

FY 2019-23



# Capital Improvement Program

**DRAFT**

# Santa Clara Valley Water District

## Fiscal Years 2019-23 Capital Improvement Program

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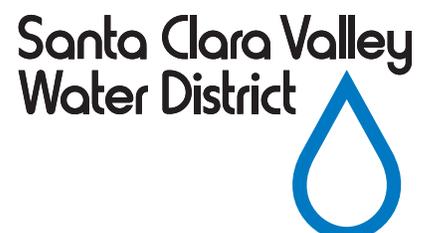
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**February 27, 2018**



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# Overview

# Overview

## OVERVIEW

The Santa Clara Valley Water District's (District) Fiscal Year 2019-23 Five-Year Capital Improvement Program (CIP) is a projection of the District's capital funding for planned capital projects from Fiscal Year 2018-19 through Fiscal Year 2022-23. The purpose of the CIP is to document planned District projects to help integrate District work with the larger community by aligning District planning with other local agency planning efforts.

The District's CIP is developed following the guidelines of Government Code (GC) § 65403 which governs the development and annual review of Capital Improvement Programs developed by special districts in the State of California. State law requires that the program be reviewed and updated annually. It also requires circulation of the document to all agencies having land use authority within District boundaries prior to adoption of the program. This document is intended to provide the information necessary to facilitate planning and construction of water related infrastructure to meet the needs of Santa Clara County.

The CIP is prepared in accordance with the guidelines established by the Government Finance Officer Association (GFOA). Capital projects in this document are defined by both the accounting criteria for capital investment and Public Contract Code definition of public works. They exceed \$50,000 in cost, have long-term life spans and are generally nonrecurring. They usually fall within one of the following six categories.

1. Acquisition of land for public purpose
2. Construction of a significant facility, i.e. a flood protection facility, a water treatment facility, or a building
3. Addition to or expansion of an existing facility
4. Nonrecurring rehabilitation or major repair to all or

part of a facility provided the total cost is more than \$50,000

5. Specific planning, engineering study, or design work related to an individual project which falls within the above categories
6. Significant one-time investment in tangible goods of any nature, the benefit of which will accrue over several years. Examples include items such as large

initial investments or improvements in technology or the purchase of a new telephone system.

The CIP includes several Small Capital Improvement Projects in the various cost centers. These projects will be ongoing and will be used to fund multiple small projects to undertake repairs, replacements, and minor modifications to existing water utility, watershed or campus facilities. Small Capital Improvements generally meet the following criteria:

1. Project cost is less than \$1.5 million
2. Project can be completed within 2 fiscal years
3. Rights-of-Way acquisition is not required.

The proposed funding for the Water Supply Small Capital Improvement projects is anticipated to vary each year based on the work identified in the Water Utility Asset Management Plan. The Almaden Campus Small Capital Improvements project is funded at a flat rate each year. Unspent funds in these projects will not carry forward from previous years.

There are some miscellaneous capital expenditures incurred by the District that are not captured in the CIP. These capital expenditures include certain components of water purchases, indirect costs to manage and train staff that are fully engaged in capital work, and routine replacement of vehicles and large equipment.

## Mission

SANTA CLARA VALLEY WATER

The mission of the district is to provide Silicon Valley safe, clean water for a healthy life, environment, and economy.

## ALIGNMENT WITH ENDS POLICIES

The District plans, manages and carries out capital improvements to comply with the Ends Policies and Executive Limitations established by its Board of Directors. Under the District's Policy Governance Model, Ends Policies describe the outcomes or results to be achieved by District staff. Balancing the Ends Policies are the Executive Limitations, which set limits on staff activities in fulfilling the Ends.

Program plans or master plans are developed to achieve the results established by the Ends Policies and to further define the goals and objectives of each Ends Policy. The Board either formally approves the plans or provides direction to staff, confirming the goals and objectives. These plans then become the basis for staff to propose and develop individual capital projects. Project ideas that are proposed by Operation staff must be vetted via a feasibility study and then validated to prepare a business case for proceeding with a capital investment. Som high profile feasibility studies are included in the CIP. Alignment of the CIP with program or master plans provides a direct link to Ends Policies and ensures the District's long-term capital investments are planned and executed according to the Board's priorities. Three Ends Policies directly drive program or master plans and the types of capital improvements described in the CIP.

- Ends Policy E-2 "There is a reliable, clean water supply for current and future generations."
- Ends Policy E-3 "There is a healthy and safe environment for residents, businesses and visitors, as well as for future generations."
  - E-3.1 "Provide natural flood protection for residents, businesses, and visitors"
  - E-3.2 "Reduce potential for flood damages"
- Ends Policy E-4 "There is water resources stewardship to protect and enhance watersheds and natural resources and to improve the quality of life in Santa Clara County."

(See flowchart "CIP Process Alignment with Ends Policies" on page I-5)

## CIP PLANNING PROCESS

The District conducts an annual planning process for its Capital Improvement Program. The purpose of the planning process is to ensure the capital projects included in the CIP:

- Meet the Board's priorities and contribute to the objectives of the District's various programs
- Have identified funding for the duration of the projects
- Are coordinated with the local jurisdiction's General Plans.

The CIP planning process is carried out in accordance with the following Executive Limitations.

- Executive Limitation EL-4.3.1., "A BAO shall produce an annual Rolling Five-Year Capital Improvement Plan with the first year serving as the adopted capital budget and the remaining years in place as a projected capital funding plan."
- Executive Limitation EL-4.4.1., "A BAO shall demonstrate to the Board the planned expenditures for the identified and selected capital projects in the Rolling Five-Year Capital Improvement Plan are alligned with the Board's capital priorities."

The annual CIP process is the responsibility of the CIP Group comprised of division managers, with the responsibility to initiate or implement capital projects. The detailed process is a documented ISO procedure. It includes the following key steps:

- Management review and approval, to ensure staff proposed projects are aligned with Board policies and approved program plans
- Validation of projects to ensure there is a business case for doing the project and that a capital investment is the best solution
- Prioritization of all projects, including continuing and newly proposed projects, to ensure the projects in the CIP reflect Board priorities
- Financial analysis, to determine the capacity of the District's capital funding sources to fund the proposed capital projects

# Overview

- Outreach to local jurisdictions with land use authority, within Santa Clara County, to coordinate the District's Capital Improvement Program with their General Plans
- Board review and direction at appropriate steps, to ensure the CIP reflects Board policies and priorities
- Board adoption of the CIP plan

The annual CIP planning process starts with collecting information on proposed new capital projects in July, followed by preliminary scoping, priority and financial analyses to produce a Draft CIP in February. The Draft CIP serves as a multi-year plan, together with other long-term planning efforts of the District, is the basis for the budget for the following fiscal year. This Draft CIP plan is also reviewed by local jurisdictions for consistency with their General Plans. While the CIP is being reviewed by the cities and County the budget is being reviewed and finalized. The Board concludes the outreach on the CIP with a public hearing. The first year of the CIP is reconciled with the budget and the two documents are presented to the board for formal adoption in May.

## Board Direction and CIP Outreach

The Board has many opportunities each year to provide direction on projects contained in the Capital Improvement Program. The CIP is developed in parallel with the budget and the water rates. It is presented to the Board on three separate occasions for review and input. Early in the process the project list is presented to the board so they can provide direction to staff, ensuring that the document is developed in accordance with board priorities. The direction received is used to develop the Draft CIP which is reviewed by the Board before staff is authorized to release the document for public review. The CIP is adopted by the Board in May following a public hearing.

The CIP Board Committee meets throughout the year to review and discuss information related to the development and implementation of the CIP and provide input to staff. The Committee provides direction on issues ranging from projects they want to implement, to resource utilization and funding sources or distribution.

The Committee's recommendations are incorporated into the CIP document or implemented by staff.

On January 9, 2018 the FY 2019-23 Preliminary CIP project list, and prioritization criteria were reviewed and endorsed by the Board. The following are highlights of changes from the previous year that have been approved as the basis for the FY 2019-23 CIP:

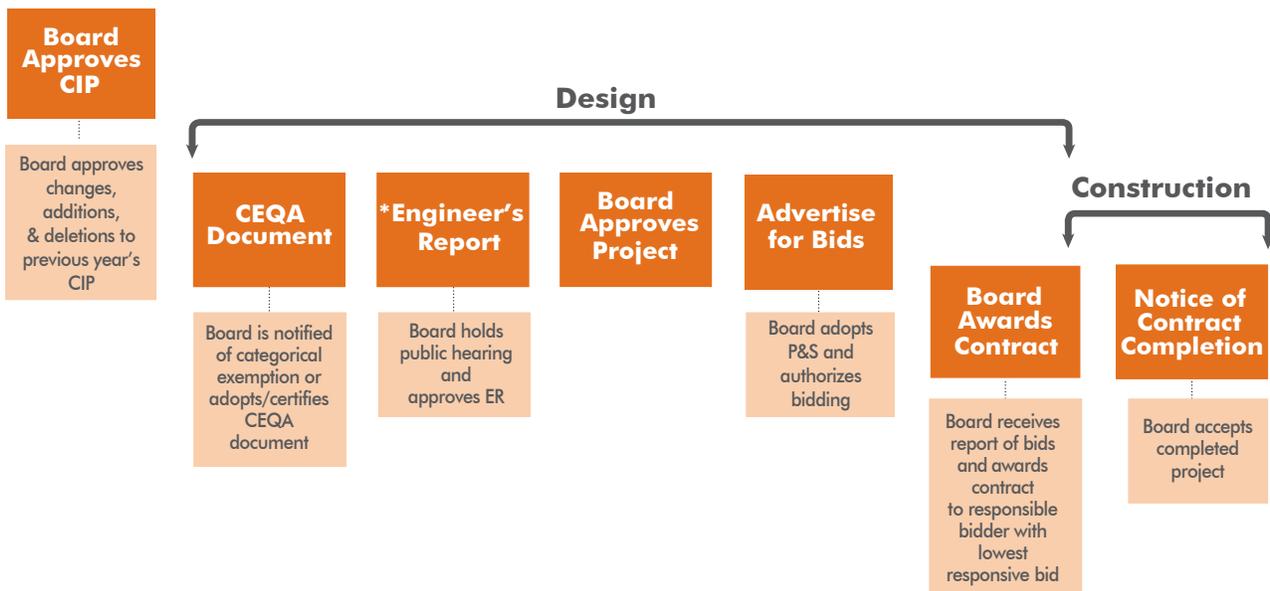
- To fully fund the Water Supply projects in the FY 2019-23 CIP, an increase in the groundwater production charges of up to 9.5% in North County and 7.6% for South County will be required in FY 2019.
- Two new Water Supply projects with a combined value of \$10 million were added to the CIP. They are; Treated Water Isolation Valves, and Westside Retailer Interties (FY-18 start).
- Partial planning phase work for Pacheco Reservoir, to position the District to comply with potential Proposition 1 grant funding, if the grant is awarded and the Board gives direction to continue with the project.
- The Board's decision to proceed with a Public-Private Partnership (P3) delivery method for the Expedited Purified Water Program reduces the District's capital investment in the next five years by more than \$360 million.
- Continued design evolution on the Anderson Dam Seismic Retrofit project will add about \$100 million to the project cost.
- Berryessa Creek, Lower Penitencia Creek to Calaveras Blvd. Phase 3 Project was modified to include construction of approximately \$50 million (FY18 dollars).
- Watershed Enhancement Design and Construction (new Project) would fund design and construction of fish habitat enhancements at Ogier Ponds and Metcalf Ponds, if feasible projects are identified, and the Board approves proceeding with project work. The funding for design and construction of these projects would be contingent on a successful FAHCE settlement.

# Overview

- Coyote Creek, Montague Expressway to Tully Road was modified to include funding for construction to provide flood risk reduction from an approximately 20-to 25-year flood event, similar to the level of flooding that occurred on February 21, 2017. The revised total project cost estimate is \$91 million.
- Stevens Creek Fish Passage Enhancement projects were modified to include an additional \$15M for removal of fish barriers and construction of fish passage enhancements along Stevens Creek.
- Almaden Lake Improvements Project was modified to include approximately \$25 million for construction. The Safe Clean Water (SCW) funding earmarked for construction of one creek-lake separation project in SCW Priority D4 (\$13M) was allocated to the Almaden Lake Project. The remaining \$12M of necessary funding could be allocated from SCW Priority D6 – Creek Restoration and Stabilization; SCW Priority B1 – Impaired Water Bodies Improvement; or other sources.
- A public hearing on reprogramming approximately \$50 million from the Upper Penitencia Creek, Coyote Creek to Dorel Drive Project to the Coyote Creek, Montague Expressway to Tully Road Project will be held in late FY18.
- Over \$100 million of additional funding was included in the Watersheds Asset Rehabilitation Program over a fifteen year period.

Each project in the CIP goes through a planning phase, design phase and construction phase. 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 at the end of the design phase when the Board approves the plans and specifications to solicit bids for construction of the project.

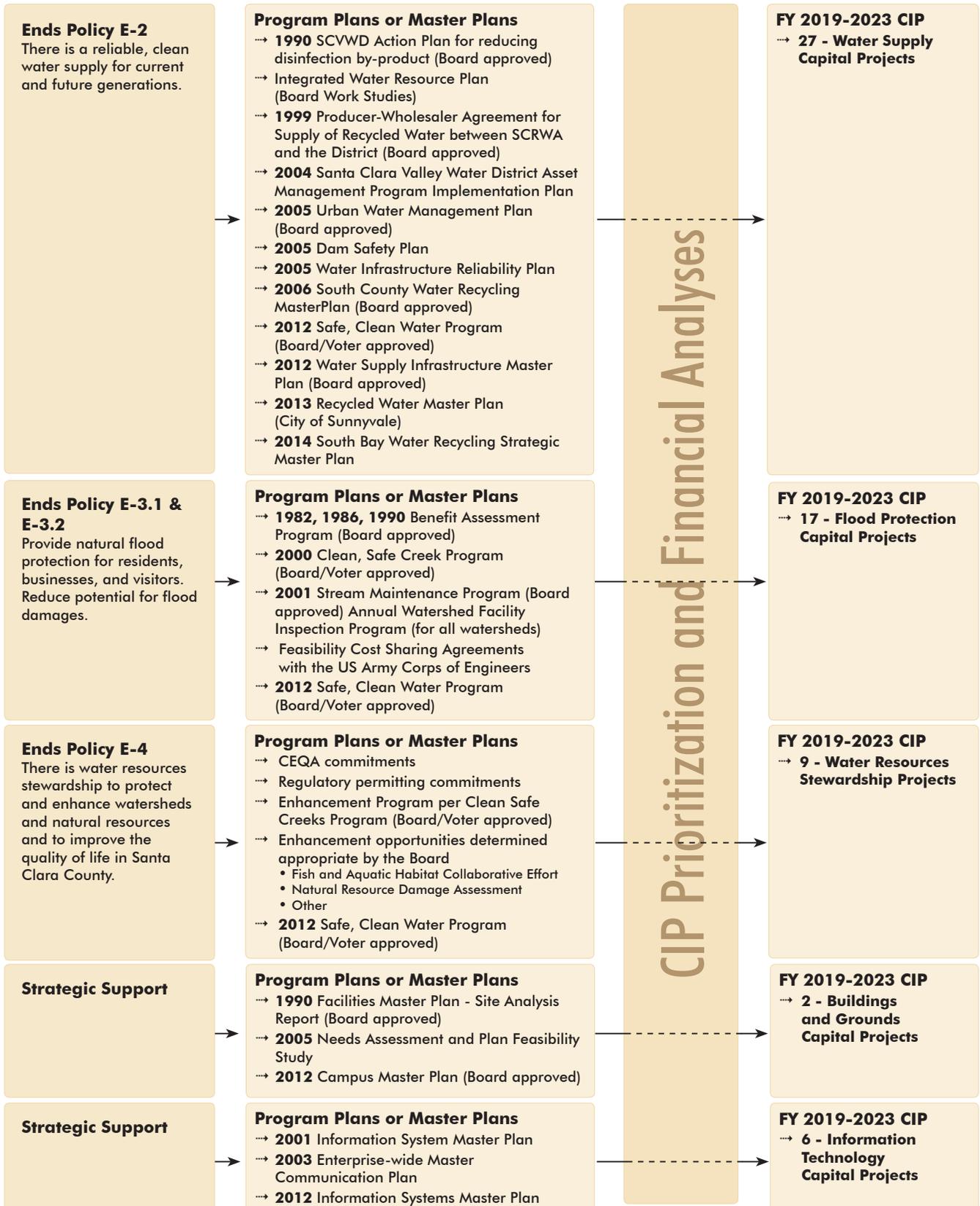
## OPPORTUNITIES FOR BOARD DIRECTION ON CAPITAL PROJECTS



\* Board approval of the Engineer's Report is required only on projects with zone funding.

# Overview

## CIP PROCESS ALIGNMENT WITH ENDS POLICIES



# Overview

## FISCAL YEAR 2019-23 CIP SUMMARY

The recommended CIP for FY 2019-23 includes 61 priority projects to implement the goals and objectives of the District’s program plans and master plans. These projects are grouped into five types of improvements.

- **Water Supply Capital Improvements**  
27 projects contributing to Ends Policy E-2
- **Flood Protection Capital Improvements**  
17 projects contributing to Ends Policy E-3
- **Water Resources Stewardship Capital Improvements**  
9 projects contributing to Ends Policy E-4
- **Buildings and Grounds Capital Improvements**  
2 projects supporting District efforts to achieve the Ends Policies
- **Information Technology Capital Improvements**  
6 projects supporting District efforts to achieve the Ends Policies

Each of the 61 projects in the CIP has an identified funding source based on the type of improvement or function of the project.

The principal sources of revenue for the District are property taxes, a special parcel tax and water production charges for use of groundwater, treated water, and surface water. These revenues are organized into eight funds. Seven of the eight funds have a specific purpose and only finance the operational and capital expenditures related to that purpose. In 2008 the Board decided to combine the individual watershed funds into a county-wide watershed and stream stewardship fund to send the message that the watershed activities are managed for the benefit of the county. This also streamlines most

tracking and accounting activities for staff. The District continues to receive a small amount of revenue from benefit assessments that were approved by voters in the 80s and 90s. These funds are dedicated to specific watersheds and the accounting practices to ensure that they are spent and accounted for appropriately have been kept in place. As shown in the chart below, five of the eight funds are used to finance the five types of capital improvements in the CIP.

In November 2012 the voters overwhelmingly approved the Safe, Clean Water and Natural Flood Protection Program (Safe, Clean Water). This program replaced the Clean, Safe Creeks Program that would sunset in 2016. Safe, Clean Water has an expanded focus that includes funding for important Water Utility projects as well as additional funding for Flood Protection and Water Resources Stewardship projects. The Safe, Clean Water program will provide over \$750 million of special parcel tax revenue for operations and capital projects.

The District aggressively pursues external funding to supplement its principal revenue when practical. In recent years District projects benefited from \$43.4 million in American Recovery and Reinvestment Act (ARRA) funding. A number of District projects are receiving substantial State funding through grants from the Department of Water Resources (DWR) either directly or through local partner agencies. For a complete listing of grants and partnerships see Appendix C.

- \$25 million for Lower Silver Creek and Cunningham Flood Detention from DWR
- \$8 million for San Francisquito Creek through the Joint Powers Authority

DISTRICT PRIORITIES	District Funds				
	Water Utility Enterprise Fund	Watershed Stream Stewardship Fund	General Fund	Safe, Clean Water Fund	Information Technology Fund
<b>Water Supply</b>	●		●	●	
<b>Flood Protection</b>		●		●	
<b>Water Resources Stewardship</b>	●	●		●	
<b>Buildings and Grounds</b>			●		
<b>Information Technology</b>	●				●

This chart identifies which types of improvement are associated with each of the District’s five capital funds.

# Overview

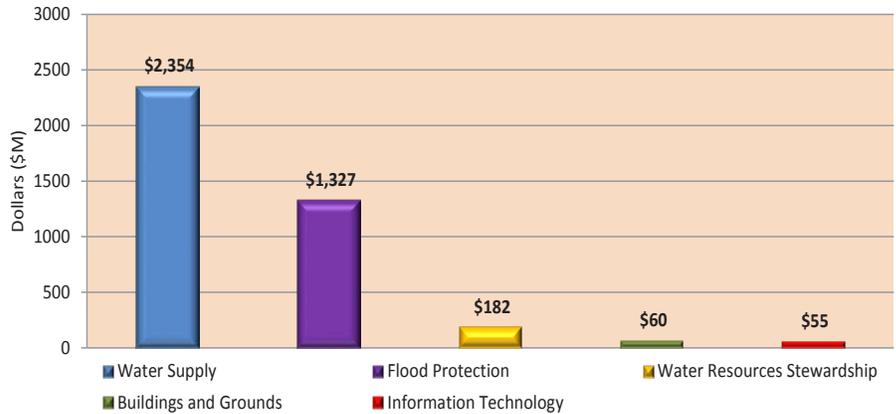
- \$30 million Upper Berryessa, Lower Berryessa, and Lower Penitencia from DWR

The estimated total funding required to implement the 61 projects defined in the CIP is \$4.45 billion. The District has been and continues to be successful in leveraging funding for its capital projects through partnerships with federal, state, and local agencies. Of the \$4.45 billion total funding, \$667 million is expected from the District's various partners, such as the U.S. Army Corps of Engineers (USACE), and \$3.784 billion from the District. A list of projects that are funded cooperatively with the District's partners is summarized in Appendix C. Funding from partners for the cooperative capital projects generally come in two ways:

- Funds that are made available by the partners when needed (cost-sharing agreements or in-kind services), or
- Funds that are reimbursed by the partners after the District advances the needed funds.

Of the \$667 million that is expected from the District's partners, \$194 million is advanced by the District and reimbursed later. This \$194 million is included in the CIP, and increases the District's total funding requirement from \$3.784 billion to \$3.978 billion, to ensure that the District has adequate funding to advance the reimbursement.

## CIP Funding by Type of Improvement



The chart above shows the distribution by type of improvement, of the \$3.978 billion total CIP funding as planned in the FY 2019-23 CIP.

The chart above shows how the \$3.978 billion to implement the 61 projects is allocated to each of the five Types of Improvements.

Of the \$3.978 billion in total funding for the 61 projects identified in the CIP, the Board has appropriated \$1.296 billion in prior years (through June 30, 2018 the end of Fiscal Year 2017-18). This year's CIP process identified additional funding needs of \$2.682 billion to complete the projects in the CIP, with \$219 million allocated in Fiscal Year 2018-19 and a total of \$2.463 billion proposed for future years. The table shown on page I-8 breaks down the fiscal year total by the five types of improvement and by applicable funding sources.

## CIP Funding Schedule



The chart above shows how the \$3.978 billion is distributed by fiscal year.

# Overview

## CIP Funding Schedule by Type of Improvement and Funding Sources (\$K)

	Through FY17	FY18	FY18 Unspent	FY19	FY20	FY21	FY22	FY23	FY24-33	TOTAL
<b>WATER SUPPLY</b>										
Water Utility Enterprise Fund	314,918	123,502	37,814	104,120	261,166	229,480	280,618	337,926	529,001	2,180,731
General Fund	-	2,250	-	14,176	-	-	-	-	-	16,426
Safe, Clean Water and Natural Flood Protection Fund	-	-	-	1,392	343	14,565	4,379	14,691	121,299	156,669
<b>Water Supply Total</b>	<b>314,918</b>	<b>125,752</b>	<b>37,814</b>	<b>119,688</b>	<b>261,509</b>	<b>244,045</b>	<b>284,997</b>	<b>352,617</b>	<b>650,300</b>	<b>2,353,826</b>
<b>FLOOD PROTECTION</b>										
Watershed Stream Stewardship Fund	302,441	25,179	21,577	50,621	28,042	22,190	15,318	11,358	183,424	638,573
Safe, Clean Water and Natural Flood Protection Fund	416,241	51,328	66,404	38,029	65,760	35,093	24,055	22,472	35,936	688,914
<b>Flood Protection Total</b>	<b>718,682</b>	<b>76,507</b>	<b>87,981</b>	<b>88,650</b>	<b>93,802</b>	<b>57,283</b>	<b>39,373</b>	<b>33,830</b>	<b>219,360</b>	<b>1,327,487</b>
<b>WATER RESOURCES STEWARDSHIP</b>										
Water Utility Enterprise Fund	765	-	-	-	-	4,006	6,713	3,738	39,237	54,458
Watershed Stream Stewardship Fund	20,632	2,431	517	1,110	358	534	6,844	6,744	21,350	60,003
Safe, Clean Water and Natural Flood Protection Fund	8,853	2,197	2,282	3,164	13,367	17,529	10,709	775	10,555	67,149
<b>Mitigation Total</b>	<b>30,250</b>	<b>4,628</b>	<b>2,799</b>	<b>4,274</b>	<b>13,725</b>	<b>22,068</b>	<b>24,266</b>	<b>11,257</b>	<b>71,142</b>	<b>181,610</b>
<b>BUILDINGS AND GROUNDS</b>										
General Fund	1,176	2,046	1,156	2,072	3,171	6,101	9,384	7,366	28,246	59,562
<b>Buildings and Grounds Total</b>	<b>1,176</b>	<b>2,046</b>	<b>1,156</b>	<b>2,072</b>	<b>3,171</b>	<b>6,101</b>	<b>9,384</b>	<b>7,366</b>	<b>28,246</b>	<b>59,562</b>
<b>INFORMATION TECHNOLOGY</b>										
Water Utility Enterprise Fund	920	1,301	33	503	192	-	101	1,588	8,180	12,785
General Fund	1,199	-	-	-	-	-	-	-	-	1,199
Information Technology Fund	10,727	7,376	7,035	4,300	3,911	941	429	2,358	11,304	41,346
<b>Information Technology Total</b>	<b>12,846</b>	<b>8,677</b>	<b>7,068</b>	<b>4,803</b>	<b>4,103</b>	<b>941</b>	<b>530</b>	<b>3,946</b>	<b>19,484</b>	<b>55,330</b>
<b>TOTAL</b>	<b>1,077,872</b>	<b>217,610</b>	<b>136,818</b>	<b>219,487</b>	<b>376,310</b>	<b>330,438</b>	<b>358,550</b>	<b>409,016</b>	<b>988,532</b>	<b>3,977,815</b>
<b>CUMULATIVE TOTAL</b>	<b>1,077,872</b>	<b>1,295,482</b>		<b>1,514,969</b>	<b>1,891,279</b>	<b>2,221,717</b>	<b>2,580,267</b>	<b>2,989,283</b>	<b>3,977,815</b>	

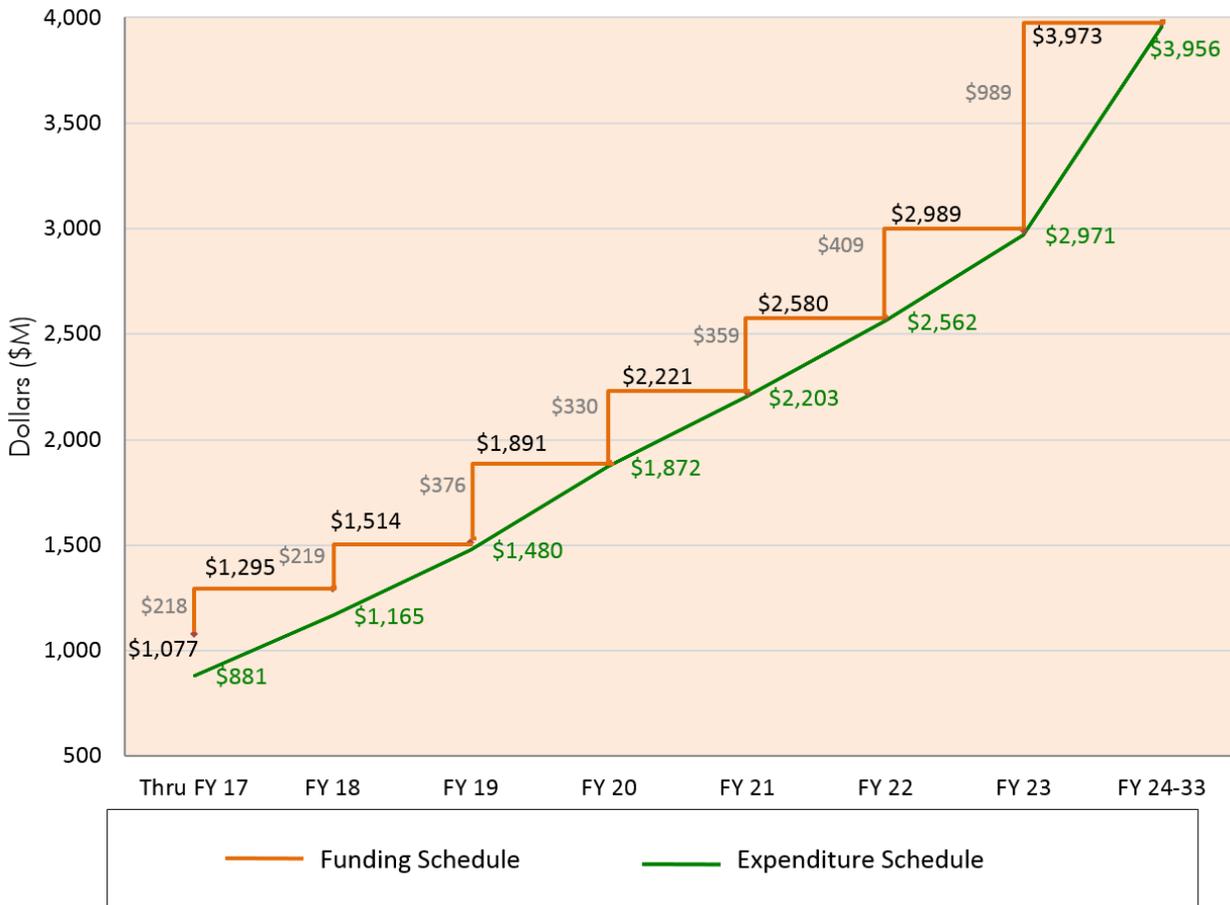
 FY 2017-18 Funds to be reappropriated

# Overview

As shown in the table, CIP Funding Schedule by Type of Improvement and Funding Sources (on the previous page): approximately \$137 million of the already appropriated \$1.296 billion is not spent and is reappropriated to Fiscal Year 2018-19 for continued use

in those same projects in amounts consistent with the project expenditure schedule for Fiscal Year 2018-19. The following chart explains the relationship between the CIP Funding Schedule and Expenditure Schedule.

**CIP Funding Schedule vs. CIP Expenditure Schedule**



# Overview

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# Water Supply

# Water Supply Capital Improvements

## WATER SUPPLY OVERVIEW

The District manages and operates a complex and integrated water supply infrastructure, including storage, transmission, treatment, and recycled water facilities, to meet the Board's Ends Policy E-2, "There is a reliable, clean water supply for current and future generations."

### Storage Facilities

- 10 surface reservoirs
- 393 acres of recharge ponds
- 76 miles of in-stream recharge
- Ground water basins

### Transmission Facilities

- 142 miles of pipelines
- 3 pump stations

### Treatment Facilities

- 3 treatment plants

### Recycled Water Facilities

- Silicon Valley Advanced Water Purification Center
- South County Recycled Water Distribution System

Planning, design and construction of the above facilities took decades of effort. Beginning in the 1930s, reservoirs and recharge ponds were built to halt depletion of the ground water basin and subsidence, followed by pipelines and treatment plants to bring in state and federal water to meet growing water demands in the County.

In the early 1990s, the District embarked on new and challenging capital improvements to upgrade its three drinking water treatment plants in order to meet new Environmental Protection Agency rules for improved water quality required by 1996 amendments to the Safe Drinking Water Act. Fifteen years of effort and capital funding brought the upgrades at Penitencia and Santa Teresa Water Treatment Plants to completion. Delivery of ozonated water produced at these two treatment plants began in 2006.

The Rinconada Water Treatment Plant (RWTP) was built in the late 1960s and is reaching the end of its useful life. Projects to replace and update the treated

water valves and residuals management process, and to seismically retrofit the Operations Building are nearing completion. The RWTP Reliability Improvement Project will add raw water ozonation, construct new flocculation and plate settler clarification, and dual media filtration facilities. It will also increase plant capacity from 80 to 100 million gallons per day. Construction of this Project began in the summer 2015 and will continue for approximately 5 years. It will be constructed in a phased approach that will allow the plant to continue operations throughout the construction process.

With a significant portion of the Water Supply infrastructure approaching fifty to sixty years of age, maintaining and upgrading the existing infrastructure to ensure each facility functions as intended for its useful life became the focus of the Water Supply Capital Improvement Program in recent years, as shown in the CIP.

The District owns and operates ten dams. While these dams provide water supply, flood management, recreation, and environmental flow benefits, there are consequences and costs for dam ownership. Knowledge of seismic stability design and construction was very rudimentary during the design and construction of District dams in the 1930s and 50s. Both liquefaction of dam embankments and foundations and embankment stability is critical for seismic stability. Several of the District reservoirs have operating restrictions imposed by the Department of Safety of Dams (DSOD) while an engineering analysis of how the District's dams would perform under a major seismic event is completed and appropriate corrective actions are implemented.

On November 26, 2010 the Board was informed that Anderson Dam will require a seismic retrofit and the operating restriction was increased to 45 feet below the crest of the dam. Since this briefing, the consultant has determined that a magnitude 7.2 Maximum Credible Earthquake on nearby Calaveras Fault could cause a deformation (slumping) of the dam crest by 25 feet. The Anderson Dam Seismic Retrofit Project (\$445 million) was initiated in January 2011.

# Water Supply Capital Improvements

The District completed a seismic stability evaluation of Almaden, Calero, and Guadalupe Dams in late 2010. Almaden Dam was found to be seismically stable; however both Calero and Guadalupe Dams will require seismic retrofitting to meet DSOD performance criteria. A project was initiated in fiscal year 2013 to address the Calero and Guadalupe Dams retrofit needs. A separate capital project to address outlet and spillway improvements at Almaden Dam is continuing. Seismic stability evaluations were conducted at Lenihan and Stevens Creek Dams. Both were found to be seismically stable.

## Major Capital Improvements Identified in CIP

### Storage:

- Almaden Dam Improvements
- Anderson Dam Seismic Retrofit
- Calero Dam Seismic Retrofit
- Guadalupe Dam Seismic Retrofit

### Transmission:

- 10-Year Pipeline Rehabilitation
- FAHCE Implementation
- Main and Madrone Pipeline Rehabilitation
- Vasona Pumping Plant Upgrade

### Treatment:

- PWTP Residuals Management
- RWTP Reliability Improvement

### Recycled Water:

- Expedited Purified Water Program
- South County Recycled Water Pipeline

## PRIORITY PROCESS AND FINANCIAL ANALYSIS

A rigorous priority setting process was conducted to ensure that the new water supply projects proposed to be added to the Fiscal Year 2019-23 CIP reflect the Board's priorities. The priority criteria used to evaluate these projects is included in Appendix A.

A financial analysis of the Water Utility Enterprise Fund, the funding source for water supply capital improvements, was performed to determine the limitations to funding the projects proposed for the Fiscal Year 2019-23 capital program. Results of this year's prioritization process and financial analysis are summarized in Appendix B.

Based on the feedback from the FY 2006-07 CIP and Board direction, a concerted effort was made to develop a multi-year water charge structure that would support the priority work of the water utility business. Staff analyzed both immediate requirements and anticipated future needs to support operations and the continued appropriations for capital investment needed to maintain infrastructure and comply with water quality regulations. Each year staff reviews Board priorities, the financial needs of the water utility enterprise fund, current political and economic factors and updates the multi-year structure. The rate structure for the first year is recommended to the Board for adoption during the annual rate setting process.

While the District has one Water Utility fund, the District has two zones of benefit for the purposes of setting groundwater production charges. The North County Zone is very different from the South County Zone in that the water infrastructure is substantially separate and distinct with an entirely different cost of providing service. For example the north zone overlays the Santa Clara groundwater subbasin and is much more densely populated requiring a large amount of imported water from outside the county to provide a reliable water supply. To receive, filter and distribute

# Water Supply Capital Improvements

the imported water, the District chose to build 3 water treatment plants and a network of raw water and treated water distribution pipelines many decades ago. The south zone on the other hand overlays the Coyote and Llagas groundwater subbasins and is more sparsely populated. South County relies primarily on groundwater to serve roughly 50% agricultural and 50% non-agricultural water needs. A small amount of recycled water is served in the Gilroy area. No treated water is served in South County. A small amount of imported water is used to recharge the groundwater subbasins in the South County. The groundwater subbasins have the ability to absorb the recharge and remain healthy under normal water usage levels unlike the North County where several sections of the groundwater basin are very sensitive, which is the main reason for building the treatment plant system long ago.

To fully fund the Water Supply projects in the FY 2019-23 CIP an increase in the groundwater production charges up to 9.5% in Zone W-2 (North County) and 7.6%

in Zone W-5 (South County) will be required in FY 2018-19. Preliminary projections indicate the need for annual rate increases of 9.5% on average in subsequent years for North County and 7.6% on average for South County.

The majority of capital projects included in the 5-Year CIP are related to asset management which replaces aging equipment and facilities, infrastructure reliability, which protects the county's baseline water supply or Advanced Purified Water which produces a drought proof source of water.

The District is currently engaged in several critical studies related to understanding the conditions of various water supply facilities and meeting future water supply needs of the county including updating the Water Supply Master Plan, which is scheduled to be presented to the Board in summer 2018. These studies will likely identify a number of new capital projects, some of which may require significant capital investment.



# Water Supply Capital Improvements

The following table is a project funding schedule for water supply capital improvements resulting from this year's priority process and financial analysis. Detailed information for each project can be found in this document on the following pages in the order presented in this table. The chart also identifies partially funded projects and estimated unspent appropriation from FY 2017-18.

## Water Supply Capital Improvements

Project Number	PROJECT NAME	Through FY17	FY18	FY18 Unspent	FY19	FY20	FY21	FY22	FY23	FY24-33	TOTAL
<b>STORAGE FACILITY</b>											
91854001	Almaden Dam Improvements	12,520	520	1,816	2,207	546	525	24,963	18,940	393	60,614
91864005	Anderson Dam Seismic Retrofit (C1)	31,586	7,932	-	11,095	151,809	116,197	141,234	89,533	1,458	550,844
91084020s	Calero and Guadalupe Dams Seismic Retrofits	26,808	3,349	3,955	1,911	1,638	9,914	30,332	42,072	55,880	171,904
91234002	Coyote Pumping Plant ASD Replacement	-	536	436	698	814	3,244	6,416	4,486	791	16,985
91234011	Coyote Warehouse	2,940	3,003	-	528	-	-	-	-	-	6,471
91084019	Dam Seismic Stability Evaluation	18,812	-	33	1,221	491	456	5,963	498	1,941	29,382
60954001	Pacheco Reservoir Feasibility Study	-	2,250	-	14,176	-	-	-	-	-	16,426
91214010s	Small Capital Improvements, San Felipe Reach 1-3	n/a	2,457	-	3,472	2,080	2,706	92	-	34,750	45,557
<b>TRANSMISSION FACILITY</b>											
95084002	10-Year Pipeline Rehabilitation (FY18-FY27)	-	20,489	-	17,590	13,353	20,355	8,260	4,885	33,591	118,523
92C40357	FAHCE Implementation	-	-	-	-	-	4,739	4,379	14,691	121,299	145,108
26764001	IRP2 Additional Line Valves (A3)	-	-	-	1,392	343	9,826	-	-	-	11,561
26564001	Main & Madrone Pipelines Restoration (A1)	2,327	15,084	-	292	-	-	-	-	-	17,703
92144001	Pacheco/Santa Clara Conduit Right of Way Acquisition	1,861	1,034	-	1,585	307	-	-	-	-	4,787
92374005	SCADA Remote Architecture & Communications Upgrade	776	186	-	182	175	913	835	872	3,009	6,948
92764009	Small Capital Improvements, Raw Water Transmission	n/a	321	-	765	49	-	92	-	3,226	4,453
94764006	Small Capital Improvements, Treated Water Transmission	n/a	-	-	139	-	-	-	-	-	139
94084007	Treated Water Isolation Valves	-	-	-	529	795	6,891	-	-	-	8,215
94084008	Westside Retailer Interties	-	-	-	67	358	1,385	114	-	-	1,924
92264001	Vasona Pumping Plant Upgrade	119	712	310	542	1,163	548	17,541	586	-	21,211
<b>TREATMENT FACILITY</b>											
93234044	PWTP Residuals Management	-	-	-	-	-	742	1,550	8,279	-	10,571
93294051	RWTP FRP Residuals Management Modifications	31,520	17,053	12,817	-	7,756	2,083	1,759	2,430	1,595	64,196
93294057	RWTP Reliability Improvement	116,221	48,144	19	47,136	47,629	30,116	143	-	-	289,389
93294056	RWTP Treated Water Valves Upgrade	8,424	170	-	180	22	-	-	-	-	8,796
93764004	Small Capital Improvements, Water Treatment	n/a	2,512	-	6,226	7,344	7,682	3,872	315	16,943	44,894
<b>RECYCLED WATER FACILITY</b>											
91304001s	Expedited Purified Water Program (EPWP)	28,089	-	9,742	2,651	10,638	25,502	37,452	77,175	95,728	277,235
91C40389	Long-Term Purified Water Program Elements	-	-	-	-	-	-	-	87,855	279,696	367,551
91094007s	South County Recycled Water Pipeline	32,915	-	8,686	5,104	14,199	221	-	-	-	52,439
<b>TOTAL</b>		<b>314,918</b>	<b>125,752</b>	<b>37,814</b>	<b>119,688</b>	<b>261,509</b>	<b>244,045</b>	<b>284,997</b>	<b>352,617</b>	<b>650,300</b>	<b>2,353,826</b>

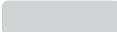
FY 2017-18 Funds to be reappropriated

# Water Supply Capital Improvements

The following table shows funding requirements from each funding source for water supply capital.

## Water Supply - Funding Source (\$K)

Fund Number	FUND NAME	Through FY17	FY18	FY18 Unspent	FY19	FY20	FY21	FY22	FY23	FY24-33	TOTAL
61	Water Utility Enterprise Fund	314,918	123,502	37,814	104,120	261,166	229,480	280,618	337,926	529,001	2,180,731
11	General Fund	-	2,250	-	14,176	-	-	-	-	-	16,426
26	Safe, Clean Water and Natural Flood Protection Fund	-	-	-	1,392	343	14,565	4,379	14,691	121,299	156,669
<b>TOTAL</b>		<b>314,918</b>	<b>125,752</b>	<b>37,814</b>	<b>119,688</b>	<b>261,509</b>	<b>244,045</b>	<b>284,997</b>	<b>352,617</b>	<b>650,300</b>	<b>2,353,826</b>

 FY 2017-18 Funds to be reappropriated

# Water Supply Capital Improvements

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# Storage Facilities



- Storage Facilities**
- 10 Surface Reservoirs
  - 393 Acres of Recharge Ponds
  - 76 Miles of In-stream Recharge
  - 7 Capital Projects
  - Groundwater Basins

<b>Project</b>	<b>Almaden Dam Improvements</b>
<b>Program</b>	Water Supply – Storage
<b>Priority No.</b>	50
<b>Project No.</b>	91854001
<b>District Contact</b>	Katherine Oven koven@valleywater.org



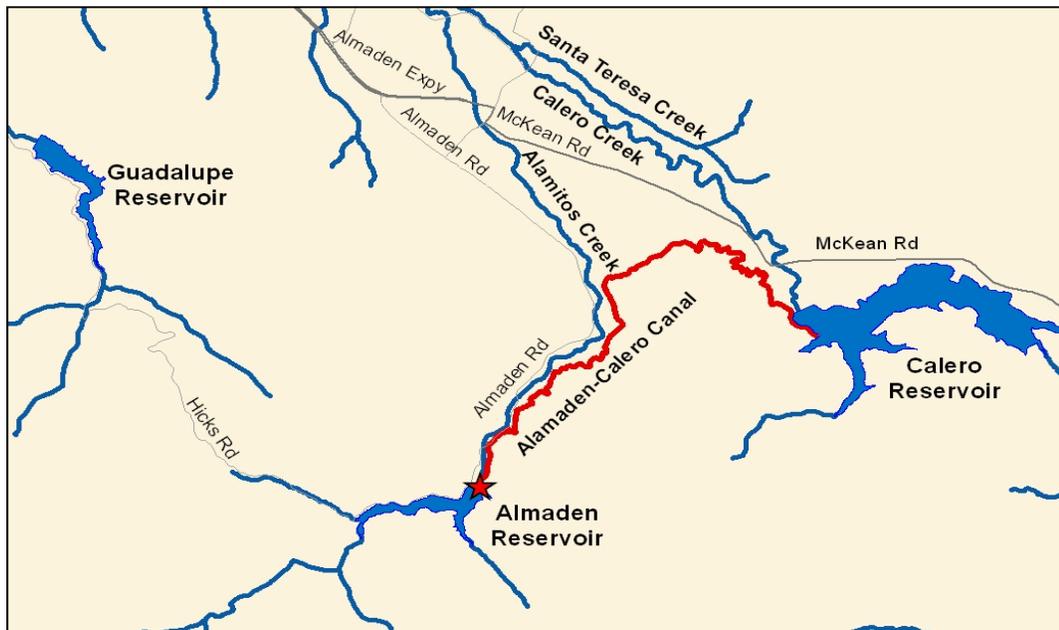
Aerial view of Almaden Dam and spillway, with a portion of the reservoir

## PROJECT DESCRIPTION

This project plans, designs, and constructs improvements to the Almaden Dam Outlet Works to accomplish the following objectives:

- ♦ Modify or construct a new intake structure, capable of releasing 246 cubic feet-per-second (cfs) of water without flushing of sediments through the outlet works.
- ♦ Correct existing problems with the outlet energy dissipation structure, piping and valves.
- ♦ Restore operational capacity to the Almaden-Calero Canal and stabilize and improve maintenance access.

## PROJECT LOCATION



 Project Location

## SCHEDULE & STATUS

July 1995 to June 2024

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	5,047											
Design	7,309											
Construct	38,082											
Closeout	302											
	50,740											

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
91854001-Almaden Dam Improvements	10,704	520	3,850	500	460	21,710	16,370	302	54,416
with inflation	10,704	520	4,023	546	525	24,963	18,940	393	60,615

Actuals include project expenditures, and encumbrances.

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total	
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future		
91854001-Almaden Dam Improvements	12,520	520	1,816	2,207	546	525	24,963	18,940	393	60,615

Adjusted Budget includes adopted budget plus approved budget adjustments.

## FUNDING SOURCES

(in thousands \$)

SCVWD Water Utility Enterprise Fund	60,615
Other Funding Source	0
<b>Total</b>	<b>60,615</b>

## OPERATING COST IMPACTS

The completion of this project is anticipated to decrease operating costs by approximately \$2,000 per year, beginning in FY 2025. Manually flushing the control valves during the winter months to remove silt will no longer be required.

**USEFUL LIFE:** 50+ Years

<b>Project</b>	<b>Anderson Dam Seismic Retrofit</b>
<b>Program</b>	Water Supply – Storage
<b>Priority No.</b>	100
<b>Project No.</b>	91864005
<b>District Contact</b>	Katherine Oven koven@valleywater.org



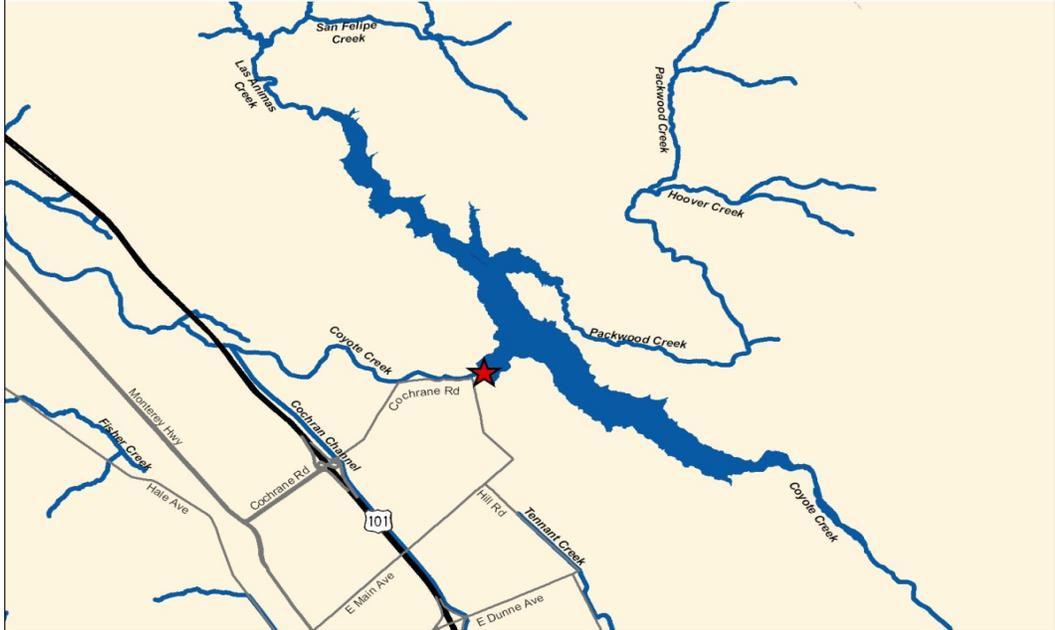
Aerial view of Anderson Dam and spillway, with a portion of the reservoir

**PROJECT DESCRIPTION**

This project plans, designs, and constructs seismic retrofit or replacement of outlet works at Anderson Dam, pending completion of a field investigation that will determine whether the Coyote Fault is determined to be "active". Seismic stability improvements will accomplish the following objectives:

- ♦ Resolve seismic stability deficiencies to ensure public safety.
- ♦ Restore lost reservoir storage capacity resulting from the operational restriction issued by Division of Safety of Dams (DSOD).
- ♦ Resolve the DSOD/FERC (Federal Energy Regulatory Commission) requirements in a timely manner.

**PROJECT LOCATION**



★ Project Location

## SCHEDULE & STATUS

January 2011 to December 2024

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	16,204											
Design	35,227											
Construct	453,837											
Closeout	1,100											
	506,368											

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
91864005-Anderson Dam Seismic Retrofit	31,298	8,220	10,617	141,311	107,664	130,161	82,263	1,100	512,634
with inflation	31,298	8,220	11,095	151,809	116,197	141,234	89,533	1,458	550,844

Actuals include project expenditures, and encumbrances.

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total	
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future		
91864005-Anderson Dam Seismic Retrofit	31,586	7,932	0	11,095	151,809	116,197	141,234	89,533	1,458	550,844

Adjusted Budget includes adopted budget plus a planned budget adjustment of \$19,000.

## FUNDING SOURCES

(in thousands \$)

SCVWD Water Utility Enterprise Fund	484,791
SCVWD Safe Clean Water Fund	66,053
Other Funding Sources	0
<b>Total</b>	<b>550,844</b>

## OPERATING COST IMPACTS

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

**USEFUL LIFE:** 50+ Years

**Project Calero and Guadalupe Dams Seismic Retrofits**

**Program** Water Supply - Storage

**District Contact** Katherine Oven koven@valleywater.org

**Priority No.** 92

**Project No.** 91084020s



Aerial view of the Calero Dam and reservoir



Aerial view of the Guadalupe Dam, spillway, and part of the reservoir

**PROJECT DESCRIPTION**

This project plans, designs, and constructs improvements to the Calero and Guadalupe Dams to accomplish the following objectives:

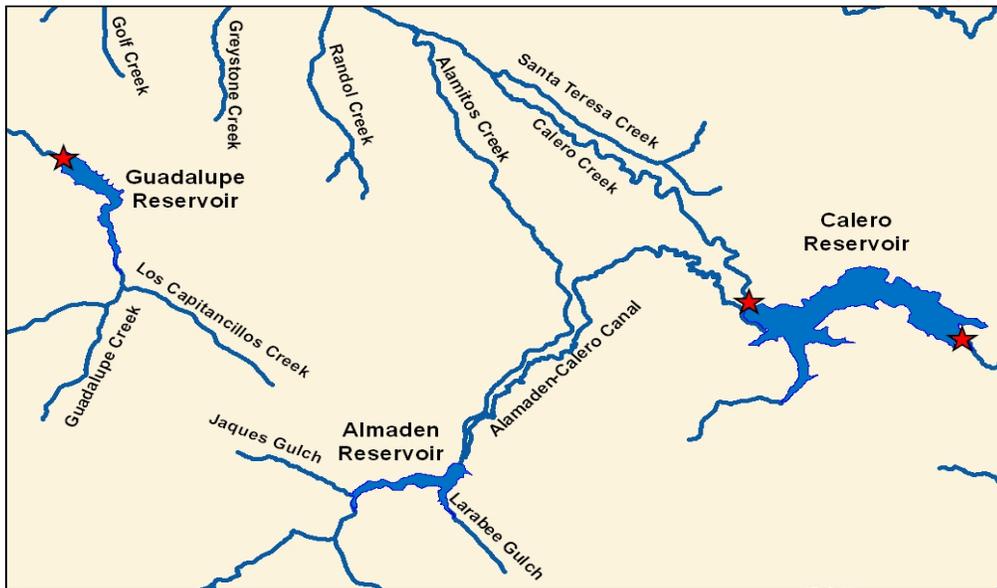
**Calero Dam**

- ♦ Stabilize the embankment to withstand a Maximum Credible Earthquake (MCE).
- ♦ Modify or replace the outlet works if determined to be inadequate.
- ♦ Modify the spillway or increase the freeboard of the dam for safe passage of the Probable Maximum Flood (PMF).
- ♦ Provide modifications that do not preclude potential future expansion of dam and reservoir to provide additional reservoir storage.
- ♦ Remove or relocate the Bailey Ranch structures and breach Fellow's Dike.

**Guadalupe Dam**

- ♦ Stabilize the embankment to withstand a MCE.
- ♦ Implement improvements as necessary for the Dam system to safely pass the PMF.
- ♦ Ensure that the outlet works and hydraulic control system meet the Division of Safety of Dams (DSOD) requirements.
- ♦ Relocate the intake structure out of the upstream berm in a timely manner
- ♦ Incorporate other measures to address seismic and other dam safety deficiencies that are identified through the Project delivery process.

**PROJECT LOCATION**



★ Project Location

## SCHEDULE & STATUS

July 2012 to June 2024

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	7,686											
Design	17,661											
Construct	117,300											
Closeout	360											
	143,007											

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
91084020 - Calero and Guadalupe Dams Seismic Retrofits-Planning	7,167	1,810	200	150	0	0	0	0	9,327
with inflation	7,167	1,810	209	164	0	0	0	0	9,350
91874004 - Calero Dam Seismic Retrofit-Design & Construct	7,360	2,320	3,296	500	2,580	6,000	15,750	41,438	79,244
with inflation	7,360	2,320	3,444	546	2,944	7,155	18,750	49,266	91,785
91894002 - Guadalupe Dam Seismic Retrofit-Design & Construct	6,371	1,174	1,840	1,000	6,250	20,700	20,700	5,822	63,857
with inflation	6,371	1,174	1,923	1,092	6,970	23,177	23,322	6,614	70,643
<b>TOTAL</b>	<b>20,898</b>	<b>5,304</b>	<b>5,336</b>	<b>1,650</b>	<b>8,830</b>	<b>26,700</b>	<b>36,450</b>	<b>47,260</b>	<b>152,428</b>
with inflation	<b>20,898</b>	<b>5,304</b>	<b>5,576</b>	<b>1,802</b>	<b>9,914</b>	<b>30,332</b>	<b>42,072</b>	<b>55,880</b>	<b>171,778</b>

Actuals include project expenditures, and encumbrances.

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
91084020 - Calero and Guadalupe Dams Seismic Retrofits-Planning	9,476	0	499	0	0	0	0	0	0	9,476
91874004 - Calero Dam Seismic Retrofit-Design & Construct	9,223	2,188	1,731	1,713	546	2,944	7,155	18,750	49,266	91,785
91894002 - Guadalupe Dam Seismic Retrofit-Design & Construct	8,109	1,161	1,725	198	1,092	6,970	23,177	23,322	6,614	70,643
<b>TOTAL</b>	<b>26,808</b>	<b>3,349</b>	<b>3,955</b>	<b>1,911</b>	<b>1,638</b>	<b>9,914</b>	<b>30,332</b>	<b>42,072</b>	<b>55,880</b>	<b>171,905</b>

Adjusted Budget includes adopted budget plus approved budget adjustments. Allocated funding exceeds the projected cost of one of the projects listed above by approximately \$126,000. Excess funds will be returned to Fund Reserves at the close of the project.

## FUNDING SOURCES

(in thousands \$)

SCVWD Water Utility Enterprise Fund	171,905
Other Funding Source	0
<b>Total</b>	<b>171,905</b>

## OPERATING COST IMPACTS

Operating cost impacts are anticipated and will be determined during the planning phase.

**USEFUL LIFE:** 50+ Years

<b>Project</b>	<b>Coyote Pumping Plant ASD Replacement</b>
<b>Program</b>	Water Supply – Storage
<b>Priority No.</b>	70
<b>Project No.</b>	91234002
<b>District Contact</b>	Christopher Hakes CHakes@valleywater.org



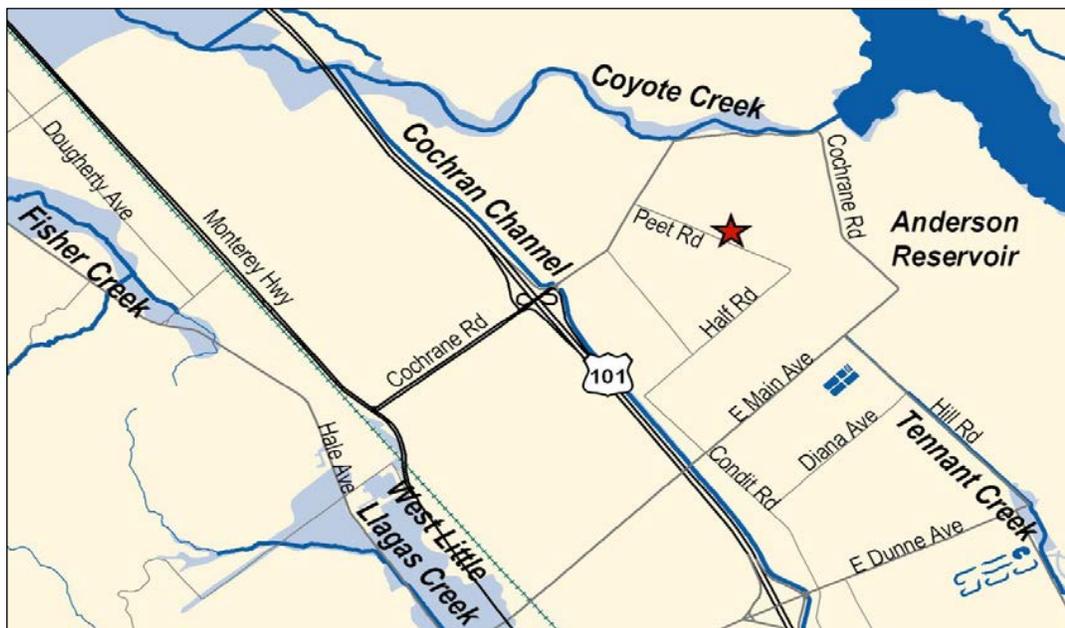
ASD Motors at the Coyote Pumping Plant

## PROJECT DESCRIPTION

This project plans, designs, and constructs improvements to the Coyote Pumping Plant Adjustable Speed Drives (ASD) to accomplish the following objectives:

- ◆ Replace existing outdated and unsupported ASDs with the latest technology.
- ◆ Modify/convert existing six wound rotor motors to be compatible with new stator fed ASD.
- ◆ Upgrade the HVAC system to support the additional cooling requirements.
- ◆ Modify/upgrade Supervisory Control and Data Acquisition (SCADA) control and instrumentation systems, and control strategy to support the new ASDs.
- ◆ Replace two main medium voltage circuit breaker and one medium voltage tie circuit breaker (switch) which are at the end of service life.
- ◆ Replace motor control equipment line-up (MCE) with new switchgears.
- ◆ Installation of a pump motor vibration and a power monitoring systems and motor control center.

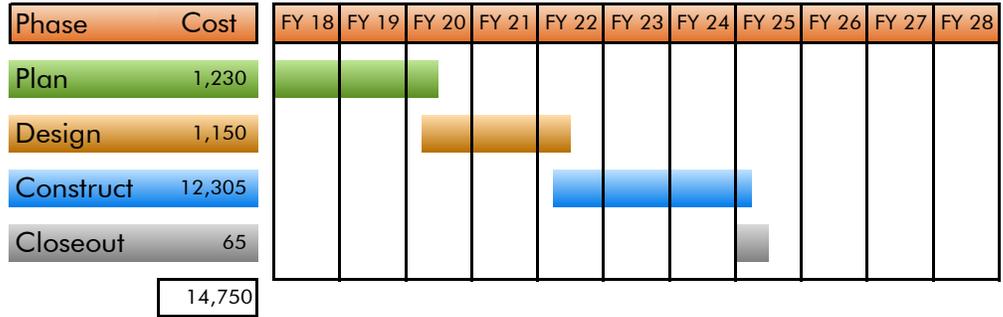
## PROJECT LOCATION



★ Project Location

## SCHEDULE & STATUS

July 2017 to October 2024



## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures								Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future		
91234002-Coyote Pumping Plant ASD Replacement	0	100	1,085	745	2,900	5,550	3,735	635	14,750	
with inflation	0	100	1,134	814	3,244	6,416	4,486	791	16,985	

Actuals include project expenditures, and encumbrances.

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
91234002-Coyote Pumping Plant ASD Replacement	0	536	436	698	814	3,244	6,416	4,486	791	16,985

Adjusted Budget includes adopted budget plus approved budget adjustments.

## FUNDING SOURCES

(in thousands \$)

SCVWD Water Utility Enterprise Fund	16,985
Other Funding Sources	0
<b>Total</b>	<b>16,985</b>

## OPERATING COST IMPACTS

The completion of this project is anticipated to decrease operating costs by approximately \$60,000 per year beginning in FY 2024.

**USEFUL LIFE:** Not Available

<b>Project</b>	<b>Coyote Warehouse</b>
<b>Program</b>	Water Supply - Storage
<b>Priority No.</b>	48
<b>Project No.</b>	91234011
<b>District Contact</b>	Katherine Oven koven@valleywater.org



Existing storage containers being used to secure equipment and spare parts

## PROJECT DESCRIPTION

This project plans, designs, and constructs the Coyote Warehouse to accomplish the following objectives:

- ♦ Provide suitable storage space for pipeline spare parts and appurtenances to protect such materials from weather.
- ♦ Improve District's staff efficiency and effectiveness in pipeline maintenance work.

## PROJECT LOCATION



★ Project Location

## SCHEDULE & STATUS

July 2014 to February 2019

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	100											
Design	331											
Construct	5,780											
Closeout	60											
	6,271											

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
91234011-Coyote Warehouse	765	5,178	505	0	0	0	0	0	6,448
with inflation	765	5,178	528	0	0	0	0	0	6,471

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total	
	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
91234011-Coyote Warehouse	2,940	3,003	0	528	0	0	0	0	0	6,471

Adjusted Budget includes adopted budget plus a planned budget adjustment of \$99,000.

## FUNDING SOURCES

(in thousands \$)

SCVWD Water Utility Enterprise Fund	6,471
Other Funding Sources	0
<b>Total</b>	<b>6,471</b>

## OPERATING COST IMPACTS

Operating cost impacts are anticipated and will be determined upon completion of the design phase.

**USEFUL LIFE:** 50 years

<b>Project</b>	<b>Dam Seismic Stability Evaluations</b>
<b>Program</b>	Water Supply – Storage
<b>Priority No.</b>	92
<b>Project No.</b>	91084019
<b>District Contact</b>	Katherine Oven KOven@valleywater.org



Field exploration for seismic stability evaluations

## PROJECT DESCRIPTION

This project conducts preliminary planning (seismic stability evaluation) for 9 dams (shown on the map) to accomplish the following objectives:

- ◆ Address seismic stability issues.
- ◆ Provide for public safety.
- ◆ Ensure operational availability of reservoirs.
- ◆ Address protection of the assets.

Site specific planning, design, and construction of dam seismic stability improvements will be funded separately. This project funds preliminary planning (seismic stability evaluation, to determine the need for seismic stability improvements) for eight dams. The seismic stability evaluation for Anderson Dam was completed in a separate project. The seismic analysis for Almaden, Calero, Guadalupe, Lenihan, and Stevens Creek Dams has been completed. The analysis for Coyote, Chesbro and Uvas is continuing through 2020.

## PROJECT LOCATION



★ Project Location

## SCHEDULE & STATUS

August 2009 to December 2026

(Planning Phase Only)  
Dam Safety Evaluation Report  
will take 5 years to complete,  
starting in 2015

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	22,216											
Design	-											
Construct	-											
Closeout	-											
	22,216											

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
91084019-Dam Seismic Stability Evaluations	17,459	1,320	1,200	450	400	5,000	400	1,400	27,629
with inflation	17,459	1,320	1,254	491	456	5,963	498	1,941	29,383

Actuals include project expenditures, and encumbrances.

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total	
	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
91084019-Dam Seismic Stability Evaluations	18,812	0	33	1,221	491	456	5,963	498	1,941	29,383

Adjusted Budget includes adopted budget plus approved budget adjustments

## FUNDING SOURCES

(in thousands \$)

SCVWD Water Utility Enterprise Fund	29,383
Other Funding Source	0
<b>Total</b>	<b>29,383</b>

## OPERATING COST IMPACTS

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

**USEFUL LIFE:** 50+ Years

<b>Project</b>	<b>Pacheco Reservoir Feasibility Study</b>
<b>Program</b>	Water Supply – Storage
<b>Priority No.</b>	52
<b>Project No.</b>	60954001
<b>District Contact</b>	Kurt Arends karends@valleywater.org



View of Pacheco Reservoir from the dam.

**PROJECT DESCRIPTION**

This project will include expanding the storage capacity of the existing Pacheco Reservoir to 140,000 acre-feet through construction and operation of a new dam, conveyance facilities, and related appurtenant structures. The project objectives:

- ◆ Increase suitable habitat in Pacheco Creek for federally threatened steelhead.
- ◆ Increase water supply reliability to help meet municipal and industrial (M&I) water demands in Santa Clara County during drought periods and emergencies, or to address shortages due to regulatory and environmental restrictions.
- ◆ Develop water supplies for environmental water management that support habitat management and other environmental water needs.
- ◆ Avoid supply interruptions when water is needed by increasing the certainty of meeting the requested delivery schedule throughout the year to south-of-Delta contractors dependent on San Luis Reservoir.
- ◆ Reduce flood risks along Pacheco Creek and downstream areas.

**PROJECT LOCATION**



★ Project Location

## SCHEDULE & STATUS

October 2017 to June 2019

Initial planning/feasibility study and grant application only.

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	15,770											
Design	46											
Construct	-											
Closeout	-											
	15,816											

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
60954001-Pacheco Reservoir Feasibility Study	0	2,250	13,566	0	0	0	0	0	15,816
with inflation	0	2,250	14,176	0	0	0	0	0	16,426

Actuals include project expenditures, and encumbrances.

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
60954001-Pacheco Reservoir Feasibility Study	0	2,250	0	14,176	0	0	0	0	16,426

Adjusted Budget includes adopted budget plus approved budget adjustments.

## FUNDING SOURCES

(in thousands \$)

SCVWD Water Utility Enterprise Fund	16,426
Other Funding Sources	0
<b>Total</b>	<b>16,426</b>

## OPERATING COST IMPACTS

TBD

USEFUL LIFE: TBD

<b>Project</b>	<b>Small Capital Improvements, San Felipe</b>
<b>Program</b>	Water Supply – Storage
<b>Priority No.</b>	76
<b>Project No.</b>	91214010s
<b>District Contact</b>	Kurt Arends karends@valleywater.org



Suction wear ring bacterial corrosion of Impeller. Similar rehabilitation projects will be done in this project.

### PROJECT DESCRIPTION

This project provides resources for the improvement of small capital investments that replace or extend the life of an asset. This project implements a systematic approach to equipment replacement and renewal at facilities contained within San Felipe Division by designing and constructing improvements identified through the District's 10-year asset management program. Infrastructure within this project includes tunnels, large diameter pipelines and valve structures, pumps and associated equipment, as well as a large above ground storage tank. The Reach 1 renewal and replacement activities are conducted in coordination and cooperation with San Felipe Division Reach 1 contractors, partner cities, and other agencies. Planned projects for FY 2018 include:

- 91214010–Reach 1: Refurbish or Rebuild the pump, motor windings and bearings for Pump Units 5 & 7.
- 91224010–Reach 2: CFI/CFO Road Access Fix; Environmental clearance/permitting.
- 91234010–Reach 3: Nothing scheduled for FY 2018.

All active projects have positive NPV saving at feasibility study phase subject to design phase validation.

### PROJECT LOCATION



## SCHEDULE & STATUS

This project is part of a regularly scheduled 10-year maintenance and asset management program.

Traditional planning, design, and construction phases do not apply.

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	n/a											
Design	n/a											
Construct	n/a											
Closeout	n/a											

32,166

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
91214010-Small Capital Improvements, San Felipe Reach 1	n/a	2,409	2,553	1,750	1,750	77	0	10,450	18,989
with inflation	n/a	2,409	2,668	1,911	1,997	92	0	17,401	26,477
91224010-Small Capital Improvements, San Felipe Reach 2	n/a	48	575	0	0	0	0	0	623
with inflation	n/a	48	595	0	0	0	0	0	643
91234010-Small Capital Improvements, San Felipe Reach 3	n/a	0	200	155	621	0	0	11,578	12,554
with inflation	n/a	0	209	169	709	0	0	17,351	18,438
<b>TOTAL</b>	<b>0</b>	<b>2,457</b>	<b>3,328</b>	<b>1,905</b>	<b>2,371</b>	<b>77</b>	<b>0</b>	<b>22,028</b>	<b>32,166</b>
with inflation	0	2,457	3,472	2,080	2,706	92	0	34,752	45,558

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
91214010-Small Capital Improvements, San Felipe Reach 1	n/a	2,409	0	2,668	1,911	1,997	92	0	17,401	26,477
91224010-Small Capital Improvements, San Felipe Reach 2	n/a	48	0	595	0	0	0	0	0	643
91234010-Small Capital Improvements, San Felipe Reach 3	n/a	0	0	209	169	709	0	0	17,351	18,438
<b>TOTAL</b>	<b>0</b>	<b>2,457</b>	<b>0</b>	<b>3,472</b>	<b>2,080</b>	<b>2,706</b>	<b>92</b>	<b>0</b>	<b>34,752</b>	<b>45,558</b>

Adjusted Budget includes adopted budget plus approved budget adjustments. Small Capital Improvement projects do not carry forward unspent funds from one fiscal year to the next. Unspent funds are returned to fund reserves at the close of each fiscal year and new funding is provided in the next fiscal year.

## FUNDING SOURCES

(in thousands \$)

SCVWD Water Utility Enterprise Fund	44,845
San Benito County Water District	713
<b>Total</b>	<b>45,558</b>

## OPERATING COST IMPACTS

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

**USEFUL LIFE:** Not Available



<b>Project</b>	<b>10-Year Pipeline Inspection &amp; Rehabilitation</b>
<b>Program</b>	Water Supply – Transmission
<b>Priority No.</b>	78
<b>Project No.</b>	95084002
<b>District Contact</b>	Christopher Hakes CHakes@valleywater.org



A typical rehabilitated line valve assembly

## PROJECT DESCRIPTION

The project develops the District's large diameter Pipeline Management Strategy and a 10-year program for implementation tasks associated with the strategy. This program involves the inspection, planning, design for renewal of the District's large pipelines and tunnels. The project work includes the following objectives:

- ♦ Perform dewatering and internal inspections of District's pipelines and tunnels.
- ♦ Renew distressed pipe sections as required. Renew encompasses the actions of repair, rehabilitation, and replacement.
- ♦ Perform condition assessment, maintenance, repair, coating and other activities as required.
- ♦ Replace line valves, flow meters, pipeline appurtenance assemblies, and piping as required.
- ♦ Improve system performance by installing Cathodic Protection Systems, Acoustic Fiber Optical Monitoring of PCCP, and transient pressure monitoring systems.
- ♦ Development of a Pipeline Asset Risk Management System that includes GIS, databases, algorithms, models, data acquisition, program documents, and decision support systems.

The first 5 years will include inspection and renewal work along the various pipelines and tunnels as identified below:

- ♦ 2018: Almaden Valley Pipeline (In Construction)
- ♦ 2019: Cross Valley Pipeline and Calero Pipeline (In Design)
- ♦ 2020: Central Pipeline (In Planning)
- ♦ 2021: Santa Clara Conduit
- ♦ 2022: Pacheco Tunnel Reach 2, Santa Clara Tunnel, South Bay Aqueduct Retrofit Inspection

## PROJECT LOCATION



## SCHEDULE & STATUS

July 2017 to June 2027

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	3,680											
Design	12,490											
Construct	94,490											
Closeout	340											
	111,000											

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
95084002-10-Year Pipeline Inspection & Rehabilitation	0	27,170	16,940	12,380	18,170	7,040	4,000	25,300	111,000
with inflation	0	27,170	17,590	13,353	20,355	8,260	4,885	33,591	125,205

Actuals include project expenditures, and encumbrances.

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total	
	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
95084002-10-Year Pipeline Inspection & Rehabilitation	0	27,170	0	17,590	13,353	20,355	8,260	4,885	33,591	125,205

Adjusted Budget includes adopted budget plus approved budget adjustments.

## FUNDING SOURCES

(in thousands \$)

SCVWD Water Utility Enterprise Fund	125,205
Other Funding Sources	0
<b>Total</b>	<b>125,205</b>

## OPERATING COST IMPACTS

Operating cost impacts will be determined during the construction phase.

**USEFUL LIFE:** Not Available

<b>Project</b>	<b>FAHCE Implementation</b>
<b>Program</b>	Water Supply - Transmission
<b>Priority No.</b>	73
<b>Project No.</b>	92C40357
<b>District Contact</b>	Vincent Gin VGin@valleywater.org



Fish habitats such as this will be developed for Habitat Conservation. Actual locations will differ.

### PROJECT DESCRIPTION

In 1996, Guadalupe-Coyote Resource Conservation District (GCRCD) filed a water rights complaint with the State Water Resources Control Board (SWRCB) alleging the District’s exercise of its appropriative water rights in Coyote Creek, Guadalupe River and Stevens Creek and their tributaries (Three Creeks) was not providing adequate flows for the protection of fisheries and other aquatic resources. A negotiation process (i.e. Fish and Aquatic Habitat Collaborative Effort [FAHCE]) ensued and resulted in the initialing of the FAHCE Settlement Agreement in 2003 by GCRCD, U.S. Fish and Wildlife, National Marine Fisheries Service, California Department of Fish and Wildlife, and other parties. The FAHCE Settlement Agreement includes a proposed FAHCE program that was reviewed by staff of the State and Federal resource management agencies, and will again receive regulatory review as it undergoes environmental impact review prior to implementation to ensure compliance with all applicable laws. The FAHCE program focuses on habitat improvements for Steelhead and Chinook salmon and is intended to comprehensively address and resolve all issues in the water rights complaint and any related issues arising under State and Federal laws that concern the impacts of the District’s facilities and operation on the beneficial uses of the Three Creeks. Once environmental impact review of the FAHCE program is completed, it will be submitted to the SWRCB and included in the District’s Three Creek appropriative water rights. The FAHCE program consists of reservoir reoperations to support salmonid spawning, rearing and migration; fish passage remediation and aquatic habitat restoration measures; and an adaptive management program.

### PROJECT LOCATION

Project sites will be located at reservoirs and streams within the Three Creeks Project Area, in the Guadalupe, Coyote and Stevens Creek Watersheds. Project site locations are yet to be determined and no map is provided.

## SCHEDULE & STATUS

July 2018 to June 2024

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	145,108											
Design	-											
Construct	-											
Closeout	-											
	145,108											

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
92C40357-FAHCE Implementation	0	0	0	0	4,739	4,379	14,691	121,299	145,108
with inflation	0	0	0	0	4,739	4,379	14,691	121,299	145,108

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total	
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future		
92C40357-FAHCE Implementation	0	0	0	0	0	4,739	4,379	14,691	121,299	145,108

## FUNDING SOURCES

(in thousands \$)

SCVWD Water Utility Enterprise Fund	145,108
Other Funding Source	0
<b>Total</b>	<b>145,108</b>

## OPERATING COST IMPACTS

Operating cost impacts will vary, depending on the requirements for maintenance of each site. Once the sites have been identified, operating costs will be determined based on the existing conditions and maintenance identified for each site.

**USEFUL LIFE:** Not Available

<b>Project</b>	<b>IRP2 Additional Line Valves</b>
<b>Program</b>	Water Supply – Transmission
<b>Priority No.</b>	63
<b>Project No.</b>	26764001
<b>District Contact</b>	Christopher Hakes CHakes@valleywater.org



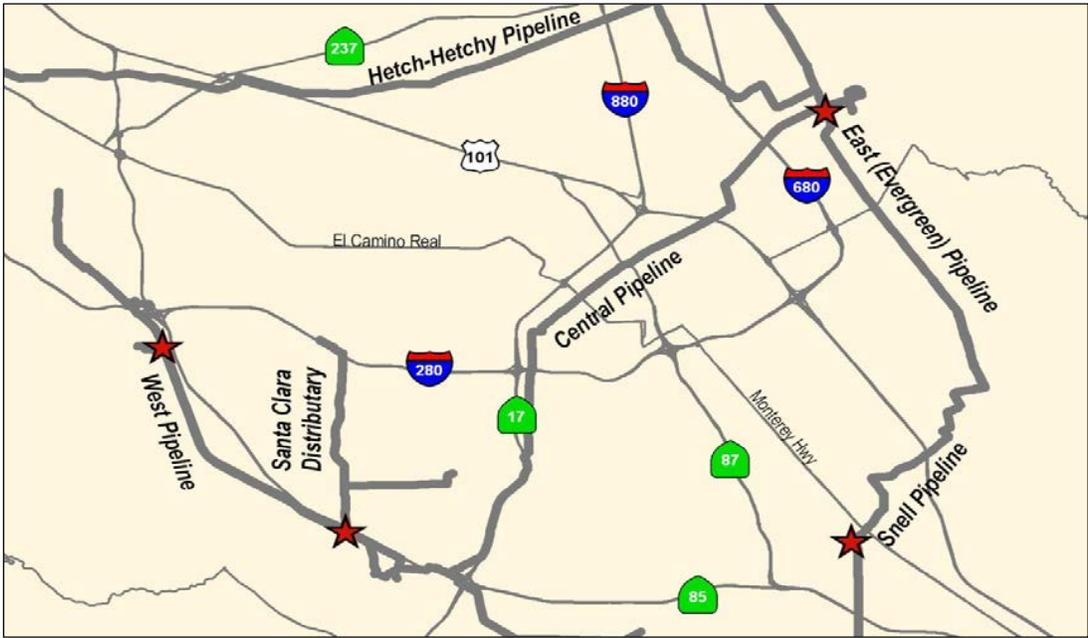
New line valves, actuators, and vaults similar to this will be installed along the East, West, and Snell pipelines

**PROJECT DESCRIPTION**

This project plans, designs, and constructs four additional line valves in the treated water distribution system, as defined in the Water Infrastructure Reliability Plan, Phase 2 (IRP2). Design and Construction of this project will be in conjunction with work on the same pipelines under the 10- year Pipeline Inspection and Rehabilitation Project. The new line valves will be at various locations along the East, West, and Snell pipeline to accomplish the following objectives:

- ♦ Allow the district to isolate sections of the treated water pipeline to prevent water from bleeding out damaged sections following a major seismic event.
- ♦ Allow the network of emergency wells to operate, even when there is damage upstream and downstream of individual wells.

**PROJECT LOCATION**

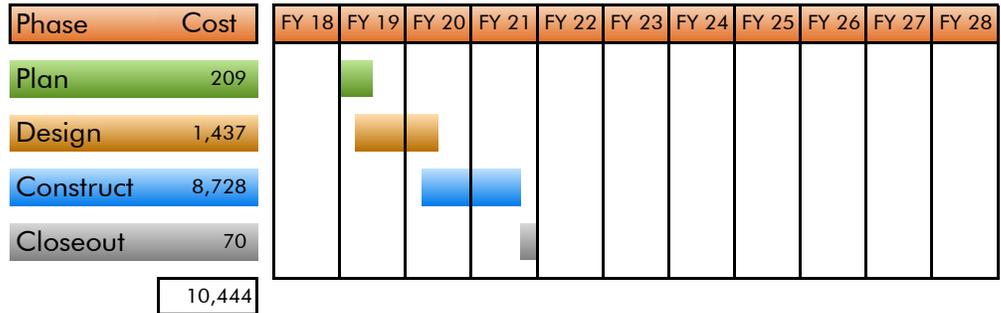


★ Project Locations

## SCHEDULE & STATUS

July 2019 to June 2021

Line valve construction to be coordinated with pipeline maintenance and rehabilitation projects.



## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
26764001-IRP2 Additional Line Valves	0	0	1,332	314	8,798	0	0	0	10,444
with inflation	0	0	1,392	343	9,826	0	0	0	11,561

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total	
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future		
26764001-IRP2 Additional Line Valves	0	0	0	1,392	343	9,826	0	0	0	11,561

## FUNDING SOURCES

(in thousands \$)

SCVWD Safe Clean Water Fund	11,561
Other Funding Source	0
<b>Total</b>	<b>11,561</b>

## OPERATING COST IMPACTS

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

**USEFUL LIFE:** 35 Years



Main Avenue Ponds facing North



Madrone Pipeline Outlet into Madrone Channel looking North along Northbound Interstate 101

### PROJECT DESCRIPTION

This project plans, designs, and constructs improvements on the full length of the Madrone Pipeline and rehabilitates the Main Avenue Pipeline to accomplish the following objectives:

- ♦ Provide the means to utilize another reliable water source, (e.g. Anderson Reservoir) to supply water to the Main Avenue Ponds and the Madrone Channel.
- ♦ Allow for greater flows to the Main Avenue Ponds and the Madrone Channel.
- ♦ Maximize imported water flows to the treatment plants.

### PROJECT LOCATION



— Project Location

## SCHEDULE & STATUS

July 2014 to December 2018

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	337											
Design	2,662											
Construct	14,522											
Closeout	90											
	17,611											

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
26564001-Main & Madrone Pipelines Restoration	2,794	14,617	279	0	0	0	0	0	17,690
with inflation	2,794	14,617	292	0	0	0	0	0	17,703

Actuals include project expenditures, and encumbrances.

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
26564001-Main & Madrone Pipelines Restoration	2,327	15,084	0	292	0	0	0	0	0	17,703

Adjusted Budget includes adopted budget plus a planned budget adjustment of \$467,000.

## FUNDING SOURCES

(in thousands \$)

SCVWD Safe, Clean Water Fund	6,354
SCVWD Water Utility Enterprise Fund	11,349
<b>Total</b>	<b>17,703</b>

## OPERATING COST IMPACTS

The completion of this project is not anticipated to increase or decrease annual operating costs, as it does not significantly alter the facility or modes of operation.

**USEFUL LIFE:** 40 Years

<b>Project</b>	<b>Pacheco/Santa Clara Conduit Right of Way Acquisition</b>
<b>Program</b>	Water Supply – Transmission
<b>Priority No.</b>	75
<b>Project No.</b>	92144001
<b>District Contact</b>	Christopher Hakes CHakes@valleywater.org



Access to much of the San Felipe Division pipelines must currently be made through private property, due to a lack of easements, such as Bloomfield access at Vault 21-23.

**PROJECT DESCRIPTION**

This project plans, designs, and constructs improvements related to the acquisition of right-of-way along the South County Pipeline to accomplish the following objectives:

- ♦ Provide unlimited access to District owned pipeline.
- ♦ Reduce conflicts with local land owners and improve response time for emergency repairs or operations.

**PROJECT LOCATION**



## SCHEDULE & STATUS

July 2009 to February 2020

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	1,178											
Design	2,403											
Construct	1,003											
Closeout	35											
	4,619											

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
92144001-Pacheco/Santa Clara Conduit Right of Way Acquisition	1,389	1,506	1,517	282	0	0	0	0	4,694
with inflation	1,389	1,506	1,585	307	0	0	0	0	4,787

Actuals include project expenditures, and encumbrances.

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
92144001-Pacheco/Santa Clara Conduit Right of Way Acquisition	1,861	1,034	0	1,585	307	0	0	0	4,787

Adjusted Budget includes adopted budget plus a planned budget adjustment of \$782,000.

## FUNDING SOURCES

(in thousands \$)

SCVWD Water Utility Enterprise Fund	4,762
San Benito County Water District	25
<b>Total</b>	<b>4,787</b>

## OPERATING COST IMPACTS

The completion of this project is anticipated to increase operating costs by approximately \$8,000 per year, beginning in FY 2020, for vegetation control and/or maintenance of fences, gates and locks for the access roads.

**USEFUL LIFE:** 15-20 Years

<b>Project</b>	<b>SCADA Remote Architecture and Communications Upgrade</b>
<b>Program</b>	Water Supply – Transmission
<b>Priority No.</b>	74
<b>Project No.</b>	92374005
<b>District Contact</b>	Christopher Hakes chakes@valleywater.org



Raw Water Control Center Hub at Rinconada Water Treatment Plant similar to what will be installed at other facilities

## PROJECT DESCRIPTION

This project plans, designs, and implements improvements to the back-up raw water control center and Process Control Systems (SCADA) telemetry to accomplish the following objectives:

- ◆ Complete the mobilizable raw water control center so it can be operated at any of the water treatment plants, pumping plants, or at District Headquarters/Almaden Campus.
- ◆ Upgrade the SCADA telemetry system to remove the single points of failure and to provide a robust and reliable telemetry system.

## PROJECT LOCATION



★ Project Location

## SCHEDULE & STATUS

July 2015 to December 2026

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	740	[Bar chart showing Plan phase activity from FY 18 to FY 19]										
Design	554	[Bar chart showing Design phase activity from FY 20 to FY 21]										
Construct	4,300	[Bar chart showing Construct phase activity from FY 22 to FY 26]										
Closeout	100	[Bar chart showing Closeout phase activity in FY 27]										
	5,694											

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
92374005-SCADA Remote Architecture and Communications Upgrade	247	715	174	160	800	700	700	2,200	5,696
with inflation	247	715	182	175	913	835	872	3,008	6,947

Actuals include project expenditures, and encumbrances.

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total	
	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
92374005-SCADA Remote Architecture and Communications Upgrade	776	186	0	182	175	913	835	872	3,008	6,947

Adjusted Budget includes adopted budget plus approved budget adjustments.

## FUNDING SOURCES

(in thousands \$)

SCVWD Water Utility Enterprise Fund	5,439
San Benito County Water District	1,508
<b>Total</b>	<b>6,947</b>

## OPERATING COST IMPACTS

The completion of this project is anticipated to increase operating costs by approximately \$80,440 per year, beginning in FY 2026 for operational support provided by control technicians, IT technicians, and SCADA engineers.

**USEFUL LIFE:** 25 Years

<b>Project</b>	<b>Small Capital Improvements, Raw Water Transmission</b>
<b>Program</b>	Water Supply – Transmission
<b>Priority No.</b>	73
<b>Project No.</b>	92764009
<b>District Contact</b>	Kurt Arends KArends@valleywater.org



Major repair and replacement of turnout roofs and similar small raw water capital projects will be done, per the asset management plan.

## PROJECT DESCRIPTION

This project provides resources for the improvement of small capital investments that replace or extend the life of an asset. This project will repair or rehabilitate various existing raw water distribution facilities. These activities include identifying and fixing corrosion problems, replacing valves and other appurtenances and modifying water recharge facilities to avoid failure of the raw water transmission system and extend the life of the infrastructure. This project is part of the District's 10-year asset management program. Planned projects for FY 17 include:

- Replace turnout roofs at the Piedmont Valve Yard, Calero Valve Yard, and Central Pipeline to Guadalupe Linevalve Vault.
- Replace valve and operator at Kirk Ditch.
- Replace flow meters at Kirk and Page Ditches.
- Anderson Force Main Visual Inspection - from Coyote Pumping Plant to Coyote Creek.

## PROJECT LOCATION



## SCHEDULE & STATUS

This project is part of a regularly scheduled 10-year maintenance and asset management program.

Traditional planning, design, and construction phases do not apply.

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	n/a											
Design	n/a											
Construct	n/a											
Closeout	n/a											
	n/a											

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
92764009-Small Capital Improvements, Raw Water Transmission	n/a	321	732	45	0	77	0	2,163	3,338
with inflation	n/a	321	765	49	0	92	0	3,227	4,454

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total	
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future		
92764009-Small Capital Improvements, Raw Water Transmission	n/a	321	0	765	49	0	92	0	3,227	4,454

Adjusted Budget includes adopted budget plus approved budget adjustments. Small Capital Improvement projects do not carry forward unspent funds from one fiscal year to the next. Unspent funds are returned to fund reserves at the close of each fiscal year and new funding is provided in the next fiscal year.

## FUNDING SOURCES

(in thousands \$)

SCVWD Water Utility Enterprise Fund	4,454
Other Funding Source	0
<b>Total</b>	<b>4,454</b>

## OPERATING COST IMPACTS

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

**USEFUL LIFE:** Not Available

<b>Project</b>	<b>Small Capital Improvements, Treated Water Transmission</b>
<b>Program</b>	Water Supply – Transmission
<b>Priority No.</b>	73
<b>Project No.</b>	94764006
<b>District Contact</b>	Kurt Arends KArends@valleywater.org



Small Capital projects at treated water transmission facilities, similar to this new valve installation in the Piedmont Line Valve Vault, will be done, per the asset management plan.

### PROJECT DESCRIPTION

This project provides resources for the improvement of small capital investments that replace or extend the life of an asset. This project will repair or rehabilitate various existing treated water distribution facilities, such as identifying and treating corrosion problems, replacing valves and other appurtenances and repairing or adding turnouts to avoid failure of the treated water transmission system and to extend the life of the infrastructure. This project is part of the District's 10-year asset management program. There are currently no activities planned for FY 2018.

### PROJECT LOCATION



 Project Location

## SCHEDULE & STATUS

This project is part of a regularly scheduled 10-year maintenance and asset management program.

Traditional planning, design, and construction phases do not apply.

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	n/a											
Design	n/a											
Construct	n/a											
Closeout	n/a											
	n/a											

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
94764006-Small Capital Improvements, Treated Water Transmission	n/a	0	133	0	0	0	0	0	133
with inflation	n/a	0	139	0	0	0	0	0	139

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
94764006-Small Capital Improvements, Treated Water Transmission	n/a	0	0	139	0	0	0	0	139

Adjusted Budget includes adopted budget plus approved budget adjustments. Small Capital Improvement projects do not carry forward unspent funds from one fiscal year to the next. Unspent funds are returned to fund reserves at the close of each fiscal year and new funding is provided in the next fiscal year.

## FUNDING SOURCES

(in thousands \$)

SCVWD Water Utility Enterprise Fund	139
Other Funding Source	0
<b>Total</b>	<b>139</b>

## OPERATING COST IMPACTS

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

**USEFUL LIFE:** Not Available

<b>Project</b>	<b>Treated Water Isolation Valves</b>
<b>Program</b>	Water Supply – Transmission
<b>Priority No.</b>	62
<b>Project No.</b>	94084007
<b>District Contact</b>	Chris Hakes chakes@valleywater.org



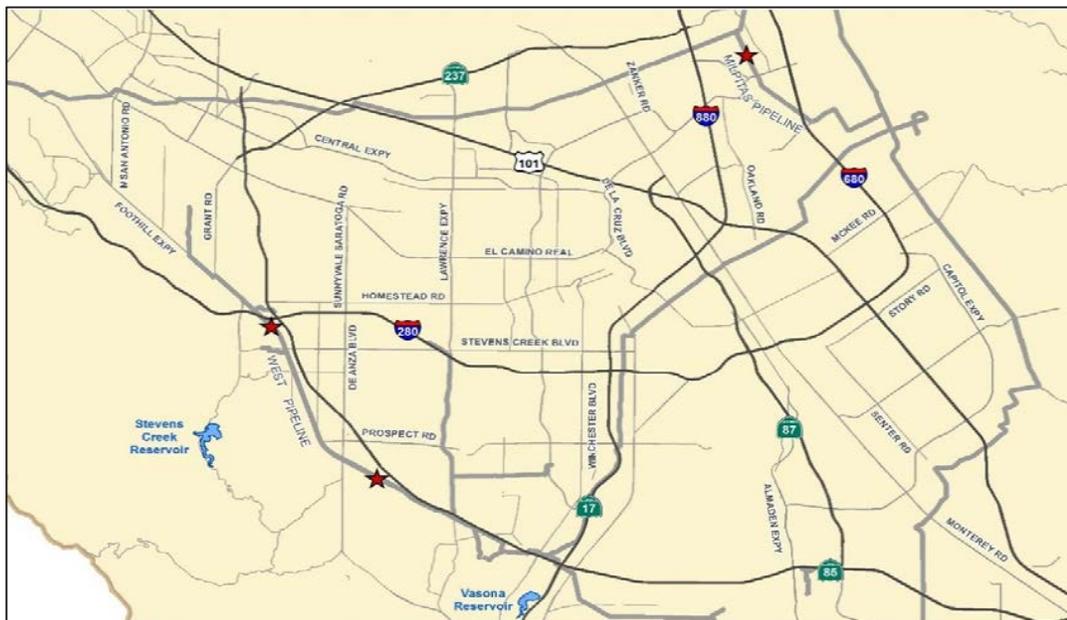
New line valves similar to this will be installed at three locations within the treated water system.

## PROJECT DESCRIPTION

This project plans, designs, and constructs three (3) additional line valve appurtenances to accomplish the following objectives:

- ◆ Improve service levels to treated water system customers in a major hazard event or system outage.
- ◆ Improve the District's ability to take sections of the treated water distribution system out of service for maintenance activities.

## PROJECT LOCATION



★ Project Locations

## SCHEDULE & STATUS

December 2018 to June 2021

Line valve construction to be coordinated with other pipeline maintenance and rehabilitation projects.

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	162											
Design	1,072											
Construct	6,116											
Closeout	53											
	<b>7,403</b>											

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
94084007-Treated Water Isolation Valves	0	0	506	728	6,169	0	0	0	7,403
with inflation	0	0	529	795	6,891	0	0	0	8,214

Actuals include project expenditures, and encumbrances.

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future		
94084007-Treated Water Isolation Valves	0	0	0	529	795	6,891	0	0	0	8,214

Adjusted Budget includes adopted budget plus approved budget adjustments.

## FUNDING SOURCES

(in thousands \$)

SCVWD Water Utility Enterprise Fund	6,407
Other Funding Sources	1,807
<b>Total</b>	<b>8,214</b>

## OPERATING COST IMPACTS

The operating budget impact for the three (3) proposed line valve facilities is estimated to be \$21,000 per year beginning in FY22.

**USEFUL LIFE:** 50 Years

<b>Project</b>	<b>Vasona Pump Station Upgrade</b>
<b>Program</b>	Water Supply – Transmission
<b>Priority No.</b>	67
<b>Project No.</b>	92264001
<b>District Contact</b>	Christopher Hakes CHakes@valleywater.org



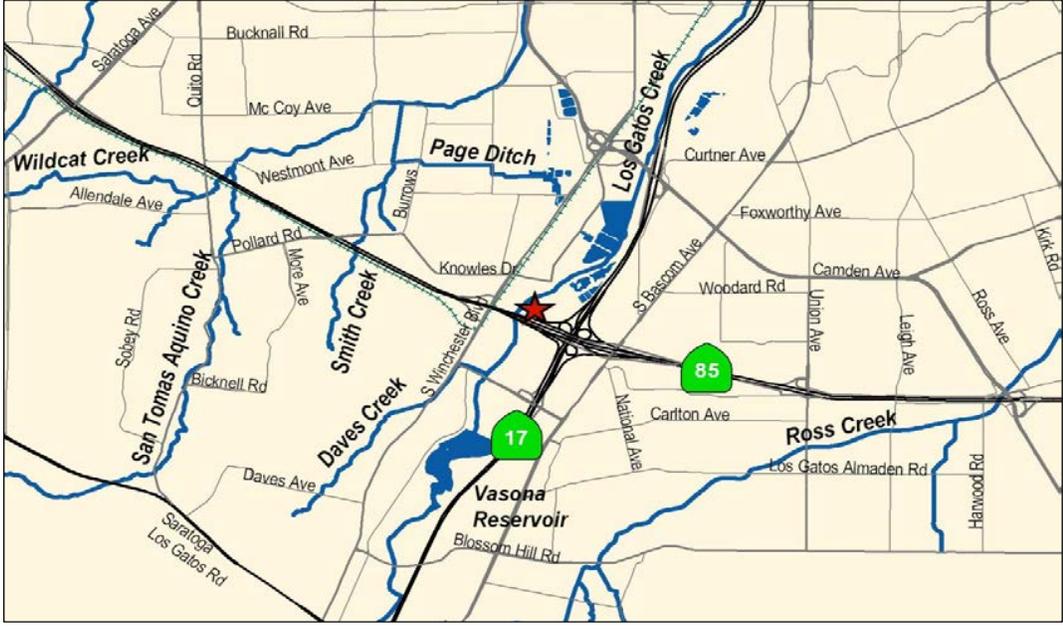
Vasona Pumping Plant Pump

**PROJECT DESCRIPTION**

This project plans, designs, and constructs improvements to the Vasona Pump Station, including replacing aging pumps, motors, drives, valves, actuators, and electrical and control systems that have reached the end of their useful life; and adding one redundant pump. The project will accomplish the following objectives:

- ♦ Eliminate the risk of failure by replacing assets that have reached the end of their useful life, including four pumps (two 200 horsepower, two 400 horsepower) and associated motors, drives, electrical and control systems, as well as pump discharge and suction valves and actuators.
- ♦ Increase operational flexibility and prepare for future capacity needs by adding one redundant pump and increasing the size of the two 200 horsepower pumps.

**PROJECT LOCATION**



★ Project Location

## SCHEDULE & STATUS

July 2016 to September 2020

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	
Plan	1,335	[Bar chart showing Plan phase activity from FY 18 to FY 19]											
Design	1,545	[Bar chart showing Design phase activity from FY 20 to FY 21]											
Construct	15,600	[Bar chart showing Construct phase activity from FY 22 to FY 23]											
Closeout	70	[Bar chart showing Closeout phase activity in FY 23]											
18,550													

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
92264001-Vasona Pump Station Upgrade	1	520	815	1,065	480	15,200	470	0	18,551
with inflation	1	520	852	1,163	548	17,541	586	0	21,210

Actuals include project expenditures, and encumbrances.

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total	
	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
92264001-Vasona Pump Station Upgrade	119	712	310	542	1,163	548	17,541	586	0	21,210

Adjusted Budget includes adopted budget plus approved budget adjustments.

## FUNDING SOURCES

(in thousands \$)

SCVWD Water Utility Enterprise Fund	21,210
Other Funding Sources	0
<b>Total</b>	<b>21,210</b>

## OPERATING COST IMPACTS

The completion of this project is anticipated to increase operating costs by approximately \$70,000 per year beginning in FY 2023.

**USEFUL LIFE:** 50 years

<b>Project</b>	<b>Westside Retailer Interties</b>
<b>Program</b>	Water Supply – Transmission
<b>Priority No.</b>	76
<b>Project No.</b>	94084008
<b>District Contact</b>	Christopher Hakes chakes@valleywater.org



New interties similar to this will be installed in the city's of Santa Clara and Mountain View.

## PROJECT DESCRIPTION

This project plans, designs, and constructs two (2) new retailer interties and associated appurtenances, structures, and controls in the City's of Santa Clara and Mountain View. The project will accomplish the following objectives:

- ◆ Improve service levels to the West treated water system customers in a major hazard event or system outage.
- ◆ Improve the District's ability to take sections of the West treated water distribution system out of service for maintenance activities.

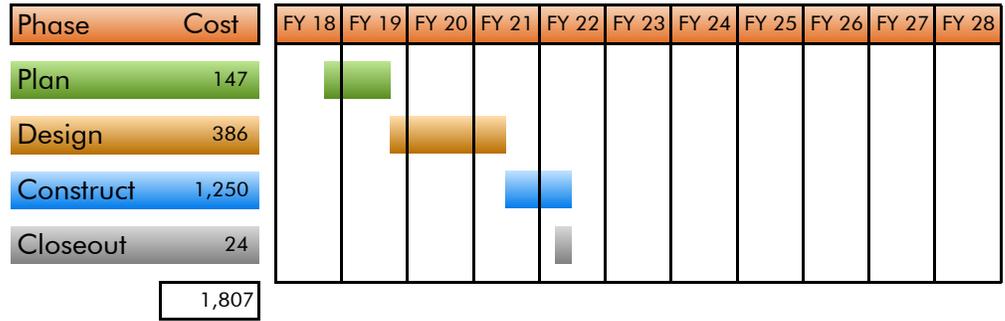
## PROJECT LOCATION



★ Project Location

## SCHEDULE & STATUS

July 2015 to December 2026



## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
94084008-Westside Retailer Interties	0	80	64	328	1,239	96	0	0	1,807
with inflation	0	80	67	358	1,385	114	0	0	2,004

Actuals include project expenditures, and encumbrances.

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total	
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future		
94084008-Westside Retailer Interties	0	80	0	67	358	1,385	114	0	0	2,004

Adjusted Budget includes adopted budget plus approved budget adjustments.

## FUNDING SOURCES

(in thousands \$)

SCVWD Water Utility Enterprise Fund	1,563
Other Funding Sources	441
<b>Total</b>	<b>2,004</b>

## OPERATING COST IMPACTS

The operating budget impact for the two (2) proposed Interties is estimated to be \$11,000 per year beginning in FY22.

**USEFUL LIFE:** 50 Years

# Treatment Facilities



**Project PWTP Residuals Management**

**Program** Water Supply - Treatment

**District Contact** Katherine Oven koven@valleywater.org

**Priority No.** 74

**Project No.** 93234044



Existing belt press to be replaced with new residuals management facility



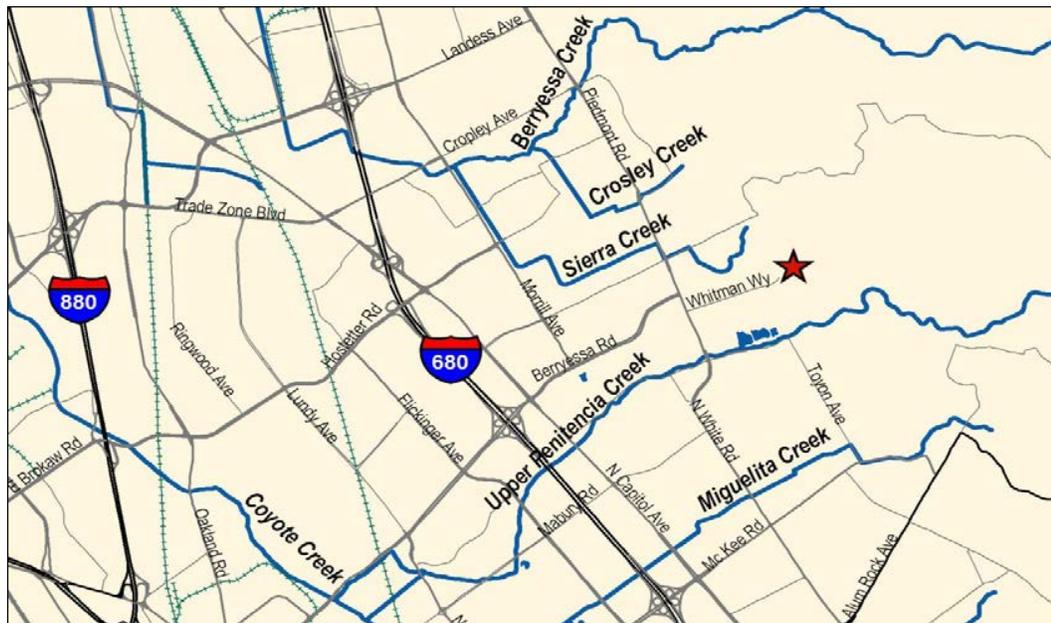
Existing belt press to be replaced with new residuals management facility

**PROJECT DESCRIPTION**

This project plans, designs, and constructs modifications to the Penitencia Water Treatment Plant (PWTP) residuals management process to accomplish the following objectives:

- ♦ Extend the useful life of the treatment plant.
- ♦ Improve the efficiency of the residual management processes.
- ♦ Minimize or eliminate (existing) operational constraints and impacts to the drinking water treatment process.
- ♦ Minimize risk of discharge violations.
- ♦ Improve the reliability of PWTP.

**PROJECT LOCATION**



★ Project Location

## SCHEDULE & STATUS

January 2019 to June 2021

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	650											
Design	1,300											
Construct	6,925											
Closeout	-											
	8,875											

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
93234044-PWTP Residuals Management	0	0	0	0	650	1,300	6,925	0	8,875
with inflation	0	0	0	0	742	1,550	8,279	0	10,571

Actuals include project expenditures, and encumbrances.

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future		
93234044-PWTP Residuals Management	0	0	0	0	0	742	1,550	8,279	0	10,571

Adjusted Budget includes adopted budget plus approved budget adjustments.

## FUNDING SOURCES

(in thousands \$)

SCVWD Water Utility Enterprise Fund	10,571
Other Funding Sources	0
<b>Total</b>	<b>10,571</b>

## OPERATING COST IMPACTS

Operating cost impacts will be determined during the construction phase.

**USEFUL LIFE:** Not Available

**Project RWTP FRP Residuals Management**

**Program** Water Supply - Treatment

**District Contact** Christopher Hakes CHakes@valleywater.org

**Priority No.** 84

**Project No.** 93294051



Centrifuge for mechanical dewatering of sludge



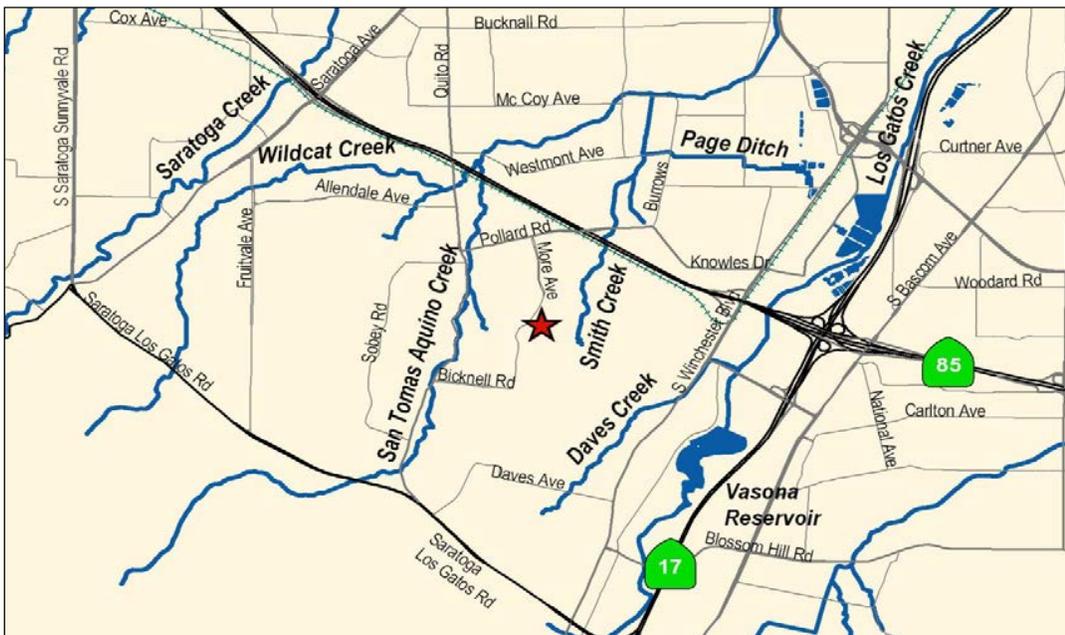
New Gravity Thickeners and Mix Tank for sludge thickening and blending

**PROJECT DESCRIPTION**

This project plans, designs, and constructs modifications to the Rinconada Water Treatment Plant (RWTP) residuals management processes, consistent with the Facility Renewal Program (FRP) to accomplish the following objectives:

- ♦ Extend the useful life of the treatment plant.
- ♦ Improve the efficiency of the residual management processes.
- ♦ Minimize risk of discharge violations.
- ♦ Improve the reliability of RWTP.

**PROJECT LOCATION**



★ Project Location

## SCHEDULE & STATUS

July 2008 to March 2020

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	1,624	█										
Design	7,712		█									
Construct	51,006			█								
Closeout	230						█					
	60,572											

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
93294051-RWTP FRP Residuals Management	29,236	6,520	3,155	16,030	1,825	1,475	1,950	1,255	61,446
with inflation	29,236	6,520	3,297	17,276	2,083	1,759	2,430	1,595	64,196

Actuals include project expenditures, and encumbrances.

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total	
	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
93294051-RWTP FRP Residuals Management	31,520	17,053	12,817	0	7,756	2,083	1,759	2,430	1,595	64,196

Adjusted Budget includes adopted budget plus approved budget adjustments.

## FUNDING SOURCES

(in thousands \$)

SCVWD Water Utility Enterprise Fund	64,196
Other Funding Source	0
<b>Total</b>	<b>64,196</b>

## OPERATING COST IMPACTS

The completion of this project is anticipated to decrease annual operating costs by approximately \$200,000 per year starting in 2021.

**USEFUL LIFE:** Structures – 50 Years; Mechanical Equipment – 15 Years; Electrical Equipment – 10 Years

**Project RWTP Reliability Improvement**

**Program** Water Supply - Treatment

**District Contact** Christopher Hakes CHakes@valleywater.org

**Priority No.** 91

**Project No.** 93294057



Aerial view of the Rinconada Water Treatment Plant facing west



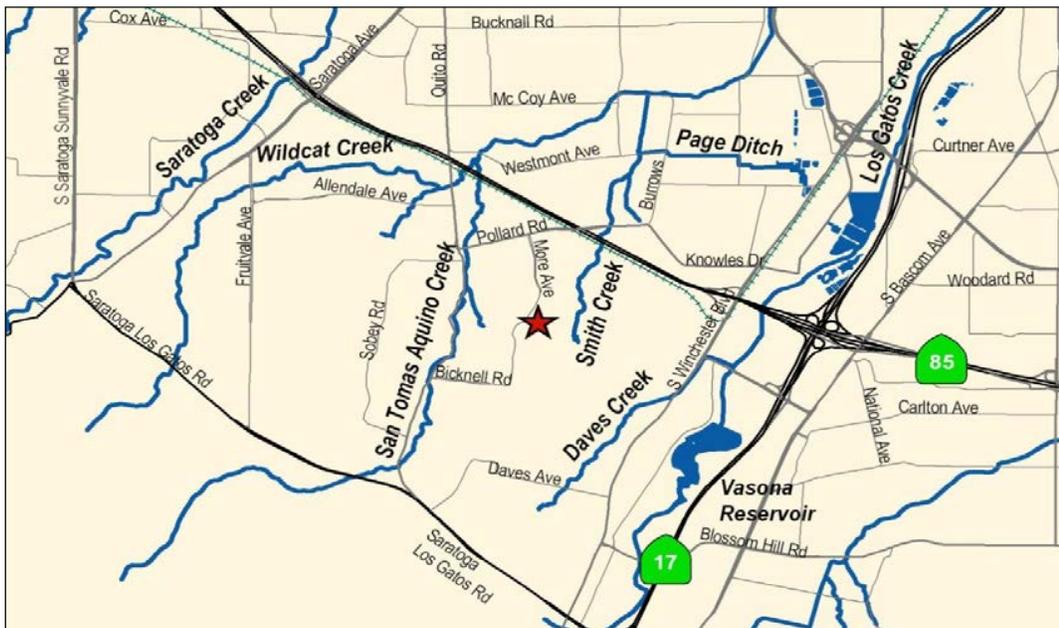
Artist rendering of the aerial view of the Rinconada Water Treatment Plant facing south after construction

**PROJECT DESCRIPTION**

This project plans, designs, and constructs new facilities at Rinconada Water Treatment Plant (RWTP) that will improve plant reliability by accomplishing the following objectives:

- ♦ Construct a new raw water ozonation facility.
- ♦ Construct a new flocculation and plate settler clarification facility.
- ♦ Implement a dual media filtration system.
- ♦ Increase plant capacity to 100 million gallons per day (MGD).

**PROJECT LOCATION**



★ Project Location

## SCHEDULE & STATUS

July 2009 to June 2022

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	1,886											
Design	19,473											
Construct	250,201											
Closeout	120											
	271,680											

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
93294057-RWTP Reliability Improvement	116,045	48,144	46,700	46,700	28,615	120	0	0	286,324
with inflation	116,045	48,144	47,155	47,629	30,116	143	0	0	289,232

Actuals include project expenditures, and encumbrances.

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total	
	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
93294057-RWTP Reliability Improvement	116,221	48,144	176	46,979	47,629	30,116	143	0	0	289,232

Adjusted Budget includes adopted budget plus approved budget adjustments.

## FUNDING SOURCES

(in thousands \$)

SCVWD Water Utility Enterprise Fund	289,232
Other Funding Source	0
<b>Total</b>	<b>289,232</b>

## OPERATING COST IMPACTS

The completion of this project is anticipated to increase operating costs by approximately \$1.4 million per year, beginning in FY 2023. Increases are for routine maintenance and operation of new equipment.

**USEFUL LIFE:** Media – 20 Years; Structures – 50 Years; Equipment – 15 Years

<b>Project</b>	<b>RWTP Treated Water Valves Upgrade</b>
<b>Program</b>	Water Supply – Treatment
<b>Priority No.</b>	84
<b>Project No.</b>	93294056
<b>District Contact</b>	Christopher Hakes CHakes@valleywater.org



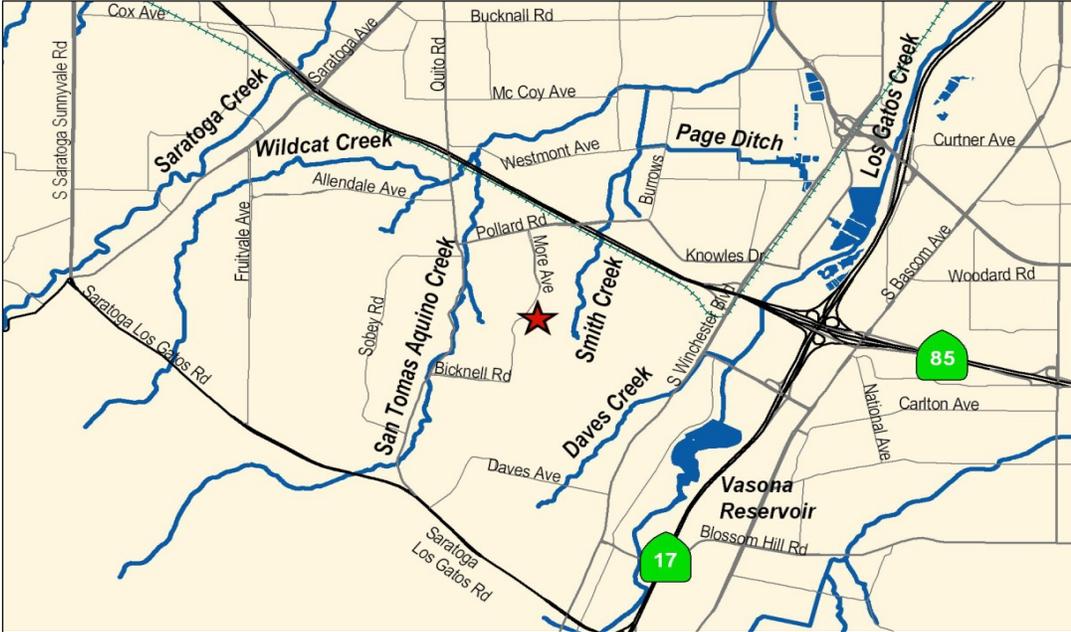
Example of a valve to be replaced or upgraded

**PROJECT DESCRIPTION**

This project plans, designs, and constructs modifications to the Rinconada Water Treatment Plant (RWTP) including seismically strengthening the chemical storage structures; replacing/upgrading the valves and appurtenances used to control treated water at the clearwells and the Ronconada Reservoir; repairing a damaged baffle wall in the Rinconada Reservoir; and installing a 48-inch magnetic flow meter on the treatment plant's treated water effluent pipeline. Consistent with the Facility Renewal Program (FRP), this project will accomplish the following objectives:

- ♦ Ensure plant operational reliability.
- ♦ Improve ability to maintain the plant.
- ♦ Allow for better isolation of the treated water control valves for future work.
- ♦ Achieve greater accuracy in measuring treated water deliveries.

**PROJECT LOCATION**



★ Project Location

## SCHEDULE & STATUS

July 2009 to March 2020

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	465											
Design	1,476											
Construct	6,786											
Closeout	30											
	8,757											

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
93294056-RWTP Treated Water Valves Upgrade	8,240	353	173	20	0	0	0	0	8,786
with inflation	8,240	353	181	22	0	0	0	0	8,796

Actuals include project expenditures, and encumbrances.

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
93294056-RWTP Treated Water Valves Upgrade	8,424	170	1	180	22	0	0	0	0	8,796

Adjusted Budget includes adopted budget plus approved budget adjustments

## FUNDING SOURCES

(in thousands \$)

SCVWD Water Utility Enterprise Fund	8,796
Other Funding Source	0
<b>Total</b>	<b>8,796</b>

## OPERATING COST IMPACTS

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

**USEFUL LIFE:** 40 Years

<b>Project</b>	<b>Small Capital Improvements, Water Treatment</b>
<b>Program</b>	Water Supply – Treatment
<b>Priority No.</b>	73
<b>Project No.</b>	93764004
<b>District Contact</b>	Angela Cheung acheung@valleywater.org



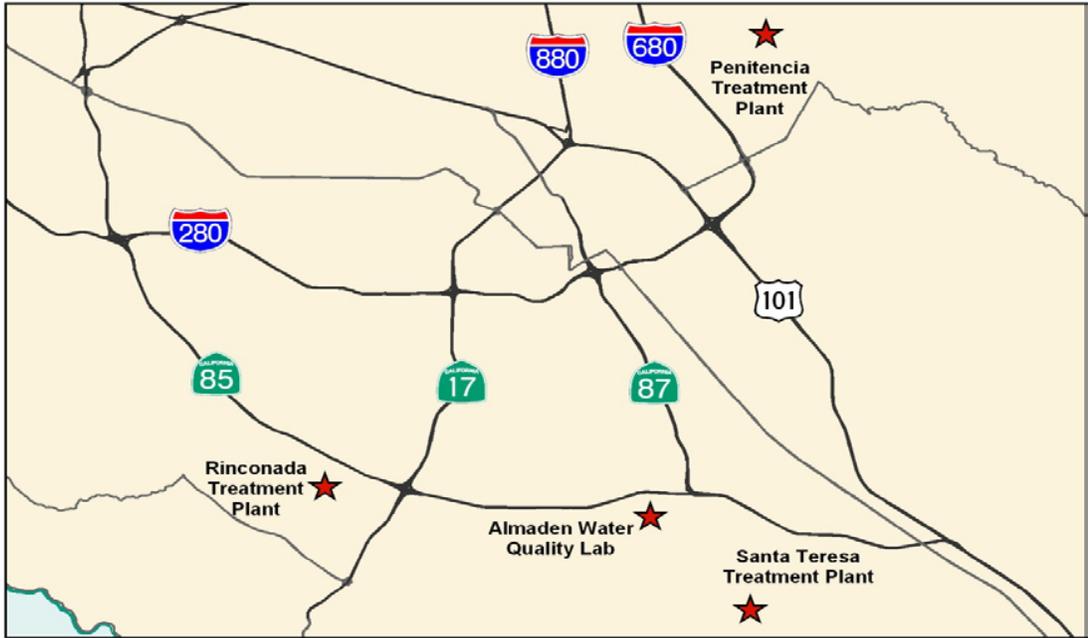
Sludge pond sediment removal at Santa Teresa Water Treatment Plant

**PROJECT DESCRIPTION**

This project provides resources for small capital improvements that replace or extend the life of an asset. This project implements a systematic approach of equipment replacement and renewal at the three water treatment plants and laboratory by designing and constructing improvements identified as part of the District’s 10-year asset management program. Typical activities included in this project include pump, motor, instrumentation and valve replacement; chemical tank repairs; and large-scale renewal and replacement activities like clarifier mechanism overhaul and replacement. Planned projects to complete for Santa Teresa Water Treatment Plant (STWTP), Penitencia Water Treatment Plan (PWTP), Rinconada Water Treatment Plant (RWTP, West Pipeline, and Silicon Valley Advanced Water Purification Center (SVAWPC) include:

- Provide engineering, supplies, and services support for the Sulfuric Acid Water Quality project.
- Purchase the Laboratory Information Management System (LIMS) and the Gas Chromatograph/Mass Spectrometer (GCMS).
- Complete Small Capital Projects at STWTP, RWTP, PWTP and Campbell Well Field.

**PROJECT LOCATION**



★ Project Location

## SCHEDULE & STATUS

This project is part of a regularly scheduled 10-year maintenance and asset management program.

Traditional planning, design, and construction phases do not apply.

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	n/a											
Design	n/a											
Construct	n/a											
Closeout	n/a											
	n/a											

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
93764004-Small Capital Improvements, Water Treatment	n/a	2,512	5,958	6,725	6,732	3,247	253	11,208	36,635
with inflation	n/a	2,512	6,226	7,344	7,682	3,872	315	16,943	44,895

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total	
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future		
93764004-Small Capital Improvements, Water Treatment	n/a	2,512	0	6,226	7,344	7,682	3,872	315	16,943	44,895

Adjusted Budget includes adopted budget plus approved budget adjustments. Small Capital Improvement projects do not carry forward unspent funds from one fiscal year to the next. Excess funds are returned to fund reserves at the close of each fiscal year and new funding is provided in the next fiscal year.

## FUNDING SOURCES

(in thousands \$)

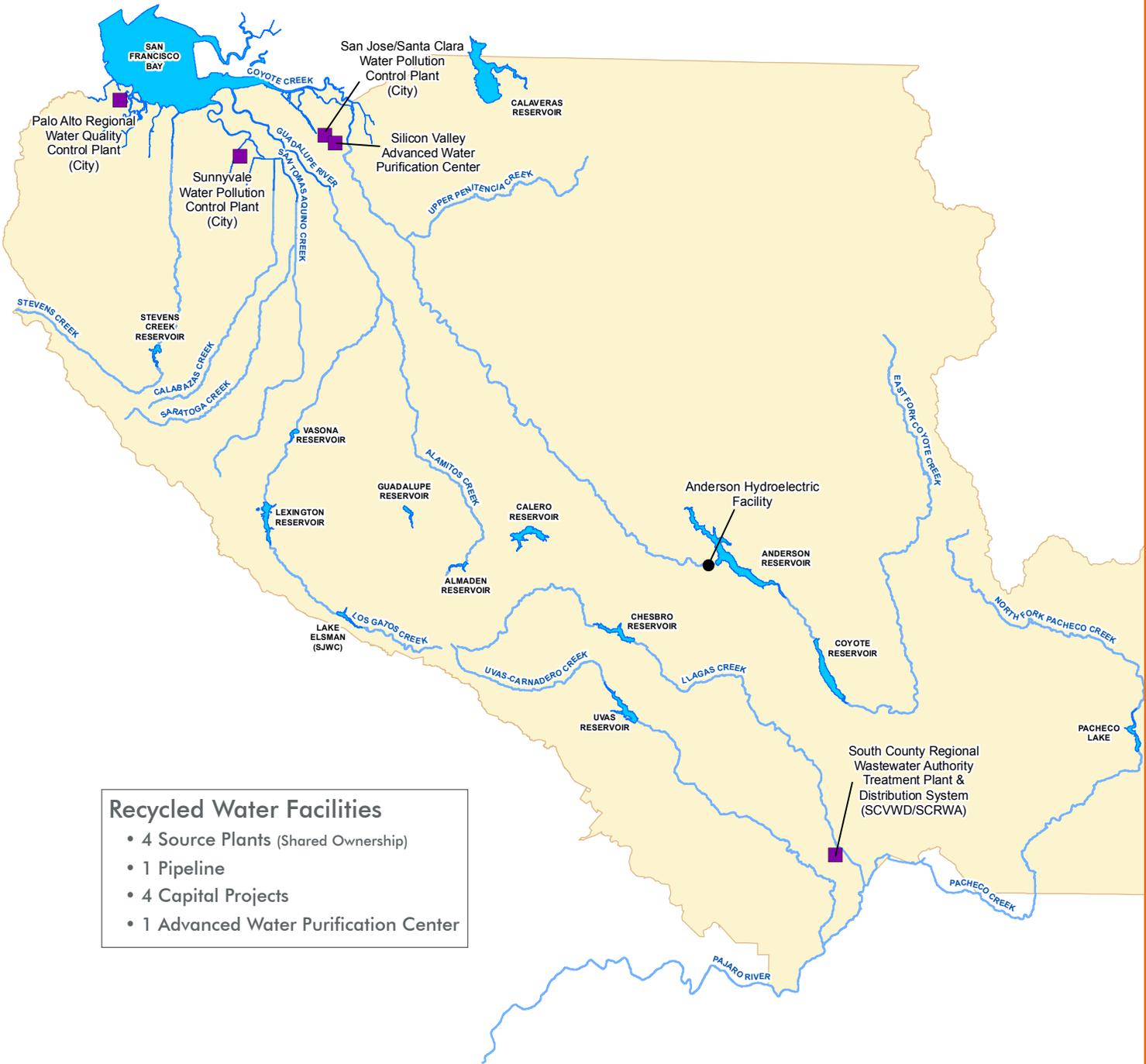
SCVWD Water Utility Enterprise Fund	44,895
Other Funding Source	0
<b>Total</b>	<b>44,895</b>

## OPERATING COST IMPACTS

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

**USEFUL LIFE:** Not Available

# Recycled & Purified Water Facilities



- Recycled Water Facilities**
- 4 Source Plants (Shared Ownership)
  - 1 Pipeline
  - 4 Capital Projects
  - 1 Advanced Water Purification Center

<b>Project</b>	<b>Expedited Purified Water Program</b>
<b>Program</b>	Water Supply – Recycled Water
<b>Priority No.</b>	71
<b>Project No.</b>	91304001s
<b>District Contact</b>	Katherine Oven KOven@valleywater.org



Reverse osmosis membranes used for water purification

### PROJECT DESCRIPTION

This project plans, designs, and constructs new infrastructure, proposed in the District's 2012 Water Supply Master Plan, to accomplish the following objectives:

- ♦ Expand the District's long-term water supply portfolio.
- ♦ Ensure a drought-proof and reliable water supply for Silicon Valley.

Project elements may include, but are not limited to:

- ♦ Expansion of the Silicon Valley Advanced Water Purification Center to produce up to an additional 24 million gallons per day (MGD) of advanced purified water.
- ♦ Installation of pipelines to convey advanced purified water to the District's existing groundwater recharge ponds for indirect potable reuse, or to the District's conventional surface water treatment plants for use as raw water augmentation (direct potable reuse).
- ♦ Installation of purified water injection wells at strategic locations to improve groundwater basin management.

### PROJECT LOCATION

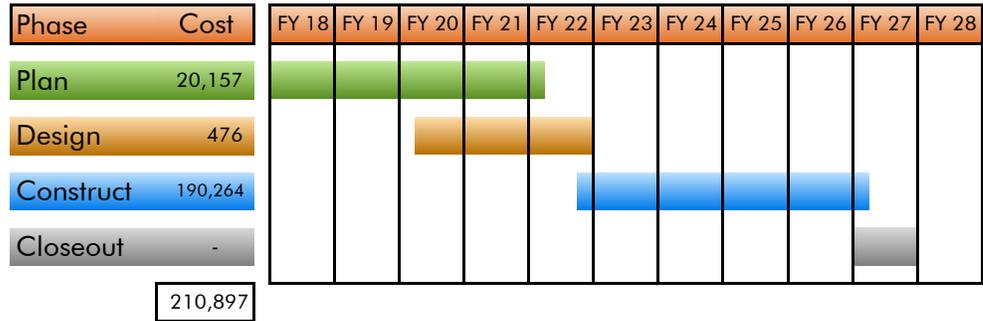


★ Project Location

## SCHEDULE & STATUS

April 2015 to June 2027

This project will be designed and constructed through a P3 delivery method.



## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
91304001 - Indirect Potable Water Reuse Projects - Planning	14,881	2,300	4,440	4,100	15,737	32,637	64,979	78,253	217,327
with inflation	14,881	2,300	4,640	4,477	17,514	37,452	77,175	95,728	254,166
91284009 - Silicon Valley Advanced Water Purification Center Expansion	679	231	0	0	0	0	0	0	910
with inflation	679	231	0	0	0	0	0	0	910
91384001 - Purified Water Pipelines	33	223	0	0	0	0	0	0	256
with inflation	33	223	0	0	0	0	0	0	256
<b>TOTAL</b>	<b>15,593</b>	<b>2,754</b>	<b>4,440</b>	<b>4,100</b>	<b>15,737</b>	<b>32,637</b>	<b>64,979</b>	<b>78,253</b>	<b>218,493</b>
with inflation	<b>15,593</b>	<b>2,754</b>	<b>4,640</b>	<b>4,477</b>	<b>17,514</b>	<b>37,452</b>	<b>77,175</b>	<b>95,728</b>	<b>255,332</b>

Actuals include project expenditures, and encumbrances.

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total	
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future		
91304001 - Indirect Potable Water Reuse Projects - Planning	19,210	0	2,029	2,611	4,477	17,514	37,452	77,175	95,728	254,166
91284009 - Silicon Valley Advanced Water Purification Center Expansion	5,528	0	4,618	0	0	0	0	0	0	5,528
91384001 - Purified Water Pipelines	3,351	0	3,095	0	0	0	0	0	0	3,351
<b>TOTAL</b>	<b>28,089</b>	<b>0</b>	<b>9,742</b>	<b>2,611</b>	<b>4,477</b>	<b>17,514</b>	<b>37,452</b>	<b>77,175</b>	<b>95,728</b>	<b>263,045</b>

Adjusted Budget includes adopted budget plus approved budget adjustments. Allocated funds exceed planned expenditures by approximately \$7,713,000. Excess funds will be returned to fund reserves at the close of the project.

## FUNDING SOURCES

(in thousands \$)

SCVWD Water Utility Enterprise Fund	263,045
Other Funding Sources	0
<b>Total</b>	<b>263,045</b>

## OPERATING COST IMPACTS

Operating cost impacts are anticipated and will be determined during the planning phase.

**USEFUL LIFE:** Not Available

<b>Project</b>	<b>Long-Term Purified Water Program Elements</b>
<b>Program</b>	Water Supply – Recycled Water
<b>Priority No.</b>	71
<b>Project No.</b>	91C40389
<b>District Contact</b>	Katherine Oven koven@valleywater.org



Water is exposed to ultraviolet light in purification process

## PROJECT DESCRIPTION

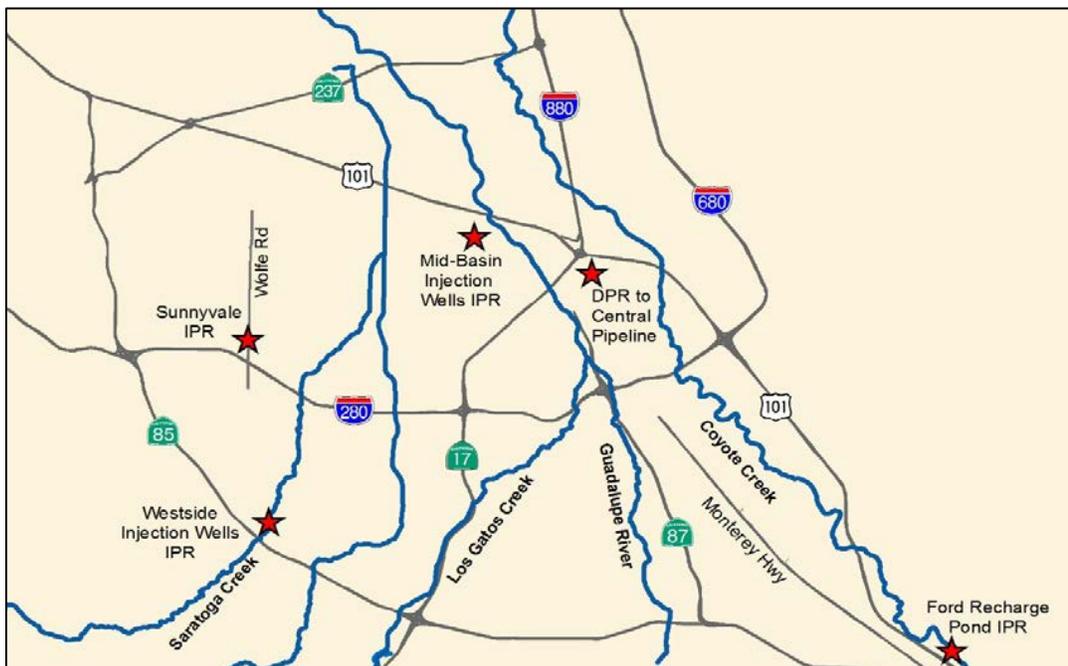
This project plans, designs, and constructs new infrastructure to accomplish the following objectives:

- Expand the District's long-term water supply portfolio beyond 2040.
- Ensure a drought-proof and reliable water supply for Silicon Valley.

Project elements may include, but are not limited to:

- Installation of purified water injection wells at strategic locations to improve groundwater basin management.
- Construction and operation of an advanced water purification center for groundwater recharge at Ford Ponds.
- Partnership with the City of Sunnyvale to implement advanced water purification facilities at the City's wastewater treatment plant for groundwater recharge.

## PROJECT LOCATION



★ Project Location

## SCHEDULE & STATUS

July 2022 to June 2026

This project may be delivered by a P3 delivery method.

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	-											
Design	-											
Construct	295,885											
Closeout	-											
<b>295,885</b>												

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
91C40389 - Long-term Purified Water Program Elements	0	0	0	0	0	0	73,971	221,914	295,885
with inflation	0	0	0	0	0	0	87,855	279,697	367,551

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
91C40389 - Long-term Purified Water Program Elements	0	0	0	0	0	0	87,855	279,697	367,551
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>87,855</b>	<b>279,697</b>	<b>367,551</b>

## FUNDING SOURCES

(in thousands \$)

SCVWD Water Utility Enterprise Fund	367,551
Other Funding Sources	0
<b>Total</b>	<b>367,551</b>

## OPERATING COST IMPACTS

Operating cost impacts are anticipated and will be determined during the planning phase.

**USEFUL LIFE:** Not Available

<b>Project</b>	<b>South County Recycled Water Pipeline</b>
<b>Program</b>	Water Supply – Recycled Water
<b>Priority No.</b>	52
<b>Project No.</b>	91094007s
<b>District Contact</b>	Christopher Hakes CHakes@valleywater.org



Recycled water purple pipeline waiting to be laid during construction of Immediate Term project

### PROJECT DESCRIPTION

This project plans, designs, and constructs water recycling systems based on the South County Recycled Water Master Plan accepted in December 2004 to improve system redundancy, reliability, and capacity. The current Master Plan report presents a 20-year capital program for expanding water recycling in South County in three phases; Immediate Term, Short Term, and Long Term:

#### Completed:

- ♦ 91094007 Gilroy Pipelines and Reservoir (Immediate Term) which included design and construction of recycled water storage, pumping, and distribution facilities for agricultural use near the SCRWA treatment plant.
- ♦ 91094008 Gilroy Pipelines (Short Term) Phase 1A, installation of approximately 3000 feet of 30-inch and 36-inch pipeline.

#### Currently Underway:

- ♦ 91094009 Gilroy Pipelines (Short Term) Phase 1B/2A will construct an additional 14,000 linear feet of pipeline.
- ♦ 91094010 Gilroy Pipelines (Short Term) Phase 2 will be completed through cost-sharing opportunities with the City of Gilroy and land developers to construct approximately 3,900 linear feet of 30-inch diameter pipe.
- ♦ 91094010 Gilroy Pipelines (Long-Term) Phase 1 to be completed through cost-sharing opportunities with the land developers through coordination by the City of Gilroy to construct approximately 9,200 linear feet of 24-inch diameter pipe.

### PROJECT LOCATION



## SCHEDULE & STATUS

July 2009 to November 2020

The schedule chart shows Short-Term Phase 1B and Phase 2 projects only. The Immediate-Term and Short-Term Phase 1A projects are complete.

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	2,602											
Design	10,143											
Construct	33,852											
Closeout	155											
	46,752											

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
91094007-Recycled Water South County Masterplan - Immediate Term	3,257	0	0	0	0	0	0	0	3,257
with inflation	3,257	0	0	0	0	0	0	0	3,257
91094008-Recycled Water South County Masterplan - Short Term 1A	5,391	0	0	0	0	0	0	0	5,391
with inflation	5,391	0	0	0	0	0	0	0	5,391
91094009-South County Recycled Water Pipeline - Short Term 1B	8,981	1,900	10,000	13,501	194	0	0	0	34,576
with inflation	8,981	1,900	10,382	14,199	221	0	0	0	35,684
91094010-South County Recycled Water Pipeline - Short Term 2	4,267	433	320	320	0	0	0	0	5,340
with inflation	4,267	433	331	343	0	0	0	0	5,375
<b>TOTAL</b>	<b>21,896</b>	<b>2,333</b>	<b>10,320</b>	<b>13,821</b>	<b>194</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>48,564</b>
with inflation	<b>21,896</b>	<b>2,333</b>	<b>10,714</b>	<b>14,542</b>	<b>221</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>49,707</b>

Actuals include project expenditures, and encumbrances.

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total	
	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
91094007-Recycled Water South County Masterplan - Immediate Term	3,257	0	0	0	0	0	0	0	0	3,257
91094008-Recycled Water South County Masterplan - Short Term 1A	5,391	0	0	0	0	0	0	0	0	5,391
91094009-South County Recycled Water Pipeline - Short Term 1B	16,159	0	5,278	5,104	14,199	221	0	0	0	35,684
91094010-South County Recycled Water Pipeline - Short Term 2	8,108	0	3,408	0	0	0	0	0	0	8,108
<b>TOTAL</b>	<b>32,915</b>	<b>0</b>	<b>8,686</b>	<b>5,104</b>	<b>14,199</b>	<b>221</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>52,440</b>

Adjusted Budget includes adopted budget plus approved budget adjustments. Allocated funding exceeds planned expenditures by approximately \$2,733,000. Excess funds will be returned to fund reserve at project close.

## FUNDING SOURCES

(in thousands \$)

SCVWD Water Utility Enterprise Fund	46,437
South County Regional Wastewater Authority	708
United States Bureau of Reclamation (USBR) ARRA	1,295
United States Bureau of Reclamation (USBR) Title 16	4,000
<b>Total</b>	<b>52,440</b>

## OPERATING COST IMPACTS

Estimated District share of the operating and maintenance costs are \$8,000 per year for the Immediate-Term phase, beginning in FY 2007 and an additional \$25,000 for the Short-Term Phase 1, beginning in FY 2019. Increases for Immediate Term are primarily labor costs for operating the new 3mg reservoir and its pump station. Increases for Short Term are labor and materials to maintain the 42,000 feet of new pipeline, exercising valves and cathodic protection.

**USEFUL LIFE:** Pipelines – 50 Year; Pumps – 20 Years

# Flood Protection

# Flood Protection Capital Improvements

## FLOOD PROTECTION OVERVIEW

The District manages approximately 800 miles of creeks in Santa Clara County to meet the Board's Ends Policy E-3, "There is a healthy and safe environment for residents, businesses and visitors, as well as for future generations." The district's goals are further defined in E-3.1, "Provide natural flood protection for residents, businesses, and visitors" and E-3.2, "Reduce potential for flood damages." The 800 miles of creeks are located in five watersheds: Lower Peninsula, West Valley, Guadalupe, Coyote, and Uvas/Llagas. The District administers an asset management program for its flood protection infrastructure. The program includes a schedule for maintenance and rehabilitation to ensure that each facility functions as intended over its useful life.

Fifty years of working for flood protection has significantly reduced the intensity and frequency of flooding in Santa Clara County. By 2005 the District had provided flood protection to 93,253 of the 166,526 parcels in the flood plain and another 6,642 have been protected since then.

The voters in Santa Clara County have supported the District's flood protection efforts by approving benefit assessment funding in 1982, 1986, and 1990. Voters approved a special parcel tax in 2000 and 2012 to fund the continuation of the District's flood protection capital improvements, specifically, moving upstream from the completed downstream work or starting new work on creeks that have not had flood protection work.

### Lower Peninsula Watershed

#### *Major Capital Improvements Completed*

- Adobe Creek from El Camino to West Edith Ave.
- Barron Creek
- Matadero Creek from Palo Alto Flood Basin to Barron Creek
- Stevens Creek from Highway 101 to Homestead Road

#### *Major Capital Improvements Identified in the CIP*

- Palo Alto Flood Basin Structure Improvements
- Permanente Creek from S.F. Bay to Foothill Expressway (Safe, Clean Water)
- San Francisquito Creek from S.F. Bay to Searsville

Dam (Clean, Safe Creeks/Safe, Clean Water)

### West Valley Watershed

#### *Major Capital Improvements Completed*

- Calabazas Creek from Guadalupe Slough to Wardell Road
- San Tomas Creek from Southern Pacific Railroad to Cabrillo Avenue
- Saratoga Creek from San Tomas Creek to Lawrence Expressway

#### *Major Capital Improvements Identified in the CIP*

- Sunnyvale East and West Channels (Clean, Safe Creeks)

### Guadalupe Watershed

#### *Major Capital Improvements Completed*

- Alamitos Creek
- Guadalupe River-Lower from Alviso Marina to Interstate 880
- Guadalupe River-Downtown from Interstate 880 to Interstate 280

#### *Major Capital Improvements Identified in the CIP*

- Guadalupe River-Upper, Interstate 280 to Blossom Hill Road (Clean, Safe Creeks/Safe, Clean Water)

### Coyote Watershed

#### *Major Capital Improvements Completed*

- Coyote Creek from S.F. Bay to Montague Expressway
- Lower Penitencia Creek from Coyote Creek to Tasman Drive
- Lower Silver Creek from Coyote Creek to Cunningham Ave. (Reaches 1-6)
- Wrigley Ford Creek

#### *Major Capital Improvements Identified in the CIP*

- Berryessa Creek from Calaveras Boulevard to Old Piedmont Road (Clean, Safe Creeks)
- Berryessa Creek from Lower Penitencia Creek to Calaveras Boulevard

# Flood Protection Capital Improvements

- Coyote Creek Montague Expressway to Tully Road (Clean, Safe Creeks)
- Upper Penitencia Creek from Coyote Creek to Dorel Drive (Safe, Clean Water) (Planning only)

## Uvas/Llagas Watershed

### Major Capital Improvements Completed

- Llagas Creek–Lower from Pajaro River to Buena Vista Road
- Uvas Creek

### Major Capital Improvements Identified in the CIP

- Llagas Creek Capacity Restoration from Buena Vista Road to Pajaro River
- Llagas Creek–Upper, Buena Vista Road to Llagas Road (Clean, Safe Creeks/Safe, Clean Water)

## Multiple Watersheds

### Major Capital Improvements Identified in the CIP

- San Francisco Bay Shoreline (Safe, Clean Water)
- Watershed Asset Rehabilitation Program

## PRIORITY PROCESS AND FINANCIAL ANALYSIS

A rigorous priority setting process was conducted to ensure that the new flood protection projects proposed to be added to the Fiscal Year 2019-23 CIP reflect the Board's priorities. The priority criteria used are included in Appendix A.

A financial analysis of the Watershed and Steam Stewardship Fund and Safe, Clean Water Fund, the funding sources for flood protection capital improvements, was conducted to determine if there are limitations to funding all of the projects proposed for the Fiscal Year 2018-22 CIP. Results of the prioritization process and financial analysis are summarized in Appendix B.

Flooding on Coyote Creek caused by severe storm in February 2017 led the District to reevaluate the schedule, level of flood protection, and funding sources for the Coyote Creek Project. A public hearing was held on June 13, 2017 to extend the Coyote Creek project to Tully Road and evaluate a project that would provide protection from a 20- to 25-year flood event. Staff worked with the Board CIP Committee to identify funding for construction of this project.

The CIP reflects the direction given by the Board to reprogram the design and construction funding from Upper Penitencia Creek Project to the Coyote Creek Project. This change will not be implemented until the Board holds a SCW public hearing and adopts the CIP in April 2018.

The watersheds have benefited from higher than projected property tax revenue in fiscal years 2013 through 2016. The District will also receive \$55 million from DWR to assist with construction of Lower Silver, Lower Berryessa, Upper Berryessa, and Lower Penitencia.

The voter approved Safe, Clean Water program will provide funding for some of the highest priority unfunded projects including:

- Permanente Creek, San Francisco Bay to Foothill Expy.
- San Francisquito Creek, SF Bay to Middlefield Road
- Sunnyvale East & West Channels
- Upper Guadalupe River, I-280 to Blossom Hill Road
- Upper Penitencia Creek, Coyote to Dorel Drive (Planning only)
- Berryessa Creek, Calaveras Blvd. to Interstate 680
- Coyote Creek, Montague Expy. to Interstate 280
- Upper Llagas Creek, Buena Vista Rd. to Llagas Rd.
- San Francisco Bay Shoreline - Design and Partial Construction of EIA 11 and Planning for other EIAs

# Flood Protection Capital Improvements

An implementation schedule for the Safe, Clean Water projects is available in Appendix E.

Delays in the federal funding for many of the USACE projects have extended the schedules beyond the dates committed by the District. Therefore, the District is evaluating the option of proceeding with the local funding option on several of these projects. Construction on a number of flood protection projects have been delayed due to either Federal funding issues or delays in receiving environmental permits.

The following high priority flood protection projects, unfunded or partially funded, are of major concern to meet the Board's Ends Policy E-3, "There is a healthy and safe environment for residents, businesses and visitors, as well as for future generations."

## *Partially Funded and Unfunded CIP Projects*

- Coyote Creek, Montague Expressway to Tully Road 100 year flood protection
- San Francisco Bay Shoreline Project - except EIA 11 (Design and Construction is unfunded)
- San Francisquito Creek 100 year flood protection upstream of Highway 101
- Upper Berryessa Creek, Interstate 680 to Old Piedmont Road (unfunded; \$20 million)
- Berryessa Creek, Lower Penitencia Creek to Calavers Blvd-Phase 3 and Tularcitos Creeks (construction is unfunded \$50M)
- Upper Llagas, Reach 14
- Upper Penitencia Creek, Coyote Creek to Dorel Drive (Design and Construction is unfunded)

# Flood Protection Capital Improvements

The following table is a project funding schedule for flood protection capital improvements resulting from this year's priority process and financial analysis. Detailed information for each project can be found in this document on the following pages in the order presented in this table. The chart also identifies partially funded projects and estimated unspent appropriation from FY 2017-18.

## Flood Protection Capital Improvements (\$K)

Project Number	PROJECT NAME	Through FY17	FY18	FY18 Unspent	FY19	FY20	FY21	FY22	FY23	FY24-33	TOTAL
<b>LOWER PENINSULA WATERSHED</b>											
10394001	Palo Alto Flood Basin Tide Gate Structure Improvements	1,200	1,658	-	784	1,836	7,219	119	-	-	12,816
10244001s	Permanente Creek, SF Bay to Foothill Expressway	74,291	16,909	178	993	-	-	-	-	-	92,193
10284007s	San Francisquito Creek, SF Bay thru Searsville Dam (E5)	45,418	7,338	347	6,627	6,129	-	-	-	-	65,512
<b>WEST VALEY WATERSHED</b>											
26074002	Sunnyvale East and West Channels	26,177	4,820	12,374	7,719	19,124	12,062	119	-	-	70,021
<b>GUADALUPE WATERSHED</b>											
30114002	Canoas Creek, Rodent Damage Repair	8,517	-	1,092	-	-	-	-	-	-	8,517
26154001s	Guadalupe River--Upper, I-280 to Blossom Hill Road (E8)	109,746	18,294	18,966	6,516	17,528	7,938	3,257	2,693	-	165,972
<b>COYOTE WATERSHED</b>											
26174041s	Berryessa Creek, Calaveras Boulevard to Interstate 680	54,443	301	12,683	209	-	-	-	-	-	54,953
40174004s	Berryessa Ck, Lower Penitencia Ck to Calaveras Blvd	109,593	-	3,905	17,474	349	2,529	2,623	1,281	65,773	199,622
26174043	Coyote Creek, Montague Expressway to Tully Road (E3)	11,508	760	525	1,732	983	1,067	19,546	19,342	35,936	90,874
40264011	Cunningham Flood Detention Certification	8,287	1,841	-	1,290	235	34	-	-	-	11,687
40334005	Lower Penitencia Ck Improvements, Berryessa to Coyote Cks.	9,601	4,815	6,178	1,881	9,861	285	298	212	-	26,953
40264007s	Lower Silver Creek, I-680 to Cunningham (Reach 4-6)	99,033	1,981	1,454	80	311	-	-	-	-	101,405
40324003s	Upper Penitencia Creek, Coyote Creek to Dorel Drive	17,899	1,116	5,342	1,705	-	-	-	-	-	20,720
<b>UVAS LLAGAS WATERSHED</b>											
50284010	Llagas Creek--Lower, Capacity Restoration, Buena Vista Road to Pajaro River	7,046	-	3,607	-	630	3,187	2,891	125	-	13,879
26174051s	Llagas Creek--Upper, Buena Vista Avenue to Llagas Road	105,942	2,154	19,595	23,156	24,483	12,885	417	437	-	169,474
<b>MULTIPLE WATERSHEDS</b>											
00044026s	San Francisco Bay Shoreline (E7)	26,466	3,473	1,735	6,967	3,723	1,141	716	-	-	42,486
62084001	Watersheds Asset Rehabilitation Program	3,515	11,047	-	11,517	8,610	8,936	9,387	9,740	117,651	180,403
<b>TOTAL</b>		<b>718,682</b>	<b>76,507</b>	<b>87,981</b>	<b>88,650</b>	<b>93,802</b>	<b>57,283</b>	<b>39,373</b>	<b>33,830</b>	<b>219,360</b>	<b>1,327,487</b>

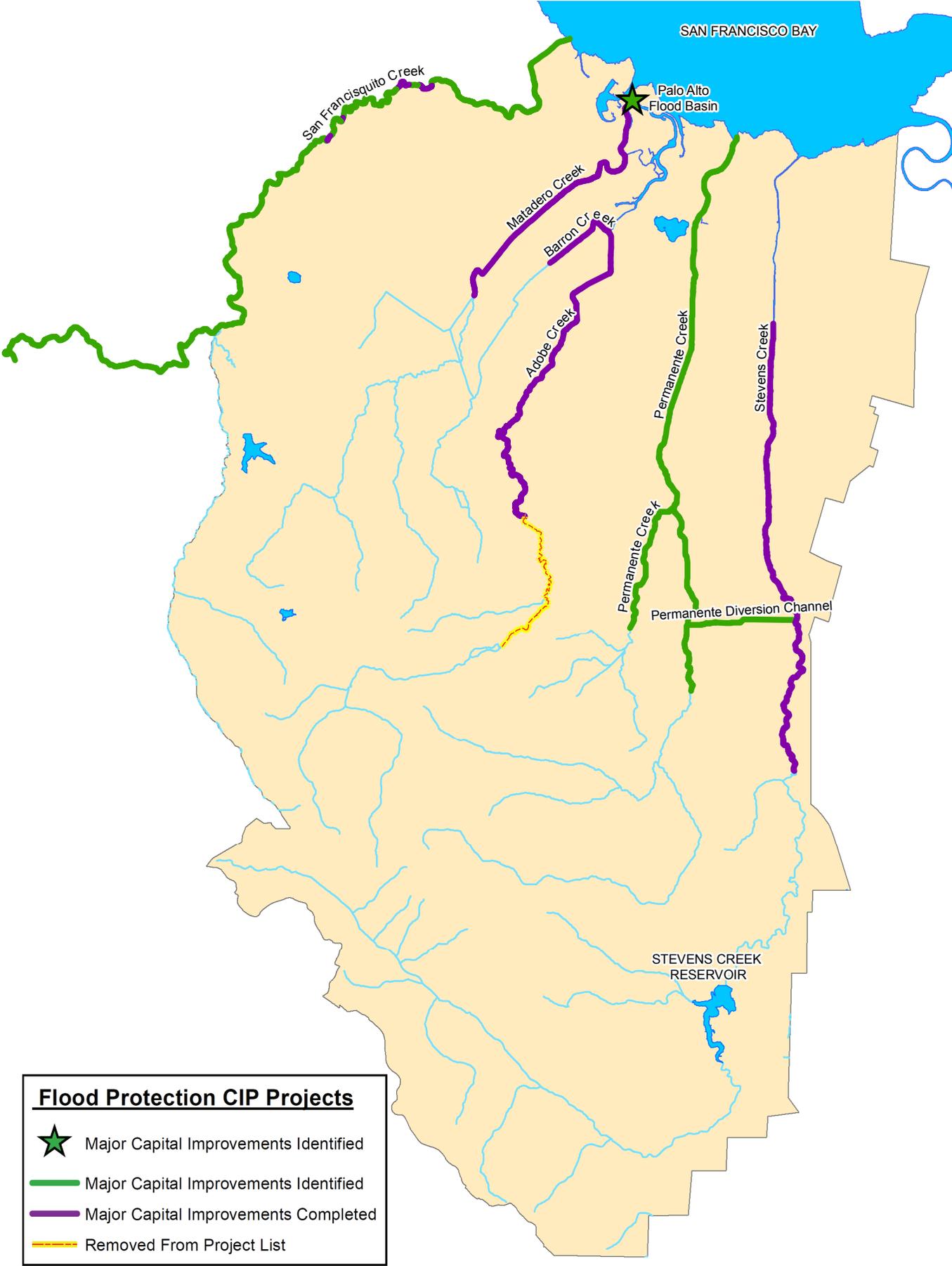
The following table shows funding requirements from each funding source for flood protection capital improvements.

## Flood Protection - Funding Sources (\$K)

Fund Number	FUND NAME	Through FY17	FY18	FY18 Unspent	FY19	FY20	FY21	FY22	FY23	FY24-33	TOTAL
12	Watershed Stream Stewardship Fund	302,441	25,179	21,577	50,621	28,042	22,190	15,318	11,358	183,424	638,573
26	Safe, Clean Water and Natural Flood Protection Fund	416,241	51,328	66,404	38,029	65,760	35,093	24,055	22,472	35,936	688,914
<b>TOTAL</b>		<b>718,682</b>	<b>76,507</b>	<b>87,981</b>	<b>88,650</b>	<b>93,802</b>	<b>57,283</b>	<b>39,373</b>	<b>33,830</b>	<b>219,360</b>	<b>1,327,487</b>

FY 2017-18 Funds to be reappropriated

# Lower Peninsula Watershed



**Flood Protection CIP Projects**

- ★ Major Capital Improvements Identified
- Major Capital Improvements Identified
- Major Capital Improvements Completed
- - - Removed From Project List

<b>Project</b>	<b>Palo Alto Flood Basin Tide Gate Structure Improvements</b>
<b>Program</b>	Flood Protection - Lower Peninsula Watershed
<b>Priority No.</b>	56
<b>Project No.</b>	10394001
<b>District Contact</b>	Ngoc Nguyen NNguyen@valleywater.org



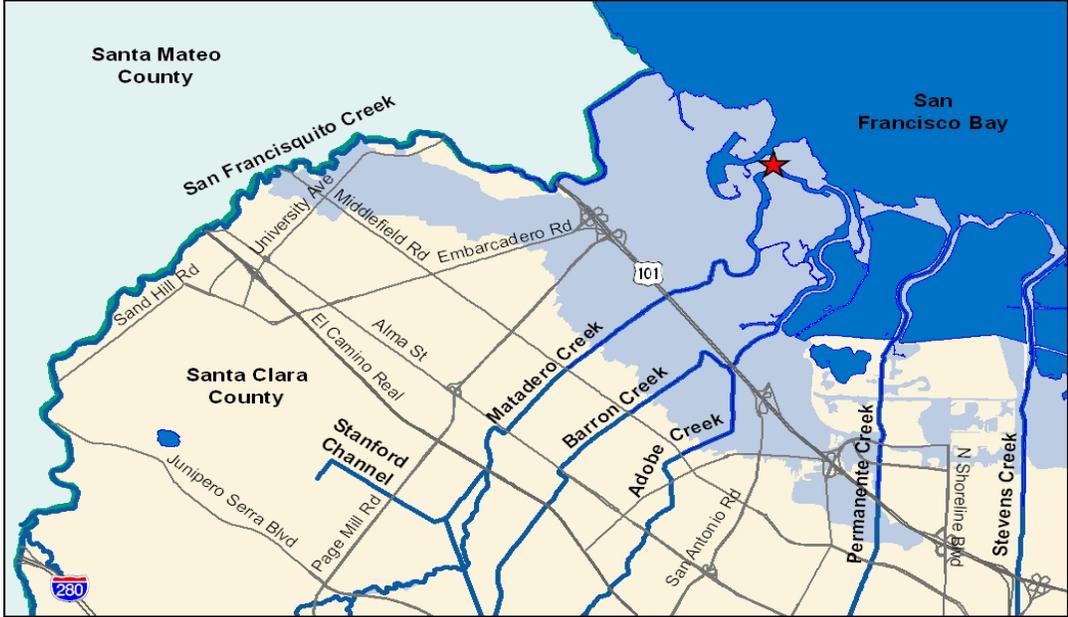
View from the west side of the Palo Alto tide gates facing east

**PROJECT DESCRIPTION**

This project plans, designs, and constructs improvements to the Palo Alto Flood Basin structure to accomplish the following objectives:

- Replace the existing tide gate structure to improve the functionality of the flood barrier system.
- Reduce the possibility of flooding in lower reaches of Matadero, Adobe, and Barron Creeks.
- Prevent environmental impacts due to submergence of habitat areas within the Basin for Salt Marsh Harvest Mouse, California Clapper Rail bird and the Black Rail bird.
- Prevent impacts due to sea level rise or a 100-year fluvial flood.

**PROJECT LOCATION**



★ Project Location  
 1 Percent Floodplain

## SCHEDULE & STATUS

October 2014 to June 2022

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	1,074											
Permits	-											
Design	1,560											
Construct	9,462											
Closeout	10											
	12,106											

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
10394001-Palo Alto Flood Basin Tide Gate Structure Improvements	399	2,459	750	1,700	6,700	100	0	0	12,108
with inflation	399	2,459	784	1,836	7,219	119	0	0	12,816

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total	
	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
10394001-Palo Alto Flood Basin Tide Gate Structure Improvements	1,200	1,658	0	784	1,836	7,219	119	0	0	12,816

Adjusted Budget includes adopted budget plus a planned budget adjustment of \$1,200,000.

## FUNDING SOURCES

(in thousands \$)

SCVWD Watershed and Stream Stewardship Fund	12,816
Other Funding Sources	0
<b>Total</b>	<b>12,816</b>

## OPERATING COST IMPACTS

Operating cost impacts are anticipated and will be determined during the design phase.

**USEFUL LIFE:** 50 Years

<b>Project</b>	<b>Permanente Creek, San Francisco Bay to Foothill Expressway</b>
<b>Program</b>	Flood Protection – Lower Peninsula Watershed
<b>Priority No.</b>	62
<b>Project No.</b>	10244001s
<b>District Contact</b>	Ngoc Nguyen NNguyen@valleywater.org



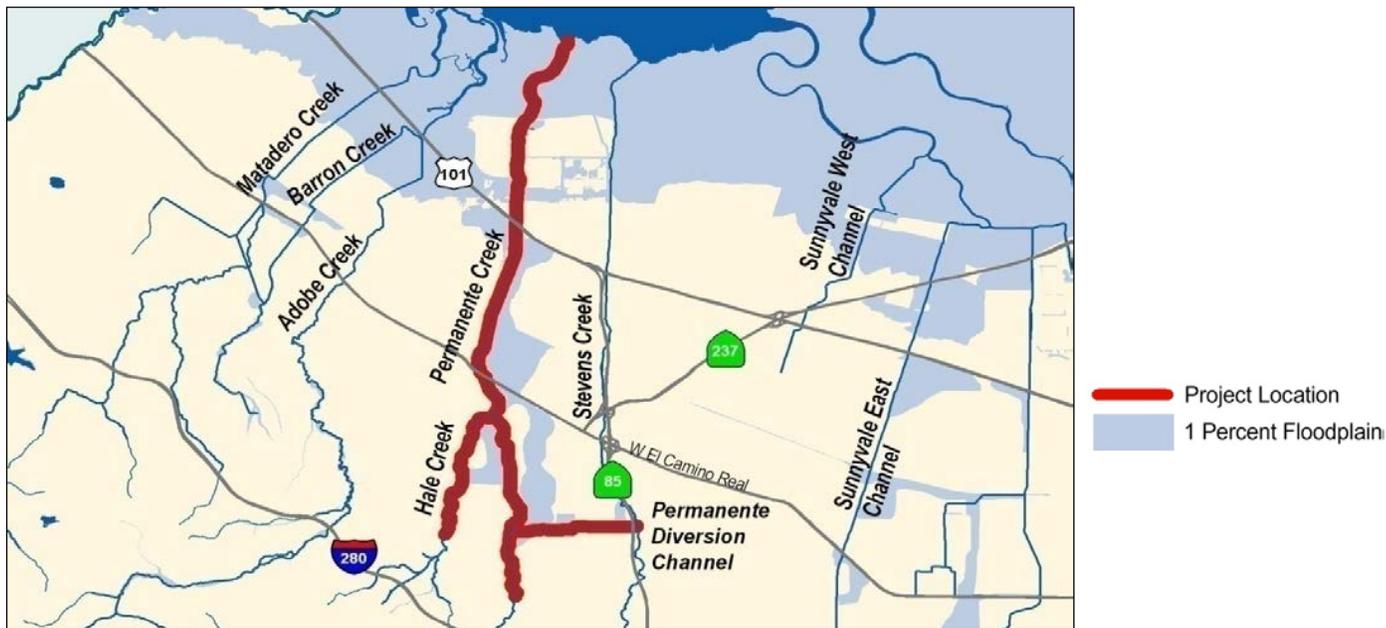
Permanente Creek, looking downstream at the golf course foot bridge

### PROJECT DESCRIPTION

This project plans, designs, and constructs improvements along 10.6 miles of Permanente Creek, from San Francisco Bay to Foothill Expressway, Hale Creek from Foothill Expressway to its confluence with Permanente Creek, and the diversion structure between Permanente and Stevens Creeks, to accomplish the following objectives:

- Provide flood protection to 1,664 parcels, including Middlefield Road and Central Expressway.
- Reduce erosion and sedimentation, reduce maintenance costs, and improve safety and stability of the failing channel on Permanente Creek from the San Francisco Bay to Foothill Expressway.
- Provide environmental restoration and enhancement benefits, where opportunities exist.
- Provide recreation enhancements, where opportunities exist.
- Provide natural flood protection by taking a multiple-objective approach.

### PROJECT LOCATION



## SCHEDULE & STATUS

July 2001 to June 2019

Construction includes multiple contract phases and three years of plant establishment monitoring.

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	10,048											
Permits	3,805											
Design	16,126											
Construct	61,906											
Closeout	50											
	<b>91,935</b>											

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
10244001-Permanente Ck, Bay to Foothill Expwy – Lower Peninsula Fund	17,363	0	0	0	0	0	0	0	17,363
with inflation	17,363	0	0	0	0	0	0	0	17,363
26244001-Permanente Ck, Bay to Foothill Expwy – Clean, Safe Creeks Fund	56,753	16,906	950	0	0	0	0	0	74,609
with inflation	56,753	16,906	993	0	0	0	0	0	74,652
<b>TOTAL</b>	<b>74,116</b>	<b>16,906</b>	<b>950</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>91,972</b>
with inflation	74,116	16,906	993	0	0	0	0	0	92,015

Actuals include project expenditures, and encumbrances.

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
10244001-Permanente Ck, Bay to Foothill Expwy – Lower Peninsula Fund	17,541	0	178	0	0	0	0	0	17,541
26244001-Permanente Ck, Bay to Foothill Expwy – Clean, Safe Creeks Fund	56,750	16,909	0	993	0	0	0	0	74,652
<b>TOTAL</b>	<b>74,291</b>	<b>16,909</b>	<b>178</b>	<b>993</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>92,193</b>

Adjusted Budget includes adopted budget plus a planned budget adjustment for \$178,000.

## FUNDING SOURCES

(in thousands \$)

SCWWD Watershed Stream Stewardship Fund	17,541
SCWWD Clean, Safe Creeks and Natural Flood Protection Fund	74,652
<b>Total</b>	<b>92,193</b>

## OPERATING COST IMPACTS

The completion of this project is anticipated to increase operating costs by approximately \$100,000 per year, beginning in FY 2020. Increases in operations and maintenance costs include sediment removal at three flood detention sites, and bypass channel inlet and outlet operations and maintenance.

**USEFUL LIFE:** 30+ Years

<b>Project</b>	<b>San Francisquito Creek, San Francisco Bay through Searsville Dam</b>
<b>Program</b>	Flood Protection – Lower Peninsula Watershed
<b>Priority No.</b>	78
<b>Project No.</b>	10284007s
<b>District Contact</b>	Ngoc Nguyen NNguyen@valleywater.org



Upstream face of Pope/Chaucer Street with water surface approximately 2 feet below the soffit

### PROJECT DESCRIPTION

This project provides coordination and support to the San Francisquito Joint Powers Authority, in partnership with the U.S. Army Corps of Engineers, to complete planning and design documents for an approved project alternative on San Francisquito Creek, from San Francisco Bay through Searsville Dam. This project will accomplish the following objectives:

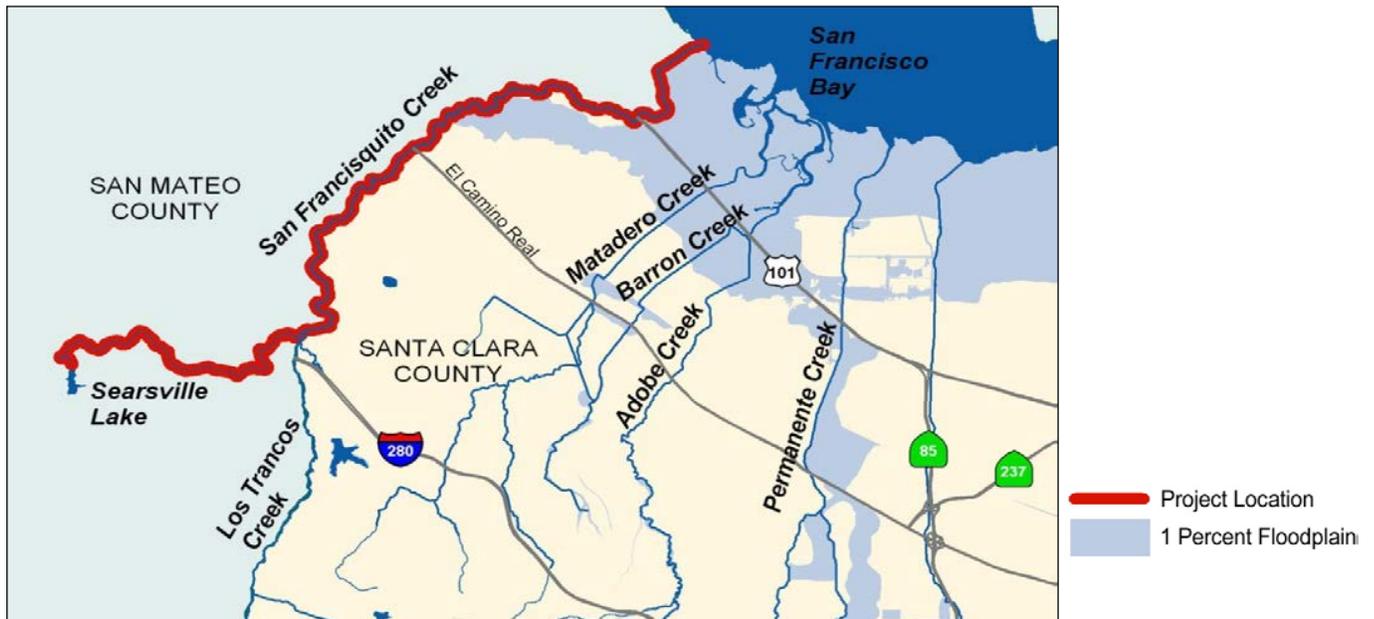
- ♦ Provide flood protection.
- ♦ Reduce bank erosion and sedimentation-related impacts along San Francisquito Creek.
- ♦ Avoid potential adverse impacts on fish and wildlife habitats.
- ♦ Minimize impacts to the creek’s environmental resources and restore the riparian corridor where feasible.

The San Francisquito construction project will provide 100-year flood protection from San Francisco Bay to Highway 101 and replace two bridges between Highway 101 and Middlefield Road.

This project is accounted for in the following job numbers: (10284007 & 10284008 are Completed)

- ♦ 26284001 – SF Bay through Searsville Dam
- ♦ 26284002 – Construction - San Francisco Bay to Middlefield Rd.

### PROJECT LOCATION



## SCHEDULE & STATUS

June 2003 to June 2020

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	4,377											
Permits	1,530											
Design	11,069											
Construct	32,480											
Closeout	150											
	<b>49,606</b>											

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
10284007-San Francisquito Ck, Bay-Searsville Dam	4,064	0	0	0	0	0	0	0	4,064
with inflation	4,064	0	0	0	0	0	0	0	4,064
10284008-San Francisquito Ck, Early Implementation	1,614	0	0	0	0	0	0	0	1,614
with inflation	1,614	0	0	0	0	0	0	0	1,614
26284001-San Francisquito Ck, Bay-Searsville Dam	6,329	426	0	0	0	0	0	0	6,755
with inflation	6,329	426	0	0	0	0	0	0	6,755
26284002-San Francisquito Ck - Construction - SF Bay to Middlefield Rd.	32,520	7,456	6,906	5,950	0	0	0	0	52,832
with inflation	32,520	7,456	6,947	6,129	0	0	0	0	53,052
<b>TOTAL</b>	<b>44,527</b>	<b>7,882</b>	<b>6,906</b>	<b>5,950</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>65,265</b>
with inflation	<b>44,527</b>	<b>7,882</b>	<b>6,947</b>	<b>6,129</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>65,485</b>

Actuals include project expenditures, and encumbrances.

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
10284007-San Francisquito Ck, Bay-Searsville Dam	4,064	0	0	0	0	0	0	0	4,064
10284008-San Francisquito Ck, Early Implementation	1,614	0	0	0	0	0	0	0	1,614
26284001-San Francisquito Ck, Bay-Searsville Dam	6,782	0	27	0	0	0	0	0	6,782
26284002-San Francisquito Ck - Construction - SF Bay to Middlefield Rd.	32,958	7,338	320	6,627	6,129	0	0	0	53,052
<b>TOTAL</b>	<b>45,418</b>	<b>7,338</b>	<b>347</b>	<b>6,627</b>	<b>6,129</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>65,512</b>

Adjusted Budget includes adopted budget plus approved budget adjustments. Funding exceeds planned expenditures by approximately \$27,000. Excess funding will be returned to reserves upon completion of the project.

## FUNDING SOURCES

(in thousands \$)

SCVWD Watershed Stream Stewardship Fund	5,678
SCVWD Safe, Clean Water and Natural Flood Protection Fund	59,834
<b>Total</b>	<b>65,512</b>
San Francisquito Joint Powers Authority (DWR)	11,000
U.S. Army Corps of Engineers - In-kind Services	3,000
County of San Mateo - In-kind Services	1,500

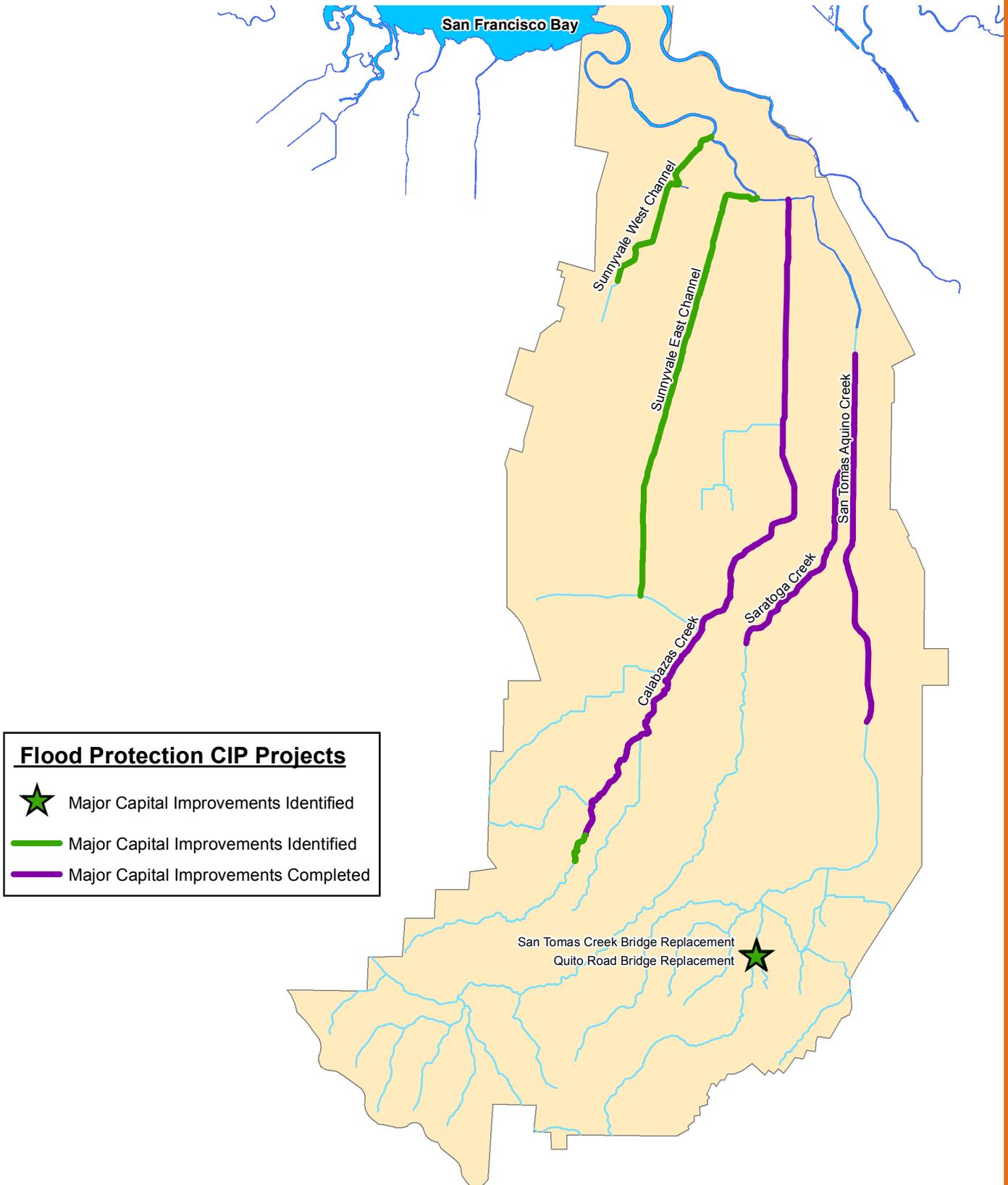
County and Corps participation are for Feasibility Study activities only. Additional funding will be negotiated during subsequent phases.

## OPERATING COST IMPACTS

No operating budget impacts are expected from the construction of this project.

**USEFUL LIFE:** Not Available

# West Valley Watershed



<b>Project</b>	<b>Sunnyvale East and West Channels Improvement</b>
<b>Program</b>	Flood Protection – West Valley Watershed
<b>Priority No.</b>	65
<b>Project No.</b>	26074002
<b>District Contact</b>	Ngoc Nguyen nnguyen@valleywater.org



Sunnyvale West Channel looking upstream from Java Drive

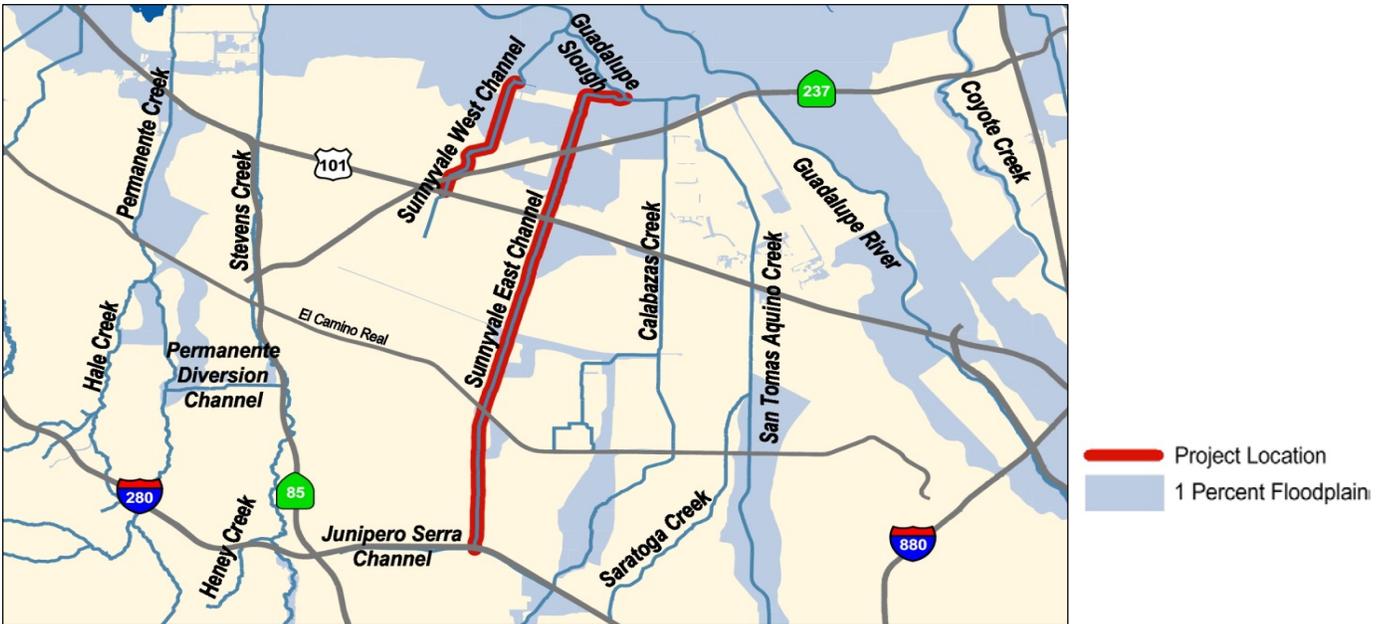
### PROJECT DESCRIPTION

This project plans, designs, and constructs improvements to approximately 6.4 miles of the Sunnyvale East Channel, from Guadalupe Slough to Interstate 280, and 2.3 miles of the Sunnyvale West Channel, from Guadalupe Slough to Highway 101, to accomplish the following objectives:

- ◆ Provide flood protection to over 1,600 parcels along Sunnyvale East and West Channels.
- ◆ Provide environmental enhancement benefits where opportunities exist.
- ◆ Provide recreation enhancements where opportunities exist.
- ◆ Reduce erosion, sedimentation, and maintenance costs.
- ◆ Protect fish and wildlife habitat.

The Sunnyvale East and Sunnyvale West Channels were originally identified as separate projects. In order to improve efficiency by combining efforts, the planning, design and construction phases for both projects will be performed as a single effort.

### PROJECT LOCATION



## SCHEDULE & STATUS

March 2006 to December 2021

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	5,765											
Permits	1,836											
Design	10,031											
Construct	49,217											
Closeout	200											
	67,049											

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
26074002-Sunnyvale East and West Channels Improvement	16,477	2,146	19,400	18,400	11,500	100	0	0	68,023
with inflation	16,477	2,146	20,093	19,124	12,062	119	0	0	70,021

Actuals include project expenditures, and encumbrances.

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total	
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future		
26074002-Sunnyvale East and West Channels Improvement	26,177	4,820	12,374	7,719	19,124	12,062	119	0	0	70,021

Adjusted Budget includes adopted budget plus approved budget adjustments.

## FUNDING SOURCES

(in thousands \$)

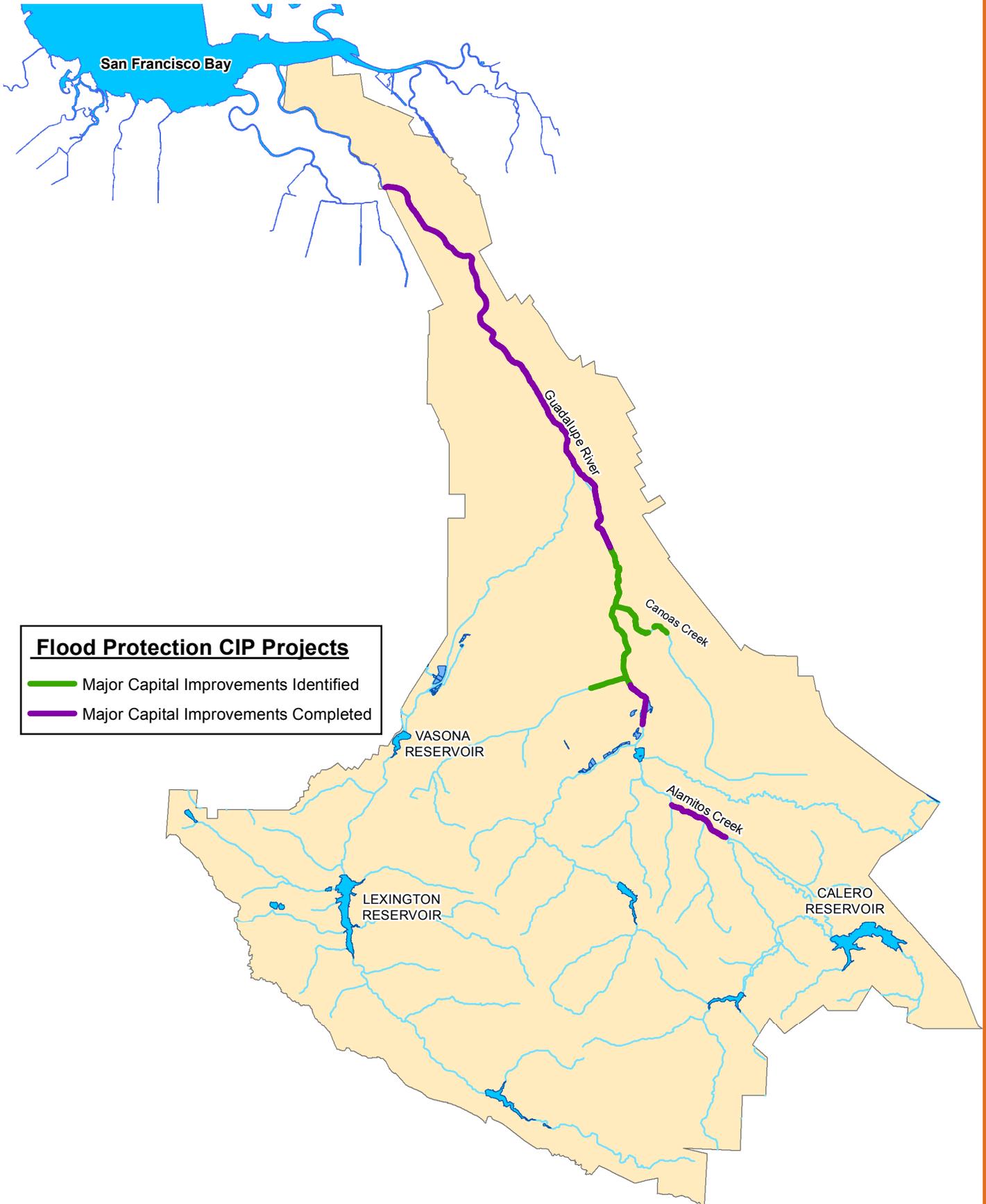
SCVWD Clean, Safe Creeks and Natural Flood Protection Fund	70,021
Other Funding Source	0
<b>Total</b>	<b>70,021</b>

## OPERATING COST IMPACTS

The completion of this project is anticipated to increase operating costs by approximately \$50,000 per year, beginning in FY 2023. Increases in operations and maintenance costs include graffiti removal, mowing and weed control under the levees, and for operation and maintenance of the Pond A4 detention basin.

**USEFUL LIFE:** 30+ Years

# Guadalupe Watershed



<b>Project</b>	<b>Canoas Creek Rodent Damage Repair</b>
<b>Program</b>	Flood Protection - Guadalupe Watershed
<b>Priority No.</b>	60
<b>Project No.</b>	30114002
<b>District Contact</b>	Ngoc Nguyen nnguyen@valleywater.org



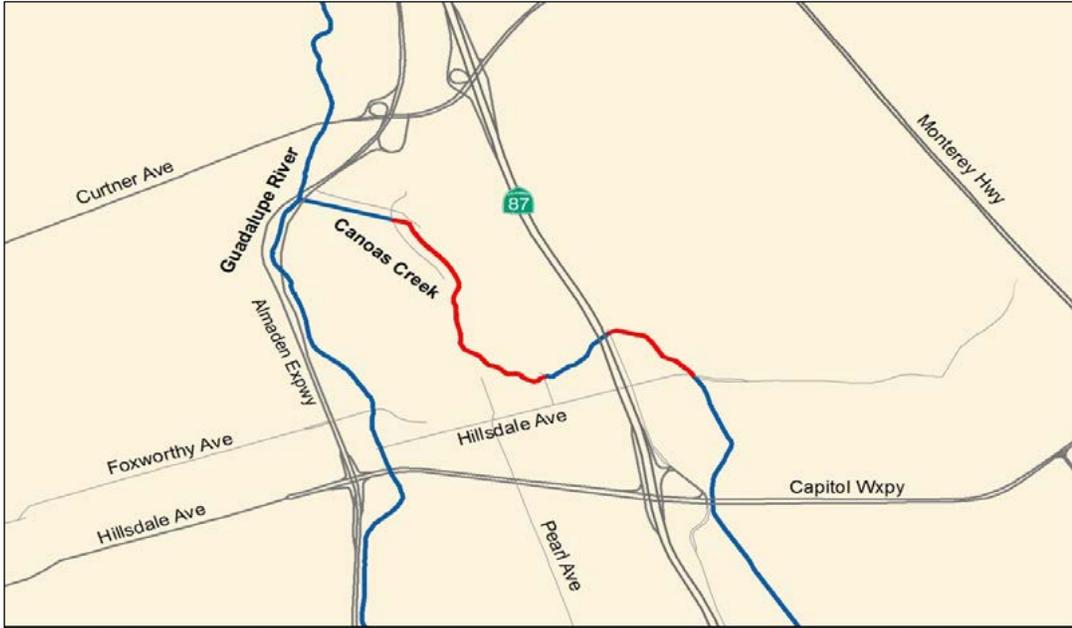
View of damage caused by burrowing animals along Canoas Creek in the Guadalupe Watershed

**PROJECT DESCRIPTION**

This project plans, designs, and constructs repairs to Canoas Creek to accomplish the following objectives:

- ◆ Repair approximately 1 mile of damaged creek's levee and embankment.
- ◆ Reduce frequent maintenance costs associated with routine bank erosion repair projects.
- ◆ Reduce the risk of levee/bank slope failure due to damage caused from burrowing animals

**PROJECT LOCATION**



**Project Location**

## SCHEDULE & STATUS

May 2015 to June 2018

Phase	Cost	FY 17	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27
Plan	33											
Permits	-											
Design	584											
Construct	6,234											
Closeout	5											
	6,856											

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
30114002-Canoas Creek Rodent Damage Repair	7,396	29	29	29	0	0	0	0	7,483
with inflation	7,396	29	30	32	0	0	0	0	7,487

Actuals include project expenditures, and encumbrances.

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
30114002-Canoas Creek Rodent Damage Repair	8,517	0	1,092	0	0	0	0	0	8,517

Adjusted Budget includes adopted budget plus approved budget adjustments. Total allocated funding exceeds planned expenditures by approximately \$1,030,000. Excess funds will be returned to Fund Reserves at the close of the project.

## FUNDING SOURCES

(in thousands \$)

Watershed Stream Stewardship	8,517
Other Funding Sources	0
<b>Total</b>	<b>8,517</b>

## OPERATING COST IMPACTS

Operating cost impacts will be determined during the construction phase.

**USEFUL LIFE:** Not Available

<b>Project</b>	<b>Guadalupe River—Upper, Interstate 280 to Blossom Hill Road</b>
<b>Program</b>	Flood Protection – Guadalupe Watershed
<b>Priority No.</b>	68
<b>Project No.</b>	26154001s
<b>District Contact</b>	Ngoc Nguyen NNguyen@valleywater.org



Flooding from Guadalupe River on Willow Street near the Southern Pacific Railroad Bridge

## PROJECT DESCRIPTION

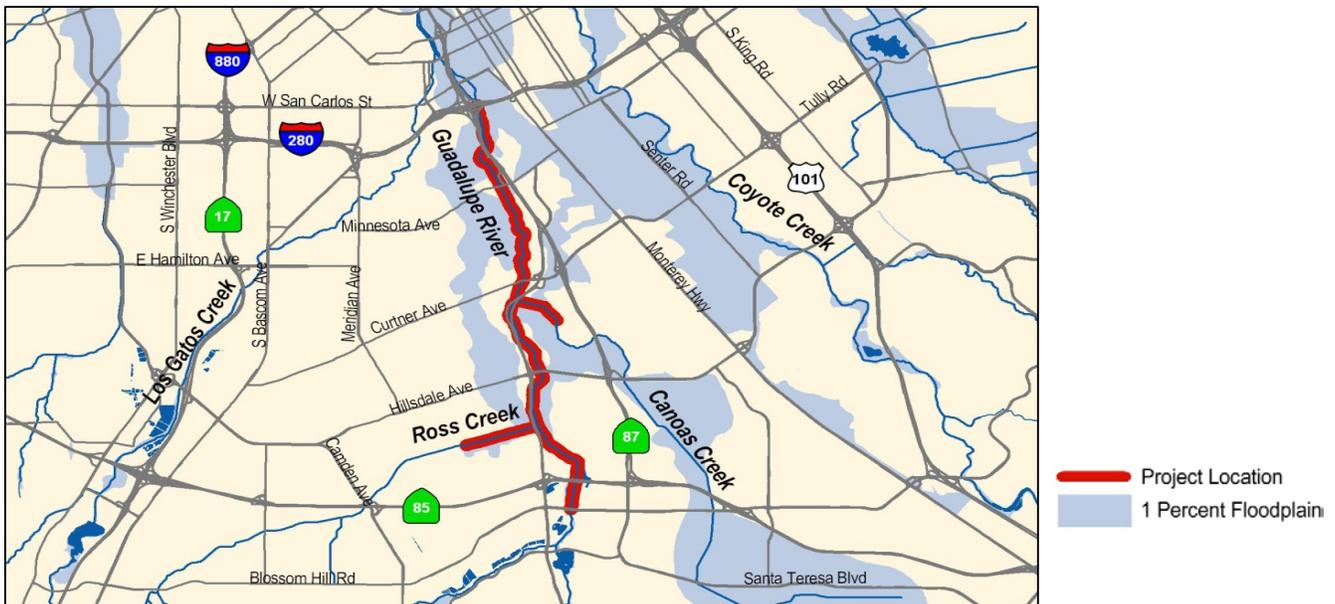
This project partners with the U.S. Army Corps of Engineers (Corps) to plan, design, and construct improvements along approximately 6 miles of the Guadalupe River, from Interstate 280 to Blossom Hill Road, to accomplish the following objectives:

- Provide one-percent flood protection to nearly 7,000 parcels along the Guadalupe River, from I-280 to Blossom Hill Road, including portions of Ross Creek and Canoas Creek.
- Provide long-term net gains of 15 acres in riparian forest acreage, quality, and continuity of wildlife habitat, and conditions favoring Chinook salmon and steelhead trout.
- Provide access to an additional 19 miles of suitable upstream spawning and rearing habitat, which would result in significant long-term beneficial impacts on fisheries resources.
- Coordinate with the City of San Jose and the community to establish a continuous maintenance road suitable for trail development between Interstate 280 and Los Alamitos Creek.
- Improve water quality by reducing bank erosion and sedimentation-related impacts along the river and tributaries.
- Address and resolve permit coordination activities and watershed integration issues through the Guadalupe Watershed Integration Working Group.

This project is accounted for in the following job numbers:

- 26154001—Fish Passage Modification (Completed)
- 26154002—I-280 to Southern Pacific Railroad Bridge (Reach 6)
- 26154003—Southern Pacific Railroad Bridge to Blossom Hill Road (Reaches 7-12)

## PROJECT LOCATION



## SCHEDULE & STATUS

July 2001 to June 2025

Planning phase is complete. Design and construction of eight individual reaches are being done sequentially.

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	9,009											
Permits	2,501											
Design	85,333											
Construct	65,534											
Closeout	167											

162,544

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
26154001-Guadalupe Rv—Upr, Fish Passage Mods	2,651	0	0	0	0	0	0	0	2,651
with inflation	2,651	0	0	0	0	0	0	0	2,651
26154002-Guadalupe Rv—Upr, I-280 to SPRR (R6)	32,409	926	800	1,300	1,270	0	30	0	36,735
with inflation	32,409	926	829	1,420	1,415	0	37	0	37,036
26154003-Guadalupe Rv—Upper, SPRR to Blossom Hill Rd. (R7-12)	41,207	23,994	23,285	15,585	5,855	2,995	2,470	0	115,391
with inflation	41,207	23,994	24,198	16,563	6,523	3,257	2,656	0	118,397
Actuals in closed project numbers	7,887	0	0	0	0	0	0	0	7,887
with inflation	7,887	0	0	0	0	0	0	0	7,887
<b>TOTAL</b>	<b>84,154</b>	<b>24,920</b>	<b>24,085</b>	<b>16,885</b>	<b>7,125</b>	<b>2,995</b>	<b>2,500</b>	<b>0</b>	<b>162,664</b>
with inflation	<b>84,154</b>	<b>24,920</b>	<b>25,027</b>	<b>17,982</b>	<b>7,938</b>	<b>3,257</b>	<b>2,693</b>	<b>0</b>	<b>165,971</b>

Actuals include project expenditures, and encumbrances.

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total	
	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
26154001-Guadalupe Rv—Upr, Fish Passage Mods	2,651	0	0	0	0	0	0	0	0	2,651
26154002-Guadalupe Rv—Upr, I-280 to SPRR (R6)	34,619	0	1,284	0	965	1,415	0	37	0	37,036
26154003-Guadalupe Rv—Upper, SPRR to Blossom Hill Rd. (R7-12)	64,589	18,294	17,682	6,516	16,563	6,523	3,257	2,656	0	118,397
Actuals in closed project numbers	7,887	0	0	0	0	0	0	0	0	7,887
<b>TOTAL</b>	<b>109,746</b>	<b>18,294</b>	<b>18,966</b>	<b>6,516</b>	<b>17,527</b>	<b>7,938</b>	<b>3,257</b>	<b>2,693</b>	<b>0</b>	<b>165,971</b>

Adjusted Budget includes adopted budget plus approved budget adjustments.

## FUNDING SOURCES

(in thousands \$)

SCVWD Clean, Safe Creeks and Natural Flood Protection Fund	124,052
SCVWD Watershed Stream Stewardship Fund	12,000
SCVWD Safe, Clean Water and Natural Flood Protection Fund	4,534
State of California	21,600
City of San Jose	3,785
<b>Total</b>	<b>165,971</b>
U.S. Army Corps of Engineers - In-kind Services	188,000

## OPERATING COST IMPACTS

The completion of this project is anticipated to increase operating costs by approximately \$480,000 per year, beginning in FY 2025, for mitigation and monitoring labor and equipment, implementation of adaptive management measures, and operations and maintenance in accordance with the Corps Operations and Maintenance Manual.

**USEFUL LIFE:** 30+ Years

# Coyote Watershed



## Flood Protection CIP Projects

- ★ Major Capital Improvements Identified
- Major Capital Improvements Identified
- Major Capital Improvements Completed

<b>Project</b>	<b>Berryessa Creek, Calaveras Boulevard to Interstate 680</b>
<b>Program</b>	Flood Protection – Coyote Watershed
<b>Priority No.</b>	76
<b>Project No.</b>	26174041s
<b>District Contact</b>	Ngoc Nguyen NNguyen@valleywater.org



Berryessa Creek near flood stage at Piedmont Road in San Jose

**PROJECT DESCRIPTION**

This project partners with the U.S. Army Corps of Engineers (Corps) to plan, design, and construct improvements along approximately 2 miles of Berryessa Creek, from Calaveras Boulevard to Interstate 680, to accomplish the following objectives:

- Provide one-percent flood protection to more than 1,100 homes, businesses, and public buildings.
- Reduce sedimentation and maintenance requirements.
- Mitigate for project impacts.
- Improve stream habitat values.
- Coordinate with the cities of San Jose and Milpitas, and the community to establish a continuous maintenance road suitable for trail development along the Berryessa Creek project.
- Obtain a Letter of Map Revision (LOMR) from the Federal Emergency Management Agency (FEMA).
- Incorporate the District's Clean, Safe Creeks and Natural Flood Protection Program Objectives.

**PROJECT LOCATION**



## SCHEDULE & STATUS

January 2000 to March 2021

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	8,321											
Design	770											
Design	11,885											
Construct	26,804											
Closeout	150											
	47,930											

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
26174041-Berryessa Creek, Corps Coordination	20,651	2,332	5,750	200	0	0	0	0	28,933
with inflation	20,651	2,332	5,761	218	0	0	0	0	28,962
26174042-Berryessa Creek, LERRDs	17,428	1,650	200	0	0	0	0	0	19,278
with inflation	17,428	1,650	209	0	0	0	0	0	19,287
<b>TOTAL</b>	<b>38,079</b>	<b>3,982</b>	<b>5,950</b>	<b>200</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>48,211</b>
with inflation	<b>38,079</b>	<b>3,982</b>	<b>5,970</b>	<b>218</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>48,249</b>

Actuals include project expenditures, and encumbrances.

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
26174041-Berryessa Creek, Corps Coordination	35,666	0	12,683	0	0	0	0	0	35,666
26174042-Berryessa Creek, LERRDs	18,777	301	0	209	0	0	0	0	19,287
<b>TOTAL</b>	<b>54,443</b>	<b>301</b>	<b>12,683</b>	<b>209</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>54,953</b>

Adjusted Budget includes adopted budget plus approved budget adjustments. Allocated funding exceeds planned expenditures by approximately \$6,704,000. Excess funds will be returned to Fund Reserves at the end of the project.

## FUNDING SOURCES

(in thousands \$)

SCVWD Clean, Safe Creeks and Natural Flood Protection Fund	19,353
State of California	25,600
Department of Water Resources (Prop 1E)	10,000
<b>Total</b>	<b>54,953</b>
U.S. Army Corps of Engineers - In-kind Services	13,600

## OPERATING COST IMPACTS

The completion of this project is anticipated to increase operating costs by approximately \$80,000 per year, beginning in FY 2022, to maintain approximately 2 miles of new levees and flood walls, and for activities such as vegetation spraying and graffiti removal.

**USEFUL LIFE:** 30+ Years

<b>Project</b>	<b>Berryessa Creek, Lower Penitencia Creek to Calaveras Boulevard</b>
<b>Program</b>	Flood Protection – Coyote Watershed
<b>Priority No.</b>	68
<b>Project No.</b>	40174004s
<b>District Contact</b>	Ngoc Nguyen NNguyen@valleywater.org



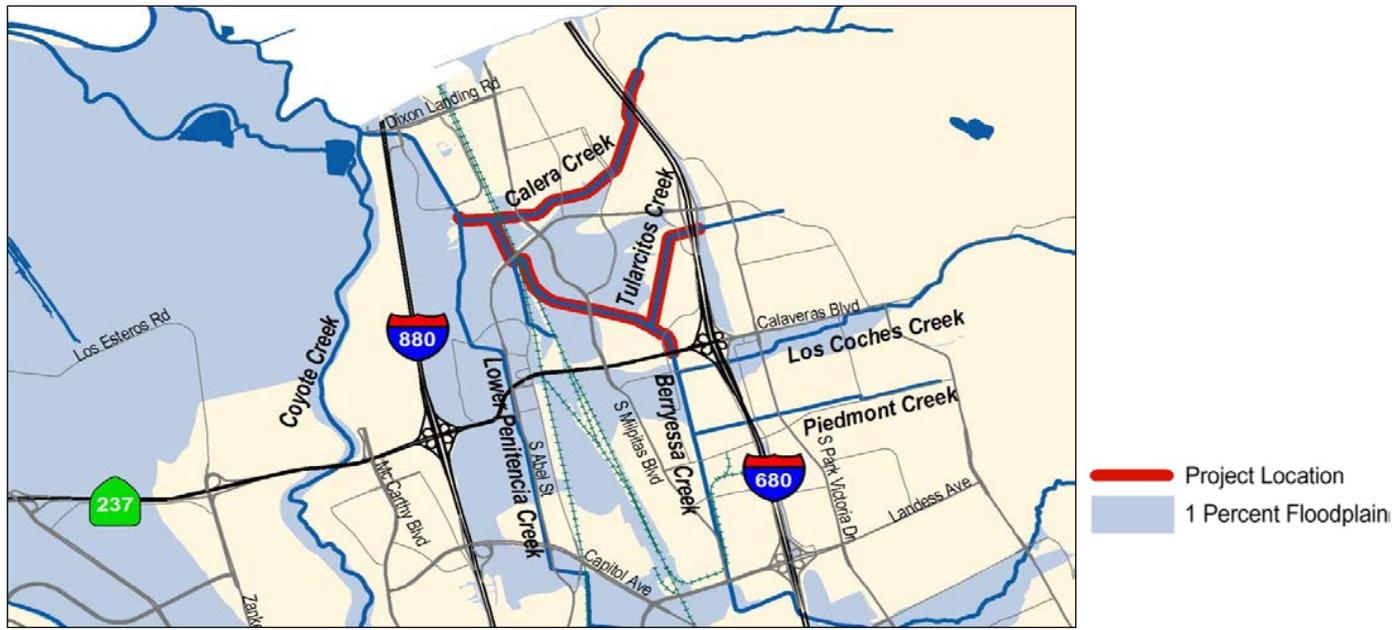
Berryessa Creek upstream of the confluence with Lower Penitencia Creek

### PROJECT DESCRIPTION

This project plans, designs, and constructs improvements along approximately 3 miles of Berryessa Creek and its tributaries, from the confluence with Lower Penitencia Creek to Calaveras Boulevard (Phase 1 and 2) and both Calera and Tularcitos Creeks (Phase 3), to accomplish the following objectives:

- ◆ Provide one-percent flood protection to 1,823 homes, businesses, and public buildings in the surrounding area.
- ◆ Improve the structural integrity of the levees.
- ◆ Improve maintenance access and safety for District staff.
- ◆ Identify opportunities to integrate recreation inputs consistent with the City of Milpitas’ Trail Master Plan.
- ◆ Obtain a Letter of Map Revision (LOMR) from the Federal Emergency Management Agency (FEMA).
- ◆ Incorporate the District's Clean, Safe Creeks and Natural Flood Protection (NFP) Program Objectives.

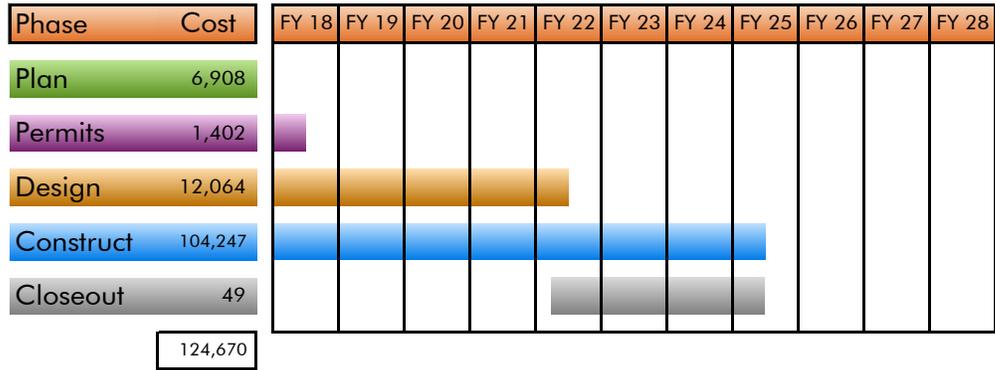
### PROJECT LOCATION



## SCHEDULE & STATUS

March 2001 to December 2024

Planning phase is complete.  
Construction includes three phases and three years of plant establishment monitoring.



## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
40174004-Berryessa Creek, Lower Penitencia Creek to Calaveras Boulevard Phase 1	48,895	70	70	70	70	70	0	0	49,245
with inflation	48,895	70	73	76	80	83	0	0	49,278
40174005-Berryessa Creek, Lower Penitencia Creek to Calaveras Boulevard Phase 2	50,475	6,287	18,434	320	320	350	0	0	76,186
with inflation	50,475	6,287	19,114	349	365	417	0	0	77,008
40C40397-Berryessa Creek, Lower Penitencia Creek to Calaveras Boulevard Phase 3	0	0	0	0	1,925	1,850	1,810	50,664	56,249
with inflation	0	0	0	0	2,164	2,206	1,281	65,774	71,426
<b>TOTAL</b>	<b>99,370</b>	<b>6,357</b>	<b>18,504</b>	<b>390</b>	<b>2,315</b>	<b>2,270</b>	<b>1,810</b>	<b>50,664</b>	<b>181,680</b>
with inflation	<b>99,370</b>	<b>6,357</b>	<b>19,187</b>	<b>426</b>	<b>2,609</b>	<b>2,707</b>	<b>1,281</b>	<b>65,774</b>	<b>197,711</b>

Actuals include project expenditures, and encumbrances.

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total	
	FY17	FY18	FY18	FY19	FY20	FY21	FY22	FY23	Future	
40174004-Berryessa Creek, Lower Penitencia Creek to Calaveras Boulevard Phase 1	51,191	0	2,226	0	0	0	0	0	0	51,191
40174005-Berryessa Creek, Lower Penitencia Creek to Calaveras Boulevard Phase 2	58,402	0	1,640	17,474	349	365	417	0	0	77,008
40C40397-Berryessa Creek, Lower Penitencia Creek to Calaveras Boulevard Phase 3	0	0	0	0	0	2,164	2,206	1,281	65,774	71,426
<b>TOTAL</b>	<b>109,593</b>	<b>0</b>	<b>3,866</b>	<b>17,474</b>	<b>349</b>	<b>2,529</b>	<b>2,624</b>	<b>1,281</b>	<b>65,774</b>	<b>199,624</b>

Adjusted Budget includes adopted budget plus approved budget adjustments. Allocated funding exceeds planned expenditures by approximately \$1,913,000. Excess funds will be returned to Fund Reserves at the close of the project.

## FUNDING SOURCES

(in thousands \$)

SCVWD Watershed Stream Stewardship Fund	184,624
Department of Water Resources (Prop 1E)	15,000
<b>Total</b>	<b>199,624</b>

## OPERATING COST IMPACTS

The completion of this project is anticipated to increase annual operating costs by approximately \$70,000 per year. Operating costs will increase with completion of construction of each of 3 phases: beginning with a \$35,000 increase in FY 2018 (1 year after completion of Phase 1), increasing to \$45,000 in FY 2023 (1 year after completion of Phase 2), and finally increasing to \$70,000 in FY 2028 (1 year after completion of Phase 3). These costs will be for increased maintenance activities such as sediment removal, vegetation management, levee maintenance, graffiti abatement, and trash & debris cleanup.

**USEFUL LIFE:** 30+ Years

<b>Project</b>	<b>Coyote Creek, Montague Expressway to Tully Road</b>
<b>Program</b>	Flood Protection – Coyote Watershed
<b>Priority No.</b>	62
<b>Project No.</b>	26174043
<b>District Contact</b>	Ngoc Nguyen NNguyen@valleywater.org



Flooding from Coyote Creek on 17th Street near downtown San Jose in January 1997

**PROJECT DESCRIPTION**

This project plans, designs, and constructs improvements along approximately 9 miles of Coyote Creek, from Montague Expressway to Tully Road, to accomplish the following objectives:

- Complete planning and design for flood protection of 1,400 businesses and homes from a one percent flood for Coyote Creek from Montague Expwy to Tully Road.
- Improve water quality, enhance stream habitat, and provide recreational opportunities.
- Incorporate revegetation and aesthetic elements of the Coyote Creek park chain.
- Minimize long term maintenance needs.
- Improvements to provide protection from an approximately 20-25 year flood event.

**PROJECT LOCATION**



— Project Location  
 1 Percent Floodplain

## SCHEDULE & STATUS

September 2002 to March 2026

Project is on hold and will resume in 2019.

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	8,661											
Permits	1,260											
Design	11,066											
Construct	58,723											
Closeout	206											
	79,916											

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total	
		FY17	FY18	FY19	FY20	FY21	FY22	FY23		Future
26174043-Coyote Creek, Montague Expressway to Tully Road	10,983		760	2,160	900	935	16,900	16,590	30,765	79,993
with inflation	10,983		760	2,257	983	1,067	19,546	19,342	35,935	90,874

Actuals include project expenditures, and encumbrances.

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total	
				FY17	FY18	FY19	FY20	FY21		FY22
26174043-Coyote Creek, Montague Expressway to Tully Road	11,508	760	525	1,732	983	1,067	19,546	19,342	35,935	90,874

Adjusted Budget includes adopted budget plus approved budget adjustments.

## FUNDING SOURCES

(in thousands \$)

SCVWD Clean, Safe Creeks and Natural Flood Protection Fund	90,874
Other Funding Source	0
<b>Total</b>	<b>90,874</b>

## OPERATING COST IMPACTS

The completion of this project is anticipated to increase operating costs by approximately \$100,000 per year, beginning in FY 2027. Currently the District has limited and sporadic property rights within the project limits along the creek, and ongoing maintenance costs are relatively small. Project implementation may include acquisition of continuous right of way for construction and future operations and maintenance.

**USEFUL LIFE:** 30+ Years

<b>Project</b>	<b>Cunningham Flood Detention Certification</b>
<b>Program</b>	Flood Protection – Coyote Watershed
<b>Priority No.</b>	83
<b>Project No.</b>	40264011
<b>District Contact</b>	Ngoc Nguyen NNguyen@valleywater.org



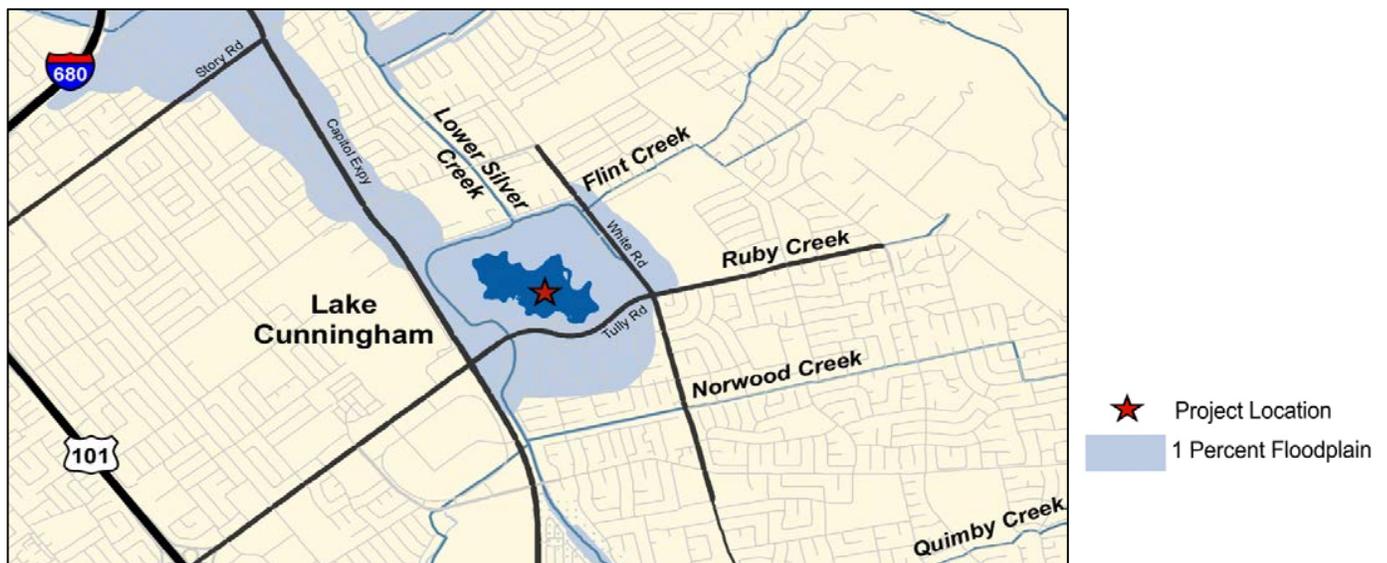
Flooding from Lower Silver Creek in February 1969 at the future site of Lake Cunningham Regional Park

### PROJECT DESCRIPTION

This project plans, designs, and constructs final improvements at Lake Cunningham Regional Park (Park) to ensure the site operates as a flood detention facility in accordance with the 1978 agreement with the City of San Jose (City) and to ensure the Lower Silver Creek Project (LSC Project) improvements downstream of Cunningham Avenue function as designed. This project will accomplish the following objectives:

- Validate that the flood detention facility can attenuate the volume of water associated with 2,249 cfs below the park land elevation as stipulated in the 1978 Joint Use Agreement between the City and the District.
- Obtain Federal Emergency Management Agency (FEMA) certification of the flood detention facility and Lower Silver Creek improvements north of the Park to revise the applicable flood insurance rate maps in the Lower Silver Creek 1-percent floodplain near the north of the Park.
- Update the 1978 Joint Use Agreement between the City and the District to meet the flood detention facility's validated condition.

### PROJECT LOCATION



## SCHEDULE & STATUS

August 1999 to June 2021

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	2,318											
Permits	337											
Design	1,898											
Construct	6,989											
Closeout	15											
	11,557											

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures								Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future		
40264011-Cunningham Flood Detention Certification	3,722	6,406	1,235	215	30	0	0	0	0	11,608
with inflation	3,722	6,406	1,290	235	34	0	0	0	0	11,687

Actuals include project expenditures, and encumbrances.

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future		
40264011-Cunningham Flood Detention Certification	8,287	1,841	0	1,290	235	34	0	0	0	11,687

Adjusted Budget includes adopted budget plus a planned budget adjustment of \$167,000.

## FUNDING SOURCES

(in thousands \$)

SCVWD Watershed Stream Stewardship Fund	11,687
Other Funding Source	0
<b>Total</b>	<b>11,687</b>

## OPERATING COST IMPACTS

The completion of this project is not anticipated to increase or decrease annual operations costs. The project is within District jurisdiction and it is designed to minimize maintenance activities such as sediment removal, so as to have minimal or no additional impact to the operating budget.

**USEFUL LIFE:** 30+ Years

<b>Project</b>	<b>Lower Penitencia Creek Improvements, Berryessa to Coyote Creeks</b>
<b>Program</b>	Flood Protection – Coyote Watershed
<b>Priority No.</b>	65
<b>Project No.</b>	40334005
<b>District Contact</b>	Ngoc Nguyen NNguyen@valleywater.org



Lower Penitencia Creek, looking downstream from Milmont Drive

### PROJECT DESCRIPTION

This project plans, designs, and constructs improvements along approximately 1 mile of Lower Penitencia Creek from the downstream confluence with Coyote Creek to the downstream face of San Andreas Drive, to accomplish the following objectives:

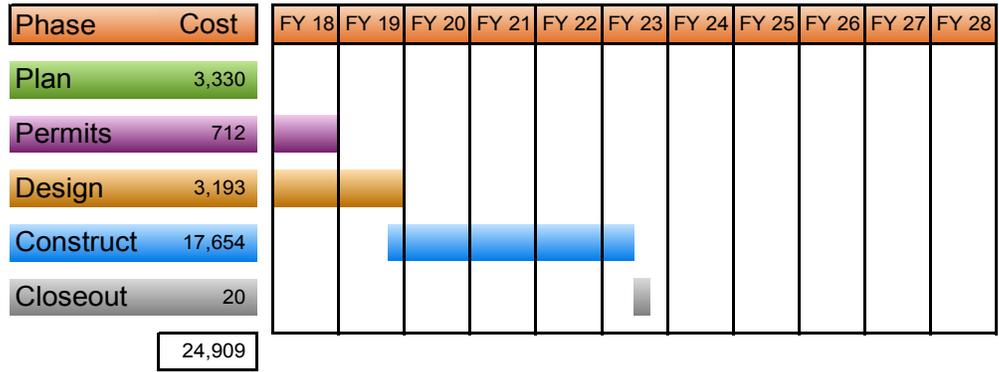
- ◆ Convey the Lower Berryessa Creek 1-percent design flow.
- ◆ Meet required water surface elevations at Coyote Creek and Berryessa Creek confluences.
- ◆ Minimize the need for seasonal removal of sediment and non-woody vegetation.
- ◆ Maintain existing FEMA accreditation along the east levee located between California Circle and Berryessa
- ◆ Enable FEMA certification of the improvements.

### PROJECT LOCATION



## SCHEDULE & STATUS

October 2010 to January 2025



## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
40334005-Lower Penitencia Creek Improvements, Berryessa to Coyote Creeks	6,752	1,486	7,760	9,500	250	250	170	0	26,168
with inflation	6,752	1,486	8,059	9,861	285	298	212	0	26,954

Actuals include project expenditures, and encumbrances.

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total	
	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
40334005-Lower Penitencia Creek Improvements, Berryessa to Coyote Creeks	9,601	4,815	6,178	1,881	9,861	285	298	212	0	26,954

Adjusted Budget includes adopted budget plus approved budget adjustments.

## FUNDING SOURCES

(in thousands \$)

SCVWD Watershed Stream Stewardship Fund	21,954
Department of Water Resources (Prop 1E)	5,000
<b>Total</b>	<b>26,954</b>

## OPERATING COST IMPACTS

Operating cost impacts will be established during the design phase.

**USEFUL LIFE:** 50 Years

<b>Project</b>	<b>Lower Silver Creek, I-680 to Cunningham Avenue (R4-6)</b>
<b>Program</b>	Flood Protection – Coyote Watershed
<b>Priority No.</b>	98
<b>Project No.</b>	40264007s
<b>District Contact</b>	Ngoc Nguyen NNguyen@valleywater.org



Lower Silver Creek looking upstream from Capital Expressway

## PROJECT DESCRIPTION

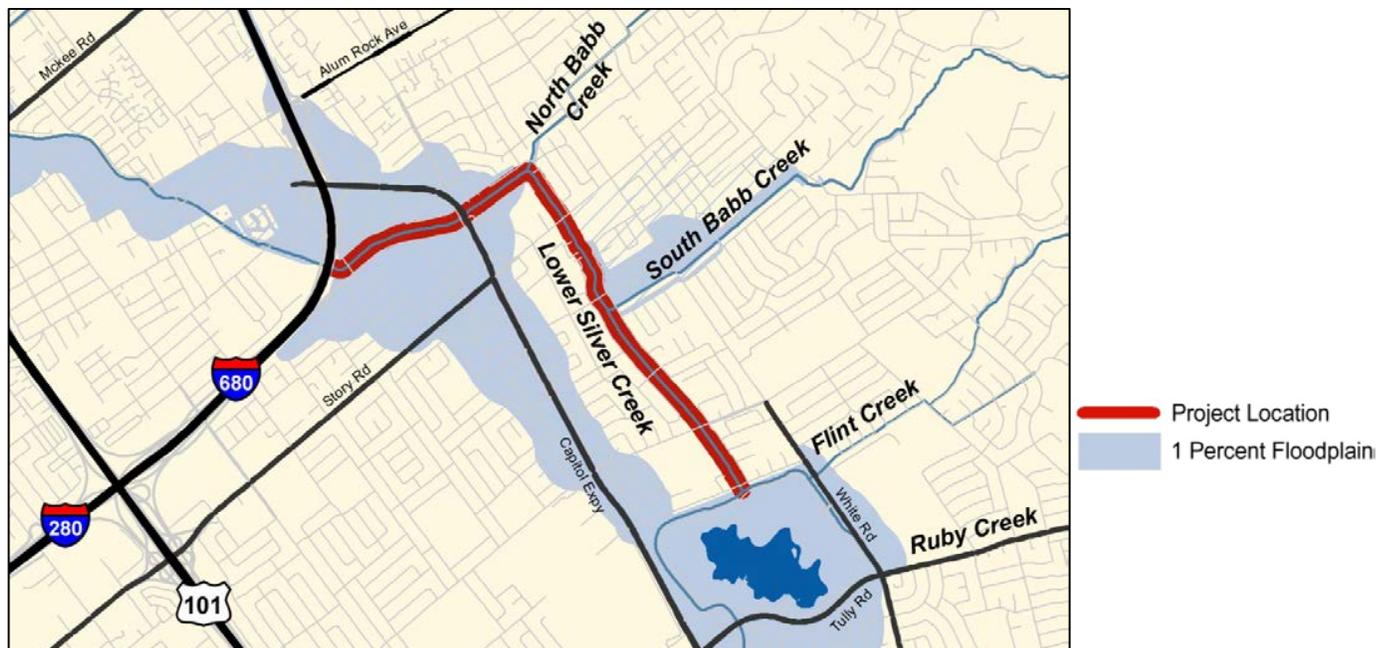
This project is part of a flood control project that partners with the Natural Resource Conservation Service (NRCS) to plan, design and construct improvements along approximately 2.3 miles of Lower Silver Creek, from Interstate 680 to Lake Cunningham. This project includes elements that are eligible for reimbursement from the state and federal governments to accomplish the following objectives:

- ♦ Increase flood protection to 3,800 parcels in the surrounding area.
- ♦ Allow for on-site mitigation of project impacts, and in some cases enhancement of existing habitat values by increased wetlands and riparian habitat.
- ♦ Improve vehicle and pedestrian bridges crossing Lower Silver Creek.
- ♦ Develop the footprint for a future trail project between Capitol Avenue-Frontage Road and Jackson Avenue that ensures pedestrians and bicyclists may travel beneath the Dobern Pedestrian Bridge.

This project is accounted for in the following job numbers:

- ♦ 40264007–Lower Silver Creek, I-680 to N. Babb Rd. (Reach 4 Planning) - Completed
- ♦ 40264008–Lower Silver Creek, I-680 to Cunningham Rd. (Reaches 4-6)
- ♦ 40264012–Lower Silver Creek (Reaches 4-6) Reimbursable

## PROJECT LOCATION



## SCHEDULE & STATUS

August 1991 to March 2020

Planning and Design phases are complete

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	6,308											
Permits	200											
Design	10,915											
Construct	75,989											
Closeout	96											
	93,508											

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
40264007-Lower Silver Creek, Reach 4 Planning	2,371	0	0	0	0	0	0	0	2,371
with inflation	2,371	0	0	0	0	0	0	0	2,371
40264008-Lower Silver Ck, Nonreimbursable (R4-6)	93,261	1,981	545	285	0	0	0	0	96,072
with inflation	93,261	1,981	569	311	0	0	0	0	96,123
40264012-Lower Silver Creek, LERRDs (R4-6)	1,895	52	50	40	0	0	0	0	2,037
with inflation	1,895	52	52	44	0	0	0	0	2,043
<b>TOTAL</b>	<b>97,527</b>	<b>2,033</b>	<b>595</b>	<b>325</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>100,480</b>
with inflation	97,527	2,033	622	355	0	0	0	0	100,537

Actuals include project expenditures, and encumbrances.

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
40264007-Lower Silver Creek, Reach 4 Planning	2,371	0	0	0	0	0	0	0	2,371
40264008-Lower Silver Ck, Nonreimbursable (R4-6)	93,750	1,981	489	80	311	0	0	0	96,123
40264012-Lower Silver Creek, LERRDs (R4-6)	2,912	0	965	0	0	0	0	0	2,912
<b>TOTAL</b>	<b>99,033</b>	<b>1,981</b>	<b>1,454</b>	<b>80</b>	<b>311</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>101,406</b>

Adjusted Budget includes adopted budget plus approved budget adjustments. Approved budget exceeds planned expenditures by approximately \$869,000. Excess funds will be returned to fund reserves at the end of the project.

## FUNDING SOURCES

(in thousands \$)

SCVWD Watershed Stream Stewardship Fund	48,343
State of California	8,387
Natural Resource Conservation Service - ARRA	20,676
California Department of Water Resources	24,000
<b>Total</b>	<b>101,406</b>

## OPERATING COST IMPACTS

Operating budget impacts from construction of this project are expected to be insignificant. Repair of several erosion sites will reduce maintenance needs, but will not affect overall sediment removal or vegetation control practices.

**USEFUL LIFE:** 50+ Years

<b>Project</b>	<b>Upper Penitencia Creek, Coyote Creek to Dorel Drive</b>
<b>Program</b>	Flood Protection – Coyote Watershed
<b>Priority No.</b>	66
<b>Project No.</b>	40324003s
<b>District Contact</b>	Vincent Gin VGin@valleywater.org



Flooding at King Road on Upper Penitencia Creek

## PROJECT DESCRIPTION

Initially, this project partnered with the U.S. Army Corps of Engineers (Corps) to plan, design, and construct improvements along approximately 4.2 miles of Upper Penitencia Creek, from the confluence with Coyote Creek to Dorel Drive, to accomplish the objectives listed below. In 2016, the Corps decided that the multi-objective project which is appropriate for this creek could not be funded under the existing single-purpose authorization. The Project was not included in the Corp's 2017 workplan. We are moving forward with \$2 million from SCW funds to finish the Planning Phase in FY19. It is possible that funding can be acquired through grants or other means to continue the Project after Planning.

Objectives:

- ♦ Provide one-percent flood protection to more than 5,000 homes, businesses, and public buildings.
- ♦ Improve stream habitat values and fisheries potential.
- ♦ Reduce sedimentation and maintenance requirements.
- ♦ Identify opportunities to integrate recreation improvements consistent with the City of San Jose’s Master Plans, the County’s Penitencia Creek Master Plan, and Santa Clara Countywide Trails Master Plan.
- ♦ Obtain a Letter of Map Revision (LOMR) from the Federal Emergency Management Agency (FEMA).
- ♦ Incorporate the District’s Clean, Safe Creeks and Natural Flood Protection (NFP) Program Objectives.

This project is accounted for in the following job numbers:

- ♦ 40324003— Conduct initial stages of Planning Phase through FY18.
- ♦ 26324001—Safe Clean Water Program - Conduct Feasibility Study and close out Planning in FY19.

## PROJECT LOCATION



## SCHEDULE & STATUS

March 1996 to June 2019

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	10,233											
Permits	391											
Design	3,495											
Construct	1,479											
Closeout	-											
	15,598											

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
40324003-Upper Penitencia Ck, Coyote Ck to Dorel Dr, Corps	9,206	880	0	0	0	0	0	0	10,086
with inflation	9,206	880	0	0	0	0	0	0	10,086
40324005-Upper Penitencia Ck, Coyote Ck to Dorel Dr, LERRDs	3,587	0	0	0	0	0	0	0	3,587
with inflation	3,587	0	0	0	0	0	0	0	3,587
26324001-Upper Penitencia Ck, Coyote Ck to Dorel Dr	0	0	2,000	0	0	0	0	0	2,000
with inflation	0	0	2,090	0	0	0	0	0	2,090
<b>TOTAL</b>	<b>12,793</b>	<b>880</b>	<b>2,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>15,673</b>
with inflation	<b>12,793</b>	<b>880</b>	<b>2,090</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>15,763</b>

Actuals include project expenditures, and encumbrances.

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total	
	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
40324003-Upper Penitencia Ck, Coyote Ck to Dorel Dr, Corps	8,970	1,116	0	0	0	0	0	0	0	10,086
40324005-Upper Penitencia Ck, Coyote Ck to Dorel Dr, LERRDs	8,544	0	4,957	0	0	0	0	0	0	8,544
26324001-Upper Penitencia Ck, Coyote Ck to Dorel Dr	385	0	385	1,705	0	0	0	0	0	2,090
<b>TOTAL</b>	<b>17,899</b>	<b>1,116</b>	<b>5,342</b>	<b>1,705</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>20,720</b>

Adjusted Budget includes adopted budget plus approved budget adjustments. Approved Funding exceeds planned expenditures by approximately \$4,957,000. Excess funding will be returned to reserves at the end of the project.

## FUNDING SOURCES

(in thousands \$)

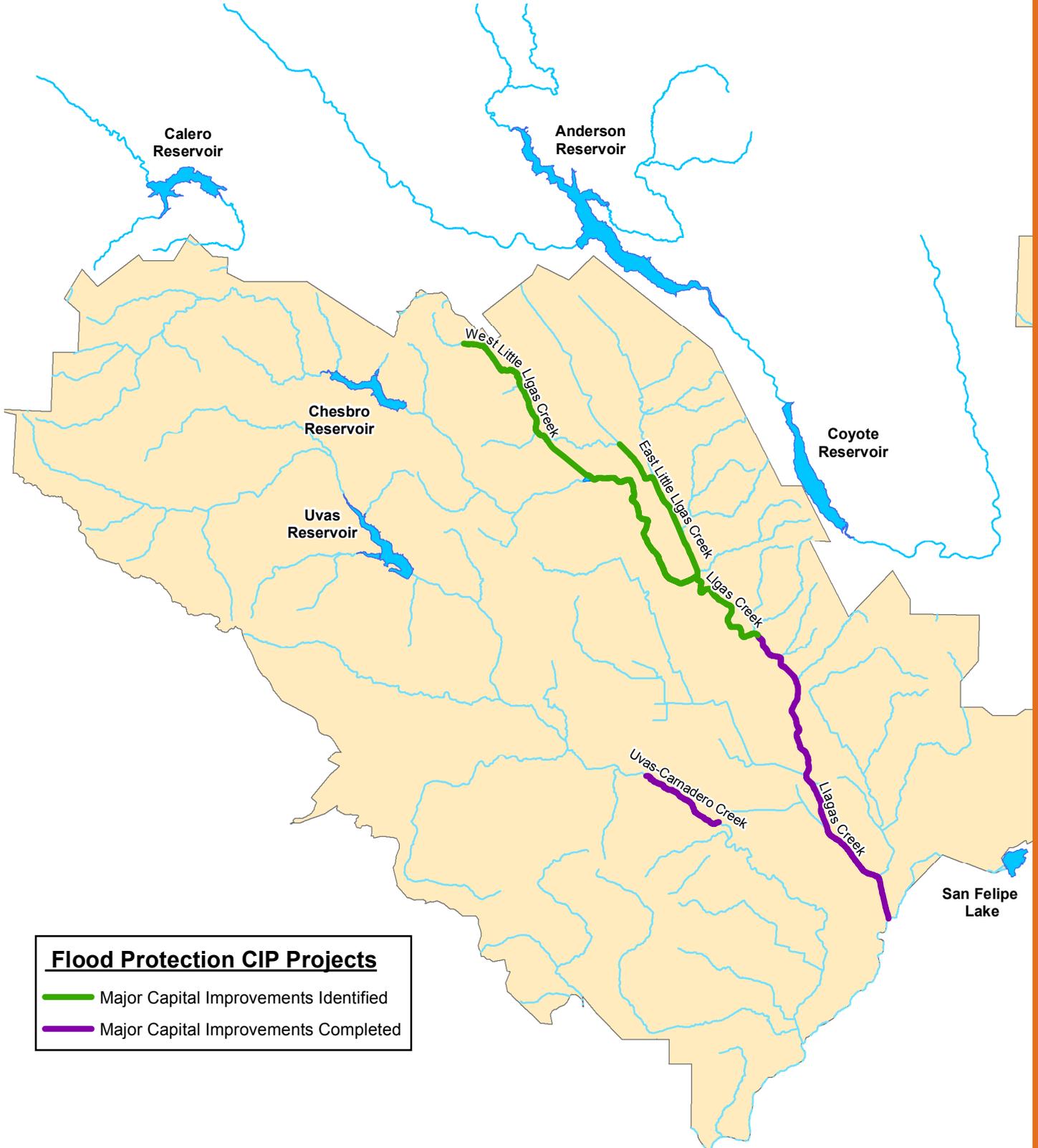
SCVWD Watershed Stream Stewardship Fund	18,630
SCVWD Safe, Clean Water Fund	2,090
<b>Total</b>	<b>20,720</b>
U.S. Army Corps of Engineers - In-kind Services	102,720

## OPERATING COST IMPACTS

Operating cost impacts will be provided after completion of the planning phase.

**USEFUL LIFE:** Not Available

# Uvas/Llagas Watersheds



<b>Project</b>	<b>Llagas Creek–Lower, Capacity Restoration, Buena Vista Avenue to Pajaro River</b>
<b>Program</b>	Flood Protection – Uvas/Llagas Watershed
<b>Priority No.</b>	65
<b>Project No.</b>	50284010
<b>District Contact</b>	Katherine Oven KOven@valleywater.org



Lower Llagas Creek near Pajaro River

### PROJECT DESCRIPTION

This project plans, designs, and constructs improvements on approximately 7.15 miles of Lower Llagas Creek, from Buena Vista Avenue to Pajaro River, to accomplish the following objectives:

- Evaluate the current flood risk in the area surrounding the project versus the design level flood risk.
- Develop options to provide flood protection for Lower Llagas Creek Reaches 2 and 3 in accordance with Federal Emergency Management Agency (FEMA) criteria where applicable.
- Identify feasible opportunities for environmental restoration and corridor preservation.

### PROJECT LOCATION



## SCHEDULE & STATUS

July 2008 to June 2023

Project is "On Hold" until the Post-Project Hydraulic Analysis for the Upper Llagas Creek project is completed to address the City of Gilroy's request.

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	2,924											
Permits	1,754											
Design	3,048											
Construct	5,000											
Closeout	100											
	12,826											

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures								Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future		
50284010-Llagas Creek—Lower, Capacity Restoration, Buena Vista Avenue to Pajaro River	3,324	52	1,450	2,550	2,850	2,500	100	0	12,826	
with inflation	3,324	52	1,515	2,785	3,187	2,891	125	0	13,879	

Actuals include project expenditures, and encumbrances.

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future		
50284010-Llagas Creek—Lower, Capacity Restoration, Buena Vista Avenue to Pajaro River	7,046	0	3,670	0	630	3,187	2,891	125	0	13,879

Adjusted Budget includes adopted budget plus approved budget adjustments.

## FUNDING SOURCES

(in thousands \$)

SCVWD Watershed Stream Stewardship Fund	8,759
State of California	5,120
<b>Total</b>	<b>13,879</b>

## OPERATING COST IMPACTS

Operating costs will be determined during the design phase.

**USEFUL LIFE:** 30+ Years

<b>Project</b>	<b>Llagas Creek–Upper, Buena Vista Avenue to Llagas Road</b>
<b>Program</b>	Flood Protection – Uvas/Llagas Watershed
<b>Priority No.</b>	70
<b>Project No.</b>	26174051s
<b>District Contact</b>	Katherine Oven KOven@valleywater.org



Llagas Creek floods at Watsonville Road and the surrounding area

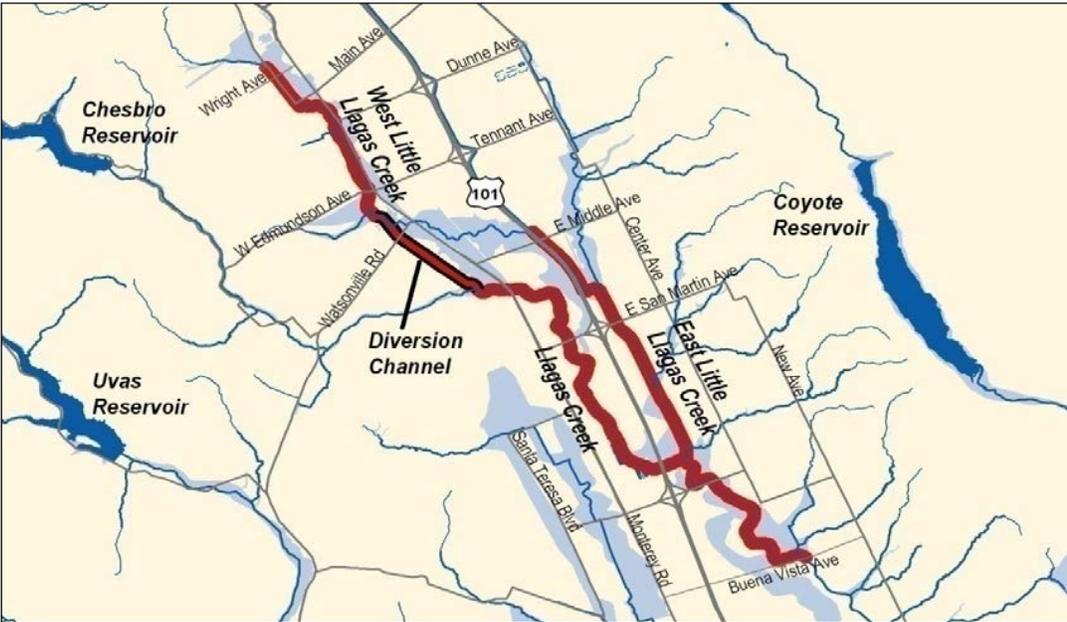
**PROJECT DESCRIPTION**

This project partners with the U.S. Army Corps of Engineers (Corps) to plan, design, and construct improvements on approximately 13.6 miles of Upper Llagas Creek, from Buena Vista Avenue to Llagas Road, to provide an increased level of flood protection with adequate freeboard. SCVWD shall coordinate with the County of Santa Clara and the City of Morgan Hill on public access and recreational trail opportunities within Reaches 7 and 8 of this project.

This project is accounted for in the following job numbers:

- 26174051 - Reaches 4-8 & 14 - Reimbursable - Lands, Easements, Rights of Way, Relocation, & Disposal (LERRD)
- 26174052 - Reaches 4-8 & 14 - Coordination with the Corps
- 26174053 - Technical Studies (completed)
- 26174054 - Design
- 50C40335 - Construction, Reach 5, 6, & 7b

**PROJECT LOCATION**

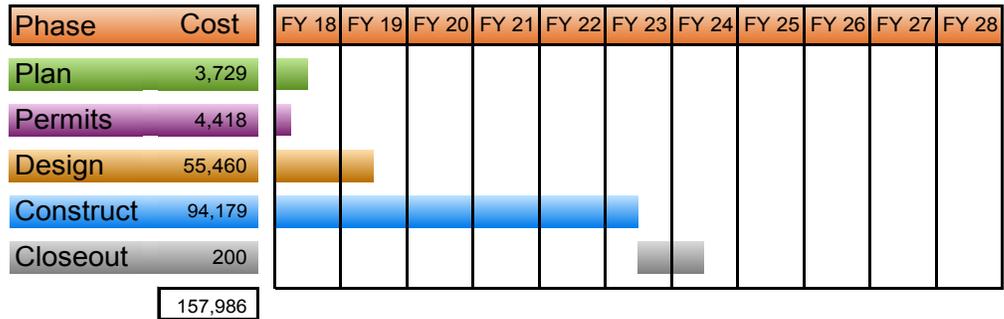


— Project Location  
 1 Percent Floodplain

## SCHEDULE & STATUS

August 2000 to December 2023

Project schedule may vary considerably and is dependent upon the Corps and Congress.



## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
26174051-Llagas Ck—Upper, LERRDs	25,098	12,064	0	0	0	0	0	0	37,162
with inflation	25,098	12,064	0	0	0	0	0	0	37,162
26174052-Llagas Ck—Upper, Corps Coordination	7,176	20,019	19,000	18,000	12,600	100	100	0	76,995
with inflation	7,176	20,019	19,000	18,000	12,600	119	125	0	77,039
26174053-Llagas Ck—Upper, Technical Studies	1,446	0	0	0	0	0	0	0	1,446
with inflation	1,446	0	0	0	0	0	0	0	1,446
26174054-Llagas Ck—Upper, Design	20,658	2,040	250	250	250	250	250	0	23,948
with inflation	20,658	2,040	261	273	285	298	312	0	24,127
50C40335-Llagas Ck—Upper, Construction Rch 5, 6, & 7b	0	0	17,000	6,000	0	0	0	0	23,000
with inflation	0	0	17,595	6,210	0	0	0	0	23,805
<b>TOTAL</b>	<b>54,378</b>	<b>34,123</b>	<b>36,250</b>	<b>24,250</b>	<b>12,850</b>	<b>350</b>	<b>350</b>	<b>0</b>	<b>162,551</b>
with inflation	<b>54,378</b>	<b>34,123</b>	<b>36,856</b>	<b>24,483</b>	<b>12,885</b>	<b>417</b>	<b>436</b>	<b>0</b>	<b>163,579</b>

Actuals include project expenditures, and encumbrances.

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
26174051-Llagas Ck—Upper, LERRDs	42,951	106	5,895	0	0	0	0	0	43,057
26174052-Llagas Ck—Upper, Corps Coordination	40,893	2	13,700	5,300	18,000	12,600	119	125	77,039
26174053-Llagas Ck—Upper, Technical Studies	1,446	0	0	0	0	0	0	0	1,446
26174054-Llagas Ck—Upper, Design	20,652	2,046	0	261	273	285	298	312	24,127
50C40335-Llagas Ck—Upper, Construction Rch 5, 6, & 7b	0	0	0	17,595	6,210	0	0	0	23,805
<b>TOTAL</b>	<b>105,942</b>	<b>2,154</b>	<b>19,595</b>	<b>23,156</b>	<b>24,483</b>	<b>12,885</b>	<b>417</b>	<b>436</b>	<b>169,474</b>

Adjusted Budget includes adopted budget plus approved budget adjustments. Total allocated funding exceeds planned expenditures by approximately \$5,895,000. Excess funds will be returned to fund reserves at the close of the project.

## FUNDING SOURCES

(in thousands \$)

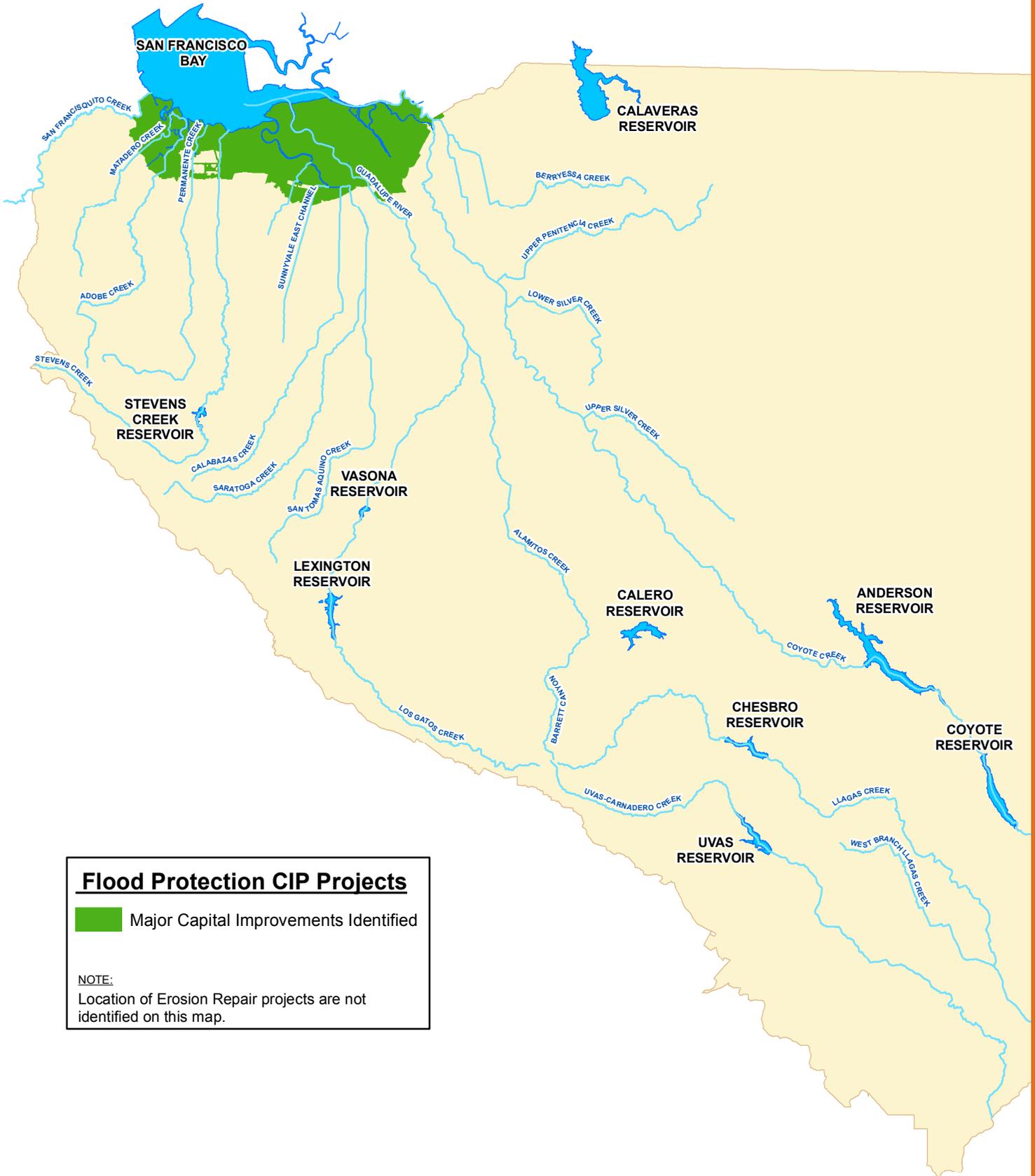
SCVWD Clean, Safe Creeks and Natural Flood Protection Fund	17,900
SCVWD Safe Clean Water Program Fund	96,725
Watershed Stream Stewardship Fund	23,805
State of California	27,703
City of Morgan Hill	3,341
<b>Total</b>	<b>169,474</b>
U.S. Army Corps of Engineers - In-kind Services	65,000

## OPERATING COST IMPACTS

Operating cost impacts will be provided after completion of the design phase.

**USEFUL LIFE:** 30+ Years

# Multiple Watersheds



**Flood Protection CIP Projects**

 Major Capital Improvements Identified

**NOTE:**  
Location of Erosion Repair projects are not identified on this map.

<b>Project</b>	<b>San Francisco Bay Shoreline</b>
<b>Program</b>	Flood Protection – Multiple Watersheds
<b>Priority No.</b>	74
<b>Project No.</b>	00044026s
<b>District Contact</b>	Ngoc Nguyen NNguyen@valleywater.org



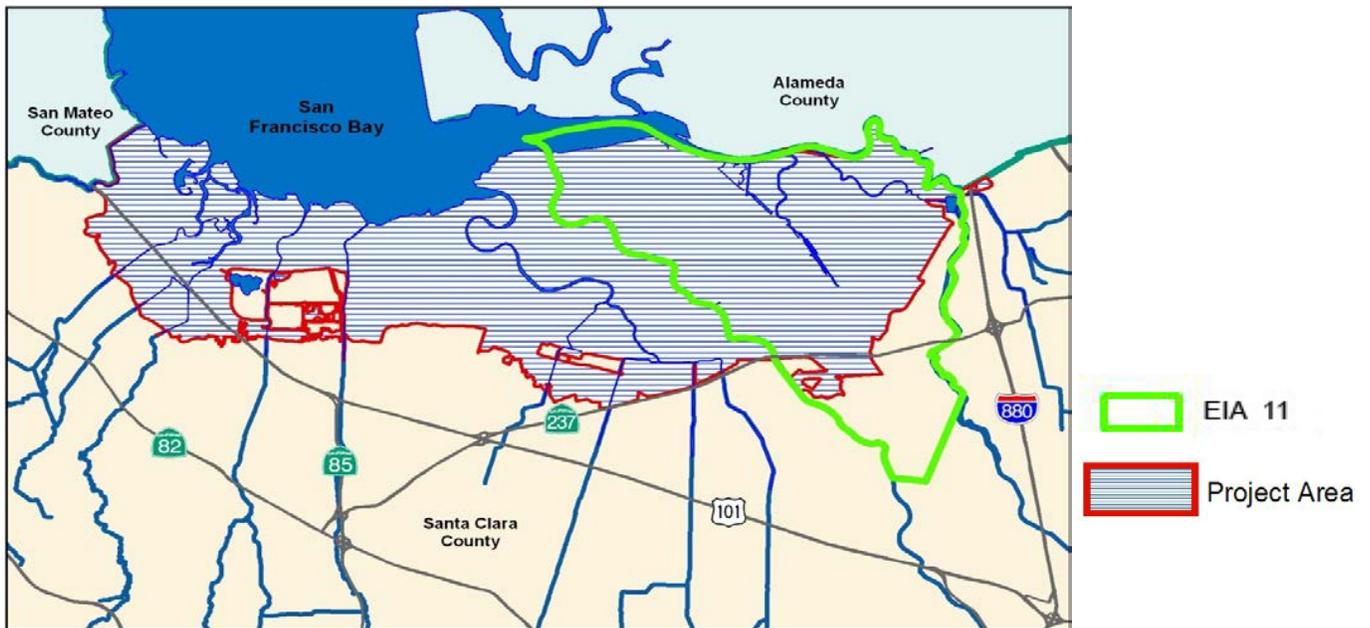
Typical natural tidal marshland in San Francisco Bay near the Shoreline project area

## PROJECT DESCRIPTION

This project partners with the California Coastal Conservancy, U.S. Army Corps of Engineers (Corps), and key stakeholders to conduct an integrated, multi-objective project along the San Francisco Bay Shoreline. Project number 00044026 funded the Corps Feasibility Study effort for the North San Jose area, known as Economic Impact Area 11 (EIA 11) which was completed in FY 17; this project number will continue to fund other Shoreline effort outside of the Safe, Clean Water (SCW) project numbers. The District share of the EIA 11 design and construction is \$45.6M. It is expected that some Measure A will partially fund this project. SCW funds will provide \$15 million toward the District's cost share of the design and partial construction efforts for EIA 11 and \$5 million toward the District's cost share of the planning and design efforts for the remaining EIAs to accomplish the following objectives:

- Provide integrated fluvial and one-percent tidal flood protection.
- Provide protection for future sea level rise projections.
- Restore and/or enhance tidal marsh and related habitats.
- Provide recreational and public access opportunities throughout the tidal floodplain of Santa Clara County.
- Pursue continued federal funding.
- Obtain a Letter of Map Revision from the Federal Emergency Management Agency at completion of the Construction Phase.
- Coordinate closely with the South Bay Salt Pond Restoration Project, City of San Jose, U.S. Fish and Wildlife Services, the community and key stakeholders.

## PROJECT LOCATION



## SCHEDULE & STATUS

July 2003 to December 2021

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	12,448											
Permits	150											
Design	2,215											
Construct	19,173											
Closeout	-											
	<b>33,986</b>											

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
00044026-San Francisco Bay Shoreline	14,351	2,721	100	0	0	0	0	0	17,172
with inflation	14,351	2,721	105	0	0	0	0	0	17,177
62044042-Shoreline Early Implementation	359	0	0	0	0	0	0	0	359
with inflation	359	0	0	0	0	0	0	0	359
26444001-EIA 11 Design & Part Construction	1,817	6,728	6,724	2,900	0	0	0	0	18,169
with inflation	1,817	6,728	6,967	3,115	0	0	0	0	18,626
26444002-Other EIAs Planning	1,796	432	1,000	1,000	1,000	600	0	0	5,828
with inflation	1,796	432	1,045	1,092	1,141	716	0	0	6,222
<b>TOTAL</b>	<b>18,323</b>	<b>9,881</b>	<b>7,609</b>	<b>3,900</b>	<b>1,000</b>	<b>600</b>	<b>0</b>	<b>0</b>	<b>41,528</b>
with inflation	<b>18,323</b>	<b>9,881</b>	<b>8,116</b>	<b>4,207</b>	<b>1,141</b>	<b>716</b>	<b>0</b>	<b>0</b>	<b>42,384</b>

Actuals include project expenditures, and encumbrances.

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
00044026-San Francisco Bay Shoreline	14,557	2,721	206	0	0	0	0	0	17,278
62044042-Shoreline Early Implementation	359	0	0	0	0	0	0	0	359
26444001-EIA 11 Design & Part Construction	7,794	751	0	6,967	3,115	0	0	0	18,626
26444002-Other EIAs Planning	3,756	1	1,529	0	608	1,141	716	0	6,222
<b>TOTAL</b>	<b>26,466</b>	<b>3,473</b>	<b>1,735</b>	<b>6,967</b>	<b>3,723</b>	<b>1,141</b>	<b>716</b>	<b>0</b>	<b>42,485</b>

Adjusted Budget includes adopted budget plus approved budget adjustments. Allocated funding exceeds planned expenditures by approximately \$102,000. Excess funds will be returned to fund reserves at the close of the project.

## FUNDING SOURCES

(in thousands \$)

SCVWD Watershed Stream Stewardship Fund	15,206
SCVWD Clean, Safe Creeks and Natural Flood Protection Fund (Environmental Enhancement Grant)	2,011
SCVWD Safe, Clean Water and Natural Flood Protection Fund	24,848
California Department of Water Resources (Pending)	420
<b>Total</b>	<b>42,485</b>
Federal Partners, South Bay Salt Ponds (SBSP)	48,470
State, SBSP	14,720
Foundations, Packard-Hewlett-Goldman-Moore, SBSP	17,060
Coastal Conservancy, Shoreline	2,010
Federal, Corps of Engineers, Shoreline	8,990
<b>Total Partnership Funding for In-kind Services</b>	<b>91,250</b>

## OPERATING COST IMPACTS

Operating costs will be determined during the planning phase.

USEFUL LIFE: Not Available

<b>Project</b>	<b>Watersheds Asset Rehabilitation Program</b>
<b>Program</b>	Flood Protection - Multiple Watersheds
<b>Priority No.</b>	74
<b>Project No.</b>	62084001
<b>District Contact</b>	Ngoc Nguyen NNguyen@valleywater.org



View of damage caused by burrowing animals along West Branch of Llagas Creek in the Uvas/Llagas Watershed

### PROJECT DESCRIPTION

This project plans, designs, and constructs repairs to levee and stream bank sites that have erosion damage. Each site requires a different type of repair based on location, severity, and velocities in the creek. The objective of this project is to restore the stream bank or levee to a stable condition so as to reduce the risk of flooding and/or damage to adjacent properties and facilities. For facilities with animal conflict damage, the objective is to repair the damage caused by animals and where applicable, install deterrents for future animal activities. The repair work consists of, but is not limited to:

- ♦ Excavation and rebuilding of eroded soil material.
- ♦ Installation of rodent barriers such as mesh or fabric.
- ♦ Repairing the banks with methods commensurate with the extents of damage and environmental constraints.
- ♦ Geomorphic channel restoration with bed and bank repair.
- ♦ Outfall restoration and repair.
- ♦ Sediment removal and fish ladder and blockage repair.
- ♦ Fish ladder modifications and repairs.

### PROJECT LOCATION



## SCHEDULE & STATUS

Several small projects go through the design and construction phases each year under the SMP-2 permit.

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	5,872											
Permits	5,801											
Design	19,699											
Construct	106,713											
Closeout	747											
	<b>138,832</b>											

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
62084001-Watersheds Asset Rehabilitation Program	2,066	12,496	11,096	8,000	8,000	8,100	8,100	40,500	98,358
with inflation	2,066	12,496	11,517	8,610	8,936	9,387	9,740	117,650	180,402

Actuals include project expenditures, and encumbrances.

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total	
	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
62084001-Watersheds Asset Rehabilitation Program	3,515	11,047	0	11,517	8,610	8,936	9,387	9,740	117,650	180,402

Adjusted Budget includes adopted budget plus approved budget adjustments.

## FUNDING SOURCES

(in thousands \$)

SCVWD Watershed Stream Stewardship Fund	180,402
Other Funding Sources	0
<b>Total</b>	<b>180,402</b>

## OPERATING COST IMPACTS

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

**USEFUL LIFE:** Not Available

# Water Resources Stewardship

# Water Resources Stewardship Capital Improvements

## WATER RESOURCES STEWARDSHIP OVERVIEW

The District plans, designs and constructs various capital projects to meet the Board's Ends Policy E-4 "There is water resources stewardship to protect and enhance watersheds and natural resources and improve the quality of life in Santa Clara County." These projects may fulfill environmental enhancement, mitigation or stewardship goals and priorities.

The District has placed an emphasis on stewardship since 1999 when the Water District's Board of Directors adopted a mission and policies that added a focus on environmental stewardship. In 2001, the California legislature added environmental stewardship to the Water District's purpose. Specifically, the Water District's environmental stewardship activities focus on these three areas:

- Healthy creek and bay ecosystems
- Clean, safe water in creeks and the bay
- Improved quality of life through trails, open space and water resources management

The Water District's stewardship work is extensive. Actions to protect the environment are woven into all we do. Some of the Districts stewardship accomplishments since 2000 are:

- Rehabilitated or restored 90 acres of riparian habitat and 600 acres of tidal wetland habitat
- Provided funding for 92 projects that resulted in 71 miles of public access
- Removed over 2,660 lbs of mercury from the Guadalupe Watershed
- Made 40 miles of streams accessible for fish
- In conjunction with the Open Space Authority, acquiring 1,300 acres of land for preservation of California Red Legged Frog and California Tiger Salamander habitat

## Environmental Enhancement & Stewardship Projects

Environmental Enhancement projects are constructed at the direction of the Board either to meet the Safe, Clean

Water and Natural Flood Protection program (SCW) obligations or to meet other Board priorities.

The District's Safe, Clean Water Program, approved by the voters of Santa Clara County in 2012, committed funding for environmental enhancement activities that create or restore tidal or riparian habitat. A selection process will be conducted to allocate the SCW funding to the enhancement opportunities that meet Board-defined characteristics.

Stewardship projects are implemented to promote water quality awareness; reduce pollutants in streams; support additional trails, parks and open space; support creek side recreation; and reduce green house gas. Stewardship projects are implemented at the discretion of the Board when reasonable and appropriate. These projects are often accomplished in partnership with or support of other agencies.

### *Major Capital Improvements Identified in the CIP*

- Watershed Habitat Enhancement Design & Construction
- Stevens Creek Fish Passage Enhancement
- Hale Creek Enhancement Pilot Study
- Almaden Lake Improvements
- Salt Ponds A5-11 Restoration
- SCW Fish Passage Improvements

## Mitigation Projects

The District manages many mitigation sites and continues to plan, design, and construct new mitigation sites to fulfill CEQA and regulatory permit requirements for both capital projects and operations activities. Mitigation requirements for capital projects may be incorporated into the project scope or accomplished as a separate project.

### *Major Capital Improvements Identified in the CIP*

- SMP Mitigation, Stream and Watershed Land Preservation

# Water Resources Stewardship Capital Improvements

## Feasibility Studies

In July 2016 the board provided direction for increased visibility and accelerated delivery of Environmental Stewardship Projects to meet Board priorities. The District has dedicated 4 additional full-time positions to complete the feasibility studies that have been included in the FY 2019-23 CIP. These feasibility studies will determine the viability of a number of projects that are of interest to the community.

### *Major Capital Improvements Identified in the CIP*

- Watershed Habitat Enhancement Design and Construction

## PRIORITY PROCESS AND FINANCIAL ANALYSIS

Environmental Enhancement and Stewardship projects are implemented at the discretion of the Board. Projects may go through a ranking process to compete for Safe, Clean Water funds or the Board may direct that other available revenue be used to implement the proposed projects. The inclusion of these projects in the Fiscal Year 2019-23 CIP has been approved by the Board. The priority criteria used to evaluate these projects are included in Appendix A.

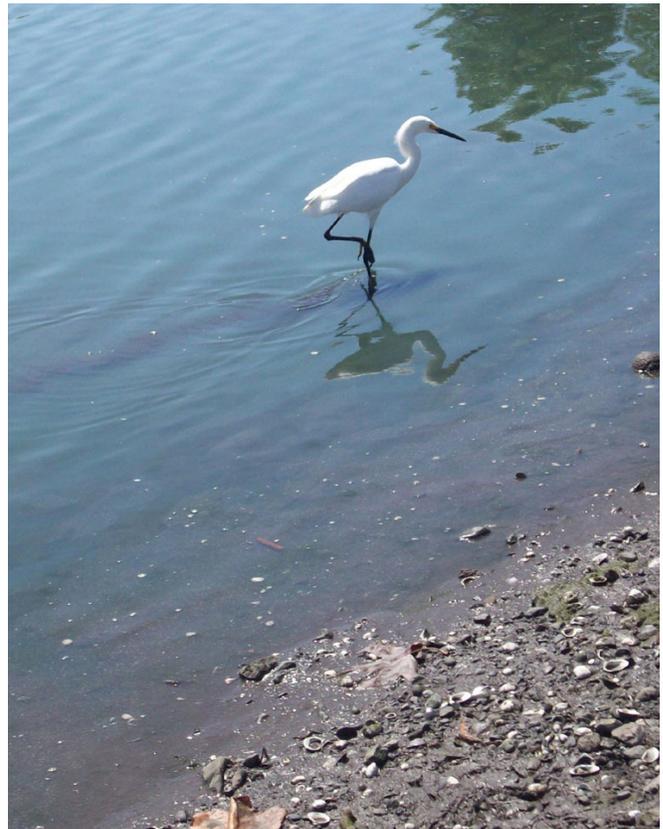


Implementation of Mitigation projects is considered non-discretionary since they are needed to meet California Environmental Quality Act (CEQA) or regulatory permit commitments. Funding for mitigation projects is allocated without a prioritization process.

Financial analysis of the following funding sources for Water Resources Stewardship capital improvements was conducted to determine if there are limitations to funding currently planned capital projects.

- Watershed and Stream Stewardship Fund
- Safe, Clean Water Fund
- Water Utility Enterprise Fund

Funding needs for approved Water Resources Stewardship projects can be met.



# Water Resources Stewardship Capital Improvements

The following table is a project funding schedule for water resources stewardship capital improvements resulting from this year's financial analysis. Detailed information for each project can be found in this document on the following pages in the order presented in this table. The chart also identifies partially funded projects and estimated unspent appropriation from FY 2017-18.

## Water Resources Stewardship Capital Improvements (\$K)

Project Number	PROJECT NAME	Through FY17	FY18	FY18 Unspent	FY19	FY20	FY21	FY22	FY23	FY24-33	TOTAL
<b>ENVIRONMENTAL ENHANCEMENT &amp; STEWARDSHIP</b>											
<b>Lower Peninsula Watershed</b>											
00294001s	Stevens Creek Fish Passage Enhancement D4.x	850	-	-	-	-	2,257	7,182	3,836	7,009	21,134
26164001	Hale Creek Enhancement Pilot Study (D6)	945	1,306	23	2,580	-	-	-	-	-	4,831
<b>Guadalupe Watershed</b>											
26044001	Almaden Lake Improvements (D4.1a)	3,709	654	1,009	192	9,091	9,411	9,742	-	-	32,799
<b>Coyote Watershed</b>											
00C40400s	Watershed Habitat Enhancement Design & Construction	-	-	-	-	-	2,282	4,771	4,984	53,461	65,498
<b>Multiple Watersheds</b>											
20444001s	Salt Ponds A5-11 Restoration	4,768	767	768	94	358	-	1,604	1,662	3,984	13,237
26044002	SCW Fish Passage Improvements (D4.3; Bolsa, Evelyn, S	3,664	224	933	392	-	-	-	-	-	4,280
26C40370	SCW Implementation Fund	-	-	-	-	4,276	8,118	967	775	6,688	20,824
<b>ENVIRONMENTAL FEASIBILITY STUDIES</b>											
62044001	Watershed Habitat Enhancement Studies	90	1,167	66	1,016	-	-	-	-	-	2,273
<b>ENVIRONMENTAL MITIGATION</b>											
62184001	SMP Mitigation, Stream and Watershed Land Preservation	16,224	510	-	-	-	-	-	-	-	16,734
<b>TOTAL</b>		<b>30,250</b>	<b>4,628</b>	<b>2,799</b>	<b>4,274</b>	<b>13,725</b>	<b>22,068</b>	<b>24,266</b>	<b>11,257</b>	<b>71,142</b>	<b>181,610</b>

 FY 2017-18 Funds to be reappropriated

The following table shows funding requirements from each funding source for mitigation capital improvements.

## Water Resources Stewardship – Funding Sources (\$K)

Fund Number	FUND NAME	Through FY17	FY18	FY18 Unspent	FY19	FY20	FY21	FY22	FY23	FY24-33	TOTAL
61	Water Utility Enterprise Fund	765	-	-	-	-	4,006	6,713	3,738	39,237	54,458
12	Watershed Stream Stewardship Fund	20,632	2,431	517	1,110	358	534	6,844	6,744	21,350	60,003
26	Safe, Clean Water and Natural Flood Protection Fund	8,853	2,197	2,282	3,164	13,367	17,529	10,709	775	10,555	67,149
<b>TOTAL</b>		<b>30,250</b>	<b>4,628</b>	<b>2,799</b>	<b>4,274</b>	<b>13,725</b>	<b>22,068</b>	<b>24,266</b>	<b>11,257</b>	<b>71,142</b>	<b>181,610</b>

 FY 2017-18 Funds to be reappropriated

# Water Resources Stewardship Capital Improvements

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# Environmental Enhancement & Stewardship

Lower Peninsula Watershed

<b>Project</b>	<b>Stevens Creek Fish Passage Enhancement</b>
<b>Program</b>	Water Resources Stewardship - Environmental Enhancement
<b>Priority No.</b>	72
<b>Project No.</b>	00294001s
<b>District Contact</b>	Ngoc Nguyen NNguyen@valleywater.org



Example of a fish ladder to be modified or reconstructed for better fish passage

## PROJECT DESCRIPTION

This project plans, designs, and constructs improvements to the Moffett Boulevard fish ladder to improve fish passage as well as a multiport outlet at Stevens Creek Dam to accomplish the following objectives:

- ♦ Restore and maintain a healthy steelhead trout population in the Stevens Creek watershed.
- ♦ Provide a suitable spawning and rearing habitat below Stevens Creek Dam within a cold water management zone determined on an annual basis through the development of an operations plan.
- ♦ Provide adequate passage for adult steelhead trout to reach suitable spawning and rearing habitat and for out-migration of juveniles.

This project is accounted for in the following job numbers:

- ♦ 00294001—Fish Passage Planning
- ♦ 00C40145—Moffett Boulevard Fish Ladder
- ♦ 00C40198—Multi-Port Outlet at Dam
- ♦ 62C40403—Stevens Ck Fish Barrier Removal Construction

## PROJECT LOCATION



★ Project Location

## SCHEDULE & STATUS

July 2008 to June 2020

Planning phase is complete.  
Project on hold pending completion of the Three Creeks Habitat Conservation Plan, to be done in a separate operating project.

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	850											
Permits	122											
Design	1,516											
Construct	2,994											
Closeout	80											
	<b>5,562</b>											

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
00294001-FAHCE Stevens Ck Fish Passage Planning	850	0	0	0	0	0	0	0	850
with inflation	850	0	0	0	0	0	0	0	850
00C40145-FAHCE Stevens Ck Fish Ladder at Moffett Blvd	0	0	0	0	1,305	1,841	0	0	3,146
with inflation	0	0	0	0	1,489	2,112	0	0	3,602
00C40198-FAHCE Stevens Ck Dam Multi-Port Outlet	0	0	0	0	373	1,193	0	0	1,566
with inflation	0	0	0	0	426	1,371	0	0	1,797
62C40403-Stevens Ck Fish Barrier Removal Construction	0	0	0	0	300	3,200	3,200	5,600	12,300
with inflation	0	0	0	0	342	3,699	3,836	7,009	14,886
<b>TOTAL</b>	<b>850</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,978</b>	<b>6,234</b>	<b>3,200</b>	<b>5,600</b>	<b>17,862</b>
with inflation	<b>850</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2,257</b>	<b>7,183</b>	<b>3,836</b>	<b>7,009</b>	<b>21,135</b>

Actuals include project expenditures, and encumbrances.

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future		
00294001-FAHCE Stevens Ck Fish Passage Planning	850	0	0	0	0	0	0	0	850	
00C40145-FAHCE Stevens Ck Fish Ladder at Moffett Blvd	0	0	0	0	0	1,489	2,112	0	3,602	
00C40198-FAHCE Stevens Ck Dam Multi-Port Outlet	0	0	0	0	0	426	1,371	0	1,797	
62C40403-Stevens Ck Fish Barrier Removal Construction	0	0	0	0	0	342	3,699	3,836	14,886	
<b>TOTAL</b>	<b>850</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2,257</b>	<b>7,183</b>	<b>3,836</b>	<b>21,135</b>	

Adjusted Budget includes adopted budget plus approved budget adjustments.

## FUNDING SOURCES

(in thousands \$)

SCVWD Watershed Stream Stewardship Fund-10%	2,113
SCVWD Water Utility Enterprise Fund-90%	19,021
<b>Total</b>	<b>21,135</b>

## OPERATING COST IMPACTS

Operating costs will be determined during the design phase.

**USEFUL LIFE:** 50 Years

<b>Project</b>	<b>Hale Creek Enhancement Pilot Study</b>
<b>Program</b>	Water Resources Stewardship - Environmental Enhancements
<b>Priority No.</b>	77
<b>Project No.</b>	26164001
<b>District Contact</b>	Ngoc Nguyen NNguyen@valleywater.org



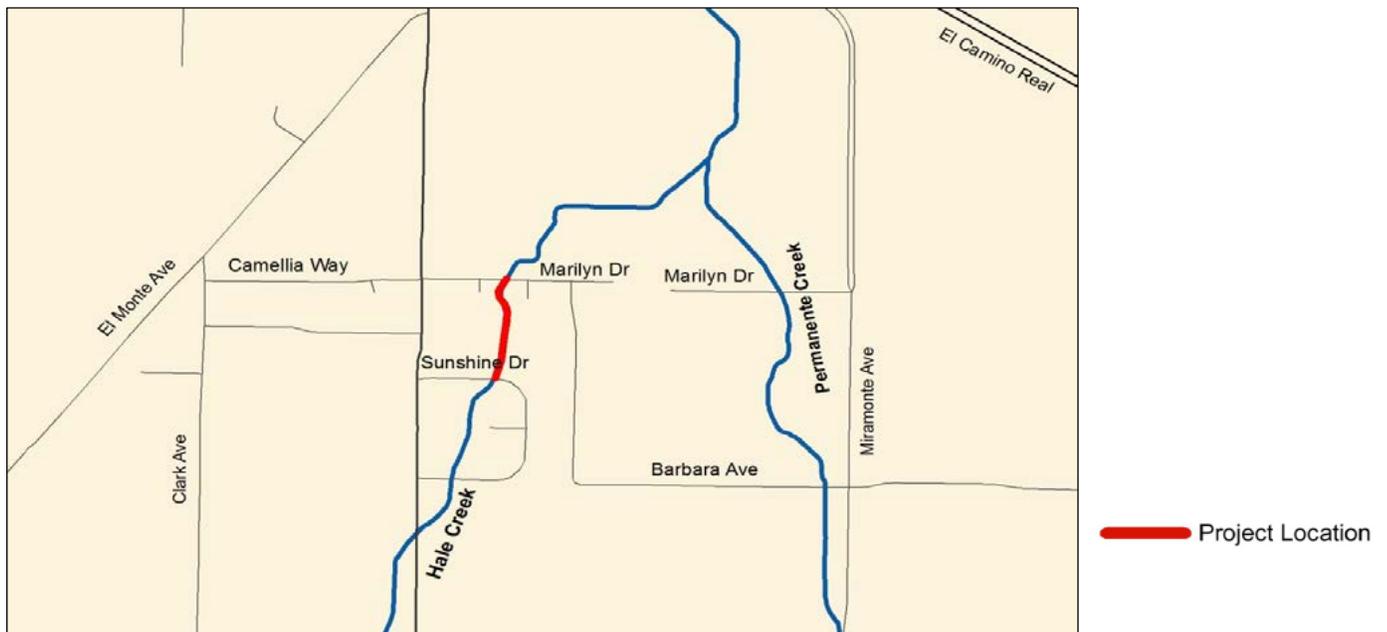
Reach to be modified downstream of 7th Day Adventist foot bridge between Marilyn Drive and North Sunshine Drive.

## PROJECT DESCRIPTION

This pilot project plans, designs, and constructs improvements to an approximately 500-foot long reach in Hale Creek to accomplish the following objectives:

- Provide flood protection and enhance habitat values.
- Restore stream recharge capability to a concrete-lined portion.
- Remove existing concrete channel and replace with a vegetated soft-bottom channel.

## PROJECT LOCATION



## SCHEDULE & STATUS

May 2015 to June 2019

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	34											
Permits	89											
Design	925											
Construct	3,670											
Closeout	10											
	4,728											

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
26164001-Hale Creek Enhancement Pilot Study	654	1,574	2,510	0	0	0	0	0	4,738
with inflation	654	1,574	2,603	0	0	0	0	0	4,831

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
26164001-Hale Creek Enhancement Pilot Study	945	1,306	23	2,580	0	0	0	0	4,831

Adjusted Budget includes adopted budget plus approved budget adjustments.

## FUNDING SOURCES

(in thousands \$)

SCVWD Safe, Clean Water Fund	4,831
Other Funding Sources	0
<b>Total</b>	<b>4,831</b>

## OPERATING COST IMPACTS

Operating cost impacts are anticipated and will be determined during the design phase.

**USEFUL LIFE:** Not available

# Environmental Enhancement & Stewardship

Guadalupe Watershed

<b>Project</b>	<b>Almaden Lake Improvements</b>
<b>Program</b>	Water Resources Stewardship – Environmental Enhancement
<b>Priority No.</b>	85
<b>Project No.</b>	26044001
<b>District Contact</b>	Ngoc Nguyen N.Nguyen@valleywater.org



Looking southerly at Almaden Lake through which Alamitos Creek flows.

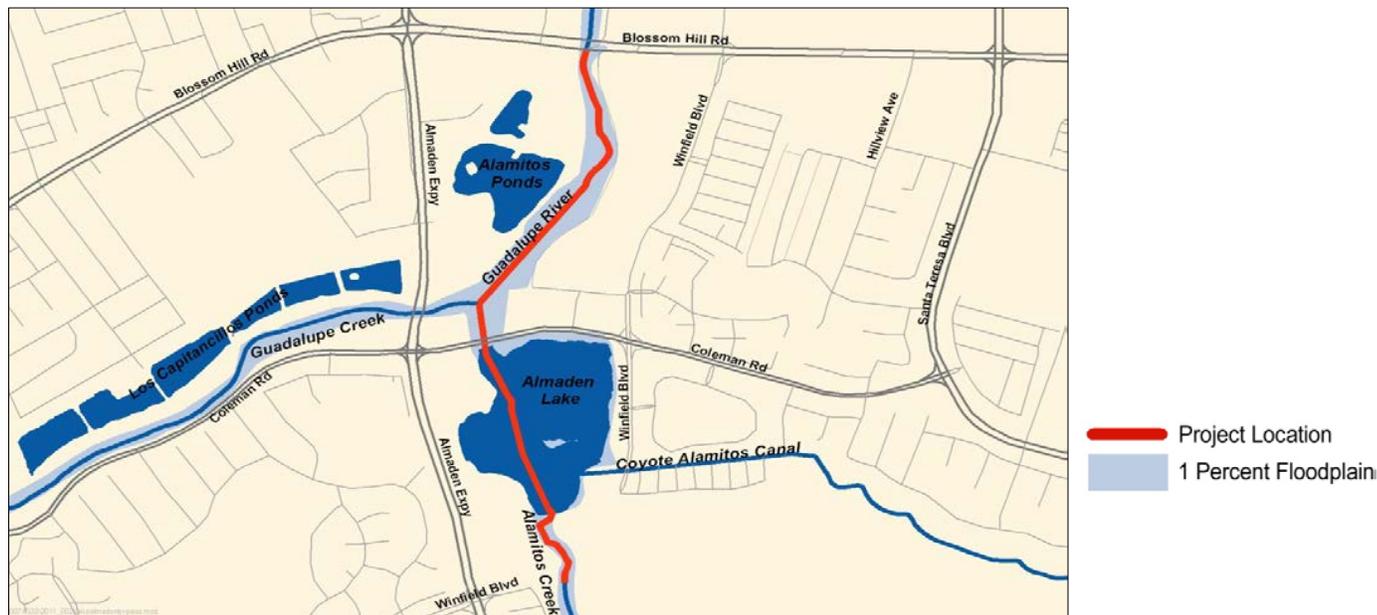
### PROJECT DESCRIPTION

The project will separate Alamitos Creek from Almaden Lake and restore Alamitos Creek’s stream function within the footprint of Almaden Lake. The goals are to improve water quality and physical habitat for steelhead and other anadromous fish by separating the creek from the lake while incorporating the principle of geomorphic design and to create a self-sustaining channel that requires little maintenance to keep it viable for fisheries and wildlife benefits. Benefits of this project will be creation of channel complexity in the restored stream channel such as instream riffle-pool habitat, cover for rearing fish, gravel to support spawning and plantings that will provide numerous ancillary wildlife benefits; reduction of high water temperatures released from Almaden Lake into Alamitos Creek; and removal of entrainment, predatory and methylmercury impacts to anadromous fish from Almaden Lake. The objectives are as follows:

- ♦ Separate Alamitos Creek from Almaden Lake.
- ♦ Reduce thermal barrier to migration of anadromous fish.
- ♦ Remove entrainment and impacts from predatory species to anadromous fish.
- ♦ Reduce mercury concentration in target fish to meet applicable water quality objectives.
- ♦ Minimize impacts to recreational features.

This project is funded for the planning and design phase from the Safe, Clean Water, Priority D4. Funding for construction may also be available from the Safe, Clean Water Program.

### PROJECT LOCATION



## SCHEDULE & STATUS

July 2011 to June 2019

Planning Phase and some Design tasks. Construction is not funded at this time.

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27
Plan	2,175										
Permits	838										
Design	1,118										
Construct	25,452										
Closeout	-										
	29,583										

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures								Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future		
26044001-Almaden Lake Improvements	2,614	740	1,149	8,484	8,484	8,484	0	0	29,955	
with inflation	2,614	740	1,201	9,091	9,411	9,742	0	0	32,800	

Actuals include project expenditures, and encumbrances.

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future		
26044001-Almaden Lake Improvements	3,709	654	1,009	192	9,091	9,411	9,742	0	0	32,800

Adjusted Budget includes adopted budget plus approved budget adjustments.

## FUNDING SOURCES

(in thousands \$)

SCVWD Clean, Safe Creeks and Natural Flood Protection Fund	800
SCWD Safe Clean Water Fund	32,000
<b>Total</b>	<b>32,800</b>

## OPERATING COST IMPACTS

No operating cost impacts are expected from the completion of the planning and design phases of the project.

**USEFUL LIFE:** 100 Years

# Environmental Enhancement & Stewardship

Coyote Watershed

<b>Project</b>	<b>Watershed Habitat Enhancements Design &amp; Construction</b>
<b>Program</b>	Water Resources Stewardship
<b>Priority No.</b>	N/A
<b>Project No.</b>	95C40400s
<b>District Contact</b>	Ngoc Nguyen NNguyen@valleywater.org



Aerial view looking downstream of the Ogier Pond complex.

### PROJECT DESCRIPTION

This project provides for future design and construction of possible habitat enhancements at Ogier Ponds and Metcalf Ponds along Coyote Creek if feasibility projects are identified in the feasibility studies currently underway in Project 6204400, and the Board approves proceeding with the work. Funding for this project is contingent on a successful FAHCE settlement. This project accomplishes the following objectives:

- ◆ Enhance a healthy steelhead trout and salmon population in the Coyote Creek watershed.

### PROJECT LOCATION



★ Project Location

## SCHEDULE & STATUS

April 2017 to June 2019

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	-											
Permits	1,500											
Design	8,000											
Construct	29,500											
Closeout	-											
	39,000											

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
95C40400 Metcalf Ponds Design & Construction	0	0	0	0	2,000	2,000	2,000	20,000	26,000
with inflation	0	0	0	0	2,282	2,385	2,492	25,013	32,173
95C40401 Ogier Ponds Design & Construction	0	0	0	0	0	1,000	1,000	11,000	13,000
with inflation	0	0	0	0	0	1,193	1,246	14,225	16,664
62C40402 Ogier Ponds Design & Construction	0	0	0	0	0	1,000	1,000	11,000	13,000
with inflation	0	0	0	0	0	1,193	1,246	14,225	16,664
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2,000</b>	<b>4,000</b>	<b>4,000</b>	<b>42,000</b>	<b>52,000</b>
with inflation	0	0	0	0	2,282	4,770	4,985	53,463	65,500

Actuals include project expenditures, and encumbrances.

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total	
	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
95C40400 Metcalf Ponds Design & Construction	0	0	0	0	0	2,282	2,385	2,492	25,013	32,173
95C40401 Ogier Ponds Design & Construction	0	0	0	0	0	0	1,193	1,246	14,225	16,664
62C40402 Ogier Ponds Design & Construction	0	0	0	0	0	0	1,193	1,246	14,225	16,664
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2,282</b>	<b>4,770</b>	<b>4,985</b>	<b>53,463</b>	<b>65,500</b>

Adjusted Budget includes adopted budget plus approved budget adjustments.

## FUNDING SOURCES

(in thousands \$)


## OPERATING COST IMPACTS

No operating impacts are anticipated from this project because this is a feasibility study. New projects may be proposed as potential sites are evaluated.

# Environmental Enhancement & Stewardship

Multiple Watersheds

<b>Project</b>	<b>Salt Ponds A5-11 Restoration</b>
<b>Program</b>	Water Resources Stewardship - Environmental Enhancements
<b>Priority No.</b>	50
<b>Project No.</b>	20444001s
<b>District Contact</b>	Vincent Gin VGin@valleywater.org



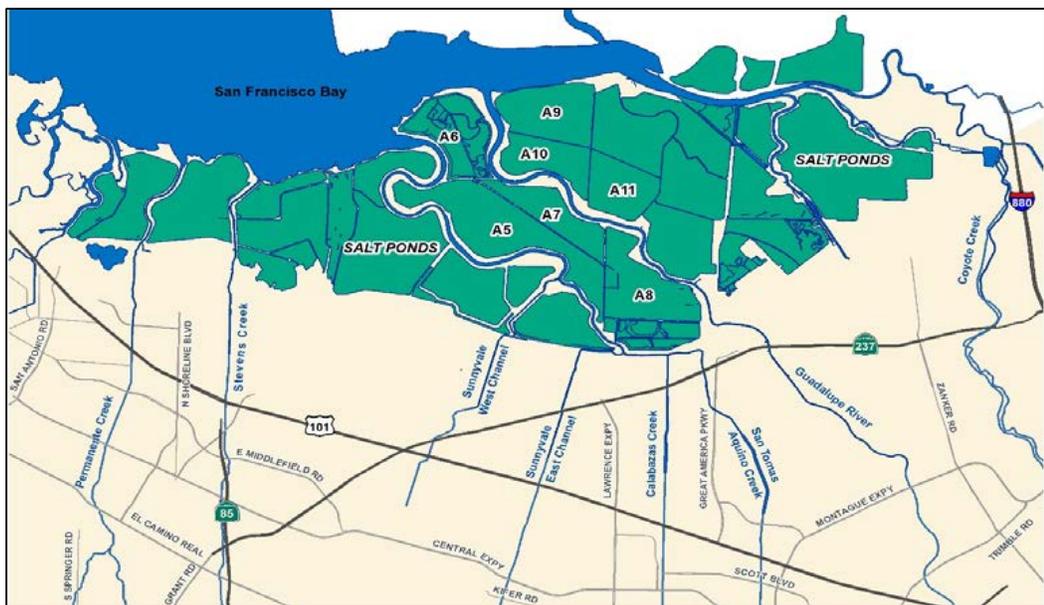
View of one of the former salt evaporator facilities near Alviso

### PROJECT DESCRIPTION

This project plans, designs, and constructs improvements to the South Bay Salt Ponds to accomplish the following objectives:

- ♦ Realign Calabazas and San Tomas Creeks to flow directly into Pond A8
- ♦ Meet permitting requirements for the creek's realignment or further restoration efforts
- ♦ Fully open the Pond A8 Notch to increase tidal flow into the pond
- ♦ Restoration of Ponds A5 through A11 of the Alviso Complex
- ♦ Improve or construct roads at new placement sites.
- ♦ Restore the South Bay Salt Ponds to improve wildlife habitat and protect residents from tidal flooding.

### PROJECT LOCATION



Project Location

## SCHEDULE & STATUS

July 2015 to June 2020

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	155											
Permits	2,542											
Design	250											
Construct	7,514											
Closeout	5											
	<b>10,466</b>											

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
20444001 - Salt Ponds A5-11 Restoration	3,192	1,344	522	328	0	1,390	1,390	90	8,256
with inflation	3,192	1,344	545	358	0	1,604	1,662	117	8,822
26444003 - South Salt Ponds Restoration	231	0	0	0	0	0	0	3,272	3,503
with inflation	231	0	0	0	0	0	0	4,185	4,416
<b>TOTAL</b>	<b>3,423</b>	<b>1,344</b>	<b>522</b>	<b>328</b>	<b>0</b>	<b>1,390</b>	<b>1,390</b>	<b>3,362</b>	<b>11,759</b>
<b>with inflation</b>	<b>3,423</b>	<b>1,344</b>	<b>545</b>	<b>358</b>	<b>0</b>	<b>1,604</b>	<b>1,662</b>	<b>4,302</b>	<b>13,238</b>

Actuals include project expenditures, and encumbrances.

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total	
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future		
20444001 - Salt Ponds A5-11 Restoration	4,233	754	451	94	358	0	1,604	1,662	117	8,822
26444003 - South Salt Ponds Restoration	535	13	317	0	0	0	0	0	3,868	4,416
<b>TOTAL</b>	<b>4,233</b>	<b>767</b>	<b>768</b>	<b>94</b>	<b>358</b>	<b>0</b>	<b>1,604</b>	<b>1,662</b>	<b>3,985</b>	<b>13,238</b>

Adjusted Budget includes adopted budget plus approved budget adjustments.

## FUNDING SOURCES

(in thousands \$)

SCVWD Watershed and Stream Stewardship Fund	8,822
SCVWD Safe, Clean Water Fund	4,416
Other Funding Sources	0
<b>Total</b>	<b>13,238</b>

## OPERATING COST IMPACTS

The completion of this project is anticipated to increase operating costs by approximately \$4 million every 3 years,

**USEFUL LIFE:** Not Available

<b>Project</b>	<b>SCW Fish Passage Improvements (D4.3)</b>
<b>Program</b>	Water Resources Stewardship - Environmental Enhancements
<b>Priority No.</b>	80
<b>Project No.</b>	26044002
<b>District Contact</b>	Katherine Oven koven@valleywater.org



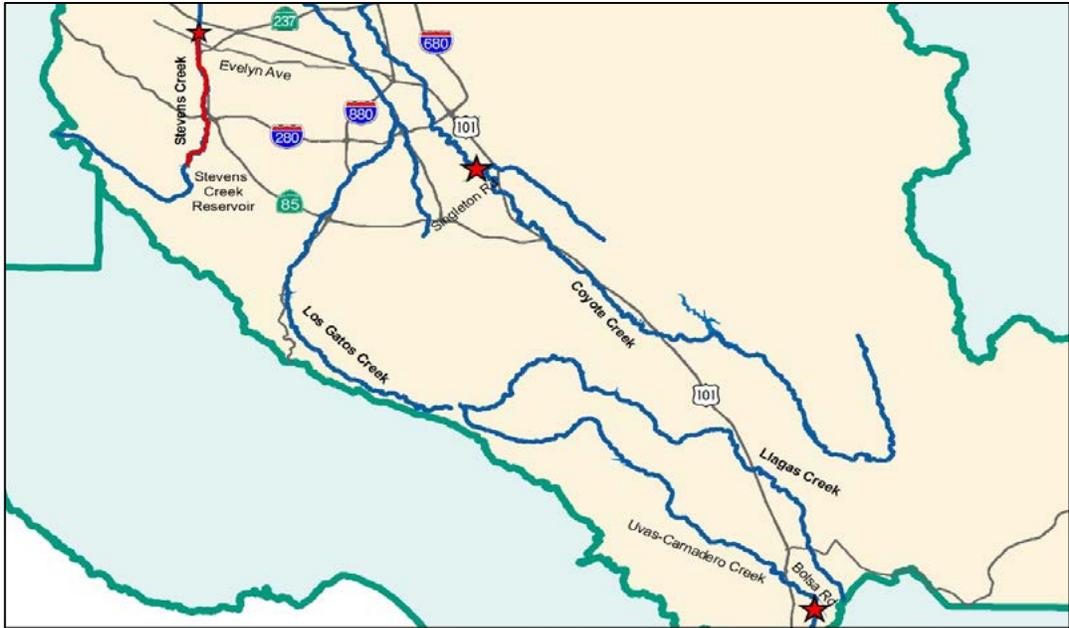
View of the Bolsa Road fish barrier removed will be allowing fish access to upstream habitat

**PROJECT DESCRIPTION**

This project plans, designs and constructs improvements for two high priority fish barriers in Santa Clara County. A third priority barrier, owned by the City of San Jose, will be remediated through a project partnership with funds allocated from this project. The project will accomplish the following objectives:

- Planning, design and construction for a passage impediment at the Evelyn Bridge preventing upstream/downstream movement of steelhead in the Stevens Creek watershed. Remediation of this barrier will facilitate movement to 8.8 miles of higher quality upstream habitat and allow for out-migrant fish to access San Francisco Bay unimpeded. (Completed in 2016)
- Planning, design and construction for a passage impediment at the Bolsa Road railroad bridge in the Uvas Watershed. Remediation of this site will allow access to approximately 22 miles of higher quality habitat upstream as well as unimpeded access for out-migrant fish through the project site.
- Prepare a partnership agreement and provide technical support to the City of San Jose for removal of the Singleton Road Bridge in Coyote Creek. Removal of this passage impediment will facilitate movement of migratory fish for approximately 17.6 miles creek above the site and allow for unimpeded access of out-migrant fish through the site.

**PROJECT LOCATION**



★ Project Location  
—

## SCHEDULE & STATUS

July 2015 to June 2019

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	176											
Permits	65											
Design	525											
Construct	3,384											
Closeout	50											
	4,200											

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
26044002-SCW Fish Passage Improvements (D4.3; Bolsa, Evelyn, Singleton)	1,317	1,638	1,275	0	0	0	0	0	4,230
with inflation	1,317	1,638	1,325	0	0	0	0	0	4,280

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
26044002-SCW Fish Passage Improvements (D4.3; Bolsa, Evelyn, Singleton)	3,664	224	933	392	0	0	0	0	4,280

Adjusted Budget includes adopted budget plus approved budget adjustments.

## FUNDING SOURCES

(in thousands \$)

SCVWD Safe, Clean Water Fund	4,280
Other Funding Sources	0
<b>Total</b>	<b>4,280</b>

## OPERATING COST IMPACTS

Operating cost impacts are anticipated and will be determined during the planning phase.

**USEFUL LIFE:** 50 Years

<b>Project</b>	<b>SCW Implementation Fund</b>
<b>Program</b>	Water Resources Stewardship
<b>Priority No.</b>	75
<b>Project No.</b>	26C40370
<b>District Contact</b>	Ngoc Nguyen NNguyen@valleywater.org



View looking upstream at Almaden Lake from the Guadalupe Creek confluence. This is just one possible site under consideration.

**PROJECT DESCRIPTION**

This project is a placeholder for future capital projects that have not been fully defined. These projects will implement Safe Clean Water (SCW) objectives and are likely to include projects such as Comer Debris Basin, and construction of Lake Almaden-Guadalupe River-Alamitos Creek Restoration. Funds will be moved from this project into actual projects once they have been defined and vetted to ensure they meet the following program objectives:

- ♦ Create favorable stream conditions to restore and maintain fisheries.
- ♦ Increase the stability of stream channels through construction based on geomorphic principals.
- ♦ Acquisition of property for the conservation of habitat.

**PROJECT LOCATION**

No map is provided for this project

## SCHEDULE & STATUS

July 2018 to June 2032

Data shown here is based on preliminary information. Specific projects identified to move forward will require further refinement. A Phase schedule will be defined in the planning phase.

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	-											
Design	-											
Construct	20,824											
Closeout	-											

20,824

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
26C40370-SCW Implementation Fund	0	0	0	4,276	8,118	967	775	6,688	20,824
with inflation	0	0	0	4,276	8,118	967	775	6,688	20,824

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total	
	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
26C40370-SCW Implementation Fund	0	0	0	0	4,276	8,118	967	775	6,688	20,824

## FUNDING SOURCES

(in thousands \$)

SCVWD Safe, Clean Water Fund	-1,048
SCVWD Water Utility Enterprise Fund	10,936
SCVWD Watershed and Stream Stewardship Fur	10,936
<b>Total</b>	<b>20,824</b>

## OPERATING COST IMPACTS

Not Available

**USEFUL LIFE:** Not Available

# Feasibility Studies

<b>Project</b>	<b>Watershed Habitat Enhancements</b>
<b>Program</b>	Water Resources Stewardship
<b>Priority No.</b>	N/A
<b>Project No.</b>	62044001
<b>District Contact</b>	Ngoc Nguyen nnguyen@valleywater.org



Aerial view looking downstream of the Ogier Pond complex.

## PROJECT DESCRIPTION

This project provides for feasibility studies of possible habitat enhancements at the Ogier Ponds and Metcalf Ponds along Coyote Creek and an evaluation and determination of priority for addressing various fish passage barriers along Stevens Creek. This project accomplishes the following objectives:

- ♦ Enhance a healthy steelhead trout and salmon population in the Coyote Creek watershed.
- ♦ Provide adequate passage for adult steelhead trout to reach suitable spawning and rearing habitat and for out-migration of juveniles along Stevens Creek.

## PROJECT LOCATION



★ Project Location  
—

## SCHEDULE & STATUS

April 2017 to June 2019

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	2,202											
Permits	-											
Design	-											
Construct	-											
Closeout	-											
	2,202											

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures								Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future		
62044001-Watershed Habitat Enhancements	24	1,167	1,035	0	0	0	0	0	2,226	
with inflation	24	1,167	1,082	0	0	0	0	0	2,273	

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future		
62044001-Watershed Habitat Enhancements	90	1,167	66	1,016	0	0	0	0	2,273	

Adjusted Budget includes adopted budget plus approved budget adjustments.

## FUNDING SOURCES

(in thousands \$)

SCVWD Watershed & Stream Stewardship Fund	2,273
Other Funding Sources	0
<b>Total</b>	<b>2,273</b>

## OPERATING COST IMPACTS

No operating impacts are anticipated from this project because this is a feasibility study. New projects may be proposed as potential sites are evaluated.

**USEFUL LIFE:** N/A

# Mitigation

<b>Project</b>	<b>SMP Mitigation Stream and Watershed Land Preservation</b>
<b>Program</b>	Water Resources Stewardship – Mitigation
<b>Priority No.</b>	99
<b>Project No.</b>	62184001
<b>District Contact</b>	Vincent Gin vgen@valleywater.org



Creek-side settings such as this will be used for stream and watershed land preservation. Actual locations will differ.

## PROJECT DESCRIPTION

This project preserves streams and watershed lands in the Santa Clara Basin and implements appropriate restorations in these lands to accomplish the following objectives:

- ♦ Provide 71 acres of Stream Maintenance Program (SMP) mitigation credits through preservation of approximately 720 to 950 acres of streams and watershed lands to provide long-term protection of unique and valuable local stream resources and watersheds, in a largely self-sustaining setting. Approximately 108 acres of the total land preservation will be for protection of riparian and upland habitats that are known to support California red-legged frogs and Western pond turtles.
- ♦ Provide approximately 10 acres of SMP mitigation credits through environmental restoration on the lands acquired.
- ♦ Seek opportunities to partner with other organizations to accomplish the project objectives.

## PROJECT LOCATION

The project will purchase multiple sites for preservation in Santa Clara Basin as they become available. No map is provided.

## SCHEDULE & STATUS

July 2003 to June 2018

Some environmental tasks in the planning phase continue thru construction. Land acquisition is shown in the design phase, with restoration of site habitat shown in the construction phase.

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	2,020											
Permits	1,012											
Design	9,600											
Construct	1,758											
Closeout	20											
	14,410											

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
62184001-SMP Mitigation Stream and Watershed Land Preservation	14,875	1,859	0	0	0	0	0	0	16,734
with inflation	14,875	1,859	0	0	0	0	0	0	16,734

Actuals include project expenditures, and encumbrances.

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
62184001-SMP Mitigation Stream and Watershed Land Preservation	16,224	510	0	0	0	0	0	0	16,734

Adjusted Budget includes adopted budget plus approved budget adjustments.

## FUNDING SOURCES

(in thousands \$)

SCVWD Watershed Stream Stewardship Fund	16,734
Other Funding Source	0
<b>Total</b>	<b>16,734</b>

## OPERATING COST IMPACTS

Operating cost will vary, depending on the type of acquisition ownership and requirements for maintenance of each site. The Stevens Canyon Ranch Conservation Easement was acquired in December 2006 and there are no operating impacts to the District. The property owner, Mid-Peninsula Regional Open Space District is responsible for maintenance and management of the site.

**USEFUL LIFE:** 50+ Years

# Buildings and Grounds

# Building and Grounds Capital Improvements

## BUILDINGS AND GROUNDS OVERVIEW

The District's Almaden-Winfield campus occupies nearly 50 acres along Almaden Expressway in the City of San Jose. The District manages the campus to ensure a healthful and safe work environment for employees and visitors. The campus includes 10 buildings, multiple parking lots, a corporation yard, landscaping, and other appurtenances.

With most of the buildings on campus over 30 years old, the rehabilitation needs increased steadily in recent years. The District administers an asset management program for its buildings and grounds infrastructure that includes a schedule for maintenance and rehabilitation to ensure that each facility functions as intended over its useful life.

### *Major Capital Improvements Identified in the CIP*

- Almaden & Winfield Campus Small Capital Improvements
- Headquarters Operations Building

## PRIORITY PROCESS AND FINANCIAL ANALYSIS

A rigorous priority setting process was conducted to rate the buildings and grounds projects against other types of capital improvements. The priority criteria used are included in Appendix A.

Financial analysis of the following funding sources for buildings and grounds capital improvements was conducted to determine if there are limitations to funding all the proposed capital projects.

- Watershed and Stream Stewardship Fund
- General Fund
- Water Utility Enterprise Fund

Results of this year's prioritization process and financial analysis are summarized in Appendix B. The process concluded that the Almaden and Winfield Campus Small Capital Improvements will continue to be funded at \$2 million per year to meet the higher priority Buildings and Grounds needs. The first of the projects from the Campus Master Plan began in FY 2012-13 and the Headquarters Operations Building was added to the FY 2015-19 CIP.

# Building and Grounds Capital Improvements

The following table is a project funding schedule for buildings and grounds capital improvements resulting from this year's priority process and financial analysis. Detailed information for each project can be found in this document on the following pages in the order presented in this table. The chart also identifies partially funded projects and estimated unspent appropriation from FY 2017-18.

## Buildings and Grounds Capital Improvements (\$K)

Project Number	PROJECT NAME	Through FY17	FY18	FY18 Unspent	FY19	FY20	FY21	FY22	FY23	FY24-33	TOTAL
60204016	Almaden and Winfield Campus, Small Capital Improvements	n/a	2,046	-	2,072	2,147	2,221	2,300	2,381	28,246	41,413
60204032	Headquarters Operations Building	1,176	0	1,156	-	1,024	3,880	7,084	4,985	-	18,149
<b>TOTAL</b>		1,176	2,046	1,156	2,072	3,171	6,101	9,384	7,366	28,246	59,562

 FY 2017-18 Funds to be reappropriated

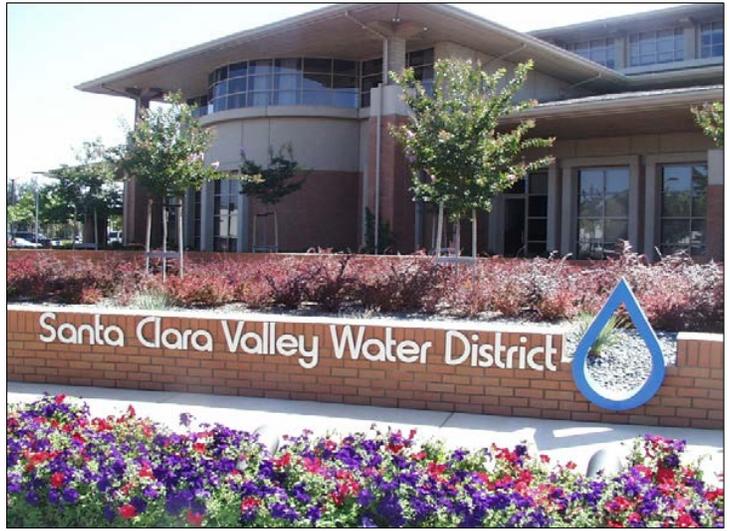
The following table shows funding requirements from each funding source for buildings and grounds capital improvements.

## Buildings and Grounds – Funding Sources (\$K)

Fund Number	FUND NAME	Through FY17	FY18	FY18 Unspent	FY19	FY20	FY21	FY22	FY23	FY24-33	TOTAL
11	General Fund	1,176	2,046	1,156	2,072	3,171	6,101	9,384	7,366	28,246	59,562
<b>TOTAL</b>		1,176	2,046	1,156	2,072	3,171	6,101	9,384	7,366	28,246	59,562

 FY 2017-18 Funds to be reappropriated

<b>Project</b>	<b>Almaden and Winfield Campus, Small Capital Improvements</b>
<b>Program</b>	Buildings and Grounds
<b>Priority No.</b>	73
<b>Project No.</b>	60204016
<b>District Contact</b>	Mike Cressap MCressap@valleywater.org

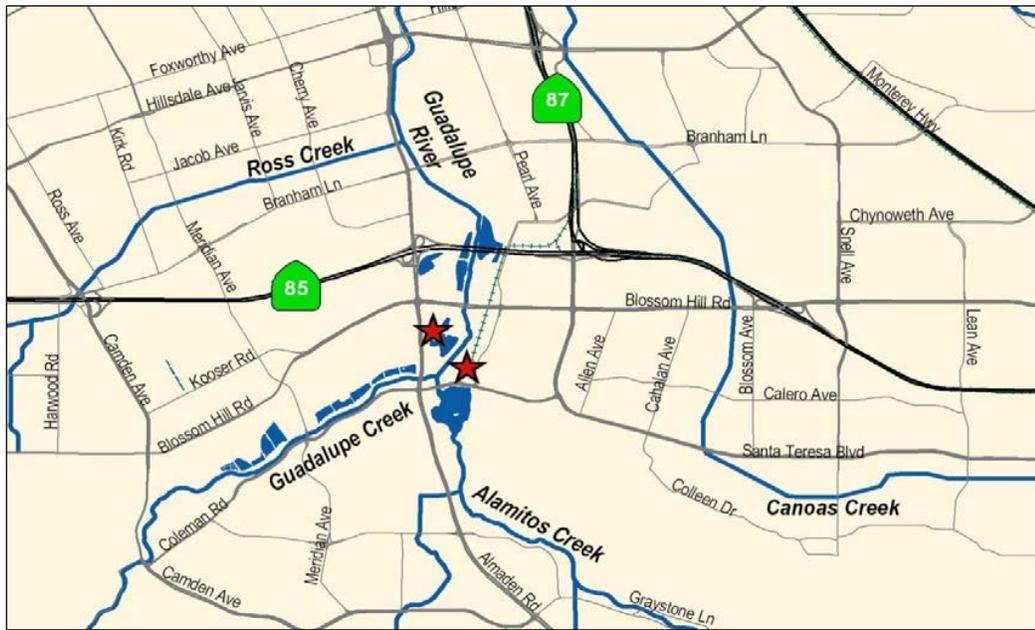


Front view of the Headquarters building at the Almaden Campus

**PROJECT DESCRIPTION**

This project reserves funding for capital maintenance and replacement of buildings, grounds, and facilities on the Almaden and Winfield campus, to provide a healthy and safe environment for staff and visitors.

**PROJECT LOCATION**



★ Project Location

## SCHEDULE & STATUS

Improvements will be managed on an as-needed basis throughout the year.

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	n/a											
Design	n/a											
Construct	n/a											
Closeout	n/a											
	n/a											

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
60204016-Almaden and Winfield Campus, Small Capital Improvements	n/a	2,000	2,000	2,000	2,000	2,000	2,000	20,000	32,000
with inflation	n/a	2,000	2,072	2,147	2,221	2,300	2,381	28,246	41,366

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total	
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future		
60204016-Almaden and Winfield Campus, Small Capital Improvements	n/a	2,046	0	2,072	2,147	2,221	2,300	2,381	28,246	41,412

Adjusted Budget includes adopted budget plus approved budget adjustments.

## FUNDING SOURCES

(in thousands \$)

SCVWD General Fund	41,412
Other Funding Source	0
<b>Total</b>	<b>41,412</b>

## OPERATING COST IMPACTS

The completion of this project is not anticipated to increase or decrease annual operating costs. The purpose of these maintenance projects is to avoid unnecessary financial impact caused by building shut-down and work stoppage.

**USEFUL LIFE:** Not Available

<b>Project</b>	<b>Headquarters Operations Building</b>
<b>Program</b>	Buildings and Grounds
<b>Priority No.</b>	65
<b>Project No.</b>	60204032
<b>District Contact</b>	Katherine Oven KOven@valleywater.org



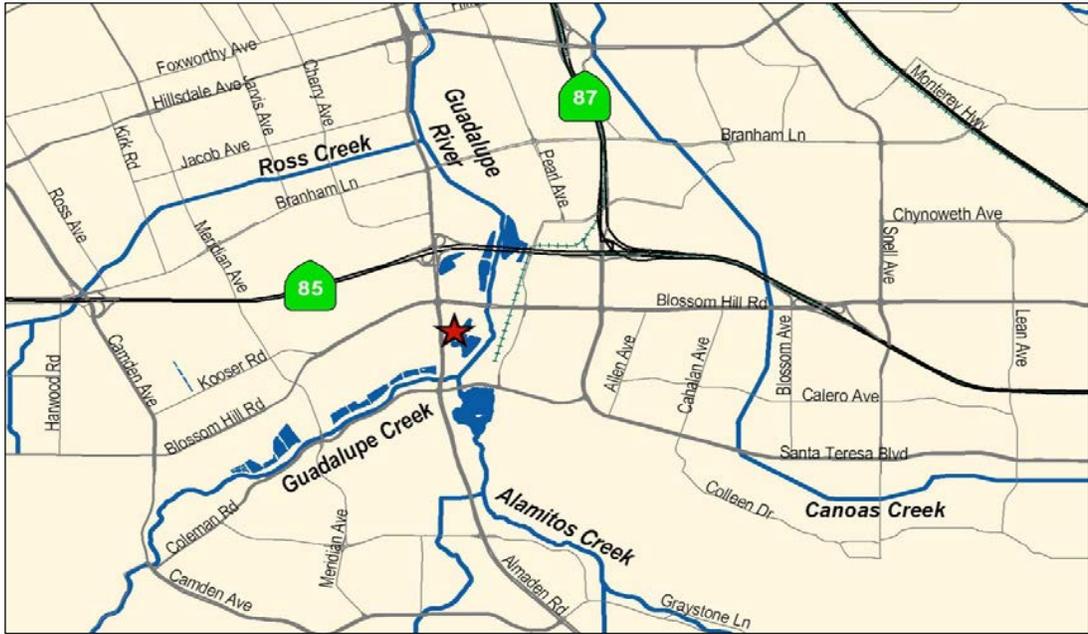
Existing Maintenance Building

**PROJECT DESCRIPTION**

This project plans, designs, and constructs a new operations building to replace the existing facility that has extensive deficiencies throughout. This project accomplishes the following objectives:

- Replace the Maintenance Office Building to provide a safe and healthy work environment and to meet code or regulatory requirements.
- Provide adequate and sufficient space to enable the District to efficiently perform its core business.

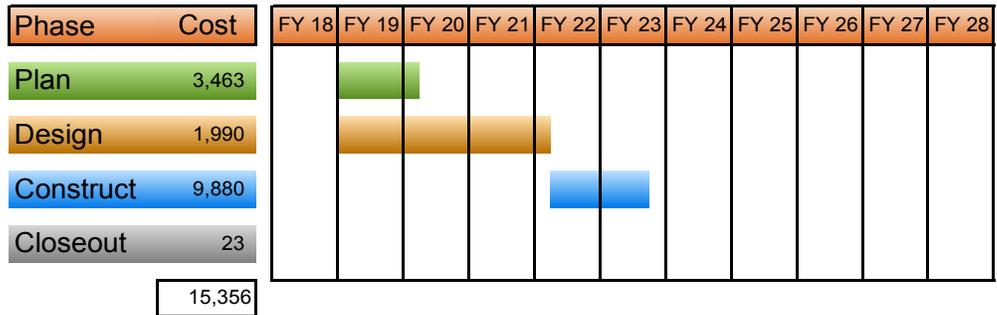
**PROJECT LOCATION**



★ Project Location

## SCHEDULE & STATUS

July 2014 to June 2022



## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
60204032-Headquarters Operations Building	20	0	0	1,996	3,400	5,940	4,000	0	15,356
with inflation	20	0	0	2,180	3,880	7,084	4,985	0	18,148

Actuals include project expenditures, and encumbrances.

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total	
	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
60204032-Headquarters Operations Building	1,176	0	1,156	0	1,024	3,880	7,084	4,985	0	18,148

Adjusted Budget includes adopted budget plus approved budget adjustments.

## FUNDING SOURCES

(in thousands \$)

SCVWD General Fund	18,148
Other Funding Sources	0
<b>Total</b>	<b>18,148</b>

## OPERATING COST IMPACTS

Operating costs will be determined during the design phase.

**USEFUL LIFE:** Not Available

# Information Technology

# Information Technology Capital Improvements

## INFORMATION TECHNOLOGY OVERVIEW

The District relies on its software systems and technology infrastructure to help manage its core responsibilities of water supply, flood protection, and environmental stewardship. Recognizing the importance of Information Technology to its success, the District completed the Information Systems Master Plan (ISMP) in 2012. The ISMP is an 8-year plan consisting of 32 capital and non-capital improvement projects.

In 2014, the Information Technology Capital Fund was created, it accounts for the costs to acquire, and install capital information technology projects with District-wide benefit. Projects include acquisition and replacement of computers, networks, and communications systems as well as major investments in enterprise software systems.

Costs are billed to user departments as Intra-District Computer Equipment Charges. Billing rates will be set to smooth charges over time by recovering current costs and accumulating reserves for major planned future projects. Current year charges or a combination of current year charges and reserves may be used to fund authorized projects. The purpose of this fund is to provide adequate resources while avoiding peaks and valleys in charges to user departments.

### *Major Capital Improvements Identified in the CIP*

- Data Consolidation
- Information Technology Disaster Recovery
- PeopleSoft System Upgrade and Expansion
- Vena Software Implementation
- Software Upgrades & Enhancements
- WTP-WQL Network Equipment

## PRIORITY PROCESS AND FINANCIAL ANALYSIS

A rigorous priority setting process was conducted to rate the information technology projects against other types of capital improvements. The priority criteria used are included in Appendix A.

Financial analysis of the Information Technology Capital Fund was conducted to determine if there are limitations to funding the planned capital projects. Results of this year's prioritization process and financial analysis are summarized in Appendix B. Funding needs for approved Information Technology projects can be met.

# Information Technology Capital Improvements

The following table is a project funding schedule for information technology capital improvements resulting from this year's priority process and financial analysis. Detailed information for each project can be found in this document on the following pages in the order presented in this table. The chart also identifies partially funded projects and estimated unspent appropriation from FY 2017-18.

## Information Technology Capital Improvements (\$K)

Project Number	PROJECT NAME	Through FY17	FY18	FY18 Unspent	FY19	FY20	FY21	FY22	FY23	FY24-33	TOTAL
73274010	Boardroom Technology Upgrade	-	818	-	-	-	-	-	-	-	818
73274009	Data Consolidation	661	279	178	83	-	-	-	-	-	1,023
73274001	IT Disaster Recovery	1,955	441	441	-	-	-	-	-	-	2,396
60274062s	PeopleSoft System Upgrade & Expansion	7,077	5,070	6,147	3,658	3,090	-	-	-	-	18,895
60274062	PeopleSoft System Upgrade & Expansion	1,199	-	-	-	-	-	-	-	-	1,199
73274002	ERP System Implementation	5,878	5,070	6,147	3,658	3,090	-	-	-	-	17,696
73274008	Software Upgrades & Enhancements	1,233	611	269	559	821	941	429	2,358	11,304	18,256
73274007	Vena Software Implementation	1,000	157	-	-	-	-	-	-	-	1,157
95274003	WTP-WQL Network Equipment	920	1,301	33	503	192	-	101	1,588	8,180	12,785
<b>TOTAL</b>		<b>12,846</b>	<b>8,677</b>	<b>7,068</b>	<b>4,803</b>	<b>4,103</b>	<b>941</b>	<b>530</b>	<b>3,946</b>	<b>19,484</b>	<b>55,330</b>

FY 2017-18 Funds to be reappropriated

The following table shows funding requirements from each funding source for information technology capital improvements.

## Information Technology – Funding Sources (\$K)

Fund Number	FUND NAME	Through FY17	FY18	FY18 Unspent	FY19	FY20	FY21	FY22	FY23	FY24-33	TOTAL
61	Water Utility Enterprise Fund	920	1,301	33	503	192	-	101	1,588	8,180	12,785
11	General Fund	1,199	-	-	-	-	-	-	-	-	1,199
73	Information Technology Fund	10,727	7,376	7,035	4,300	3,911	941	429	2,358	11,304	41,346
<b>TOTAL</b>		<b>12,846</b>	<b>8,677</b>	<b>7,068</b>	<b>4,803</b>	<b>4,103</b>	<b>941</b>	<b>530</b>	<b>3,946</b>	<b>19,484</b>	<b>55,330</b>

FY 2017-18 Funds to be reappropriated

<b>Project</b>	<b>Data Consolidation</b>
<b>Program</b>	Information Technology
<b>Priority No.</b>	34
<b>Project No.</b>	73274009
<b>District Contact</b>	Sudhanshu Tikekar STikekar@valleywater.org

No Photo is provided for this project.

### PROJECT DESCRIPTION

This project plans, designs, and implements improvements to Data Consolidation to accomplish the following objectives:

- ♦ Implement a Enterprise Content Management system with strong Business Intelligence.
- ♦ Move from a applications centric model (current) to a data centric model thereby removing silos of data stores.
- ♦ Information management for big data. Manage data as a strategic, core asset, with ongoing process and management control for big data analytics.
- ♦ High-Performance analytics for big data. Gain rapid insights from big data and the ability to solve increasingly complex business problems.
- ♦ Reduce the overall data footprint. Identify duplicate, and unstructured data and delete it.

### PROJECT LOCATION

No Map is provided for this project

## SCHEDULE & STATUS

July 2015 to June 2019

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	-											
Design	-											
Construct	962											
Closeout	-											

962

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
73274009-Data Consolidation	71	691	250	0	0	0	0	0	1,012
with inflation	71	691	261	0	0	0	0	0	1,023

Actuals include project expenditures, and encumbrances.

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total	
	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
73274009-Data Consolidation	661	279	178	83	0	0	0	0	0	1,023

Adjusted Budget includes adopted budget plus approved budget adjustments.

## FUNDING SOURCES

(in thousands \$)

SCVWD Information Technology Fund	1,023
Other Funding Sources	0
<b>Total</b>	<b>1,023</b>

## OPERATING COST IMPACTS

Ongoing annual costs will need to be determined and be based on implemented solutions.

**USEFUL LIFE:** Not Available

<b>Project</b>	<b>Information Technology Disaster Recovery</b>
<b>Program</b>	Information Technology
<b>Priority No.</b>	46
<b>Project No.</b>	73274001
<b>District Contact</b>	Sudhanshu Tikekar STikekar@valleywater.org



Existing Data Center that houses critical servers supporting the District's normal operations

**PROJECT DESCRIPTION**

This project plans and designs improvements to Information Technology to accomplish the following objectives:

- ♦ Enable coordinated, rapid recovery from a disaster.
- ♦ Reduce the District's business risk exposure.

**PROJECT LOCATION**

No Map is provided for this project

## SCHEDULE & STATUS

July 2014 to December 2018

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	-											
Design	-											
Construct	1,888											
Closeout	-											
	1,888											

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
73274001-Information Technology Disaster Recovery	90	1,865	0	0	0	0	0	0	1,955
with inflation	90	1,865	0	0	0	0	0	0	1,955

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total	
	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
73274001-Information Technology Disaster Recovery	1,955	441	441	0	0	0	0	0	0	2,396

Adjusted Budget includes adopted budget plus approved budget adjustments.

## FUNDING SOURCES

(in thousands \$)

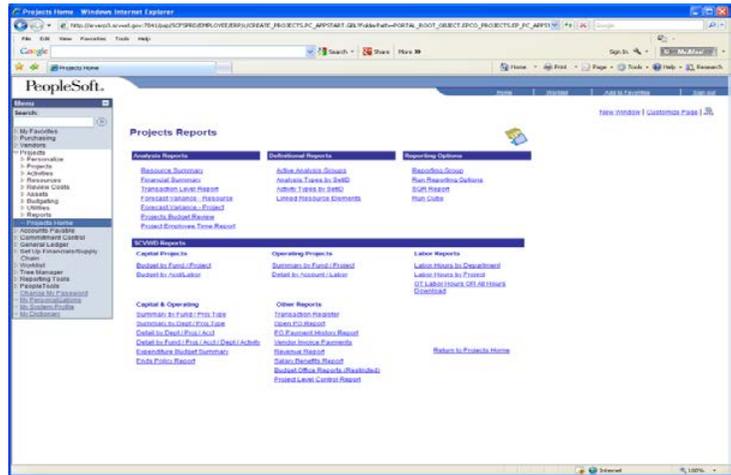
SCVWD Information Technology Fund	2,396
Other Funding Sources	0
<b>Total</b>	<b>2,396</b>

## OPERATING COST IMPACTS

Ongoing annual costs will need to be determined and be based on implemented solutions.

**USEFUL LIFE:** Not Available

**Project** PeopleSoft System Upgrade and ERP System Implementation  
**Program** Information Technology  
**Priority No.** 63  
**Project No.** 60274062  
**District Contact** Sudhanshu Tikekar  
 STikekar@valleywater.org



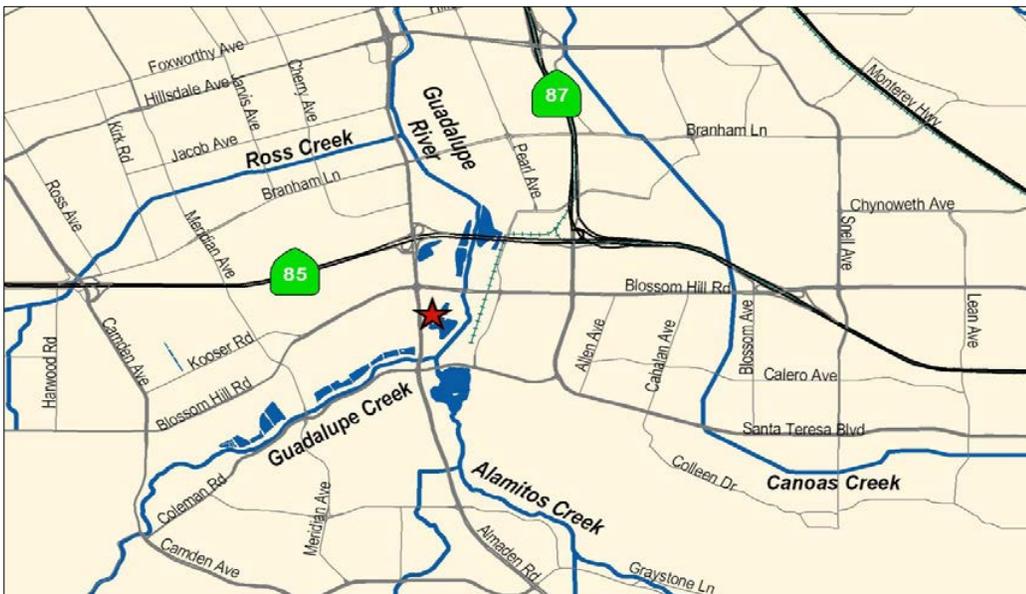
PeopleSoft Reports page from the District's intranet

## PROJECT DESCRIPTION

This project selects and implements a new cloud-based, integrated, proven and state-of-the-art ERP system, to replace the current out-of-date ERP (PeopleSoft) application. Below are the objectives:

- Provide up-to-date functionalities A13for Finance, HR, Payroll, Contract, Procurement, Inventory, and Warehouse areas, and to reengineer business processes to ensure that the District takes full advantage of the software's inherent capabilities.
- Increase productivity by eliminating redundancy and manual processes for work-arounds for current PeopleSoft system.
- Increase operational effectiveness, reduce costs and improve management decision-making process by increasing the ability to access and analyze data.
- Ensure system security complies with industry standards.
- Minimize reliance on District's IT resources for enhancements, support, and maintenance.

## PROJECT LOCATION



★ Project Location

## SCHEDULE & STATUS

July 2013 to December 2019

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	2,300											
Design	1,999											
Construct	10,467											
Closeout	2,830											
	17,596											

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
60274062-PeopleSoft System Upgrade and ERP System Implementation	1,199	0	0	0	0	0	0	0	1,199
with inflation	1,199	0	0	0	0	0	0	0	1,199
73274002-PeopleSoft System Upgrade and ERP System Implementation	2,501	2,300	9,383	2,830	0	0	0	0	17,014
with inflation	2,501	2,300	9,805	3,090	0	0	0	0	17,697
<b>TOTAL</b>	3,700	2,300	9,383	2,830	0	0	0	0	18,213
with inflation	3,700	2,300	9,805	3,090	0	0	0	0	18,896

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
60274062-PeopleSoft System Upgrade and ERP System Implementation	1,199	0	0	0	0	0	0	0	1,199
73274002-PeopleSoft System Upgrade and ERP System Implementation	5,878	5,070	6,147	3,658	3,090	0	0	0	17,697
<b>TOTAL</b>	7,077	5,070	6,147	3,658	3,090	0	0	0	18,896

Adjusted Budget includes adopted budget plus a planned budget adjustment for \$3,250,000.

## FUNDING SOURCES

(in thousands \$)

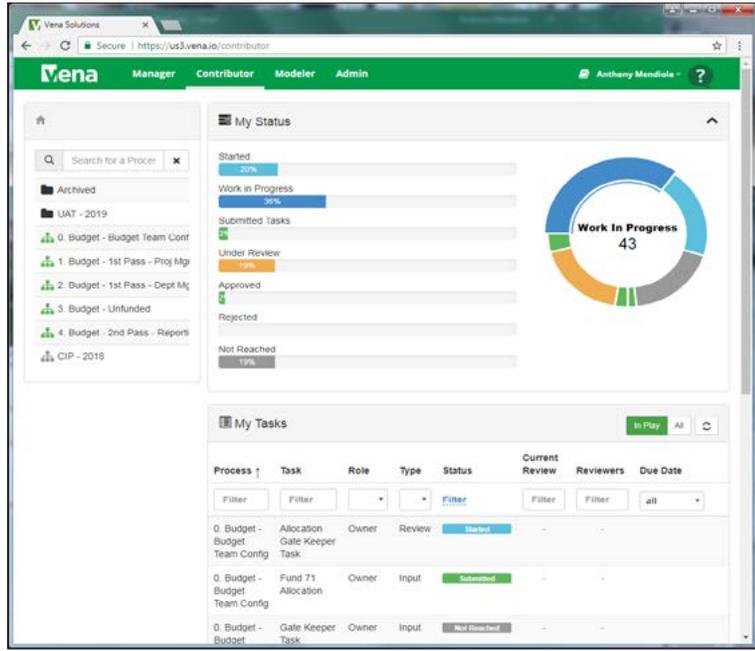
SCVWD General Fund	1,199
SCVWD Information Technology Fund	17,697
<b>Total</b>	<b>18,896</b>

## OPERATING COST IMPACTS

Upon completion of this project, one full-time employee will be needed for expanded technical support for new system modules and features and to continue with operational refinements, enhancements, integrations, report development, etc. on an on-going annual basis. PeopleSoft software maintenance fees are required on an annual recurring basis and projected to increase by three percent each year. The projected annual software maintenance fee for FY 2019 is approximately \$164,324.

**USEFUL LIFE:** 5 Years

**Project** Vena Software Implementation  
**Program** Water Supply – Transmission  
**Priority No.** 63  
**Project No.** 73274007  
**District Contact** Sudhanshu Tikekar  
 Stikekar@valleywater.org



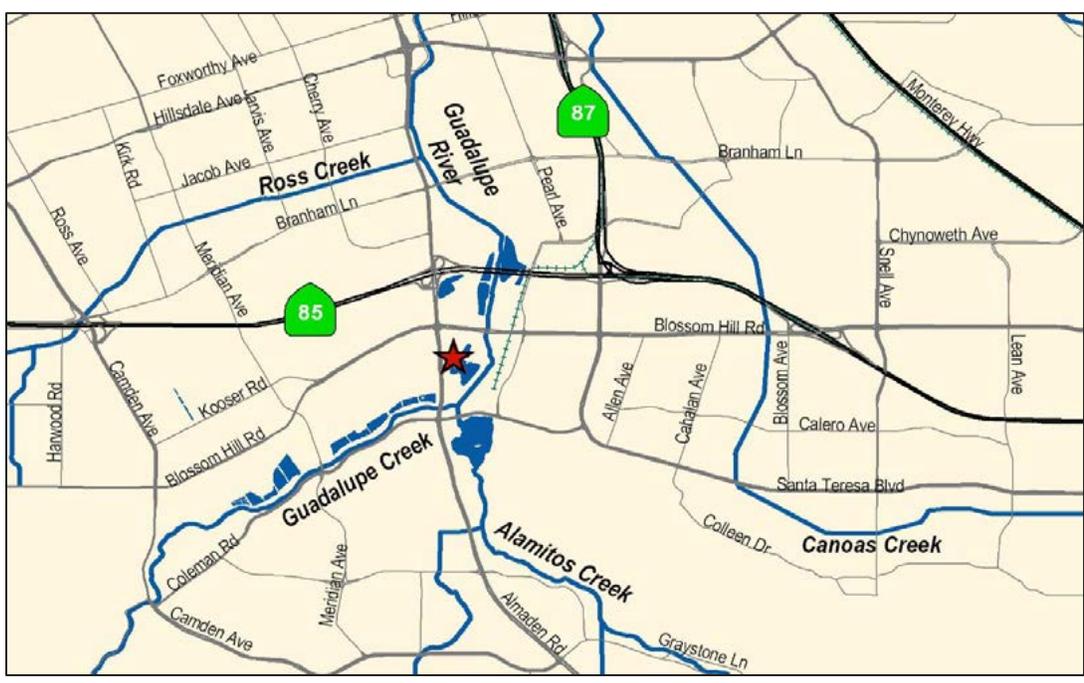
View of end-user landing page in Vena system

### PROJECT DESCRIPTION

This project plans, designs, and implements new financial software to accomplish the following objectives:

- ◆ Implement a new budgeting module to manage and enhance the District’s budgeting process;
- ◆ Implement a new CIP module, for improving current CIP process;
- ◆ Implement a financial long-term forecasting module to replace current forecasting spreadsheets;
- ◆ Build integration between each module and the current ERP System.

### PROJECT LOCATION



★ Project Location

## SCHEDULE & STATUS

July 2013 to June 2018

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	-											
Design	-											
Construct	252											
Closeout	-											
	252											

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
73274007-Vena Software Implementation	905	252	0	0	0	0	0	0	1,157
with inflation	905	252	0	0	0	0	0	0	1,157

Actuals include project expenditures, and encumbrances.

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
73274007-Vena Software Implementation	1,000	157	0	0	0	0	0	0	1,157

Adjusted Budget includes adopted budget plus approved budget adjustments.

## FUNDING SOURCES

(in thousands \$)

SCVWD Information Technology Fund	1,157
Other Funding Sources	0
<b>Total</b>	<b>1,157</b>

## OPERATING COST IMPACTS

Annual licensing and maintenance will be approximately \$95,000 per year beginning in FY 2019.

**USEFUL LIFE:** 10 years

<b>Project</b>	<b>Software Upgrades &amp; Enhancements</b>
<b>Program</b>	Information Technology
<b>Priority No.</b>	54
<b>Project No.</b>	73274008
<b>District Contact</b>	Sudhanshu Tikekar STikekar@valleywater.org



Existing District Systems to be upgraded and enhanced

**PROJECT DESCRIPTION**

This project provides upgrade and enhancement services to existing District systems including GIS, Maximo, Oracle Development system, internal and external District websites, and related databases. Previously, software upgrades were budgeted to their individual respective maintenance and support projects. This new project aims to consolidate upgrade activities into a single project for better organization, planning and budgeting purposes (the exception is Peoplesoft which has its own upgrade project).

The objective of this project is to regularly upgrade existing software packages to:

- ♦ Reduce current risks associated with being on a software version that is no longer supported by the vendor and is running on outdated operating systems.
- ♦ Increase the level of service provided by the software with new functionalities.

**PROJECT LOCATION**

No Map is provided for this project

## SCHEDULE & STATUS

July 2015 to June 2031

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	-											
Design	-											
Construct	13,143											
Closeout	-											
	13,143											

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
73274008-Software Upgrades & Enhancements	964	611	792	752	825	360	1,892	7,268	13,464
with inflation	964	611	828	821	941	429	2,358	11,303	18,256

Actuals include project expenditures, and encumbrances.

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total	
	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
73274008-Software Upgrades & Enhancements	1,233	611	269	559	821	941	429	2,358	11,303	18,256

Adjusted Budget includes adopted budget plus approved budget adjustments.

## FUNDING SOURCES

(in thousands \$)

SCVWD Information Technology Fund	18,256
Other Funding Sources	0
<b>Total</b>	<b>18,256</b>

## OPERATING COST IMPACTS

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

**USEFUL LIFE:** Not Available

<b>Project</b>	<b>WTP-WQL Network Equipment</b>
<b>Program</b>	Information Technology
<b>Priority No.</b>	46
<b>Project No.</b>	95274003
<b>District Contact</b>	Sudhanshu Tikekar STikekar@valleywater.org



View of network equipment to be modernized at the Water Quality Lab

### PROJECT DESCRIPTION

This project plans, designs, and implements upgrades to the existing network to ensure that the District has a current and robust computer network to accomplish the following objectives:

- ◆ Deliver greater access speeds.
- ◆ Restore vendor maintenance.
- ◆ Improve software application performance.
- ◆ Provide a path to meet future data communications needs.

### PROJECT LOCATION



★ Project Location

## SCHEDULE & STATUS

July 2014 to June 2032

Phase	Cost	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Plan	-											
Design	-											
Construct	9,484											
Closeout	-											
	9,484											

## EXPENDITURE SCHEDULE

(in thousands \$)

Project	Actuals Thru	Planned Expenditures							Total
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	
95274003-WTP-WQL Network Equipment	867	1,321	513	176	0	85	1,274	5,649	9,885
with inflation	867	1,321	536	192	0	101	1,588	8,180	12,785

## FUNDING SCHEDULE

(in thousands \$)

Project	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total	
	FY17	FY18		FY19	FY20	FY21	FY22	FY23	Future	
95274003-WTP-WQL Network Equipment	920	1,301	33	503	192	0	101	1,588	8,180	12,785

Adjusted Budget includes adopted budget plus approved budget adjustments.

## FUNDING SOURCES

(in thousands \$)

SCVWD Water Utility Enterprise Fund	12,785
Other Funding Sources	0
<b>Total</b>	<b>12,785</b>

## OPERATING COST IMPACTS

Upon completion of this project operating costs are anticipated to increase by \$37,000 beginning in FY 2033 with an increase of 3% each year after that to pay for hardware maintenance agreements.

**USEFUL LIFE:** 10 Years

# Financial Planning

# Financial Planning and Summary

## CIP FINANCIAL PLANNING

Board policy regarding financial planning and budgeting provides the foundation for CIP financial planning. The policy states:

Executive Limitation EL-4, “Financial planning for any fiscal year shall be aligned with the Board’s Ends, not risk fiscal jeopardy, and be derived from a multi-year plan.”

Executive Limitation EL-4.3, “A BAO shall include credible projection of revenues and expenses, separation of capital and operational items, cash flow, and disclosure of planning assumptions.”

Executive Limitation EL-4.4, “A BAO shall plan the expenditure in any budget period within the funds that are conservatively projected to be received or appropriated from reserves in that period.”

## KEY REVENUES SOURCES

### *Water Charges*

- Water charges include a ground water production charge, which is equivalent to the basic user charge, and is associated with the benefit of managing groundwater supplies. The groundwater charge is applied to water extracted from the groundwater basin in Zones W-2 and W-5. The basic user charge is applied to other types of water delivered by the District. There are two rates: one for agricultural water and one for municipal and industrial water.
- A treated water surcharge, which is associated with the benefit of receiving treated water, is levied in addition to the basic user charge on water delivered from the District’s water treatment plants.

### *Property Tax*

Santa Clara County allocates property tax revenue to the District from ad valorem taxes levied on land within the county.

### *Special Parcel Tax*

A special parcel tax, with a 2016 sunset, was approved by the voters in Santa Clara County in November 2000. This revenue source was restricted to financing the costs of the District’s Clean, Safe Creeks and Natural Flood Protection Program. In November 2012 the special parcel tax was continued by voter approval to 2028. This revenue can be used for both the continuing Clean, Safe Creeks and new Safe, Clean Water programs.

### *Benefit Assessments*

Benefit assessment revenue consists of levies approved by voters in 1986 and 1990 to support financing for flood control capital improvements. The current FY 2015-16 budget amount is approximately 1.25 times the duly authorized annual debt service requirements for each Watershed.

### *Capital Reimbursements*

Capital reimbursement revenues are from local, state and federal partners for capital projects carried on cooperatively by the District and its partners. The District fronts the partners’ shares of capital expenditures and receives reimbursements from the partners at a later time.

### *Interest*

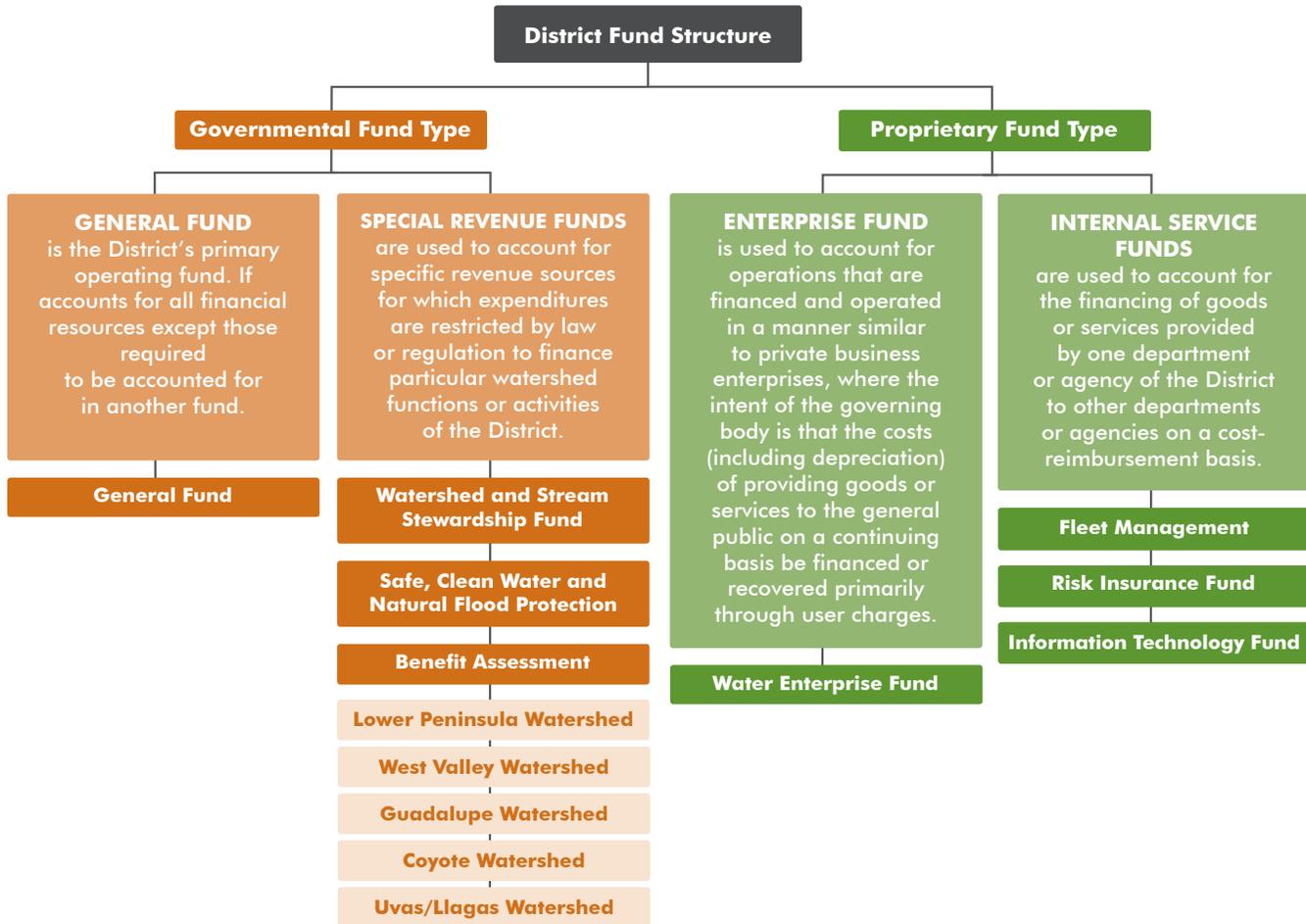
Interest is earned from the District’s investment portfolio.

# Financial Planning and Summary

## District Fund Structure

The District's revenue sources are organized into eight funds. Each fund has specific revenue sources according to their intended purposes, and each fund

is an independent accounting entity with a self-balancing set of accounts comprised of its assets, liabilities, fund equity, revenue, and expenditures or expenses, as appropriate.



## Revenue by Fund (\$K)

FUND NAME	FY17 Budget	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27
Water Utility Enterprise	259,637	256,871	277,507	321,741	368,411	397,070	436,325	478,067	520,818	546,668	575,136
Watershed Stream Stewardship	79,293	103,531	91,188	87,106	84,673	88,128	90,275	93,603	102,280	100,175	103,705
Safe, Clean Water and Natural Flood Protection	45,096	48,125	64,802	61,718	65,665	62,994	51,573	53,129	54,832	56,523	58,483
Benefit Assessment	14,785	14,778	14,777	13,445	13,456	13,454	13,444	13,443	6,850	6,855	6,852
General	7,633	7,596	7,762	8,035	8,317	8,610	8,913	9,226	9,551	9,886	10,234
Internal Service	435	249	219	225	226	222	257	285	276	282	322
<b>TOTAL</b>	<b>406,878</b>	<b>431,149</b>	<b>456,256</b>	<b>492,270</b>	<b>540,749</b>	<b>570,477</b>	<b>600,787</b>	<b>647,752</b>	<b>694,606</b>	<b>720,389</b>	<b>754,733</b>

Note: Internal Service Funds (ISF) is the combination of the Fleet Management, IT Capital, and Risk Funds

# Financial Planning and Summary

## Revenue Projections

The District regularly updates the projected revenues based on the best information available.

- Revenues from water charges are estimated based on projections of water demand for residential, commercial and industrial, and agricultural consumption combined with rates per acre-foot. Rates are set at a level that will provide revenue needed to meet operating and capital needs.
- Revenues from property taxes, special parcel taxes, and benefit assessments are estimated based on projection of growth in assessed value and number of developed parcels in Santa Clara County.
- Interest earnings are estimated based on the projected average cash balances during the fiscal year and expected yield from the District's investment portfolio.
- Revenue from capital reimbursements partnerships are estimated based on the terms of agreements executed by the District and its partners.

## Expenditure Projections

The District regularly updates the operation and capital expenditures based on the best information available.

Each capital project cost estimate includes the yearly expenditures through completion based on the project's scope and schedule. The expenditures are monitored regularly and updated when necessary, e.g. expenditures are updated when a project's scope changes. A management review process is enforced to ensure only justified expenditure changes are approved.

Operation cost projections for the next 15 years are updated annually and are based on assumptions derived from the District's strategic plans, including the impact of completed capital projects. Capital and operations expenditure projections are the foundation for the development of the District's budget.

## Financial Analysis

The District regularly performs financial analysis to comply with the Board's Financial Planning/Budgeting Policy. The District uses sophisticated financial models

to perform the analysis for each fund. The projected operation expenditures, capital expenditures, and revenues for the next ten years are incorporated into the financial models to analyze the health of each fund under various economic scenarios. This process assures that funds will be available when needed to implement the CIP.

The financial analysis generates alternatives for funding capital projects based on the available yearly revenues, from all sources, allocated to the capital program, and the debt financing capacity of each fund. The financial analysis establishes the parameters within which the capital project schedule is developed.

## Debt Projections and Debt Ratios

Debt is managed at the District depending on the type of District business involved. The SCW program approved by the voters in 2012 includes the authority to issue debt against future revenue in order to accelerate completion of projects sooner. Debt service on outstanding benefit assessment debt is funded by benefit assessments levied on property owners in the county.

The water utility business, on the other hand, uses a combination of short-term and long-term debt financing in conjunction with pay-as-you-go financing to lessen impacts to the water rate caused by fluctuations in capital funding needs. In the 1984 general election, Measure B was passed by the voters, which gave the District's water utility the authority to issue bonds on an "as required" basis. Debt service on outstanding debt is paid from water revenues. Bond covenants stipulate that the District must maintain a 1.25 debt coverage ratio on all parity bonds. The long-term financial analysis targets a debt coverage ratio of 2.0, which helps establish the parameters for capital planning that ensure bond covenants will be met.

The District currently enjoys credit ratings that are among the highest for a water-related governmental entity in the state of California, which helps keep interest costs borne by the District at a minimum.

# Financial Planning and Summary

## Relationship between the Operating Budget and CIP

Whenever the District commits to capital improvements, there is a potential for associated long-range commitment of operating funds. For example, if 20-year bonds are issued to finance capital needs, then the operating funds will need to budget debt service payments for the next two decades. For this reason, it is important to evaluate capital commitments in the context of their long-range operating impact.

In addition to the long-range debt service payments, some capital projects affect future operating budgets either positively or negatively due to an increase or decrease in maintenance and operation costs. Such impacts vary widely from project to project and, are evaluated individually during the project development stage. The District is committing to a potential change in the operating budget when a capital project is approved.

The projected debt service payments and the positive or negative operating budget impacts are important factors considered in the District's financial analysis.

This chart identifies the operating budget impacts to each fund from projected debt service payments. The debt service payment in the Watershed Stream Stewardship Fund is a total of payments associated with each individual watershed.

### Debt Payment Schedule (\$K)

Fund	FY18	FY19	FY20	FY21	FY22	FY23
General Fund	472	538	539	539	536	537
Benefit Assessment Fund	12,162	12,162	11,085	11,094	11,090	11,086
Safe, Clean Water and Natural Flood Protection Fund	2,417	5,897	7,020	7,020	19,215	21,570
Water Utility Enterprise Fund	31,707	41,797	51,835	65,223	77,498	94,665
Information Technology Fund	-	-	-	-	-	-
<b>TOTAL</b>	<b>46,758</b>	<b>60,394</b>	<b>70,480</b>	<b>83,876</b>	<b>108,340</b>	

This chart identifies the net operating budget impacts to each fund resulting from annual maintenance and/or operating cost for newly completed capital projects. Additional information regarding operating impacts related to individual projects can be found on the project pages.

### Estimated Operating Impacts (\$K)

Fund	FY18	FY19	FY20	FY21	FY22	BEYOND
General Fund	-	-	-	-	-	-
Watershed Stream Stewardship Fund	35	4,035	35	60	4,070	70
Safe, Clean Water and Natural Flood Protection Fund	-	50	150	150	150	730
Water Utility Enterprise Fund	25	33	(167)	(229)	1,241	1,358
Information Technology Fund	164	169	174	179	185	190
<b>TOTAL</b>	<b>224</b>	<b>4,287</b>	<b>192</b>	<b>160</b>	<b>5,646</b>	<b>2,348</b>

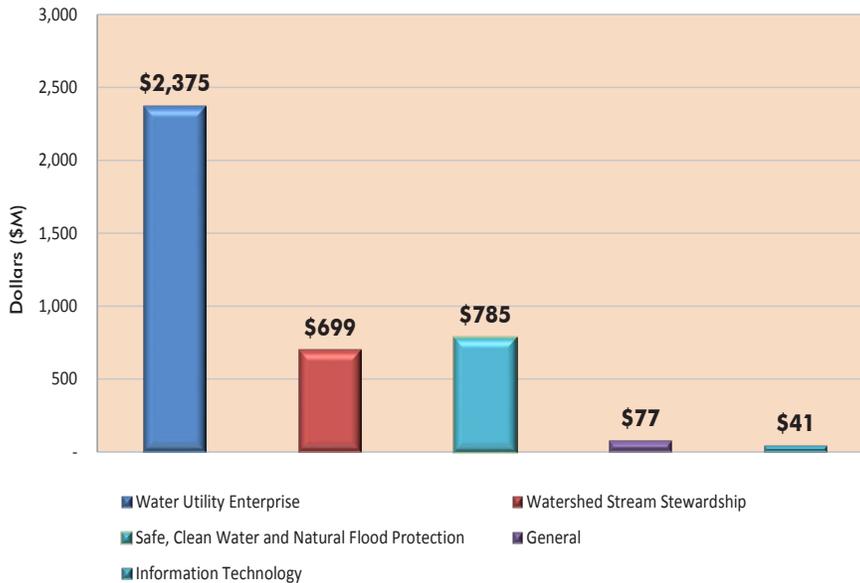
# Financial Planning and Summary

## CIP FUNDING SUMMARY

Of the \$3.978 billion in total District funding for current and future projects, the Board appropriated \$1.296 billion in prior years through June 30, 2018 (the end of Fiscal Year 2017-18). This year's CIP process identified

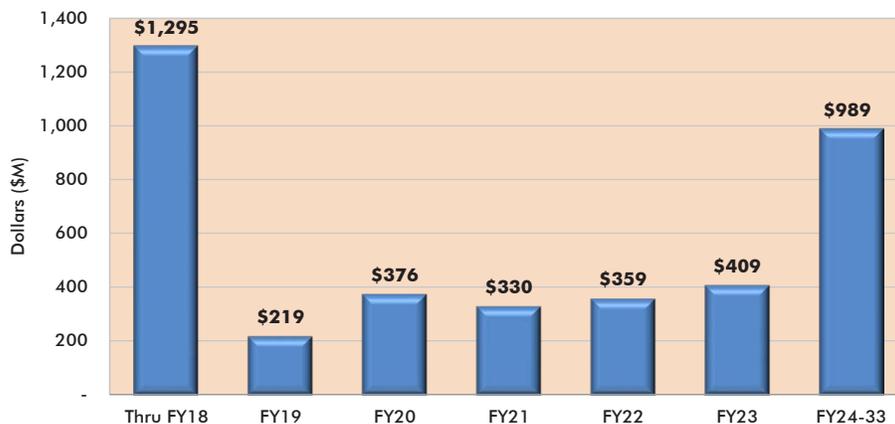
additional funding needs of \$2.682 billion to complete the projects in the CIP, with \$219 million allocated in Fiscal Year 2018-19 and a total of \$2.463 billion proposed for future years.

### CIP Total Funding by Fund



The needed \$3.978 billion to implement the 61 projects as defined in the CIP are funded by four of the District's seven Funds.

### CIP Funding Schedule



The following chart shows the funding schedule for the \$3.978 billion to implement the 61 projects.

# Financial Planning and Summary

## CIP Project Funding Schedule for Water Utility Enterprise Fund (\$K)

PROJECT NAME	Through FY17	FY18	FY18 Unspent	FY19	FY20	FY21	FY22	FY23	FY24-33	TOTAL
Almaden Dam Improvements	12,520	520	1,816	2,207	546	525	24,963	18,940	393	60,614
Anderson Dam Seismic Retrofit (C1)	31,586	7,932	-	11,095	151,809	116,197	141,234	89,533	1,458	550,844
Calero and Guadalupe Dams Seismic Retrofits	26,808	3,349	3,955	1,911	1,638	9,914	30,332	42,072	55,880	171,904
Coyote Pumping Plant ASD Replacement	-	536	436	698	814	3,244	6,416	4,486	791	16,985
Coyote Warehouse	2,940	3,003	-	528	-	-	-	-	-	6,471
Dam Seismic Stability Evaluation	18,812	-	33	1,221	491	456	5,963	498	1,941	29,382
Small Capital Improvements, San Felipe Reach 1-3	n/a	2,457	-	3,472	2,080	2,706	92	-	34,750	45,557
10-Year Pipeline Rehabilitation (FY18-FY27)	-	20,489	-	17,590	13,353	20,355	8,260	4,885	33,591	118,523
FAHCE Implementation	-	-	-	-	-	4,739	4,379	14,691	121,299	145,108
Pacheco/Santa Clara Conduit Right of Way Acquisition	1,861	1,034	-	1,585	307	-	-	-	-	4,787
SCADA Remote Architecture & Communications Upgrade	776	186	-	182	175	913	835	872	3,009	6,948
Small Capital Improvements, Raw Water Transmission	n/a	321	-	765	49	-	92	-	3,226	4,453
Small Capital Improvements, Treated Water Transmission	n/a	-	-	139	-	-	-	-	-	139
Treated Water Isolation Valves	-	-	-	529	795	6,891	-	-	-	8,215
Westside Retailer Interties	-	-	-	67	358	1,385	114	-	-	1,924
Vasona Pumping Plant Upgrade	119	712	310	542	1,163	548	17,541	586	-	21,211
PWTP Residuals Management	-	-	-	-	-	742	1,550	8,279	-	10,571
RWTP FRP Residuals Management Modifications	31,520	17,053	12,817	-	7,756	2,083	1,759	2,430	1,595	64,196
RWTP Reliability Improvement	116,221	48,144	19	47,136	47,629	30,116	143	-	-	289,389
RWTP Treated Water Valves Upgrade	8,424	170	-	180	22	-	-	-	-	8,796
Small Capital Improvements, Water Treatment	n/a	2,512	-	6,226	7,344	7,682	3,872	315	16,943	44,894
Expedited Purified Water Program (EPWP)	28,089	-	9,742	2,651	10,638	25,502	37,452	77,175	95,728	277,235
Long-Term Purified Water Program Elements	-	-	-	-	-	-	-	87,855	279,696	367,551
South County Recycled Water Pipeline	32,915	-	8,686	5,104	14,199	221	-	-	-	52,439
FAHCE Stevens Creek Fish Passage Enhancement - 90%	765	-	-	-	-	1,724	3,135	-	-	5,623
Metcalf Ponds Design & Construction	-	-	-	-	-	2,282	2,385	2,492	25,013	32,172
Ogier Ponds Design & Construction	-	-	-	-	-	-	1,193	1,246	14,224	16,663
Regionally Significant Habitat Land Acquisition	-	-	-	-	-	-	-	-	-	-
WTP-WQL Network Equipment	920	1,301	33	503	192	-	101	1,588	8,180	12,785
<b>TOTAL</b>	<b>314,276</b>	<b>109,719</b>	<b>37,847</b>	<b>104,331</b>	<b>261,358</b>	<b>238,225</b>	<b>291,811</b>	<b>357,943</b>	<b>697,717</b>	<b>2,375,379</b>

FY 2017-18 Funds to be reappropriated

# Financial Planning and Summary

## CIP Project Funding Schedule for Watershed and Stream Stewardship Fund (\$k)

PROJECT NAME	Through FY17	FY18	FY18 Unspent	FY19	FY20	FY21	FY22	FY23	FY24-33	TOTAL
Palo Alto Flood Basin Tide Gate Structure Improvements	1,200	1,658	-	784	1,836	7,219	119	-	-	12,81
Permanente Creek, SF Bay to Foothill Expressway	17,541	-	178	-	-	-	-	-	-	17,54
San Francisquito Creek, SF Bay thru Searsville Dam	4,064	-	-	-	-	-	-	-	-	4,06
San Francisquito Creek, Early Implementation	1,614	-	-	-	-	-	-	-	-	1,61
Canoas Creek, Rodent Damage Repair	8,517	-	1,092	-	-	-	-	-	-	8,51
Berryessa Ck, Lower Penitencia Ck to Calaveras Blvd Phs 1	51,191	-	2,265	-	-	-	-	-	-	51,19
Berryessa Ck, Lower Penitencia Ck to Calaveras Blvd Phs 2	58,402	-	1,640	17,474	349	365	417	-	-	77,00
Berryessa Ck, Lower Penitencia Ck to Calaveras Blvd Phs 3	-	-	-	-	-	2,164	2,206	1,281	65,773	71,42
Cunningham Flood Detention Certification	8,287	1,841	-	1,290	235	34	-	-	-	11,68
Lower Penitencia Ck Improvements, Berryessa to Coyote Cks.	9,601	4,815	6,178	1,881	9,861	285	298	212	-	26,95
Lower Silver Creek, I-680 to N. Babb Rd (Reach 4 Planning)	2,371	-	-	-	-	-	-	-	-	2,37
Lower Silver Creek, I-680 to Cunningham (Reach 4-6)	93,750	1,981	489	80	311	-	-	-	-	96,12
Lower Silver Creek, I-680 to Cunningham, Reimbursable (Reach 4-6)	2,912	-	965	-	-	-	-	-	-	2,91
Upper Penitencia Ck, Coyote Ck-Dorel Dr, Corps	8,970	1,116	-	-	-	-	-	-	-	10,08
Upper Penitencia Ck, Coyote Ck-Dorel Dr, LERRDs	8,544	-	4,957	-	-	-	-	-	-	8,54
Llagas Creek-Lower, Capacity Restoration, Buena Vista Road to Pajaro River	7,046	-	3,607	-	630	3,187	2,891	125	-	13,87
Llagas Creek-Upper, R5,6,&7b	-	-	-	17,595	6,210	-	-	-	-	23,80
San Francisco Bay Shoreline	14,067	2,721	206	-	-	-	-	-	-	16,78
San Francisco Bay Shoreline - Contribution	490	-	-	-	-	-	-	-	-	49
Shoreline Early Implementation	359	-	-	-	-	-	-	-	-	35
Watersheds Asset Rehabilitation Program	3,515	11,047	-	11,517	8,610	8,936	9,387	9,740	117,651	180,40
SMP Mitigation, Stream and Watershed Land Preservation	16,224	510	-	-	-	-	-	-	-	16,73
Stevens Creek Fish Barrier Removal - 100%	-	-	-	-	-	342	3,699	3,836	7,009	14,88
FAHCE Stevens Creek Fish Passage Planning - 10%	85	-	-	-	-	-	-	-	-	8
FAHCE Stevens Creek Moffett Ave Fish Ladder - 10%	-	-	-	-	-	149	211	-	-	36
FAHCE Stevens Creek Multi-Port Outlet at Dam - 10%	-	-	-	-	-	43	137	-	-	18
Ogier Ponds Design & Construction	-	-	-	-	-	-	1,193	1,246	14,224	16,66

FY 2017-18 Funds to be reappropriated

# Financial Planning and Summary

## Project Funding Schedule for Watershed and Stream Stewardship Fund (\$K) (cont'd)

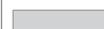
PROJECT NAME	Through FY17	FY18	FY18 Unspent	FY19	FY20	FY21	FY22	FY23	FY24-33	TOTAL
Salt Ponds A5-11 Restoration	4,233	754	451	94	358	-	1,604	1,662	117	8,822
Regionally Significant Habitat Land Acquisition	-	-	-	-	-	-	-	-	-	-
Watershed Habitat Enhancement Studies	90	1,167	66	1,016	-	-	-	-	-	2,273
<b>TOTAL</b>	<b>323,073</b>	<b>27,610</b>	<b>22,094</b>	<b>51,731</b>	<b>28,400</b>	<b>22,724</b>	<b>22,162</b>	<b>18,102</b>	<b>204,774</b>	<b>698,576</b>

 FY 2017-18 Funds to be reappropriated

# Financial Planning and Summary

## Project Funding Schedule for Safe, Clean Water and Natural Flood Protection Fund (\$K)

PROJECT NAME	Through FY17	FY18	FY18 Unspent	FY19	FY20	FY21	FY22	FY23	FY24-33	TOTAL
IRP2 Additional Line Valves (A3)	-	-	-	1,392	343	9,826	-	-	-	11,561
Main & Madrone Pipelines Restoration (A1)	2,327	15,084	-	292	-	-	-	-	-	17,703
Permanente Creek, SF Bay to Foothill Expressway	56,750	16,909	-	993	-	-	-	-	-	74,652
San Francisquito Creek, SF Bay thru Searsville Dam (E5)	6,782	-	27	-	-	-	-	-	-	6,782
San Francisquito Creek - Construction, SF Bay to Middlefield Road (E5)	32,958	7,338	320	6,627	6,129	-	-	-	-	53,052
Sunnyvale East and West Channels	26,177	4,820	12,374	7,719	19,124	12,062	119	-	-	70,021
Guadalupe Rv-Upper, Fish Passage Mods	2,651	-	-	-	-	-	-	-	-	2,651
Guadalupe Rv-Upper, I-280 to SPRR (R6)	34,619	-	1,284	-	965	1,415	-	37	-	37,036
Guadalupe Rv-Upper, SPRR-Blossom Hill (R7-12)	64,589	18,294	17,682	6,516	16,563	6,523	3,257	2,656	-	118,398
Guadalupe Rv-Upper, Actuals chg to other proj numbers	7,887	-	-	-	-	-	-	-	-	7,887
Berryessa Ck, Calaveras-I-680 - Corps	35,666	-	12,683	-	-	-	-	-	-	35,666
Berryessa Ck, Calaveras-I-680 - Reimbursable	18,777	301	-	209	-	-	-	-	-	19,287
Coyote Creek, Montague Expressway to Tully Road (E3)	11,508	760	525	1,732	983	1,067	19,546	19,342	35,936	90,874
Upper Penitencia Ck, Coyote Ck-Dorel Dr, Corps (E4)	385	-	385	1,705	-	-	-	-	-	2,090
Llagas Creek-Upper, Reimbursable (E6b)	42,951	106	5,895	-	-	-	-	-	-	43,057
Llagas Creek-Upper, Corps Coordination (E6a)	40,893	2	13,700	5,300	18,000	12,600	119	125	-	77,039
Llagas Creek-Upper, Technical Studies	1,446	-	-	-	-	-	-	-	-	1,446
Llagas Creek-Upper, Design	20,652	2,046	-	261	273	285	298	312	-	24,127
San Francisco Bay Shoreline - EIA 11 Design & Partial Construction (E7)	7,794	751	-	6,967	3,115	-	-	-	-	18,627
San Francisco Bay Shoreline - Other EIAs Planning (E7)	3,756	1	1,529	-	608	1,141	716	-	-	6,222
Hale Creek Enhancement Pilot Study (D6)	945	1,306	23	2,580	-	-	-	-	-	4,831
Almaden Lake Improvements (D4.1a)	3,709	654	1,009	192	9,091	9,411	9,742	-	-	32,799
South Bay Salt Ponds Restoration (D8)	535	13	-	-	-	-	-	-	3,867	4,415
SCW Fish Passage Improvements (D4.3; Bolsa, Evelyn, Singleton)	3,664	224	933	392	-	-	-	-	-	4,280
Creek Bank Stability (ie. Comer Debris Basin (D6.2))	-	-	-	-	290	1,184	218	-	-	1,692
Creek Bank Stability (D6.1)	-	-	-	-	3,986	6,210	-	-	-	10,196
Regionally Significant Habitat Land Acquisition (D7)	-	-	-	-	-	724	749	775	6,688	8,936
<b>TOTAL</b>	<b>427,421</b>	<b>68,609</b>	<b>68,369</b>	<b>42,877</b>	<b>79,470</b>	<b>62,448</b>	<b>34,764</b>	<b>23,247</b>	<b>46,491</b>	<b>785,327</b>

 FY 2017-18 Funds to be reappropriated

# Financial Planning and Summary

## Project Funding Schedule for General Fund (\$K)

PROJECT NAME	Through FY17	FY18	FY18 Unspent	FY19	FY20	FY21	FY22	FY23	FY24-33	TOTAL
Pacheco Reservoir Feasibility Study	-	2,250	-	14,176	-	-	-	-	-	16,426
Almaden and Winfield Campus, Small Capital Improvements	n/a	2,046	-	2,072	2,147	2,221	2,300	2,381	28,246	41,413
Headquarters Operations Building	1,176	-	1,156	-	1,024	3,880	7,084	4,985	-	18,149
PeopleSoft System Upgrade & Expansion	1,199	-	-	-	-	-	-	-	-	1,199
<b>TOTAL</b>	<b>2,375</b>	<b>4,296</b>	<b>1,156</b>	<b>16,248</b>	<b>3,171</b>	<b>6,101</b>	<b>9,384</b>	<b>7,366</b>	<b>28,246</b>	<b>77,187</b>

FY 2017-18 Funds to be reappropriated

## Project Funding Schedule for Information Technology Fund (\$K)

PROJECT NAME	Through FY17	FY18	FY18 Unspent	FY19	FY20	FY21	FY22	FY23	FY24-33	TOTAL
Boardroom Technology Upgrade	-	818	-	-	-	-	-	-	-	818
Data Consolidation	661	279	178	83	-	-	-	-	-	1,023
IT Disaster Recovery	1,955	441	441	-	-	-	-	-	-	2,396
ERP System Implementation	5,878	5,070	6,147	3,658	3,090	-	-	-	-	17,696
Software Upgrades & Enhancements	1,233	611	269	559	821	941	429	2,358	11,304	18,256
Vena Software Implementation	1,000	157	-	-	-	-	-	-	-	1,157
<b>TOTAL</b>	<b>10,727</b>	<b>7,376</b>	<b>7,035</b>	<b>4,300</b>	<b>3,911</b>	<b>941</b>	<b>429</b>	<b>2,358</b>	<b>11,304</b>	<b>41,346</b>

FY 2017-18 Funds to be reappropriated

## CIP Funding Schedule Summary for All Funds (\$K)

FUND NAME	Through FY17	FY18	FY18 Unspent	FY19	FY20	FY21	FY22	FY23	FY24-33	TOTAL
Water Utility Enterprise	314,276	109,719	37,847	104,331	261,358	238,225	291,811	357,943	697,717	2,375,379
Watershed Stream Stewardship	323,073	27,610	22,094	51,731	28,400	22,724	22,162	18,102	204,774	698,576
Safe, Clean Water and Natural Flood Protection	427,421	68,609	68,369	42,877	79,470	62,448	34,764	23,247	46,491	785,327
General	2,375	4,296	1,156	16,248	3,171	6,101	9,384	7,366	28,246	77,187
Information Technology	10,727	7,376	7,035	4,300	3,911	941	429	2,358	11,304	41,346
<b>TOTAL</b>	<b>1,077,872</b>	<b>217,610</b>	<b>136,501</b>	<b>219,487</b>	<b>376,310</b>	<b>330,438</b>	<b>358,550</b>	<b>409,016</b>	<b>988,532</b>	<b>3,977,815</b>

FY 2017-18 Funds to be reappropriated

# Appendices

# Appendix A - CIP Priority Criteria

## WATER SUPPLY CAPITAL PROJECTS Priority Ranking Criteria

NORMALIZED PRIORITY SCORE = 0

RAW SCORE = 0

Project Name Here

<b>PRIMARY OBJECTIVE</b> (75%)	<b>Water Supply (E 2)</b>		0
	A1	<input type="checkbox"/> <sup>I</sup> <input type="checkbox"/> <sup>P</sup> Project maintains existing water utility infrastructure or is required to meet the current and future water supply demand, comply with water quality standards or meet other regulatory requirements. <b>I = Impact (H, M, L); P = Probability (H, M, L)</b>	
	A2	<input type="checkbox"/> <input type="checkbox"/> Project expands water utility infrastructure or provides additional water supply to meet current or near future demand. <b>I = Impact (H, M, L); P = Probability (H, M, L)</b>	
	B	<input type="checkbox"/> Project increases water supply portfolio, increases operation flexibility, improves maintenance capabilities, adds efficiency, or improves post-disaster reliability of water utility infrastructure [Example: improving the systematic reliability of water utility infrastructure to continually perform during and after a devastating event; improving the systematic flexibility of water utility infrastructure to continually perform during and after a devastating event; improving the systematic flexibility of water utility infrastructure to utilize various source water; or adding redundancy so infrastructure can be taken off-line for maintenance]. <b>(H, M, L)</b>	
C	<input type="checkbox"/> Timing of when project is needed to meet water supply demands, water quality standards, or other regulations. <b>(I = Immediately (0-3 yrs.); S = Short-term (3-5 yrs.); L = Long-term (5+ yrs.))</b>		
<b>COMMUNITY ENGAGEMENT</b> (7.5%)	<b>Social Factor</b> - Check if applicable		0
	<input type="checkbox"/> Promotes Emergency Recovery	<input type="checkbox"/> Addresses projected water supply demand indentified by Cities/County	
	<b>Positive Interaction (E 4)</b> - Check all that apply		
	<input type="checkbox"/> With the Community	<input type="checkbox"/> With other agencies	
<b>ENVIRONMENTAL SUSTAINABILITY</b> (7.5%)	<b>Water Quality (E 3.2)</b> - Check if applicable		0
	<input type="checkbox"/> Promotes drinking water quality	<input type="checkbox"/> Protects Ground Water	
	<input type="checkbox"/> Protects Surface Water	<input type="checkbox"/> Addresses Storm Water issues	
	<b>Natural Resources Sustainability (E 3.2)</b> - Check all that apply		
<input type="checkbox"/> Promotes water use efficiency	<input type="checkbox"/> Reduces reliance on imported water		
<input type="checkbox"/> Promotes stream management	<input type="checkbox"/> Encourages Water Conservation		
<input type="checkbox"/> Protects Upland or Wetland Habitat	<input type="checkbox"/> Expands or Improves Fish Habitat		
<input type="checkbox"/> Includes Climate Change Elements	<input type="checkbox"/> Promotes energy efficiency or incorporates energy efficient features		
<b>COST RECOVERY</b> (10%)	<b>Lifecycle costs are minimized</b> - Check One		0
	<input type="checkbox"/> Annual cost savings of more than \$500,000		
	<input type="checkbox"/> Annual cost savings of \$200,000 to \$500,000		
	<input type="checkbox"/> Annual cost savings of less than \$200,000 (reference ½ PY)		
	<b>Funding Available from Other Agencies</b> - Check One		
	<input type="checkbox"/> Over 50% of project costs available from other agencies		
<input type="checkbox"/> 26% to 50% of project costs available from other agencies			
<input type="checkbox"/> Up to 25% of project costs available from other agencies			

# Appendix A - CIP Priority Criteria

## FLOOD PROTECTION PROJECTS Priority Ranking Criteria

NORMALIZED PRIORITY SCORE = 0

RAW SCORE = 0

Project Name Here

<b>PRIMARY OBJECTIVE</b> (60%)	<p><b>Flood Protection (E 3)</b> <span style="float: right;">0</span></p> <p><input type="checkbox"/> I <input type="checkbox"/> P Project restores existing watershed infrastructure to its intended level of flood protection. <b>I = Impact on home, school, or business parcels (H = 1000+, M = 200 to 1000 , L = &lt;200);</b> <b>P = Probability based on frequency of flooding (H = every 10 yrs, M = every 25 yrs, L = every 50+ yrs)</b></p> <p><input type="checkbox"/> Project is a Board or USACE priority, improves watershed infrastructure to achieve the committed level of flood protection, or provides flood protection beyond the level of commitment. <b>(H, M, L)</b></p> <p><input type="checkbox"/> Timing of when the flood protection benefit will be realized by the community. <b>I = Immediate (0-3 years); S = Short-term (3-5 years); L - Long-term (more than 5 years)</b></p>
<b>COMMUNITY ENGAGEMENT</b> (10%)	<p><b>Positive Interaction (E 4) - Check all that apply</b> <span style="float: right;">0</span></p> <p><input type="checkbox"/> With the Community <span style="margin-left: 150px;"><input type="checkbox"/> With other agencies</span></p> <p><input type="checkbox"/> Environmental Justice</p> <p><b>Good Neighbor (E 4) - Check all that apply</b></p> <p><input type="checkbox"/> Graffiti removal or Prevention Features <span style="margin-left: 150px;"><input type="checkbox"/> Improves aesthetics of project location</span></p> <p><input type="checkbox"/> Trash removal features (vortex weirs)</p>
<b>ENVIRONMENTAL SUSTAINABILITY</b> (15%)	<p><b>Ecological Function (E 3.1, 4.1)</b> <span style="float: right;">0</span></p> <p><input type="checkbox"/> Project incorporates at least one of the following: removal of fish barrier; structural improvements to fish habitat; inclusion of riparian habitat (planting, setback or protect in place); inclusion of SRA plantings and/or features designed to improve water temperature; improvements to facilitate habitat connectivity, upland habitat and/or wetland habitat protection or preservation; or reduction of hardscape elements.</p> <p><b>Physical Function (E 3.2)</b></p> <p><input type="checkbox"/> Project incorporates at least one of the following: a holistic watershed approach; energy efficiency; geomorphic design elements; erosion control (sediment source reduction); floodplain connectivity; or protection from sea level rise.</p> <p><b>Water Quality and Supply (E 3.2)</b></p> <p><input type="checkbox"/> Project incorporates TMDL improvements or provides opportunity for recharge</p> <p><b>Trails &amp; Open Space (E4.2, E4.3) - Check all that apply</b></p> <p><input type="checkbox"/> Project incorporates trail friendly features, provides protection or preservation of open space, or provides/improves Bicycle Commute Route</p>
<b>COST RECOVERY</b> (15%)	<p><b>Funding Available from Other Agencies</b> - Put an "X" in the % column based on the percentage eligible for cost sharing; Put an "H", "M", or "L" in the C column based on the level of confidence <span style="float: right;">0</span></p> <p><input type="checkbox"/> % <input type="checkbox"/> C 50% or more of project costs available from other agencies <b>% = Percentage of cost provided; C = Confidence Level (H, M, L)</b></p> <p><input type="checkbox"/> % <input type="checkbox"/> C 26% to 49% of project costs available from other agencies <b>% = Percentage of cost provided; C = Confidence Level (H, M, L)</b></p> <p><input type="checkbox"/> % <input type="checkbox"/> C Up to 25% of project costs available from other agencies <b>% = Percentage of cost provided; C = Confidence Level (H, M, L)</b></p>

# Appendix A - CIP Priority Criteria

## WATER RESOURCES STEWARDSHIP PROJECTS Priority Ranking Criteria

NORMALIZED PRIORITY SCORE = 0

RAW SCORE = 0

Project Name

<b>PRIMARY OBJECTIVE</b> (55%)	<p><b>Stewardship Projects</b> <span style="float: right;">0</span></p> <p>A <input type="checkbox"/> Project creates Stewardship features to achieve stewardship commitments. (H, M, L)</p> <p>B <input type="checkbox"/> Stewardship activities beyond the current commitment. (H, M, L)</p>
<b>COMMUNITY ENGAGEMENT</b> (15%)	<p><b>Positive Interaction (E 4) - Check all that apply</b> <span style="float: right;">0</span></p> <p><input type="checkbox"/> With the Community <input type="checkbox"/> With other agencies</p> <p><input type="checkbox"/> Environmental Justice</p> <p><b>Good Neighbor (E 4) - Check all that apply</b> <span style="float: right;">0</span></p> <p><input type="checkbox"/> Graffiti removal or Prevention Features <input type="checkbox"/> Education Element</p> <p><input type="checkbox"/> Trash removal features (vortex weirs) <input type="checkbox"/> Promotes stream stewardship</p> <p><input type="checkbox"/> Improves aesthetics of project location <input type="checkbox"/> Promotes flood protection</p> <p><input type="checkbox"/> Promotes water conservation <input type="checkbox"/> Promotes Bay protection</p>
<b>ENVIRONMENTAL SUSTAINABILITY</b> (15%)	<p><b>Ecological Function (E 3.2) - Check all that apply</b> <span style="float: right;">0</span></p> <p><input type="checkbox"/> Fish Barrier Removal / Structural or nonstructural improvement to fish habitat <input type="checkbox"/> Upland Habitat Protection/Preservation</p> <p><input type="checkbox"/> Riparian Habitat (planting, setback or protect in place) <input type="checkbox"/> Wetland Habitat Protection/Preservation</p> <p><input type="checkbox"/> SRA Plantings or Improved water temperature <input type="checkbox"/> Hardscape Reduction</p> <p><b>Physical Stream Function (E 3.2) - Check all that apply</b></p> <p><input type="checkbox"/> Holistic Watershed Approach <input type="checkbox"/> Erosion Control or Sediment Source Reduction</p> <p><input type="checkbox"/> Geomorphologic Design Elements</p> <p><b>Water Quality (E 3.2) - Check all that apply</b></p> <p><input type="checkbox"/> Storm Water Treatment (pervious pavement, green roofs, etc.) <input type="checkbox"/> Hazardous Material Removal (Asbestos, Lead, Hydrocarbons, etc.)</p> <p><input type="checkbox"/> TMDL Improvements</p> <p><b>Trails &amp; Open Space (E3.3) - Check all that apply</b></p> <p><input type="checkbox"/> Trail friendly features <input type="checkbox"/> Open Space Protection / Preservation</p> <p><input type="checkbox"/> Provides/Improves Bicycle Commute Route <input type="checkbox"/> Climate change elements</p>
<b>COST RECOVERY</b> (15%)	<p><b>Funding Available from Other Agencies - Check One</b> <span style="float: right;">0</span></p> <p><input type="checkbox"/> <input type="checkbox"/> Over 50% of project costs available from other agencies % = Percentage of cost provided; C = Confidence Level (H, M, L)</p> <p><input type="checkbox"/> <input type="checkbox"/> 26% to 50% of project costs available from other agencies % = Percentage of cost provided; C = Confidence Level (H, M, L)</p> <p><input type="checkbox"/> <input type="checkbox"/> Up to 25% of project costs available from other agencies % = Percentage of cost provided; C = Confidence Level (H, M, L)</p>

# Appendix A - CIP Priority Criteria

## BUILDINGS & GROUNDS PROJECTS Priority Ranking Criteria

NORMALIZED PRIORITY SCORE = 0

RAW SCORE = 0

Project Name

<b>PRIMARY OBJECTIVE</b> (60%)	<b>Buildings and Grounds (EL 3.4)</b>		0
	A	<input type="checkbox"/> <sup>I</sup> <input type="checkbox"/> <sup>P</sup> Project maintains or replaces existing building infrastructure to provide continuous housing of existing functions and/or to comply with employer safety standards. <b>I = Impact (H, M, L); P = Probability (H, M, L)</b>	
	B	<input type="checkbox"/> Project enhances building infrastructure to address treatment of staff issues.	
	C	<input type="checkbox"/> Project positions the District to meet projected future space needs.	
<b>COMMUNITY ENGAGEMENT</b> (10%)	<b>Positive Interaction (E 4) - Check all that apply</b>		0
	<input type="checkbox"/>	With the Community	<input type="checkbox"/> With other agencies
	<b>Good Neighbor (E 4) - Check all that apply</b>		
	<input type="checkbox"/>	Graffiti removal or Prevention Features	
	<input type="checkbox"/>	Trash removal features (vortex weirs)	
	<input type="checkbox"/>	Improves esthetics of project location	
<b>ENVIRONMENTAL SUSTAINABILITY</b> (15%)	<b>Natural Resources Sustainability (E 3.2) - Check all that apply</b>		0
	<input type="checkbox"/>	Air Quality & Visibility Improvement	<input type="checkbox"/> Recycled Water, rain water or gray water utilized
	<input type="checkbox"/>	Energy Efficient Features (Lighting, HVAC, maximize daylight use, etc.)	<input type="checkbox"/> Construction Site Waste Management
	<input type="checkbox"/>	Renewable Energy Use	<input type="checkbox"/> Recycle/Re-use Solid Waste
	<input type="checkbox"/>	Water Efficient Features: Plumbing fixtures, Landscaping, etc.	<input type="checkbox"/> Reduce Solid Waste Production
			<input type="checkbox"/> Use of Recycled or Alternative Building Materials
	<b>Trails &amp; Open Space (E3.3) - Check all that apply</b>		
	<input type="checkbox"/>	Trail friendly features	<input type="checkbox"/> Open Space Protection / Preservation
	<input type="checkbox"/>	Provides/Improves Bicycle Commute Route	
<b>COST RECOVERY</b> (15%)	<b>Funding Available from Other Agencies (Grants &amp; Cost-share) - Check One</b>		0
	<input type="checkbox"/>	Over 50% of project costs available from other agencies	
	<input type="checkbox"/>	26% to 50% of project costs available from other agencies	
	<input type="checkbox"/>	Up to 25% of project costs available from other agencies	

# Appendix A - CIP Priority Criteria

## INFORMATION TECHNOLOGY PROJECTS Priority Ranking Criteria

NORMALIZED PRIORITY SCORE = 0

Project Name

SCORE = 0

<b>PRIMARY OBJECTIVE</b> (75%)	<p><b>Information Technology (EL 7.5)</b> <span style="float: right;">0</span></p> <p>A <input type="checkbox"/> <sup>I</sup> <input type="checkbox"/> <sup>P</sup> Project maintains existing mission critical software systems and/or Information Technology infrastructure to improve reliability for business continuity; protection of intellectual property information and files from loss or damage. <b>I = Impact (H, M, L); P = Probability (H, M, L)</b></p> <p>B <input type="checkbox"/> Project enhances mission critical software systems and/or IT infrastructure to improve user functionality. <b>(H, M, L)</b></p> <p>C <input type="checkbox"/> Project enhances mission critical software systems and/or IT infrastructure to meet projected future needs. <b>(H, M, L)</b></p> <p>D <input type="checkbox"/> Ties into IT Master Plan finding and/or recommendations (10 pts.)</p>
<b>COMMUNITY ENGAGEMENT</b> (15%)	<p><b>Good Neighbor - Check all that apply</b> <span style="float: right;">0</span></p> <p><input type="checkbox"/> Program promotes the distribution of information to the community (public transparency)</p> <p><input type="checkbox"/> Program provides an opportunity for community interaction with the District.</p>
<b>COST RECOVERY</b> (10%)	<p><b>Funding Available from Other Agencies - Check One</b> <span style="float: right;">0</span></p> <p><input type="checkbox"/> Over 50% of project costs available from other agencies</p> <p><input type="checkbox"/> 26% to 50% of project costs available from other agencies</p> <p><input type="checkbox"/> Up to 25% of project costs available from other agencies</p>

# Appendix A - CIP Priority Criteria

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# Appendix B - Project List By Priority

## Water Supply Capital Projects in Order of Priority

### FUNDED

FY19 Priority	Name	Total Project Value (\$K)	Remaining Cost (\$K) (FY-19 to Completion)	Phase
100	Anderson Dam Seismic Retrofit	\$550,844	\$511,326	PIng/Des
92	Dam Seismic Stability Evaluation	\$29,382	\$10,603	PIng
92	Calero and Guadalupe Dams Seismic Retrofits	\$171,778	\$145,576	PIng/Des
91	RWTP Reliability Improvement	\$289,389	\$125,043	Construction
84	RWTP FRP Residuals Management Modifications	\$64,196	\$28,440	Construction
84	RWTP Treated Water Valves Upgrade	\$8,796	\$203	Construction
78	10-Year Pipeline Rehabilitation	\$125,204	\$98,034	PIng/Des
76	Small Capital Improvements, San Felipe Reach 1-3	\$45,557	\$43,100	Continuing
76	Westside Retailer Interties	\$2,004	\$1,924	PIng
75	Pacheco/Santa Clara Conduit Right of Way Acquisition	\$4,787	\$1,892	Des
74	PWTP Residuals Management	\$10,571	\$10,571	PIng
74	SCADA Remote Architecture & Communications Upgrade	\$6,948	\$5,986	PIng
73	Small Capital Improvements, Raw Water Transmission	\$4,453	\$4,132	Continuing
73	Small Capital Improvements, Water Treatment	\$44,894	\$42,382	Continuing
73	Small Capital Improvements, Treated Water Transmission	\$139	\$139	Continuing
73	FAHCE Implementation	\$145,108	\$145,108	PIng
71	Expedited Purified Water Program	\$277,235	\$258,888	PIng/Des
71	Long-Term Purified Water Program Elements	\$367,551	\$367,551	FY23
70	Coyote Pumping Plant ASD Replacement	\$16,985	\$16,885	FY19
70	Main & Madrone Pipelines Restoration	\$17,703	\$292	Des
67	Vasona Pumping Plant Upgrade	\$21,211	\$20,690	PIng
62	IRP2 Additional Line Valves	\$11,561	\$11,561	PIng
62	Treated Water Isolation Valves	\$8,215	\$8,215	PIng
52	Pacheco Reservoir Feasibility Study	\$16,426	\$14,176	PIng
52	South County Recycled Water Pipeline	\$49,705	\$25,476	Des/Const
50	Almaden Dam Improvements	\$60,614	\$49,390	PIng/Des
48	Coyote Warehouse	\$6,471	\$528	Des/Const

### LOWER PRIORITY OR UNFUNDED FUTURE PROJECTS

72	Dam Seismic Retrofit at 2 Dams (Chesbro & Uvas)	\$89,500	\$89,500	N/A
62	SCADA Small Capital Improvements	\$19,612	\$19,612	N/A
52	Pacheco Reservoir Expansion Project - Design/Const.	\$1,179,018	\$1,179,018	N/A
32	South County Recycled Water Reservoir Expansion	\$7,000	\$7,000	N/A
28	Alamitos Diversion Dam Improvements	\$3,183	\$2,345	N/A
28	Coyote Diversion Dam Improvements	\$2,461	\$2,138	N/A
25	Land Rights - South County Recycled Water PL	\$5,816	\$5,816	N/A

# Appendix B - Project List By Priority

## Flood Protection Capital Projects in Order of Priority

### FUNDED

<b>FY19 Priority</b>	<b>Name</b>	<b>Total Project Value (\$K)</b>	<b>Remaining Cost (\$K) (FY-19 to Completion)</b>	<b>Phase</b>
98	Lower Silver Creek, I-680 to Cunningham (Reach 4-6)	\$100,536	\$976	Construction
83	Cunningham Flood Detention Certification	\$11,687	\$1,559	Construction
78	San Francisquito Creek, SF Bay thru Searsville Dam (E5)	\$65,485	\$13,076	Des/Const
76	Berryessa Creek, Calaveras Boulevard to Interstate 680	\$48,249	\$6,188	Design
74	San Francisco Bay Shoreline (E7)	\$42,385	\$14,181	Des/Const
74	Watersheds Asset Rehabilitation Program	\$180,403	\$165,841	Plng/Des/Const
70	Llagas Creek–Upper, Buena Vista Avenue to Llagas Road	\$163,579	\$75,078	Construction
68	Berryessa Ck, Lower Penitencia Ck to Calaveras Blvd	\$197,708	\$91,981	Des/Const
68	Guadalupe River–Upper, I-280 to Blossom Hill Road (E8)	\$165,972	\$56,898	Des/Const
66	Upper Penitencia Creek, Coyote Creek to Dorel Drive	\$15,763	\$2,090	Plng/Des
65	Llagas Creek–Lower, Capacity Restoration, Buena Vista Road to Pajaro River	\$13,879	\$10,503	Design
65	Lower Penitencia Ck Improvements, Berryessa to Coyote Cks.	\$26,953	\$18,715	Des/Const
65	Sunnyvale East and West Channels	\$70,021	\$51,398	Construction
62	Permanente Creek, SF Bay to Foothill Expressway	\$92,015	\$993	Construction
62	Coyote Creek, Montague Expressway to Interstate 280	\$90,874	\$79,131	Plng
56	Palo Alto Flood Basin Tide Gate Structure Improvements	\$12,816	\$9,958	Construction

### LOWER PRIORITY OR UNFUNDED FUTURE PROJECTS

74	SF Bay Shoreline EIA 11 (Construction)	\$35,000	\$35,000	N/A
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# Appendix B - Project List By Priority

## Water Resources Stewardship Capital Projects in Order of Priority

### FUNDED

FY19 Priority	Name	Total Project Value (\$K)	Remaining Cost (\$K) (FY-19 to Completion)	Phase
<b>Mitigation</b>				
<small>(All Mitigation projects are required per CEQA or other Regulation and therefore do not receive a score)</small>				
	SMP Mitigation, Stream and Watershed Land Preservation	\$16,734	\$0	Continuing
<b>Environmental Enhancement &amp; Stewardship</b>				
<b>Lower Peninsula Watershed</b>				
77	Hale Creek Enhancement Pilot Study	\$4,831	\$2,603	Const/Close
72	Stevens Creek Fish Passage Enhancement	\$21,134	\$20,284	PIng
<b>Guadalupe Watershed</b>				
85	Almaden Lake Improvements	\$32,799	\$29,445	Des
<b>Coyote Watershed</b>				
78	Watershed Habitat Enhancement Design & Construction			
<b>Multiple Watersheds</b>				
80	SCW Fish Passage Improvements	\$4,280	\$1,325	Des/Const
75	SCW Implementation Fund	\$20,824	\$20,824	PIng
50	Salt Ponds A5-11 Restoration	\$17,652	\$12,654	PIng/Des
<b>Feasibility Studies</b>				
N/A	Watershed Habitat Enhancement Studies	\$2,273	\$1,082	N/A

# Appendix B - Project List By Priority

## Buildings and Grounds Capital Projects in Order of Priority

### FUNDED

<b>FY19 Priority</b>	<b>Name</b>	<b>Total Project Value (\$K)</b>	<b>Remaining Cost (\$K) (FY-19 to Completion)</b>	<b>Phase</b>
73	Almaden and Winfield Campus, Small Capital Improvements	\$41,367	\$39,367	Continuing
65	Headquarters Operations Building	\$18,149	\$18,129	Plng/Des

### LOWER PRIORITY OR UNFUNDED FUTURE PROJECTS

70	Fleet and Facility Annex Improvements	\$4,719	\$4,719	N/A
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## Information Technology Capital Projects in Order of Priority

### FUNDED

<b>FY19 Priority</b>	<b>Name</b>	<b>Total Project Value (\$K)</b>	<b>Remaining Cost (\$K) (FY-19 to Completion)</b>	<b>Phase</b>
63	PeopleSoft System Upgrade & Expansion	\$18,895	\$12,895	Construction
63	Vena Software Implementation	\$1,157	\$0	Construction
54	Software Upgrades & Enhancements	\$18,256	\$16,681	Construction
46	IT Disaster Recovery	\$1,955	\$0	Construction
46	WTP-WQL Network Equipment	\$12,785	\$10,597	Construction
34	Data Consolidation	\$1,023	\$261	Construction

### LOWER PRIORITY OR UNFUNDED FUTURE PROJECTS

None

# Appendix C - District Partnership Summary

Partnership Reimbursements are funds that are reimbursed by the District's partners after the District advances the needed funds. The following table identifies capital projects that are funded cooperatively with the District's partners through reimbursements.

## Partnership Reimbursement

Reimbursements for Current Projects (\$K)			Claims	Actuals	Planned							Total
Project Number	Project Name	Agency	On-hand (01/14/18)	Thru FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	Total
91234002	Coyote Pumping Plant ASD Replacement	Total	0	0	118	424	1,938	1,021	0	0	0	3,501
		San Benito Water Dist		0	118	424	1,938	1,021			0	3,501
91214010	Small Capital Improvements, San Felipe - Rch 1	Total	0	1,328	530	589	420	439	20	0	3,828	7,154
		San Benito Water Dist		1,328	530	589	420	439	20	0	3,828	7,154
92144001	Pacheco/Santa Clara Conduit ROW Acquisition	Total	0	19	331	349	68	0	0	0	0	767
		San Benito Water Dist		19	331	349	68				0	767
92374005	SCADA Remote Architecture & Comm. Upg	Total	0	0	157	40	39	201	184	192	3,357	4,170
		San Benito Water Dist		0	157	40	39	201	184	192	3,357	4,170
91094007s	South County Recycled Water Pipeline	Total	0	2,106	0	0	2,000	2,000	0	0	0	6,106
		SCRWA		811							0	811
		USBR - ARRA		1,295							0	1,295
		USBR - Title 16		0			2,000	2,000			0	4,000
26154001s	Guadalupe River--Upper, I-280 - Blossom Hill Rd.	Total	751	18,176	500	0	11,623	4,522	2,422	2,422	0	39,665
		State Subventions		13,585	500		11,623	4,522	2,422	2,422	0	35,074
		City of San Jose		4,591							0	4,591
26174041s	Berryessa Ck, Calaveras Blvd to I-680	Total	0	0	7,000	3,826	3,558	0	0	0	0	14,384
		State Subventions		0		826	3,558				0	4,384
		DWR - Prop 1E		0	7,000	3,000					0	10,000
40174004	Berryessa Ck, Lwr Penitencia Ck - Calaveras Blvd.	Total	0	3,414	10,000	1,600	0	0	0	0	0	15,014
		DWR - Prop 1E		3,414	10,000	1,600					0	15,014
40264011	Cunningham Flood Detention Certification	Total	0	0	0	1,000	0	0	0	0	0	1,000
		DWR - Prop 1E		0		1,000					0	1,000
40334005	Lwr Penitencia Ck Imp, Berryessa to Coyote Cks.	Total	0	0	0	1,000	4,000	0	0	0	0	5,000
		DWR - Prop 1E		0		1,000	4,000				0	5,000
40264008s	Lwr Silver Ck, I-680 to Cunningham, Rchs 4-6	Total	469	26,940	22,285	3,000	0	865	0	0	0	53,090
		State Subventions		6,264	1,285			865			0	8,414
		DWR - Prop 1E		0	21,000	3,000					0	24,000
		NRCS-ARRA		469	20,676						0	20,676
50284010	Llagas Ck--Lwr, Capacity Restoration	Total	0	120	0	0	0	1,000	0	0	0	1,120
		State Subventions		120	0			1,000			0	1,120
26174051s	Llagas Creek--Upr, Buena Vista to Wright	Total	10,321	9,430	5,000	5,300	5,000	9,180	6,331	0	0	40,241
		State Subventions		10,321	6,089	5,000	5,300	5,000	9,180	6,331	0	36,900
		City of Morgan Hill		3,341							0	3,341
26244001	Permanente Creek, SF Bay to Foothill Expway	Total	0	0	1,023	0	0	0	0	0	0	1,023
		City of Mountain View		0	1,023						0	1,023
10284007s	San Francisquito Creek, SF Bay - Searsville Dam	Total	0	853	800	0	0	0	0	0	0	1,653
		JPA (Joint Powers Authority)		853	800						0	1,653
<b>SUBTOTAL - Reimbursements from Current Projects</b>			<b>1,220</b>	<b>62,760</b>	<b>47,744</b>	<b>17,128</b>	<b>28,646</b>	<b>19,228</b>	<b>8,957</b>	<b>2,614</b>	<b>7,185</b>	<b>193,888</b>

# Appendix C - District Partnership Summary

## Partnership Reimbursement (cont'd)

Pending Reimbursements for Closed Projects			Claims	Actuals								
Project Number	Project Name	Agency	On-hand (01/14/18)	Thru FY17	FY18	FY19	FY20	FY21	FY22	FY23	Future	Total
91214001	Pacheco Conduit Inspection & Rehabilitation		0	374	1,281	0	0	0	0	0	0	1,655
		San Benito Water Dist		374	1,281	0					0	1,655
91244001	Wolfe Road Recycled Water Pipeline		0	11,235	0	0	0	0	0	0	0	11,235
		Apple Computer		4,800							0	4,800
		Cal Water		1,500							0	1,500
		City of Sunnyvale		2,101							0	2,101
		DWR - Prop 84		2,834							0	2,834
94384002	Penitencia Delivery Main Seismic Retrofit		0	3,864	182	0	0	0	0	0	0	4,046
		Department of Water Resources (A3904)		3,864	182						0	4,046
92224001	Penitencia Force Main Seismic Retrofit		0	4,900	368	0	0	0	0	0	0	5,268
		Department of Water Resources (A3904)		4,900	368						0	5,268
91184008	Silicon Valley Advanced Water Purification Ctr		0	22,046	123	0	0	0	0	0	0	22,169
		City of San Jose		8,500							0	8,500
		DWR - Prop 50		2,935							0	2,935
		DWR - Prop 84		2,486	123						0	2,609
		USBR - ARRA		8,125							0	8,125
30154013s	Guadalupe River-DT, I-880 to I-280		0	39,480	0	110	0	0	0	0	0	39,590
		State Subventions		27,618		110					0	27,728
		City of San Jose		1,654							0	1,654
		San Jose Redev Agency		10,208							0	10,208
SUBTOTAL - Reimbursements for Closed Projects			0	81,899	1,954	110	0	0	0	0	0	83,963
TOTAL REIMBURSEMENTS			1,220	144,659	49,698	17,238	28,646	19,228	8,957	2,614	7,185	277,851

# Appendix C - District Partnership Summary

Partnership Funding is funds that are made available by the District's partners, when needed. The following table identifies capital projects that receive partnership funding. This may occur through either cost sharing agreements or as in-kind services.

## Partnership Funding

Project Number	Project Name	Amount (\$K)	Partnering Agency
26174041s	Berryessa Creek, Calaveras Boulevard to Interstate 680	13,600	U.S. Army Corps of Engineers
26154001s	Guadalupe River–Upper, Interstate 280 to Blossom Hill Road	188,000	U.S. Army Corps of Engineers
26174051s	Llagas Creek–Upper, Buena Vista Road to Wright Avenue	65,000	U.S. Army Corps of Engineers
00044026s	San Francisco Bay Shoreline	91,250	USACE, Coastal Conservancy, US Fish & Wildlife, CA Wildlife Conservation, Packard-Hewlett-Goldman-Moore Foundations
10284007s	San Francisquito Creek, SF Bay thru Searsville Dam	3,000	U.S. Army Corps of Engineers
10284007s	San Francisquito Creek, SF Bay thru Searsville Dam	8,000	San Francisquito Joint Powers Authority (DWR)
10284007s	San Francisquito Creek, SF Bay thru Searsville Dam	1,500	JPA (Joint Powers Authority)
40324003s	Upper Penitencia Creek, Coyote Creek to Dorel Drive	102,720	U.S. Army Corps of Engineers
<b>TOTAL</b>		<b>\$ 473,070</b>	

# Appendix C - District Partnership Summary

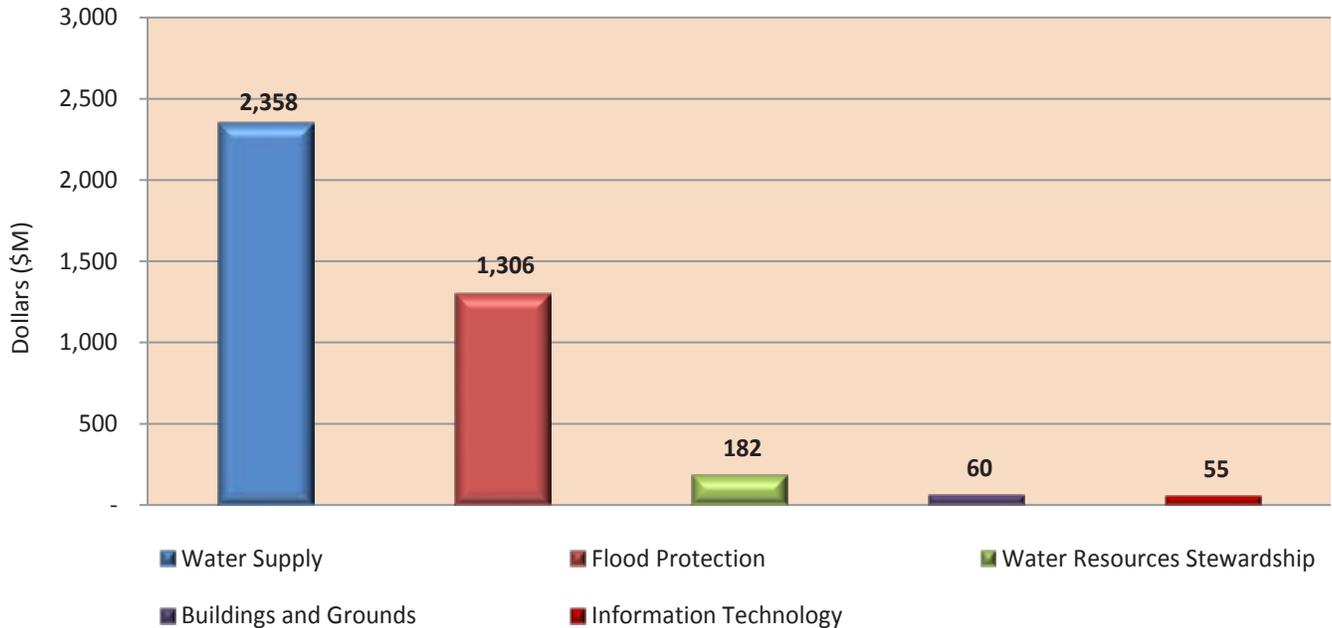
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# Appendix D - Summary of Capital Expenditures

## Expenditure Schedule by Type of Improvement (\$K)

	THRU FY17 (Actuals)	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29-33	TOTAL
Water Supply	276,722	132,894	143,133	273,019	244,045	284,997	352,617	276,782	127,530	204,855	11,923	4,989	24,221	2,357,727
Flood Protection	574,386	132,798	151,353	97,266	57,363	39,456	33,830	29,282	48,197	33,203	33,412	11,514	63,752	1,305,812
Water Resources Stewardship	23,757	8,322	6,756	13,725	22,068	24,266	11,257	21,034	30,144	16,084	789	3,408	-	181,610
Buildings and Grounds	20	2,000	2,072	4,327	6,101	9,384	7,366	2,455	2,530	2,608	2,688	2,771	15,194	59,516
Information Technology	6,598	7,858	11,430	4,103	941	530	3,946	4,685	1,400	946	735	6,268	5,450	54,890
<b>TOTAL</b>	<b>881,483</b>	<b>283,872</b>	<b>314,744</b>	<b>392,440</b>	<b>330,518</b>	<b>358,633</b>	<b>409,016</b>	<b>334,238</b>	<b>209,801</b>	<b>257,696</b>	<b>49,547</b>	<b>28,950</b>	<b>108,617</b>	<b>3,959,555</b>

## CIP Expenditures by Type of Improvement

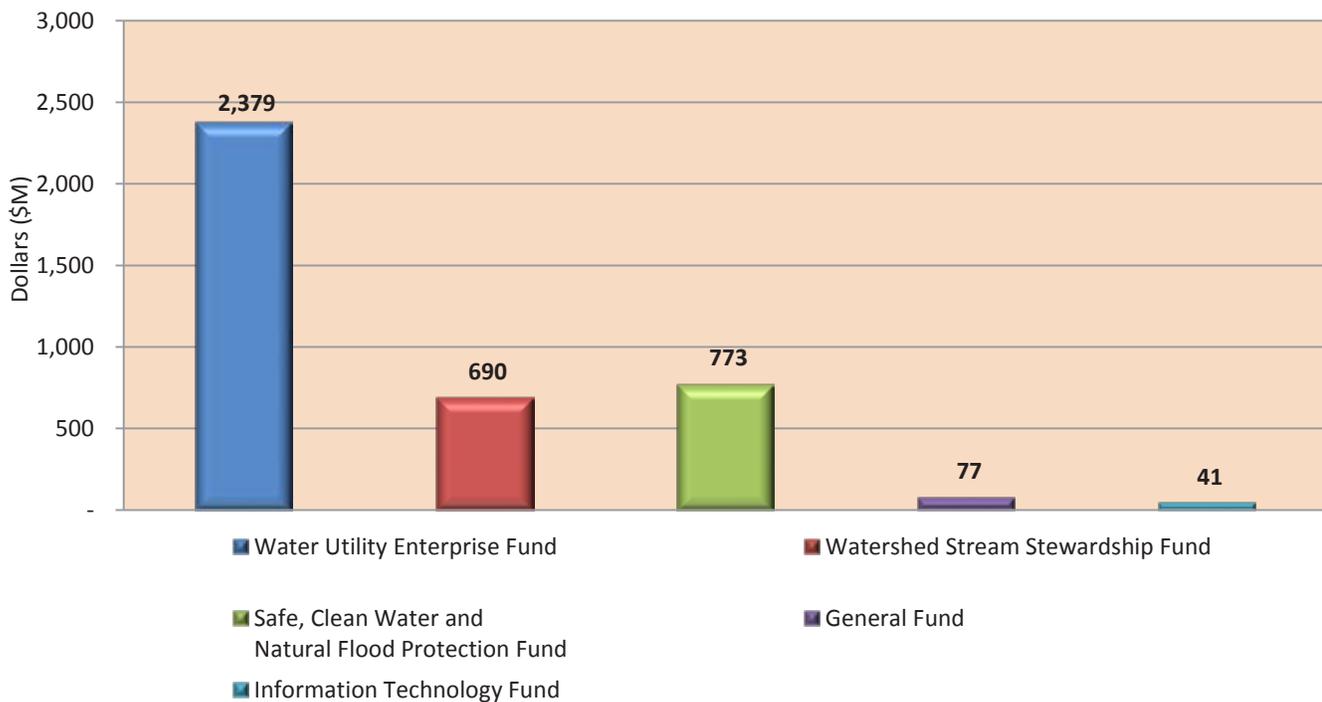


# Appendix D - Summary of Capital Expenditures

## Expenditure Schedule by Fund (\$K)

	THRU FY17 (Actuals)	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29-33	TOTAL
Water Utility Enterprise Fund	275,560	117,348	127,809	272,868	238,225	291,811	357,943	294,245	146,861	211,733	12,078	6,592	26,208	2,379,280
Watershed Stream Stewardship Fund	289,276	39,289	62,330	30,707	22,804	22,245	18,102	16,905	40,244	38,947	33,412	11,514	63,752	689,527
Safe, Clean Water and Natural Flood Protection Fund	310,896	116,448	97,463	80,627	62,448	34,764	23,247	19,146	19,676	3,789	789	3,408	-	772,701
General Fund	1,219	4,250	16,248	4,327	6,101	9,384	7,366	2,455	2,530	2,608	2,688	2,771	15,194	77,141
Information Technology	4,532	6,537	10,894	3,911	941	429	2,358	1,487	490	619	580	4,665	3,463	40,906
<b>TOTAL</b>	<b>881,483</b>	<b>283,872</b>	<b>314,744</b>	<b>392,440</b>	<b>330,518</b>	<b>358,633</b>	<b>409,016</b>	<b>334,238</b>	<b>209,801</b>	<b>257,696</b>	<b>49,547</b>	<b>28,950</b>	<b>108,617</b>	<b>3,959,555</b>

## CIP Expenditures by Fund



# Appendix E - Safe Clean Water Project Schedules

The following tabel is an overview schedule for water supply capital projects identified in the FY 2019-23 CIP. Detailed information for each project can be found in this document in their respective chapters in the order presented in this table.

## Safe, Clean Water Capital Improvement Project Schedules

Project Number	PROJECT NAME	FY95 - FY99	FY00 - FY04	FY05 - FY09	FY10 - FY14	FY15 - FY19	FY20 - FY24	FY25 - FY29
<b>WATER SUPPLY</b>								
26C40349	IRP2 Additional Line Valves (A3)							
26564001	Main & Madrone Pipelines Restoration (A1)							
<b>FLOOD PROTECTION</b>								
10244001	Permanente Creek, SF Bay to Foothill Expressway							
26244001	Permanente Creek, SF Bay to Foothill Expressway							
10284007	San Francisquito Creek, SF Bay thru Searsville Dam							
10284008	San Francisquito Creek, Early Implementation							
26284001	San Francisquito Creek, SF Bay thru Searsville Dam (E5)							
26284002	San Francisquito Creek - Construction, SF Bay to Middlefield Road (E5)							
26074002	Sunnyvale East and West Channels							
26154001	Guadalupe Rv-Upper, Fish Passage Mods							
26154002	Guadalupe Rv-Upper, I-280 to SPRR (R6)							
26154003	Guadalupe Rv-Upper, SPRR-Blossom Hill (R7-12)							
26154004	Guadalupe Rv-Upper, Actuals chg to other proj numbers							
26174041	Berryessa Ck, Calaveras-I-680 - Corps							
26174042	Berryessa Ck, Calaveras-I-680 - Reimbursable							
26174043	Coyote Creek, Montague Expressway to Interstate 280							
40324003	Upper Penitencia Ck, Coyote Ck-Dorel Dr, Corps							
40324005	Upper Penitencia Ck, Coyote Ck-Dorel Dr, LERRDs							
26324001	Upper Penitencia Ck, Coyote Ck-Dorel Dr, Corps (E4)							
26174051	Llagas Creek-Upper, Reimbursable (E6b)							
26174052	Llagas Creek-Upper, Corps Coordination (E6a)							
26174053	Llagas Creek-Upper, Technical Studies							
26174054	Llagas Creek-Upper, Design							
50C40335	Llagas Creek-Upper, R5,6,&7b							

# Appendix E - Safe Clean Water Project Schedules

## Safe, Clean Water Capital Improvement Project Schedules (cont'd)

Project Number	PROJECT NAME	FY95 - FY99	FY00 - FY04	FY05 - FY09	FY10 - FY14	FY15 - FY19	FY20 - FY24	FY25 - FY29
<b>FLOOD PROTECTION (cont'd)</b>								
00044026	San Francisco Bay Shoreline							
62044042	Shoreline Early Implementation							
26444001	San Francisco Bay Shoreline - EIA 11 Design & Partial Construction (E7)							
26444002	San Francisco Bay Shoreline - Other EIAs Planning (E7)							
<b>WATER RESOURCES STEWARDSHIP</b>								
26044001	Almaden Lake Improvements (D4.1a)							
26164001	Hale Creek Enhancement Pilot Study (D6)							
26044002	SCW Fish Passage Improvements (D4.3; Bolsa Road)							
26444003	South Bay Salt Ponds Restoration (D8)							

### Legend

	Planning Phase
	Design Phase
	Construction Phase
	Close-out Phase

# Appendix F - Glossary

## **Ad Valorem Tax**

A tax based on value (e.g., a property tax).

## **Appropriation**

An appropriation is a legal authorization granted by the Santa Clara County Board of Supervisors which allows the District to expend cash and incur obligations for specific purposes. An appropriation is usually limited in amount and the time it may be expended.

## **Assessment**

The process of setting the official valuation of property for taxation; the valuation placed upon property as a result of this process.

## **Asset**

A probable future economic benefit obtained or controlled by a particular entity as a result of past transactions or events. Examples of assets are cash, receivables, and equipment.

## **Benefit Assessment**

Determination of the benefits derived from District activities within particular watersheds and levying a proportionate share of taxes to each parcel subject to voter-approved limitations.

## **Bonds**

Bonds are a long-term source of debt that provides a source of borrowed monies that can be used to pay for specific capital facilities. Bonds are a written promise to pay a specified sum of money at a predetermined date or dates in the future, called the maturity date(s), together with periodic interest at a specific rate.

## **Capital Expenditure**

Capital expenditures fall into several categories. In general, they should create assets or extend the useful lives of existing assets. The work product results in a long-term benefit greater than two years and for budgeting purposes involved a major expenditure of district resources greater than \$50,000. They can be made with regard to tangible and intangible assets.

The general categories of capital expenditures are: rehabilitation, major repairs, improvements/betterments/ upgrades, replacements, expansions/additions, and ancillary expenditures.

## **Capital Projects**

Projects are budgeted within the Capital budget and fall within the definition of Capital Expenditures; which means they (1) create or extend the life of an asset, (2) their work products have a useful life of greater than two years, and (3) they involve an expenditure of District resources in excess of \$50,000.

## **Certificates of Participation (COPs)**

A security in the general form of a bond, which evidences a proportionate participation in a flow of lease or other payments between two parties.

## **CEQA**

California Environmental Quality Act

## **CIP**

Capital Improvement Program

## **Cost Center**

Cost Centers are separate financial accounting centers in which costs are accumulated because of legal and accounting requirements, the first two digits of a project number identifies the cost center.

## **DPR**

Direct Potable Reuse

## **DWR**

State Department of Water Resources

## **EIR**

Environmental Impact Report

## **Encumbrances**

Commitments related to unperformed (executory) contracts for goods or services. Encumbrances represent the estimated amount of expenditures that will result if unperformed contracts in process are completed.

# Appendix F - Glossary

## **Enterprise Fund**

Enterprise Funds are used to account for operations including debt service (a) that are financed and operated in a manner similar to private business, where the intent of the government body is that the costs (expenses, including depreciation) of providing goods or services to the general public on an accounting basis is financed or recovered primarily through user charges; or (b) where the governing body has determined that periodic determination of revenues earned, expenses incurred, and/or net income is appropriate for capital maintenance, public policy, management control accountability, or other purposes.

## **ERP**

Enterprise Resource Planning

## **Expenditure/Expense**

Decreases in net financial resources. Expenditures include current operating expenses requiring the present or future of net current assets, debt service and capital outlays, and intergovernmental grants, entitlements, and shared revenues. The major expenditure categories used by the District are labor and overhead, land and structures, equipment, and debt service.

## **Facility**

Defined as a creek, reservoir, dam, water treatment plant, pipeline, canal, etc.

## **Fixed Assets**

Fixed Assets are defined as long-lived tangible assets such as automobiles, computers and software, furniture, communications equipment, hydrologic equipment, office equipment, and other equipment, with a value of \$2,000 or more, or the combined value of like or related units (aggregate value) is greater than \$5,000 if the unit value is less than \$2,000.

## **Fiscal Year**

A 12-month period to which the annual operating budget applies and at the end of which a government determines its financial position and the results of its operations. The District's fiscal year is July 1 through June 30.

## **Fund**

A fiscal and accounting entity with a self-balancing set of accounts in which cash and other financial resources, all related liabilities and residual equities, or balances, and changes therein, are recorded and segregated to carry on specific activities or attain certain objectives in accordance with special regulations, restrictions or limitations.

## **General Fund**

A fund used to account for major operating revenues and expenditures, except for those financial transactions that are required to be accounted for in another fund. General Fund revenues are derived primarily from property and other taxes.

## **Grants**

Contributions or gifts of cash or other assets from another government entity to be used or expended for a specified purpose, activity, or facility.

## **HVAC**

Heating, Ventilation, and Air Conditioning

## **IPR**

Indirect Potable Reuse

## **JPA**

Joint Power Authority

## **Levy**

(1. Verb) To impose taxes, special assessments, or service charges for the support of government activities; (2. Noun) The total amount of taxes, special assessments, or service charges imposed by a government agency.

## **Long-Term Debt**

Debt with a maturity date of more than one year after the date of issuance.

## **MGD**

Million Gallons per Day

# Appendix F - Glossary

## **One Percent Flood or 100 Year Flood**

Has a 1% chance of occurring in a given year. Water District projects are usually designed for the 1% flood, a national standard established by the Federal Emergency Management Agency (FEMA).

## **Operating Expenditure**

Operating expenditures are system costs required for the daily process of providing water and watershed management services, including the administrative and overhead costs to support these services.

Operating expenditures are costs necessary to maintain the systems in good operating condition. This includes the repair and replacement of minor property components. The American Waterworks Association (AWWA) says that these priority components should be smaller than a retirement unit; a retirement unit is a readily separable and separately useful item that is part of a larger assembly. The benefit and life of such repairs should be less than two years. Any repairs that recur on an annual basis are considered operating activities of a maintenance nature.

Operating expenditures are often separated into fixed and variable costs for purposes of understanding operating leverage and structuring service charge rates.

## **Operations**

Expenditures required for the daily process of providing water and watershed management services, including the administrative and overhead costs to support these services. Operations include work that is generally of an ongoing or recurring nature. Any District work that is not a project is, by definition, an Operation. Operations, although recurring, require close coordination and a high degree of management oversight; however, they can be accomplished without the application of the full range of tools and processes used for managing projects.

## **P3**

Public Private Partnership

## **Projects**

At the Santa Clara Valley Water District, a project is any undertaking which has (1) a beginning and an ending, (2) a one-time occurrence. Projects can require expenditure of capital or operating funds and, at the District, are called Capital or Operating Projects, accordingly. Project usually, but not always, relate to a District facility or facilities (a creek, a reservoir, a dam, a water treatment plant, a pipeline,, etc.). Projects may include studies, design, construction, maintenance, or implementation of systems such as Records Management or Financial Management System.

## **Revenue**

Monies the District receives in exchange for services or sales provided. Revenue items include water sales, property tax revenues, benefit assessment revenues, interest income, intergovernmental reimbursement, and other.

## **Revenue Bonds**

Bonds, whose principal and interest are payable exclusively from earnings of an enterprise fund. In addition to a pledge of revenues, such bonds sometimes contain a mortgage on the enterprise fund's property.

## **Reserve**

An account used to indicate that a portion of a fund's assets are legally restricted for a specific purpose and is, therefore, not available for general appropriation.

## **WTP**

Water Treatment Plant

## **WQL**

Water Quality Lab

# Appendix F - Glossary

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**Santa Clara Valley  
Water District**



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