APPENDIX "C"

"FY 2017-2021 Capital Improvement Program."

[Attached behind this cover page]

Elk Grove Water District

A DEPARTMENT OF THE
Florin Resource Conservation District

FY 2017-2021
CAPITAL IMPROVEMENT PROGRAM

BOARD OF DIRECTORS

Chuck Dawson, Chair

Tom Nelson, Vice Chair

Elliot Mulberg, Director

Bob Gray, Director

Jeanne Sabin, Director

CIP CAPITAL IMPROVEMENT PROGRAM

TABLE OF CONTENTS

APPENDICES

LIST OF FIGURES AND TABLES

OVERVIEW

The Elk Grove Water District's (District) FY 2017 – 2021 Five-Year Capital Improvement Program (CIP) is a projection of the District's capital funding for planned capital projects in fiscal years 2016/17 through 2020/21. The CIP is reviewed and updated on an annual basis, and is a key component of the District's overall Strategic Plan. The CIP is an important document for performing water rate studies and for managing the District's operations. The CIP also provides a basis to align District plans with other local agency plans so that an integrated approach may be applied to projects within the community at large.

Annually, District staff members and the General Manager meet to identify projects to be included in the CIP. Each project defined in the CIP is summarized by a brief project description and justification. The project location, timing, expenditure schedule, funding source, impact on operating costs and useful life are given for each project. After the CIP is updated, the General Manager reviews the CIP to ensure proposed projects are aligned with the District's Strategic Plan. The CIP is developed in parallel with the District's budget and water rate setting analyses. The General Manager reviews the CIP's proposed expenditure schedule and funding sources to ensure that the CIP's financial elements are consistent with the District's financial policies.

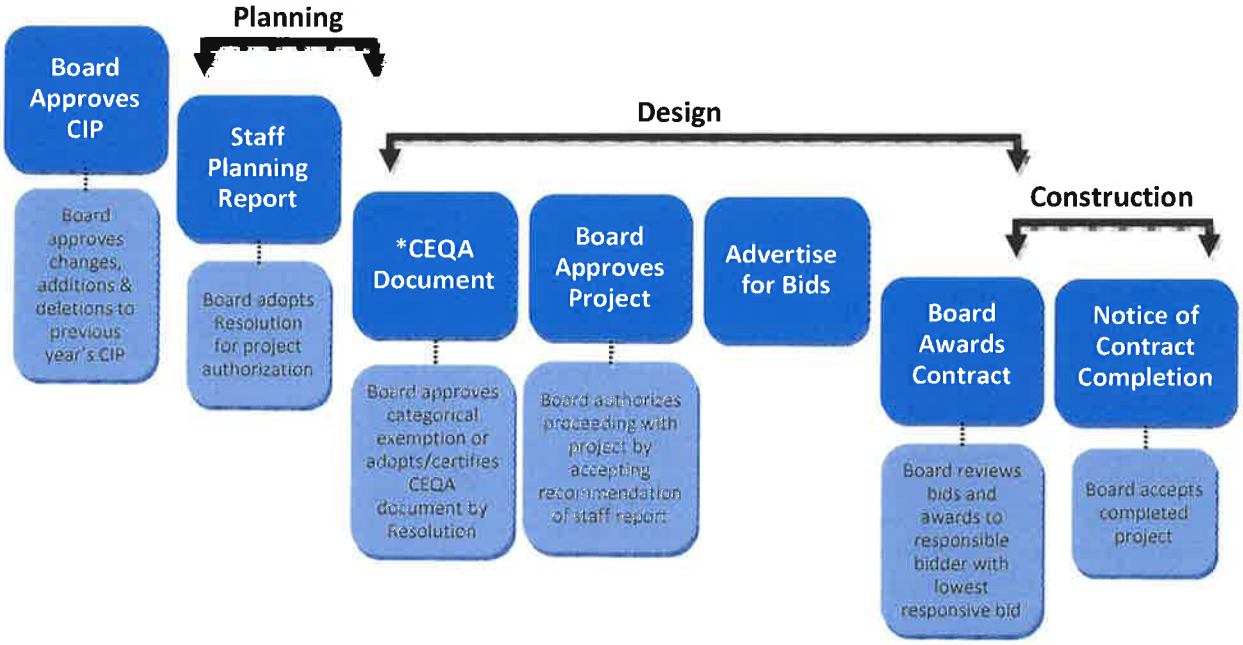
The Board has opportunities each year to provide direction on projects contained in the CIP. During the year, the CIP is presented to the Board on separate occasions for review and input. The Board's comments and direction are incorporated into a draft CIP. The draft CIP is reviewed and accepted by the Board prior to releasing the CIP for public view.

Each project in the CIP goes through a planning phase, design phase and construction phase. At the beginning of the design phase, the environmental impacts relevant to the California Environmental Quality Act (CEQA) are determined for the project. For smaller projects with little or no impact on the environment, the lead agency may declare a negative declaration for the project or deem it exempt from CEQA. In these cases, project-specific information from the planning phase and requirements related to CEQA may be combined and summarized in a single staff report. This approach will help expedite the project schedule.

The Board may determine to not implement a project based on various considerations such as financial constraints, environmental impacts or community desire during a project's planning or design phases. Approval of a capital project by the Board occurs near the end of the design phase when the Board approves proceeding with contract document preparation per the recommendation of a staff report. Figure 1 schematically summarizes the opportunities for Board direction on capital projects.

FIGURE 1

OPPORTUNITIES FOR BOARD DIRECTION ON CAPITAL PROJECTS



**For smaller projects that have a negative declaration or are exempt, CEQA determination may be included in the staff planning report to expedite the project schedule.*

Principal sources of revenue for the District come from water usage charges and developer connection fees. These revenues are organized into four fund sources – unrestricted reserves, capital improvements, capital repairs/replacements, elections and special studies. The CIP allocates the use of funds related only to capital improvements and capital repairs/replacements.

On the following page, Table 1 presents the project funding schedule of capital improvements for fiscal years 2016/17 through 2020/21. Each project was scored on a score sheet using priority ranking criteria. (All of the score sheets are provided in Appendix B.) A project priority list (Appendix A) was generated based on the priority scores from the score sheets. Projects with a priority score of 80-100 were assigned a priority 1. Projects with a priority score of 70-79 were assigned a priority 2. Projects with a priority score of 60-69 were assigned a priority 3. Projects with a priority score of 40-59 were assigned a priority 4. Projects with a priority score of 0-39 were assigned a priority 5. Detailed information for each project can be found starting on page 10 of this document. The detailed information for each project is presented in the same order as that in Table 1.

Table 1
5-Year CIP Summary

(in thousands $)

Priority	PROJECT NAME	FY16/17	FY17/18	FY18/19	FY19/20	FY20/21	Total
	SUPPLY / DISTRIBUTION IMPROVEMENTS						
2	Service Line Replacements *pg. 10*	250	250	-	-	-	500
3	Kent St. Water Main *pg. 12*	280	-	-	-	-	280
3	Truman St./Adams St. Water Main *pg. 14*	-	-	-	240	-	240
3	School/Locust/Summit Alley Water Main *pg. 16*	-	-	-	495	-	495
3	Elk Grove Blvd Grove St. Alley Water Main *pg. 18*	-	-	-	-	290	290
3	Locust St.-Elk Grove Blvd Alley/Derr St. Water Main *pg. 20*	-	-	-	-	210	210
4	Elk Grove Blvd Water Main *pg. 22*	-	-	-	-	500	500
2	Lark St. Water Main *pg. 24*	-	-	-	170	-	170
1	Well Rehabilitation Program (one per year) *pg. 26*	90	93	95	98	101	477
1	Well 1D Pump Conversion *pg. 28*	64	-	-	-	-	64
2	Railroad Corridor Water Line *pg. 30*	-	-	-	-	190	190
3	Backyard Water Mains/Services Replacement *pg. 32*	-	844	844	-	-	1,688
2	Business Center/CSDBldg. Water Main Looping *pg. 34*	175	-	-	-	-	175
3	Cadura Circle Water Main Looping *pg. 36*	-	-	30	-	-	30
3	Mormon Church Water Main Looping *pg. 38*	-	-	-	70	-	70
	TREATMENT IMPROVEMENTS						
2	RRWTF Tanks & Vessels Recoating *pg. 40*	350	-	150	-	-	500
1	Media Replacement Filter Vessels *pg. 42*	50	50	-	-	-	100
1	Chlorine Tank Replacement - ClorTec Room *pg. 44*	-	-	80	-	-	80
1	Hampton WTP Improvements *pg. 46*	200	-	-	-	-	200
1	Well 1D Profiling/Modifications *pg. 48*	100	-	-	-	-	100
1	Well 3 Pump Replacement/VFD *pg. 50*	175	-	-	-	-	175
1	Well 8 Pump Replacement/VFD *pg. 52*	-	180	-	-	-	180
4	Link Sample Pressure Stations to SCADA *pg. 54*	-	-	100	-	-	100
	BUILDING & SITE IMPROVEMENTS / VEHICLES						
3	Truck Replacements *pg. 56*	120	165	202	219	174	880
3	Security Infrastructure *pg. 58*	84	-	-	-	-	84
1	RRWTF Emergency Access Gate *pg. 60*	-	25	-	-	-	25
	District Administration Bldg. Improvements *pg. 62*	-	-	-	-	-	0
1	RRWTF Modular Meeting Room & I.T. Center *pg. 64*	215	-	-	-	-	215
1	Fiber Optic Cable *pg. 66*	135	-	-	-	-	135
4	Well 1D Gate Improvement *pg. 68*	10	-	-	-	-	10
4	HVWTP Roof Replacement *pg. 70*	-	20	-	-	-	20
2	Emergency Generator Administration Building *pg. 72*	50	-	-	-	-	50
	UNFORESEEN CAPITAL PROJECTS						
	Unforeseen Capital Projects *pg. 74*	200	200	200	200	200	1,000
	TOTAL	2,548	1,827	1,701	1,492	1,665	9,233

Table 2 and Table 3 separate the funding source requirements into two components – user fees, and connection fees. The relevance of separating the funding source requirements into two components is critical when performing water rate studies. Water rate studies determine how capital improvements will be funded – either through rates charged to existing users (user fees), or through fees collected from new users (connection fees). On the next pages, Tables 4A through 4H provide supporting data for Table 2. Tables 4A through 4G break down **user fees** by funding sources and capital improvement programs. Tables 5A and 5B provide supporting data for Table 3. Tables 5A and 5B break down **connection fees** by capital improvement programs.

Table 2
Funding Source Requirements
User Fees

FUND	FY16/17	FY17/18	FY18/19	FY19/20	FY20/21	Total
CAPITAL IMPROVEMENT FUNDS						
Supply/Distribution Improvements	425	250	30	70	661	1,436
Treatment Improvements	355	180	100	-	-	635
Building & Site Improvements/Vehicles	604	190	202	219	174	1,389
SUB-TOTAL	1,384	620	332	289	835	3,460
CAPITAL REPAIR/REPLACEMENT FUNDS						
Supply/Distribution Improvements	434	937	939	1,003	601	3,914
Treatment Improvements	500	50	230	-	-	780
Building & Site Improvements/Vehicles	10	20	-	-	-	30
SUB-TOTAL	944	1,007	1,169	1,003	601	4,724
UNFORESEEN CAPITAL PROJECT FUNDS						
Unforeseen Capital Projects	200	200	200	200	200	1,000
SUB-TOTAL	200	200	200	200	200	1,000
TOTAL	2,528	1,827	1,701	1,492	1,636	9,184

Table 3
Funding Source Requirements
Connection Fees

FUND	FY16/17	FY17/18	FY18/19	FY19/20	FY20/21	Total
CAPITAL IMPROVEMENT FUNDS						
Supply/Distribution Improvements	-	-	-	-	29	29
Treatment Improvements	20	-	-	-	-	20
TOTAL	20	0	0	0	29	49

Table 4A
Schedule of User Fees
Supply / Distribution Improvements
Capital Improvement Funds

CAPITAL IMPROVEMENT FUND	FY16/17	FY17/18	FY18/19	FY19/20	FY20/21	Total
SUPPLY / DISTRIBUTION IMPROVEMENTS						
Service Line Replacements	250	250	-	-	-	500
Elk Grove Blvd Water Main	-	-	-	-	500	500
Railroad Corridor Water Line	-	-	-	-	161	161
Business Center/CSD Bldg. Water Main Looping	175	-	-	-	-	175
Cadura Circle Water Main Looping	-	-	30	-	-	30
Mormon Church Water Main Looping	-	-	-	70	-	70
TOTAL	425	250	30	70	661	1,436

Table 4B
Schedule of User Fees
Treatment Improvements
Capital Improvement Funds

CAPITAL IMPROVEMENT FUND	FY16/17	FY17/18	FY18/19	FY19/20	FY20/21	Total
TREATMENT IMPROVEMENTS						
Hampton WTP Improvements	180	-	-	-	-	180
Well 3 Pump Replacement/VFD	175	-	-	-	-	175
Well 8 Pump Replacement/VFD	-	180	-	-	-	180
Link Sample Pressure Stations to SCADA	-	-	100	-	-	100
TOTAL	355	180	100	0	0	635

Table 4C
Schedule of User Fees
Building & Site Improvements/Vehicles
Capital Improvement Funds

CAPITAL IMPROVEMENT FUND	FY16/17	FY17/18	FY18/19	FY19/20	FY20/21	Total
BUILDING & SITE IMPROVEMENTS						
Truck Replacements	120	165	202	219	174	880
Security Infrastructure	84	-	-	-	-	84
RRWTF Emergency Access Gate	-	25	-	-	-	25
District Administration Bldg. Improvements	-	-	-	-	-	0
RRWTF Modular Meeting Room & I.T. Center	215	-	-	-	-	215
Fiber Optic Cable	135	-	-	-	-	135
Emergency Generator Administration Building	50	-	-	-	-	50
TOTAL	604	190	202	219	174	1,389

Table 4D
Schedule of User Fees
Supply / Distribution Improvements
Capital Repair/Replacement Funds

CAPITAL REPAIR/REPLACEMENT	FY16/17	FY17/18	FY18/19	FY19/20	FY20/21	Total
SUPPLY / DISTRIBUTION IMPROVEMENTS						
Kent St. Water Main	280	-	-	-	-	280
Truman St./Adams St. Water Main	-	-	-	240	-	240
School/Locust/Summit Alley Water Main	-	-	-	495	-	495
Elk Grove Blvd Grove St. Alley Water Main	-	-	-	-	290	290
Locust St.-Elk Grove Blvd Alley/Derr St. Water M	-	-	-	-	210	210
Lark St. Water Main	-	-	-	170	-	170
Well Rehabilitation Program (one per year)	90	93	95	98	101	477
Well 1D Pump Conversion	64	-	-	-	-	64
Backyard Water Mains/Services Replacement	-	844	844	-	-	1,688
TOTAL	434	937	939	1,003	601	3,914

Table 4E
Schedule of User Fees
Treatment Improvements
Capital Repair/Replacement Funds

CAPITAL REPAIR/REPLACEMENT	FY16/17	FY17/18	FY18/19	FY19/20	FY20/21	Total
TREATMENT IMPROVEMENTS						
RRWTF Tanks & Vessels Recoating	350	-	150	-	-	500
Media Replacement Filter Vessels	50	50	-	-	-	100
Chlorine Tank Replacement ClorTec Room	-	-	80	-	-	80
Well 1D Profiling/Modifications	100	-	-	-	-	100
TOTAL	500	50	230	0	0	780

Table 4F
Schedule of User Fees
Building & Site Improvements/Vehicles
Capital Repair/Replacement Funds

CAPITAL REPAIR/REPLACEMENT	FY16/17	FY17/18	FY18/19	FY19/20	FY20/21	Total
BUILDING & SITE IMPROVEMENTS						
Well 1D Gate Improvements	10	-	-	-	-	10
HVWTP Roof Replacement	-	20	-	-	-	20
TOTAL	10	20	0	0	0	30

Table 4G
Schedule of User Fees
Unforeseen Capital Projects
Unforeseen Capital Projects Funds

UNFORESEEN CAPITAL PROJECTS	FY16/17	FY17/18	FY18/19	FY19/20	FY20/21	Total
Unforeseen Capital Projects	200	200	200	200	200	1000
TOTAL	200	200	200	200	200	1,000

Table 5A
Schedule of Connection Fees
Supply / Distribution Improvements

CAPITAL IMPROVEMENT FUND	FY16/17	FY17/18	FY18/19	FY19/20	FY20/21	Total
SUPPLY / DISTRIBUTION IMPROVEMENTS						
Railroad Corridor Water Line	-	-	-	-	29	29
TOTAL	0	0	0	0	29	29

Table 5B
Schedule of Connection Fees
Treatment Improvements

CAPITAL IMPROVEMENT FUND	FY16/17	FY17/18	FY18/19	FY19/20	FY20/21	Total
TREATMENT IMPROVEMENTS						
Hampton WTP Improvements	20	-	-	-	-	20
TOTAL	20	0	0	0	0	20

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Project	**Service Line Replacements**
Funding Type	Capital Improvement Funds
Program	Supply / Distribution Improvements
Priority	2
Project No.	200

PROJECT DESCRIPTION

The Elk Grove Water District has a number of installations where 3/4" service lines tap water mains. In some cases, a common service line tap splits at a tee fitting (or what is commonly known as a "bullhead") to serve two (2) water meters. This project replaces all 3/4" service lines with 1" service lines, and replaces common bullhead services with separate 1" taps so that every water meter is fed individually by a 1" service.

JUSTIFICATION

This project will improve delivery of water to those services currently being served by 3/4" service line.

PROJECT LOCATION

The project is located throughout various areas of Service Area 1.

★ Project Location

SCHEDULE & STATUS

Construction of this project began in March 2014 and is expected to last through FY 2017/18.

EXPENDITURE SCHEDULE
(in thousands $)

	Planned Expenditures					Total
Project	FY16/17	FY17/18	FY18/19	FY19/20	FY20/21	
Service Line Replacements	250	243	0	0	0	493
with inflation (3%)	**250**	**250**	**0**	**0**	**0**	**500**

Expenditure breakdown: no design costs, 100% construction

EXPENDITURE HISTORY & REVISIONS
(in thousands $)

	Past / Planned Expenditures					Total
Description	FY14/15	FY15/16	FY16/17	FY17/18	FY18/19	
Original Budget	900	0	0	0	0	900
Expenditure	**(120)**	**(80)**	**0**	**0**	**0**	**0**
Balance / Carry-over	780	700	0	0	0	0
Revised Budget	**120**	**80**	**250**	**250**	**0**	**700**

Budget has been revised downward due to actual construction costs coming in under budget.

FUNDING SOURCES
(in thousands $)

USER FEES

Capital Improvement Funds	
▪ Supply / Distribution Improvements	700
Total	**700**

OPERATING COST IMPACTS

The completion of this project is anticipated to decrease operating costs by replacing old service lines and tapping saddles that have reached their useful life and are at risks of developing leaks. It is anticipated that the elimination of future leaks will result in an annual savings of $25,000 over a 5-year period.

USEFUL LIFE: 25 years

Project	**Kent St. Water Main**
Funding Type	Capital Repair/Replacement Funds
Program	Supply / Distribution Improvements
Priority	3
Project No.	TBD

PROJECT DESCRIPTION

This project installs approximately 1,200 lineal feet of 8" C900 PVC water main in Kent Street.

JUSTIFICATION

Kent Street is currently served by a 4" water main installed in 1960. EGWD standard construction specifications specify minimum size of water mains to be 8" diameter. Furthermore, EGWD has a capital improvement project (CIP) to replace all 3/4" service lines in the district with 1" service lines. The lots on Kent Street are served by 3/4" service lines. This project installs an 8" water main in Kent Street to current EGWD standards and replaces the 3/4" service lines with 1" service lines.

PROJECT LOCATION

The project is located on Kent Street.

SCHEDULE & STATUS

Construction of this project is expected to start in July 2016 and last through September 2016.

EXPENDITURE SCHEDULE
(in thousands $)

	Planned Expenditures					Total
Project	FY16/17	FY17/18	FY18/19	FY19/20	FY20/21	
Kent St. Water Main	280	0	0	0	0	280
with inflation (3%)	280	0	0	0	0	280

Expenditure breakdown: $7,500 design, $272,500 construction

FUNDING SOURCES
(in thousands $)

USER FEES

Capital Improvement Funds	
▪ Supply / Distribution Improvements	280
Total	**280**

OPERATING COST IMPACTS

The completion of this project is anticipated to decrease operating costs by replacing an old water main, service lines and tapping saddles that have reached their useful life and are at risks of developing leaks. It is estimated that the elimination of future leaks will result in an annual savings of $1,200.

USEFUL LIFE: 125 years

Project	**Truman St./Adams St. Water Main**
Funding Type	Capital Repair/Replacement Funds
Program	Supply / Distribution Improvements
Priority	3
Project No.	TBD

PROJECT DESCRIPTION

This project installs approximately 700 lineal feet of 8" C900 PVC water main in Truman Street and 325 lineal feet of 8" C900 PVC water main in Adams Street for a total 1,025 lineal feet of 8" C900 PVC water main.

JUSTIFICATION

Truman Street and Adams Street are currently served by 4" water mains installed in 1975. EGWD standard construction specifications specify minimum size of water mains to be 8" diameter. Furthermore, EGWD has a capital improvement project (CIP) to replace all 3/4" service lines in the district with 1" service lines. The lots on Truman Street and Adams Street are served by 3/4" service lines. This project installs an 8" water main in Truman Street and Adams Street to current EGWD standards and replaces the 3/4" service lines with 1" service lines.

PROJECT LOCATION

The project is located on Truman Street and Adams Street.

★ Project Location

Proposed Water Main

Existing Water Main

SCHEDULE & STATUS

Construction of this project is scheduled to occur in FY 2019/20.

EXPENDITURE SCHEDULE
(in thousands $)

	Planned Expenditures					Total
Project	FY16/17	FY17/18	FY18/19	FY19/20	FY20/21	
Truman St./Adams St. Water Main	0	0	0	220	0	220
with inflation (3%)	0	0	0	240	0	240

Expenditure breakdown: $6,000 design, $234,000 construction

FUNDING SOURCES
(in thousands $)

USER FEES

Capital Improvement Funds	
▪ Supply / Distribution Improvements	240
Total	**240**

OPERATING COST IMPACTS

The completion of this project is anticipated to decrease operating costs by replacing an old water main, service lines and tapping saddles that have reached their useful life and are at risks of developing leaks. It is estimated that the elimination of future leaks will result in an annual savings of $1,200.

USEFUL LIFE: 125 years

Project	**School/Locust/Summit Alley Water Main**
Funding Type	Capital Repair/Replacement Funds
Program	Supply / Distribution Improvements
Priority	3
Project No.	TBD

PROJECT DESCRIPTION

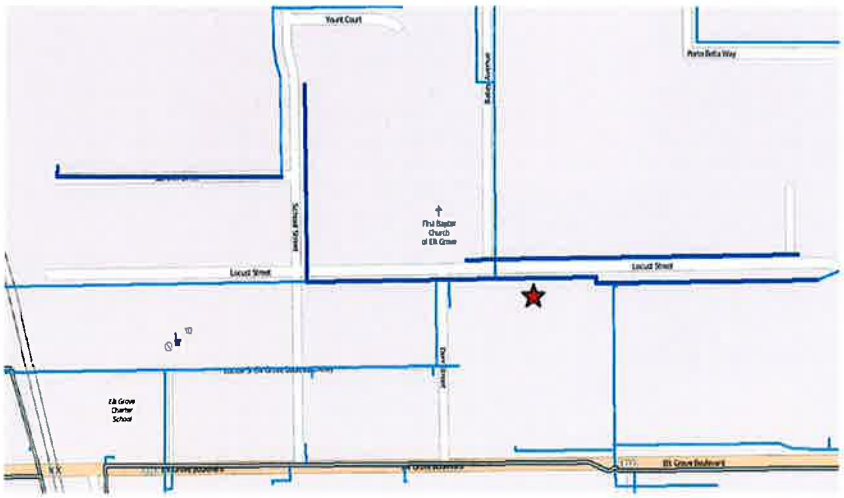
This project installs approximately 225 lineal feet of 8" C900 PVC water main in School Street, 1,300 lineal feet of 8" C900 PVC water main in Locust Street, and 625 lineal feet of 8" C900 PVC water main in Summit St. Alley for a total 2,150 lineal feet of 8" C900 PVC water main.

JUSTIFICATION

Locust Street is currently served by a 4" water main installed in 1965, and School Street and Summit St. Alley are currently served by 4" water mains installed in 1977. EGWD standard construction specifications specify minimum size of water mains to be 8" diameter. Furthermore, EGWD has a capital improvement project (CIP) to replace all 3/4" service lines in the district with 1" service lines. The lots on School Street, Locust Street, and Summit St. Alley are served by 3/4" service lines. This project installs an 8" water main in School Street, Locust Street and Summit St. Alley to current EGWD standards and replaces the 3/4" service lines with 1" service lines.

PROJECT LOCATION

The project is located on School Street, Locust Street, and Summit Alley.



SCHEDULE & STATUS

Construction of this project is scheduled to occur in FY 2019/20.

EXPENDITURE SCHEDULE
(in thousands $)

	Planned Expenditures					Total
Project	FY16/17	FY17/18	FY18/19	FY19/20	FY20/21	
School/Locust/Summit Alley Water Main	0	0	0	453	0	453
with inflation (3%)	0	0	0	495	0	495

Expenditure breakdown: $9,000 design, $486,000 construction

FUNDING SOURCES
(in thousands $)

USER FEES

Capital Improvement Funds	
▪ Supply / Distribution Improvements	495
Total	**495**

OPERATING COST IMPACTS

The completion of this project is anticipated to decrease operating costs by replacing an old water main, service lines and tapping saddles that have reached their useful life and are at risks of developing leaks. It is estimated that the elimination of future leaks will result in an annual savings of $1,200.

USEFUL LIFE: 125 years

Project	**Elk Grove Blvd Grove St. Alley Water Main**
Funding Type	Capital Repair/Replacement Funds
Program	Supply / Distribution Improvements
Priority	3
Project No.	TBD

PROJECT DESCRIPTION

This project installs approximately 900 lineal feet of 8" C900 PVC water main in Elk Grove Blvd Grove St. Alley.

JUSTIFICATION

Elk Grove Blvd Grove St. Alley is currently served by a 4" water main installed in 1975. EGWD standard construction specifications specify minimum size of water mains to be 8" diameter. Furthermore, EGWD has a capital improvement project (CIP) to replace all 3/4" service lines in the district with 1" service lines. The lots on Elk Grove Blvd Grove St. Alley are served by 3/4" service lines. This project installs an 8" water main in Elk Grove Blvd Grove St. Alley to current EGWD standards and replaces the 3/4" service lines with 1" service lines.

PROJECT LOCATION

The project is located on Elk Grove Blvd Grove St. Alley.

SCHEDULE & STATUS

Construction of this project is scheduled to occur in FY 2020/21.

EXPENDITURE SCHEDULE
(in thousands $)

	Planned Expenditures					Total
Project	FY16/17	FY17/18	FY18/19	FY19/20	FY20/21	
Elk Grove Blvd Grove St. Alley Water Main	0	0	0	0	258	258
with inflation (3%)	0	0	0	0	290	290

Expenditure breakdown: $7,500 design, $282,500 construction

FUNDING SOURCES
(in thousands $)

USER FEES

Capital Improvement Funds	
▪ Supply / Distribution Improvements	290
Total	**290**

OPERATING COST IMPACTS

The completion of this project is anticipated to decrease operating costs by replacing an old water main, service lines and tapping saddles that have reached their useful life and are at risks of developing leaks. It is estimated that the elimination of future leaks will result in an annual savings of $1,200.

USEFUL LIFE: 125 years

Project	**Locust St.-Elk Grove Blvd Alley/Derr St. Water Main**
Funding Type	Capital Repair/Replacement Funds
Program	Supply / Distribution Improvements
Priority	3
Project No.	TBD

PROJECT DESCRIPTION

This project installs approximately 725 lineal feet of 8" C900 PVC water main in Locust St.-Elk Grove Blvd Alley and 175 lineal feet of 8" C900 PVC water main in Derr Street.

JUSTIFICATION

Locust St.-Elk Grove Blvd Alley and Derr Street are currently served by 4" water mains installed in 1965. EGWD standard construction specifications specify minimum size of water mains to be 8" diameter. This project installs an 8" water main in Locust St.-Elk Grove Blvd Alley and Derr Street to current EGWD standards.

PROJECT LOCATION

The project is located on Locust St.-Elk Grove Blvd Alley and Deer Street.

★ Project Location

Proposed Water Main

Existing Water Main

SCHEDULE & STATUS

Construction of this project is scheduled to occur in FY 2020/21.

EXPENDITURE SCHEDULE
(in thousands $)

	Planned Expenditures					Total
Project	FY16/17	FY17/18	FY18/19	FY19/20	FY20/21	
Locust St.-Elk Grove Blvd Alley/Derr St. Water Main	0	0	0	0	187	187
with inflation (3%)	0	0	0	0	210	210

Expenditure breakdown: $7,500 design, $202,500 construction

FUNDING SOURCES
(in thousands $)

USER FEES

Capital Improvement Funds	
▪ Supply / Distribution Improvements	210
Total	**210**

OPERATING COST IMPACTS

The completion of this project is anticipated to decrease operating costs by replacing an old water main, service lines and tapping saddles that have reached their useful life and are at risks of developing leaks. It is estimated that the elimination of future leaks will result in an annual savings of $1,200.

USEFUL LIFE: 125 years

Project	**Elk Grove Blvd Water Main**
Funding Type	Capital Improvement Funds
Program	Supply / Distribution Improvements
Priority	4
Project No.	206

PROJECT DESCRIPTION

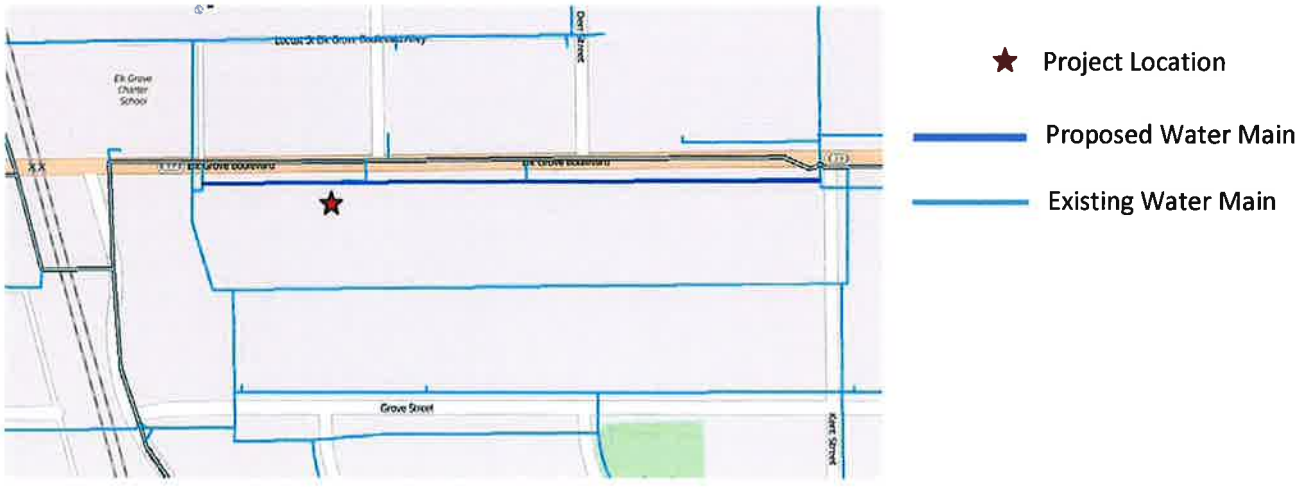
This project installs approximately 1,300 lineal feet of 8" water main on the south side of Elk Grove Blvd. between the Union Pacific Railroad tracks and Kent St, and installs water meters on the front side of the properties along this stretch.

JUSTIFICATION

Businesses and residences along the south side of Elk Grove Blvd. are currently served by a 4" water main located along the rear property lines. To complete the water meter retrofit program, water meters have been placed in the public utility easement at the back of each property. To read the meters, the properties must be accessed by entering fenced-in backyards which are often locked. This project replaces an undersized 4" main with an 8" main and moves the meters to the front sides of the properties.

PROJECT LOCATION

The project is located on the south side of Elk Grove Blvd. between the UPRR tracks and Kent St.



SCHEDULE & STATUS

Construction of this project is expected to occur in FY 2020/21.

EXPENDITURE SCHEDULE
(in thousands $)

	Planned Expenditures					Total
Project	FY16/17	FY17/18	FY18/19	FY19/20	FY20/21	
Elk Grove Blvd Water Main	0	0	0	0	444	444
with inflation (3%)	0	0	0	0	500	500

Expenditure breakdown: $12,000 design, $488,000 construction

FUNDING SOURCES
(in thousands $)

USER FEES

Capital Improvement Funds	
▪ Supply / Distribution Improvements	500
Total	**500**

OPERATING COST IMPACTS

The completion of this project is anticipated to decrease operating costs by replacing an old water main, service lines and tapping saddles that have reached their useful life and are at risks of developing leaks. It is estimated that the elimination of future leaks will result in an annual savings of $600.

USEFUL LIFE: 125 years

Project	**Lark St. Water Main**
Funding Type	Capital Repair/Replacement Funds
Program	Supply / Distribution Improvements
Priority	2
Project No.	TBD

PROJECT DESCRIPTION

This project installs approximately 730 lineal feet of 8" C900 PVC water main in Lark Street.

JUSTIFICATION

Lark Street is currently served by a 6" water main installed in 1960. The material of the water main is asbestos-cement pipe (ACP). Repairs on this water main in September 2015 revealed that the wall of the ACP is becoming soft from water absorption. Due to the deteriorating condition of the pipe, it is time to replace this water main and bring it up to current EGWD standard construction specifications. Furthermore, EGWD has a capital improvement project (CIP) to replace all 3/4" service lines in the district with 1" service lines. Six of the eighteen lots on Lark Street are served by 3/4" service lines. This project installs an 8" water main in Lark Street and replaces the six (6) 3/4" service lines with 1" service lines.

PROJECT LOCATION

The project is located on Lark Street.

SCHEDULE & STATUS

Construction of this project is scheduled to occur in FY 2018/19.

EXPENDITURE SCHEDULE
(in thousands $)

	Planned Expenditures					Total
Project	FY16/17	FY17/18	FY18/19	FY19/20	FY20/21	
Lark St. Water Main	0	0	0	156	0	156
with inflation (3%)	0	0	0	170	0	170

Expenditure breakdown: $7,500 design, $162,500 construction

FUNDING SOURCES
(in thousands $)

USER FEES

Capital Improvement Funds	
▪ Supply / Distribution Improvements	170
Total	**170**

OPERATING COST IMPACTS

The completion of this project is anticipated to decrease operating costs by replacing an old water main, service lines and tapping saddles that have reached their useful life and are at risks of developing leaks. It is estimated that the elimination of future leaks will result in an annual savings of $1,200.

USEFUL LIFE: 125 years

Project	**Well Rehabilitation Program (one per year)**
Funding Type	Capital Repair/Replacement Funds
Program	Supply / Distribution Improvements
Priority	1
Project No.	503

PROJECT DESCRIPTION

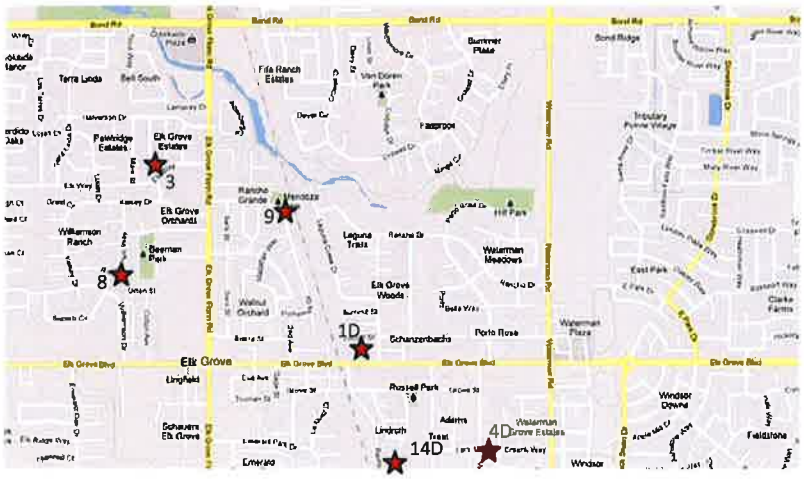
The well rehabilitation program provides for one well rehabilitation project each year.

JUSTIFICATION

The well rehabilitation program maintains production and water quality from the District's wells. By putting the well rehabilitation program in place, the District spreads the capital costs associated with maintaining its well assets. Maintaining production and water quality from the District's wells are critical to meeting the required source capacity as prescribed by the Division of Drinking Water regulations.

PROJECT LOCATION

The project locations, some of which are shown below, are the wells within the District's boundary.



★ Project Location

SCHEDULE & STATUS

Preliminary engineering, final design and construction are recurring on an annual basis.

EXPENDITURE SCHEDULE
(in thousands $)

	Planned Expenditures					Total
Project	FY16/17	FY17/18	FY18/19	FY19/20	FY20/21	
Well Rehabilitation Program	90	90	90	90	90	450
with inflation (3%)	90	93	95	98	101	477

Expenditure breakdown: $25,000 design, $452,000 construction

FUNDING SOURCES
(in thousands $)

USER FEES

Capital Repair/Replacement Funds	
▪ Supply / Distribution Improvements	477
Total	**477**

OPERATING COST IMPACTS

The completion of this project is not anticipated to increase or decrease operating costs as the project does not significantly alter the existing facilities or modes of operation.

USEFUL LIFE: 5 years (for each rehabilitated well)

Project	**Well 1D Pump Conversion**
Funding Type	Capital Repair/Replacement Funds
Program	Supply / Distribution Improvements
Priority	1
Project No.	504

PROJECT DESCRIPTION

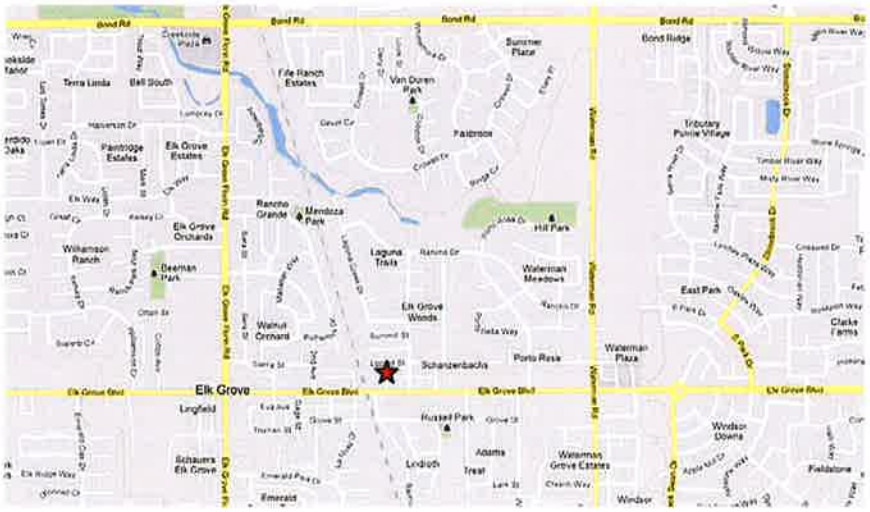
This project converts the vertical turbine pump of Well 1D (School Street Deep Well) from an oil-lubricated system to a water-lubricated system.

JUSTIFICATION

Well 1D is an active, permitted deep well with a depth of 1,025 feet and a flow rate of approximately 1,900 gpm. The vertical, turbine pump in Well 1D is oil lubricated. Oil lubrication in domestic water pumps can cause bacteriological contamination of the drinking water, particularly after the pump has been idle for an extended period of time.

PROJECT LOCATION

The address for Well 1D is 9085 Elk Grove Blvd., Elk Grove, California. The assessor's parcel number is APN 12502530020000.



★ Project Location

SCHEDULE & STATUS

Preliminary engineering, final design and construction are scheduled to occur in FY 2016/17.

EXPENDITURE SCHEDULE
(in thousands $)

	Planned Expenditures					Total
Project	FY16/17	FY17/18	FY18/19	FY19/20	FY20/21	
Well 1D Pump Conversion	64	0	0	0	0	64
with inflation (3%)	64	0	0	0	0	64

Expenditure breakdown: $5,000 design, $59,000 construction

FUNDING SOURCES
(in thousands $)

USER FEES

Capital Improvement Funds	
▪ Supply / Distribution Improvements	64
Total	**64**

OPERATING COST IMPACTS

The completion of this project is not anticipated to increase or decrease operating costs as the project does not significantly alter the existing facilities or modes of operation.

USEFUL LIFE: 20 years

Project	**Railroad Corridor Water Line**
Funding Type	Capital Improvement Funds
Program	Supply / Distribution Improvements
Priority	2
Project No.	210

PROJECT DESCRIPTION

This project completes the installation of a 18" to 16" diameter transmission main that connects the Railroad Street WTF to points of connection (POC) along the most southeastern side of the District's water distribution system at Falcon Meadow Dr. and Provencial Court. The following lengths of pipe are already installed: 2,600 lineal feet (LF) of 18" pipe, 400 LF of 16" pipe and 150 LF of 12" pipe. This project covers the remaining work to complete the transmission main and includes installation of 600 LF of 16" pipe (including a 60 LF open-cut trench creek crossing), 100 LF of 12" pipe, and one (1) 26" diameter x 115 LF boring.

JUSTIFICATION

This project will enhance the District's water distribution system by facilitating the movement of treated water from the Railroad Street WTF to areas of demand. Computer modeling shows that undeveloped property totaling 68 acres will receive 10 to 15% of the water in the transmission main based on typical water usage from a future industrial tenant. The remainder of water would go to residential water consumers.

PROJECT LOCATION

The project is located in the corridor along the west side of the Southern Pacific Railroad tracks from the Railroad Street WTF to a POC of the water distribution system at Provencial Ct.

★ Project Location

SCHEDULE & STATUS

Completion of the transmission main is scheduled for FY2015/16. The second railroad crossing is scheduled for FY2020/21.

EXPENDITURE SCHEDULE
(in thousands $)

	Planned Expenditures					Total
Project	FY16/17	FY17/18	FY18/19	FY19/20	FY20/21	
Railroad Corridor Water Line	0	0	0	0	169	169
with inflation (3%)	**0**	**0**	**0**	**0**	**190**	**190**

Expenditure breakdown: $10,000 design, $180,000 construction

EXPENDITURE REVISION
(in thousands $)

	Past / Planned Expenditures						Total
Description	FY15/16	FY16/17	FY17/18	FY18/19	FY19/20	FY20/21	
Original Budget	164	0	175	0	0	0	339
Expenditure	**(304)**	**0**	**0**	**0**	**0**	**0**	**0**
Balance / Carry-over	(140)*	0	0	0	0	0	0
Revised Budget	**304**	**0**	**0**	**0**	**0**	**190**	**494**

**$140K from Unforeseen Capital Projects to cover unaccounted for expenditures related to jack & bore work under UPRR tracks.*

FUNDING SOURCES
(in thousands $)

USER FEES

Capital Improvement Funds	
▪ Supply / Distribution Improvements	420

CONNECTION FEES

Capital Improvement Funds	
▪ Supply / Distribution Improvements	74
Total	**494**

OPERATING COST IMPACTS

The completion of this project is not anticipated to increase or decrease operating costs as the project does not significantly alter the existing facilities or modes of operation.

USEFUL LIFE: 125 years

Project	**Backyard Water Mains/ Services Replacement**
Funding Type	Capital Repair/Replacement Funds
Program	Supply / Distribution Improvements
Priority	3
Project No.	505

PROJECT DESCRIPTION

This project replaces existing 4" water mains with larger diameter water mains and relocates the mains from backyard public utilities easements to rights-of-ways in the streets. Water services will be moved from the backyards to the front sides of homes.

JUSTIFICATION

Some of the District's older areas are served by 4" water mains located in backyard public utilities easements. EGWD standard construction specifications specify minimum size of water mains to be 8" diameter. This project will bring undersized water mains up to current EGWD standards and will place water mains on the front sides of properties for better access.

PROJECT LOCATION

Project locations include Elk Grove-Florin (Frontage), Sara Street, Durango Way, Mary Ellen Way, Mark Street, Emily Street, Barth Street, Amethyst Court, Garnet Court, Elk Way, Kelsey Drive, Sharkey Avenue, Fenton Court, and Skydome Court. Due to the many locations, the project locations are not shown.

★ Project Location

SCHEDULE & STATUS

The project is scheduled to occur in FY 2017/18 and FY 2018/19.

EXPENDITURE SCHEDULE
(in thousands $)

	Planned Expenditures					Total
Project	FY16/17	FY17/18	FY18/19	FY19/20	FY20/21	
Backyard Water Mains/Services Replacements	0	819	796	0	0	1,615
with inflation (3%)	**0**	844	**844**	**0**	0	**1,688**

Expenditure breakdown: $50,000 design, $1,638,000 construction

FUNDING SOURCES
(in thousands $)

USER FEES

Capital Repair/Replacement Funds	
▪ Supply / Distribution Improvements	1,688
Total	**1,688**

OPERATING COST IMPACTS

The completion of this project is not anticipated to increase or decrease operating costs as the project does not significantly alter the existing facilities or modes of operation.

USEFUL LIFE: 125 years

Project	**Business Center/CSD Bldg. Water Main Looping**
Funding Type	Capital Improvement Funds
Program	Supply / Distribution Improvements
Priority	2
Project No.	208

PROJECT DESCRIPTION

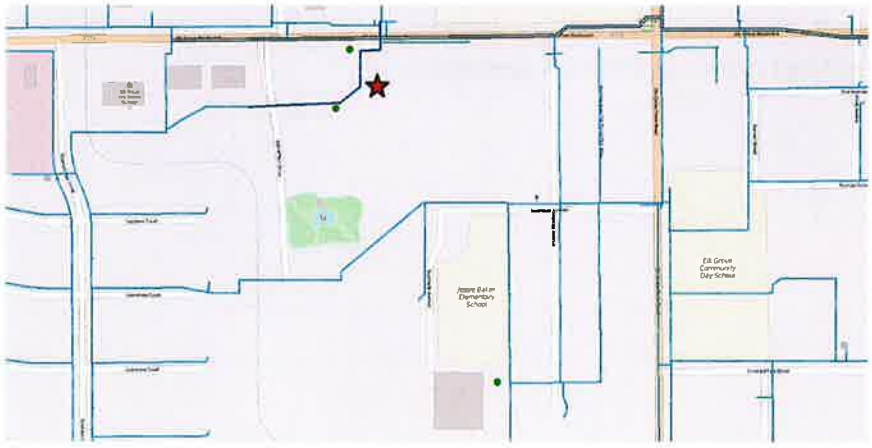
This project installs approximately 700 lineal feet of 8" C900 PVC water main to connect a dead-end water main at The Business Center to a 12" water main stub at Elk Grove Blvd and Colton Avenue. The new water main loop includes installing two (2) new hydrants at the Cosumnes CSD Administration Building.

JUSTIFICATION

Water system performance and water quality will be enhanced by connecting an 8" dead-end main at The Business Center to a 12" water main stub at Elk Grove Blvd and Colton Avenue. 700 lineal feet of 8" water main will be aligned in an L-shaped pattern between the dead-end main at The Business Center and the 12" point-of-connection (POC) at Elk Grove Blvd. The 12" POC is located on the north side of Elk Grove Blvd. Therefore, 100 lineal feet of horizontal directional drilling will be required to install the 8" water main across Elk Grove Blvd. Two (2) new hydrants will be installed along this new section of water main to provide closer hydrant access for the CSD Administration Bldg. Additionally, a new hydrant will be installed on the east side of the Project R.I.D.E. equestrian arena as part of this project.

PROJECT LOCATION

The project is located near the Consumnes CSD Administration Bldg. and Project R.I.D.E..



SCHEDULE & STATUS

Construction started in FY2015/16 and is scheduled to complete in FY 2016/17.

EXPENDITURE SCHEDULE
(in thousands $)

	Planned Expenditures					Total
Project	FY16/17	FY17/18	FY18/19	FY19/20	FY20/21	
Business Center/CSD Bldg. Water Main Looping	175	0	0	0	0	175
with inflation (3%)	175	0	0	0	0	175

Expenditure breakdown: $5,000 design, $170,000 construction

EXPENDITURE REVISION
(in thousands $)

	Past / Planned Expenditures					Total
Description	FY15/16	FY16/17	FY17/18	FY18/19	FY19/20	
Original Budget	175	0	0	0	0	175
Expenditure	0	0	0	0	0	0
Balance / Carry-over	175	175	0	0	0	0
Revised Budget	0	175	0	0	0	175

FUNDING SOURCES
(in thousands $)

USER FEES

Capital Improvement Funds	
▪ Supply / Distribution Improvements	175
Total	**175**

OPERATING COST IMPACTS

The completion of this project is not anticipated to increase or decrease operating costs as the project does not significantly alter the existing facilities or modes of operation.

USEFUL LIFE: 125 years

Project	**Cadura Circle Water Main Looping**
Funding Type	Capital Improvement Funds
Program	Supply / Distribution Improvements
Priority	3
Project No.	TBD

PROJECT DESCRIPTION

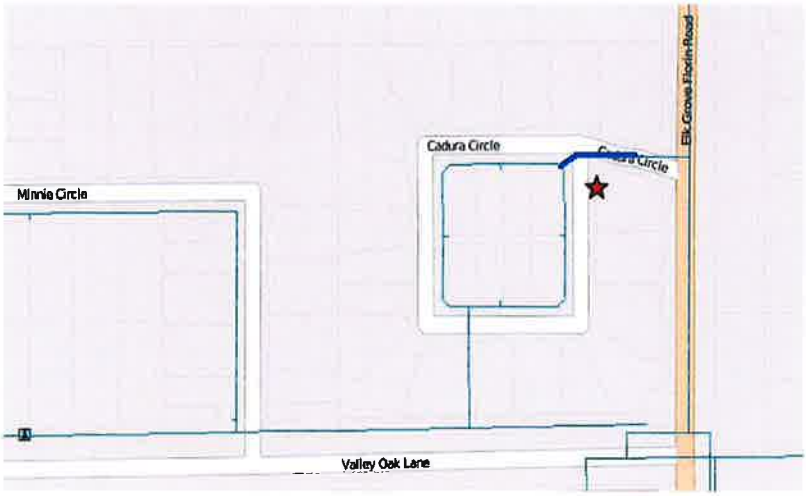
This project installs approximately 130 lineal feet of 8" C900 PVC water main to provide a water main loop so that Cadura Circle is fed by two (2) water mains.

JUSTIFICATION

Cadura Circle is presently served by an 8" water main off of Valley Oak Lane. An 8" water main stub for future connection already exists off of Elk Grove-Florin Road. This project connects the existing 8" water stub off of Elk Grove-Florin Road to Cadura Circle to enhance water system performance and water quality.

PROJECT LOCATION

The project is located Cadura Circle.



SCHEDULE & STATUS

Preliminary engineering, final design and construction are scheduled to occur in FY 2018/19.

EXPENDITURE SCHEDULE
(in thousands $)

	Planned Expenditures					Total
Project	FY16/17	FY17/18	FY18/19	FY19/20	FY20/21	
Cadura Circle Water Main Looping	0	0	28	0	0	28
with inflation (3%)	**0**	**0**	**30**	**0**	**0**	30

Expenditure breakdown: $1,000 design, $29,000 construction

FUNDING SOURCES
(in thousands $)

USER FEES

Capital Improvement Funds	
▪ Supply / Distribution Improvements	30
Total	**30**

OPERATING COST IMPACTS

The completion of this project is not anticipated to increase or decrease operating costs as the project does not significantly alter the existing facilities or modes of operation.

USEFUL LIFE: 125 years

Project	**Mormon Church Water Main Looping**
Funding Type	Capital Improvement Funds
Program	Supply / Distribution Improvements
Priority	3
Project No.	TBD

PROJECT DESCRIPTION

This project installs approximately 300 lineal feet of 8" C900 PVC water main to connect two (2) dead-end mains along the property of the Mormon Church on Elk Grove Blvd.

JUSTIFICATION

An 8" water main exists along the west side of the Mormon Church property off of Elk Grove Blvd. An 8" water main stub for future connection exists at the east side of the property. This project connects the existing 8" water main stub to the 8" water main on the other side of the property. The looped water main system will enhance water system performance and water quality.

PROJECT LOCATION

The project is located at 8679 Elk Grove Blvd, Elk Grove, California.

★ Project Location

Proposed Water Main

Existing Water Main

SCHEDULE & STATUS

Preliminary engineering, final design and construction are scheduled to occur in FY 2019/20.

EXPENDITURE SCHEDULE
(in thousands $)

	Planned Expenditures					Total
Project	FY16/17	FY17/18	FY18/19	FY19/20	FY20/21	
Cadura Circle Water Main Looping	0	0	0	64	0	64
with inflation (3%)	0	0	0	70	0	70

Expenditure breakdown: $1,500 design, $68,500 construction

FUNDING SOURCES
(in thousands $)

USER FEES

Capital Improvement Funds	
▪ Supply / Distribution Improvements	70
Total	**70**

OPERATING COST IMPACTS

The completion of this project is not anticipated to increase or decrease operating costs as the project does not significantly alter the existing facilities or modes of operation.

USEFUL LIFE: 125 years

Project	**RRWTF Tanks & Vessels Recoating**
Funding Type	Capital Repair/Replacement Funds
Program	Treatment Improvements
Priority	2
Project No.	TBD

PROJECT DESCRIPTION

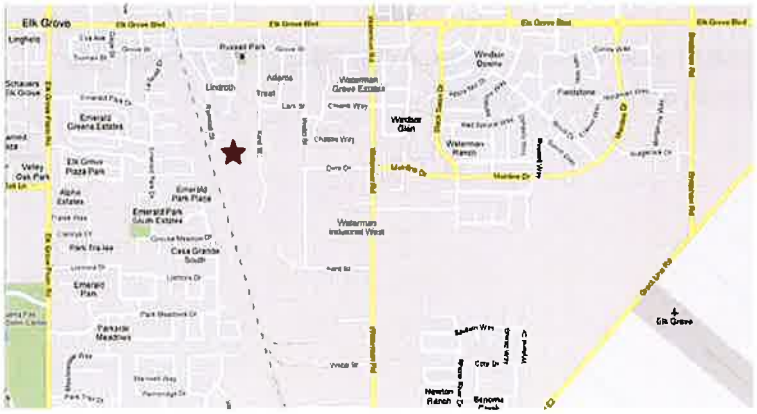
This project recoats the exteriors and interiors of the two 2-million gallon water storage tanks, the 190,000-gallon backwash tank, and six 5000-gallon filter vessels at the Railroad Street Water Treatment Facility (RRWTF).

JUSTIFICATION

The tanks and vessels at the RRWTF were constructed in year 2005. The exterior and interior coatings of these tanks and vessels are nearly ten years old. External corrosion where fragments of the coating have separated from the storage tanks and exposed the base metal was noted during an inspection. Internal corrosion in the storage tanks above the water line and along the roof rafters was noted during inspections performed by divers. Recoating the storage tanks, the backwash tank and filter vessels is necessary to maintain the useful lives of the tanks and vessels. Engineering will look at the potential benefits of protecting the storage tanks and backwash tank with cathodic protection prior to recoating.

PROJECT LOCATION

The address for the RRWTF is 9175 Railroad Street, Elk Grove, California. The assessor's parcel number is APN 13400500810000.



SCHEDULE & STATUS

Engineering was performed in FY 2015/16 to develop the recoating specifications and assess if cathodic protection should be installed in the storage tanks and backwash tank. Recoating of the two 2-million gallon storage tanks is scheduled for FY 2016/17. Recoating of the backwash tank and six filter vessels is scheduled for FY 2018/19.

EXPENDITURE SCHEDULE
(in thousands $)

	Planned Expenditures					Total
Project	FY16/17	FY17/18	FY18/19	FY19/20	FY20/21	
RRWTF Tanks & Vessels Recoating	350	0	141	0	0	497
with inflation (3%)	350	0	150	0	0	500

Expenditure breakdown: $10,000 engineering, $500,000 construction

	Past / Planned Expenditures					Total
Description	FY15/16	FY16/17	FY17/18	FY18/19	FY19/20	
Original Budget	50	350	35	150	0	585
Expenditure	(10)	0	0	0	0	0
Balance / Carry-over	40	40	0	0	0	0
Revised Budget	10	350	0	150	0	510

FUNDING SOURCES
(in thousands $)

USER FEES

Capital Repair/Replacement Funds	
▪ Treatment Improvements	510
Total	**510**

OPERATING COST IMPACTS

The completion of this project is not anticipated to increase or decrease operating costs as the project does not significantly alter the existing facilities or modes of operation.

USEFUL LIFE: 10 years