stone Lakes NWR, it is not subject to conservation easements or other restrictive covenants (unlike the property at the northwest corner, which is publicly owned), and the USFWS exercises no authority over the property. Inclusion of the land on the east side of the freeway within the SOIA for the purpose of urban development, together with the

construction of the Southeast Connector will make it particularly attractive for commercial development, and greatly increase the likelihood of requests to Sacramento County for development of travel-related commercial uses that would not need public sewer and water connections. The DEIR must discuss this growth inducement potential.

Inadequate Mitigation Ratio for Agricultural Land Loss

The DEIR proposes Mitigation Measure AG-1 to compensate for the loss of agricultural land due to urbanization of the SOIA Area. This measure would require mitigation in the form of a conservation easement on remaining agricultural land in the amount of ½ acre for every acre of farmland lost to urban development.

The recommended mitigation is inadequate. The mitigation measure should utilize at least a 1:1 mitigation ratio for farmland lost. This higher mitigation ratio is warranted because of the additional impact of the loss of quality upland foraging habitat for migratory waterfowl at the Stone Lakes NWR. At least 1:1 mitigation is also justified because of LAFCo's mandate to guide development away from open space and prime agricultural lands, because the proposed project is inconsistent with LAFCo Policy IV.E.1 and Sacramento County General Plan Policies and because a 1:1 mitigation ratio reflects past practice of mitigation for agricultural land loss in Sacramento County. Notably, the overall amount of farmland is still reduced even when 1:1 mitigation is required.

Alternatives Analysis Does Not Recognize Potential for Reduced Impacts on Stone Lakes

The impact analysis for each of the two proposed alternatives to the project does not recognize the reduced impact on Stone Lakes National Wildlife Refuge. The first alternative would not remove waterfowl foraging habitat from the foraging area of waterfowl roosting at the Refuge and the second would remove less waterfowl foraging habitat. The analysis should quantify the difference.

The impact analysis for each of the two proposed alternatives to the project also does not discuss the reduced impact of urban uses immediately adjacent the Refuge and the greater ability for the Refuge to implement habitat improvements on lands both within and adjacent the refuge.

Cumulative Impact Analysis Fails to Include Related Projects

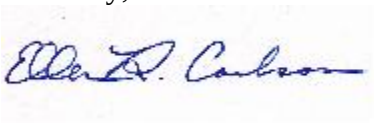
The DEIR utilizes a "list of cumulative project" approach to cumulative impacts analysis. (CEQA Guidelines 15130(b)(1)(A).) Incredibly, this list also does not include the Bay Delta Conservation Plan (BDCP). The BDCP is a major water diversion and conveyance project in the area just west of the SOIA. The The BDCP includes construction of 5 new water intakes, a one-mile mile square forebay, a

canal or tunnel with a capacity of 15,000 cubic feet per second, and a 230 kilovolt transmission line through Stone Lakes NWR. The placement of major infrastructure within and near Stone Lakes NWR under the BDCP will have significant impacts on the biological resources of Stone Lakes NWR and must be considered in combination with the SOIA.

* * *

In closing, and in the interest of providing the LAFCo Board with the best and most complete information for making an informed decision on this threshold land use decision, we urge that the preparers of the environmental document incorporate the above comments and recommendations in the Final EIR for the Elk Grove SOIA. Stone Lakes NWR and the surrounding open space and agricultural areas are part of what makes Elk Grove and the surrounding areas a desirable place to live. The SOIA should not undermine these values, especially when land near Stone Lakes NWR is not actually needed for foreseeable growth. Due to the multiple failures to include information essential for informed decision-making, the DEIR must be revised to fully analyze impacts on Stone Lakes NWR and then recirculated for public review.

Sincerely,



Ellen Carlson, President
Stone Lakes NWR Association

Attachment: AKT Wetland Map

CC: Bart McDermott, Refuge Manager Stone Lakes NWR
Osha Meserve, Counsel for Stone Lakes NWR Association

The Nature Conservancy
Protecting nature. Preserving life.™

Sacramento Office
555 Capitol Mall, Suite 1290
Sacramento, CA 95814

Tel (916) 449-2850
nature.org

November 21, 2011

Donald J. Lockhart, AICP
Assistant Executive Officer
Sacramento LAFCo
1112 I Street, Suite 100
Sacramento, CA 95814

Re: City of Elk Grove Sphere of Influence Amendment Draft Environmental Impact Report

Dear Mr. Lockhart:

Thank you for the opportunity to provide comments on the City of Elk Grove Sphere of Influence Amendment (SOIA) Draft Environmental Impact Report (DEIR). The Nature Conservancy is a land-owning partner at the Cosumnes River Preserve (Preserve), and has been active for over 25 years in preserving this area. The Preserve consists of natural and working agricultural lands. These areas are protected by government agencies and conservation organizations holding fee title, a conservation easement, or both. Portions of the Preserve have been recognized as an Eco-Reserve by the California Fish and Game Commission, a Globally Important Bird Area by the National Audubon Society and the American Bird Conservancy, and a National Natural Landmark by the National Park Service. Further, the Preserve lies in the heart of California's Central Valley, which has been deemed "an internationally significant area for wintering and migrating shorebirds" by the Southern Pacific Shorebird Conservation Plan.

The "Cosumnes River Preserve Management Plan" was adopted as the Preserve's guiding document in 2008, and should be incorporated as a reference in the final Elk Grove SOIA EIR. The proposed expansion of the SOIA would erode a critical agricultural buffer that currently exists between the Preserve and the urbanized area of Elk Grove, removing habitat for listed and other species that depend on the Preserve and the area within the proposed SOIA. Unfortunately, nowhere in the DEIR is the Preserve identified by name or identified as a surrounding land use. The impacts to its resources are also not clearly delineated. As an example, Exhibit 2-1, the Regional Location Map, completely excludes the Cosumnes River, Dry Creek, the Cosumnes River Preserve, and any adjacent protected lands. Given their local, regional, and global significance, these protected lands should be identified. Similarly, while Exhibit 2-6 identifies Stone Lakes National Wildlife Refuge, it omits mention or mapping of the Cosumnes River Preserve, which, like the Stone Lakes Refuge, is also identified as a Resource Conservation Area in the Sacramento County General Plan.

Elk Grove has partnered with the Preserve to develop mitigation for previous development, and we hope that the city will continue to engage closely with The Nature Conservancy to ensure that planned growth will not impact the area's natural resources. This is identified as a goal in Elk Grove General Plan Policy LU-16: "Any study of potential land uses in these areas should be accomplished in cooperation with… parties with ownership or jurisdiction of lands in and near the study area," and in LU-17: "Implement a comprehensive and city-wide strategy for the

preservation of open space, habitat and agriculture, both inside and outside the City's existing city limits."

In addition, The Nature Conservancy has several specific concerns with the DEIR due to the significant adverse environmental impacts of the proposed SOIA on the following:

1. Aesthetics

Development within the proposed SOIA expansion area will have a substantial adverse effect on the rural character of the existing environment, substantially degrading the existing farmland and open space visual character and quality. Urbanized development will also create a new source of glare during the day and substantial light at night which will adversely affect day and nighttime views in the area. The DEIR recognizes that future urbanization of agricultural lands would significantly alter the existing visual character of the proposed SOIA area and add light and glare. Clear mitigation for the proposed project should be addressed. The DEIR only states that mitigation is proposed by requiring the City of Elk Grove to develop a light and glare reduction plan for the SOIA area prior to annexation activities, or demonstrate that implementation of existing policies and ordinances would reduce light and glare.

2. Agricultural Resources

The conversion of farmland to non-agricultural uses is a significant adverse impact of the proposed SOIA. Approximately 90% of the land in the proposed SOIA expansion area is prime farmland, unique farmland, or farmland of statewide or local importance.

Aside from the impacts within the proposed SOIA expansion area itself, it should also be recognized that without some instrument that maintains the viability of existing land uses at the outside edge of the new boundary, the establishment of a new SOI boundary inevitably leads to speculation and development pressure on those lands immediately adjacent to the new SOI boundary. The Nature Conservancy is fully aware of the impact of these economic pressures on the conversion of agricultural land. Our staff has seen higher expectations for land values south of the current SOI boundary at Kammerer Road, as reflected in purchases and option payments.

Mitigation for land conversion is not directly addressed. The DEIR only proposes a requirement to develop and demonstrate compliance with the City of Elk Grove's General Plan policies governing agricultural land conversions and avoidance of conflicts with Williamson Act lands.

3. Air Quality

The effect of more suburban sprawl in the SOIA expansion area will increase vehicle miles travelled per household, which will simply add cumulatively considerable air contaminants to the region's already poor existing air quality conditions.

4. Biological Resources

The proposed SOIA expansion area includes winter roosting and foraging areas for the greater Sandhill crane, as well as foraging ground and nesting trees for the Swainson's Hawk, both of which are threatened species under the California Endangered Species Act. The DEIR omits listed species that occur in or use agricultural lands and irrigated pastures. The proposed SOIA expansion area also hosts other resident and migratory raptor, shorebird, and grassland bird species. Agricultural land provides valuable foraging habitat for many of these migratory bird species. Alfalfa and other row crops are used by many species to forage, nest, and hide. Several bird species, such as the Swanson's Hawk, are highly dependent on alfalfa to support them given the lack of native wetland and grassland habitat remaining in California (Hartman et al, 2010). Mitigation measures are not addressed for the loss of Swainson's Hawk foraging habitat. The mitigation measures for wildlife includes general planning guidelines and nest site avoidance, but no specific actions about the foraging habitat impacts that are acknowledged as reasonably foreseeable.

The DEIR is also inconsistent with the occurrence of certain species. Table 3.4-2 mentions vernal pool fairy shrimp within five miles of project area, yet there is a California Natural Diversity Database (CNDDB) occurrence of this species plotted on Exhibit 3.4-2b within the SOIA.

The lower Cosumnes basin hosts one of the largest remaining valley oak riparian woodland complexes in California, which provides critical nesting habitat for migratory songbirds. The wetlands and stream courses feeding into the Cosumnes River host a genetically distinct population of California's giant garter snake, a threatened species under the Federal Endangered Species Act.

Many other species that are not presently listed depend on the lower Cosumnes basin to maintain their current population numbers. If the remaining vestiges of these critically important habitats are further compromised by urban encroachment and sprawl, many of these species would likely diminish in number to the point that they, too, would need to be considered threatened with extinction. We encourage you to consider the regional significance of this area, in light of the considerable investment of public dollars represented by the Cosumnes River Preserve, Stone Lakes National Wildlife Refuge, and Sacramento County's Bufferlands Project, multi-agency projects that protect and encourage wildlife to use this area. Southern Sacramento County is one of the last areas of the County where wildlife thrive, and the increasing importance of this area as a wildlife resource, as other areas within this region (Natomas and western Placer and El Dorado Counties) get developed, cannot be over emphasized.

It is clear that the DEIR did not complete the required surveys, consistent with the required protocols for gathering information about the mosaic of existing species and habitats that inhabit the proposed SOIA and adjacent areas. The CNDDB is not a substitute for these surveys and cannot be considered evidence of species absence within the SOIA. Furthermore, completing surveys once an annexation action is initiated as outlined in mitigation measure, MM BIO 1a, does not allow the public and the reviewing agencies the opportunity to evaluate and comment on the environmental impacts of the project on these species and habitats. The lead agency must

also consult with the state and federal trustee agencies: the California Department of Fish and Game, U.S. Fish and Wildlife Service, and National Marine Fisheries Service (for anadromous species).

The impact of urban development within the area covered by the South Sacramento Habitat Conservation Plan (SSHCP) should also be considered, as the DEIR states that there is proposed urban expansion outside the SSHCP's currently designated Urban Use Area.

5. Climate Change/Global Warming

The proposed project may contribute to global warming due to increased levels of greenhouse gas emissions. The EIR should do an inventory of the current generation of greenhouse gases in order to establish baseline conditions and then estimate, as accurately as possible, the quantity of CO2 that would be added to the environment if the City grows into the proposed SOIA expansion area.

Two especially large sources of greenhouse gas emissions are the state's transportation system, insofar as vehicles using it consume greenhouse gas-generating fuels, especially fossil fuels, and the electrical grid, insofar as greenhouse gas-generating energy sources, especially fossil fuel resources, are used to create electricity. Land use decisions also give rise to increased emissions to the extent that such decisions affect the extent of power generation and vehicle miles traveled. Consistent with the California Global Warming Solutions Act of 2006 (Health & Saf. Code, § 38500 et seq.), the lead agency must consider the following, where applicable, in evaluating greenhouse gas emissions associated with the SOIA, potentially significant effects associated with such emissions, and mitigation measures to minimize any such potentially significant effects:

(1) the extent to which the project could help or hinder attainment of the state's goals of reducing greenhouse gas emissions to 1990 levels by the year 2020, and achieving further reductions thereafter;

(2) the extent to which the project could increase the demand for fuels or other energy resources, especially fossil fuels that contribute to global warming when consumed; and

(3) the extent to which the project would facilitate, or be consistent with, any applicable state, regional, or local plans intended to reduce greenhouse gas emissions.

6. Hydrology & Water Quality

The DEIR cannot ignore or assume a solution to the problem of supplying water to a proposed development project, and needs to better address how the water supply needs of the proposed development will be met. The water needs of this area at full build-out, as well as the source of that water, and the environmental impacts of the use of that water, must be evaluated. The DEIR used detailed projections of population growth through 2035 to support the need for expansion of the current SOI. Therefore, it is a critical omission to leave out projections of similar detail over the same time frame for the natural resources, such as clean water, needed to sustain that projected population.

The Global Warming Solutions Act identifies specific categories of environmental effects that are consequences of global warming, including a reduction in the quality and supply of water to the state from the Sierra snowpack. Accordingly, the DEIR needs to address global warming's effect on long term water supplies.

The area targeted by the SOIA poses a number of important sensitivities from the standpoints of water supply, floodwater management, and urban discharge. The SOIA expansion area is outside of the American River Place of Use and thus poses particular, and complex, challenges for water service; this area is not currently eligible for water service from Sacramento's Zone 40 program or the Freeport Diversion. It is also a critically important area for groundwater recharge. In addition, no other area within the County offers similar potential for the agricultural reuse of treated effluent from the Regional Sanitation plant in a manner that bolsters Sacramento County's conjunctive groundwater management program.

Some but not all areas within the 100 year floodplain were removed from earlier versions the proposed SOIA. For consistency all such areas should be removed.

Groundwater withdrawals to supply municipal and agricultural water needs have resulted in large areas where groundwater levels have been lowered considerably as compared with pre-development levels. Such areas, referred to as regional cones of depression have developed both north and south of the Cosumnes River (Mount et al. 2001, Fleckenstein et al. 2004). This is a serious problem because the lowered groundwater levels induce water to flow out of the river and into the groundwater, reducing river flows and leaving the Cosumnes River completely dry during large parts of the dry season. In addition, the decline in groundwater levels threatens the riparian vegetation along the Cosumnes River. The proposed Mitigation Measure HYD-2 addresses this concern to some degree by requiring Elk Grove to provide a plan for providing sustainable water supplies for any newly annexed areas that will not result in further depletion of groundwater supplies. However, given the already degraded groundwater conditions, additional withdrawals, changes in groundwater withdrawal patterns or changes in recharge patterns due to land use conversion that might occur in response to the SOIA, must be considered in light of their effect on the Cosumnes River, riparian habitats and dependent species. Accordingly, hydrology mitigation measures should be strengthened to ensure that future development and water supply activities, including any groundwater withdrawals or changes in recharge patterns, not only do not further deplete the overall groundwater supplies, but also do not change local conditions in any way that might negatively affect the Cosumnes River flow or the riparian habitats of the Cosumnes Preserve and nearby habitat areas.

7. Land Use & Planning

Sacramento Area Council of Governments' (SACOG) 2035 Metropolitan Transportation Plan and the City's General Plan both show capacity for employment and housing growth within the current city limits through 2035. What is more, SACOG's 2050 Blueprint growth pattern projects capacity for another 19,000 employees and 1,500 housing units from 2035 to 2050. These projections, pointing to a sufficient land inventory for the next 42 years, bring into question the need for bringing additional land into the City's SOI at this time. Furthermore, the land use assumptions should be updated given the significant changes in the housing market

since the 2003 City of Elk Grove General Plan Update DEIR, including much higher rates of foreclosure and resulting increased supply.

The SOIA should not include the floodplain. Extending the area south to Eschinger Road and Cosumnes River would include the floodplain. The Central Valley Flood Management Planning Program will require 200-year flood protection for urban areas therefore; any area within the existing 200-year floodplain should be removed from the SOIA. In addition, no part of the SOIA area should include the protected conservation and/or mitigation lands.

This proposed project poses significant, irreversible adverse impacts to the environment resulting from the eventual loss of farmlands, floodplains, habitat, and open space. The commitment of these non-renewable resources to uses that future generations will be unable to reverse should be carefully weighed and considered.

Thank you again for the opportunity to comment on the DEIR for the SOIA.

Sincerely,

Dawit Zeleke
Director, Central Valley and Mountains Region

CC:

Barry Nelson, Natural Resources Defense Council
Beatrix Treiterer, Stones Lakes National Wildlife Refuge
Charlotte Mitchell, Sacramento County Farm Bureau
Todd Gardner, CDFG
Dan Taylor, Audubon
Harry McQuillen, BLM
Jim Pachl, Friends of the Swainson's Hawk
Jude Lamare, Friends of the Swainson's Hawk
Mark Biddlecombe, Ducks Unlimited
Matt Reeve, Department of Water Resources
Mike McKeever, SACOG
Monty Schmitt, Natural Resources Defense Council
Don Nottoli, Sacramento County Supervisor
Steven Szalay, Sacramento County

November 1, 2011

Sacramento Local Agency Formation Commission
1112 I Street, Suite 100
Sacramento, CA 95814-2836

Attn: Mr. Don Lockhart, AICP, Assistant Executive Officer
Via email: Don.Lockhart@saclafco.org

Re: Elk Grove Proposed Expansion

Dear Commission Members:

As someone who grew up in Sacramento, visits regularly, and still calls Sacramento home, I would like to register my opposition to the proposed expansion of Elk Grove's "sphere of influence." By promoting Elk Grove's unsustainable sprawl southward, such an expansion would only serve the interests of developers, speculators, and their political allies. In the long term, it would undermine the region's farmers and destroy thousands of acres of farmland. This farmland, part of the Central Valley's rich agricultural heritage, is more than a source of livelihood for local families. It also offers key foraging habitat to the threatened Swainson's hawk, buffers the Cosumnes River Preserve and the Cosumnes River watershed from urban traffic and pollution, and provides crucial environmental services to people throughout the county.

I hope you will look beyond the narrow interests of real-estate developers and consider the wider interests of the community. This nearsighted proposal should be rejected.

Sincerely,

John R. Berry
582 Ridgewood Rd. #2
Maplewood, NJ 07040

From: "Lockhart. Don" <Don.Lockhart@SacLAFCo.org>
To: "Trevor Macenski" <TMacenski@brandman.com>, "Chryss Meier" <CMeier@brand...
Date: 11/15/2011 12:45 PM
Subject: FW: City of Elk Grove Sphere of Influence Amendment

-----Original Message-----
From: Thorpe. Diane
Sent: Tuesday, November 15, 2011 7:40 AM
To: Brundage. Peter; Lockhart. Don
Subject: FW: City of Elk Grove Sphere of Influence Amendment

-----Original Message-----
From: coachburch@frontiernet.net [mailto:coachburch@frontiernet.net]
Sent: Sunday, November 13, 2011 7:57 PM
To: Thorpe. Diane
Subject: Re: City of Elk Grove Sphere of Influence Amendment

In regards to the changes in Elk Grove's request for a greater sphere of influence, my previous position has not change. If anything, I am more concerned about the growth of urban sprawl in California. If we do not change how we view our environment and continue to spread out how can we expect to survive as a species. We need to protecting farming land. I realize this is a future plan but I am still uncomfortable about continuing to encroach on nature and push us towards eating chemicals.
Sherry D Burch concern citizen.
----- Original Message -----
From: "Thorpe. Diane" <ThorpeD@saccounty.net>
To: bandlhansen@frontiernet.net, bdgrcrkkennels@aol.com, "Braziel. Pat (BOS)" <BrazielP@saccounty.net>, byeates@kenyonyeates.com, ccampion@ci.galt.ca.us, ckbconsulting@comcast.net, classetoria@yahoo.com, coachburch@frontiernet.net, crowl@frontiernet.net, "cypress amloc" <cypress.amloc@gmail.com>, dcarleton@frontiernet.net, "Defanti. David (MSA)" <defantid@SacCounty.NET>, "Lockhart. Don" <Don.Lockhart@SacLAFCo.org>, drlema@drlema.com, foxylady72@frontiernet.net, gnueyd@gmail.com, gthatch@thatchlaw.com, hoausermouzes@sbcglobal.net,

jcandusministry@aol.com, JHargrove@sacog.org, jpachl@sbcglobal.net, JTerhune@defenders.org, kutzerb@frontiernet.net, mommyspy@citlink.net, mwinnassociates@yahoo.com, pgarza@TNC.ORG, PParker@waterboards.ca.gov, ruthandvern@citlink.net, smithfamily4@frontiernet.net, techiburu@elkgrovecity.org, tgermany@mcclatchy.com, tmouzes@frontier.net, Todd@TheChambersCo.com, trichmond@holdernesslaw.com, vcalegari@TNC.ORG, washburnbt@frontiernet.net, wgallup@frontie
rnet.net
Sent: Friday, September 30, 2011 2:31:25 PM
Subject: City of Elk Grove Sphere of Influence Amendment

Hello,

The proposed City of Elk Grove Sphere of Influence Amendment (SOIA) Draft Environmental Impact Report (DEIR) is available for public review.

The public should note that the comment period is September 29, 2011 through November 14, 2011 . Also, public comment regarding the DEIR will be encouraged before the Commission at your regular meeting of November 2, 2011 .

The DEIR may be reviewed and/or downloaded @ www.saclafco.org . Hard copy may be reviewed at the LAFCo offices, Elk Grove City Hall (8400 Laguna Palms Way ,) the Elk Grove Library (8900 Elk Grove Blvd.) and the Franklin Community Library (10055 Franklin High Rd.)

To be considered, all comments must be received by the end of the public comment period (September 29, 2011 through November 14, 2011.) Upon completion of the 45-day public review period, responses to all substantive comments concerning the adequacy of the DEIR will be prepared and incorporated into a Final EIR.

Have a great day,

Diane Thorpe

Sacramento LAFCo

Phone (916) 874-2935

Fax (916) 854-9097

Chryss Meier - FW: Elk Grove SOI - DEIR - water supply

From: "Lockhart. Don" <Don.Lockhart@SacLAFCo.org>
To: "Trevor Macenski" <TMacenski@brandman.com>, "Chryss Meier" <CMeier@brandman.com>
Date: 10/27/2011 2:00 PM
Subject: FW: Elk Grove SOI - DEIR - water supply
CC: "Bob Klousner" <bklousner@e-planningpartners.com>

Please see comment below. Thanks.

Don Lockhart, AICP
Assistant Executive Officer
Sacramento LAFCo
1112 I Street, Suite 100
Sacramento, CA 95814-2836
916.874.2937
916.874.2939 (FAX)
Don.Lockhart@SacLAFCo.org
Please consider the environment before printing this email.

From: Mike Eaton [mailto:kingbirdfarms@gmail.com]
Sent: Thursday, October 27, 2011 6:21 AM
To: Brundage. Peter
Subject: Elk Grove SOI - DEIR - water supply

Peter -

In reviewing the DEIR, I note a simple assertion that the County (Zone 40) can serve water in the future to the entire SOI area, despite the fact that much of the area is outside the Zone 40 Master Plan service area, outside the American River Place of Use, and for such to actually happen will require federal approval, which will likely be difficult to achieve.

Can you share with me any and all correspondence with the relevant County departments and staff and with the City of Elk Grove on this subject? My apologies if these materials are on your web site but missed by me.

Thanks.

Mike

prohibited.

If you are not the intended recipient, please contact the sender immediately and permanently delete the original and any copies of this email and any attachments thereto.

Chryss Meier - FW: Elk Grove SOI - DEIR - water supply

From: "Brundage. Peter" <BrundageP@saccounty.net>
To: "Trevor Macenski" <TMacenski@brandman.com>
Date: 11/1/2011 11:02 AM
Subject: FW: Elk Grove SOI - DEIR - water supply
CC: "Lockhart. Don" <Don.Lockhart@SacLAFCo.org>

FYI

From: Mike Eaton [mailto:kingbirdfarms@gmail.com]
Sent: Tuesday, November 01, 2011 10:59 AM
To: Brundage. Peter
Subject: Re: Elk Grove SOI - DEIR - water supply

Peter -

OK, I'll comment accordingly. Seems like a pretty important issue to leave to undocumented conversations and "impressions."

And this is, by the way, perhaps the worst DEIR I've ever seen. Lots of erroneous info, lots of irrelevant info, and very little focus on the important issues of habitat, growth inducement, water supply, and flood management. If I were you I'd pull it, get the consultants at least to do a careful review of the document and a re-write as necessary, and re-issue. If I were on your board I'd feel very dis-respected to get this quality of document ...

A small case in point (and there are many others) is the information that the Arcade Creek levees, Natomas East Main Drain Canal, Yolo Bypass, etc., provide flood control to the project site - obviously false information that I don't think you really want in the record. (It seems the consultants just quickly cut-and-paste from another document and neglected to remove some text.) More substantive is the misuse of the California Natural Diversity Database - it records the *presence*, not *absence* of species (and so states clearly on its web site) - and its use in the document to indicate non-presence of sensitive species is a fundamental and serious mistake, particularly when so much good information is already available from the Audubon counts and the work done in association with the Cosumnes River Preserve (is the Preserve or the easement that it holds bordering the project area mentioned at all in the document?) and Stone Lakes.

Anyway, best of luck. It's extremely disheartening to see this lack of professionalism in approaching such a serious and consequential decision.

Mike

On Tue, Nov 1, 2011 at 9:15 AM, Brundage. Peter <BrundageP@saccounty.net> wrote:
Mike, we don't have anything in writing. When the application was submitted we had preliminary discussions with Keith Devore, Sacramento County Water Resources. They indicated that the SOI area would have to be annexed into Zone 40. I am not sure, but I do not think that the American Place of Use impacts Zone 40. I left the meeting with the impression that the County could serve the area. So far we have not received any written comments that I am aware of.

Peter

From: Mike Eaton [mailto:kingbirdfarms@gmail.com]
Sent: Tuesday, November 01, 2011 8:41 AM
To: Lockhart. Don
Cc: Brundage. Peter
Subject: Re: Elk Grove SOI - DEIR - water supply

Don -

I will make a comment on this point, but I think that I deserve a response from you to my question, and please accept my apologies if I was not clear. Has there been any correspondence on this point between LAFCO staff or consultants and County Water Resources staff? If no, I would like you to say so. If yes, I would like to see it.

Thanks.

Mike

On Thu, Oct 27, 2011 at 1:57 PM, Lockhart. Don <Don.Lockhart@saclafco.org> wrote:
Mike, thanks for your note. I will forward to the EIR consultant for consideration and response in the FEIR. Please feel free to call me to discuss. Don=

Don Lockhart, AICP
Assistant Executive Officer
Sacramento LAFCo
1112 I Street, Suite 100
Sacramento, CA 95814-2836
916.874.2937
916.874.2939 (FAX)
Don.Lockhart@SacLAFCo.org
Please consider the environment before printing this email.

From: Brundage. Peter
Sent: Thursday, October 27, 2011 11:17 AM
To: Lockhart. Don
Subject: FW: Elk Grove SOI - DEIR - water supply

Don, Can you respond to Mike Eaton.

Thanks

Peter

From: Mike Eaton [mailto:kingbirdfarms@gmail.com]
Sent: Thursday, October 27, 2011 6:21 AM
To: Brundage. Peter
Subject: Elk Grove SOI - DEIR - water supply

Peter -

In reviewing the DEIR, I note a simple assertion that the County (Zone 40) can serve water in the future to the entire SOI area, despite the fact that much of the area is outside the Zone 40 Master Plan service area, outside the

American River Place of Use, and for such to actually happen will require federal approval, which will likely be difficult to achieve.

Can you share with me any and all correspondence with the relevant County departments and staff and with the City of Elk Grove on this subject? My apologies if these materials are on your web site but missed by me.

Thanks.

Mike

Chryss Meier - FW: Elk grove SOI comments

From: "Lockhart. Don" <Don.Lockhart@SacLAFCo.org>
To: "Chryss Meier" <CMeier@brandman.com>
Date: 1/27/2012 1:49 PM
Subject: FW: Elk grove SOI comments

ibid

Don Lockhart, AICP
Assistant Executive Officer
Sacramento LAFCo
1112 I Street, Suite 100
Sacramento, CA 95814-2836
916.874.2937
916.874.2939 (FAX)
Don.Lockhart@SacLAFCo.org
Please consider the environment before printing this email.

From: weeteepee@frontiernet.net [mailto:weeteepee@frontiernet.net]
Sent: Tuesday, November 01, 2011 10:21 AM
To: Lockhart. Don
Subject: Elk grove SOI comments
Importance: High

Mr. Lockhart,
As a concerned citizen of the city of Elk Grove I am against approval of the sphere of influence. Ads an active member of the SACOG 2035 blueprint committee I believe that Elk Grove is not adhering to the scope and intent of what our region needs. this is purely a land grab with big developers as the driving force. Elk Grove currently has about 8,000 acres of undeveloped land. We need to stop the hop scotch development that has been rampant in this county for years.
The current state of our economy does not warrant including another 20,000 acres to Elk Grove's scope. there has been little thought to preserving what is open space.
Board members please vote against this request by the city of Elk Grove. Let's revisit it in 5-7 years when it will be more feasible.

Thank you

Nikki Carpenter
8700 Mecca Road
Elk Grove, CA 95624
916 682-8783

GILLUM
CONSULTING

Monday, November 21, 2011

Don Lockhart, AICP, Assistant Executive Officer
Sacramento Agency Formation Commission
1112 I Street #100
Sacramento, California 95814
Transmitted via E-mail to: don.lockhart@saclafco.org

Re: Draft Environmental Impact Report for Proposed City of Elk Grove Sphere of Influence Amendment

Dear Mr. Lockhart,

The following are my comments on the Draft Environmental Impact Report (DEIR) for the proposed amendment of the City of Elk Grove's Sphere of Influence (SOI). In general terms, my concerns focus primarily on the imposition of specific mitigation measures that are intended to address impacts of projects that could happen only after subsequent project level CEQA review. Additionally, I have concerns about the linkages that the mitigations appear to create between the South Sacramento Habitat Conservation Plan (SSHCP) and the SOI. I thank you in advance for your review and consideration of my concerns.

As the project description contained in the executive summary indicates, the proposed project is simply an amendment to Elk Grove's SOI. The amendment will not convey any rights to develop or in any way create a physical impact to the environment. The following excerpt from section 2 of the project description perhaps most clearly illustrates this point, "the approval by LAFCo of this or any other SOIA does not authorize any change to the land use or governance." Further the EIR clearly indicates in section 2.4 that future projects cannot tier from the SOI EIR. That said, after reviewing the DEIR, I would not have expected to find mitigation measures related to development impact as a result of the SOI amendment. Projects cannot proceed without further process which will require future CEQA studies. It would be at that time that I would anticipate the determination of appropriate mitigation. Additionally, the lands within the SOI do not contain a diverse habitat. The primary resources are species and habitats are regulated by State and Federal agencies. Unlike the Folsom SOI the Elk Grove SOI Area does not contain an iconic feature that is not subject to higher level regulatory oversight. LAFCo took a specific interest in the Folsom Oak Woodlands perhaps the lack of higher agency oversight compelled LAFCo to impose special requirements in that case, but I would propose that that same condition is not the case in Elk Grove's SOIA. LAFCo should allow the appropriate State and Federal agencies to assert jurisdiction on specific projects at the appropriate time.

1632 Weinreich Court, Folsom, California 95630
Phone 916-388-8900 Fax 916-388-9889

The DEIR contains discussion about Elk Grove's General Plan Policies on Tree Preservation and Mitigation, but does not appear to have considered the adopted tree ordinance which is the implementation of those policies. The City adopted tree ordinance provides a clear picture of what mitigation should be expected at the project level. The DEIR mitigation measure Bio-5 is not consistent with the City's adopted policies. In keeping with my comments, above I would suggest that the mitigation is not appropriate for SOI amendment and should be removed, but at a minimum this measure should be revised to reflect the City's adopted tree mitigation policies. I have similar concerns about the agricultural mitigation for which the City of Elk Grove has adopted policies which are not taken into account by the DEIR. The mitigation calls for identification of specific set-aside lands prior to annexation which is not typical and is far in advance of when the impact might occur.

The mitigation measures relative to the SSHCP are not consistent with the theme of the plan as presented to the public by the SSHCP group. This has been described for years as a willing participation plan both on the mitigation and impact side. The mitigation measures appear to take away that voluntary nature while it doesn't explicitly require participation in the plan. It does lay out a separate track that appears to be a mirror image of the SSHCP, a plan that is not yet finalized.

During the public comment opportunity, held on November 2, 2011, I heard a number of comments from representatives from environmental groups requesting more mitigation. As I have indicated above, the project is not one that creates any impacts. In order for development to occur under the jurisdiction of the City of Elk Grove within the SOIA, future CQEA study will be required. At that time, the interested parties will have the ability to comment. Further, impacts to species will be considered by the responsible agencies with permitting authority. There are not significant unregulated resources within the SOIA and I would encourage LAFCo to view the SOIA for what it is; a designation of a Sphere of Influence that makes no change to the land use authority or the ability for anyone to develop or create impacts.

Sincerely,

J. Gillum

Jim Gillum

Bill Mosher 11-2-2011

East side of SOIA has been in the Sacramento County General Plan as an area for potential growth. Wants to know what will happen to the flood plain, the Consumnes River and habitat in the area. Feels growth can be made within the city. Wants to keep value of land he feels will drop with the SOI expansion.

Suzanne Pecci 11-2-2011

Should look to use existing space within city. Property values will also diminish with any development of the new proposed SOI expansion. Also may negatively affect her house well's potential lower water table. Large amounts of good agriculture land will be destroyed cannot coexist with SOI expansion. Should finish existing projects before going forward with SOI expansion using existing land to the highest potential.

Chryss Meier - FW: City of Elk Grove Sphere of Influence AmendmentEIRSCH#2010092076

From: "Lockhart. Don" <Don.Lockhart@SacLAFCo.org>
To: "Trevor Macenski" <TMacenski@brandman.com>, "Chryss Meier" <CMeier@brandman.com>
Date: 11/14/2011 5:34 PM
Subject: FW: City of Elk Grove Sphere of Influence AmendmentEIRSCH#2010092076
CC: <bklousner@e-planningpartners.com>, "Brundage. Peter" <BrundageP@saccounty.net>

Please see comment below.

Don Lockhart, AICP
Assistant Executive Officer
Sacramento LAFCo
1112 I Street, Suite 100
Sacramento, CA 95814-2836
916.874.2937
916.874.2939 (FAX)
Don.Lockhart@SacLAFCo.org
Please consider the environment before printing this email.

From: Slpecci@aol.com [mailto:Slpecci@aol.com]
Sent: Monday, November 14, 2011 4:05 PM
To: Lockhart. Don
Subject: City of Elk Grove Sphere of Influence AmendmentEIRSCH#2010092076

Dear Mr. Lockhart:

I am a 34 year resident of the City of Elk Grove, the past 25 of which I have lived in Rural East Elk Grove on 5 acres. My rear property line is on the USB. Throughout the past several years I have actively participated in all the SOI and MOU focus groups conducted throughout the city and attended all related Planning Department and City Council Meetings pertaining to the SOI and MOU. I feel that I am representative of the many citizens within the city limits that are opposed to this proposed expansion into the almost 8,000 acres of irreplaceable prime farmland that currently serves as open space, habitat and floodplain protection.

I understand that comments on the DEIR should address the adequacy of the DEIR and not personal opinion. The general public or concerned citizens, however, in my opinion are perhaps the least influential with elected officials and appointed boards. They are the most unfamiliar with CEQA and the Environmental Review Process. They have the weakest voice in this process, but all aspects of the proposed expansion has, perhaps, the greatest impact on their daily lives, their economic futures and the overall quality of their lives.

I and most of the general public are not experts in hydrology, agri-business, planning regulations, traffic studies and noise and environmental issues, just to name some of the various impacts guided by Section 15130 of the CEQA Guidelines. An in depth dissection of the DEIR is just not possible for me and most of the general population. I can, however, address the failure of Section 6.1 "Significant Unavoidable Impacts"which fails to offer any mitigation for serious issues that will forever impact our quality of life for generations to come.

Section 6.1 effectively serves as a "heads-up" to all of us living in Elk Grove as to what we all have to look forward to in the proposed urbanization of the proposed SOI expansion.

We are alerted to many significant unmitigated and unavoidable impacts to 6,327 acres of prime farmland and area residents.

We are alerted to the very permanent loss of Prime Agricultural lands and conflict with the Williamson Act.
We are alerted to the unavoidable Growth Inducing impacts caused by the proposed development of new homes on 4,542 acres and new businesses and industries on 2,340 within the proposed SOI expansion.

We are alerted to Traffic Service Levels on freeways and local roadway and Noise Levels for which there is no feasible mitigation according to the DEIR.

Pardon me if I don't find the proposed future of the City of Elk Grove all that rosy for the residents and farmers who will try to remain in farming.

What is inadequate about the DEIR is that the City of Elk Grove fails to make its case for "need". The recent Market Study recently completed by the City indicates that there are 8,000 undeveloped acres within the current city limits. It might be in the City of Elk Groves' best interest to better serve its current citizens to focus their attention on completing a few major unfinished projects---the Mall---the Civic Center and the surrounding major incomplete planned development of Madeira before looking South for the next Big Planning Project.

The existing 8,000 acres within the city limits, if planned wisely in an orderly manner can serve to accomplish the city's much talked about "jobs housing balance" which has been rather unwisely skewed toward housing in past times. If there is still a need to expand after the City has completed development of the existing 8,000, the DEIR offers two other expansion options which will not have the detrimental and irrevocable impact the currently proposed SOI will have on the region.

Thank you.

Yours truly,

Suzanne Pecci
10212 Equestrian Drive
Elk Grove, Ca 95624

SUZANNE PECCI

10212 Equestrian Drive
Elk Grove, CA 95624
Phone (916)686-6768
Fax (916) 6866768
Slpecci@aol.com

November 18, 2011

Don Lockhart, AICP, Assistant Executive Officer
Sacramento LAFCo
1112 I Street, Suite 100
Sacramento, CA 95814-2836

Re: City of Elk Grove Sphere of Influence DEIR

Dear Mr. Lockhart,

I am a 34 year resident of the City of Elk Grove, the past 25 of which I have lived in rural East Elk Grove on 5 acres. Throughout the past several years, I have actively participated in all of the SOI and MOU focus groups conducted by the City, and attended all related Planning Department and City Council Meetings.. I feel I am representative of the many citizens in the city limits of Elk Grove who oppose the proposed expansion by the City into the almost 8,000 acres of farmland which currently serves as open space, habitat and floodplain protection for the City , and which represents the only bright spot in an otherwise dismal regional economy.

I understand that comments on the DEIR should address the adequacy of the DEIR. Members of the general public, however, are usually not experts in hydrology, agri-business, planning regulations, traffic studies, pollution or environmental issues, to name just a few of the various impacts covered by the DEIR as guided by Section 15130 of the CEQA Guidelines. An in depth dissection of the DEIR is not within the expertise of the general population, who have deep more personal concerns about the proposed expansion. The general public, in my opinion, is not that familiar with the CEQA process. It is my personal experience that the general public has the least influence with elected officials and appointed boards and , therefore, the weakest voice in the process. All aspects of the proposed expansion of the SOI, however, have the greatest impact on the daily lives, economic futures and the overall quality of life of us-the ordinary citizens.

Section 6.1 of the DEIR "Significant Unavoidable Impacts" effectively serves as a "heads-up" to ordinary citizens living in and around Elk Grove as to the quality of life issues we will be facing in the proposed urbanization of the expansion of the SOI. This section addresses, but fails to offer mitigation for serious issues that will forever impact our lives in Elk Grove and the surrounding region.

Section 6.1 alerts all of us to the many significant unmitigated and unavoidable impacts to almost 8,000 acres of farmland and open space-- 6327 acres of which is prime farm land :

- The permanent loss of prime agricultural land and conflicts with the Williamson Act.
- The "unavoidable growth inducing" impacts caused by the proposed development of new homes on 4,542 acres and of new businesses and industries on 2,340 acres within the SOI;
- The high traffic service levels on local freeways and roadways and resultant noise levels for which there is no feasible mitigation; to name just a few impacts covered in this Section.

Pardon me, if I don't find the proposed future of the "super-sized" City of Elk Grove all that rosy for the citizens who live here and for the farmers in the area who will try to remain in farming.

What I most find inadequate and disturbing about the DEIR is the City of Elk Grove's failure to make the case for the need to expand its current boundaries and pre-plan for a future population much farther off in the future and one significantly smaller in size than that projected in the original SOI application and the DEIR.

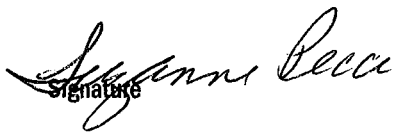
The recently completed Market Study by the City of Elk Grove indicates there are approximately 8,000 undeveloped acres within the current city limits, which, if wisely planned, could certainly serve to accomplish the city's much politicized "jobs housing balance" effort. It would be in the best interest of the elected officials to better serve the region and its current citizens by focusing their attention on completing the major unfinished projects in the city limits- The Mall- The Civic Center Complex and the surrounding major incomplete and struggling planned development of Madeira--the redevelopment of Old Town--the rent up of vacant businesses and office space. Additionally, the elected officials owe their constituency- the current resident and homeowners time to get back on their feet financially and recoup the over 50% loss in home valuation accrued over the last few years when the development was skewed toward housing development. Looking South for the next big Planning Project will become a continuation of the housing ponzi scheme perpetrated on us all by many of the same city official s in the driver's seat during the Boom and Bust of Elk Grove

Furthermore , the DEIR offers two expansion options that would not have the same serious detrimental and irrevocable impact the urbanization of the currently proposed SOI expansion area will have on the region --on the farmers desiring to farm--and on the citizens of Elk Grove who supported the city hood effort in trying to guarantee better quality of life for the future through "local control", never dreaming that local control would be defined as the development of roof tops on 8,000 more acres of farm land and open space.

Thank you ,

Sincerely,

Suzanne Pecci


Signature

From: "Lockhart. Don" <Don.Lockhart@SacLAFCo.org>
To: "Trevor Macenski" <TMacenski@brandman.com>, "Bob Klousner" <bklousner@e-...
CC: "Brundage. Peter" <BrundageP@saccounty.net>
Date: 11/4/2011 2:19 PM
Subject: FW: Elk Grove Proposed Sphere of Influence Expansion

-----Original Message-----
From: Dylan Perry [mailto:dylanrp@comcast.net]
Sent: Friday, November 04, 2011 12:37 PM
To: Lockhart. Don
Subject: Elk Grove Proposed Sphere of Influence Expansion

My name is Dylan Perry and I've been a resident of Elk Grove for 21 years in the Laguna Woods neighborhood between Laguna and Elk Grove Blvd. I would like to voice my opposition to the proposed expansion of the city's sphere of influence into the areas south and east of the current city limits to Eschinger Rd and along the Cosumnes river. There are many reasons why this would be a disastrous action and I would like to point out several very important ones now.

The city has already pushed very far south towards an important natural habitat for hundreds of species of waterfowl and other native species of the Cosumnes river. The Cosumnes River Basin contains vital vernal pools that are being destroyed by residential developers as well as commercial developers and the few areas that they still exist must be preserved before they become nonexistent. Also, expanding towards the Cosumnes river between Grant Line Rd. and the river itself would put the river at a high risk of pollution and destruction by an increased population that close to the river.

During the city's expansion south of Elk Grove Blvd. between 2003-2008 huge canals and water runoff system had to be put into place in order to ensure that the new residential neighborhoods and businesses would not be flooded due to the fact that these areas are in a floodplain and prone to flooding. Therefore, further expansion would increase this risk even more, putting many people and businesses at risk as well as continue to alter the natural order of the environment in that area.

Another important reason that the city should not expand is that the agricultural areas south of Bilby Rd. would be forced out. Several large dairies and farms were forced to sell out their land and property when the city was expanding before. These agricultural centers are vital to not only the economy in the area but also to the natural preservation of the areas wildlife species who live there in conjunction with these farms and dairies.

In summary, expanding the city's sphere of influence would only lead to increased pressure on the Cosumnes River Basin and its native and non native species who live there, further alter the balance of the natural environment and its flood plains, and destroy vital farming and dairy industries. Elk Grove has already expanded and grown in population faster than nearly all other cities in the country and should slow down

before every bit of culture and heritage of the city is lost. There are still thousands of acres inside the city limits that can be used for whatever purpose the city sees fit and can be rezoned to accommodate any type of new construction. Every action should be taken to utilize other resources available before the city simply expands blindly into the natural habitat that makes this part of California so great.

Thank you for your time and I hope the appropriate course of action is taken by Sacramento County in dealing with this unnecessary and destructive proposal.

Sincerely,
Dylan Perry

16 November 2011

TO: Mr. Don Lockhart, ACP, and Assistant Executive Officer
Sacramento Local Ag4ncy Formation Commission
11121 I Street Suite 100
Sacramento, CA. 95814-2836
FAX (916) 874-6458

FROM: Howard R. Sihner
9535 Bradshaw Rd.
Elk Grove, CA. 95824-1483
(916) 685-3078
FAX (916) 690-8815

SUBJECT: Elk Grove Expansion
Sphere of Influence Grantline Road

Dear Mr. Lockhart,

As I mentioned in our recent telephone conversation, I attended the meeting of the Elk Grove City Council, when this matter of the Sphere of Influence of the properties along Grantline Road (South side) was initially heard.

The Head of the Planning Department presented this matter and in his presentation he mentioned that not all of the reports had been received as yet. I cautioned the Council about making a decision without all of the available information.

This Sphere of Influence cuts out the Flood Plain within these properties. I feel that it is important that the City of Elk Grove include the Flood Plain in their Sphere of Influence. This Flood Plain needs to be protected and preserved. Currently, the Farmers/Owners are the stewards of this land and the waterways. They are the ones who remove the Garbage, junked cars and other waste. From the land and waterways. The habitat areas along the river are, in my opinion, the Diamond Necklace, of South Sacramento County. It must be preserved and protected and I was told that the City of Elk Grove has the ability to do just that. The value of the historical resources of the farmsteads is immeasurable.

What I would like to see here is a complete protection package. Land, Habitat, Wildlife and Water. Now is the time to do it or it may never get done. Once the land falls to development, the flood plain will suffer.

Sincerely,

Howard R. Sihner

Scott Taylor 11-2-2011

Sees the City of Elk Grove being too ambitious in than there are a number of prejects ie, mall and civic center which are not completed so why go into good agriculture land which is being used to expand there. Stick with areas within City where there is room for development still.

SCOTT TAYLOR
6203 Greenhaven Drive, Apt. C
Sacramento, CA 95831
judgetaylor@hotmail.com

November 4, 2011

Via Hand Delivery and electronic mail

Sacramento Local Agency Formation Commission
Don Lockhart, Assistant Executive Officer
1112 I Street, Suite 100
Sacramento, CA 95814

RE: Comments on the City of Elk Grove Proposed Sphere of Influence Amendment Draft Environmental Impact Report [LAFC # 09-10]

Dear Mr. Lockhart:

This letter will provide you with my comments and opposition to the City of Elk Grove's (City) Proposed Sphere of Influence Amendment (SOIA). I am deeply concerned about the environmental impacts of the SOIA, which includes the entire list of the environmental issues identified on page 3-1 of the SOIA Draft Environmental Impact Report (DEIR). Specifically, the agricultural resources, biological resources, land use, and population and housing are environmental issues that need to be taken seriously.

I. Agricultural Resources

Nearly 100 percent of the 7,869-acre project site sits on prime agricultural land that is being utilized and will be utilized for such important things as row crops, orchards, and vineyards, as well as dairy and livestock operations, not to mention biological habitats which will be discussed later.

The DEIR provides that approval of this SOIA by Sacramento Local Agency Formation Commission (Commission) indicates that the Commission has designated the revised SOIA for future urbanization, and the impacts related to permanent conversion of agricultural uses to urban uses would be significant and unavoidable. Yet, the direct impact of the conversion can be insignificant and avoided all together if the Commission would deny the City's application of this SOIA.

Even though in "theory" this SOIA by itself precludes direct development or changes to the Sacramento County's General Plan, you and I both know that this SOIA is the nexus needed to take the next step in the process to see development occur in the City.

Furthermore, there are active Williamson Act contracts within the proposed SOIA that need to be considered. In the last week I did a site visit of the SOIA area and spoke to individuals who oppose this SOIA and any future development of the area. During my visit I also saw the land being used agriculturally in a productive and thriving way, the way that land was intended to be used. If the Commission grants the SOIA the land contained within the proposed SOIA will be developed for residential housing and commercial buildings, and the agricultural use of the land will be gone **forever.**

Additionally, the DEIR on page 3.2-9 discusses characteristics of existing agricultural operations being in conflict with future residents that would be living in the SOIA area. If the Commission would deny the SOIA application there would be no future conflict.

The Commission needs to deny the SOIA application on the grounds that the environmental impact to this agricultural land would be significant, on many levels. Namely, it would have an adverse impact on the economic viability of those individuals, the county and state. More importantly the agricultural land would be gone **forever**.

II. Biological Resources

The proposed SOIA and nearby areas would result in direct impact to special status plants, animal species, sensitive natural habitats, and tress. If the Commission would deny the SOIA application there would be no significant and unavoidable effects on these valuable biological resources.

There are several wildlife species that are federally endangered, threatened, or delisted, and either state endangered, threatened or of special concern. Specifically, the Swainson hawk which has a high presence in the proposed SOIA, is considered to be a threatened species by the California Fish and Game Commission. Under the California Endangered Species Act the state of California considers a threatened species as one present in such small numbers throughout its range that it is considered likely to become an endangered species in the near future in the absence of special protection or management.

The California Department of Fish and game continues to monitor and study the Swainson Hawk to help protect and manage the species. The Swainson Hawk is considered a threatened species, and to approve this proposed SOIA the Commission would be directly aiding in advancing the designation from threatened to endangered in the immediate future. If the Commission denies the SOIA application by the City it will be helping in the special protection and management needed for this species.

Additionally, there are special status plant species that are considered threatened, endangered or rare. Also, there are riparian habitat and sensitive natural communities located in and around the proposed SOIA area. For example, there is over 200 acres of freshwater wetlands and ponds located within the proposed SOIA area. These waters provide for a natural habitat for natural plants and animals. Furthermore the Consumes River borders a portion of the proposed SOIA. If the proposed SOIA application is approved residential and commercial building will ensue. In turn, this will cause hazardous waste, pollution, and other unnatural waste, either directly or indirectly, to enter the water source causing the water to be polluted which will have a significant negative impact to the natural habitats of the area, inclusively.

The Commission needs to deny the SOIA application, because the environmental impact to these biological resources would be significant. The proposed SOIA would eliminate a natural habitat for several threatened, endangered, or rare plant and animal species, along with the sensitive natural communities and riparian habitat. The valuable biological resources would be gone **forever**.

III. Land Use and Planning

On page 3.10-12 the DEIR quotes in part the goal of the General Plan Land Use Element which is to encourage ". . . [A]n orderly pattern of land use that concentrates urban development, enhances community character and identity through the creation and maintenance of neighborhoods, is functionally linked with transit, and protects the county's natural, environmental, and agricultural resources." It appears the Sacramento County's (County) own General Plan Land Use opposes any residential or commercial development to encourage the preservation of prime agricultural land. The proposed SOIA is in direct conflict with the County's position.

Although the County's planning efforts are noble and presumably in good faith, the fact that prime agricultural land will be urbanized is a significant and substantial consequence that can be avoided. On my tour of the SOIA area, I also visited the existing urban areas outside of the proposed SOIA area, and found something really interesting. There is a substantial supply of already vacant residential and commercial buildings that can be utilized to build for urban purposes. I also saw new home developments that were vacant.

The County can do better than this. The Commission can help the County by denying the SOIA application submitted by the City. In a Sacramento Bee article, dated August 17, 2011, Councilman Gary Davis is quoted as saying, "We are in a down cycle. We are trying to take advantage of this opportunity to plan for our future and bring significant job centers here . . . . This is what this is all about." The councilman is right on one count of being in a down cycle. As such, rather than worry about the future I would suggest to the Councilman, along with the City and County to focus on the existing urban areas, economy, and infrastructure. Focus on

preserving and utilizing the existing area instead of trying to "urbanize" every piece of land in the City. There is an abundant supply of existing residential and commercial buildings that can be utilized.

The Commission needs to deny the SOIA application, because the impact to the environment will be significant, and is inconsistent with the County's position to preserve the County's natural, environmental and agricultural resources. This valuable land would be gone **forever** if the Commission grants the SOIA application.

IV. Population and Housing

I have seen first hand that the City has grown substantially in the last 15 years. Besides the obvious direct impact the proposed SOIA would have on the prime agricultural land, continuing to try and induce growth will be detrimental to the City's infrastructure and public services.

As I indicated earlier, during my reconnaissance of the City and the proposed SOIA area I discovered that there is a surplus of empty or vacant commercial buildings and residential homes. There are literally thousands of homes for sale and numerous empty commercial buildings. Does the City think that if they use prime agricultural land to build and urbanize that somehow miraculously there will not be any vacant homes or commercial buildings. The City and County should focus on the existing urbanized areas by utilizing the existing surplus to benefit the economy instead of looking to prime agricultural land. I don't have to be a city planner, farmer, councilman or biologist to know what is so simple and apparent. Also, does the City need to grow, if so why. Better yet does the City need to grow using prime agricultural land.

V. Conclusion

The Commission has a lot of work ahead of them. I would request that each member of the voting Commission read the entire DEIR, conduct their own tour of the proposed SOIA area and the non-SOIA area, and talk to the people in the SOIA area. They should not rely solely on the DEIR, which has some errors and omissions. For example, under the California Environmental Quality Act (CEQA), feasible mitigation measures must be identified. Simply identifying deferral type of mitigation measures, as did the DEIR under land use, is not acceptable under CEQA. Also, the study for biological resources was not sufficient. One obvious omission of the DEIR was that on page 3.4-6 it provides that there were no detailed surveys conducted regarding three species that are either state threatened or of special concern. Without a detailed survey there is no inclusion of specific items regarding the species, such as foraging behavior.

I am troubled by this DEIR and the glaring omissions, errors and mistakes, especially considering that this document is heavily relied upon in the SOIA proposal process. I would recommend that the Commission request an updated DEIR that is more thorough and complete. However, I think that is unnecessary since it is pretty plain and simple to know that granting such an SOIA proposal in the first place would be very detrimental to the agricultural land and biological resources, not to mention the City, County and State. I implore you to strongly suggest to the Commission to deny this SOIA application.

Sincerely,

SCOTT TAYLOR

Lynn Wheat 11-2-2011

Asked to incorporate the SACOG revised growth productions which came out in 2011. Reports go against what is presented in the DEIR.

Chryss Meier - FW: DEIR for City of Elk Grove SOI

From: "Lockhart. Don" <Don.Lockhart@SacLAFCo.org>
To: "Trevor Macenski" <TMacenski@brandman.com>, "Chryss Meier" <CMeier@brandman.com>
Date: 11/14/2011 2:39 PM
Subject: FW: DEIR for City of Elk Grove SOI

Note below.

Don Lockhart, AICP
Assistant Executive Officer
Sacramento LAFCo
1112 I Street, Suite 100
Sacramento, CA 95814-2836
916.874.2937
916.874.2939 (FAX)
Don.Lockhart@SacLAFCo.org
Please consider the environment before printing this email.

From: lynn wheat [mailto:wheat91@yahoo.com]
Sent: Monday, November 14, 2011 2:31 PM
To: Lockhart. Don
Subject: DEIR for City of Elk Grove SOI

Mr. Lockhart,

Please be advised that your email address on the public notice appears to be invalid.

After reading the DEIR I have several concerns regarding this document and believe the following information needs to be addressed in the Final EIR.

1. The DEIR does not include realistic future growth/land use scenarios for the SOI study area. Merely assuming that the rural County zoning exists and then deferring service agency capacity analysis and mitigation until the time of each annexation application is inconsistent with the intent of CEQA and promotes piece-meal planning. Cal. Gov. Code Sec. 56425(e)(1)(2) requires LAFCO to "consider and prepare a written statement of its determinations with respect to:

(1) the present and planned land uses in the area, including agricultural and open-space lands; and (2) the present and probable need for public facilities and services in the area.

2. The City has not demonstrated the need to expand its SOI and urban services if existing County rural zoning is all the DEIR is basing its impact analysis on. As a matter of public policy, LAFCO should postpone the process and request that the city conduct prezoning of the SOI area in order to offer meaningful analysis of the type and impact of anticipated future growth within the SOI area.

3. The DEIR uses outdated growth projections from the 2035 SACOG MTP. In March 2010, SACOG prepared new, more conservative growth projections (Stephen Levy of the Center for Continuing Study of the California Economy). As a matter of policy, LAFCO should only consider an SOI boundary that is needed to accommodate future urban growth for about a 20 year timeframe.

4. The DEIR acknowledges that the loss of farm land and open space due to the conversion to urban uses would be significant and unavoidable. The granting of an expanded SOI is a privilege not a right, and the DEIR needs to discuss what findings of overriding consideration warrant such an approval. All other impacts cited in the DEIR that are significant and unavoidable should state the overriding considerations that will be the basis for certifying the EIR.

5. The Current Zone 40 water supply analysis shows that without the SOI, the current urban boundary cannot be served in 2030 if there are 3 consecutive dry years. To state that the SOI does not currently place demands on Zone 40 so there is no impact, and that a future analysis should be conducted prior to any annexations, is shortsighted and shows the SOI application is premature until after SWCA and the City coordinate master land use planning of the SOI.

Lynn Wheat
9136 Quail Terrace Ct
Elk Grove, Ca 95624

Don Lockhart AICP Assistant Executive Director
Sacramento Local Agency Formation Commission
1112 I Street #100
Sacramento, CA 95814

RECEIVED
NOV 21 2011
SACRAMENTO LOCAL AGENCY
FORMATION COMMISSION

November 15, 2011

Mr. Lockhart,

After reading the DEIR I have several concerns regarding this document and believe the following information needs to be addressed in the Final EIR.

1. The DEIR does not include realistic future growth/land use scenarios for the SOI study area. Merely assuming that the rural County zoning exists and then deferring service agency capacity analysis and mitigation until the time of each annexation application is inconsistent with the intent of CEQA and promotes piece-meal planning. Cal. Gov. Code Sec. 56425(e)(1)(2) requires LAFCO to "consider and prepare a written statement of its determinations with respect to:

(1) the present and planned land uses in the area, including agricultural and open-space lands; and (2) the present and probable need for public facilities and services in the area.

2. The City has not demonstrated the need to expand its SOI and urban services if existing County rural zoning is all the DEIR is basing its impact analysis on. As a matter of public policy, LAFCO should postpone the process and request that the city conduct prezoning of the SOI area in order to offer meaningful analysis of the type and impact of anticipated future growth within the SOI area.

3. The DEIR uses outdated growth projections from the 2035 SACOG MTP. In March 2010, SACOG prepared new, more conservative growth projections (Stephen Levy of the Center for Continuing Study of the California Economy). As a matter of policy, LAFCO should only consider an SOI boundary that is needed to accommodate future urban growth for about a 20 year timeframe.

4. The DEIR acknowledges that the loss of farm land and open space due to the conversion to urban uses would be significant and unavoidable. The granting of an expanded SOI is a privilege not a right, and the DEIR needs to discuss what findings of overriding consideration warrant such an approval. All other impacts cited in the DEIR that are significant and unavoidable should state the overriding considerations that will be the basis for certifying the EIR.

5. The Current Zone 40 water supply analysis shows that without the SOI, the current urban boundary cannot be served in 2030 if there are 3 consecutive dry years. To state that the SOI does not currently place demands on Zone 40 so there is no impact, and that a future analysis should be conducted prior to any annexations, is shortsighted and shows the SOI application is premature until after SWCA and the City coordinate master land use planning of the SOI.

Lynn Wheat

Lynn Wheat
9136 Quail Terrace Ct
Elk Grove, Ca 95624