Santa Clara Valley Water District

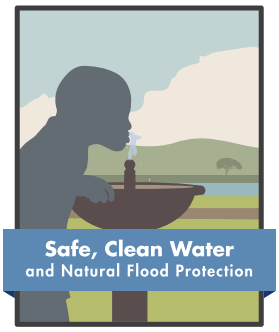
Safe, Clean Water and Natural Flood Protection

Safe, Clean Water
and Natural Flood Protection

Fiscal Year 2015-2016 | Year 3

DRAFT

This page intentionally left blank



Safe, Clean Water and Natural Flood Protection

Fiscal Year 2015-2016 | Year 2

BOARD OF DIRECTORS

Barbara Keegan
Chair, District 2

John L. Varela
Vice Chair, District 1

Linda J. LeZotte
District 4

Tony Estremera
District 6

Richard P. Santos
District 3

Nai Hsueh
District 5

Gary Kremen
District 7

Submitted by

Norma Camacho
Interim Chief Operating Officer

Presented by

Ngoc Nguyen
Acting Deputy Operating Officer

September 27, 2016

Santa Clara Valley Water District

Santa Clara Valley Water District

Safe, Clean Water and Natural Flood Protection Fiscal Year 2015-16 Annual Report

Prepared by

Jessica Collins
Senior Management Analyst

Budget Review Committee

Darin Taylor
Senior Project Manager

Joanne Jin
Senior Management Analyst

And the following contributors for FY16:

Emmanuel Aryee
Ricardo Barajas
Rechelle Blank
Debra Caldon
Brett Calhoun
Norma Camacho
Jennifer Codianne
Jessica Collins
Jim Crowley
Jerry De La Piedra
Vanessa De La Piedra
Shree Dharasker
Sara Duckler
Cynthia Eaton
Chris Elias
Stephen Ferranti
Jim Fiedler
Meenakshi Ganjoo
Chad Grande
Victor Gutierrez
Christopher Hakes
Garth Hall
Saeid Hosseini
Michele Keefhaver
Liang Lee
Jen-Men Lo
Larry Lopez
Frank Maitski
John McHugh
Greg Meamber
Devin Mody
Melissa Moore
Judy Nam
Ngoc Nguyen
Lotina Nishijima
Katherine Oven
Lisa Porcella
Melanie Richardson
Marynka Rojas
Afshin Rouhani
Pat Showalter
Kevin Sibley
Bill Springer
Patrick Stanton
Paul Thomas
Sue Tippets
Douglas Titus
James Ujah
Jose Villarreal
Mark Wander
Jack Xu
Liang Xu
Kristen Yasukawa
Sarah Young

Santa Clara Valley Water District

Safe, Clean Water and Natural Flood Protection Fiscal Year 2015-16 Annual Report

Recognitions:

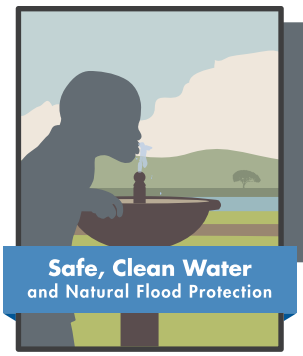
Graphic Team

Marty Grimes
Benjamin Apolo III
Lana Gao

Reprographic Team

Hector Fuentes
Heidi Gonzalez
Julia Tat

This page intentionally left blank



MESSAGE FROM THE CHIEF EXECUTIVE OFFICER

November 2016

Fiscal Year 2015-16 (FY16) marks the third of the 15-year Safe, Clean Water and Natural Flood Protection Program (Safe, Clean Water). This report (Year 3 annual report) presents a status update on the implementation of projects during FY16.

On November 6, 2012, voters approved the Safe, Clean Water Program as a countywide special parcel tax for 15 years with a sunset date of June 30, 2028. This Program replaced the Clean, Safe Creeks and Natural Flood Protection Plan, which voters approved in November 2000.

The Safe, Clean Water Program addresses the following needs, values, and priorities as identified by Santa Clara County stakeholders:

Priority A: Ensure a Safe, Reliable Water Supply

Priority B: Reduce Toxins, Hazards and Contaminants, in our Waterways

Priority C: Protect our Water Supply from Earthquakes and Natural Disasters

Priority D: Restore Wildlife Habitat and Provide Open Space

Priority E: Provide Flood Protection to Homes, Businesses, Schools, and Highways

Each year, Santa Clara Valley Water District (District) prepares a report providing a progress update for each of these Program priorities, along with fiscal year accomplishments.

Some highlights of the Program for FY16 include:

- **Fish Habitat and Passage Improvement (Evelyn Bridge):** District completed construction of the Evelyn Bridge Fish Passage project at Stevens Creek on November 21, 2015. The Evelyn Bridge Fish Passage Project provides mitigation credit for maintenance work that will be conducted for flood control under the District's Countywide Stream Maintenance Program.
- **San Francisquito Creek Flood Protection Project:** Board awarded the construction contract for the San Francisco Bay to Highway 101 Flood Protection project.
- **San Francisco Bay Shoreline Study:** Study partners held a successful U.S. Army Corps of Engineers (USACE) Civil Works Review Board for the urban area of North San Jose/Alviso/ San Jose-Santa Clara Regional Wastewater Facility Environmental Impact Area (EIA 11) on September 11, 2015, the USACE Chief's Report was signed by December 2015, and the Environmental Impact Report was certified by the Board in March 2016. Achieving these milestones allowed the study partners to close out the feasibility study phase in FY16 and to move forward with the preliminary engineering and design phase in FY17.
- **Upper Guadalupe River Flood Protection Project:** USACE completed the channel construction for Reach 12 (from Branham Lane to Blossom Hill Road) in November 2015.
- **Water Conservation Grants:** Board awarded $130,000 to 3 recipients to test new conservation activities. Total amount awarded since FY14 is $458,500.

- **Safe, Clean Water Cleanup Activities:** District removed a total of more than 937 tons (approximately 13,118 cubic yards) of trash and debris from our waterways through pollution prevention and reduction activities, trash capture devices, encampment cleanups, trash and debris removal, and volunteer cleanup programs and events (projects B1, B2, B4, B6, and B7 respectively).
- **Emergency Response Upgrades:** District partnered with Colorado State University and National Oceanic and Atmospheric Administration on a pilot project using X-Band Doppler radar to improve forecasting rainfall amount. In addition, the District added flood forecast systems for Uvas Creek and Lower Silver Creek. Together with the West Little Llagas Creek, Upper Guadalupe River and San Francisquito Creek systems, 5 of the 7 required flood-warning systems are now complete.
- **Grants and Partnerships to Restore Wildlife Habitat and Provide Access to Trails:** Board awarded 17 grants totaling $1,988,684, in FY16 to restore wildlife habitat. In addition, the Board approved a pilot mini-grant program, to be implemented in FY17, designed to provide seed funding to encourage broader and long-term community engagement in wildlife habitat restoration or watershed stewardship activities in Santa Clara County.
- **Safe, Clean Water Change Control Process:** Board approved the Safe, Clean Water Change Control Process, which established the processes for adjustments, modifications and project non-implementation for the Safe, Clean Water Program.

To ensure transparency and accountability, the District's Board of Directors established an Independent Monitoring Committee (IMC) to monitor the Program's progress and to ensure the outcomes are achieved in a cost-efficient manner. Each year, the Board authorizes finalization of the prior fiscal year's annual report and submittal to the IMC for its review.

The Year 2 annual report was reviewed by the IMC and recommendations for improving the report were presented to the Board. These recommendations have been incorporated into the Year 3 annual report. The District appreciates each IMC member for volunteering and looks forward to the committee's review of the Year 3 annual report.

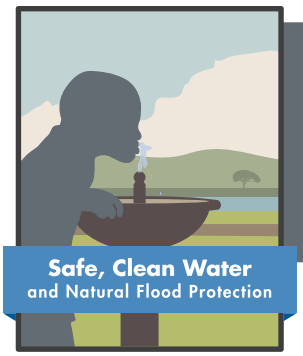
The accomplishments presented in this report would not have been achieved without the District's dedicated employees, each of whom is committed to the success of the Safe, Clean Water Program and will continue to work hard to provide Silicon Valley safe, clean water for a healthy life, environment, and economy.

The annual report is available to the public at **www.valleywater.org/SafeCleanWater.aspx**. Also available is the Safe, Clean Water 5-Year Implementation Plan. Approved by the District Board of Directors (Board) on May 14, 2013, the 5-Year Implementation Plan provides direction for the first 5 years of the 15-year Program.

We welcome your inquiries and insightful comments on the 2016 annual report.

Sincerely,

Norma J. Camacho,
Interim Chief Executive Officer, Santa Clara Valley Water District



FY 2015-16 Annual Report

Safe, Clean Water and Natural Flood Protection

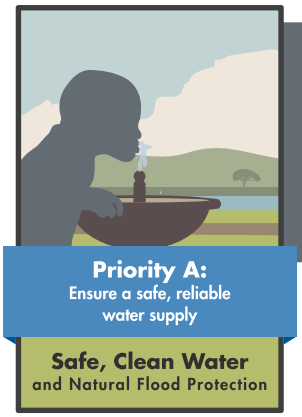
Santa Clara Valley Water District

TABLE OF CONTENTS

Safe, Clean Water and Natural Flood Protection

Fiscal Year 2015-2016 Annual Report

This page intentionally left blank



FY 2015-16 Annual Report

Safe, Clean Water and Natural Flood Protection

Santa Clara Valley Water District

PROGRAM SUMMARY

The Safe, Clean Water and Natural Flood Protection Program (Safe, Clean Water) is a 15-year strategy to ensure uninterrupted water resources services in Santa Clara County. The Program was developed through more than 18 months of community collaboration, with input from more than 16,000 residents and stakeholders, to prepare for the scheduled sunset of Clean, Safe Creeks (CSC) and Natural Flood Protection funding. The result of this effort is a program that fulfills our community's top priorities to:

Priority A: Ensure a Safe, Reliable Water Supply

Priority B: Reduce Toxins, Hazards and Contaminants in our Waterways

Priority C: Protect our Water Supply from Earthquakes and Natural Disasters

Priority D: Restore Wildlife Habitat and Provide Open Space

Priority E: Provide Flood Protection to Homes, Businesses, Schools, and Highways

Santa Clara County voters passed the Safe, Clean Water ballot measure in November 2012 by an overwhelming majority – nearly 74%. Safe, Clean Water extends funding at the same parcel tax rate approved under the previous Clean, Safe Creeks plan, and ensures a seamless continuation of critical water-related services to Santa Clara County.

This report is the third of 15 annual reports to be prepared for Safe, Clean Water and provides project status towards accomplishing Program Key Performance Indicators (KPIs) and the targets in the 5-Year Implementation Plan:

- On Target: Status indicates the project is on track to meet targets
- Adjusted: Status indicates the potential that targets will not be met and implementation required adjustment (future year status' will be based upon the adjusted project targets)
- Not on Target: Status indicates that the target has not been or will not be met
- Modified: Status indicates the Board formally modified the project following a public hearing (future year status' will be based upon the modified project targets)
- Scheduled to Start: Status indicates that the project is scheduled to start in a future fiscal year
- Completed: Status indicates that the project has been completed and the KPIs have been met

There are 38 projects under Safe, Clean Water. As indicated in Table 1 (p.4), 74%, or 28 projects, are on target ( ), 21% (8 projects) required schedule adjustments ( ), 2.5% or 1 project is not scheduled to start ( ) until Fiscal Year 2025; and 2.5% or 1 project was completed ( ) and closed out. See Graph 1 (p. 2).

Graph 1

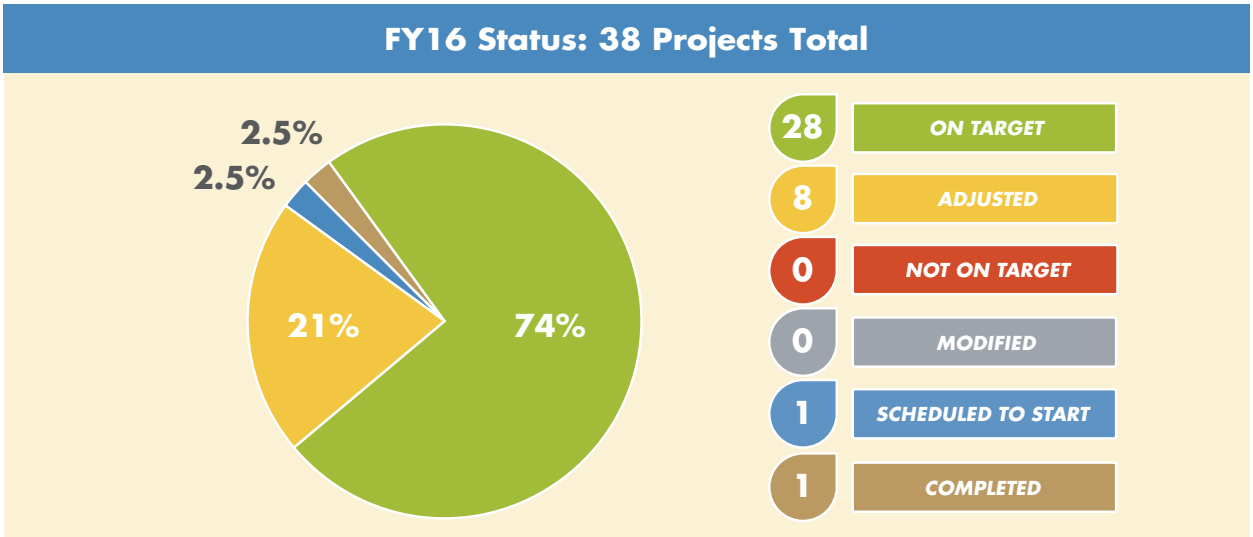


Table 1 (on page 3) summarizes total Program status as of June 30, 2016.

For Fiscal Year 2015-16 (FY16), the adopted budget for the Program totaled $149 million. Actual funds expended and encumbered as of June 30, 2016 were $82.9 million, approximately 56% of the Safe, Clean Water Program's adopted budget. Underspending was primarily due to delays in construction of the following capital flood protection projects: Upper Llagas (E6), Permanente Creek (CSC), and Sunnyvale East & West (CSC). Project construction delays occurred primarily as a result of: addressing redesign or analyses requested by regulatory agencies, delays in acquisition of regulatory permits, and delays in land acquisition. To address delays in obtaining permits, the District permit strategy team continues to work on short-and long-term strategies to secure timely permits.

To address recommendations made by the IMC, the District has introduced a confidence level rating system for capital projects that include confidence levels for schedule, funding, permits, and when applicable, jurisdictional complexity (the level to which a project's deliverables can be impacted by other entities or jurisdictions). By applying a confidence level to each of these topics, the IMC and community will be able to identify the areas of concern for each project that could impact the probability for the project to remain On Target. The confidence levels are addressed under the Opportunities and Challenges section for each of the capital projects. Listed below are the 3 confidence levels and their definitions:

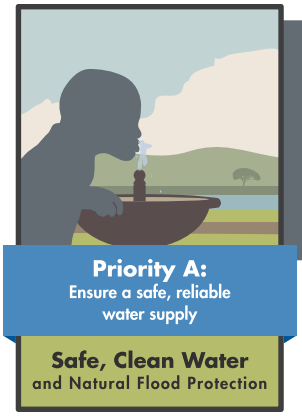
- **High** – Applies to projects that have achieved the following: received full funding, received regulatory permits, met schedule milestones (and will continue to move forward on schedule), and, if applicable, jurisdictional complexity issues have been resolved.
- **Moderate** – Applies to projects that are in the process of the following: receiving funding from other sources, receiving permits, requesting the Board approve a schedule adjustment, and, if applicable, resolving jurisdictional complexity issues.
- **Low** – Applies to projects that have a high probability of experiencing or already have been: denied funding, denied permits, delayed in schedule, and, if applicable, jurisdictional complexity issues that are impacting completion of the project.

For further project and contact information, visit the Safe, Clean Water homepage at: *www.valleywater.org/SafeCleanWater.aspx*

Table 1

Project	Project Description	Status
Priority A: Ensure a Safe, Reliable Water Supply		
A1	Main and Madrone Avenue Pipelines Restoration	ADJUSTED
A2	Safe, Clean Water Partnerships and Grants	ON TARGET
A3	Pipeline Reliability Project	SCHEDULED TO START
Priority B: Reduce Toxins, Hazards, and Contaminants in our Waterways		
B1	Impaired Water Bodies Improvement	ON TARGET
B2	Inter-Agency Urban Runoff Program	ON TARGET
B3	Pollution Prevention Partnerships and Grants	ON TARGET
B4	Good Neighbor Program: Encampment Cleanup	ON TARGET
B5	Hazardous Materials Management and Response	ON TARGET
B6	Good Neighbor Program: Remove Graffiti and Litter	ON TARGET
B7	Support Volunteer Cleanup Efforts and Education	ON TARGET
Priority C: Protect our Water Supply from Earthquakes and Natural Disasters		
C1	Anderson Dam Seismic Retrofit	ON TARGET
C2	Emergency Response Upgrades	ON TARGET
Priority D: Restore Wildlife Habitat and Provide Open Space		
D1	Management of Revegetation Projects	ON TARGET
D2	Revitalize Stream, Upland and Wetland Habitat	ON TARGET
D3	Grants and Partnerships to Restore Wildlife Habitat and Provide Access to Trails	ON TARGET
D4	Fish Habitat and Passage Improvements Trails	ON TARGET
D5	Ecological Data Collection and Analysis	ON TARGET
D6	Creek Restoration and Stabilization	ON TARGET
D7	Partnerships for the Conservation of Habitat Lands	ON TARGET
D8	South Bay Salt Ponds Restoration Partnership	ON TARGET
Priority E: Provide Flood Protection to Homes, Businesses, Schools, and Highways		
E1.1	Vegetation Control for Capacity	ON TARGET
E1.2	Sediment Removal for Capacity	ON TARGET
E1.3	Maintenance of Newly Improved Creeks	ON TARGET
E1.4	Vegetation Management for Access	ON TARGET
E2.1	Coordination with Local Municipalities on Flood Communication	ON TARGET
E2.2	Flood-Fighting Action Plans	ON TARGET
E3	Flood Risk Reduction Studies	ON TARGET
E4	Upper Penitencia Creek Flood Protection	ADJUSTED
E5	San Francisquito Creek Flood Protection	ON TARGET
E6	Upper Llagas Creek Flood Protection	ADJUSTED
E7	San Francisco Bay Shoreline Study	ON TARGET
E8	Upper Guadalupe River Flood Protection	ADJUSTED
Other Flood Protection Projects and Clean, Safe Creeks Grants Projects		
	Permanente Creek Flood Protection	ADJUSTED
	Sunnyvale East/West Channels Flood Protection	ADJUSTED
	Berryessa Creek Flood Protection	ADJUSTED
	Coyote Creek Flood Protection	ADJUSTED
	Calabazas Creek Flood Protection	COMPLETED
	Clean Safe Creeks Grants Projects	ON TARGET

This page intentionally left blank



Priority A

Ensure a Safe, Reliable Water Supply

Projects under Priority A will upgrade aging water transmission systems to increase pipeline capacity and reduce the risk of water outages. The priority also provides grants to develop future conservation programs, helps local schools fulfill state mandates for drinking water availability, and provides rebates on nitrate removal systems to improve water quality and safety for private well users.

Project A1
Main Avenue and Madrone Pipelines Restoration

Project A2
Safe, Clean Water Partnerships and Grants

Project A3
Pipeline Reliability Project

Appendix A: Financials

Appendix B: Inflation assumptions

Appendix C: Grantee information for Project A2

Priority A:
Ensure a safe, reliable water supply

Safe, Clean Water and Natural Flood Protection

Project A1

ADJUSTED

Main Avenue and Madrone Pipelines Restoration

This project will restore the Main Avenue and Madrone pipelines to full operating capacity of conveying 10 cubic feet per second (cfs) and 27 cfs, respectively, for a total of 37 cfs from Anderson Reservoir or the Santa Clara Conduit for groundwater recharge via the Main Avenue Recharge Ponds and the Madrone Channel. The project will plan, design, and construct approximately 14,000 linear feet or 2.6 miles of 30-inch to 36-inch diameter pipeline and associated appurtenances.

Benefits

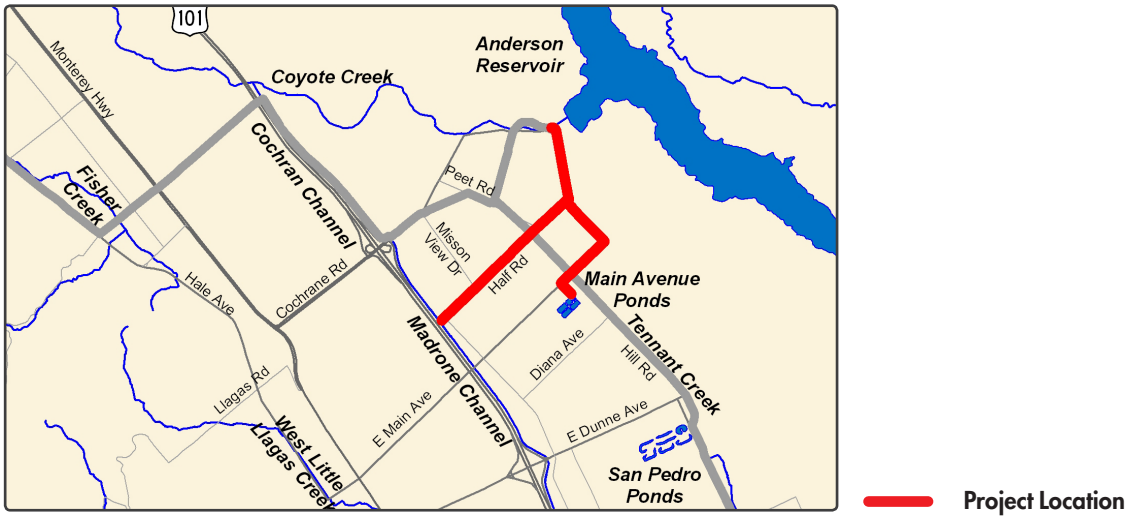
- Increases groundwater recharge by about 2,000 acre-feet per year in South County's Llagas Groundwater Sub-basin, a sufficient water supply for 4,000 families of 5
- Improves operational flexibility
- Maximizes the delivery of imported water to treatment plants supplying drinking water to North County
- Saves energy, reduces operating costs, and cuts CO_2 emissions by reducing dependence on Coyote Pumping Plant

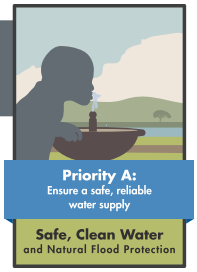
Key Performance Indicators (15-year Program)

1. Restore transmission pipeline to full operating capacity of 37 cubic feet per second from Anderson Reservoir.
2. Restore ability to deliver 20 cubic feet per second to Madrone Channel.

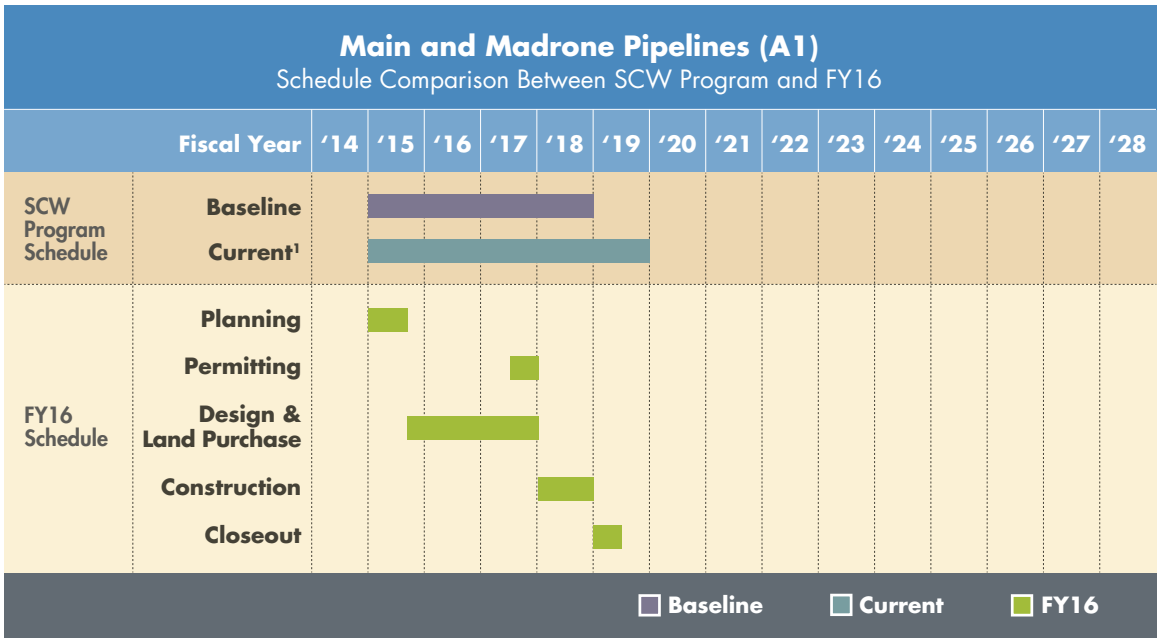
Geographic Area of Benefit: Countywide

Project Location





Schedule



[1] Board approved schedule adjustment through change control process.

Status for FY16: Adjusted

Progress on KPI's 1 & 2:

- Project work continued in FY16 with the completion of the 60% design in April 2016.
- Staff is finalizing the pipeline alignment and acquiring the necessary pipeline easements.

Financial Information

In FY16, 59% of the annual budget was expended to meet the target. The majority of the remaining FY16 budget was allocated for acquisition of pipeline easements. During the 60% design, it was determined that most of the pipeline will be installed within existing public rights of way; therefore, the unexpended budget will be diverted towards labor costs to complete the design in FY17. The project is on track to meet its KPI's financial forecast.

The original Safe, Clean Water Program funding level for Project A1 was set at $5.4 million (2012 dollars). During Program development, as the order and timing of project schedules were evaluated, Project A1 was planned to be completed in a 3-year period around 2025. Based upon that, the $5.4 million original funding estimate was inflated to about $8.3 million. Since then, however, Project A1's schedule has been moved forward in time with an estimated completion date of FY18. The approved Safe, Clean Water funding level, however, was retained at $8.3 million. The current total project cost has increased to $16.1 million as a result of a planning-level hydraulic analysis completed during the 30% design. The analysis recommended that an additional 5,000 feet of pipeline replacement was needed to meet future recharge volumes. The Water Utility Enterprise Fund will cover the $7.8 million remainder of costs not covered by the Safe, Clean Water Program.

Financial Summary ($ Thousands)
A1. Main Avenue and Madrone Pipelines Restoration

Fiscal Year 2015-2016					15-year Program	
Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Plan Spent
	Actual	Encumbrance	Total			
$1,547	$909	$10	$919	59%	$16,096	7%

Opportunities and Challenges

Acquisition of easements

Acquisition of pipeline easements is scheduled to be completed by February 2017.

Confidence levels:

Schedule: Moderate confidence

Initial discussions with 1 property owner for a pipeline easement acquisition are underway. Completion of remaining project activities is on schedule.

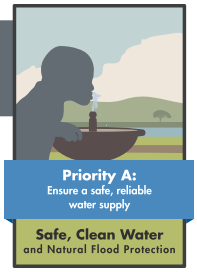
Funding: High confidence

All project funding through FY18 has been secured through the Safe, Clean Water Program, and is included in the Water Utility Enterprise Funding of capital improvement projects.

Permits: Moderate confidence

With the completion of the 60% design, initial permitting agency contact is in process to determine the exact timelines necessary for permit acquisition. There has been no indication that permit acquisitions will be challenging.

Jurisdictional Complexity: N/A



Project A2

ON TARGET

Safe, Clean Water Partnerships and Grants

Grants and partnerships covered under this project include:

- Grants for agencies and organizations to study and pilot-test new water conservation programs. In FY10, county water conservation stood at 50,600 acre-feet, but this number needs to nearly double by 2030 to meet future demand.
- Grants to help schools in the county provide drinking water dispensers and other potable water devices for students. California Senate Bill 1413 requires that schools provide access to free, fresh drinking water during mealtimes in food service areas.
- Rebates to private well water users for the installation of point-of-use treatment systems to remove excess nitrate from their drinking water.

Benefits

- Helps the District exceed the conservation goal of 98,500 acre-feet per year by 2030
- Reduces water demands and the need to invest in new or expanded water supply sources and associated infrastructure
- Increases water supply reliability
- Helps schools provide safe, clean drinking water to students and comply with state mandate
- Assists private well water users in maintaining the quality and safety of their drinking water

Key Performance Indicators (15-year Program)

1. Award up to $1 million to test new conservation activities.
2. Increase number of schools in Santa Clara County in compliance with SB 1413 and the Healthy Hunger-Free Kids Act, regarding access to drinking water by awarding 100% of eligible grant requests for the installation of hydration stations; a maximum of 250 grants up to $254,000.
3. Reduce number of private well water users exposed to nitrate above drinking water standards by awarding 100% of eligible rebate requests for the installation of nitrate removal systems; a maximum of 1,000 rebates up to $702,000.

Geographic Area of Benefit: Countywide

Status for FY16: On Target

Progress on KPI #1:

- Due to the continuing drought, the Board approved a funding amount for the FY16 grant cycle of up to $250,000 and authorized the Chief Executive Officer (CEO) to execute grant agreements consistent with Board approved criteria. The District received 7 grant applications, of which staff recommended and the CEO approved 3 grant proposals for a total of $130,000 (See Table 2.1). All 3 FY16 grant agreements were executed and funded in FY16.
- The total amount awarded to date is $458,500.

Table A2.1 Water Conservation Grants

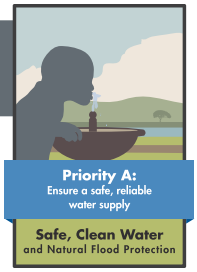
Grantee	Project	Description	Awarded	Total Project Cost
City of Mountain View	Advanced Metering Infrastructure Feasibility Study and Pilot	Evaluate available Advanced Metering Infrastructure (AMI) systems and their ability to optimize meter reading efficiency, increase customer service, and promote water-use efficiency within	$50,000	$175,000
Purissima Hills Water District	Residential Advanced Metering	Test the efficacy of AMI in reducing water use amongst Purissima Hills Water District Customers.	$50,000	$99,200
Velocitron LLC	Micro Streams Faucet Adapter	Install micrometer sensors in businesses in Santa Clara County to determine water use and detect leaks to help save water.	$30,000	$60,000
TOTAL			**$130,000**	**$334,200**

Progress on KPI #2:

- In FY16, 9 of the 12 available Water to Go hydration station grants were awarded. The grants were awarded at the set amount of $5,000 each upon installation of the Water to Go stations for a total of $45,000. Installation of the stations is scheduled for the summer of 2016, with grant funds expected to be paid to the schools by December 2016.
- Total amount awarded to date is $245,000, with the 3 remaining grants planned for award in FY17.

Progress on KPI #3:

- In FY16, 100% of eligible rebate requests totaling $1,103 were awarded to private well users for the installation of 3 nitrate removal systems. Total amount awarded to date is $2,485. Two (2) additional rebate applications are in process totaling $1,000.



Financial Information

In FY16, 85% of the total annual budget was expended. The Water Conservation Grant Program (KPI #1) expended 115% of its FY16 budget. This was due to the District Board's approval of a $150,000 increase to the FY16 budget in response to the continued drought, of which staff encumbered $130,000. The Hydration Stations project (KPI #2) expended 87% of its budget because the installation schedule for the hydration stations was adjusted to align with the school's summer break, as capital improvements are typically only scheduled during the summer months and outreach to the schools is done when they are in session to maximize program participation. The Nitrate Treatment System Rebate project (KPI #3) expended only 28% of its budget. The low expenditures are the result of few rebates being requested. The District has increased outreach and recently modified program eligibility to improve well owner participation as described in the opportunities and challenges section. If these changes don't improve participation, the District will re-evaluate the benefits of continuing to offer the nitrate treatment system rebate program in order to determine whether to hold a public hearing to recommend the project for non-implementation to the Board through the Change Control Process.

Financial Summary ($ Thousands)
A2. Safe, Clean Water Partnerships and Grants

Fiscal Year 2015-2016						15-year Program	
Project No. and Name	Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan*	% of Plan Spent
		Actual	Encumbrance	Total			
26061008 Water Conservation	$125	$22	$122	$144	115%	See footnote	-%
26062009 Hydration Stations	$67	$8	$50	$58	87%	See footnote	-%
26061010 Nitrate Treatment System Rebate	$66	$18	$0	$18	28%	See footnote	-%
Total	**$259**	**$48**	**$172**	**$221**	**85%**	**$2,360**	**37%**

*The Safe, Clean Water Program 15-year Plan does not have an allocation for each project number listed above, only for Project A2. The District has chosen to have multiple project numbers associated with Project A2 in order to deliver the KPIs.

Opportunities and Challenges

Water Conservation Grant Program – Ongoing drought impacts

City of Palo Alto, Our City Forest and San Jose Water Company have requested amendments to their grant agreements to extend the time to complete their projects. Extensions were needed for the City of Palo Alto and San Jose Water Company due to delays in work performed by sub-contractors, while Our City Forest experienced unexpected delays caused by site vandalism.

Hydration Station Grant Program

Two schools from the FY15 grant cycle declined participation due to lack of resources and staff support to install and maintain a Water to Go station. These 2 grants were added to the FY16 grant cycle, for a total of 12 available grants.

Nine schools applied for the 12 available grants. Staff is connecting with applicants from previous grant cycles to fill the remaining three grants. The remaining 3 grants will be awarded in early FY17.

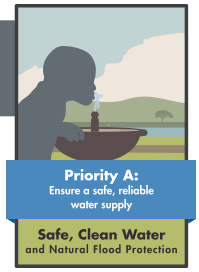
Once the final 3 grants are awarded, it will complete the number of grants committed under Hydration Station Grant Program.

The FY16 grant agreements with schools continues to include the opportunity for the District and FIRST 5 Santa Clara County to share water education programs and organize student assemblies to reinforce the messages about water conservation and drinking water as a healthy choice.

Nitrate Treatment System Rebate Program

While the nitrate treatment system rebate program awarded 100% of eligible rebate requests in FY16, private well water user participation in the program continues to be very low. Ongoing outreach efforts include direct mailings to well owners, targeted promotion of the rebate program in South County retail stores, and collaboration with the Santa Clara County Department of Environmental Health (DEH). In an effort to increase program participation, outreach in FY16 also focused on providing information directly to well owners during various meetings, including the:

- Perchlorate Community Advisory Group Meeting on December 4, 2015
- San Martin Neighborhood Alliance meeting on January 19, 2016
- South County Rate Setting Public Hearing/Open House on April 14, 2016
- Small Acreage Stewardship Workshop on May 17, 2016



In addition to expanded outreach, several program changes were made in the second half of FY16, including:

- Expanding eligibility to include residents served by State Small Water Systems (systems serving 5-14 connections that are not classified as public water systems)
- Promoting the program with local water treatment contractors

The number of private well users exposed to elevated nitrate is unknown, as water quality monitoring and reporting for these wells is not required by the state. Results from the District's voluntary domestic well testing program indicate that about one-third of domestic wells had nitrate above the state drinking water standard. A survey of well owners indicated that the majority that chose not to participate in the rebate program do not use their well water for drinking or already have a treatment system. A similar program in Washington had a participation rate of 2%, despite offering systems at no cost to participants.

Since the program's inception in FY14, a total of 12 rebates have been issued totaling $2,485. In FY16, the District awarded only 3 rebates for a total of $1,103. Two (2) additional applications are pending totaling $1,000. At this time, it is unclear if the recent program changes will have a positive impact on rebate program participation. Because the State Small Water Systems serve 5 to 14 connections or residences, this change could provide a significant boost to participation. Regulatory agencies responsible for protecting groundwater quality view this program as a proactive measure to help minimize well owner exposure to elevated nitrate. The District will continue to explore ways to improve participation, and will re-evaluate the benefits of continuing to offer the nitrate treatment system rebate program if recent changes do not improve participation.

Priority A:
Ensure a safe, reliable water supply

Safe, Clean Water and Natural Flood Protection

Project A3

SCHEDULED TO START FY25

Pipeline Reliability Project

This project constructs 4 line valves at various locations along the East, West and Snell treated water pipelines in Saratoga, Cupertino and San José. This will allow the District to isolate sections of pipelines for scheduled maintenance and repairs following a catastrophic event, such as a major earthquake.

Benefits

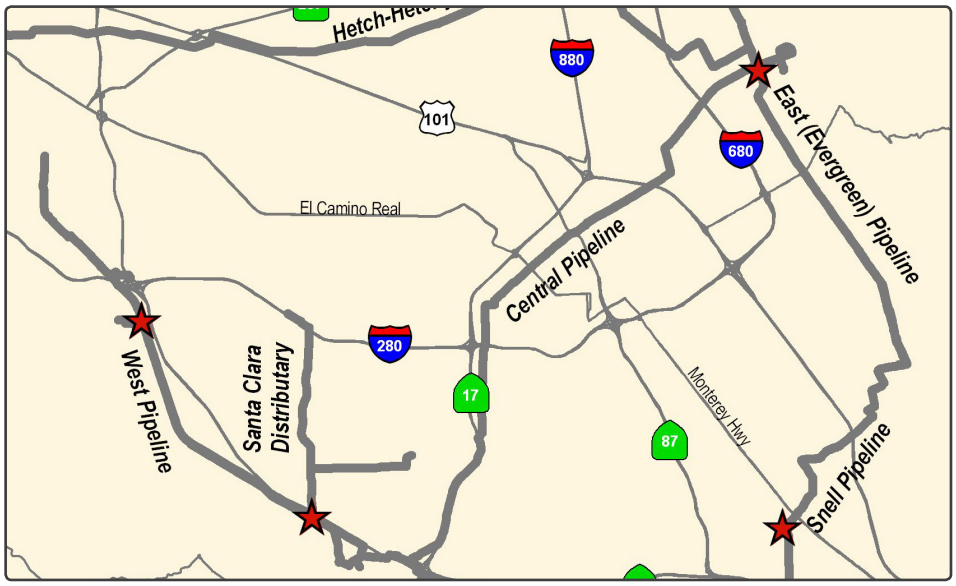
- Supports shorter service interruption in the case of a pipeline break
- Provides operational flexibility for pipeline maintenance work
- Improves drinking water reliability

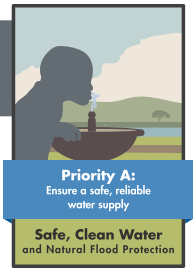
Key Performance Indicator (15-year Program)

1. Install 4 new line valves on treated water distribution pipelines.

Geographic Area of Benefit: Mountain View, Sunnyvale, Santa Clara, Cupertino, Saratoga, Los Gatos, Los Altos, Campbell, San José, and Milpitas

Project Location





Schedule

IRP2 Additional Line Valves (A3)
Schedule Comparison Between SCW Program and FY16

	Fiscal Year	'14	'15	'16	'17	'18	'19	'20	'21	'22	'23	'24	'25	'26	'27	'28
SCW Program Schedule	Baseline															
FY16 Schedule	Planning															
	Permitting															
	Design & Land Purchase															
	Construction															
	Closeout															

Baseline FY16

Status for FY16: Scheduled to Start

This project is scheduled to begin in FY25.

Financial Information

This project is not scheduled to begin until FY25; thus, there were no expenditures in FY15.

The original Safe, Clean Water Program funding level for this project was presented in 2012 dollars at $7.3 million; however, this amount is subject to inflation and the inflated amount is $12.9 million. The total project cost is currently estimated to be $13.9 million. The Program has been designed to collect sufficient revenues to account for project cost increases due to inflation.

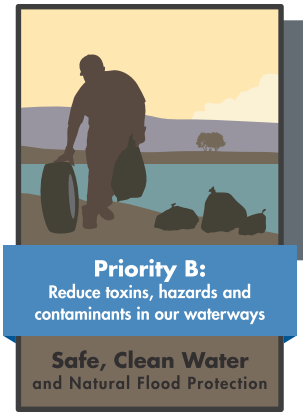
Opportunities and Challenges

Per the IMC recommendation for this project, staff will explore the opportunity to deliver this project sooner than currently scheduled in the Safe, Clean Water Program. This effort will be undertaken as part of the FY18-22 Capital Improvement Program preparation, which will begin in fall 2016. Staff will evaluate both the funding impacts and staff resource availability for initiating this project in FY19 or FY20 and will present a recommendation to the Board in January 2017.

Confidence levels: To be determined

The confidence levels will be determined when work on the project begins.

This page intentionally left blank



Priority B

Reduce Toxins, Hazards and Contaminants in Our Waterways

Projects under Priority B use multiple strategies to reduce and remove contaminants in our local creeks, streams and bay. In addition to mercury treatment systems in our reservoirs, projects under this priority also prevent toxins from entering waterways by working with municipalities and other agencies to reduce runoff pollution. The District also provides grants to reduce emerging contaminants and supports public education and volunteer cleanup efforts. Additional projects include coordinated cleanup of illegal encampments near waterways, trash and graffiti removal, and rapid emergency response to hazardous materials spills.

Project B1
Impaired Water Bodies Improvement

Project B2
Interagency Urban Runoff Program

Project B3
Pollution Prevention Partnership and Grants

Project B4
Good Neighbor Program: Illegal Encampment Cleanup

Project B5
Hazardous Materials Management and Response

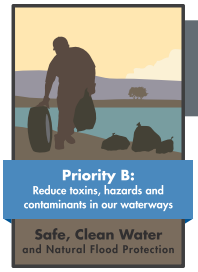
Project B6
Good Neighbor Program: Remove Graffiti and Litter

Project B7
Support Volunteer Cleanup Efforts and Education

Appendix A: Financials

Appendix B: Inflation assumptions

Appendix C: Grantee information for Project B3



Project B1

ON TARGET

Impaired Water Bodies Improvement

This project helps the District meet surface water quality standards and reduces pollutants in streams, groundwater, lakes and reservoirs. Efforts are carried out in compliance with the Regional Water Quality Control Board (RWQCB) Total Maximum Daily Loads (TMDLs) standards as they continue to evolve (TMDLs are the maximum amount of a pollutant that a water body can receive and still safely meet water quality standards). Under this project, the District employs treatment systems in reservoirs to reduce methyl mercury formation, and helps create realistic plans and expectations for reducing contaminant loads by engaging in the regulatory development process with the RWQCB for new and emerging contaminants.

Benefits

- Reduces contamination in creeks and reservoirs
- Improves water quality, including water going to drinking water treatment plants
- Reduces mercury in reservoirs to prevent its entry into the food web
- Improves fisheries by reducing mercury contamination
- Supports regulatory compliance of TMDL standards affecting District operations

Key Performance Indicators (15-year Program)

1. Operate and maintain existing treatment systems in 4 reservoirs to remediate regulated contaminants, including mercury.
2. Prepare plan for the prioritization of pollution prevention and reduction activities.
3. Implement priority pollution prevention and reduction activities identified in the plan in 10 creeks.

Geographic Area of Benefit: Countywide

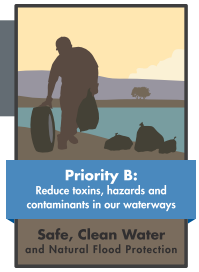
Status for FY16: On Target

Progress on KPI #1:

- Operated and maintained existing oxygenation treatment systems in 4 reservoirs to remediate regulated contaminants, including mercury.

Operation of oxygenation systems:

» Almaden – 8 weeks
» Calero – 15 weeks
» Guadalupe – 8 weeks



» Stevens Creek – 13.5 weeks

Ongoing system maintenance included:

» Specialized system maintenance from the original equipment manufacturer

» Trouble-shooting of electrical problems and overheating

Systems are typically operated between mid-April and mid-October when methyl mercury levels are high. The systems generally operate 24 hours a day which leads to frequent service and maintenance demands. After October, cooler temperatures, wind and rain reduce methylation by natural oxygenation. Water quality samples indicate that the oxygenation systems appear to reduce methylation of mercury in reservoirs but do not eliminate methylation.

Progress on KPI #2: *(Completed in FY15)*

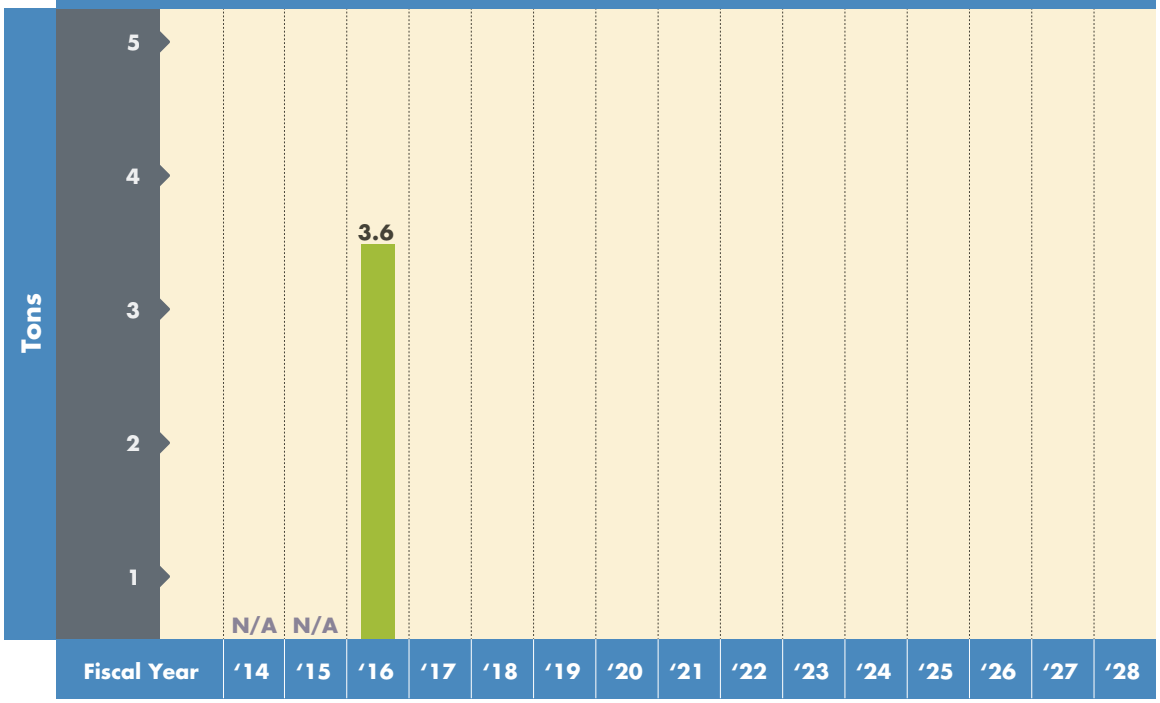
- A Pollution Prevention Prioritization Plan (Plan) was completed in January 2015. The Plan includes the prioritization and implementation of pollution prevention and reduction activities in 10 water bodies identified as impaired in Santa Clara County. This plan sets the foundation for implementing activities to improve impaired water bodies in Santa Clara County based on the California Regional Water Quality Control Board's (RWQCB) current 303 (D) list. The plan includes trash reduction in Guadalupe, Coyote, San Francisquito and Stevens creeks; methyl mercury reduction in Almaden Lake; and nitrate reduction in Pajaro, Furlong and Carnadero creeks. The Plan will be updated, as needed, based on additional water quality data, field observations, and the new 303 (D) list to be released in late 2016.

Progress on KPI #3:

- The District began implementation of the Plan in December 2015. The first pollution reduction activity in the plan was to map trash accumulation locations in the Guadalupe River, from Alviso to Blossom Hill Road. The Guadalupe River Map was completed in FY16 and is available on the project's web page: http://www.valleywater.org/SCW-B1.aspx. The map will be updated approximately every 6 months. Following the map's creation, work orders were developed using Global Position System (GPS) and Geographic Information System (GIS) technologies to clean up the sites. Sites not in District jurisdiction have been communicated to the appropriate government entity to dispatch staff and/or volunteers to clean up the locations. The project area is reevaluated at least twice a year. This project removed 51 cubic yards (approximately 3.6 tons) of trash from challenging locations on the Guadalupe River in FY16 (Graph B1.1).

- To reduce trash accumulation, the project will fund patrol and enforcement services from San José City Park Rangers and California Department of Fish and Wildlife Officers to prevent reestablishment of homeless encampments along the Coyote Creek and Guadalupe River in FY17. These services also benefit and align with the work being done under Project B4 Good Neighbor Program – Encampment Cleanup.

Graph B1.1 Impaired Water Bodies Improvement
Tons of Trash and Debris Removed



Financial Information

Project expenditures for FY16 are 78% of the annual budget. Program efficiencies, including reduced necessary sampling and less reliance on PG&E power, resulted in overall savings.

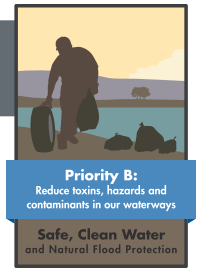
Financial Summary ($ Thousands)
B1. Impaired Water Bodies Improvements

Fiscal Year 2015-2016					15-year Program	
Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Plan Spent
	Actual	Encumbrance	Total			
$1,431	$1,017	$102	$1,119	78%	$27,427	14%

Opportunities and Challenges

Partnership opportunities

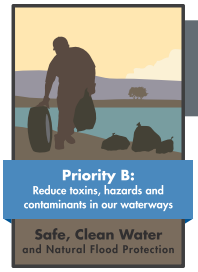
The District continues to explore partnerships with cities, non-profits, and volunteer groups to implement priority pollution prevention and reduction activities in 10 water bodies throughout the county. This includes working with the cities of San José and Gilroy on trash and pathogen removal. The project also assists the water utility with manganese reduction in Calero Reservoir which supports other Safe Clean Water KPI's.



Non-operational systems

The operational window maximum is approximately mid-April through mid-October, depending upon environmental conditions. In addition, the operational period for each reservoir can be impacted due to a number of factors that affect when each reservoir stratifies; these include hydrological and biological conditions, as well as storage capacities.

Maintenance issues continued to plague performance this fiscal year, but have been addressed by specialized maintenance servicing, adding technical support staff, improved coordination with equipment service vendors, and improved operational knowledge.



Project B2

ON TARGET

Interagency Urban Runoff Program

This project supports the District's continued participation in the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) and South County programs that help the District reduce storm water pollution and meet regulatory requirements to reduce contaminants in surface water.

The District also participates in the regulatory development process related to storm water by providing review, analysis and commentary on various basin plan amendments, Total Maximum Daily Loads (TMDLs) and water bodies listed as impaired or threatened under the federal Clean Water Act. Project B2 also allows the District to maintain regional public education and outreach activities to help prevent urban runoff pollution at the source.

Benefits

- Uses partnerships with municipalities and local agencies to reduce contaminants and improve surface water quality in our streams, reservoirs, lakes and wetlands
- Maintains District compliance with the Regional Water Quality Control Board and National Pollutant Discharge Elimination System (NPDES) permits
- Allows continued participation in SCVURPPP and South County runoff programs
- Promotes storm water pollution prevention through public outreach

Key Performance Indicators (15-year Program)

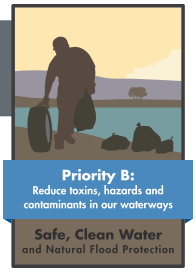
1. Install at least 2 and operate 4 trash capture devices at storm water outfalls in Santa Clara County.
2. Maintain partnerships with cities and County to address surface water quality improvements.
3. Support 5 pollution prevention activities to improve surface water quality in Santa Clara County, either independently or collaboratively with South County organizations.

Geographic Area of Benefit: Countywide

Status for FY16: On Target

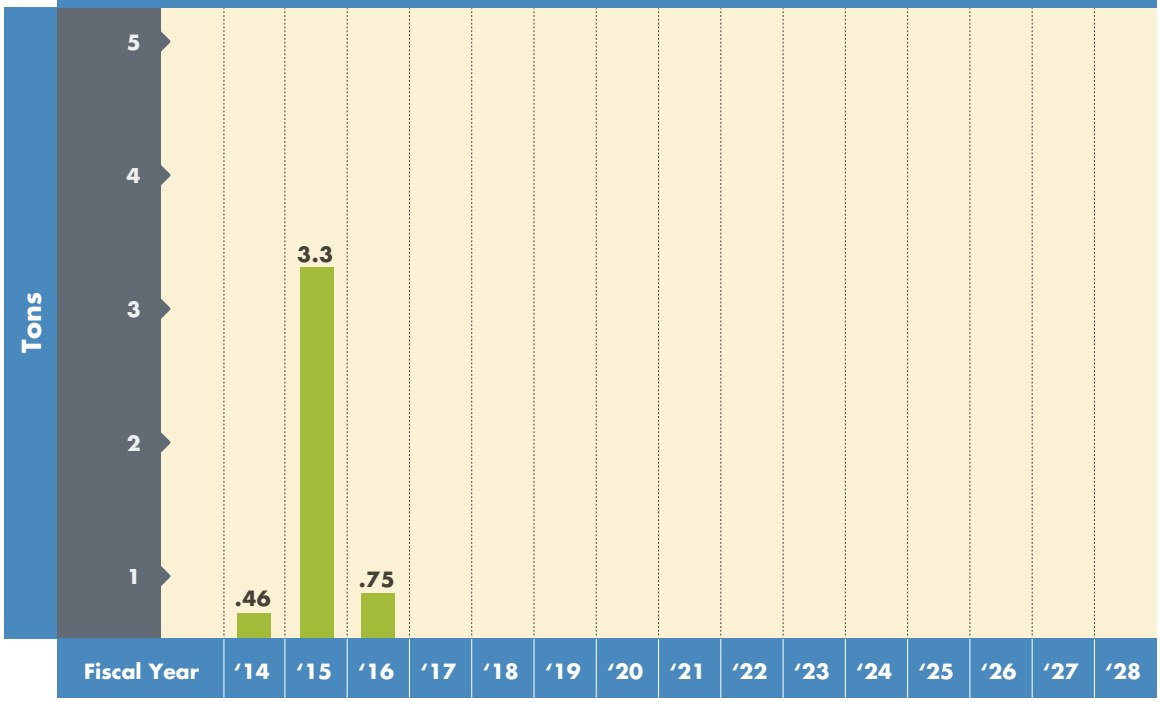
Progress on KPI #1: *(Installation of 2 trash capture devices was completed in FY14)*

- In FY16, a total of 4 trash capture devices (booms) were operational in Santa Clara County, from which 10.5 cubic yards (0.75 tons) of trash were collected and removed (Graph B2.1).



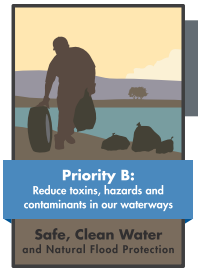
- Lower Silver Creek near King Rd and Schulte Dr., San José
- Matadero Creek at West Bayshore Rd., Palo Alto
- Adobe Creek at East Bayshore Rd., Palo Alto
- Thompson Creek upstream of Tully Rd., San José

Graph B2.1 Interagency Urban Runoff Program
Tons of Trash and Debris Removed



Progress on KPI #2:

- Maintained 2 partnerships with cities and Santa Clara County.
  - In July 2015, the District renewed its annual agreement for the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP). SCVURPPP is a partnership with Santa Clara County and 13 cities in the county to reduce pollution in urban runoff to the "maximum extent practicable" to improve the water quality of South San Francisco Bay and the streams of Santa Clara County.
  - In June 2015, a partnership with Santa Clara County's Green Business Program was extended for an additional year to certify local businesses that have adopted environmentally sound principles for daily operation. This partnership continues through June 30, 2016.
  - In January 2016 the District began to implement the requirements identified in the San Francisco Bay Municipal Regional Stormwater Permit (MRP 2.0).



Progress on KPI #3:

- The District continued to work on the first of 5 pollution prevention activities required over the course of the 15-year Safe, Clean Water Program. The Pajaro River Pathogen Total Maximum Daily Load (TMDL) study is a project that specifically supports the cities of Gilroy and Morgan Hill, along with Santa Clara County. The District developed a sampling plan that uses Microbial Source Tracking to facilitate the identification of sources of fecal bacteria. Multiple sampling sites were sampled in Uvas Creek, Llagas Creek and Pajaro River in Santa Clara County's Pajaro River Watershed. The sampling was completed in April of 2016; the laboratory results were received during May and June of 2016.

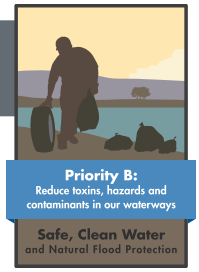
- The results indicate that E. Coli bacteria continue to be elevated in the Pajaro River Watershed. On the west side of highway 101 (rural) dogs and human indicators were identified. On the east side of Highway 101 (agricultural) ruminants including cow indicators were identified. Based on the laboratory results, there is an opportunity for the agencies in South County to conduct outreach to animal owners to provide and or maintain buffers along stream systems and for agricultural users to provide greater buffers along creeks and channels. Cattle, horse and goat operations may benefit from rotational grazing practices that maximize the distance livestock is kept from the creeks. As part of the study a very large wood chipping/livestock operation was found to be discharging a significant amount of coliform indicator bacteria. Violations were issued by the County of Santa Clara and a case is being developed with the District Attorney's office. The District developed a map showing the results of the sampling, which is available on the project's web page (http://www.valleywater.org/SCW-B2.aspx).

Financial Information

The Project expended 88% of the FY16 budget. The project was underspent due to a staffing shortage as the project lead began to oversee both Priority B-1 and B-2. Additionally, Unit Manager budgeted hours were not fully utilized do to management changes.

Financial Summary ($ Thousands)
B2. Inter-agency Urban Runoff Program

Fiscal Year 2015-2016					15-year Program	
Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Plan Spent
	Actual	Encumbrance	Total			
$700	$605	$8	$613	88%	$12,641	15%



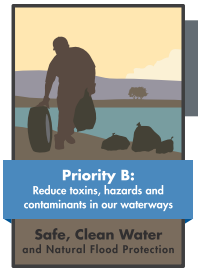
Opportunities and Challenges

Trash capture

Opportunities exist for the use of booms at additional creek locations to help capture trash during Project B1 trash mapping and clean-up activities.

Volunteer Creek Cleanup Partnership Program

The interest and enthusiasm for volunteer cleanup is very high. Some activities appear to overlap with activities covered in Priorities B2, B3, B4, B6, and B7. To achieve cost-effectiveness and avoid duplication, a Volunteer and Partnership Program is being developed to coordinate the various outreach activities and to optimize the use of the various funding sources.



Project B3

ON TARGET

Pollution Prevention Partnerships and Grants

This project provides pollution prevention grants to qualified local agencies, nonprofit groups, schools, etc., totaling an average of $500,000 per cycle. In addition, up to $200,000 per year goes toward partnerships with municipalities for specific programs to reduce contaminants in surface or groundwater, and reduce emerging contaminants.

Grants could support programs such as public education to prevent pharmaceuticals from entering waterways, technical assistance to help growers protect groundwater, and partnerships to reduce litter and graffiti.

Benefits

- Helps prevent contaminants such as pharmaceuticals, household hazardous waste and trash from entering our waterways
- Helps meet regulatory requirements as listed under the impaired water bodies listing of the federal Clean Water Act
- Reduces contaminant source loads in groundwater and surface water, and protects local watersheds
- Provides public education to reduce contaminants in our waterways
- Leverages community resources for efficient use of funds

Key Performance Indicator (15-year Program)

1. Provide 7 grant cycles and 5 partnerships that follow pre-established competitive criteria related to preventing or removing pollution.

Geographic Area of Benefit: Countywide

Status for FY16: On Target

Progress on KPI #1:

- Completed the second round of 7 pollution prevention grant cycles. The District awarded 8 project grants and was able to execute 7 of the grant agreements prior to the end of the fiscal year (Table B3).
- The District continued to administer the grant agreements executed in FY14 (Grant Cycle 1). To date, 1 grant project has been completed, the San José Parks Foundation Trash Free Coyote Creek Cleanup project.

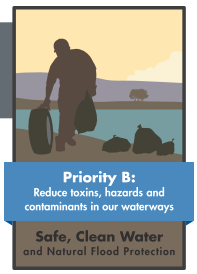


Table B3 : Pollution Prevention Grants Agreements Approved in FY16

Partner	Project	Description	Funding	Total Project Cost
West Valley College	West Valley College North Walk Storm Water Quality Improvements	Treat runoff from 6.0 acres in the North Walk and Parking Lot 6 sub-watersheds. The project includes the installation of storm water planters, rain gardens and bio-swales to promote infiltration and provide water quality treatment.	$71,068	$1,283,001
Silicon Valley Senior Services	Environmental Assist Pharmaceutical Pick-Up (EAPP) Program	EAPP's dedicated volunteers in conjunction with local police/sheriff departments help decrease the amount of pharmaceuticals in our drinking water by assisting seniors and the disabled for safe pick-up of pharmaceutical waste; and providing information and education to Santa Clara residents about safe disposal.	$90,525	$152,185 (Grantee withdrew)
South Bay Clean Creeks Coalition	South Bay Creek Cleanup Program	The SBC3 Program recruits volunteers through trail & park tabling, canvassing adjacent neighborhoods. These volunteers can participate in TEAM 222 Clean Up program which conducts clean ups every other month at multiple sites, including corporate events; and work on citizen monitoring network.	$60,000	$217,600
San Francisco Bay Wildlife Society	Don Edwards San Francisco Bay NWR Clean-Up 2016	Collaborate with San Jose Conservation Center and Volunteers from Don Edwards San Francisco Bay NWR to remove trash from south San Francisco Bay tidal marshlands, mudflats and adjacent uplands in Santa Clara County. Integrate LitteratiTM a social media technology, to create a litter database for long-term trash reduction and provide an interpretive display for education and outreach.	$35,391	$73,390

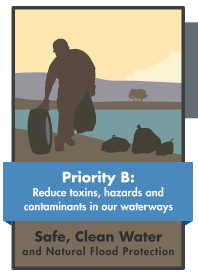
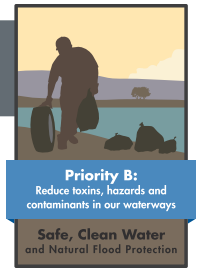


Table B3 cont... : Pollution Prevention Grants Agreements Approved in FY16

Partner	Project	Description	Funding	Total Project Cost
Santa Clara County Creeks Coalition	Trash Free North Coyote Creek Watershed Stewardship and Engagement Project	Conduct 12 volunteer trash cleanups and outreach activities, conduct outreach activities, recruit over 700 volunteers from business and community organizations and implement a docent-led walks program along 5 miles of north Coyote Creek from Tasman Drive to Jackson Street.	$89,399	$142,239
Acterra Stewardship	Greening Urban Watersheds	Over a 3-year period, provide designs for 4 rain barrels, 2 cisterns and 4 bio-retention/rain garden projects; coordinate 12 hands-on workshops to install rain barrels/gardens on city properties, and conduct 21 community creek cleanup events along 3 creeks; remove 13,000 pounds of trash from 4 miles of riparian corridors.	$93,617	$189,261
Regents of the University of California	Effective Storage and Composting of Livestock Manures	Over a 45-month period, establish demonstration sites at four locations at McClellan Ranch, Emma Prusch and Martial Cottle Parks and the South County Airport. Outreach to livestock owners for proper manure storage and safe composting. The work will minimize pathogens from manures from entering storm water and creeks by demonstrating effective and safe composting.	$60,000	$213,845
County of Santa Clara	Pollution Prevention and Zero Waste Project	Implement the Green Business Program, a third-party verified compliance-based program addressing surface water quality, storm water protection, pollution prevention and education. The program identifies pollution sources and provides ways to reduce use of toxic materials, and implement storm water protection practices. The program benefits water quality by avoiding impacts of improper management and air deposition on water.	$200,000	$690,000
TOTAL			**$700,000**	**$2,961,521**



Financial Information

FY16 project expenditures were 89% of the total annual budget. The budget was primarily under spent due to an applicant's withdrawal after the Board's award. Approximately $90,000 in unused funds will be included in future proposal solicitation cycles.

Financial Summary ($ Thousands)
B3. Pollution Prevention Partnerships and Grants

Fiscal Year 2015-2016					15-year Program	
Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Plan Spent
	Actual	Encumbrance	Total			
$828	$100	$633	$733	89%	$7,595	23%

Opportunities and Challenges

Volunteer Creek Cleanup Partnership Program

The interest and enthusiasm for volunteer cleanup is very high. Some activities appear to overlap with activities covered in Priorities B2, B3, B4, B6, and B7. To achieve cost-effectiveness and avoid duplication, a Volunteer and Partnership Program is being developed to coordinate the various outreach activities and to optimize the use of the various funding sources.

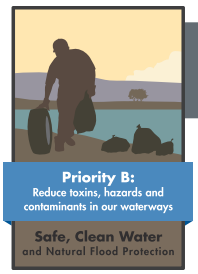
Outreach

The District recognized that more time should be allocated to outreach and development of partnership agreements. An early start of the proposal solicitation process was initiated for FY16. In May 2015, the District began using a web-based proposal solicitation portal and releasing the request for proposals via emails, a press release and email marketing postings.

Technical Assistance

The use of the proposal solicitation portal proved to be a challenge for some applicants. In response, staff assisted applicants with uploading their documents to the portal.

Also during the proposal solicitation process, staff held workshops, Q and A sessions, posted responses to frequently asked questions, and sent periodic reminders to guide the applicant through the review process. In addition, applicants were referred to subject matter experts for technical assistance, including one-on-one meetings, as requested.



Insurance Requirements and Risk Management

Two newly established 501(c)(3) entities sought waiver for business, automobile and workers compensation insurance requirements. There was a need to update the insurance requirements language to properly manage risks. If grantees use District's grant fund to pay the services of an independent contractor, grantees must provide adequate auto liability insurance. Additionally, if the entity signing the agreement has employees, workers compensation and employer liability insurance would be needed.

A need was also identified to provide some training for new startup entities to minimize risks and support grant project execution.

Process Improvements

Request For Proposals

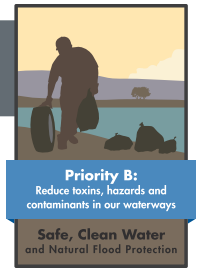
The Request For Proposals resulted in 8 quality proposals; however, the total funds requested by the 8 grant applicants went above the District's budgeted amount for award. To accommodate funding all 8 proposals, staff negotiated with 3 applicants to reduce their scope, schedule and budget. This approach allowed the Board to award all 8 grants while staying within its funding limit of $700,000. As a result, the District was able to broaden the geographic coverage of the grants, resulting in increased community engagement for pollution prevention efforts.

Application Withdrawals

On December 8, 2015, the Board approved an award of up to $90,525 for a project with Silicon Valley Senior Services for the Environmental Assist Pharmaceutical Pick-Up Program. However, the Project Manager who authored the proposal left the entity. After reviewing the scope, approach, proposed budget contained in the original proposal and after learning about District's grants being reimbursement based, the newly delegated Project Manager cancelled the funding request.

Instead of applying those funds to future grant funding cycles, the District explored the option of adding up to $90,525 to the previously Board authorized West Valley College proposal for the Parking Lot 6 and North Walk Storm Water Quality Improvements Project. West Valley College had reduced its funding request to accommodate funding 2 other projects that had ranked lower. The District did extend the offer of the additional $90,525 to West Valley College; however, the college decided not to proceed with the increased scope and funding at this time.

In the future, the District will develop an effective mechanism to reallocate unused funds in the case of applicant withdrawal.



Project B4

ON TARGET

Good Neighbor Program: Encampment Cleanup

This project supports the District's ongoing coordination with local cities and agencies to clean up large creekside encampments that contaminate waterways and damage District facilities. This cooperative effort includes local police departments, social services, and nonprofit advocacy groups that help provide alternatives to homelessness.

Benefits

- Reduces trash and other pollutant loads in surface water, including streams, reservoirs and wetlands
- Improves the aesthetics of creeks in neighborhoods and parks
- Coordinates efforts among multiple agencies to create lasting solutions

Key Performance Indicator (15-year Program)

- Perform 52 annual cleanups for the duration of the Safe, Clean Water Program to reduce the amount of trash and pollutants entering the streams.

Geographic Area of Benefit: Countywide

Status for FY16: On Target

Progress on KPI #1:

- Cleaned 532 encampment sites in FY16 (Graph B4.1).
  - » Removed more than 790 tons of trash and debris from encampments (Graph B4.2).

While the District provides encampment cleanup support on District property in cities throughout the county, the majority of these cleanups were performed in coordination with the City of San José as part of an ongoing agreement to complete encampment removal activities along the creeks. In addition, the District participated in the Joint Trash Team along with the City of San José and other partner agencies on a monthly basis to plan and schedule services that are required for cleanup events such as: social services, law enforcement, and volunteer support.

Financial Information

In FY16, the project was on track with 100% of its budget expended.

Financial Summary ($ Thousands)
B4. Good Neighbor Program: Illegal Encampment Cleanup

Fiscal Year 2015-2016					15-year Program	
Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Plan Spent
	Actual	Encumbrance	Total			
$925	$920	-	$920	100%	$5,314	60%

Opportunities and Challenges

Volunteer Creek Cleanup Partnership Program

The interest and enthusiasm for volunteer cleanup is very high. Some activities appear to overlap with activities covered in Priorities B2, B3, B4, B6, and B7. To achieve cost-effectiveness and avoid duplication, a Volunteer and Partnership Program is being developed to coordinate the various outreach activities and to optimize the use of the various funding sources.

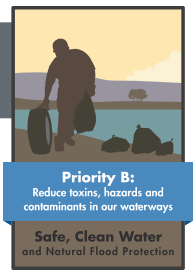
Homelessness in Santa Clara County

Along with a number of cities and countywide agencies, the District Board of Directors has endorsed the Community Plan to End Homelessness in Santa Clara County and the District remains an active partner in implementing the plan.

Coyote Creek encampment

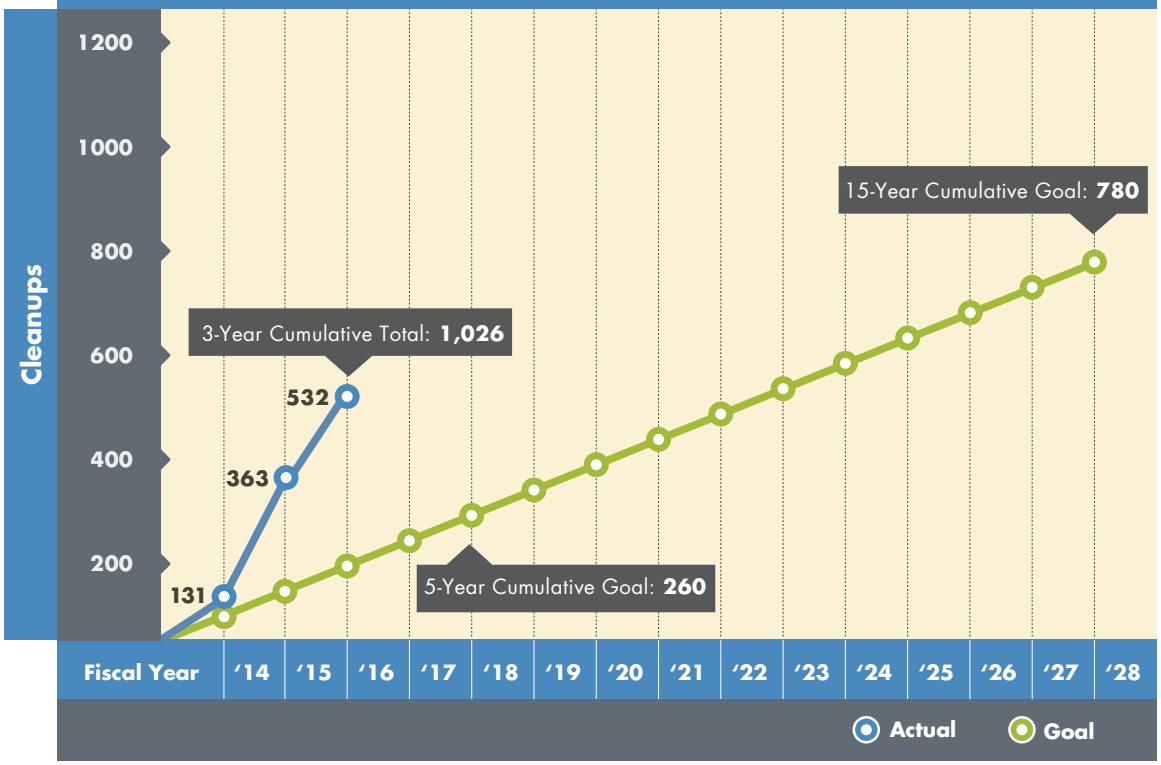
Funding constraints

There continues to be an increasing demand for District resources to address encampment cleanups from cities and the community. These additional requests have significantly impacted the project's budget. This project does not have sufficient Safe, Clean Water funding allocated to accomplish the current level of demand for service beyond FY19. To address this high level of demand and the overall issue of homelessness in the county, the Board formed a Homeless Encampment Ad Hoc Committee. The District is working closely with the committee to explore alternative funding sources and methods for addressing the issue of homelessness. Depending on the outcomes, the District may need to request a budget adjustment to the total 15-year Safe, Clean Water Program allocation for the project. If increasing the allocation impacts any project's KPI's, the District must hold a formal public hearing to determine whether or not to modify the Program.



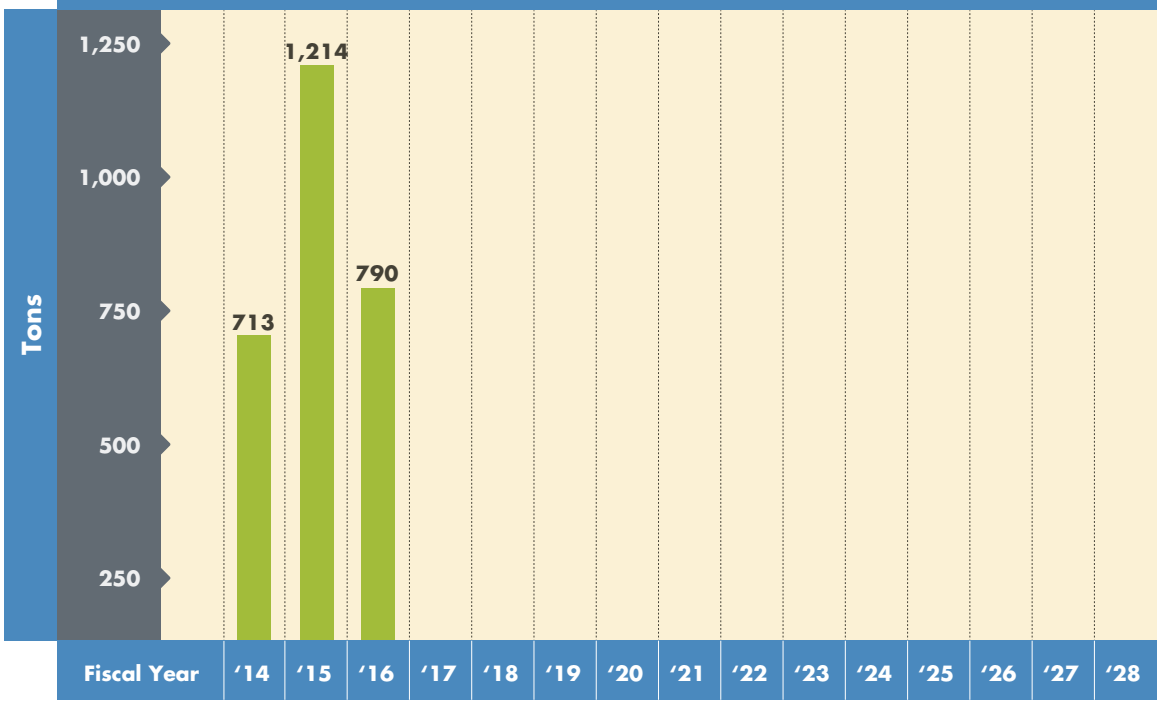
Graph B4.1 Encampment Cleanups

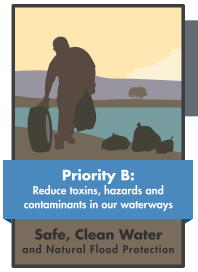
Good Neighborhood Program Number of Encampment Cleanups



Graph B4.2 Encampment Cleanups

Tons of Trash and Debris Removed





Project B5

ON TARGET

Hazardous Materials Management and Response

This project allows the District to continue providing a local, toll free number to report hazardous materials spills 24 hours a day, 7 days a week. Emergency staff responds within 2 hours of the initial report, with spill cleanup in District rights-of-way performed in a timely manner. Appropriate agencies are alerted when spills are outside District jurisdiction.

Benefits

- Prevents and reduces contaminants in surface and groundwater
- Provides a quick, systematic emergency response that reduces negative impacts of hazardous materials spills

Key Performance Indicator (15-year Program)

1. Respond to 100% of hazardous materials reports requiring urgent on-site inspection in 2 hours or less.

Geographic Area of Benefit: Countywide

Status for FY16: On Target

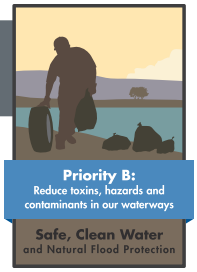
Progress on KPI #1:

- In FY16, the District received 120 incident calls countywide, of which 59 received an on-site response; 33 were classified as urgent. The District met 100% of its required 2 hour or less response time for urgent calls, with an average response time of 71 minutes countywide.

Financial Information

FY16 expenditures totaled 55% of the annual budget. Expenditures under this project can fluctuate widely based on the following:

1. The number of calls received on the Pollution Prevention hotline,
2. The number of calls requiring a field response,
3. A varying amount of time required resolving/mitigating once in the field, and
4. An unspecified amount of waste to be disposed under the Emergency Response Program.



Financial Summary ($ Thousands) B5. Hazardous Materials Management and Response						
Fiscal Year 2015-2016					15-year Program	
Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Plan Spent
	Actual	Encumbrance	Total			
$38	$21	$0	$21	55%	$618	11%

Opportunities and Challenges

Multiple incidences

Occasionally, multiple incidents occur on the same day and the current Emergency Response Program may potentially experience difficulty meeting the 2 hour response goal. However, this rarely occurs and hasn't prevented the District from meeting the KPI.

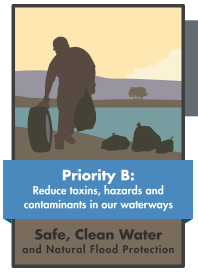
Response times

Other challenges to meeting timeliness performance standards include accessing remote locations, mobilizing equipment and supplies (boats and absorbents) for on-water response, or encountering traffic when traveling to various locations in the county. It is also critical that the District's Watershed Emergency Response Program maintain good working relationships with other response agencies and be trained and equipped to continue to respond effectively to a wide array of pollutants and hazardous substances.

Vehicle submerged in Helmsley Pond near Summerpark Court, San José

Table B5

Fiscal Year	Total Reports	Total Responses	On-site Responses Classified as "Urgent"	Countywide Average Response Time
2015 - 2016	120	59	33	71 minutes



Project B6

ON TARGET

Good Neighbor Program: Remove Graffiti and Litter

This project allows the District to continue responding to complaints about illegal dumping, trash and graffiti on District property, and rights-of-way. Cleanup efforts include graffiti removal from headwalls, concrete embankments, signs, structures and other District assets, as well as maintaining, repairing and installing fences and gates so that District structures and facilities remain safe and clean. The project also includes quarterly cleanups of problem sites to help reduce waterway pollution and keep creeks and riparian areas free of debris.

Benefits

- Reduces trash and contaminants in local waterways
- Improves the appearance of waterways in neighborhoods and parks by removing trash, graffiti and litter as well as illegally dumped items such as cars, shopping carts, appliances, etc.
- Reduces illegal dumping into or near waterways by repairing and installing fencing on District property
- Provides coordinated response to community complaints about trash and graffiti in neighborhoods

Key Performance Indicators (15-year Program)

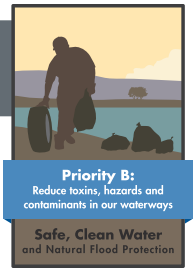
1. Conduct 60 cleanup events (4 per year).
2. Respond to requests on litter or graffiti cleanup within 5 working days.

Geographic Area of Benefit: Countywide

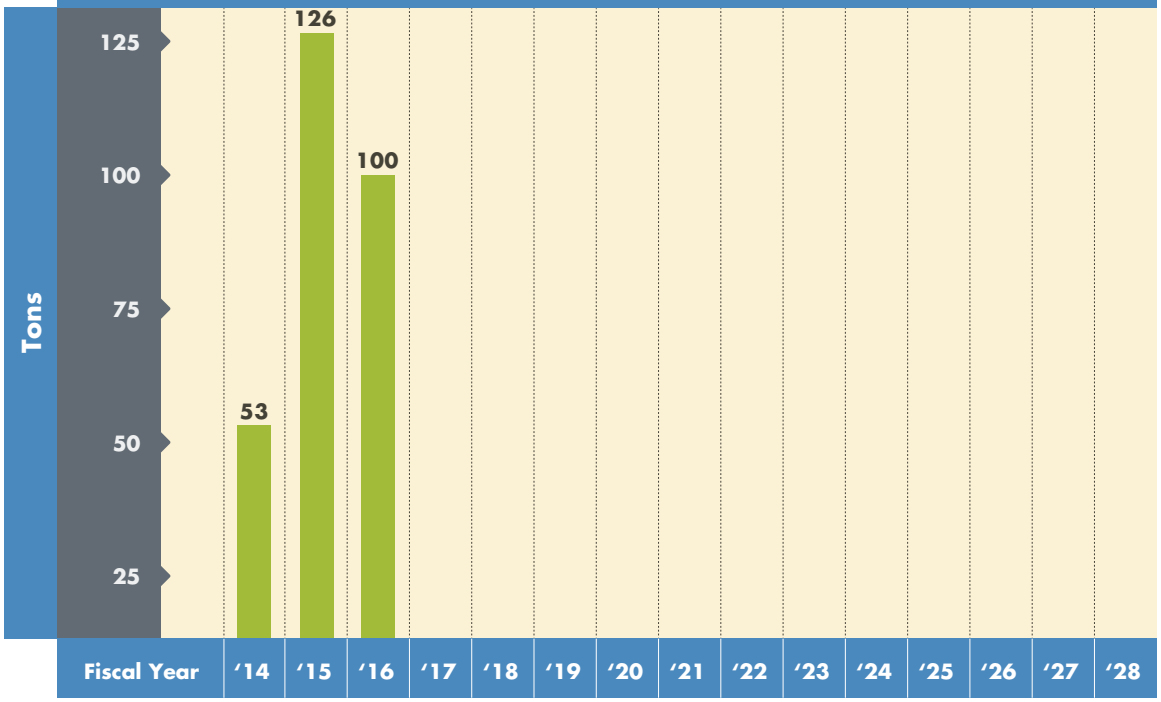
Status for FY16: On Target

Progress on KPI #1:

- Conducted 4 litter cleanup events (1 per quarter), which consisted of removing trash and debris from identified hotspots where the District has fee title. In total, 100 tons (1,405 cubic yards) of debris was removed from 608 sites countywide (Graph B6.1).
- Conducted 4 graffiti cleanup events at multiple sites throughout the county (1 per quarter). The quarterly graffiti cleanup events consist of removing graffiti from identified hotspots and from sites based on inspection or citizen complaint. In FY16, a total of 197,955 square feet of graffiti was covered at 1,728 sites throughout the county.



Graph B6.1 Remove Graffiti and Litter
Tons of Trash and Debris Removed



Progress on KPI #2:

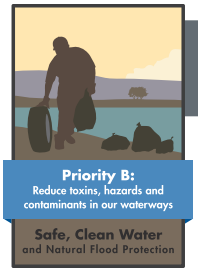
- Logged 235 complaints regarding illegal dumping and trash and 82 complaints regarding graffiti into Access Valley Water (AVW). All AVW complaints were responded to within 5 days or less (1.5 days on average). Each complaint must be assessed to determine whether the reported location is on District property. For graffiti complaints on District property, work was completed within 24 hours of being reported to the outside contractor. For complaints regarding litter cleanup on District property, a pick-up time was scheduled based upon work assignments and staff availability.

Financial Information

Managing the scheduled quarterly cleanup events and responding to 235 complaints resulted in 88% expenditure of the FY16 budget.

Financial Summary ($ Thousands)
B6. Good Neighbor Program: Remove Graffiti and Litter

Fiscal Year 2015-2016					15-year Program	
Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Plan Spent
	Actual	Encumbrance	Total			
$648	$536	$34	$571	88%	$10,038	15%



Opportunities and Challenges

Volunteer Creek Cleanup Partnership Program

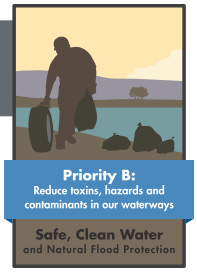
The interest and enthusiasm for volunteer cleanup is very high. Some activities appear to overlap with activities covered in Priorities B2, B3, B4, B6, and B7. To achieve cost-effectiveness and avoid duplication, a Volunteer and Partnership Program is being developed to coordinate the various outreach activities and to optimize the use of the various funding sources.

Contractor services

The pilot program utilizing the services of a contractor for graffiti removal has been a success. The contractor conducted monthly inspections of 5 specific geographic locations with subsequent removal of any graffiti found. Utilizing a computer application for smart phones, the contractor also responded to 1,728 on-call requests resulting in removal of 197,955 square feet of graffiti. Work was completed in less than 24 hours of being reported.

Because of the success of this program, graffiti removal will continue to be addressed by a contractor in FY17.

Graffiti at Montpere Way in Saratoga



Project B7

ON TARGET

Support Volunteer Cleanup Efforts and Education

This project provides grants and partnerships for cleanup, education, outreach and watershed stewardship activities. Funding also allows the District to continue supporting volunteer cleanup activities such as National River Cleanup Day, California Coastal Cleanup Day, the Great American Pick Up, and Adopt-A-Creek, as well as Creek Connections Action Group and creekwise education.

Benefits

- Reduces contaminants entering our waterways and groundwater
- Engages community, and supports watershed stewardship
- Leverages volunteer community resources for efficient use of funds

Key Performance Indicators (15-year Program)

1. Provide 7 grant cycles and 3 partnerships that follow pre-established competitive criteria related to cleanups, education and outreach, and stewardship activities.
2. Fund District support of annual National River Cleanup Day, California Coastal Cleanup Day, the Great American Pick Up; and fund the Adopt-A-Creek Program.

Geographic Area of Benefit: Countywide

Status for FY16: On Target

Progress on KPI #1:

- FY16 was not a grant cycle year; FY17 will be the second grant cycle. In FY16, staff continued to administer the 7 grants that were awarded in FY14. Of those, 2 Grantees made significant progress on their projects (Table B7.1).
  - » Trash Free Coyote Creek Education and Outreach Project was completed and closed.
  - » Four projects are near completion. The Clean Bay Project is on target, however, it has yet to submit an invoice.

Progress on KPI #2:

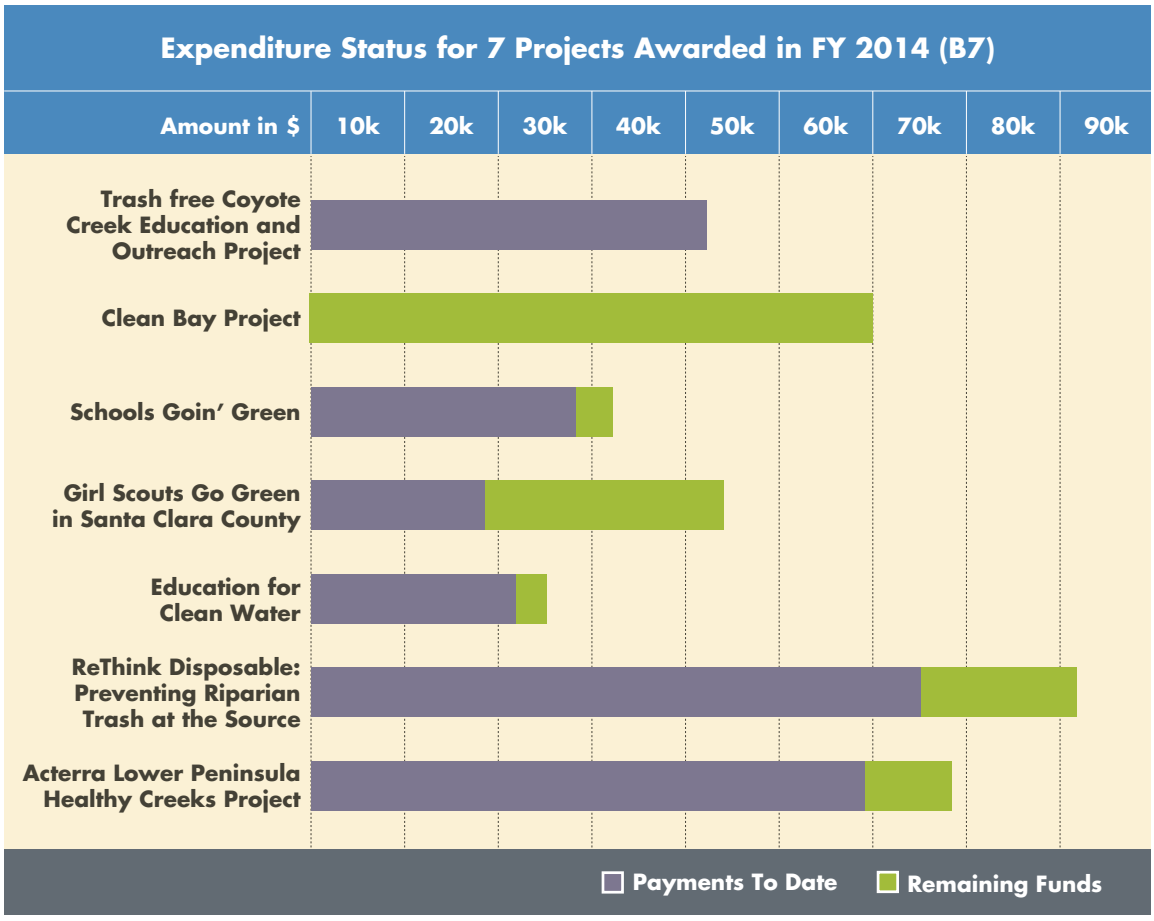
- Continued funding of countywide volunteer cleanup activities (Graph B7.2):
  - » National River Cleanup Day: 1,124 volunteers cleaned 61 miles of creeks and shoreline removing approximately 30,292 pounds (approximately 15 tons) of trash and 3,135 pounds (approximately 1.6 tons) of recyclables.

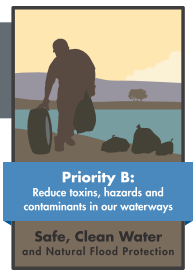
» Coastal Cleanup Day: 1,829 volunteers picked up more than 50,000 pounds (approximately 25 tons) of trash and 2,868 pounds (approximately 1.4 tons) of recyclables along 73.72 miles of creeks in Santa Clara Valley.

» Great American Pickup: the District supported this annual event focusing on picking up litter from city streets, parks and public areas.

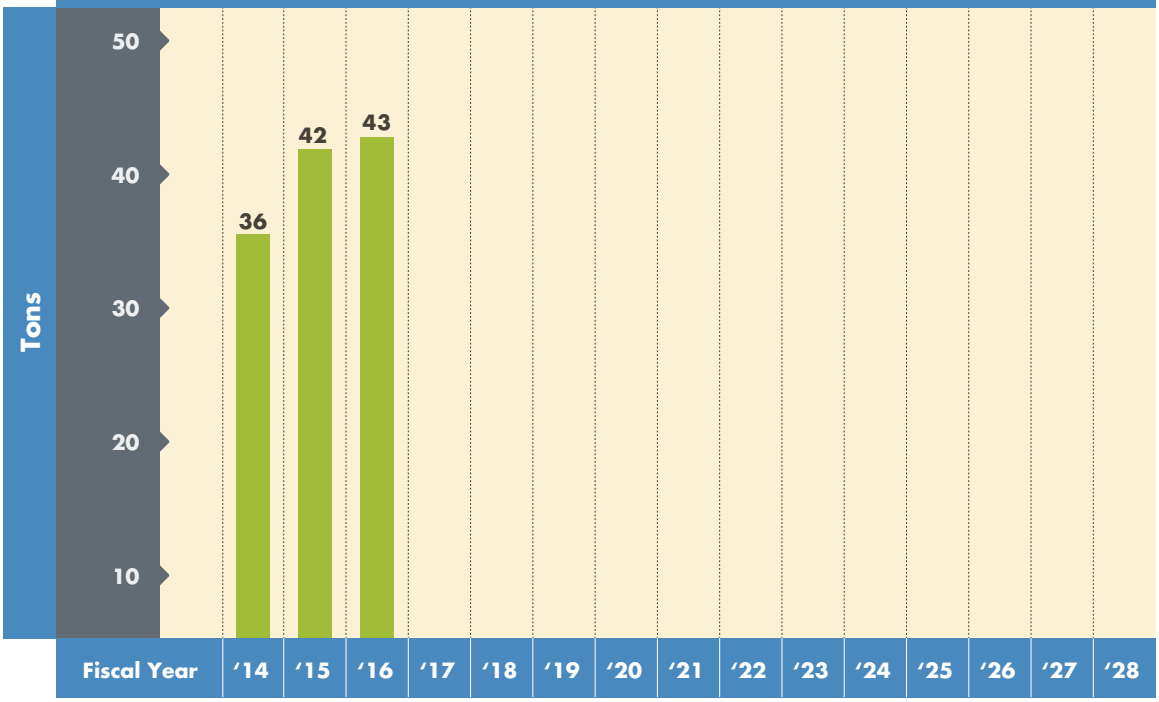
» Adopt-A-Creek (AAC): this program continues to be highly popular with many neighborhood and civic groups. Participation in this program is at 125 adopted sites (an increase of 12 sites from the previous year) with groups committing to host a minimum of 2 cleanup events per year. To date, the District has not received consistent data from its adoptees on the quantity of trash that has been collected. In FY16 a new online system was created, which will make it easier for adoptees to report this information.

Table B7.1





Graph B7.2 Support Volunteer Cleanup Efforts and Education
Tons of Trash and Debris Removed



Financial Information

In FY16, the project was on target with 105% of the total annual budget expended.

Financial Summary ($ Thousands)
B7. Support Volunteer Cleanup Efforts and Education

Fiscal Year 2015-2016					15-year Program	
Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Plan Spent
	Actual	Encumbrance	Total			
$98	$100	$4	$104	105%	$2,430	30%

Opportunities and Challenges

Grants

Of 7 projects awarded in FY14, 2 projects experienced late starts in FY15. In FY16, although Trash Free Coyote Creek Education and Outreach Project completed its work, the need for education and outreach on trash issues along Coyote Creek persists. While grant projects are not set up to address such needs, it is staff's assessment that on-going education and outreach on trash issues is important for minimizing trash along creeks.

Many of the project outcomes produced by the various projects should be replicated in other areas. For example the "Schools Goin' Green" and the "ReThink Disposal: Preventing Riparian Trash at the Source" projects both produced excellent education materials and creative approaches for engaging targeted communities in minimizing trash generation. There is an opportunity to encourage similar proposals to be submitted in FY17 grant cycle.

Volunteer Creek Cleanup Partnership Program

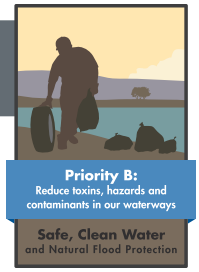
The interest and enthusiasm for volunteer cleanup is very high. Some activities appear to overlap with activities covered in Priorities B2, B3, B4, B6, and B7. To achieve cost-effectiveness and avoid duplication, a Volunteer and Partnership Program is being developed to coordinate the various outreach activities and to optimize the use of the various funding sources.

Adopt-A-Creek (AAC) Program

In Santa Clara County, trash in creeks and waterways continues to be a significant impact to stream water quality and risks from flooding. To address this, in 1994 the District created the AAC program. The program has experienced successful volunteer participation since it began and has seen a steady increase in the number of adopted sites from 113 to 125.

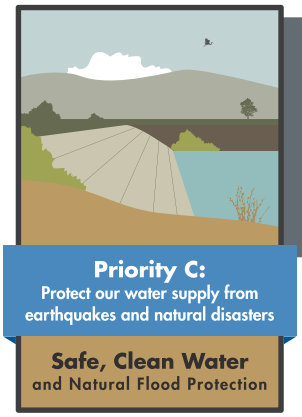
Volunteer activities, like the AAC program, engage and actively involve residents in helping to keep trash out of our rivers, streams, and creeks. Along with the other cleanup events, these programs are successful because of the thousands of volunteers that participate. To make it easier for the community to volunteer, the District implemented administrative improvements in FY16 that allowed volunteers to submit applications online, streamlined the renewal process, and increased communication with volunteers. Additionally, this new online system will make it easier for adoptees to report the amount of trash they collect.

Coastal Cleanup Day at Los Gatos Creek



As an opportunity for continued improvement of the AAC program, the District plans to introduce a recognition event in FY17 for AAC partners and site coordinators with a dual purpose of recognizing their contributions to maintaining clean and healthy creeks, and recruiting new AAC adoptees from the pool of site coordinators from the National River Clean Up Day and Coastal Clean Up Day events.

This page intentionally left blank



Priority C

Protect our Water Supply from Earthquakes and Natural Disasters

Projects under Priority C include retrofitting to protect our water supply infrastructure from the impacts of natural disasters, like earthquakes. It also includes emergency flood response enhancements to improve communication between responders and help reduce damages from floods.

Project C1
Anderson Dam Seismic Retrofit

Project C2
Emergency Response Upgrades

Appendix A: Financials

Appendix B: Inflation assumptions

Project C1

ON TARGET

Anderson Dam Seismic Retrofit

Anderson Reservoir is currently limited to 68% of its capacity due to seismic concerns, costing Santa Clara County valuable drinking water resources. This project covers earthquake retrofitting of Anderson Dam to improve reliability and safety, and returns the reservoir to its original storage capacity.

Anderson Dam creates the county's largest surface water reservoir—Anderson Reservoir—which stores local rainfall runoff and imported water from the Central Valley Project. The reservoir is an important water source for treatment plants and the recharge of the groundwater basin. Besides restoring drinking water supplies, the upgrade also supports compliance with environmental regulations. The District's regular reservoir releases ensure that downstream habitat has healthy flows and temperatures to sustain wildlife.

A breach of Anderson Dam at full capacity could have catastrophic consequences, including inundation of surrounding land more than 30 miles northwest to San Francisco Bay, and more than 40 miles southeast to Monterey Bay.

Anderson Dam

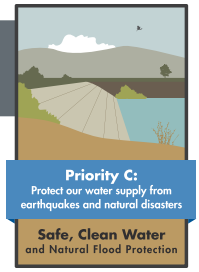
Benefits

- Brings the dam into compliance with today's seismic standards
- Increases reliability and safety of our area's largest reservoir by protecting it from earthquakes
- Eliminates operational restrictions issued by the state Division of Safety of Dams which would restore Anderson Reservoir to its full capacity of approximately 30 billion gallons, regaining 32% or 9.3 billion gallons of water storage for our current and future water supply
- Ensures compliance with environmental laws requiring reservoir releases that maintain appropriate flows and temperatures to support downstream wildlife habitat
- Minimizes the risk of uncontrollable releases from the reservoir which could cause downstream flooding

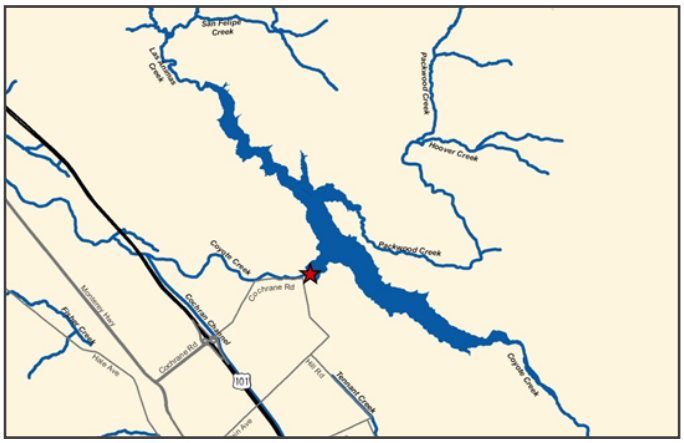
Key Performance Indicator (15-year Program)

1. Provide portion of funds, up to $45 million, to help restore full operating reservoir capacity of 90,373 acre-feet.

Geographic Area of Benefit: Countywide

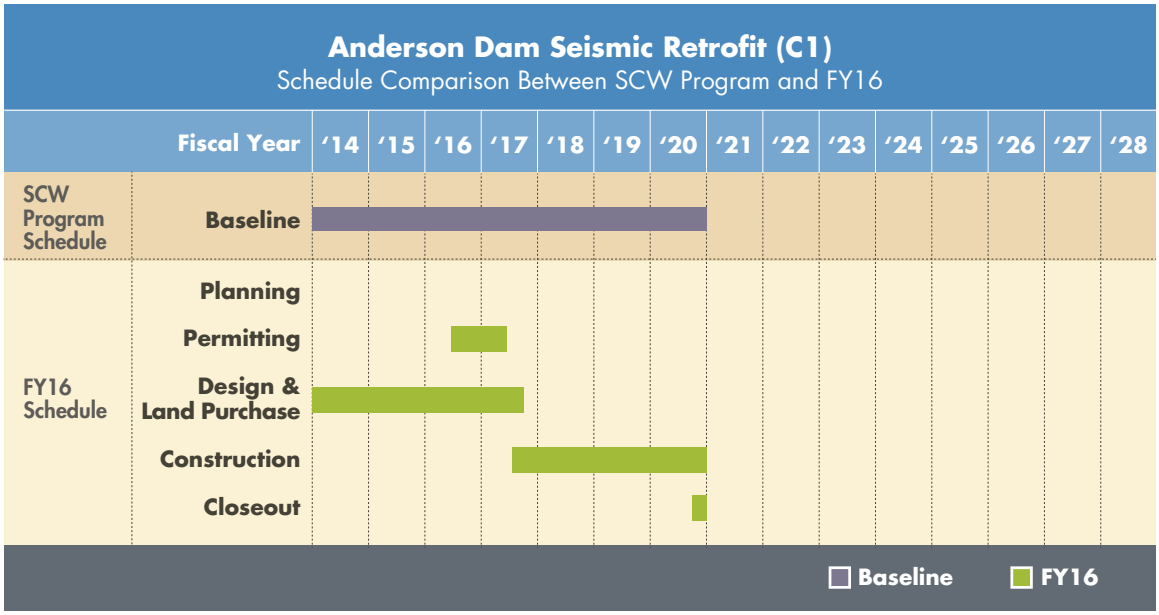


Project Location



★ Project Location

Schedule



Status for FY16: On Target

Progress on KPI #1:

- In May 2015, the Board approved, as part of its annual groundwater production charge setting, that $14 million of Safe, Clean Water funding be transferred to the Water Utility Enterprise Fund as reimbursement for the Anderson Dam project in FY16 instead of the Safe, Clean Water-scheduled $15 million transfer in FY18. The purpose of this earlier transfer was to offset the groundwater production charge increase for FY16.
- Project design work continued in FY16. Phase 2 geotechnical and geologic investigations were conducted between November 2015 and May 2016 to obtain

more information on some unexpected findings in the Phase 1 investigations completed in December 2014. The Board of Directors was informed in June 2016 that the results of the Phase 2 investigations, as well as determinations from other technical workshops held during this year, may require more extensive earthwork on the existing embankments to address seismic deficiencies.

Financial Information

The total Safe, Clean Water Program funding level for this project was presented in 2012 dollars at $45 million; however, this amount is subject to inflation and the inflated amount is $67.1 million. These funds will reimburse the Water Utility Enterprise Fund for the Anderson Dam Seismic Retrofit Project and will be distributed in 2 payments; the first payment of $14 million was transferred in FY16, and the remainder is scheduled to be transferred in FY28. The Program has been designed to collect sufficient revenues to account for project cost increases due to inflation.

Opportunities and Challenges

Permits

The proposed project is a covered activity under the Santa Clara Valley Habitat Plan, and the Habitat Plan will provide the federal Endangered Species Act and state Natural Community Conservation Planning Act compliance for several special-status species the project may affect, including California tiger salamander, California red-legged frog, and Coyote ceanothus. Consistent with Habitat Plan requirements, the District plans to consult with wildlife agencies when project-specific design and construction details are 60% complete.

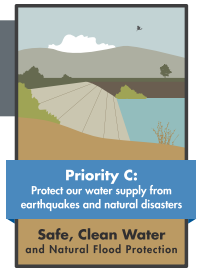
Additionally, Coyote Creek downstream of Anderson Dam is designated critical habitat for Central California Coast steelhead and Essential Fish Habitat for Chinook salmon. Early coordination with resource agencies indicates potential construction-related water quality concerns, fish passage considerations, and operational effects will require appropriate evaluation.

The Environmental Impact Report, estimated to be completed in June, 2018, will further evaluate the magnitude of impacts of implementation of the project. The District will continue to engage natural resource agencies through development of environmental documentation to support natural resource permitting efforts.

Confidence levels:

Schedule: Moderate confidence

Some schedule adjustment for start of construction may be necessary once the final retrofit project work is defined in mid-FY17.



Funding: High confidence

The total project cost (current estimate is $200 million) is in the District's 5-year Capital Improvement Program.

Permits: Moderate confidence

There are numerous permits from different agencies that will be required for this project, including; the Federal Energy Regulatory Commission, Department of Water Resources Division of Safety of Dams, United States Army Corp of Engineers, National Marine Fisheries, Mine Safety and Health Administration, California Department of Fish and Wildlife, California Department of Industrial Relations/California Occupational Safety and Health, Regional Water Quality Control Board, State Water Board, and the Valley Habitat Plan. The schedule for some of these permits cannot be easily predicted.

Jurisdictional Complexity: N/A

Project C2

ON TARGET

Emergency Response Upgrades

This project covers the development of an automated flood warning system that uses real-time rainfall data to predict stream flows and potential flood risk. The system efficiently disseminates information to emergency responders and the public using the web, text, automated calls and other technologies, allowing more time to activate flood-fighting measures and reduce flood damage.

Benefits

- Enhances interagency response to storm-related emergencies
- Improves the accuracy of flood forecasting services
- Helps municipalities and neighborhoods lessen flood impacts
- Maintains access to technical resources that assist municipalities with floodplain management
- Promotes community awareness of flood risks
- Implements risk reduction strategies consistent with the Federal Emergency Management Agency's (FEMA) Community Rating System as appropriate

Key Performance Indicator (15-year Program)

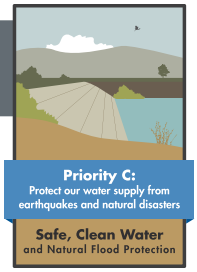
1. Map, install, and maintain gauging stations and computer software on seven flood-prone reaches to generate and disseminate flood warnings.

Geographic Area of Benefit: Countywide

Status for FY16: On Target

Progress on KPI #1:

- In FY16, the District added flood forecast systems for Uvas Creek and Lower Silver Creek. Together with the West Little Llagas Creek, Upper Guadalupe River and San Francisquito Creek systems, 5 of the 7 required flood-warning systems are now complete.
  - » The flood-warning system was tested again during the 2015-2016 winter season. The application performed satisfactorily and additional data points were collected. Issues with automation were fixed and additional areas of improvement identified for further development.
  - » The system was improved by upgrading to real time Gauge Adjusted Radar Rainfall (GARR) data from point gauge data to improve the input data source for the forecast modeling.



Financial Information

In FY16, project spending was on track with 102% of the annual budget expended.

Financial Summary ($ Thousands) C2. Emergency Response Upgrades						
Fiscal Year 2015-2016					15-year Program	
Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Plan Spent
	Actual	Encumbrance	Total			
$392	$394	$4	$398	102%	$3,357	26%

Opportunities and Challenges

Rainfall Forecast

From our live tests over the past 2 years, forecasting rainfall accurately is still the largest hurdle to providing accurate flood forecast. The District relies on outside consultants to provide this information, who in turn rely on the National Weather Service (NWS) data. The varying algorithms and techniques used by consultants and NWS to predict rainfall are constantly being improved and the District is in contact with NWS on these subjects.

Robust Hydrologic Modeling

The District will use the past 2 storm year's worth of experience to continue to work on improving the current hydrologic models. Many times, the models need to update quickly during a storm event to respond to rapidly changing weather conditions and calibrate in real time. A simpler system will help the system to adapt during storm events for better forecasts.

X-Band Radar Technology

In FY16, the District had an opportunity to partner with Colorado State University (CSU) and National Oceanic and Atmospheric Administration on a pilot project using X-Band Doppler radar to improve forecasting rainfall amount. X-Band Doppler radars use shorter wavelengths and are expected to produce higher resolution imagery at the expense of range when compared to traditional Doppler radars. The radar was able to collect a few months of data before being sent back to CSU. Data from this pilot project is being analyzed by CSU, and findings may provide valuable insights into better forecasting and quantification of rainfall.

This page intentionally left blank

Priority D

Restore Wildlife Habitat and Provide Open Space

The 8 projects under Priority D restore and protect vital wildlife habitat and provide opportunities for increased access to trails and open space. Funding for this priority pays for control of non-native, invasive plants, revegetation for native species, and maintenance of previously revegetated areas. Other projects include removal of fish barriers, improvement of steelhead habitat and stabilization of eroded creek banks.

To support these and future restoration projects the District would create a comprehensive, updated database on stream conditions countywide. The District and other agencies could then use the new information to make informed decisions on where and how to use restoration dollars so they have the greatest value for wildlife.

Project D1
Management of Revegetation Projects

Project D2
Revitalize Stream, Upland and Wetland Habitat

Project D3
Grants and Partnerships to Restore Wildlife Habitat and Provide Access to Trails

Project D4
Fish Habitat and Passage Improvement

Project D5
Ecological Data Collection and Analysis

Project D6
Creek Restoration and Stabilization

Project D7
Partnerships for the Conservation of Habitat Lands

Project D8
South Bay Salt Ponds Restoration Partnership

Appendix A: Financials

Appendix B: Inflation assumptions

Appendix C: Grantee information for Project D3

Project D1

ON TARGET

Management of Revegetation Projects

This project supports District maintenance of at least 300 acres of existing revegetation projects throughout the 5 watersheds, and provides for maintenance of future revegetation sites. Funding for this project ensures that design objectives of all revegetation projects are maintained during the establishment period so that mitigation results in functional habitat that can support wildlife.

Benefits

- Maintains 300 acres of existing revegetation
- Allows the District to monitor plant survival and habitat functions
- Complies with environmental laws requiring habitat mitigation for flood protection and water supply projects
- Provides for maintenance of future revegetation sites

Key Performance Indicator (15-year Program)

1. Maintain a minimum of 300 acres of revegetation projects annually to meet regulatory requirements and conditions.

Geographic Area of Benefit: Countywide

Status for FY16: On Target

Progress on KPI #1:

- In FY16, the District maintained 307 acres of revegetation projects. Maintenance work included invasive weed control and irrigation of 41 newer sites, which require more maintenance, and 132 established sites, which require a lower level of maintenance, throughout all 5 watersheds in Santa Clara County.

Financial Information

In FY16, 48% of the annual budget was expended to meet the target. The District was able to meet its KPI at this low expenditure because lower levels of maintenance were required due to the deferment of all new plantings in FY15 and FY16 in response to the drought and the Phytophthora (plant pathogen) issues. In addition to having to catch up on the deferred plantings, the District anticipates that the regulatory agencies will require new plantings to mitigate for projects in the coming fiscal years, which will result in a significant increase in the required maintenance as they will need regular watering and weed control to reduce plant competition. The District expects to be on track with its financial expenditures in the coming fiscal years.

Priority D: Restore wildlife habitat and provide open space
Safe, Clean Water and Natural Flood Protection

Financial Summary ($ Thousands) D1. Management of Revegetation Projects						
Fiscal Year 2015-2016					15-year Program	
Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Plan Spent
	Actual	Encumbrance	Total			
$968	$470	$0	$470	48%	$22,529	8%

Opportunities and Challenges

Resources

This fiscal year, the KPI was met by supplementing available staff resources with a significant amount of outsourced labor. While this allowed the District to meet its KPI, the use of outsourced labor is not sustainable. To address this, the District Board approved 2 new Maintenance Worker I (MWI) positions in the fourth quarter of FY16.

Ongoing drought

While rainfall totals improved in FY16, it could take at least 2 years of similar wet conditions before the drought can be considered over since California has essentially missed 2 years' worth of rain.

In FY16, the District informed the regulatory agencies that due to the drought and Phytophthora (plant pathogen) issues our agency would not be installing new riparian planting sites. Despite this, increased maintenance is required at the existing 41 sites in order to ensure survival of vegetation under the prolonged drought conditions over the past 4 years. This was addressed through the use of additional contract maintenance workers and the addition of 2 new MWI positions to meet the increased labor need.

Revegetation at Calabazas Creek

New Stream Maintenance Program (SMP2) permits

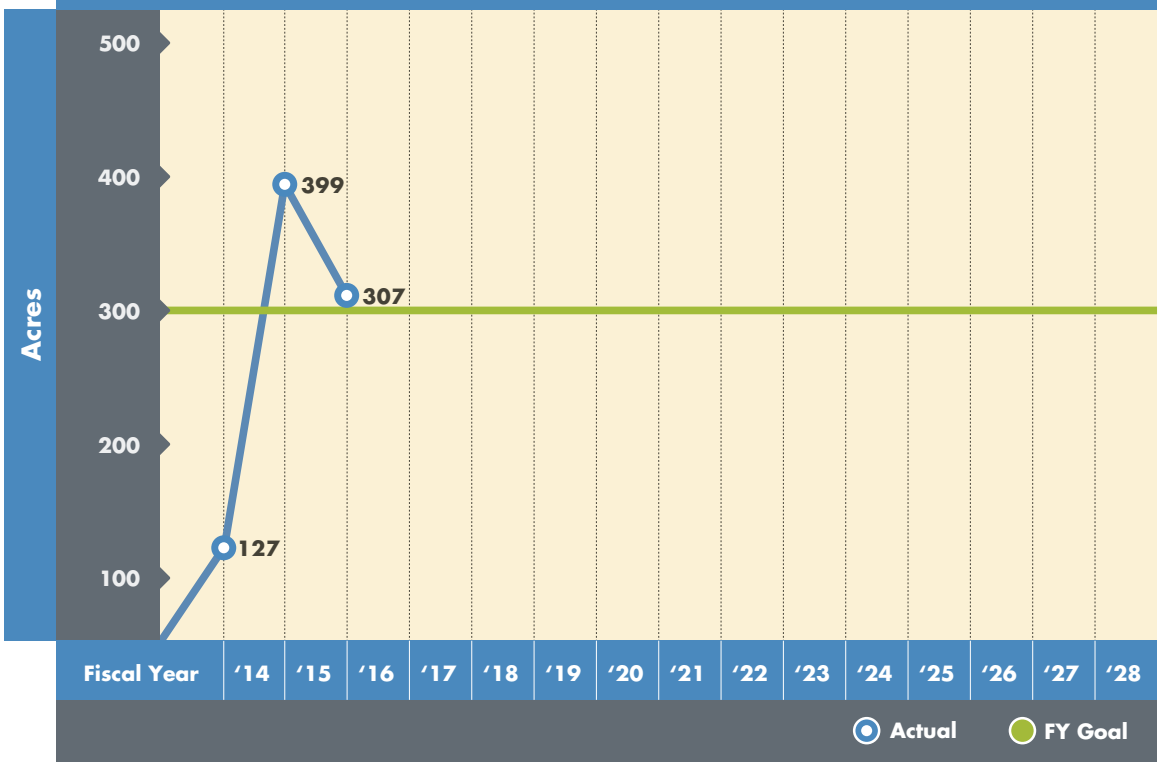
The SMP2 permits require an increased level of mitigation. The District plans to use a combination of newly approved staff and additional contract labor to supplement existing District labor resources to comply with the increased mitigation requirements while minimizing costs.

Priority D:
Restore wildlife habitat and provide open space

Safe, Clean Water and Natural Flood Protection

Graph D1.1 Acres of Revegetation

Acres of Annual Revegetation Maintenance



Project D2

ON TARGET

Revitalize Stream, Upland and Wetland Habitat

This project allows the District to remove non-native, invasive plants and revegetating habitat with native species when needed. Funding also restores degraded habitat between revegetated sites to create a more contiguous habitat corridor for wildlife. This project includes targeted control of especially damaging non-native, invasive plant species such Arundo donax, and education for nearby landowners and other stakeholder groups on the control of harmful species. This project also helps implement the Stream Corridor Priority Plans developed in Project D3.

Benefits

- Increases viability of native riparian species by reducing competition from non-native, invasive species
- Improves habitat by installing tidal and riparian plant species
- Improves ecological function of existing riparian and wetland habitats to support more diverse wildlife species
- Improves patchy wildlife corridors by increasing connectivity of habitat
- Increases community awareness about the damaging impact that non-native, invasive plants have on local ecosystems

Key Performance Indicators (15-year Program)

1. Revitalize at least 21 acres, guided by the 5 Stream Corridor Priority Plans, through native plant revegetation and removal of invasive exotic species.
2. Provide funding for revitalization of at least 7 of 21 acres through community partnerships.
3. Develop at least 2 plant palettes for use on revegetation projects to support birds and other wildlife.

Geographic Area of Benefit: Countywide

Status for FY16: On Target

Progress on KPI #1:

- The District is working toward exceeding its 5-year target of revitalizing at least 7 acres of native habitat via native plant revegetation and removal of invasive, exotic plant species. The Project is currently revitalizing approximately 14 acres of native riparian and salt marsh habitats in Santa Clara County:

- » Removed 2.2 acres of invasive and non-native woody vegetation along the lower Guadalupe River to meet flood protection design conditions near Mineta San José International Airport and Montague Expressway;
- » Controlled nearly 8 acres of invasive plants along Stevens and Saratoga creeks in coordination with the District's Stream Maintenance Program (SMP); and
- » Treated 4 acres of smooth cordgrass (invasive Spartina alterniflora) in South San Francisco Bay.

In response to a recommendation made by the Safe, Clean Water Program's Independent Monitoring Committee (IMC), figures of the habitats being revitalized, showing extent of invasive and non-native plant cover, were added to the Project D2 web site (http://www.valleywater.org/SCW-D2.aspx).

The Stream Corridor Priority Plans (SCPPs) are a KPI under Safe, Clean Water Project D3 with its 5-year target to develop 2 plans by the end of FY18. Until the SCPPs are completed, the District prioritizes D2 habitat revitalizations by selecting areas where invasive or non-native vegetation has at least 1 of the following characteristics:

a. Impacts sensitive plant or animal communities, especially habitats on federally endangered steelhead (Oncorhynchus mykiss) estuaries, creeks and rivers;

b. Reduces hydraulic flow conveyance;

c. Recommended for removal by the U. S. Army Corps of Engineers for levee stability and flood protection;

d. Grows adjacent to, but not within, existing District mitigation or revegetation sites; and

e. Revitalizes the functionality of riparian and tidal habitat by removing invasive Spartina.

Progress on KPI #2:

- The District made the following efforts to establish partnerships with the 15-year target to provide funding for revitalization of at least 7 acres through community partnerships:
  - » Drafted a Memorandum of Understanding (MOU) with Santa Clara County Parks for a partnership to control invasive vegetation, revitalize native habitat, and explore the feasibility of a joint use native plant nursery. The nursery could propagate native plants for D2 revitalized habitats, and serve as a demonstration, outreach, and educational native plant facility.
  - » Completed invasive Spartina removals funded by the Clean, Safe Creeks and Natural Flood Protection partnership with the California Wildlife Foundation, San Francisco Estuary Invasive Spartina Project, and U. S. Fish and Wildlife Service (FWS) Don Edwards San Francisco Bay National Wildlife Refuge (DENWR). The District met in FY16 with FWS, DENWR, and California Coastal Conservancy consultant about D2 cooperative efforts to revitalize salt marsh and ecotone

habitats. Future work may include increased habitat connectivity for salt marsh species through expansion and creation of native transitional and upland refugia habitat, which are essential as sea levels rise.

» The District initiated discussions with the Midpeninsula Regional Open Space District (MPROSD) about partnering to restore native habitats important as wildlife corridors or wildlife habitat connections.

Progress on KPI #3:

- Five (5) plant palettes were developed and are available on the D2 website for use on revegetation projects, or in native gardens. In response to a recommendation made by the IMC, 2 additional plant palettes were added to the D2 webpage to support birds and other wildlife. The palettes have links to ecological information and wildlife values with a number of references.

Also in response to a recommendation made by the IMC, the District is increasing its focus on habitat corridors for wildlife. District biologists created plant palettes for native bees and butterflies, and native plants for wildlife, which are available on the D2 website. The District is exploring partnerships and cooperative working relationships with current wildlife corridor, or habitat connectivity studies, such as research by DeAnza College, Santa Clara Valley Habitat Plan, Coyote Valley Linkage Assessment, California Central Coast Connectivity Project, Pajaro Connectivity Study, and Highway 17 Wildlife Connectivity Improvement Study, the latter with MPROSD.

Financial Information

Project D2's emphasis in FY16 and at present is exploring partnerships. Other ongoing tasks are habitat mapping in cooperation with SMP, planning, prioritizing, and permitting, which are required to implement KPIs 1 and 2. As a result, only 28% of the annual budget was expended. Partnership opportunities are being developed and information is being generated for the SCPPs, which should result in increased spending in FY17.

Financial Summary ($ Thousands)
D2. Revitalize Stream, Upland and Wetland Habitat

Fiscal Year 2015-2016					15-year Program	
Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Plan Spent
	Actual	Encumbrance	Total			
$693	$193	$0	$193	28%	$18,190	2%

Opportunities and Challenges

Mapping techniques and partnerships

Opportunities for D2 include developing GIS and remote sensing techniques to map large areas of dominant vegetation types. This work begun in FY15 is closer to being realized. The numerous sites that could benefit from revitalized native habitats need to be identified, mapped, inventoried, and prioritized. The District has a proposal from the San Francisco Estuary Institute (SFEI) for a remote sensing workshop and funding mechanism in place with the recent MOU.

The District continues to pursue partnerships, with greater emphasis on connectivity of wildlife habitats, as mentioned. Progress has been made in FY16 to establish partnerships with public agencies that manage large areas of land, which could most benefit the county's wildlife.

Drought impacts

While Santa Clara County received more rainfall in FY16, the impact of the severe to extreme drought that extended through 2015 has resulted in Santa Clara County still being classified as abnormally dry to an extreme drought (see http://droughtmonitor.unl.edu/Home/StateDroughtMonitor.aspx?CA).

The drought impacts current and planned habitat revitalizations in a number of ways; including lack of water for establishing native plants, and limited to no irrigation as water supplies are conserved for essential uses. Current drought conditions combined with predicted climate change suggest we may be facing a new set of "normal" circumstances that are much drier than the past. Even in a wet year, the impact of the ongoing drought can result in very poor watershed and soil moisture recharge, leading to little to no stream flows and very poor soil moisture conditions.

Vegetation Removal in Lower Guadalupe River

Water molds (Phytophthora spp.)

The District and its consultant, a leading plant pathogen expert, continue to identify new species and extensive areas infected by water molds (Phytophthora spp.) in Santa Clara County. Water molds are responsible for sudden oak death and historic potato famines. Infection can lead to root rot, resulting in aboveground symptoms of wilting, leaf chlorosis (yellowing), leaf necrosis (browning), premature leaf fall and plant death.

Both the drought and water molds curtail planting native species for habitat revitalization until sufficient irrigation, and methods to prevent further pathogen introduction are available. The District continues to implement a plant pathogen testing program, developed best management practices (BMPs) for the District, contractors, and nurseries, and conducts educational outreach in attempts to understand and control the spread of water molds.

Project D3

ON TARGET

Grants and Partnerships to Restore Wildlife Habitat and Provide Access to Trails

This project provides grants and partnerships for activities such as developing Stream Corridor Priority Plans; creating or enhancing wetland, riparian and tidal marsh habitat; protecting special status species; removing fish migration barriers; installing fish ladders; removing non-native, invasive plant species; and planting native species. The project includes 7 grant cycles, 1 held approximately every other year during the 15-year duration of the Safe, Clean Water Program, as well as funding for partnerships that restore stream and wetland habitat and provide open space access. This project also funds work that provides access to creekside trails or trails that provide a significant link to the creekside trail network, for example, the possible construction of a bridge over Coyote Creek in the Rockspring neighborhood.

Benefits

- Enhances creek and bay ecosystems
- Improves fish passage and habitat
- Expands trail and open space access
- Leverages community funding through grants
- Increases collaborations and partnerships for stewardship activities with cities, the County, nonprofit organizations, schools and other stakeholders

Key Performance Indicators (15-year Program)

1. Develop 5 Stream Corridor Priority Plans to prioritize stream restoration activities.
2. Provide 7 grant cycles and additional partnerships for $21 million that follow pre-established criteria related to the creation or restoration of wetlands, riparian habitat and favorable stream conditions for fisheries and wildlife, and providing new public access to trails.

Geographic Area of Benefit: Countywide

Status for FY16: On Target

Progress on KPI #1:

- Stream Corridor Priority Plans (SCPPs) are in development as a part of the Integrated Water Resources Master Plan, which is a major District planning effort currently underway. As part of the planning effort, in FY16, a partnership was established with the Aquatic Science Center (ASC) a joint powers authority affiliated with the

San Francisco Estuary Institute (SFEI). ASC will partner with the District to assist in the development of various tools used by the master plans for all 5 major watershed areas. The SCPPs will be prepared as a product of the master planning effort.

Progress on KPI #2:

- The FY16 grants and partnerships program funding cycle was the second of 7 wildlife habitat restoration cycles. To allow more time to solicit proposals and develop agreements, the cycle was started toward the end of FY15. By December, the District had received and evaluated 6 grant proposals, 4 of which the District recommended and the Board approved for award.
- On December 8, 2015, due to lack of responses, the Board extended the solicitation period and approved the addition of planning and feasibility study proposals to the FY16 grant cycle.
- The 2 grant proposals that were not recommended for approval were resubmitted, along with 9 new proposals for the Board's review on June 28, 2016. The Board voted to award all 11 grant proposals.
- In total, 15 grants totaling $1,981,450 were awarded in FY16 to restore wildlife habitat. (Table D3.1).

As part of the overall evaluation process, the Board considers and determines final grant awards. As part of the Board's deliberations, a formal appeal process will be defined and included in the grant guidelines.

Financial Information

In FY16, 68% of the annual budget was expended. This was due to the extended award date of June 28, 2016, which did not allow sufficient time to process the 11 grant agreements and encumber the funds prior to the close of the fiscal year.

Financial Summary ($ Thousands)
D3. Grants and Partnerships to Restore Wildlife Habitat and Provide Access to Trails

Fiscal Year 2015-2016					15-year Program	
Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Plan Spent
	Actual	Encumbrance	Total			
$2,172	$167	$1,302	$1,468	68%	$24,092	18%

Table D3.1: Grants to Restore Wildlife Habitat

Grantee	Project	Description	Awarded	Total Cost
Trout Unlimited	Lower Uvas-Carnaderos Creek Agricultural Wet Fort Alternative Design	This partnership will result in the design of a free span bridge and the abandonment of the existing bridge. This would eliminate the fish migration barrier and improve water quality and riparian conditions. The District's contribution will provide a matching fund for a state grant application.	$24,450	$115,000
West Valley College	West Valley College Wildcat Creek Native Vegetation Enhancement	Remove approximately 2 acres of invasive, non-native vegetation within the WVC campus and re-vegetate the area with native species, propagated from a collection of native vegetation planted on campus during past native re-vegetation efforts on campus.	$165,000	$247,707
Acterra	Arastradero Creek Watershed Enhancement	Install 2,000 linear feet of swale-and-berm structures on contour in the basin feeding Arastradero Creek, and low step structures to raise the groundwater table; remove invasive plant species along 1,000 linear feet of Arastradero Creek and plant a diversity of native species in their place to increase native vegetation and support wildlife.	$107,561	$217,566
Acterra	Byrne Preserve Riparian Enhancement	Restore a degraded tributary to Moody Creek located in Byrne Preserve. The work includes community engagement and education, monitoring of vegetation and channel geometry, invasive plant removal, and native plant re-vegetation.	$136,469	$231,812
Midpeninsula Regional Open Space District	Hendrys Creek Restoration Project	Enhance 3/4 miles of the watershed through removing 14 in-stream structures; invasive plants from 4.44 acres of canyon; and by installing 0.33 acres of watershed specific, contract grown riparian and upload plants along the impacted creek banks and former road; and seeding 1.5 acres with native grasses, acorns and buckeye seeds on the former building pads, and improving the road located along the creek and tributaries.	$484,650	$762,546
Loma Prieta Resource Conservation District	Sycamore Alluvial Woodland Restoration Phase II—Feasibility	This project includes a propagation study designed to test techniques to produce California sycamore seedlings vegetatively for use in a pilot restoration project. Study results will be shared through a high-quality PowerPoint presentation and distributed to all interested parties in the broader restoration and nursery community.	$79,953	$142,797
Working Partnerships	Coyote Creek Creek Invasive Plant Removal and Revegetation	Prepare a plan for a project to remove invasive plants from the Coyote Creek Watershed and re-vegetate areas of the creek with native plants. The project will hire homeless individuals or formerly homeless individuals in transition housing to do the work.	$24,750	$33,000

Table D3.1 cont.: Grants to Restore Wildlife Habitat

Grantee	Project	Description	Awarded	Total Cost
City of Mountain View	Permanente Creek Watershed Enhancement Project	Project will involve the removal of trash and non-native invasive plants along 2,350 linear feet of Permanente Creek. One thousand local watershed plants will be revegetated along the creek providing habitat enhancement for multiple riparian species, special emphasis will be placed on enhancing habitat for two special status species: burrowing owls (foraging habitat) and the San Francisco common yellowthroat (nesting and foraging habitat). This project will provide a unique educational opportunity for the local community, businesses and several educational establishments who will volunteer on this project along with Santa Clara Valley Audubon Society and Acterra.	$43,920	$64,582
Save The Bay	Palo Alto Baylands Tidal Lagoon Transition Zone Habitat Restoration Project	Save The Bay will restore and enhance 1.25 acres of high value tidal marsh transition zone habitat at this site immediately adjacent to existing tidal salt marsh in the Palo Alto Baylands Nature Preserve. It will create or improve crucial habitat that provides connectivity and refugia for waterfowl, shorebirds, and other species such as the federally-endangered Ridgway's Rail and salt marsh harvest mouse. Our project is ready to implement and will increase the adaptive capacity and resilience of tidal marsh species by enhancing the plant community and wildlife habitat both now and in light of future predicted sea level rise scenarios.	$95,868	$233,574
City of Santa Clara	Ulistac Restoration 2016 Project	Ulistac Natural Area is a 40 open space preserve bordering Guadalupe Creek. Ulistac Restoration 2016 Project will improve trails and ramp access to the levee, restore 1.2 acres of riparian habitat along the Guadalupe River and enhance 1.26 acres of Live Oak Woodland habitat through removal of invasive non-native plants and trees, planting of native species, and documentation of native tree survival. Grant matching funds (25%) will be provided through City of Santa Clara CIP fund #3179 ($25,000) and volunteer labor donation (6450 hours, or $77,400 equivalent), in cooperation with Ulistac Natural Area Restoration & Education Project, Inc. and partnership with Santa Clara University Department of Environmental Studies and Sciences and Santa Clara Audubon Society. (Authorized by City Resolution #16-8301.)	$165,249	$291,679
Friends of Stevens Creek Trail	Stevens Creek Steelhead Passage Improvement Project	Conduct a Phase 1 study plan to (1) analyze alternatives and identify a preferred alternative for improving fish passage and (2) develop alternatives and identify a preferred alternative to improve fish migration at project sites.	$52,162	$76,237

Table D3.1 cont.: Grants to Restore Wildlife Habitat

Grantee	Project	Description	Awarded	Total Cost
San Francisco Bay Bird Observatory	Establishing Forster's Tern Nesting Colonies for the South Bay Salt Pond Restoration Project Using Innovative Technologies	This project will deploy and maintain 300 decoys and 6 electronic call systems during the 2017 and 2018 breeding seasons (March-August) to attract birds to nest. Findings will be shared with the Don Edwards San Francisco Bay National Wildlife Refuge and the South Bay Salt Pond (SBSP) Restoration Project's outreach program; through Project's website, newsletter, and presentations at stakeholder meetings. Using innovative technologies, this project aims to establish a healthy nesting population of at-risk Forster's terns in Alviso Pond A16 on the Don Edwards San Francisco Bay National Wildlife Refuge. Benefits of this project include attraction of 50 or more Forster's tern breeding pairs to Alviso Pond A16 and establishment of nesting colonies with nest success rates of 60% or more.	$217,032	$517,533
City of San José	Evergreen Creek Corridor Restoration	The City will correct the poor placement of outlets in the sedimentation basin above the project sites and restore vegetation. District funded work will focus on removing 6.2 acres of non-native landscape ; establishing irrigation and planting native plants along Quimby Creek and Upper Fowler Creek.	$191,041	$664,686
Children's Discovery Museum of San Jose	Bill's Backyard: Bridge to Nature	CDM is developing a 27,500 square foot outdoor space named Bill's Backyard: Bridge to Nature. It will feature a tree structure to climb up, a hillside to roll down with tunnels to crawl through, a dig pit to shovel in, a dry creek bed to explore that mimics the adjacent Guadalupe River, and areas to build with natural materials like willows, reeds and grasses. Families will also have the chance to see demonstration projects and sustainability solutions up-close, providing xeriscape ideas to consider for use in their own backyards, such as permeable hardscape, drought-tolerant and native plants, rain gardens to retain surface water, water collection systems and solar panels. The District funds will support the work for eliminating all grass and plant native plants for increased bio-diversity in the riparian environment and attract beneficial insects, migratory birds, small mammals and even Monarch butterflies.	$142,771	$2,291,0062
Santa Clara Valley Chapter of the California Native Plant Society	Plant Pathogen Training and Education at CNPS Nursery	Develop instructional/training videos to educate nursery professionals in pathogen control Best management practices (BMPs); promote safe use of California native plants through outreach and education events hosted by the California Native Plant Society (CNPS) throughout Santa Clara Valley Watersheds, and provide a demonstration and training sites at CNPS Nursery in Hidden Villa, Los Altos Hills, to implement plant pathogen control BMPs onsite, to share successes and lessons with other nurseries, and train volunteers and the larger community in pathogen control best practices.	$50,574	$70,993
TOTAL			**$1,981,450**	**$5,960,774**

Opportunities and Challenges

Plant pathogen

In January 2015, the District became aware of a water mold pathogen Phytophthora which is related to Sudden Oak Death. This plant pathogen was identified in Santa Clara County. It posed a significant risk to the habitat restoration efforts covered by existing and future grant/partnership agreements. The District continues to implement a plant pathogen testing program, developed best management practices (BMPs) for the District, contractors, and nurseries, and conducts educational outreach in attempts to understand and control the spread of water molds.

Some grantees initiated implementation of District's best management practices and nursery specifications to minimize the spread of Phytophthora. One (1) grantee completed a site walk in its nursery and developed practical approaches for site setup, self monitoring and site maintenance.

Board direction

Addition of Planning and Feasibility Studies

Proposals received during first round of solicitation did not fully expend the budgeted amount of grant funds. On December 8, 2015, the Board directed staff to extend the RFP to March 18, 2016 and to include planning and feasibility studies in the 2nd round of solicitation. Staff developed a set of streamlined criteria for planning and feasibility studies proposals. The Board approved additional projects on June 28, 2016, to fully expend the amount. In order to fully execute the agreements during FY16, CEQA documentation and grant agreement negotiation were initiated prior to Board's approval.

In future grant cycles, 2 deadlines will be provided in the initial proposal solicitation outreach schedule in case additional proposals would be needed to fully expend the funds. Also, planning and feasibility proposals will be included.

Pilot Mini-grant Program

On March 15, 2016, the Board also directed staff to include a pilot mini-grant program in FY17.

The pilot program is designed to provide seed funding to encourage broader and long-term community engagement in wildlife habitat restoration and watershed stewardship activities in Santa Clara County. The pilot mini-grant is not designed to cover all expenses associated with an activity but rather a portion to kick start stewardship activities. Eligible activities include tangible educational activities and small scale physical improvements. The Board approved the proposed Pilot Mini-grant Program for an amount of $200,000.

Comprehensive Grant Program Review

On March 15, 2016, the Board conducted a Comprehensive Review of the Safe, Clean Water Grants and Partnership Projects Program and provided guidance as listed below:

a. Be responsive to community needs and input;

b. Make grant application and contracting process easier for applicants. Allow adequate time for applicants to obtain land owner approvals when right of way is needed for project implementation; be flexible in working with applicants on scope and budget; outreach to nonprofit entities that could support the District's goals for the Safe, Clean Water Grants and Partnership Projects Program;

c. Broaden community engagement in District's grants and partnership projects to help the community feel positive about projects that are being funded by tax payer dollars; and

d. Tailor level of control or risk management based on project specifics.

The District will apply the Board's guidance in future grant and partnership cycles.

District CEQA compliance requirements

In spring of 2016, Office of District Counsel updated the California Environmental Quality Act (CEQA) language in the standard provisions of the grant agreements and directed staff to complete CEQA documentation prior to execution of those agreements. In cases, when the applicant does not provide CEQA documentation, the District needs to file the proper CEQA documentation for the proposed project, including the feasibility studies.

The additional work to complete CEQA documentation prior to execution of grant agreements may result in the need for additional staff resources to execute the grant and partnership agreements.

Project D4

ON TARGET

Fish Habitat and Passage Improvement

This project helps restore and maintain healthy steelhead trout populations by improving fish passage and habitat. Possible work sites include Alamitos Creek at Lake Almaden and Ogier Ponds in the Coyote watershed, where man-made creek alterations disrupt fish migration. The project also includes studies of steelhead streams throughout the county to determine where improvements are needed to support spawning, rearing and migration. Funding also pays for the development of a program to use large woody debris to create fish habitat.

Benefits

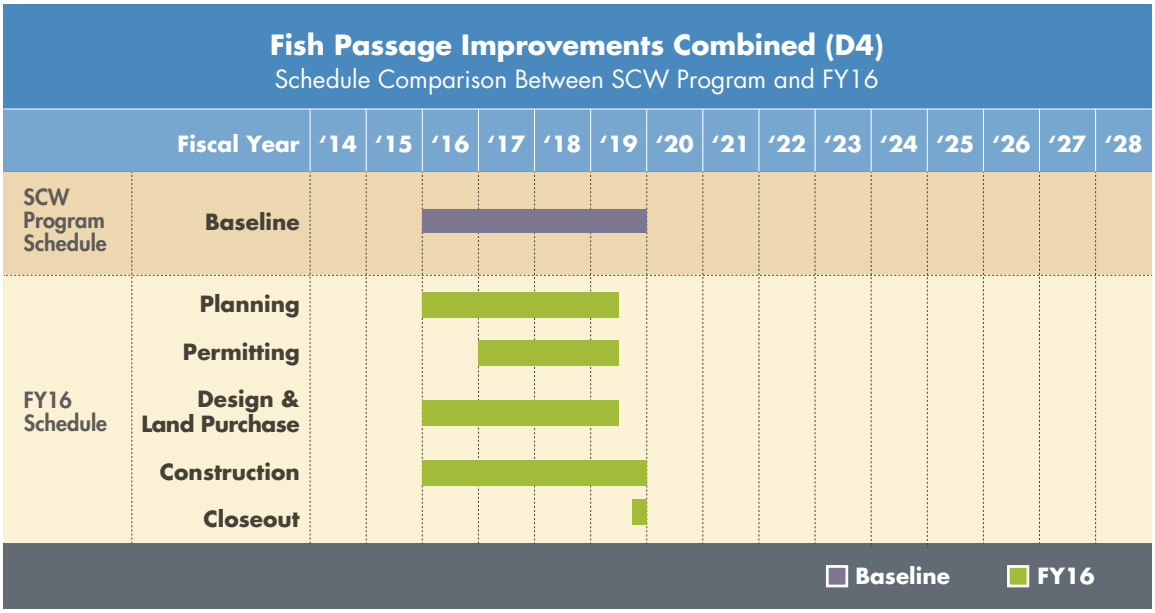
- Improves spawning and rearing habitat within the Coyote, Guadalupe and other watersheds
- Improves steelhead trout habitat
- Helps provide required mitigation for environmental impacts of reservoir and recharge operations and for countywide Stream Maintenance Program

Key Performance Indicators (15-year Program)

1. Complete planning and design for 2 creek/lake separations.
2. Construct 1 creek/lake separation project in partnership with local agencies.
3. Use $6 million for fish passage improvements.
4. Conduct study of all major steelhead streams in the county to identify priority locations for installation of large woody debris and gravel as appropriate.
5. Install large woody debris and/or gravel at a minimum of 5 sites (1 per each of 5 major watersheds).

Geographic Area of Benefit: Countywide

Schedule



Status for FY16: On Target

Progress on KPI #1:

Creek/Lake Separation Site 1: Almaden Lake

- In FY16, the District's environmental consultant, Environmental Science Associates, progressed on work to develop the Environmental Impact Report (EIR) for the Almaden Lake Improvements Project (located within Almaden Lake Park in San José). The draft EIR for public review is expected by early 2017. The project continues to receive a lot of interest from the community and staff continues to engage stakeholders during the planning phase.

Creek/Lake Separation Site 2: Ogier Ponds

- The District and Santa Clara County Parks (SCC Parks) executed a Memorandum of Agreement on March 1, 2016 to prepare a study to investigate the feasibility of separation of Ogier Ponds Quarry Complex from Coyote Creek.
- The District completed detailed topographic and bathymetric surveys for the 368-acre Ogier Pond site. This data will serve as a foundation for the flood attenuation and water budget portion of the feasibility analysis.
- The District has hired a senior wildlife ecologist and ornithologist to summarize current and past data collection efforts for wildlife within the Ogier Ponds Quarry Complex.
- The District has prepared a scope of work and begun the contracting process to hire a consultant to prepare a percolation assessment at the 368-acre site for evaluation of recharge potential and preparation of a water budget.

Progress on KPI #2:

- This KPI currently has 2 projects in the planning phase. The Board has not yet selected which project will be constructed.

Progress on KPI #3:

Fish Passage Improvements

- The District completed construction for the Evelyn Bridge Fish Passage Project within Stevens Creek on November 21, 2015 (Figure 1). The Evelyn Bridge Fish Passage Project provides mitigation credit for future maintenance work that will be conducted for flood control under the District's Countywide Stream Maintenance Program. Therefore, efficacy monitoring for fish passage for this Project will be conducted for 5 years under the auspices of that program
- The District completed a fish passage assessment for 1,100 feet of Stevens Creek which included the Moffett Fish Ladder and the Interstate 101 Bridge. The objective of this assessment was to ascertain fish passage conditions below Evelyn Bridge. A final report was prepared to document fish passage conditions on April 28, 2016.
- The District has completed the 65% design for the Bolsa Road Fish Passage Project.
- The District has submitted to the landowners of the Bolsa Road Fish Passage Project, Union Pacific Railroad, the design documents for a passage solution which would require partial removal of the a concrete slab under the bridge.
- The District continues to coordinate with the City of San José on the Singleton Road Fish Passage Project, Coyote Creek. The city has secured funding for environment documents and 100% design of the preferred alternative. The city has begun preparation of the requisite documents.

Figure 1

After: Construction of a fish passage channel in Stevens Creek under the bridge face upstream and downstream movements for steelhead trout.

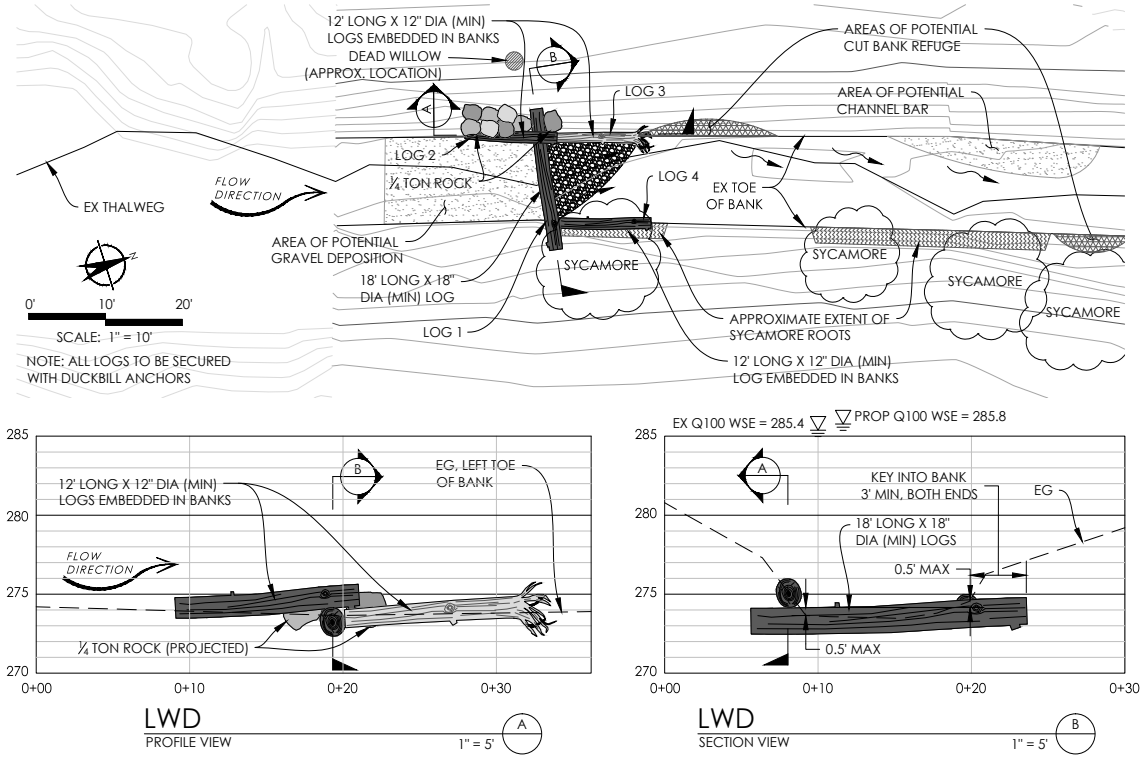
Rendering of future steelhead trout spawning in the creek.

Progress on KPI #4:

Fish Habitat Improvements

- To improve aquatic habitat for steelhead in Santa Clara County, the District has hired a Consultant to develop a gravel augmentation and large-woody debris (LWD) placement program applicable to eight steelhead streams (Figure 2). The eight streams are as follows: Alamitos, Guadalupe, Los Gatos, Uvas, Upper Penitencia, Coyote, and Stevens creeks, and Guadalupe River. A program will be developed based on sound geomorphology, hydrology, hydraulic engineering, and ecological principles in order to identify appropriate locations for both gravel augmentation and large-woody debris placement sites. A final program document is expected in August 2017. The remainder of the steelhead streams in Santa Clara County will be studied in FY18. In Figure 2 below, is a design drawing of the first LWD project constructed in 2015.

Figure 2 (LWD Design Drawing for Stevens Creek at Clearcreek Ct.)



Progress on KPI #5:

Fish Habitat Improvements

- The District has completed construction of 1 instream complexity feature for steelhead in Stevens Creek at Clearcreek Court.
- The primary function of this instream complexity is to trap bed sediment upstream of the log structure and scour a channel pool downstream of the logs emulating natural stream processes and adding complexity to the flow profile.
- Benefits to steelhead include improved spawning, rearing and velocity refuge for migrating fish.

Financial Information

The Almaden Lake Improvements project (KPIs #1 and 2) expended 38% of its annual budget. This was due to a delay in planned work resulting from the District's expansion of alternatives to be evaluated in the EIR during the planning phase in response to stakeholder's concerns about the project. The Fish Passage Improvements project (KPI #3) is slightly under expended at 84% of its FY16 budget. The Fish Habitat Improvement project (KPIs #1, 4 and 5) is on track at 105% of its FY16 budget expended.

Financial Summary ($ Thousands)
D4. Fish Habitat and Passage Improvements

Fiscal Year 2015-2016						15-year Program	
Project No. and Name	Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Plan Spent
		Actual	Encumbrance	Total			
26044002 Fish Passage Improvement	$1,351	$1,136	$0	$1,136	84%	$8,219	18%
26042002 Fish Habitat Improvement	$444	$162	$303	$465	105%	$5,828	14%
26044001 Almaden Lake Capital Project	$765	$288	$0	$288	38%	$2,102	86%
26C40355 Construct Creek/ Lake Separation	$0	$0	$0	$0	0%	$13,385	0%
Total	**$2,560**	**$1,585**	**$303**	**$1,889**	**74%**	**$29,534**	**14%**

Opportunities and Challenges

Resource needs

Fish barrier mitigation and creek/lake separation projects will continue to require a high amount of resources to maintain the level of stakeholder engagement necessary for project success.

Fish Habitat Improvements

An excellent opportunity for the District is this partnership agreement with the land owners for Ogier Ponds, Santa Clara County Parks (SCC Parks), for a creek/pond separation planning study. The SCC Parks and the District share complimentary missions and already share management of the District's water supply reservoirs to support public access and recreation. Therefore, a partnership opportunity for a creek/pond separation is an excellent way to maximize public dollars for environmental benefit.

A challenge for the countywide steelhead study is access to portions of the watersheds where the District currently does not have fee or easement. When considering the most appropriate locations for gravel augmentation or large woody debris augmentation to benefit steelhead, those locations may not align with stream reaches located within public or District fee or easement access points. Land rights acquisition will need to be developed.

Fish Passage Improvements

Fish Passage Assessment at Stevens Creek (1,100 Linear Feet)

Preparation of this fish passage assessment under D4 provides an opportunity to other District and non-District entities to utilize quantitative fish passage information to rank and prioritize the spending of funds to remediate passage conditions for anadromous fish. The "One Water" Master Planning process currently underway will prioritize and rank passage impediments in watersheds that support anadromous fish such that the utilization of public funds for environmental enhancements or mitigation is well conceived for all future planning efforts. The methodology utilized for this Stevens Creek assessment will provide a model for future fish passage assessments so that data are comparable for ranking and remediation.

Singleton Road Fish Passage Project

The City of San José has completed a feasibility study which includes trail realignment, construction of a pedestrian bridge and removal of the Singleton Road fish passage barrier (Photo 1). The city worked with the District to develop a partnership agreement with funds allocated from D4 to finance up to $1 million for construction costs to support removal of the Singleton Road Bridge and associated channel restoration. The remainder of the city's project will be funded from other sources. The District continues to work with the city on execution of the partnership agreement to fund the removal of the fish barrier once the environmental documentation is complete. Removal of the Singleton Road Bridge and restoration of the stream channel will provide steelhead and other native fish unimpeded access to higher quality habitats in Coyote Creek.

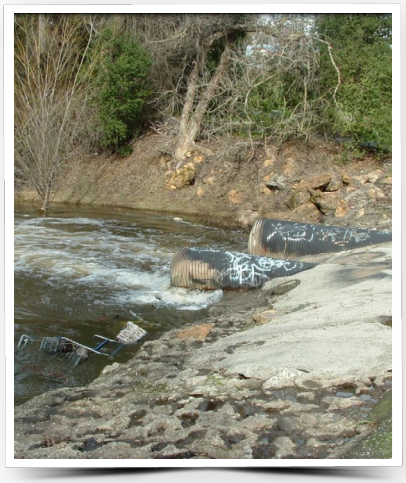


Photo 1: Singleton Road Fish Passage Barrier

Bolsa Bridge Fish Passage Project

Due to long term channel incision within Uvas Creek, this Union Pacific Railroad bridge near Bolsa Road on Uvas Creek presents a well known passage impediment for migratory fish in a very important watershed for recovery of the threatened South Central California Coast steelhead.

In 2004, the District applied for an internal grant from the Clean, Safe Creeks and Natural Flood Protection Plan for remediation of this passage impediment on Uvas Creek. The District was awarded $40,000 for fish passage remediation tasks under that program. The District

evaluated the site and came up with a basis of design document and design drawings which are approximately 50% complete. Funding was limited and, therefore, design plans were not completed under that program.

On October 29, 2014 the National Marine Fisheries Service (NMFS) prioritized review of the draft design plans and report previously prepared by the District and has endorsed the project to move forward. Detailed planning and design work will continue for Bolsa Bridge Fish Passage project in FY17.

The greatest challenge for the Bolsa Bridge fish passage projects is obtaining land owner approvals. However, a great opportunity exists for the District to work with staff from the California Department of Fish and Wildlife Service and the NMFS, using their help to obtain the needed approvals. Both the state and federal agencies endorse this project and understand the importance of successful implementation to the continued perseverance of an endangered fish (i.e., steelhead) in Santa Clara County. This project also has the strong support of the fisheries restoration community.

Confidence Levels:

Singleton Road

Schedule: Moderate confidence

The facility is owned by the City of San José and therefore schedule is determined by their progress on the project. City staff has expressed confidence that the project is moving forward expeditiously.

Funding: Moderate confidence

Safe, Clean Water funding for the District's portion of the project cost is secured. The city is working diligently to secure the full funding for the project.

Permits: High confidence

The city is the lead agency for CEQA and permitting and is continuing to work on the requisite environmental and design documents. Environmental enhancement projects are typically well received by regulating agencies and therefore no issues are anticipated.

Bolsa Road

Schedule: Moderate confidence

The facility is owned by the Union Pacific Railway and therefore schedule is in large part driven by approval and right of entry permits to move forward.

Funding: High confidence

Project funding through FY18 has been secured through the Safe, Clean Water Program.

Permits: High confidence

Environmental enhancement projects typically receive higher priority for permitting approvals.

Project D5

ON TARGET

Ecological Data Collection and Analysis

This project creates a comprehensive watershed database that tracks stream ecosystem conditions helping the District, other County agencies and organizations make informed watershed and asset management decisions. This new information integrates and enhances the District's stewardship actions through a standardized, repeatable and defensible approach that guides, organizes and integrates information on stream conditions.

This ecological monitoring and assessment is conducted on an ongoing basis and is shared with land use agencies, environmental resource groups, and the public to support efficient restoration decisions throughout the county.

Benefits

- Improves watershed and asset management decisions
- Provides a systematic, scientific guide for decisions and actions to improve stream conditions
- Supports effective design options for capital projects
- Maximizes the impact of restoration dollars with more reliable data on countywide stream conditions

Key Performance Indicators (15-year Program)

1. Establish new or track existing ecological levels of service for streams in 5 watersheds.
2. Reassess streams in 5 watersheds to determine if ecological levels of service are maintained or improved.

Geographic Area of Benefit: Countywide

Status for FY16: On Target

Progress on KPI #1:

- In FY16, the District completed field work across the Pajaro River watershed within Santa Clara County, and began field work on the Lower Peninsula watershed in May 2016.
- As of FY16, the District has established ecological levels of service for the streams in 3 of the 5 watersheds required under this KPI.

Results from the 3 watersheds with completed ecological levels of service, (Pajaro, Guadalupe, and Coyote), and many other watershed assessments are available on EcoAtlas (see http://www.ecoatlas.org/regions/ecoregion/bay-delta). The ecological condition of

each watershed is measured using the California Rapid Assessment Method (CRAM). The Pajaro and Lower Peninsula watershed assessment report is scheduled to be completed by January 2017, and will be posted on the Project D5 web site (see http://www.valleywater.org/SCW-D5.aspx). West Valley will be the fifth and final District watershed to assess, and is scheduled for 2017 to meet the 5-Year Implementation Plan target.

Progress on KPI #2:

- At the current schedule, all 5 watersheds will be assessed for the first time by mid-FY18. Planning and scheduling watershed reassessment can begin at that time, allowing 9 years until FY28 to meet the KPI. Additionally, future watershed studies or assessments by others, such as those shown on the D5 website, may offer reassessment for all or parts of the county's watersheds.

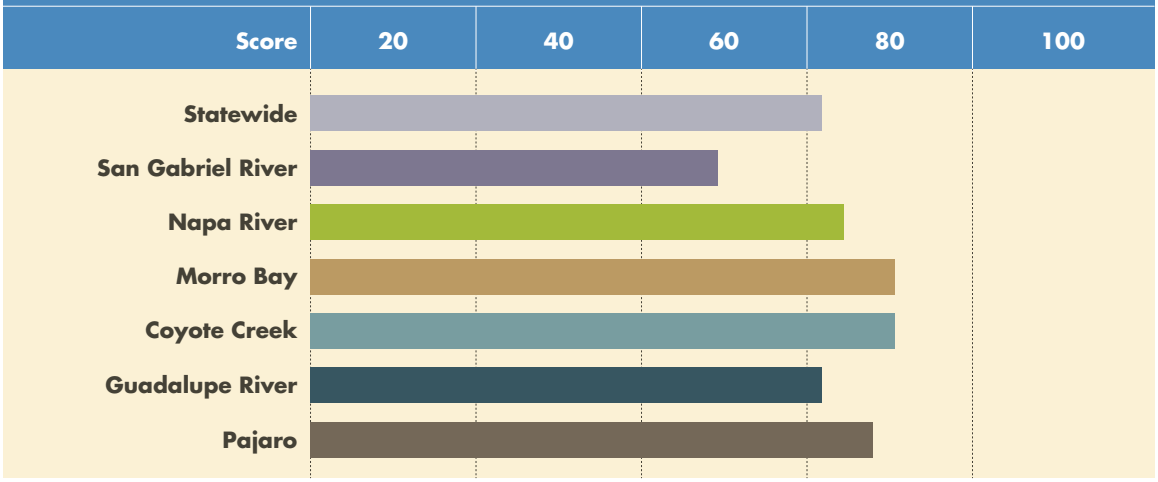
The D5 assessments generate an Ecological Service Index (ESI) representing watershed condition, functional capacity, or health. A watershed's ESI can define its ecological level of service. Here are comparative watersheds' ESI updating Figure D5-1 in the Year 1 Safe, Clean Water annual report.

Using the D5 results, ecological levels of service can be established for the watershed as a whole and for individual creeks: Uvas-Carnadero, Llagas, and Pacheco creeks in the Pajaro; and Adobe, Stevens-Permanente, and San Francisquito creeks in the Lower Peninsula watershed. The ESI for these creeks and their watersheds, as well as information on related environmental conditions will be available in the January 2017 reports for the Pajaro and Lower Peninsula Watersheds.

Another way to understand a watershed's condition, functional capacity, or health using CRAM is through comparing the lengths or percent of streams in poor, fair, or good condition. Figure D5-2 was recently created to compare Santa Clara County watersheds with the 2015 Statewide Perennial Streams Assessment (link provided on the D5 web page) and watersheds in the region.

Additional public outreach, education, and dissemination of D5 findings were recommended by the Safe, Clean Water Program's Independent Monitoring Committee (IMC). In response, the District has taken a number of actions to increase awareness: 1) Statewide and regional watershed and stream condition assessments are now linked on the D5 web page; 2) District and San Francisco Estuary Institute (SFEI) staff presented a poster of D5 results and analysis of the Coyote Creek and Guadalupe watersheds assessments at the 2015 State of the San Francisco Estuary Conference; 3) the District gave 3 presentations on Project D5 with information about how it can be applied to D2 habitat revitalizations to the Peninsula Watershed Forum, Stakeholder Work Group for the One Water master plan; and 4) the District co-presented on the Pajaro watershed assessment with SFEI and Central Coast Wetlands Group, to a number of resource agencies, city and county officials, farmers' organizations, environmental groups and associations. The District's presentations referenced above can be found on the projects webpage: http://www.valleywater.org/SCW-D5.aspx. In addition, the watershed assessment reports and some of the D5 technical memorandums are available on SFEI's web page.

Figure D5-1. CRAM Index Score



Financial Information

In FY16, only 62% of the annual budget was expended. The FY16 budget included the cost of the work required to complete the Pajaro and Lower Peninsula watersheds; while the Pajaro work was completed in FY16, the Lower Peninsula work will carry over to the FY17 budget. The project remains on-track to meet the 5-Year Implementation Plan Target.

Financial Summary ($ Thousands)
D5. Ecological Data Collection and Analysis

Fiscal Year 2015-2016					15-year Program	
Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Plan Spent
	Actual	Encumbrance	Total			
$626	$312	$77	$389	62%	$9,020	11%

Opportunities and Challenges

Environmental permitting impact assessments and mitigation

The District, with expert advice from SFEI, has begun applying Project D5 results to Clean Water Act environmental permitting. The U. S. Army Corps of Engineers (USACE), South Pacific Division issued guidance in 2015 and has standard operating procedures to use CRAM for impact mitigation. Guidance applies to the USACE San Francisco and Sacramento Districts. The D5 ambient Pajaro watershed assessment is being analyzed with site specific CRAM measures for the E6 Upper Llagas Creek Flood Protection Project to complete Sections 401 and 404 of the Clean Water Act permit applications. Project D5

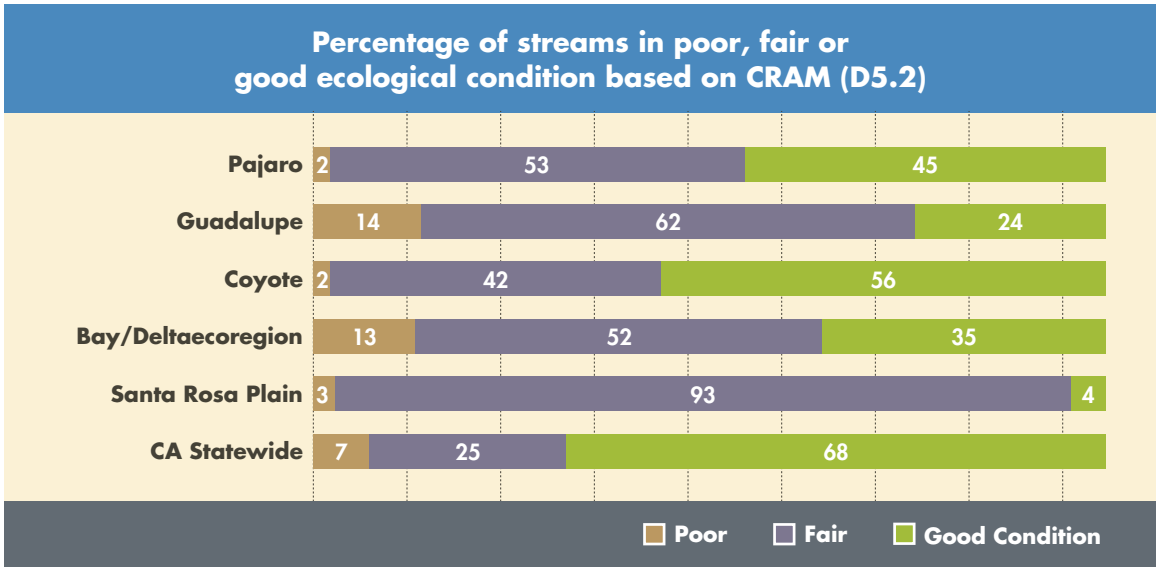
assessments follow California's Wetland and Riparian Area Monitoring Plan (WRAMP), which involve a number of state and federal resource agencies.

Ongoing drought conditions

Despite the rainfall experienced during FY16, the continuing severe to extreme drought stresses ecosystem health. The extent to which the drought affects stream conditions and ability of the watershed assessments to estimate drought impacts will not be known until more field work is completed. The Pajaro watershed assessment was done from August through October 2015 during very dry conditions. It will be both interesting and challenging to compare the Pajaro watershed results to the Coyote Creek (August to September 2010) and Guadalupe (July to August 2012) watersheds, which were both done during years with more normal precipitation patterns.

Landowner coordination

As noted in the FY14 and FY15 Safe, Clean Water Annual Reports, the District needs the assistance and cooperation of land owners, resource agencies, environmental organizations, and citizen groups to maintain healthy ecosystems. The District owns or has easement on approximately 3% of Coyote and 8% of the Guadalupe watersheds' streams; mostly distributed below the headwaters with larger tracts adjacent to the reservoirs. District ownership or easement is probably a lower percentage on the Pajaro watershed's streams, as it is the largest County watershed. The District must receive permission to access and collect data from land owners prior to conducting field work. The process to request and be granted access permission takes a substantial amount of planning and time. In contrast, the vast majority of private and public land owners respond positively, allowing District access to conduct the Project D5 assessments.



Priority D: Restore wildlife habitat and provide open space
Safe, Clean Water and Natural Flood Protection

Project D6

ON TARGET

Creek Restoration and Stabilization

This project will use geomorphic data to design and construct projects to increase the stability of eroding creek banks and help restore the natural functions of stream channels. Possible work may include the removal of Comer Debris Basin on Calabazas Creek in Saratoga, and activities to reduce and prevent incision and promote sediment balance in Stevens and Uvas creeks.

Benefits

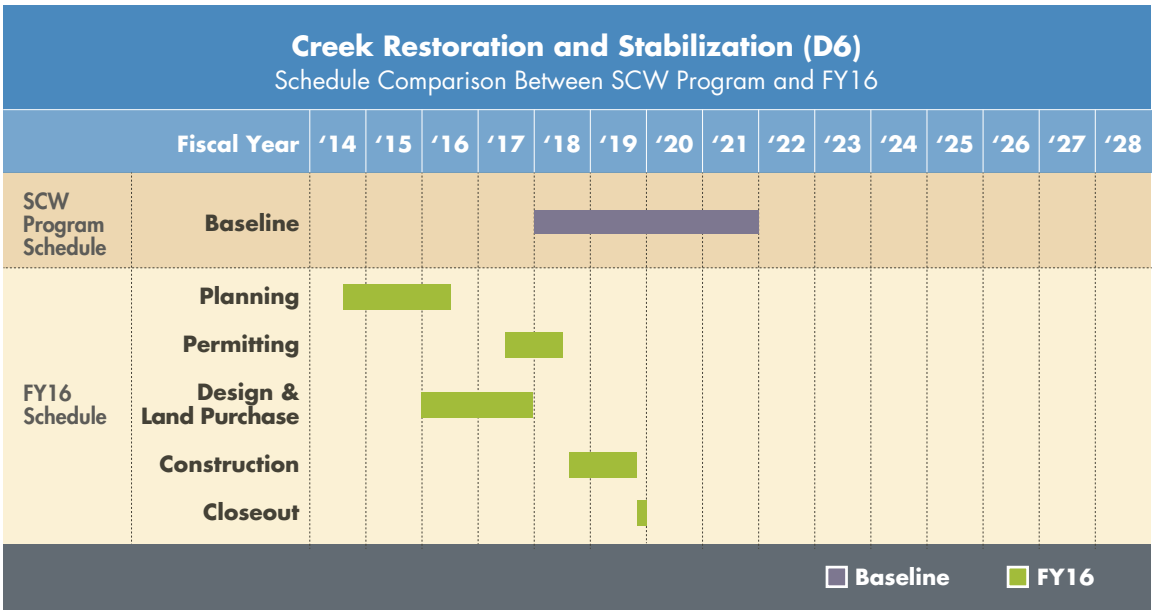
- Uses scientific principles to restore sediment balance and reduce erosion, instability and sedimentation in creeks
- Helps restore stream functions and improves recharge capacity of channel by decreasing sedimentation
- Protects roads from damage caused by eroding channel banks
- Reduces annual maintenance cost for sediment removal

Key Performance Indicator (15-year Program)

1. Construct 3 geomorphic designed projects to restore stability and stream function by preventing incision and promoting sediment balance throughout the watershed.

Geographic Area of Benefit: Countywide

Schedule



Status for FY16: Not Started

Progress on KPI #1:

- Project D6 began in FY16, with the Hale Creek Enhancement Pilot Project, which is partially funded by the Safe, Clean Water Program. In coordination with the Regional Water Quality Control Board (RWQCB), a 650 foot section of concrete-lined channel on Hale Creek, between Marilyn and North Sunshine Drive, has been prioritized and selected for a pilot study to restore geomorphic creek features in a confined urbanized setting. In FY16, the design process began with a geotechnical investigation and the development of preliminary plans. The District is targeting construction during the summer of 2018.
- The remaining 2 projects have not yet been identified.

Financial Information

In FY16, this project expended 69% of its annual budget. The low expenditure was due to the reallocation of staff resources to Safe, Clean Water Projects nearing construction phase. Work on the Hale Creek Enhancement Pilot Project will continue as resources become available.

The original Safe, Clean Water Program funding level for this project was presented in 2012 dollars at $12.8 million; however, this amount is subject to inflation and the inflated amount is $16.7 million. The Program has been designed to collect sufficient revenues to account for project cost increases due to inflation.

Financial Summary ($ Thousands)
D6. Creek Restoration and Stabilization

Fiscal Year 2015-2016					15-year Program	
Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Plan Spent
	Actual	Encumbrance	Total			
$416	$285	$0	$285	69%	$16,719	2%

Opportunities and Challenges

Confidence levels:

Hale Creek Project

Schedule: Moderate confidence

This section of Hale Creek is bordered by 7 private residential properties and a church

parking lot. The ability to resolve potential encroachments and obtain the necessary temporary easements for construction will be critical for project success.

Funding: High confidence

Project funding through FY18 has been secured through the Safe, Clean Water Program.

Permits: High confidence

Since we are coordinating with the RWQCB on this project, we expect permit acquisition to be a smooth process.

Jurisdictional Complexity: N/A

Project D7

ON TARGET

Partnerships for the Conservation of Habitat Lands

Funding from this project helps the community acquire important habitat land to preserve local ecosystems. The project supports implementation of the Valley Habitat Plan, a multi-agency agreement that pools mitigation dollars to purchase large areas of habitat land for conservation.

Benefits

- Fulfills a portion of the District's acre allocation to the Valley Habitat Plan
- Protects, enhances, and restores natural resources in Santa Clara County
- Contributes to the recovery of special status species
- Coordinates regional mitigation projects to create larger, less fragmented conservation lands that are more beneficial for wildlife and the environment
- Provides for endangered species and wetlands mitigation for future water supply and flood protection projects

Key Performance Indicator (15-year Program)

1. Provide up to $8 million for the acquisition of property for the conservation of habitat lands.

Geographic Area of Benefit: Countywide

Status for FY16: On Target

Progress on KPI #1:

- The Valley Habitat Agency (VHA) Restoration/Creation Planning and Design working group has met regularly to identify potential land acquisition and restoration opportunities to support Valley Habitat Plan goals.
- VHA has been working with the Open Space Authority and other partners to acquire properties and restoration and to stay ahead of provisions required by the Regional General Permit issued by the U.S. Army Corps of Engineers.
- The District has developed preliminary draft objectives to allocate funding for land acquisition to support purchase of reserve areas.

Financial Information

This project is currently in a planning stage with partner agencies and, therefore, no Safe, Clean Water funds were budgeted or expended in FY16.

Opportunities and Challenges

Process development

The District is developing a process for decision-making regarding the award and use of funds to clearly link land acquisition/partnerships to the benefits identified in this project. In addition, the District is working to forecast the expenditure of the $8 million. A funding selection process will be developed in early FY17 for review and future funding recommendations later in the fiscal year.

Project D8

ON TARGET

South Bay Salt Ponds Restoration Partnership

This project reuses local sediment from streams flowing into San Francisco Bay to create and rehabilitate habitat in the South Bay Salt Ponds Restoration. The District reuses sediment that has to be removed from streams to maintain their capacity to carry floodwaters. In partnership with the U.S. Fish and Wildlife Service (FWS), clean sediment is applied to appropriate locations to improve the success of the South Bay Salt Ponds Restoration effort.

Benefits

- Accelerates progress of an important tidal wetland restoration project
- Reduces disposal costs for sediment that has been removed from local channels to maintain flood carrying capacity
- Increases space availability in local landfills

Key Performance Indicators (15-year Program)

1. Establish agreement with FWS to reuse sediment at locations to improve the success of Salt Pond restoration activities.
2. Construct site improvements up to $4 million to allow for transportation and placement of future sediment.

Geographic Area of Benefit: Countywide

Status for FY16: On Target

Progress on KPI #1: *(Completed in FY14)*

Progress on KPI #2:

- The Stream Maintenance Program (SMP) deposited 22,667 cubic yards (approximately 1,619 tons) of sediment on the Pond A8 levee constructing a gentle slope that will be a good substrate for marsh vegetation to grow on. This work was paid for by the SMP project through Project E1 Vegetation Control and Sediment Removal for Flood Protection. No site improvements were needed to transport and place sediment to Pond A8 in FY16.

Financial Information

In FY16, the project expended 143% of the annual budget. This was due to higher than anticipated administrative costs resulting from the erosion issue at the toe of the adjacent landfill which is described in the Opportunities and Challenges section.

Financial Summary ($ Thousands)
D8. South Bay Salt Ponds Restoration Partnership

Fiscal Year 2015-2016					15-year Program	
Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Plan Spent
	Actual	Encumbrance	Total			
$18	$26	$0	$26	143%	$4,111	5%

Opportunities and Challenges

Flood risk reduction

This is particularly important due to the flood protection value provided to the county by the salt ponds. The challenge is to accomplish restoration activities in concert with flood protection and sea level rise.

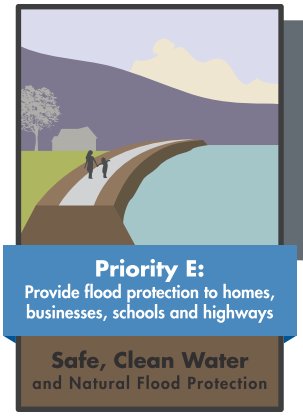
Habitat improvement

This project provides an important opportunity to assist with the South Bay Salt Pond Restoration Program. The sediment is being used to construct a broad, gentle slope that will increase marshland acreage that absorbs energy during storm surges, while providing habitat for many wetland species. After the slope is constructed, the District will partner with San Francisco Bay Bird Observatory to revegetate the site with diverse, native species.

Erosion Protection

Erosion has occurred along the toe of the landfill located at the southwest corner of Pond A8. The U.S. Fish & Wildlife Service owns Pond A8, but not this adjacent property that the landfill is located on. The Coastal Conservancy (the agency that oversees the management of the South Bay Salt Pond Restoration Program), the U.S. Fish & Wildlife Service and the District are working together with the landfill owner's consultant, Crawford Consulting, to develop a program to repair the toe of the landfill, so buried material will not be exposed in the future. Materials from the SMP may be used in the repair.

District crews placing sediment at Pond A8



Priority E

Provide Flood Protection to Homes, Businesses, Schools and Highways

Flood protection measures under Priority E include capital construction projects, studies of flood prone areas, maintenance of existing flood protection channels and improvements to emergency planning for flood response.

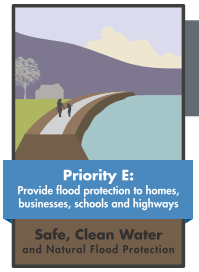
Flood protection capital projects are prioritized to protect the largest number of people, homes and businesses, as well safeguard the highways, streets, public transportation and business centers that people depend on for their livelihoods. All the construction projects under Priority E are undertaken in partnership with the federal government, and will require federal funding in addition to local funding to complete the preferred scope. Should federal funding become scarce, a reduced scope would be implemented, as described in the individual project summaries.

Whenever possible, the District also leverages funds from the state, local municipalities and other stakeholders.

Project E1: Vegetation Control and Sediment Removal for Flood Protection
Project E2: Emergency Response Planning
Project E3: Flood Risk Reduction Studies
Project E4: Upper Penitencia Creek Flood Protection
Coyote Creek to Dorel Drive – San José
Project E5: San Francisquito Creek Flood Protection
San Francisco Bay to Middlefield Road – Palo Alto
Project E6: Upper Llagas Creek Flood Protection
Buena Vista Avenue to Wright Avenue – Morgan Hill, San Martin, Gilroy
Project E7: San Francisco Bay Shoreline Study
Milpitas, Mountain View, Palo Alto, San José, Santa Clara and Sunnyvale
Project E8: Upper Guadalupe River Flood Protection
Highway 280 to Blossom Hill Road – San José

The countywide map and schedule comparison for Safe, Clean Water flood protection projects (E4 to E8) and other capital projects can be found on pages 129 - 131.

Appendix A: Financials
Appendix B: Inflation assumptions



Project E1

ON TARGET

Vegetation Control and Sediment Removal for Flood Protection

This project supports the District's ongoing vegetation control and sediment removal activities that reduce flood risk by maintaining design conveyance capacity of flood protection projects. These activities also provide access for maintenance personnel and equipment. The project includes: controlling in-stream vegetation growth, removing sediment at appropriate intervals, removing hazardous trees, and performing weed abatement and pruning to provide access and establish firebreaks. Before carrying out in-stream maintenance, District personnel perform biological pre-construction surveys to minimize environmental impacts. Allocations for Project E1 also helps fund future maintenance of flood protection projects completed under the Safe, Clean Water program.

This project is comprised of 4 sub-projects that support the District's ongoing vegetation control and sediment removal activities. Reference Appendix B in the 5-Year Implementation Plan for project descriptions. These sub-projects are:

E1.1 Vegetation Control for Capacity

E1.2 Sediment Removal for Capacity

E1.3 Maintenance of Newly Improved Creeks

E1.4 Vegetation Management for Access

Benefits

- Ensures that existing flood protection projects continue to provide maximum flood protection
- Provides safe access for maintenance of creek channels
- Reduces fire risk along creeks and maintains compliance with fire codes
- Improves water quality

Key Performance Indicators (15-year Program)

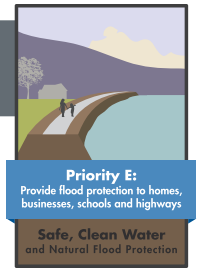
1. Maintain 90% of improved channels at design capacity.
2. Provide vegetation management for 6,120 acres along levee and maintenance roads.

Geographic Area of Benefit: Countywide

Status for FY16: On Target

Progress on KPI #1:

- In FY16, 91.7% of improved channels were maintained at design capacity. Improved channels are those channels that have been modified over which the District has land



rights. This percentage is based upon identification of sediment and vegetation that compromise the flow conveyance capacity of channels. This identification occurs through routine maintenance inspections, following operations and maintenance manuals, and review of as-built plans and specifications.

Updated maintenance guidelines, including levels of service, are currently being developed to provide improved thresholds for sediment removal and vegetation management. These updated guidelines will better inform the inspection and maintenance process for the District's flood protection assets. While these will be managed as working documents, draft guidelines have been prepared for 10 creeks.

E1.1 Vegetation Control for Capacity

Completed 498 acres of in-stream vegetation management to reduce flood risk on 188 miles of streams throughout the county using an integrated combination of mechanical, hand labor and herbicide methods.

E1.2 Sediment Removal for Capacity

Completed 8 sediment removal projects, removing 34,309 cubic yards (CY) of sediment to maintain design capacity:

Guadalupe Watershed

- Alamitos Creek - 630 CY
- Canoas Creek – 590 CY
- Guadalupe River – 400 CY
- Ross Creek – 1125 CY

Coyote Watershed

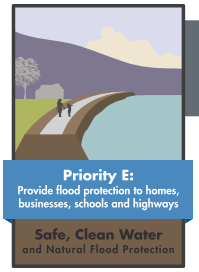
- Lower Penitencia – 30,000 CY
- Upper Silver Diversion – 74 CY

Coyote Watershed

- West Little Llagas – 780 CY
- Edmunson Creek – 710 CY

E1.3 Maintenance of Newly Improved Creeks: Funding for future maintenance

Sub-project E1.3 Maintenance of Newly Improved Creeks has $19.1M identified in the original 15-year plan, as shown in the financial summary, to ensure funding is available for future, necessary maintenance work. This item is unique because the $19.1 million is a



placeholder, set aside in anticipation of future maintenance work that will be required. As Safe, Clean Water flood protection capital improvement projects are completed and become "newly improved creeks", these projects move into the maintenance phase. As maintenance work is identified for these newly improved creeks, the District will allocate the placeholder dollars to the appropriate maintenance activities. In general, vegetation management and sediment removal are the primary activities that comprise maintenance of newly improved creeks for flood protection; however, there may be other maintenance required, such as streambed and streambank stabilization.

Progress on KPI #2:

E1.4 Vegetation Management for Access

- Completed 3,279 acres of upland vegetation management to maintain access and provide fire protection using an integrated combination of mechanical, hand labor and herbicide methods. Of this total acreage, 15% of the completed work was funded by Safe, Clean Water for a total of 492 acres towards the 15-year goal of 6,120 acres. (Graph E1.1)
- During the first 3 years of the Safe, Clean Water Program, the District managed a cumulative total of 1,346 acres of vegetation, compared to a 3-year target of 1,224 acres.

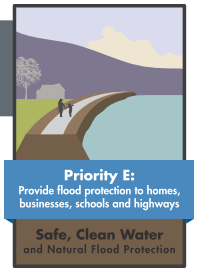
Financial Information

E1.1 Vegetation Control for Capacity

In FY16, this project expended 78% of its annual budget. The under expenditure occurred because fewer projects than planned received permit approvals, resulting in fewer labor hours being charged than were budgeted.

Financial Summary ($ Thousands)
E1.1. Vegetation Control for Capacity

Fiscal Year 2015-2016					15-year Program	
Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Plan Spent
	Actual	Encumbrance	Total			
$1,305	$893	$124	$1,017	78%	$24,571	11%



E1.2 Sediment Removal for Capacity

The project spent 75% of the annual budget for sediment removal at 8 project sites. Substantial delays in permit acquisition reduced the available time to complete sediment removal projects, resulting in surplus funds for this project.

Financial Summary ($ Thousands)
E1.2. Sediment Removal for Capacity

Fiscal Year 2015-2016					15-year Program	
Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Plan Spent
	Actual	Encumbrance	Total			
$475	$355	$1	$356	75%	$9,848	9%

E1.3 Maintenance of Newly Improved Creeks

N/A – As no Safe, Clean Water flood protection capital improvement projects have yet been completed, no maintenance work was conducted on newly improved creeks in FY16, and therefore, no expenditures have been made from the $19.1 million identified in the original 15-year plan. These funds will remain set aside for this project.

E1.4 Vegetation Management for Access

The project was on track with 97% of annual budgeted funds expended.

Financial Summary ($ Thousands)
E1.4. Vegetation Management for Access

Fiscal Year 2015-2016					15-year Program	
Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Plan Spent
	Actual	Encumbrance	Total			
$359	$348	$1	$348	97%	$6,156	18%

Opportunities and Challenges

Updated Maintenance Guidelines:

To complement District inspection and creek maintenance standards, detailed maintenance guidelines are being developed and/or updated for managing improved channels along local creeks. When completed, these guidelines will serve as a critical resource to guide the District in maintaining improved channels at design capacity.

Priority E: Provide flood protection to homes, businesses, schools and highways
Safe, Clean Water and Natural Flood Protection

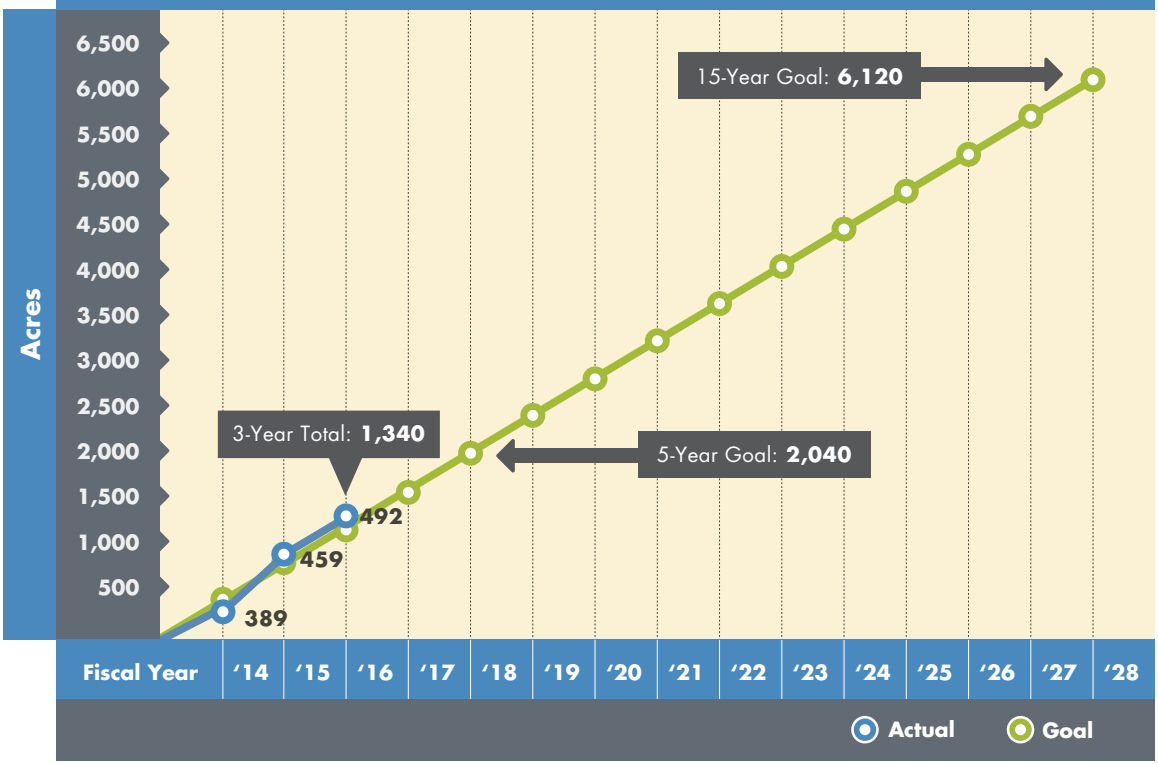
Ongoing Drought

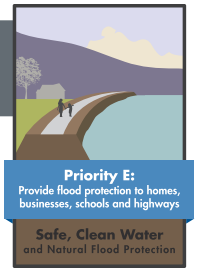
Despite the increased rainfall in FY16, the ongoing drought and associated dry conditions continue to result in additional weed management work. In order to meet fire code requirements, the District must eliminate combustible fuel loads on watershed facilities. If the drought persists, resources may continue to be diverted to such activities.

Permitting challenges

Challenges may include increased regulatory permitting and mitigation requirements, affecting both the ability and cost to do necessary maintenance.

Graph E1.1 Vegetation Management for Access
Vegetation Management Acres





Project E2

ON TARGET

Emergency Response Planning

This project allows the District to work with local municipalities to clearly identify roles and responsibilities for floodplain management and flood emergency management. The project supports countywide emergency response and preparedness activities, develops communication procedures and disseminates web-based flood forecasting information developed under Priority C2, Emergency Response Upgrades. Collaborators also develop formal, site-specific flood-fighting strategies and coordinate outreach throughout the county so that the public receives uniform flood warning messages.

This project is comprised of 2 sub-projects that support the District's ongoing emergency response planning. Refer to Appendix B in the 5-Year Implementation Plan for project descriptions. These sub-projects are:

E2.1 Coordination with Local Municipalities on Flood Communication

E2.2 Flood-Fighting Action Plans

Benefits

- Reduces flood damage
- Provides effective coordinated response to storm-related emergencies
- Improves community awareness about flood risks

Key Performance Indicators (15-year Program)

1. Coordinate with agencies to incorporate District-endorsed flood emergency procedures into their Emergency Operations Center plans.
2. Complete 5 flood-fighting action plans (1 per major watershed).

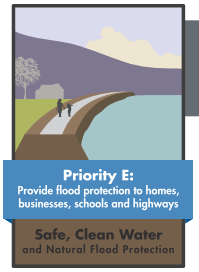
Geographic Area of Benefit: Countywide

Status for FY16: On Target

Progress on KPI #1:

E2.1 Coordination with Local Municipalities on Flood Communication

- In FY16, the District coordinated with local municipalities to discuss incorporating District-endorsed flood emergency procedures into their emergency action plans.
- In fall 2015, the District hosted its annual Winter Preparedness exercise to discuss emergency action plans for local creeks, during which the District presented an update



on its flood forecasting and warning system. Representatives of the City of San José were in attendance.

- In May 2016, the District further continued its engagement with the emergency management community at the Emergency Managers Association meeting by speaking to representatives from the following agencies; the City of Sunnyvale OES; Cupertino OES; Cupertino Citizen Corps/CERT/Medical Response Corps and ARES/RACES (Amateur Radio Emergency Services) organizations.
- In addition, the District's Office of Emergency Services (OES) participated in the Emergency Managers Association, Operational Area Council, and the Operational Area Signatories meetings. The OES also continued to support and attend the San Francisquito Creek Joint Powers Authority (SFCJPA) emergency management committee and the city manager's meetings and worked with SFCJPA member agencies to develop and complete a signed Flood Multi-Agency Coordination (MAC).

Progress on KPI #2:

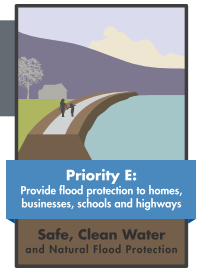
E2.2 Flood-Fighting Action Plans

- In FY15, work was initiated to create a Draft Flood Emergency Action Plan (EAP) for San Francisquito Creek that outlines actions the District will take in a flood emergency. This effort continued in FY16 and is expected to undergo management review in early FY17.
- In response to weather forecasts predicting a strong El Niño season, the Board expressed concerns of possible flooding and bank erosion from Canoas Creek during the 2015-16 winter season. In response, the District developed a draft EAP for Canoas Creek. The development of the Canoas Creek EAP took top priority. Upon its completion and the completion of the San Francisquito Creek EAP, the other four high priority creeks (Ross, West Little Llagas, Mid-Coyote, and San Tomas creeks) will be addressed.
- Technical mapping and flood-warning baselines are being produced under project C2, Emergency Response Upgrades. These will be used in the Flood EAP for San Francisquito Creek and Canoas Creek when fully developed.

The project is on track to meet the targets identified in the 5-Year Implementation Plan.

Financial Information

The FY16 budget was slightly under expended at 80% of the annual budget. This was due to insufficient staff resources resulting in low labor charges. To address this, staff resources were reallocated to the project in the second quarter. The project continues to be on track to develop 1 emergency action plan by the end of FY18, a target set in the 5-Year Implementation Plan.



Financial Summary ($ Thousands)
E2.1. Coordination with Local Municipalities on Flood Communication

Fiscal Year 2015-2016					15-year Program	
Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Plan Spent
	Actual	Encumbrance	Total			
$134	$107	$0	$107	80%	$2,530	8%

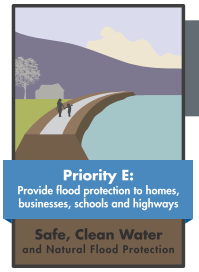
Opportunities and Challenges

Community Rating System Scores

There is an opportunity to increase Community Rating System (CRS) scores throughout the county if the municipalities choose to develop plans and programs in collaboration and with a focus on specific CRS guidelines. Increasing CRS point scores can translate to reduced flood insurance rates within each participating community. The prioritization of such effort would need to align according to the demands of the District's CRS program.

Coordination on Emergency Action Plans

The San Francisquito Creek Joint Powers Authority, which meets regularly and focuses a significant amount of effort on flood issues in the watershed, offers an excellent opportunity to closely coordinate with multiple municipalities, including from another county, on a Flood EAP. In FY16, the District managed the development of a draft of the San Francisquito Creek EAP. Management review of this EAP is targeted for the first part of FY17.



Project E3

ON TARGET

Flood Risk Reduction Studies

This project develops engineering studies to understand the actual flood risk in high priority flood-prone areas and develops options for managing the flood risks.

Studies will focus on the following reaches:

- Alamitos Creek upstream of Almaden Lake in San José
- Rockspring Neighborhood along Coyote Creek in San José
- Calera Creek near Milpitas High School to Interstate 680 in Milpitas
- Tributaries to Lower Silver Creek (Ruby, Norwood, Quimby and Fowler creeks) in San José

The study includes hydrology, hydraulics, geotechnical and remapping work of the floodplain areas. If appropriate, updated maps will be submitted to Federal Emergency Management Agency (FEMA) to provide a more accurate reflection of the floodplain.

Benefits

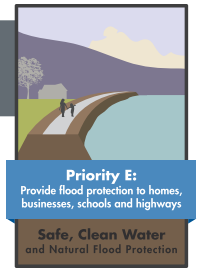
- Provides more accurate mapping of areas at risk of flooding
- May remove hundreds of parcels from the FEMA regulatory floodplain, based on updated mapping standards
- Information can be integrated into flood warning program to provide advance, real-time warnings of impending flood events
- Provides technical basis for developing future flood protection plans, and for potential funding partnerships

Key Performance Indicators (15-year Program)

1. Complete engineering studies on 7 creek reaches to address 1% flood risk.
2. Update floodplain maps on a minimum of 2 creek reaches in accordance with new FEMA Standards.

Geographic Area of Benefit: Milpitas and San José

Status for FY16: On Target



Progress on KPI #1:

- In FY16, the first of 7 engineering studies addressing 1% flood risk on creek reaches was completed for Alamitos Creek with the finalization of the geotechnical field work and hydrologic and hydraulic analyses.
- In addition, the District continued working on engineering studies for Coyote Creek to explore opportunities of reducing the 1% flood risk. A floodplain study for the existing Coyote creek from Montague Expressway to Anderson Dam was completed, including a floodplain map for the Rockspring Neighborhood study.

Progress on KPI #2:

- The first of 2 floodplain maps to be updated was completed in FY16 for Alamitos Creek, utilizing hydraulic analysis and floodplain mapping based on the new FEMA Levee Analysis and Mapping Procedure (LAMP) for non-credited levee. FEMA's new approach of targeted modeling procedures is to replace the previous "without levee" approach, that did not recognize a non-accredited levee as providing any level of protection to communities behind the levees during the base (1-percent-annual-chance) flood. The new procedures better characterize actual conditions when addressing non-accredited levees.

Financial Information

In FY16, the project expended 104% of its annual budget. The survey cost was higher than originally budgeted and caused the slight over expenditure.

Financial Summary ($ Thousands)
E3. Flood Risk Reduction Studies

Fiscal Year 2015-2016					15-year Program	
Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Plan Spent
	Actual	Encumbrance	Total			
$819	$842	$6	$848	104%	$9,374	22%

Opportunities and Challenges

Floodplain maps

The Alamitos Creek and Rockspring Neighborhood projects presented an opportunity for the District to learn how to use new software (HEC-RAS 5.0) to generate state of the art, 2-dimensional floodplain maps. The map is available to the public on the project's webpage: http://www.valleywater.org/SCW-E3.aspx.

Priority E: Provide flood protection to homes, businesses, schools and highways
Safe, Clean Water and Natural Flood Protection

Project E4

ADJUSTED

Upper Penitencia Creek Flood Protection Coyote Creek to Dorel Drive – San José

Preferred project: A federal-state-local partnership

This project continues a partnership with the U.S. Army Corps of Engineers (USACE) to plan, design and construct improvements along 4.2 miles of Upper Penitencia Creek from the confluence with Coyote Creek to Dorel Drive. The project is also funded in partnership with the state. Part of the project must be completed prior to a planned Silicon Valley Rapid Transit extension to the Bay Area Rapid Transit line, to protect the area around the proposed Berryessa station near King Road, which would otherwise be subject to flooding.

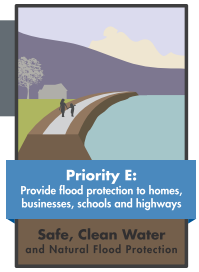
The natural creek channel will be preserved while adjacent existing open space and parkland will remain as recreational areas, only rarely taking the role as a temporary floodplain so that floodwaters do not enter surrounding neighborhoods and commercial areas. Proposed construction measures may include modified floodplains, levees, flood walls, bypass channels, and fish passage improvements. Existing District water supply facilities may also be modified to protect habitat and improve water supply reliability.

The $41.9 million in local funding from Safe, Clean Water allows the District to move ahead with the planning, design and construction of the project.

Benefits

- Preferred project provides 100-year flood protection to approximately 5,000 homes, schools and businesses. Locally funded-only project provides 100–year flood protection to the proposed rapid transit station and areas downstream from King Road
- Reduces sedimentation and maintenance requirements
- Improves water quality in Coyote Creek
- Provides opportunities for recreation improvements consistent with the City of San José and Santa Clara County Park master plans

King Road Bridge

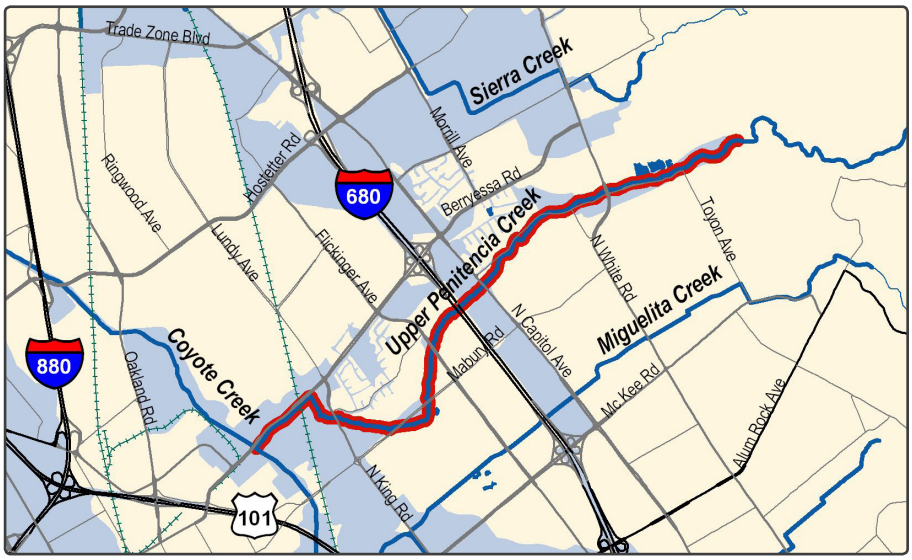


Key Performance Indicators (15-year Program)

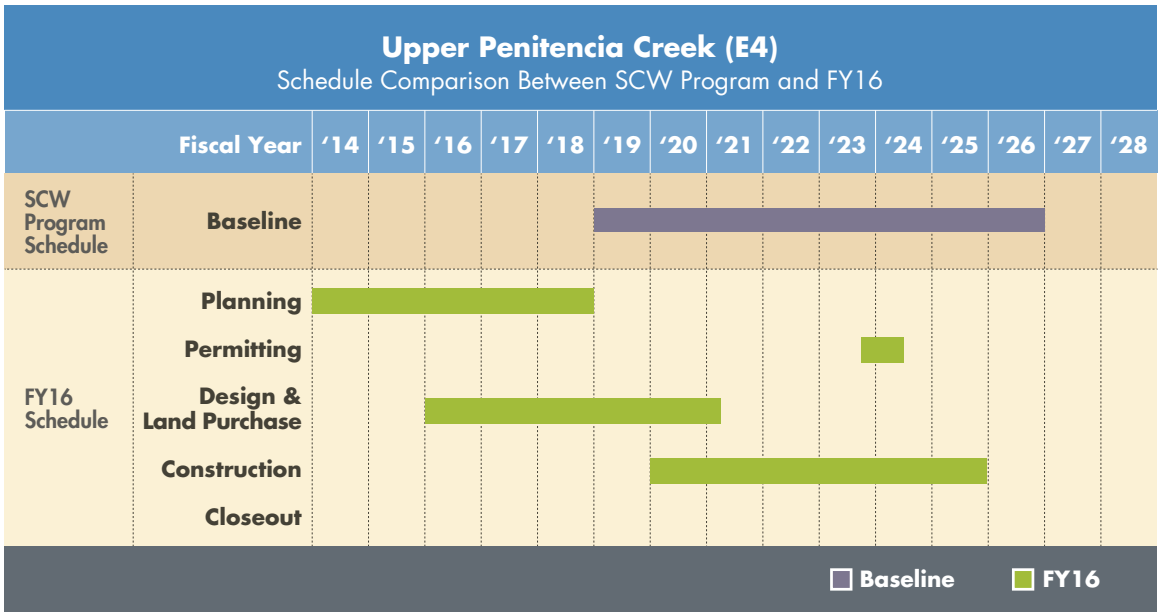
1. Preferred project with federal and local funding: Construct a flood protection project to provide 1% flood protection to 5,000 homes, businesses and public buildings.
2. With local funding only: Acquire all necessary rights-of-way and construct a 1% flood protection project from Coyote Creek confluence to King Road.

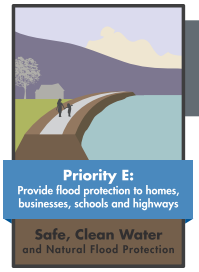
Geographic Area of Benefit: San José

Project Location



Schedule





Status for FY16: Adjusted

Progress on KPI #1 and #2 (combined):

- USACE held meetings with state and federal resource agencies in November 2015 and a field visit in December 2015 to discuss whether the project should be restarted as a multi-purpose project, the overall scope of the project, and potential ecosystem restoration measures.
- USACE did not receive federal funds to continue planning effort for Upper Penitencia Creek for 2016.
- As approved by the Board, the District is leading the planning study, which is now focused on a multi-purpose project that would provide long-term benefits for flood protection, fish and wildlife, riparian vegetation, water supply, and recreation.
- The Coyote Creek watershed hydrology was updated in December 2015.

Financial Information

This project expended 0% of its budget in FY16. In the first half of FY16, this project was being planned by the USACE project team. For the remainder of FY16, the planning effort has been supported by the District's Watershed and Stream Stewardship fund. Therefore, no Safe, Clean Water funds were expended in FY16.

Opportunities and Challenges

Water supply

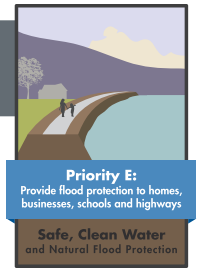
There are a number of water supply facilities along the project reaches, including several groundwater percolation ponds. Project alternatives should not reduce recharge operations in the watershed and should look for the opportunity to improve water supply functions.

Ecosystem restoration

The natural corridor at Upper Penitencia Creek is considered to be among the best remaining habitat areas in the Santa Clara Valley between Coyote Creek and the Diablo Range. Habitat in Upper Penitencia Creek could support several special-status species, including steelhead trout, California red-legged frog, California tiger salamander, and Western pond turtle. The upstream portion of the project area contains valuable and relatively undisturbed native California sycamore alluvial woodland.

Recreation

There are several parks and open spaces along the creek, as well as the Penitencia Creek trail. These recreational features are well-used by the community, and there are opportunities for this project to work jointly with its partners to improve these resources.



Confidence levels:

Schedule: Moderate confidence

The project is on track to meet the Safe, Clean Water schedule. It is at the beginning of the planning phase.

Funding: Moderate confidence

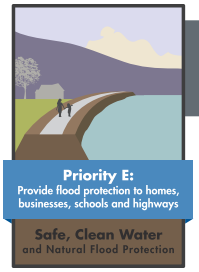
With a relatively low benefit-to-cost ratio (BCR), this project did not compete well with other USACE projects with higher BCRs, and did not receive funding to continue the USACE's Feasibility Study. The District will complete a full watershed planning study and project design. If only local funding is available, the District will proceed with the local-funding-only option to complete a smaller portion of the project. To preserve the ability to seek federal funding in the future, $100,000 of federal funding was requested to support the review of documents and USACE's participation in the planning study.

Permits: Moderate confidence

The resource agencies have been brought in very early in the planning process, and will continue to be engaged during planning and design. This will help to shape potential ecosystem restoration measures and facilitate the acquisition of regulatory permits for project construction.

Jurisdictional Complexity: Moderate confidence

There are a variety of opinions among the resource agencies as to the most suitable features to incorporate into the project.



Project E5

ON TARGET

San Francisquito Creek Flood Protection
San Francisco Bay to Middlefield Road – Palo Alto

Preferred project: A federal-state-local partnership

This project will complete construction of setback levees and floodwalls from San Francisco Bay to Highway 101 to provide 100-year flood protection and ecosystem benefits. Upstream of Highway 101 the project will provide 1% flood protection, ecosystem protection and recreational benefits.

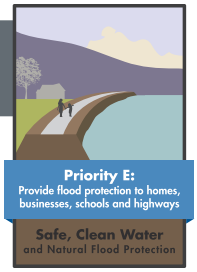
The work upstream of Highway 101 will remedy channel constrictions and modify bridges at Newell Road and Pope/Chaucer Street, and include; a combination of: modified bridges at University Avenue and Middlefield Road; upstream detention; under-ground bypass channels; and floodwalls. The project is sponsored by the San Francisquito Creek Joint Powers Authority, of which the District is a member agency, in partnership with the U.S. Army Corps of Engineers (USACE). The project builds on the planning and design tasks initiated as part of the Clean, Safe Creeks plan, which are on track to be completed.

The local-state-funding-only project will be the same as the preferred project downstream of Highway 101; but upstream of Highway 101, the project will remedy channel constrictions and modify bridges at Newell Road and Pope/Chaucer Street to allow the channel to contain flood waters equal to the channel's capacity of 7,000 cubic feet per second, approximately a 30-year event. Allowing this level of water to flow through the channel will protect approximately 3,000 parcels in Palo Alto from a flood event close to the February 1998 flood, the largest on record. Currently the channel can only convey a 15-year flood event.

If sufficient funding becomes available, a 1% (100-year) flood protection project upstream of Highway 101, including some combination of: modifications to the University Avenue and Middlefield Road bridges; upstream detention; underground bypass channels; and floodwalls, could be built.

Benefits

- Provides 1% flood protection for approximately 3,000 homes and businesses in Palo Alto
- Reduces bank erosion and sedimentation-related impacts along San Francisquito Creek
- Provides new or improved habitats for endangered species
- Improves water quality
- Enhances recreational opportunities for the community
- Leverages dollars via cost-shares and grants from the state Department of Water Resources and the California Department of Transportation

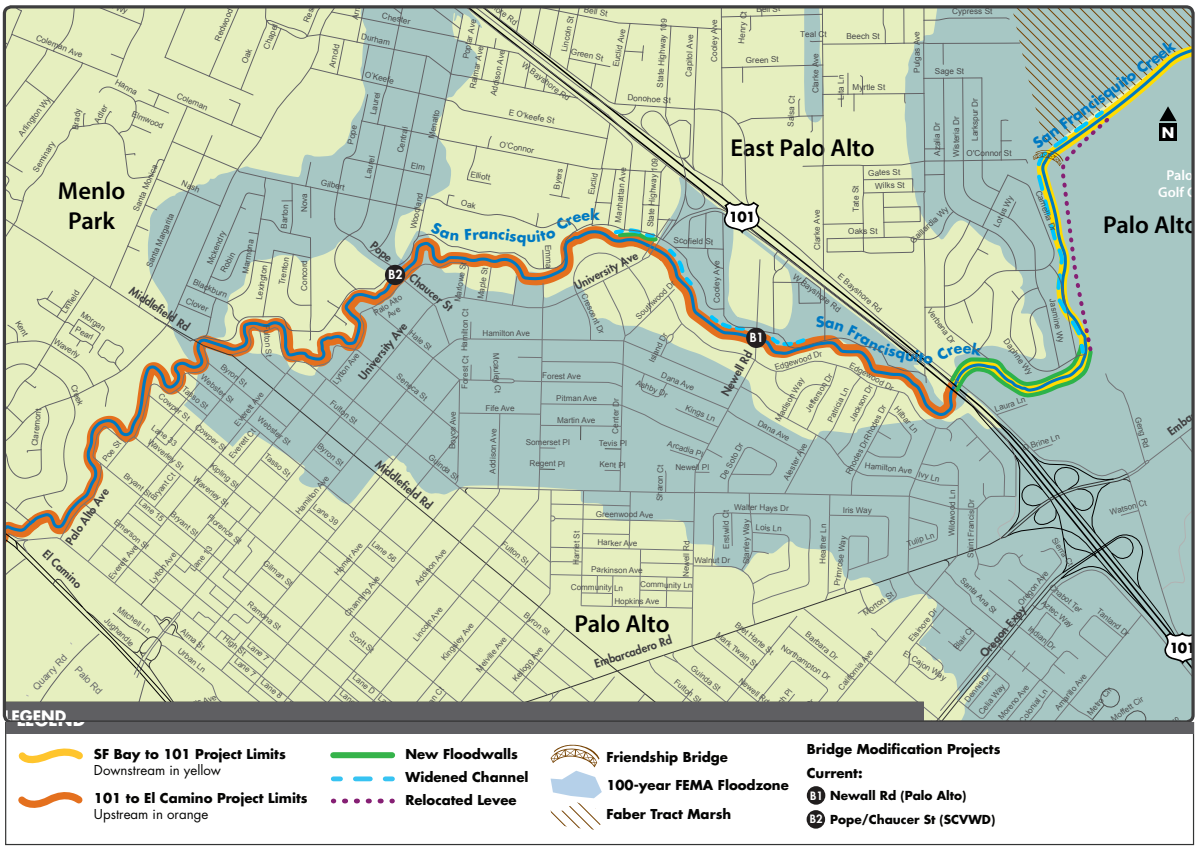


Key Performance Indicators (15-year Program)

1. Preferred project with federal, state and local funding: Protect more than 3,000 parcels by providing 1% flood protection.
2. With state and local funding only: Protect approximately 3,000 parcels from flooding (100-year protection downstream of Highway 101, and approximately 30-year protection upstream of Highway 101).

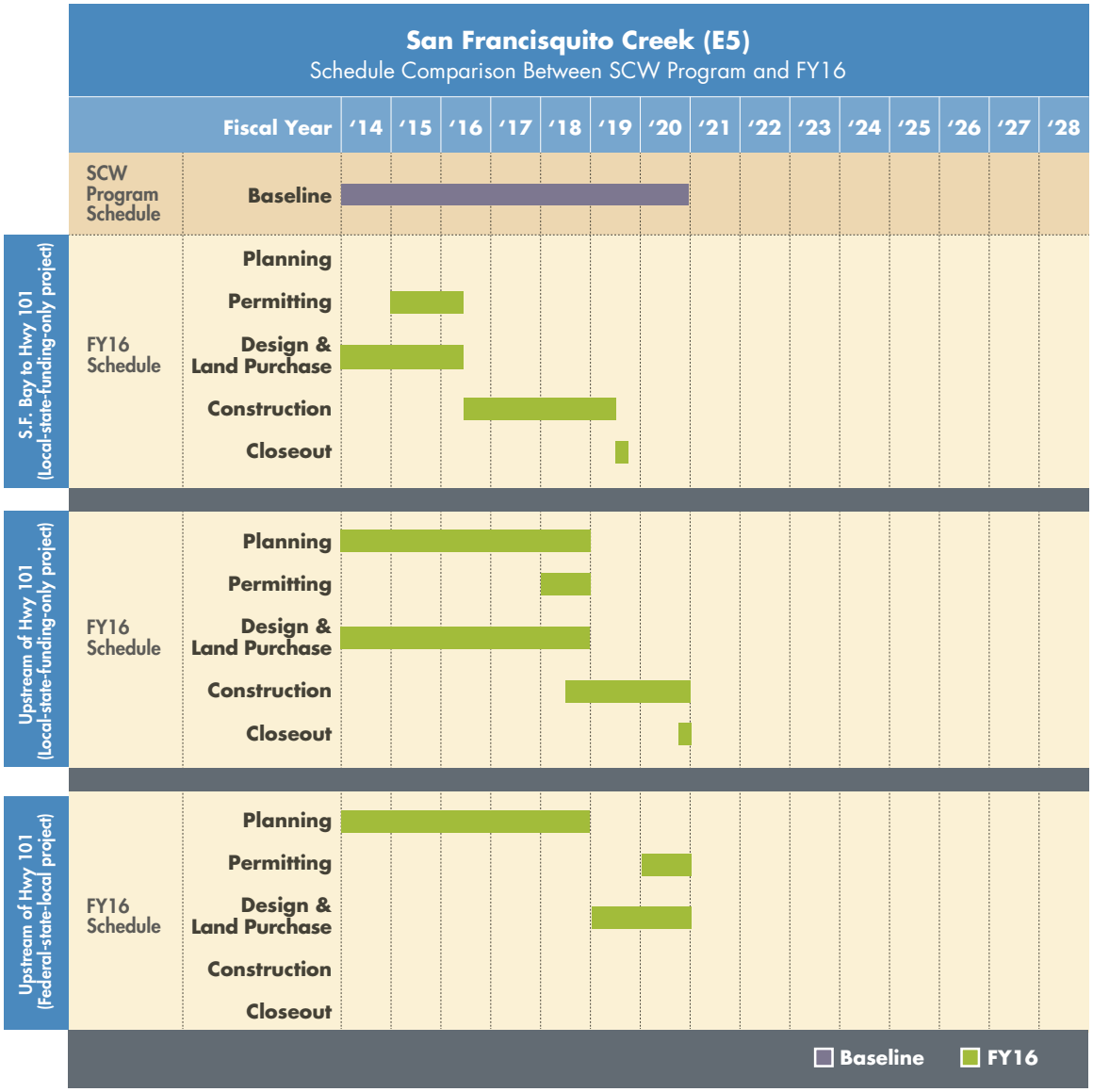
Geographic Area of Benefit: Palo Alto

Project Location



Priority E:
Provide flood protection to homes, businesses, schools and highways
Safe, Clean Water and Natural Flood Protection

Schedule



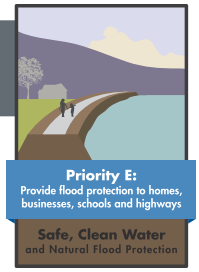
Status for FY16: On Target

Progress on KPI #1 and #2 (combined):

S.F. Bay to Highway 101 Project

Local-state-funding only - design and construction of 100-year flood protection project

- Board awarded construction contract in June 2016.
- Completed 100% design documents.



- The San Francisquito Creek Joint Powers Authority (SFCJPA) project team, which includes District, is currently working with all of the state and federal regulatory agencies to obtain the necessary permits to proceed with construction.
  - » The SFCJPA has obtained necessary natural resource agency authorizations and permits from the US Army Corps of Engineers, US Fish and Wildlife Service, National Marine Fisheries Service, California Department of Fish and Wildlife, San Francisco Bay Regional Water Quality Control Board, and San Francisco Bay Conservation and Development Commission.
  - » Construction for the Bay to Highway 101 segment is scheduled to begin in summer 2016 and end in 2018.
- There was 1 required real estate transaction completed in FY16.
  - » International School of the Peninsula.

Upstream of Highway 101 Project

Federal, state and local funding - planning and design of 100-year flood protection project

- The District and Caltrans prepared a draft Cooperative Agreement for channel widening at West Bayshore Road.
- The District has acquired a portion of the property needed to widen the creek at West Bayshore Road. The District is in the process of closing the escrow.

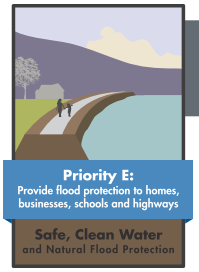
In FY16, USACE assigned a new project team to continue with the Feasibility Study. Currently, USACE is preparing a Smart Planning Waiver request from their headquarters for a new schedule and project cost. They are also preparing a revised Project Management Plan (PMP) to incorporate these changes.

- USACE project team will continue working on the following deliverables in FY17:
  - » Updating the hydraulic analysis of the alternatives with new hydrology data
  - » Economic analysis of the alternatives
  - » Obtain an environmental consultant to prepare NEPA documentation
  - » Preparing Tentatively Selected Plan

Local-state-funding-only - construction of approximately 30-year flood protection project

Channel constrictions

- The 90% design document for channel constrictions upstream of Highway 101 is expected to be completed in 2016.



Newell Road Bridge

- The City of Palo Alto is responsible for planning, permitting, design, and construction of the Newell Road Bridge Replacement project. The planning, permitting and design phases are primarily funded by a CalTrans grant. The District is contributing the grant-required local share. The planning phase will be complete upon the certification of the Newell Road Bridge Environmental Impact Report, which is estimated to be complete February 2017. The design is scheduled to be completed by May 2018. Construction is set to begin in the summer of 2018 and will be completed by the end of 2019.

Pope/Chaucer Street Bridge

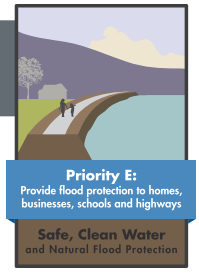
- Pope/Chaucer Street Bridge design is on-hold pending the USACE feasibility study. The outcome of the upstream alternatives analysis could impact the design of the bridge replacement project. The feasibility study is scheduled to be completed in 2018. Design of the bridge modifications will resume and is expected to be completed in 2018. Construction is expected to begin in the summer of 2019 and be completed by the end of 2020.

Financial Information

In FY16, 96% of the total annual budget was expended. The S.F. Bay to Highway 101 project expended 97% of its budget due to the award of the construction contract. The Upstream of Highway 101 project expended 68% of FY16 budget. This was due to delays to the design of the Pope/Chaucer Street Bridge as a result of coordination between the SFCJPA and USACE to prepare a draft Feasibility Study report.

Financial Summary ($ Thousands)
E5. San Francisquito Creek

Fiscal Year 2015-2016						15-year Program	
Project No. and Name	Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Plan Spent
		Actual	Encumbrance	Total			
26284001 Planning and Design (Highway 101 to Searsville Dam)	$1,048	$710	$0	$710	68%	$1,449	264%
26284002 Construction (SF Bay to Highway 101 and Upstream Elements)	$28,442	$1,449	$26,090	$27,539	97%	$48,672	62%
Total	**$29,490**	**$2,159**	**$26,090**	**$28,249**	**96%**	**$50,121**	**68%**



Opportunities and Challenges

Confidence levels:

S.F. Bay to Highway 101 Project

Schedule: High confidence

Despite recent findings that determined that Ridgway's rail—an endangered species—were present within a portion of the project area, the construction schedule remains on track for completion within the Safe, Clean Water Program deadline. To accommodate the rail, construction will be performed away from rail area in summer 2016 until the nesting season is over (September 1).

Funding: High confidence

The District recently entered into a First Amended Construction Funding Agreement with the SFCJPA and its member agencies to fully fund construction of the S.F. Bay to Highway 101 Project.

Permits: High confidence

All resource agency permissions have been acquired.

Jurisdictional Complexity: High confidence

The jurisdictional complexity of this project is unparalleled among Safe, Clean Water projects, as this project requires cooperation with the SFCJPA and its member agencies, which include the District, the cities of Palo Alto, East Palo Alto and Menlo Park and the San Mateo County Flood Control District. Despite this, the District has high confidence that the jurisdictions will continue to work together to accomplish our common goal of providing flood protection along San Francisquito Creek.

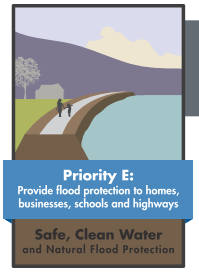
Upstream of Highway 101 Project

Schedule: Moderate confidence

Prior to constructing the local-state-funding-only project, the USACE feasibility study must be completed and state and federal regulatory permits must be secured.

Funding: Moderate confidence

While funding has been secured for constructing the local-state-funding-only project elements (which include remedying channel constrictions and modifications to Newell Road Bridge and Pope/Chaucer Street Bridge), there is the possibility of a funding shortfall due



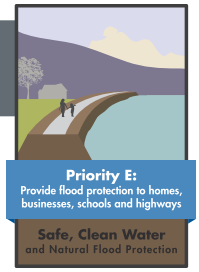
to increasing construction costs and currently unknown design elements. Upon completion of the USACE feasibility study, the SFCJPA will seek federal funding for the 100-year flood protection project upstream of Highway 101.

Permits: Moderate confidence

The District does not expect any significant challenges with the acquisition of the regulatory permits for this phase of the project and is moderately confident it will receive the permits necessary to complete construction of the local-state-funding-only project by the Safe, Clean Water Program's identified completion date.

Jurisdictional Complexity: High confidence

The jurisdictional complexity of this project is unparalleled among Safe, Clean Water projects, as this project requires cooperation with the SFCJPA and its member agencies, which include the District, the cities of Palo Alto, East Palo Alto and Menlo Park and the San Mateo County Flood Control District. In addition, there are key project stakeholders, including USACE and Stanford University's Searsville Dam Project. Despite this, the District has high confidence that the jurisdictions will continue to work together to accomplish our common goal of providing flood protection along San Francisquito Creek.



Project E6

ADJUSTED

Upper Llagas Creek Flood Protection Project Buena Vista Avenue to Wright Avenue – Morgan Hill, San Martin, Gilroy

Preferred project: A federal-state-local partnership

This project continues a Clean, Safe Creeks project in partnership with the U.S. Army Corps of Engineers (USACE) and the state to plan, design, and construct improvements along 13.9 miles of channel. The project extends from Buena Vista Avenue to Wright Avenue, including West Little Llagas Creek in downtown Morgan Hill. The federally authorized preferred project protects the urban area of Morgan Hill from a 1% flood, and reduces the frequency of flooding in surrounding areas. Construction includes channel modifications and replacement of road crossings. The District continues to work with Congress to aggressively pursue federal funds to bring this project to full fruition. In 2012, project limits were extended 2,700 feet upstream to Llagas Road to address public concerns.

Benefits

- Preferred project provides 100-year flood capacity for 4 miles of channel in downtown Morgan Hill, protecting approximately 1,100 homes and 500 businesses
- Preferred project provides 10-year flood protection to approximately 1,300 agricultural acres in Morgan Hill, Gilroy and San Martin
- Locally-funded-only project provides 100-year flood protection for a limited number of homes and businesses in Morgan Hill
- Improves stream habitat and fisheries
- Creates additional wetlands
- Improves stream water quality
- Identifies opportunities to integrate recreation improvements with the City of Morgan Hill and others as appropriate

Key Performance Indicators (15-year Program)

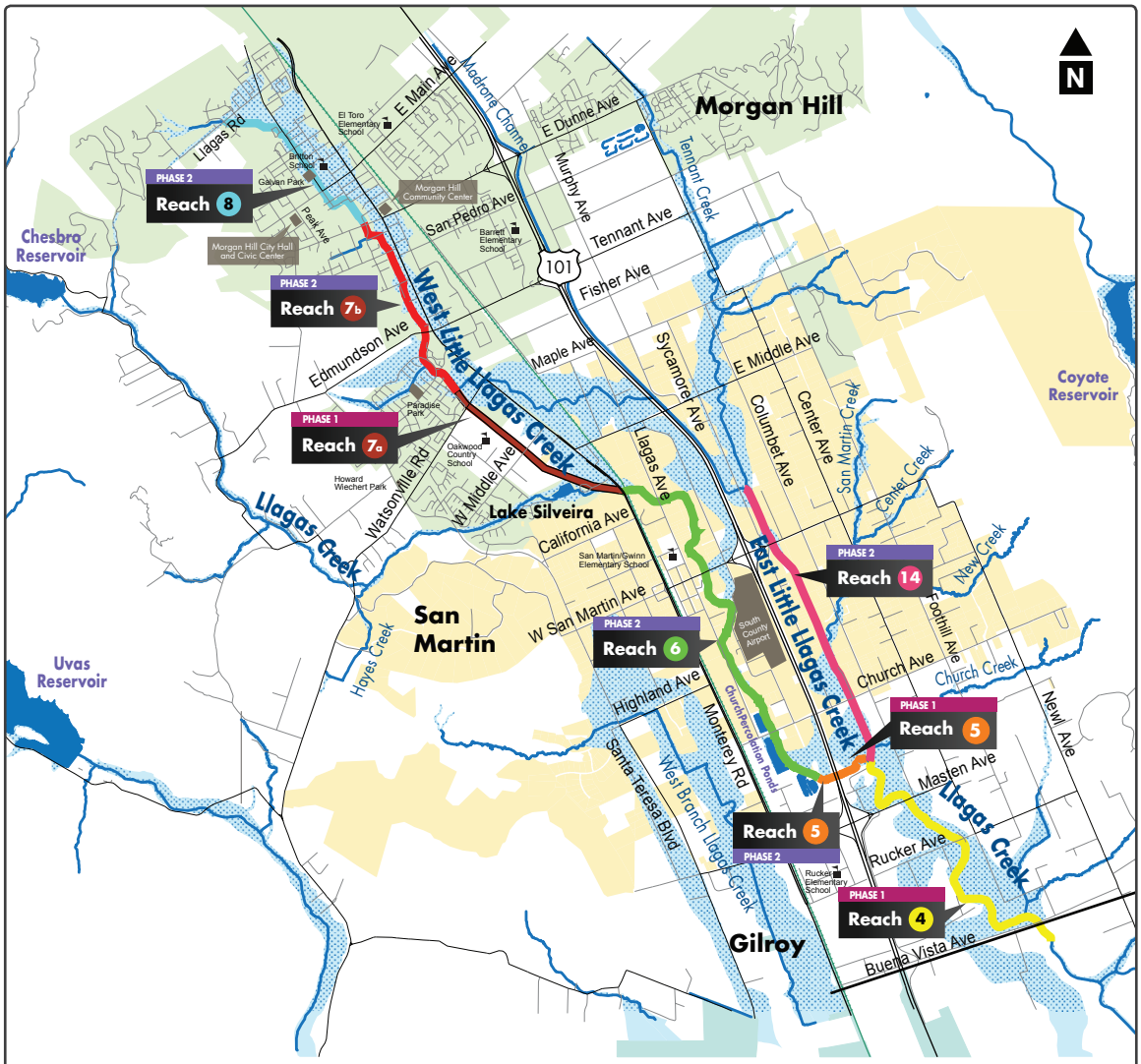
1. Preferred project with federal and local funding: Provide flood protection to 1,100 homes, 500 businesses, and 1,300 agricultural acres, while improving stream habitat.
2. With local funding only: Provide 100-year flood protection for Reach 7 only (up to W. Dunne Avenue in Morgan Hill). A limited number of homes and businesses will be protected.

Geographic Area of Benefit: Morgan Hill, San Martin, Gilroy.

Priority E:
Provide flood protection to homes, businesses, schools and highways

Safe, Clean Water and Natural Flood Protection

Project Location



The **Upper Llagas Creek** watershed encompasses the area of Llagas Creek north of Buena Vista Avenue as well as its tributaries, including the West Little Llagas and East Little Llagas Creeks.

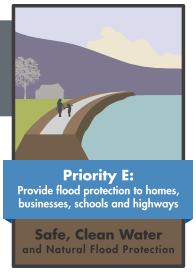
PHASE 1 (4.2 miles)

Reach 4	2.4 miles
Reach 5	0.3 miles
Reach 7a	1.5 miles
Lake Silveira	On-site mitgation

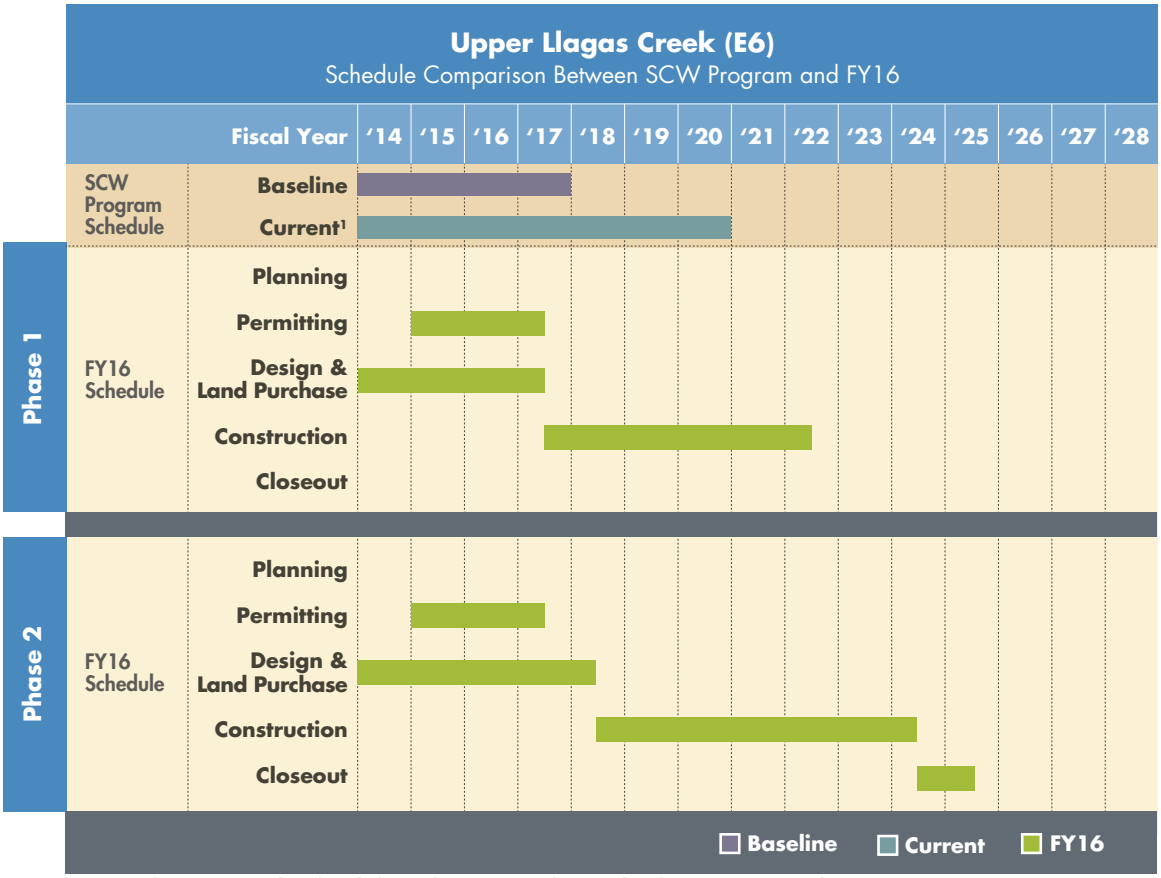
PHASE 2 (9.7 miles)

Reach 5	0.2 miles
Reach 6	3.2 miles
Reach 7b	1.4 miles
Reach 8	1.5 miles
Reach 14	3.4 miles

Est. 100-year flood area



Schedule



[1] Board approved schedule adjustment through change control process in FY16. Additional schedule adjustment will be requested for Board approval in FY17.

Status for FY16: Adjusted

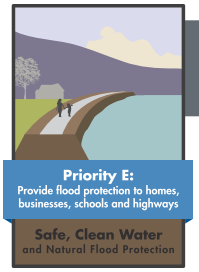
Progress on KPI #1 and #2 (combined):

Phase 1 – Reaches 4, 5 (portion), and 7A (Buena Vista Avenue to Hwy 101 in San Martin and from Monterey Road to Watsonville Road in Morgan Hill)

- In February 2015, the 100% design plans were completed, including the on-site compensatory mitigation for Lake Silveira.
- Acquired 33 of the 41 properties needed for Phase 1.
  - » The District continues work on the property acquisition process, including the necessary rights-of-way, which are required to construct the Phase 1 flood protection improvements.

Phase 2 – Reaches 5 (portion), 6, 7B, 8 and 14 (Hwy 101 to Monterey Road in San Martin, from Watsonville Road to Llagas Road in Morgan Hill, and from Sycamore Avenue to approximately Hwy 101 in San Martin)

- The 100% design submittal is underway and on schedule for completion in June 2017.



- Acquired 39 permanent rights of way of the 105 (76 permanent/29 temporary construction easements) properties needed for Phase 2. Environmental site assessments, appraisals, offers, and acquisitions are underway for the remaining properties needed for Phase 2.
- Phase 2 construction will need an additional estimated $46 million from state subventions, federal, and/or Safe, Clean Water funding to complete construction.

Upon completion of Phase 2, the project will provide flood protection to 1,100 homes, 500 businesses, and 1,300 agricultural acres, while improving stream habitat.

Phase 1 and Phase 2 Combined

- The Conditional Letter of Map Revision package to Federal Emergency Management Agency (FEMA) was submitted on June 3rd, 2015. A resubmittal was submitted on February 26, 2016 to FEMA to address their initial comments.

The project design documents for Phase 1 and Phase 2 construction continues to move forward. Construction to follow is subject to receipt of project permits from state and federal regulatory agencies.

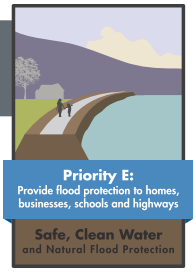
The project was approved and the Final EIR was certified by the District's Board on June 10, 2014. Due to lack of federal funding, USACE-Civil was not able to continue as lead agency for the environmental review of the project. To keep the project moving forward, the District assumed the role of lead agency and prepared the Final EIS/EIR to evaluate environmental impacts of the proposed project. This change was essential to minimize delays of the property acquisitions necessary for Phase 1.

Silveira Lake

Compensatory Mitigation

As a major mitigation element for the flood protection improvements in the project, the United States Fish and Wildlife Service recommended restoration of approximately 1,980 linear feet of abandoned stream channel and conversion of the present day Lake Silveira to emergent marsh habitat to replace lost functions and values, and provide aquatic habitat diversity with the mosaic of wetlands adjacent to the restored channel. The lake was artificially created prior to 1989 when unknown parties breached a portion of the northern levee forcing stream flows into an abandoned gravel quarry pit. The rerouting of the stream subsequently isolated and dewatered a portion of the higher quality riparian habitat of Llagas Creek.

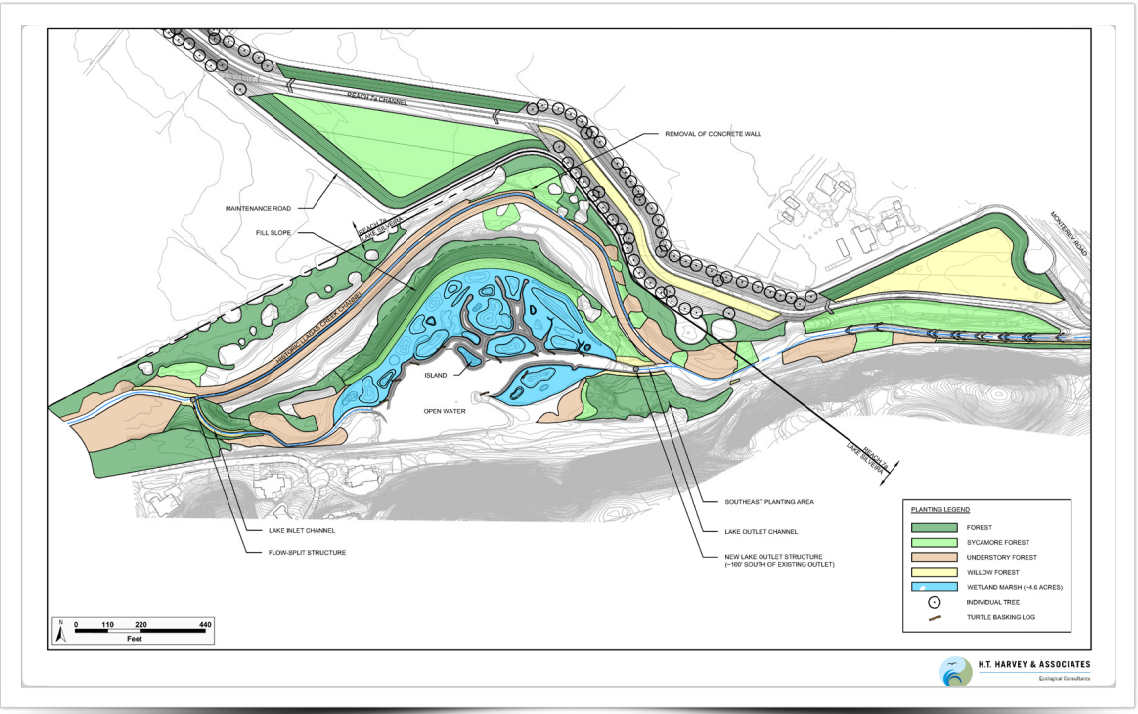
The District conducted outreach to resource agencies, local agencies, community members, and the local homeowners in the area to discuss the vision and potential of the lake. As a result of the outreach efforts, multiple objectives for the project design of Lake Silveira were developed and are as follows:

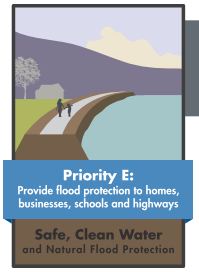


1. Maximize mitigation value for the project and provide for overall increased ecological functions and values;
2. Provide improved habitat for steelhead, Western Pond turtles, and other special status wildlife species known to occur at the site;
3. Reduce suitable habitat for non-native predatory fish;
4. Improve or protect upstream and downstream functions and resources, hydraulic conveyance, groundwater recharge, ecological resources;
5. Contribute to improved sediment supply to downstream reaches; ensure geomorphic stability for the lake, the restored historic channel, and downstream reaches;
6. Improve water quality, including turbidity, temperature, circulation/flushing;
7. Provide for public access opportunities while respecting neighboring communities, thus, the project is planning the mitigation such that if in the future the City of Morgan Hill develops passive recreation in the area, the mitigation will be adequately buffered; and
8. Minimize design, permitting, construction, and maintenance costs.

Additional enhancement features of the lake site include augmentation of large woody debris at the wetland creation site and removal of extension stands (12 acres) of invasive Himalayan blackberry within the 52-acre parcel and replanting with native understory. The 52 acre parcel is owned by Santa Clara County Parks and, therefore, the District will continue work with the County on acquisition of this mitigation element. The design plans for

Figure 1 below provides a proposed design for the compensatory mitigation element:





the lake are completed and construction of this mitigation element is planned during Phase 1 of construction.

Functional Assessment

As part of the USACE Regional Compensatory Mitigation and Monitoring Guidelines (2015) a functional/condition assessment for projects which impact aquatic resources is recommended to facilitate the permitting process and develop appropriate mitigation and monitoring guidelines. The District chose the California Rapid Assessment Method (CRAM) to integrate into the District's Ecological Monitoring and Assessment Program (EMAP), which is priority D5 in the Safe, Clean Water Program.

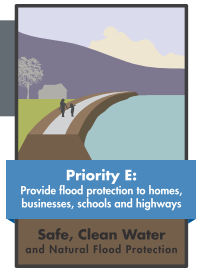
The District will utilize the results of the CRAM analysis to provide an assessment of the pre- and post-project environmental condition within the project reaches including the compensatory mitigation site, Lake Silveira. The analysis will also provide an assessment of the performance/success of the revegetation sites, and to demonstrate compliance with regulatory performance criteria and requisite targets. A Draft report was completed and received by the District in May 2016 for review.

Financial Information

In FY16, 10% of the total annual budget was expended. The Real Estate Acquisitions project (KPIs #1 and 2) expended 21% of its FY15 budget. Funds weren't fully expended in FY16 due to ongoing negotiations to acquire the required properties for the project. The construction project (KPIs #1 and 2) had 1% expenditure in FY16. Construction funding is budgeted in this project and due to delays in real estate transactions and permitting; construction did not begin in FY16. The design project (KPIs #1 and 2) expended 117% of its FY16 budget. This project was over expended due to increased labor hours needed to facilitate the completion of the design.

Financial Summary ($ Thousands)
E6. Upper Llagas Creek

Fiscal Year 2015-2016						15-year Program	
Project No. and Name	Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Plan Spent
		Actual	Encumbrance	Total			
26174051 Real Estate Acquisitions	$27,667	$5,825	$5	$5,829	21%	$60,233	23%
26174052 Construction	$38,777	$292	$81	$373	1%	$47,931	1%
26174054 Design	$596	$689	$6	695	117%	$5,329	158%
Total	**$67,040**	**$6,806**	**$92**	**$6,897**	**10%**	**$113,492**	**20%**



Opportunities and Challenges

Environmental Impact Statement:

USACE Headquarters directed its Civil Works Division (USACE Civil) to no longer lead the effort for environmental review until completion of a Limited Reevaluation Report to determine the level of federal interest in the project. USACE Civil was the lead on coordination with USACE Regulatory Division and the development, review, and then certification of the EIS, until this direction was given from USACE Headquarters.

USACE Regulatory Division issued a Draft EIS for the project on December 24, 2015, and held a public meeting on January 20, 2016 within the City of Morgan Hill. The Draft EIS comment period ended on February 16, 2016. Very few comments were received, so the Final EIS is expected to be issued by USACE Regulatory in August 2016.

Confidence levels:

Schedule: Moderate confidence

Along with permitting (see below), the greatest factor affecting the schedule are the property acquisitions. Approximately 146 property acquisitions (Phase 1: 41 parcels; Phase 2: 105 (76 permanent/29 temporary construction) parcels) are required for the project; 33 of the 41 parcels have been acquired for Phase 1 as of June 2016. Six (6) of the remaining parcels are following the legal process, while 2 remain in negotiations.

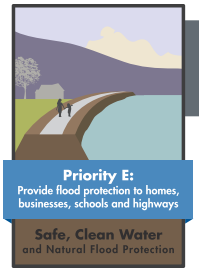
The District is moderately confident both permitting and property acquisitions will be completed allowing the project to remain on schedule.

Funding: Moderate confidence

While construction of Phase I is fully funded through the Safe, Clean Water Program, to achieve the KPI of providing flood protection to 1,100 homes, 500 businesses, and 1,300 agricultural acres, and improving stream habitat, Phase 2 construction must be completed. Currently, Phase 2 requires an additional estimated $46 million from state subventions, federal, and/or Safe, Clean Water funding to complete construction. For this project to be completed, with an estimated cost currently at $137 million, using only local funding will be a difficult challenge. The District will continue to explore federal funding. Completion of Phase 1 construction alone will not provide 100-year flood protection to the City of Morgan Hill.

Permits: Moderate confidence

The District must incorporate regulatory agency permit requirements into the Final Construction Documents before the documents can be finalized and the construction contract awarded. The District submitted the 404 permit application to USACE on June 27, 2014 to start the permitting process. With the completion of the Draft EIS for the Project by USACE Regulatory, formal consultations with USFWS and NMFS are underway. The District submitted the 1600 permit application to the California Department of Fish & Wildlife (CDFW) on October 16, 2015. The District submitted the 401 application to the Central



Coast Regional Water Quality Control Board (RWCB) on May 31, 2016.

The project team has been consulting with the various resource agencies, with the exception of USACE Regulatory, through the various design submittals (30%, 60%, and 90%) for nearly 5 years. Comments from the regulatory agencies have been addressed and are reflected in the project design documents.

At this time, the District has a moderate confidence level that permits will be received in a timely manner.

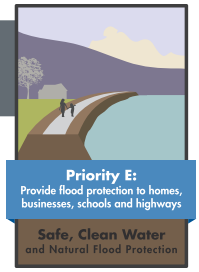
Jurisdictional Complexity: Moderate Confidence

Given the size and complexity of this project, many agencies and entities have jurisdictional influence on its progression.

State and federal regulatory agencies can impact the project's schedule, and in this case in order to begin construction, USACE needs to complete the Final EIS and publish the Record of Decision. In addition, regulatory permits are needed from CDFW, USACE, and RWCB. The District has been working with these regulatory agencies for approximately 5 years, including USFWS and NMFS to address their concerns and incorporate avoidance and minimization elements into project planning.

Additionally, the District needs to obtain the necessary rights of way and permits to be able to advertise the project for construction. The major onsite mitigation element for this project is Lake Silveira. Lake Silveira is currently owned by Santa Clara County Parks and Recreation. The District is working with County Parks and City of Morgan Hill on a tri-party agreement on Lake Silveira. The project will not be able to be constructed without this onsite mitigation element.

Among the more than 140 properties needed for the project, there are properties owned by the City of Morgan Hill and County of Santa Clara Roads and Airports that need to be acquired before the project can be advertised for construction.



Project E7

ON TARGET

San Francisco Bay Shoreline Study Milpitas, Mountain View, Palo Alto, San José, Santa Clara and Sunnyvale

This project is a partnership with the California State Coastal Conservancy, the U.S. Army Corps of Engineers (USACE), and regional stakeholders to provide tidal flood protection, restore and enhance tidal marsh and related habitats, and provide recreational and public access opportunities. Initial construction for flood protection is planned for Economic Impact Area (EIA) 11, which is the urban area of North San José and the community of Alviso.

This project relies on federal participation from USACE to review and approve the plans. Without federal participation, the District cannot implement additional planning, design and construction due to limited available funding. The proposed Safe, Clean Water funding provides the District's cost share to complete the planning study for EIAs 1-10, and provides a portion of the District's cost share toward design and construction of flood protection improvements in the North San José area (EIA 11), in and near Alviso.

Benefits

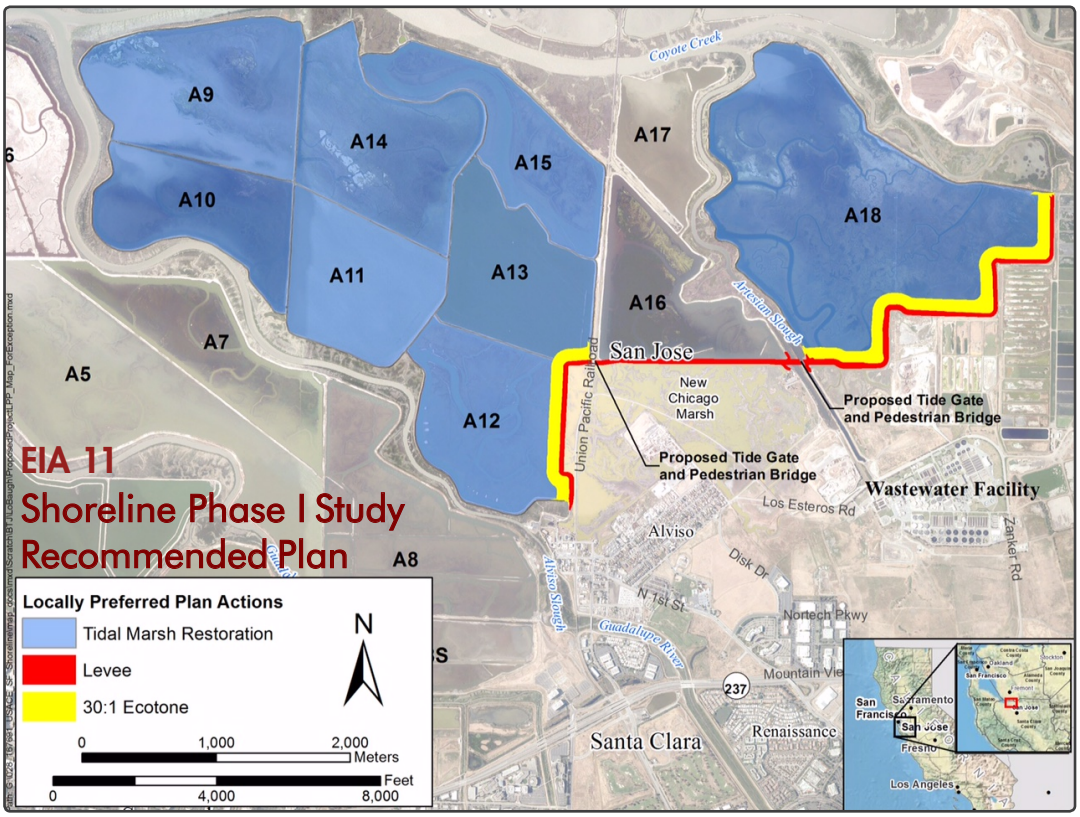
- Protects more than 500 structures and 37 businesses (EIA 11)
- Provides planning and design to protect nearly 4,700 acres and more than 5,000 structures, including roads, highways, parks, airports and sewage treatment plants
- Allows for the restoration of 2,240 acres of tidal marsh and related habitats (EIA 11)
- Provides recreational and public access opportunities

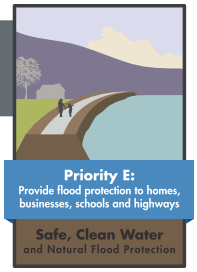
Key Performance Indicators (15-year Program)

1. Provide portion of the local share of funding for planning and design phases for the former salt production ponds and Santa Clara County shoreline area.
2. Provide portion of the local share of funding toward estimated cost of initial project phase (EIA 11).

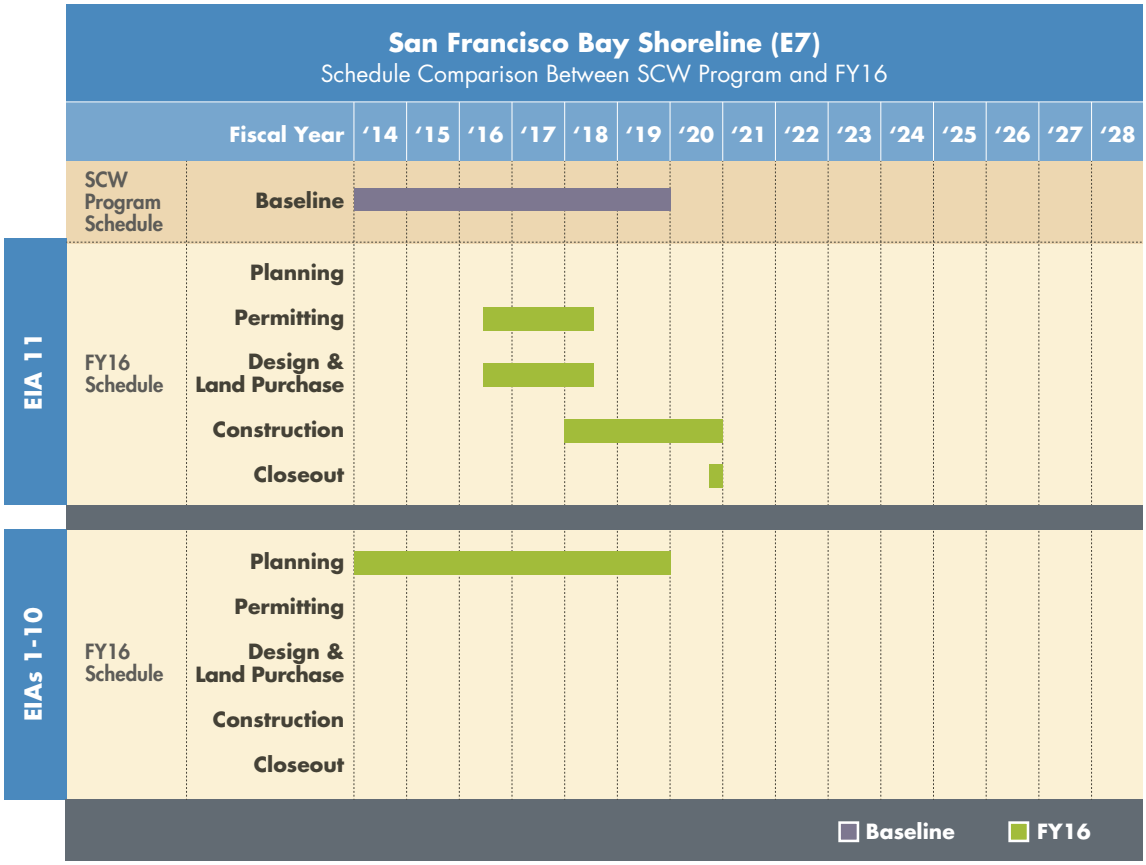
Geographic Area of Benefit: Milpitas, Mountain View, Palo Alto, San José, Santa Clara and Sunnyvale

Project Location





Schedule



Board approved schedule adjustment will be requested through change control process in FY17.

Status for FY16: On Target

Progress on KPI #1:

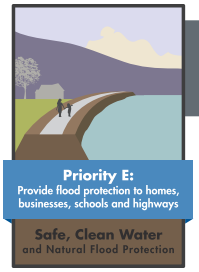
San Francisco Bay Shoreline Study – San Francisquito Creek to Guadalupe River (EIAs 1-10)

- The preliminary feasibility study of EIA's 1-10 has progressed on schedule with the completion of the Preliminary Feasibility Report on target to be completed by December 2016. This study effort is part of the planning phase for the former salt production ponds and Santa Clara County shoreline area.

Progress on KPI #2:

San Francisco Bay Shoreline Study – Urban area of North San José/Alviso/San Jose-Santa Clara Regional Wastewater Facility (EIA 11)

- For EIA 11, the study partners held a successful USACE Civil Works Review Board in Washington DC on September 11, 2015 which allowed the USACE to move forward with finalizing the Feasibility Integrated Document and combined Environmental Impact Statement and Report (EIS/EIR). In December 2015, a USACE Chief's Report was signed and the study's Feasibility Integrated Document and EIS/EIR was finalized.



The District Board of Directors adopted a resolution to certify the EIR in March of 2016. After March 2016, District staff worked with the study partners to close out the feasibility study phase and enter into a design agreement to begin the project's preliminary engineering and design phase efforts in FY17.

Financial Information

In FY16, 5% of the total annual budget was expended. The San Francisco Bay Shoreline Study, EIAs 1-10 project (KPI #1) expended 24% of its FY16 budget. This was due to reduced costs for the consultant services contract for hydraulic, coastal and economic analysis. The San Francisco Bay Shoreline Study, EIA 11 project (KPI #2) had no expenditures in FY16. This was due to the delays originally encountered in FY15 in addressing the sea-level rise re-analysis required by USACE Headquarters. Staff will begin expending Phase I EIA 11 funds in FY17.

Financial Summary ($ Thousands)
E7. San Francisco Bay Shoreline Study

Fiscal Year 2015-2016						15-year Program	
Project No. and Name	Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Plan Spent
		Actual	Encumbrance	Total			
26444002 EIAs 1-10	$1,695	$399	$0	$399	24%	$22,288	6%
26444001 EIA 11	$6,527	($1)	($21)	($21)	0%	$17,052	0%
Total	**$8,222**	**$399**	**($21)**	**$378**	**5%**	**$39,340**	**4%**

Opportunities and Challenges

Confidence levels:

San Francisco Bay Shoreline Study – San Francisquito Creek to Guadalupe River (EIAs 1-10)

Schedule: High confidence

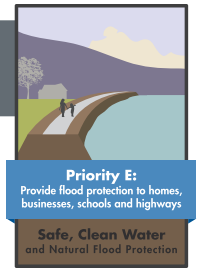
District's confidence level is high for completion of the Preliminary Feasibility Report.

Funding: High confidence

The Preliminary Feasibility Report is funded to completion through the Safe, Clean Water Program.

Permits: N/A

The Preliminary Feasibility Report does not require permits.



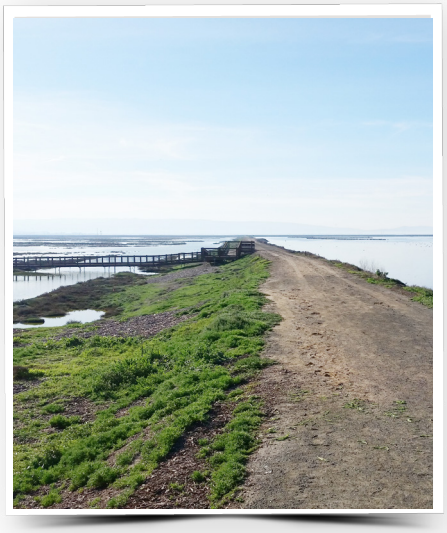
Jurisdictional Complexity: Low confidence

In developing the coastal flood protection levee alignment the District has to work with the cities of Palo Alto, Mountain View, Sunnyvale, and San José; along with NASA Moffett Field, United States Fish and Wildlife Service, State Coastal Conservancy, Mid Peninsula Open Space Authority and USACE. This is an ongoing challenge because it requires extensive regional coordination for a significant countywide tidal flood protection project with an estimated price tag of nearly $800 million. Currently Safe, Clean Water provides nearly $1.1 million for a portion of the local share of funding.

San Francisco Bay Shoreline Study – Urban area of North San Jose/Alviso/San Jose-Santa Clara Regional Wastewater Facility (EIA 11)

Schedule: Low confidence

While the feasibility study for EIA 11 was completed in FY16, the District's confidence level is low due to uncertainties with the permitting process, working with the Union Pacific Railroad and the City of San José, as well as the risk for continued federal funding. The District will be requesting that the Board approve a schedule adjustment through the change control process in FY17.



South Bay Salt Ponds near the Shoreline project area

Funding: Low confidence

There is the risk that the full amount of federal funding will not be available by the required fiscal years. USACE has been identified to receive $3 million in FY16 work plan funds and $500,000 in FY17 work plan funds to conduct preliminary engineering and design phase efforts. The project is expected to be in the next Water Resources Development Act (WRDA 2016) to be authorized for construction. The low confidence level is based on continued uncertainties and risk for continued federal funding and authorization of the USACE project for construction in WRDA 2016.

Permits: Low confidence

The District's confidence regarding permits is low due to complexities of receiving permits required by the Regional Water Quality Control Board and Bay Conservation and Development Commission's regulatory policies.

Jurisdictional Complexity: Low confidence

The confidence level is low due to the complexity involved in working with the City of San José, the San Jose-Santa Clara Regional Wastewater Facility and the Union Pacific Railroad.

Priority E: Provide flood protection to homes, businesses, schools and highways
Safe, Clean Water and Natural Flood Protection

Project E8

ADJUSTED

Upper Guadalupe River Flood Protection Highway 280 to Blossom Hill Road – San José

Preferred project: A federal-state-local partnership

This federally authorized project continues a Clean, Safe Creeks project in partnership with the U.S. Army Corps of Engineers (USACE) to plan, design and construct improvements along 5.5 miles of channel extending from Interstate 280 to Blossom Hill Road. Improvements include channel widening, construction of floodwalls and levees, replacement of road crossings and planting of streamside vegetation. Reducing flood frequency and bank erosion will improve water quality, while planned mitigation measures will give fish access to an additional 12 miles of habitat within and upstream of the project reach.

Benefits

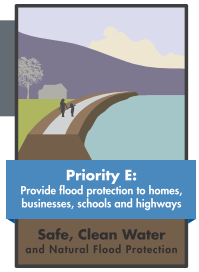
- Preferred project will construct 1% flood conveyance capacity for 5.5 miles of channel in San José, protecting approximately 6,280 homes, 320 businesses and 10 schools/institutions
- Local funding only constructs improvements to 4,100 linear feet to convey 1% flow
- Improves stream habitat values and fisheries
- Improves stream water quality
- Allows for creekside trail access

Upper Guadalupe Reach 12 Groundbreaking on May 28, 2015

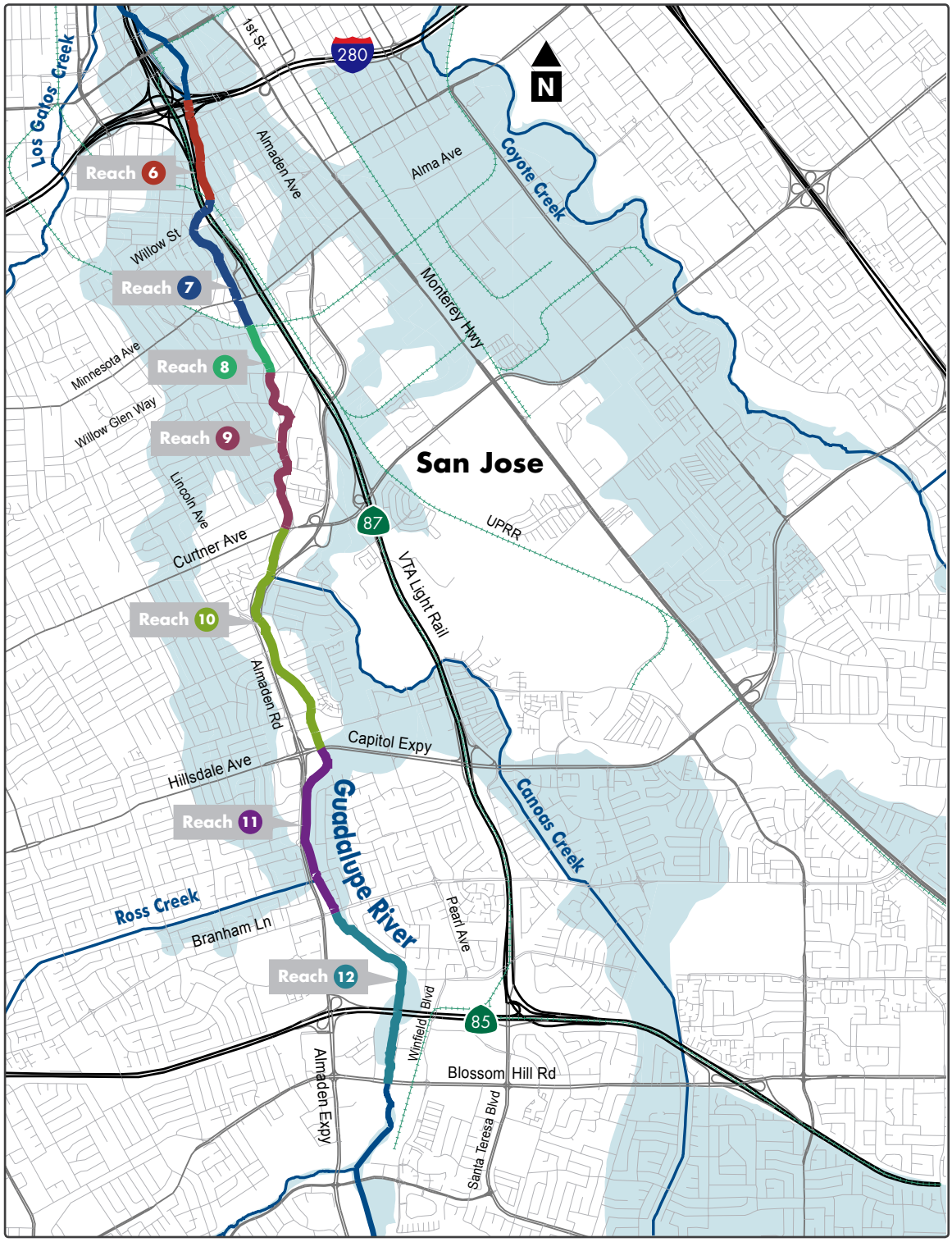
Key Performance Indicators (15-year Program)

1. Preferred project with federal and local funding: Construct a flood protection project to provide 1% flood protection to 6,280 homes, 320 businesses and 10 schools and institutions.
2. With local funding only: Construct flood protection improvements along 4,100 feet of Guadalupe River between Southern Pacific Railroad (SPRR) crossing, downstream of Willow Street, to Union Pacific Railroad (UPRR) crossing, downstream of Padres Drive. Flood damage will be reduced; however, protection from the 1% flood is not provided until completion of the entire Upper Guadalupe River Project.

Geographic Area of Benefit: San José



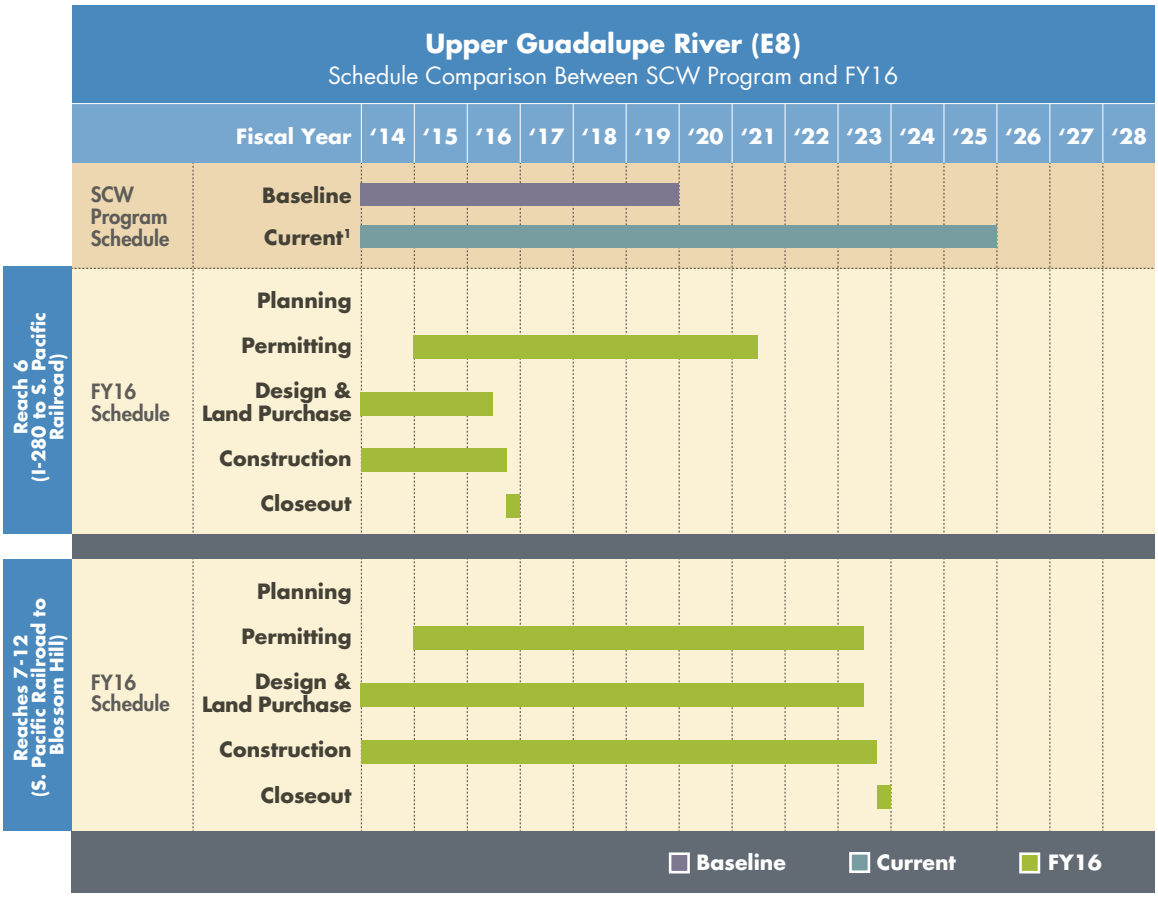
Project Location



Priority E:
Provide flood protection to homes, businesses, schools and highways

Safe, Clean Water and Natural Flood Protection

Schedule



[1] Board approved schedule adjustment through change control process.

Status for FY16: Adjusted

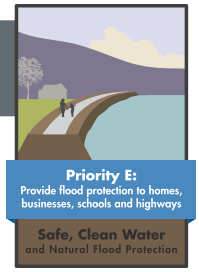
Progress on KPI #1 and #2 (combined):

Reach 6 (from Interstate 280 to the UPRR bridge crossing downstream of Willow Street)

- As part of the District's project closeout, efforts were directed toward maintaining the vegetation plantings that were completed. The post-construction mitigation plant maintenance contract for Reach 6 was completed in December 2015.

Reaches 7 and 8 (from the UPRR bridge crossing downstream of Willow Street to Willow Glen Way)

- USACE completed 65% design documentation for Reaches 7 and 8 and is expected to finalize the 100% design by December 2016.
- Construction contract for Reaches 7 and 8 is scheduled to be awarded by USACE in May 2017 pending availability of funds.



- SCVWD is on track to acquire rights-of-way for the project in accordance with USACE construction schedule.

Reach 9 (from Willow Glen Way to Curtner Avenue)

- SCVWD is on track to acquire rights-of-way for the project in accordance with USACE construction schedule.

Reach 10B (from Curtner Avenue to Capitol Expressway)

- USACE will complete the mitigation plans by August 2016.
- USACE to advertise and award contract for the mitigation planting work by November 2016.
- Mitigation planting work will be completed by the end of 2017 by USACE.

Reach 11 (from Capitol Expressway to Brahnam Lane)

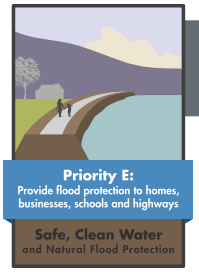
- No changes in design since 2001.

Reach 12 (from Branham Lane to Blossom Hill Road)

- A construction contract was awarded and USACE completed the channel construction for Reach 12 in November 2015.
- USACE will complete the mitigation plans by August 2016.
- USACE to advertise and award contract for the mitigation planting work by November 2016.
- Mitigation planting work will be completed by the end of 2017 by USACE.

Financial Information

In FY16, 8% of the total annual budget was expended. The Reach 6 (I-280 to S. Pacific Railroad) project (KPIs #1 and 2) expended 19% of its FY16 budget. This was because the erosion repair work was unable to be completed due to lack of permits from the USACE. The District anticipates performing this work in summer of 2017, pending receipt of the necessary permits. The Reaches 7-12 (S. Pacific Railroad to Blossom Hill) project (KPIs #1 and 2) expended 6% of its FY16 budget. This was due to not acquiring the right-of-way for Reach 7 and 8 in FY16 as scheduled, as a result of additional necessary discussions with the property owners, the Joint Power Boards (JPB), Caltrans, and City of San José about riparian setback requirements, amounts of land needed, and property values. The District continues to work with the city, state, JPB, and property owners to complete acquiring the necessary rights of way for Reach 7 in FY17.



Financial Summary ($ Thousands)
E8. Upper Guadalupe River

Fiscal Year 2015-2016						15-year Program	
Project No. and Name	Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Plan Spent
		Actual	Encumbrance	Total			
26154002 Reach 6 (I-280 to S. Pacific Railroad)	$1,320	$256	$0	$256	19%	$5,998	24%
26154003 Reaches 7-12 (S. Pacific Railroad to Blossom Hill)	$18,209	$1,119	$10	$1,129	6%	$105,735	8%
Total	**$19,693**	**$1,468**	**$10**	**$1,477**	**8%**	**$111,733**	**9%**

Opportunities and Challenges

Confidence levels:

Reach 6 (I-280 to S. Pacific Railroad) Project

Schedule: Moderate confidence

The schedule could be affected due to permitting delays.

Funding: High confidence

This project is fully funded by the Safe, Clean Water Program.

Permits: Moderate confidence

The District is working on acquiring state and federal regulatory permits for gravel augmentation placement.

Jurisdictional Complexity: High confidence

The District has jurisdiction over this reach and all the design elements.

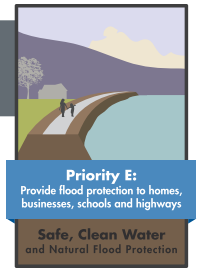
Reaches 7-12 (S. Pacific Railroad to Blossom Hill) Project

Schedule: Low confidence

The schedule could be affected due to unforeseen conditions such as a delay in real estate acquisitions, utility relocations related issues, and permitting delays.

Funding: Low confidence

Federal funding appropriation continues to be the main challenge for this project. Currently, USACE may not have adequate funds for construction of Reaches Reach 7 and 8. The



District will need to continue working with USACE leadership and federal elected officials to encourage federal appropriations for construction of Reaches 7 and 8 and to complete the remaining reaches of the project.

Permits: Low confidence

For Reaches 7 and 8, USACE will acquire all the required permits to construct 2 vehicular bridges, 2 rail road bridges, and a bypass channel. In reaches 10B and 12, USACE will be responsible to acquire the permits for the mitigation planting. In Reaches 9 and 11, no permits are required at this time.

Jurisdictional Complexity: Low confidence

The District has limited jurisdiction over the design and construction of the Upper Guadalupe River Flood Control Project. As a local sponsor, the District is responsible to acquire all the right of way and relocation of utilities. Even after the District acquires easements or joint use agreements for the project from Caltrans, the Joint Power Board/ Caltrain, and the City of San José, these agencies will continue to have jurisdiction over the Upper Guadalupe Flood Control Project.

Flooding along Guadalupe River

This page intentionally left blank

Other Capital Flood Protection Projects and Clean, Safe Creeks Grants Projects

Permanente Creek Flood Protection
San Francisco Bay to Foothill Expressway – Mountain View

Sunnyvale East and Sunnyvale West Channel Flood Protection
San Francisco Bay to Inverness Way and Almanor Avenue – Sunnyvale

Berryessa Creek Flood Protection
Calaveras Boulevard to Interstate 680 – Milpitas and San José

Coyote Creek Flood Protection
Montague Expressway to Interstate 280 – San José

Calabazas Creek Flood Protection
Miller Avenue to Wardell Road – Sunnyvale

Clean, Safe Creeks Grants Projects

The countywide map and schedule comparison for Safe, Clean Water flood protection projects (E4 to E8) and other capital projects can be found on pages 129 - 131.

Appendix A: Financials

Appendix B: Inflation assumptions

Permanente Creek Flood Protection

ADJUSTED

This project will protect up to 2,700 parcels from a 1% flood. It is currently scheduled to begin construction in June 2015 and is on track to provide flood protection to 2,700 parcels by 2016. The District Board has certified the Environmental Impact Report (EIR) and approved the project in November 2012. The project has been in detailed design for the past 4 years. The District has completed design for the Permanente Creek channel widening, floodwalls/levees and the Rancho San Antonio flood detention basin. Also completed is 60% design for the Hale Creek channel widening and the McKelvey Park flood detention basin. Applications for resource agency permits were filed in October 2013. The project is entirely funded with local funds.

Benefits

- Provides flood protection to a minimum of 1,664 parcels (1,378 homes, 160 businesses and 4 schools/institutions) downstream of El Camino Real from a 1% flood
- Prevent flooding of Middlefield Road and Central Expressway
- Minimize the future cost for maintenance
- Provide opportunities for environmental enhancements and trail extension

Key Performance Indicator (5-year Implementation Plan)

1. Provide flood protection to 1,664 parcels downstream of El Camino Real, including Middlefield Road and Central Expressway.

Geographic Area of Benefit: Mountain View and Los Altos

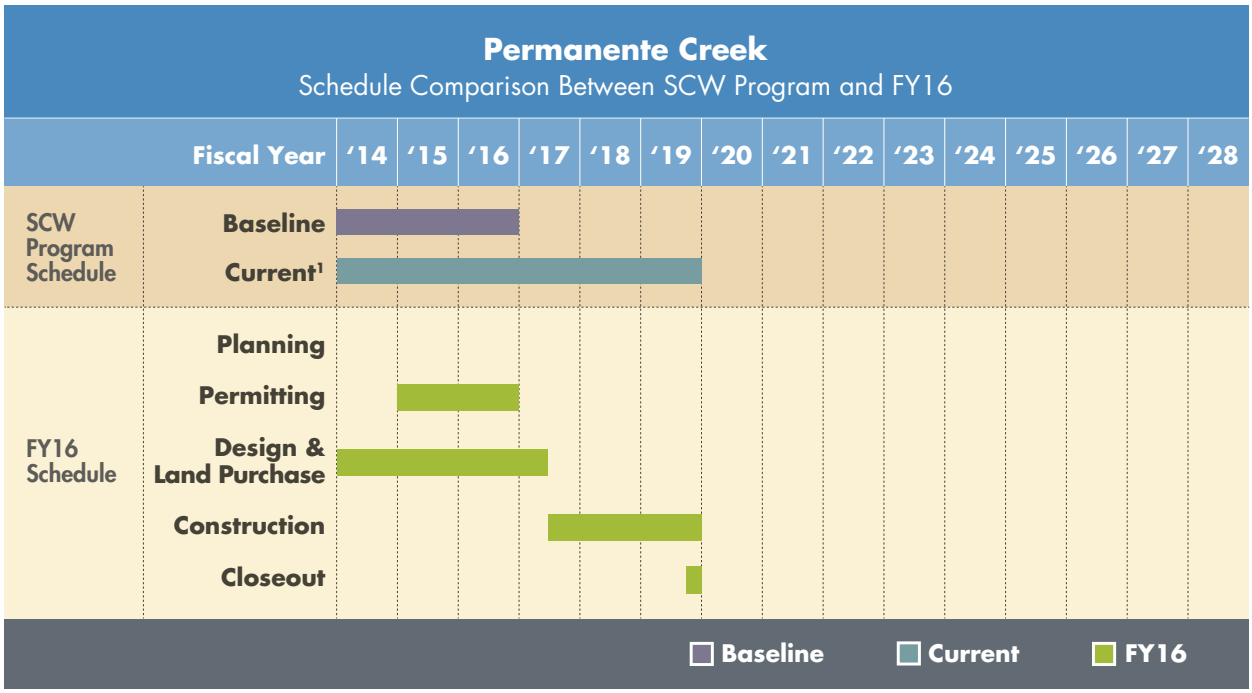
Project Location

LEGEND

Project elements

- A Floodwalls
- B McKelvey Park detention
- C Channel widening
- D Rancho San Antonio Park detention

Schedule



[1] Board approved schedule adjustment through change control process.

The construction of the Rancho San Antonio and McKelvey Park detentions has been adjusted to begin in FY17.

Status for FY16: Adjusted

Progress on KPI #1:

- Completed draft 100% design plans for McKelvey Park flood detention site on December 7, 2015.
- Received Final Conditional Section 401 Water Quality Certification from the Regional Water Quality Control Board December 8, 2015.
- Received Draft Streambed Alteration Agreement from the California Department of Fish and Wildlife October 14, 2015.
- Received Section 404 Permit from the US Army Corps of Engineers on June 7, 2016.
- Board to authorize advertisement for bids for construction of the Rancho San Antonio detention site on June 28, 2016.

On September 23, 2013, the District submitted a Joint Aquatic Resources Permit Application (JARPA) for the project to the San Francisco Bay Regional Water Quality Control Board (RWQCB), California Department of Fish and Wildlife (CDFW), and United States Army Corps of Engineers (USACE).

Negotiations with RWQCB went on for 18 months from October 2013 to March 2015. The District ultimately submitted a revised JARPA application in early April 2015, incorporating many of the RWQCB's comments. Subsequently, the RWQCB issued a draft Conditional Water Quality Certification (Certification) for the project on April 13, 2015 and the CDFW deemed the project's Notification of Lake or Streambed Alteration to be complete on May 13, 2015. CDFW subsequently issued a draft Streambed Alteration Agreement on October 14, 2015 and the RWQCB issued the final Certification on December 8, 2015. The USACE, in consultation with the United States Fish and Wildlife Service (USFWS), issued the 404 permit on June 7, 2016. Currently, the District is working with CDFW and RWQCB to ensure that all the permit measures are coordinated. All the permits are expected to be finalized by the end of July 2016.

Financial Information

The pursuit of agency permits in FY16 delayed project construction to FY17 resulting in only a 20% expenditure of the annual budget.

Financial Summary ($ Thousands)
Permanente Creek Flood Protection

Fiscal Year 2015-2016					15-year Program	
Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Plan Spent
	Actual	Encumbrance	Total			
$32,359	$1,581	$4,856	$6,437	20%	$55,430	17%

Opportunities and Challenges

Confidence levels:

Schedule: Moderate confidence

Construction is expected to begin towards the end of 2016/early 2017 and will last for approximately 2 years. The McKelvey Park detention basin and channel improvements will occur in heavily urbanized areas and the District will continue to coordinate closely with the Cities of Mountain View & Los Altos and other affected utilities during construction. The Rancho San Antonio detention basin will be constructed at a popular county park directly adjacent to the Gate of Heaven Cemetery and the District will continue to carefully coordinate with Santa Clara County Parks, Midpeninsula Regional Open Space District, the Cemetery, as well as the City of Cupertino on potential traffic issues. Other challenges at Rancho San Antonio include the presence of the plant pathogen Phytophthora at the existing wetland and the presence of the threatened California red-legged frog close to the project site.

Funding: Low confidence

The adjusted Safe, Clean Water 15-year project allocation, including FY13 encumbered balance and Capital Project Reserves, is $41.739M. Due to rising construction costs and design changes for Rancho San Antonio and McKelvey Park Detention Basins, the District anticipates that construction costs will exceed the current funding.

Permits: High confidence

The District eliminated the Hale Creek concrete channel replacement portion of the project in the revised JARPA application in FY15, which lowered the number of protected parcels to 2,200 from a 1% flood, but made significant progress with RWQCB and CDFW as a result. The District also continued working with the USACE and USFWS and obtained all the permits during FY16.

Jurisdictional Complexity: High confidence

The McKelvey Park detention basin is being constructed on City of Mountain View property and the Rancho San Antonio detention basin is being constructed on Santa Clara County Parks property. However, Rancho San Antonio Park is currently not being managed by County Parks but by Midpeninsula Regional Open Space District. Despite the high jurisdictional complexity, the District's confidence is high due to close coordination with all the stakeholders.

Sunnyvale East and Sunnyvale West Channels Flood Protection Projects

ADJUSTED

San Francisco Bay to Inverness Way and Almanor Avenue – Sunnyvale

In the early stages of the project design process, the District project team decided to join both improvement projects into a single flood protection project with a single Environmental Impact Report (EIR) to reduce construction costs and minimize construction coordination issues between the 2 channels.

The West Channel extends approximately 3 miles and upgrades existing channel capacity to provide 100-year riverine flood protection for 47 acres of highly valuable industrial lands, including the Onizuka Air Force Base. The East Channel extends approximately 6.4 miles and upgrades existing channel capacity to provide 100-year riverine flood protection for 1,618 parcels. Both projects decrease channel turbidity and sediment by repairing erosion sites, thereby improving water quality.

Benefits

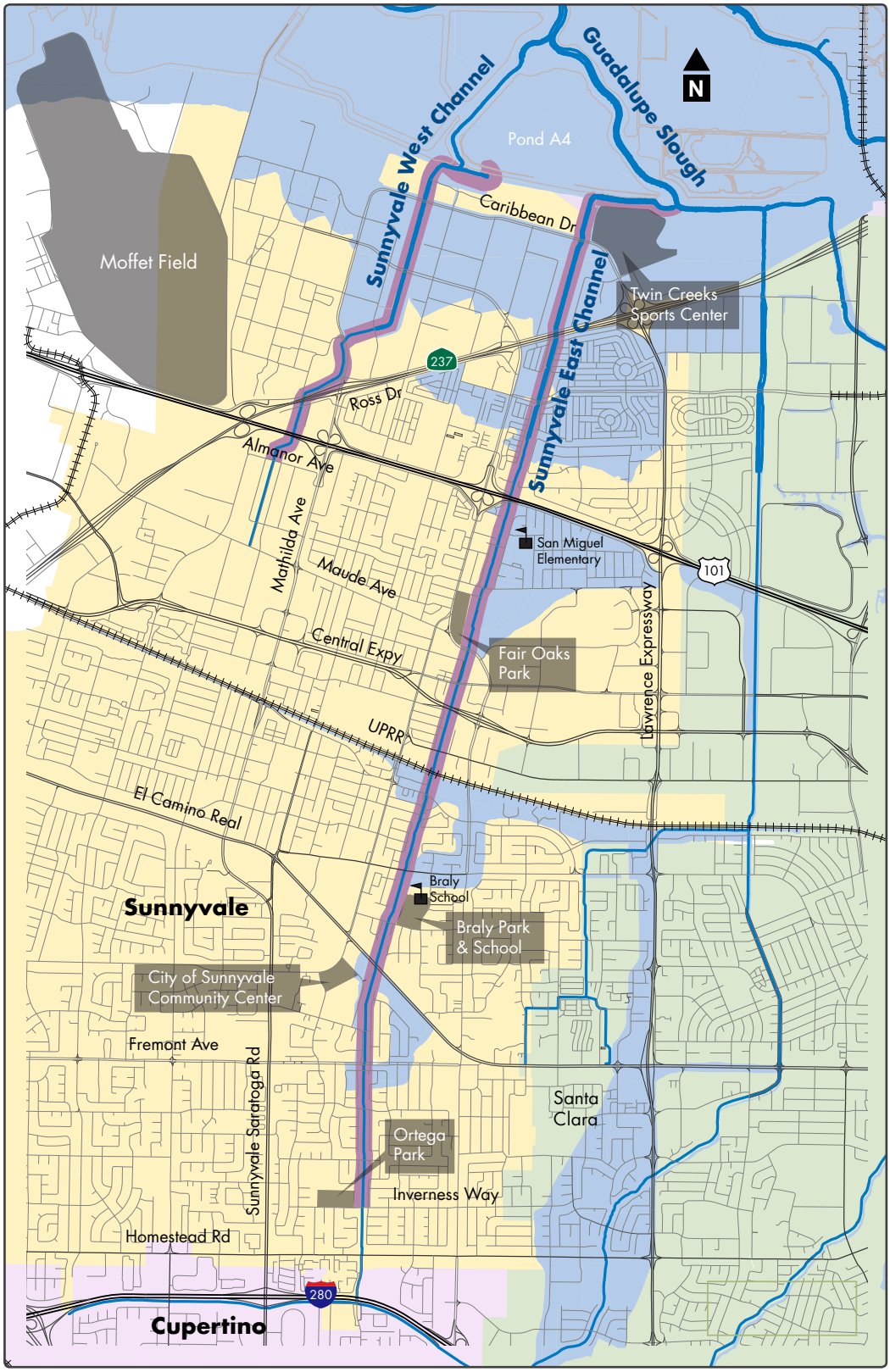
- Provides 1% flood capacity for approximately 6.5 miles of channel along Sunnyvale East and approximately 3.0 miles of channel along Sunnyvale West within the City of Sunnyvale, protecting 1,618 properties (Sunnyvale East) and 47 acres (11 properties) of industrial land (Sunnyvale West)
- Improves stream water quality, by providing erosion control measures to decrease sediment and turbidity
- Identifies opportunities to integrate recreation improvements with the City of Sunnyvale and others as appropriate

Key Performance Indicator (5-year Implementation Plan)

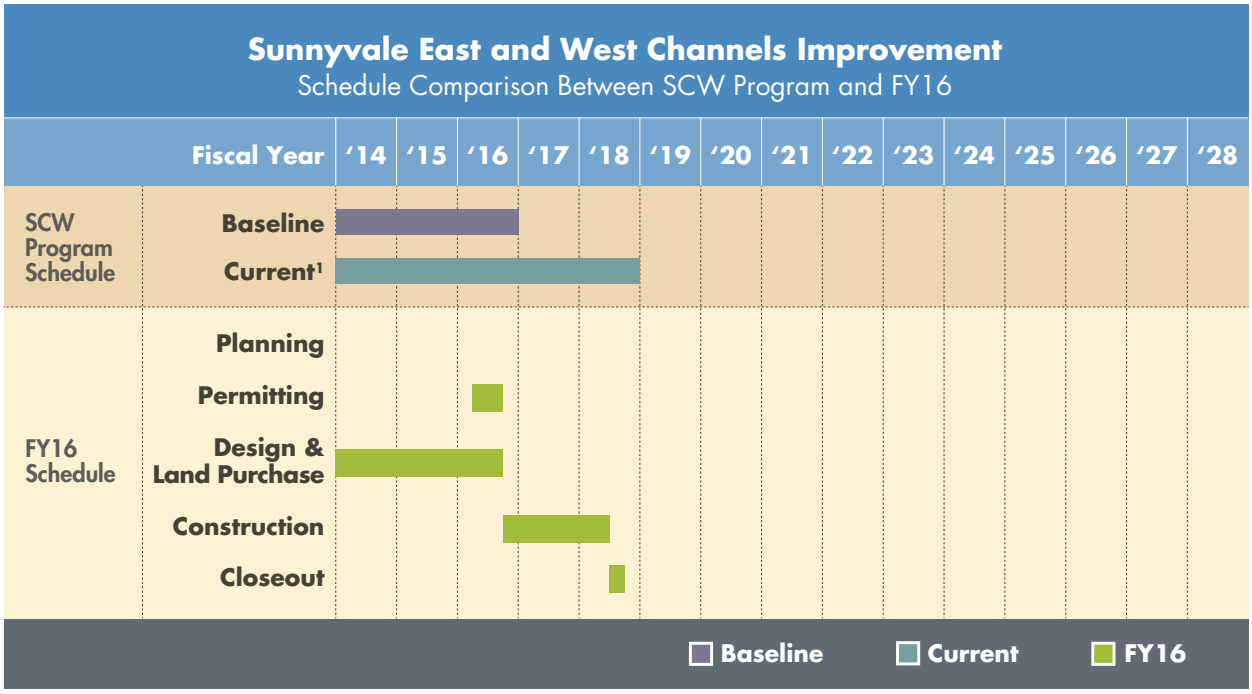
1. Provide riverine flood protection for 1,618 properties and 47 acres (11 parcels) of industrial land, while improving stream water quality and providing for recreational opportunities.

Geographic Area of Benefit: Sunnyvale

Project Location



Schedule



[1] Board approved schedule adjustment through change control process.

Status for FY16: Adjusted

Progress on KPI #1:

- On September 9, 2014, Final Environmental Impact Report (EIR) was certified by the District Board of Directors.
- Upon certification of the project EIR, the project team began the acquisition process to purchase permanent right-of-way within 5 parcels required for the project.
- 100% Design remains underway and is expected to be completed by September 2016.
- The project team is planning to submit the various project permit applications in July 2016.

Permanent right-of-way acquisitions (5 parcels), including temporary staging areas (approximately 4 parcels) required for construction are ongoing. Of the 5 parcels, 3 are owned by City of Sunnyvale, and the others are owned by PG&E and U.S. Fish & Wildlife. Legal plats and descriptions have been prepared and appraisals have been completed. Acquisitions are anticipated to be completed by November 2016.

100% project design documents, which will include addressing the 90% design review comments, are scheduled for completion in September 2016. The project will be advertised for construction upon receipt of project permits from the various state and federal regulatory agencies. If resource agency permits are received by February 2017, the project will be advertised immediately for a summer 2017 construction start.

Financial Information

The FY16 budget included funding for construction; however, due to delays in completion of the EIR, the construction funding was unspent. As a result, expenditures were 9% of the annual budget.

Financial Summary ($ Thousands)
Sunnyvale East & West Channels Flood Protection

Fiscal Year 2015-2016					15-year Program	
Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Plan Spent
	Actual	Encumbrance	Total			
$12,660	$1,145	$8	$1,153	9%	$57,460	8%

Opportunities and Challenges

Confidence Levels:

Sunnyvale East Channel

Schedule: Moderate confidence

The significant challenge is timely completion of construction to replace the existing Caribbean Drive Bridge with a new triple cell box culvert. The project team had previously asked the City of Sunnyvale to consider allowing a complete closure of Caribbean Drive to avoid a 2-year construction window, expensive detours, lane closure, public safety and other concerns that are involved with a partial closure. The City of Sunnyvale elected to require the District to complete the construction with a partial closure of Caribbean Drive, thus requiring a 2-year construction window.

Funding: High confidence

This project is fully funded by the Safe, Clean Water Program.

Permits: Moderate confidence

The significant challenge faced by the project overall is securing the necessary regulatory agency permits in a timely manner to facilitate construction. Upon receipt of the various regulatory agency permits, permit conditions and requirements will need to be incorporated into the Final Construction Documents before the documents can be finalized and the project advertised for construction.

The Sunnyvale East and West Channels were man-made storm drain systems constructed by the District in the 1950's and 1960's. Therefore, both channels have no naturally occurring headwaters, resulting in extremely limited existing channel vegetation making the project's environmental impact minimal.

Jurisdictional Complexity: N/A

Sunnyvale West Channel

Schedule: Moderate confidence

The significant challenge is to coordinate the construction of the Carl Road box culvert with the City of Sunnyvale Wastewater Pollution Treatment Plant (WPTP) staff as the existing Carl Road crossing serves as their only access to portions of the WPTP facilities out in the lower San Francisco Bay region. In addition, the existing Carl Road box culvert has several gravity extraction conduits to existing adjacent landfills that are required to remain in service 24 hours/7 days a week. Finding resolutions to these WPTP challenges are ongoing.

Funding: High confidence

This project is fully funded by the Safe, Clean Water Program.

Permits: Moderate confidence (Same as Sunnyvale East Channel)

Jurisdictional Complexity: N/A

Sunnyvale West, Looking South at Carl Road

Berryessa Creek Flood Protection

ADJUSTED

Calaveras Boulevard to Interstate 680

This project is a partnership with the U.S. Army Corps of Engineers (USACE) to plan, design and construct flood improvements to protect homes in Milpitas and San José, as well as Silicon Valley's commercial district, from a 1% flood flow. The Bay Area Rapid Transit (BART) 10-mile extension project spans from Warm Springs Station in Fremont to the North San José Berryessa area. The new Milpitas Station is underground, located in the Berryessa Creek floodplain and is scheduled for completion December 2017. The Berryessa Creek project's completion is critical to the BART extension's planned operations.

Benefits

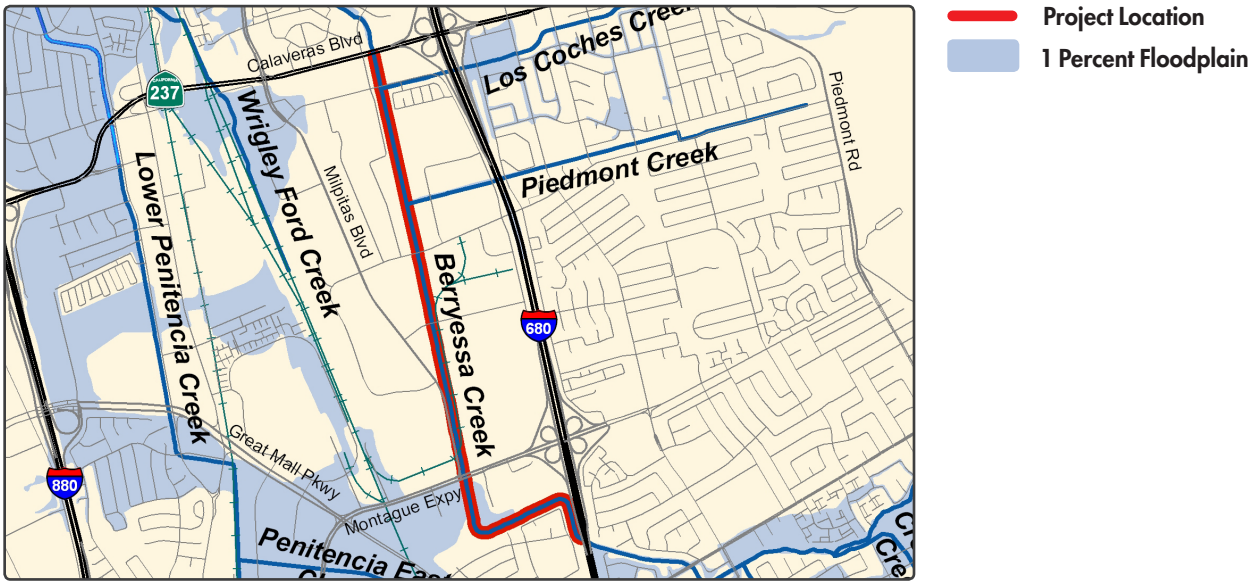
- Protects up to 1,662 businesses and homes in Milpitas and San José from a 1% flood, saving potential damages in excess of $527 million
- Provides protection for more than 30 miles of streets including Highway 237 and Montague Expressway

Key Performance Indicators (5-year Implementation Plan)

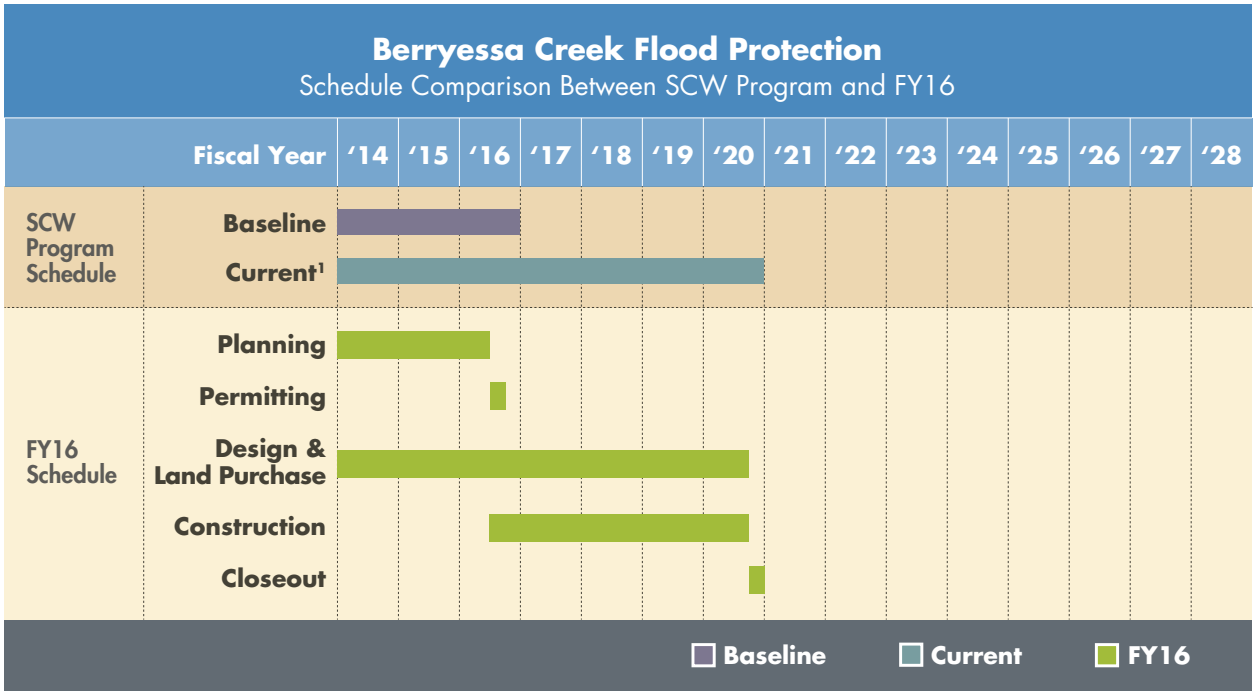
1. Local and federal funding flood damage reduction for 1,662 parcels, including 1,420 homes, 170 businesses, and 5 schools/institutions.
2. Using local funds only, a reduced project would extend from the confluence with Lower Penitencia upstream to Montague Expressway, modifying 2 miles of channel and protecting approximately 100 parcels.

Geographic Area of Benefit: Milpitas and San José

Project Location



Schedule



[1] Board approved schedule adjustment through change control process.

Status for FY16: Adjusted

Progress on KPI #1 and #2 (combined):

- In May 2016, District and USACE executed the Project Partnership Agreement for USACE to proceed with construction. The construction phase is anticipated to start in September 2016.
- Final Environmental Impact Report (EIR) was approved by the Board on February 9, 2016.
- Construction of Montague Expressway bridge replacement work started in January 2016. In conjunction with Berryessa Creek Flood Protection Project, this work provides necessary flood protection to new Milpitas BART station.
- District completed Phase 1A cultural resource investigation, including relocation of native American remains found within the project area.
- In June 2016, District executed the construction and maintenance agreement with Union Pacific Railroad (UPRR), the owner of the trestle bridge which is to be replaced.
- USACE obtained 401 Water Quality Certification from the Regional Water Quality Control Board (RWQCB) in March 2016.
- District worked with USACE to complete 100% construction design and 100% revegetation design plans for project.

The District continues to provide necessary support to USACE including engineering support and coordination with the City of Milpitas, RWQCB, and UPRR, to ensure that USACE can complete its design and begin construction in September 2016.

Financial Information

In FY16, this project expended 81% of its total annual budget. The slight under expenditure is primarily due to delays in finalizing real estate transactions Santa Clara County is performing on behalf of the District and due to delays in PG&E's completion of utility relocation design. The District expects these delays to be resolved within the first quarter of FY17.

Financial Summary ($ Thousands)
Berryessa Creek Flood Protection

Fiscal Year 2015-2016						15-year Program	
Project No. and Name	Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Plan Spent
		Actual	Encumbrance	Total			
26174041 Design and Construction	$15,573	$8,643	$4,217	$12,859	83%	$11,343	132%
26174042 Real Estate Acquisitions	$6,017	$4,668	$0	$4,668	78%	$29,554	63%
Total	**$21,590**	**$13,310**	**$4,217**	**$17,527**	**81%**	**$40,896**	**82%**

Opportunities and Challenges

Confidence levels:

Schedule: Moderate confidence

USACE will begin construction in late September and be complete it by December 2017 to coordinate with the Milpitas BART station opening schedule for late 2017.

The potential presence of underground hazardous materials and cultural resources such as Native American human remains burial add complexity to project construction and could extend the project schedule and possibly affect the budget.

Additionally, certain portions of trestle bridge replacement work will be performed by UPRR workforce and significant delays in start of their work could impact project schedule.

Funding: Moderate confidence

During April 26 Meeting, the Board approved $10 million budget increase to absorb increases in construction cost estimates as USACE had no ability to obtain additional federal funding. Without additional funds from the District, award of the contract would have been delayed into 2017 or later. Such a delay would have negatively impacted the timely opening of the new Milpitas BART Station.

Permits: Moderate confidence

RWQCB is proposing to issue a tentative Waste Discharge Requirement (WDR) in July, and the District is vigorously challenging RWQCB's attempt to require the District to mitigate for the construction impacts as part of WDR although it was already addressed in 401 Water Quality Certification. There is a possibility that conditions in WDR may impact the construction schedule.

Jurisdictional Complexity: Moderate confidence

Coordination effort with the City of Milpitas has been extensive and their approval of the design plans is necessary prior to the start of construction.

Although the construction and maintenance agreement has been executed, District and USACE will need to continue their coordination effort with UPRR especially on replacement of the trestle bridge. Construction cannot proceed without UPRR approval of the USACE design plans.

Coyote Creek Flood Protection

ADJUSTED

Montague Expressway to Interstate 280 – San José

The project is located in the central portion of the Coyote Watershed and extends approximately 6.1 miles between Montague Expressway and Interstate 280 in San José. The primary project objective is to enhance the creek's conveyance to protect homes, schools, businesses, and highways from the 1% or greater flood frequency events and includes the planning, design, and partial construction. Alternative funding sources will need to be identified for the remaining construction work.

Benefits

- Planning and design for flood protection of 1,400 businesses and homes from a 1% flood when the entire project from Montague Expressway to Interstate 280 is constructed
- Improves water quality, enhances stream habitat and recreational opportunities
- Incorporates revegetation and aesthetic elements of the Coyote Creek park chain in the project

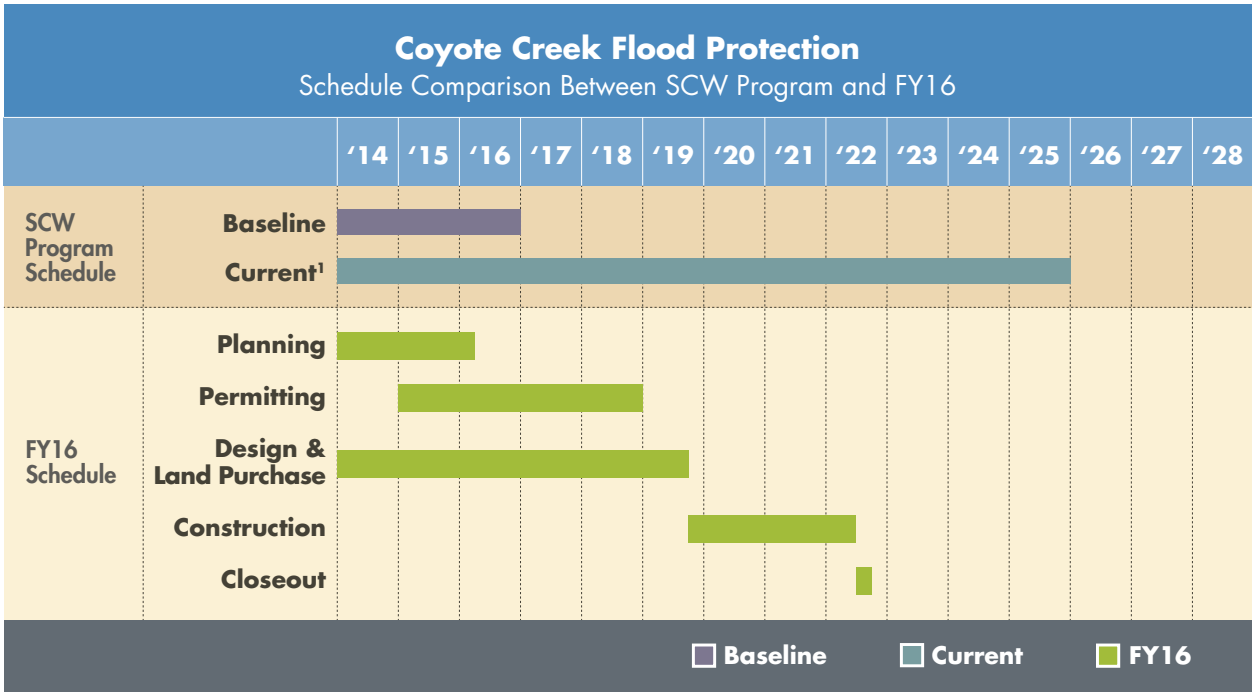
Key Performance Indicator (5-year Implementation Plan)

1. Complete construction of downstream project elements.

Geographic Area of Benefit: Milpitas, San José and Morgan Hill

Project Location

Schedule



[1] Board approved schedule adjustment through change control process.

Status for FY16: Adjusted

Progress on KPI #1:

- The Coyote watershed hydraulics were updated in November 2015.
- Due to need for development of other planning projects that impact the Coyote Creek project, the project has been put on hold.

In FY16, it was decided to return the Coyote Creek project to Planning for a refreshed look at the project's alternatives. Potentially feasible project alternatives depend significantly on the outcome of various currently ongoing District projects such as the Anderson Dam project, the Upper Penitencia Creek project, the Ogier Ponds feasibility study, and others. Therefore, the District recommended and the Board approved putting the Coyote Creek Project on hold until FY19, with project completion moved to FY25, pending the outcome of the mentioned studies.

Financial Information

Due to the project being put on hold, the FY16 expenditures were only 11% of the annual budget.

Financial Summary ($ Thousands)
Coyote Creek Flood Protection Study and Partial Construction

Fiscal Year 2015-2016					15-year Program	
Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Plan Spent
	Actual	Encumbrance	Total			
$711	$78	$0	$78	11%	$22,646	3%

Opportunities and challenges

Watershed planning

Opportunities include the potential for developing watershed-based, integrated multi-objective alternatives that would enhance flood protection and improve habitat quality, and enhance water supply. These opportunities can be investigated in the currently active Coyote Creek Watershed Master Plan, which could identify potentially feasible multi-objective projects to meet the project's goals, which could then be further developed by the project team.

Confidence levels:

Schedule: On-hold

Funding: On-hold

Permits: On-hold

Jurisdictional Complexity: N/A

Existing Charcot Road Bridge over Coyote Creek

Calabazas Creek Flood Protection

COMPLETED

Miller Avenue to Wardell Road

The project's objective was to provide 1% flood protection to 2,483 parcels in the Calabazas Creek watershed between Miller Avenue and Wardell Road. A long detention basin parallel to the creek was built to capture high storm flows, preventing the creek from overtopping its banks in a 100-year flood.

The District repaired 14 severely eroding banks, using as little "hardscape" as possible. The project incorporated environmental stewardship principles to reduce erosion with vegetation to enhance habitat for wildlife. The District reduced the cost of the project by collaborating with the City of San José, which rebuilt a bicycle motocross (BMX) park at Calabazas Park.

On November 20, 2012, the District and the cities of Saratoga, San José, and Cupertino received notification from the Federal Emergency Management Agency (FEMA) that the Letter of Map Revision (LOMR) submittal for the Calabazas Creek Flood Protection Project had been approved resulting in a revision of the Flood Insurance Rate Map for the requested area upstream of Miller Avenue. The project objectives have been met.

Benefits

- Provide flood protection on Calabazas Creek from Miller Avenue to Wardell Road
- Protect 2,483 parcels from 100-year flooding
- Provide erosion protection measures to improve stream quality
- Identify environmental restoration and enhancement and recreational enhancements, where opportunities exist

Key Performance Indicator (Completed)

1. Flood damage reduction for 2,483 parcels that include: 2,270 homes, 90 businesses, and 7 schools/institutions.

Geographic Area of Benefit: Saratoga, San José and Cupertino

Project Status: Completed in FY14

Project Location

Clean, Safe Creeks Grants Projects

ON TARGET

The Clean, Safe Creeks (CSC) Program awarded grants in 3 categories to encourage community involvement in protecting and enhancing the environment. The District awarded grants for 45 projects under the Clean, Safe Creeks Program between FY10 and FY13. As reported in the FY13 Clean, Safe Creeks report, all KPIs have been met as per the executed agreements. However, some grant projects have yet to be completed.

Benefits

These grant agreements address:

- CSC Outcome 2.1: Pollution prevention
- CSC Outcome 3.2: Healthy creek and bay ecosystems are protected, enhanced or restored as determined appropriate by the Board
- CSC Outcome 4.1: There are additional open spaces, trails and parks along creeks and in the watersheds when reasonable and appropriate

Key Performance Indicators (5-year Implementation Plan)

1. CSC 2.1: Reduce urban runoff pollutants in south county cities.
2. CSC 3.2: Creation of additional wetlands, riparian habitat and favorable stream conditions for fisheries and wildlife. (Equivalent of 100 acres of tidal or riparian habitat created or restored).
3. CSC 4.1: Community partnership to identify and provide public access to 70 miles of open space or trails along creeks.

Geographic Area of Benefit: countywide

Status for FY16: On Target

Progress on KPI #1 - #3 (combined):

- As of the end of FY16, 15 of 22 grant projects have been completed and closed; 2 projects were cancelled, and the remaining 5 projects are on schedule for completion by the extended expiration dates.

The list of projects, along with their status, is included in the CSC Table (p. 146-147).

CSC Grant Table

No.	Grantee Organization	Project Name	Grant Amount Total	Project Start Date	Project End Date	Status
1	City of Saratoga	Village Creek Trail Planning	$39,000	7/1/2011	7/25/2015	Closed
2	Acterra	Adobe Creek Restoration: Redwood Grove to Shoup Park	$46,365	6/28/2011	12/30/2015	Closed
3	City of Cupertino	Stevens Creek Corridor Park and Restoration Project, Phase 2	$285,000	6/28/2011	12/30/2015	Closed
4	City of Cupertino	Stevens Creek Corridor Park and Restoration, Phase 2	$565,000	6/28/2011	12/30/2015	Closed
5	City of San Jose	Penitencia Creek Trail, Reach 1	$300,000	6/15/2010	12/30/2017	Extended
6	City of San Jose	Three Creeks Trail – Trestle and Interim Improvements	$450,000	6/28/2011	12/30/2017	Extended
7	City of Santa Clara-Parks & Recreation Department	City of Santa Clara – Ulistac Natural Area Environmental Enhancement	$106,976	6/28/2011	12/30/2015	Closed
8	City of Saratoga	Village Creek Trail, Phase 1	$27,000	6/28/2011	12/30/2015	Cancelled
9	SCVWD with: CA Wildlife Fndn, S.F. Estuary Invasive Spartina Project and the USFWS Don Edwards S.F. Bay National Wildlife Refuge	Invasive Spartina Monitoring & Control in South Bay Marshes & Creeks	$75,000	6/28/2011	12/30/2015	Closed
10	Town of Los Altos Hills	Adobe Creek Restoration Project at Edith Park	$83,960	9/27/2011	12/30/2015	Closed
11	Town of Los Gatos	Creekside Sports Park Pedestrian Bridge	$300.000	6/28/2011	12/30/2015	Cancelled
12	Trout Unlimited	Little Arthur Creek Streamflow Stewardship Implementation Project	$220,500	6/28/2011	12/30/2017	Extended

CSC Grant Table

No.	Grantee Organization	Project Name	Grant Amount Total	Project Start Date	Project End Date	Status
13	West Valley College	Tennis Court Wetland Enhancement Project	$109,000	6/28/2011	12/30/2015	Closed
14	West Valley College	Vasona Creek Enhancement Project: Bridge #3 Replacement and Channel Stabilization	$200,000	6/28/2011	12/30/2015	Closed
15	West Valley College	Vasona Creek Native Vegetation Enhancement Project	$180,000	6/28/2011	12/30/2015	Closed
16	Acterra	San Francisquito Creek	$80,000	10/19/2013	6/30/2016	Closed
17	City of Gilroy	Ronan Channel Trail – Interim Project, Phase 1	$190,000	1/29/2014	12/31/2017	Extended
18	City of Los Altos	Adobe Creek Restoration at Redwood Grove – Phase 2	$90,000	12/27/2013	6/30/2016	Closed
19	City of San Jose	Los Alamitos Creek – Coleman Road Under-Crossing	$62,727	1/8/2014	12/31/2017	Extended
20	Downtown Streets Team	Coyote Creek Encampment Cleanup	$197,848	1/8/2014	6/30/2016	Closed
21	Save the Bay	Palo Alto Baylands Tidal Marsh Transition Zone Restoration	$75,000	12/27/2013	6/30/2016	Completed
22	Town of Los Altos Hills	O'Keefe Preserve Purissima Creek Habitat Restoration Project	$98,425	10/19/2013	6/30/2016	Closed

Closed: Project completed – Board presentation provided.

Completed: Project completed – Board presentation to be scheduled.

In-Progress: Project on schedule for completion by end date.

Cancelled: Project cancelled by grantee.

Amendment in Process: Project schedule or scope is being amended.

Financial Information

FY16 project expenditures were 83% of the total annual budget. The project remains on target and was underspent due to implementing process improvement efficiencies of standardizing the invoice payment process and streamlining the project closure process.

Financial Summary ($ Thousands)
CSC Environmental Enhancement and Open Space Grant

Fiscal Year 2015-2016					15-year Program	
Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Plan Spent
	Actual	Encumbrance	Total			
$80	$67	$0	$67	83%	$2,864	122%

Opportunities and Challenges

Refined invoice payment process

In FY16, the District refined the written process developed in FY15 to continuously support proper oversight and provide consistency in processing payment requests.

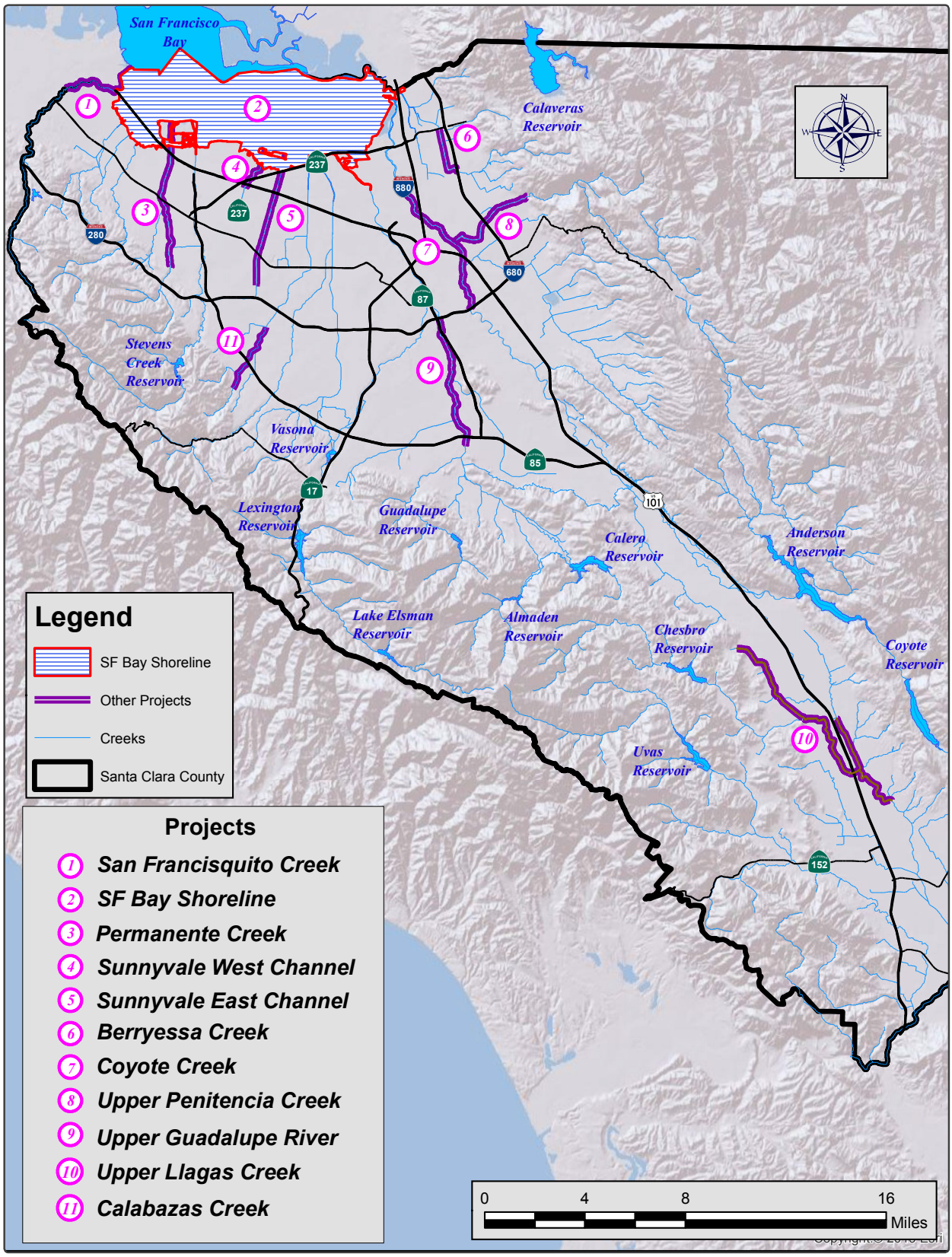
Project amendments

In FY16, the District processed five (5) 2-year time extensions. Despite this, the schedules for these projects remain on-track to be completed by the 5-Year Implementation Plan Target of the end of FY18. Of those 5 projects, 1 project requires changes in project approach, which requires extensive negotiation and justification to ensure the project goal or project benefits are maintained.

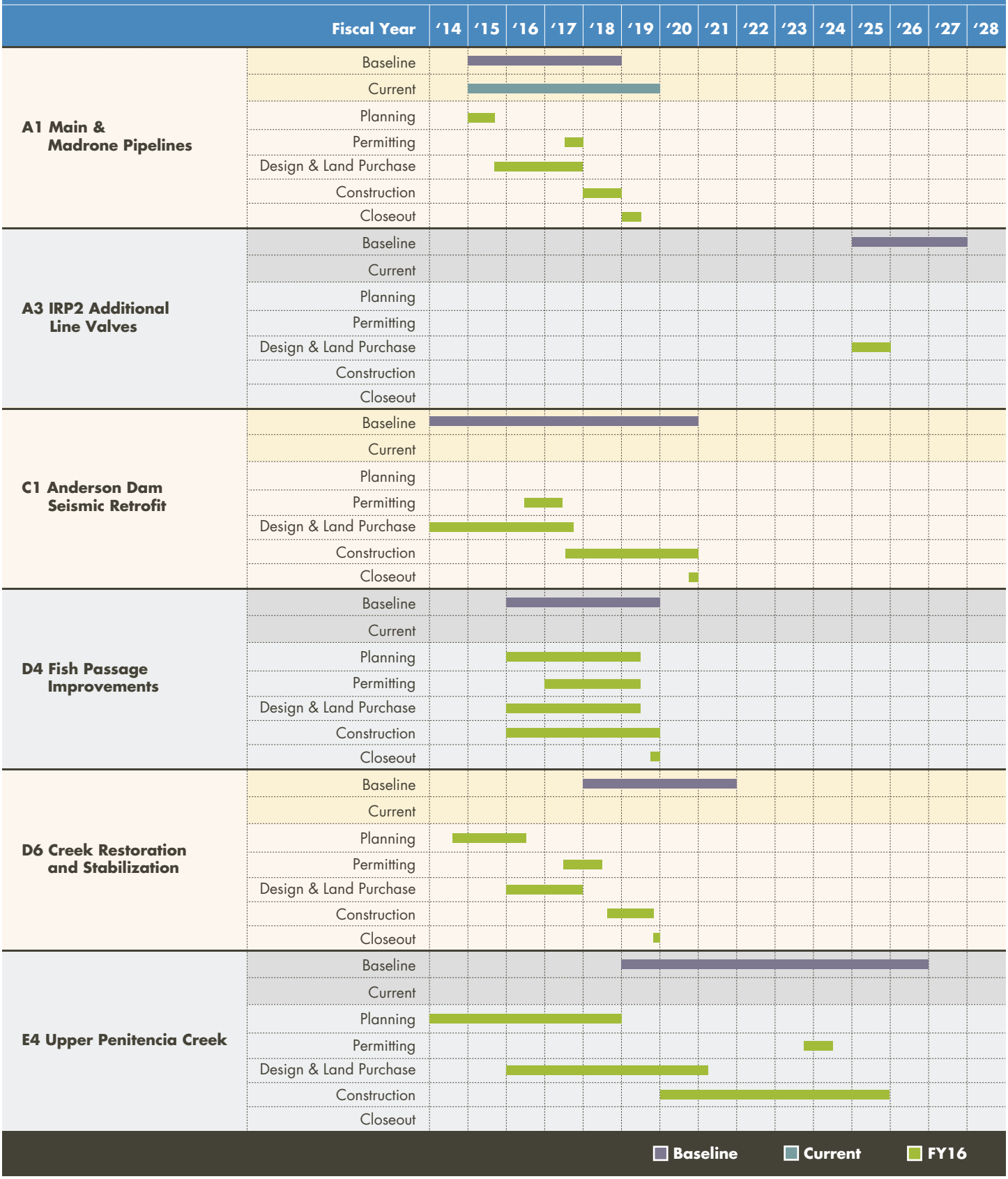
Project closure presentations

In lieu of the required final Board presentations, project factsheets and power point presentations are posted on District's website for easy access. This is a process improvement that was presented to the Board on March 15, 2016.

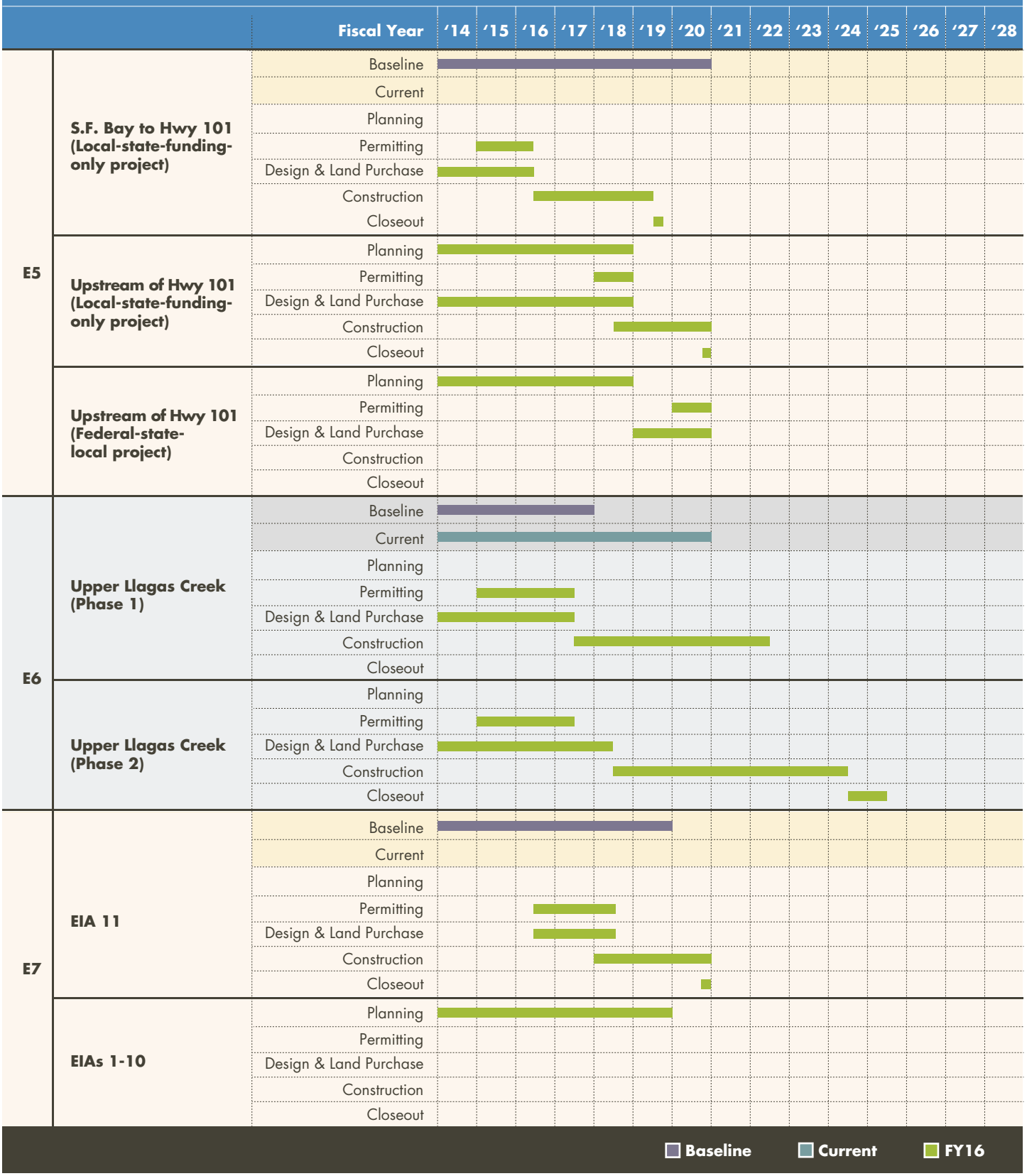
Safe, Clean Water Capital Flood Protection Projects



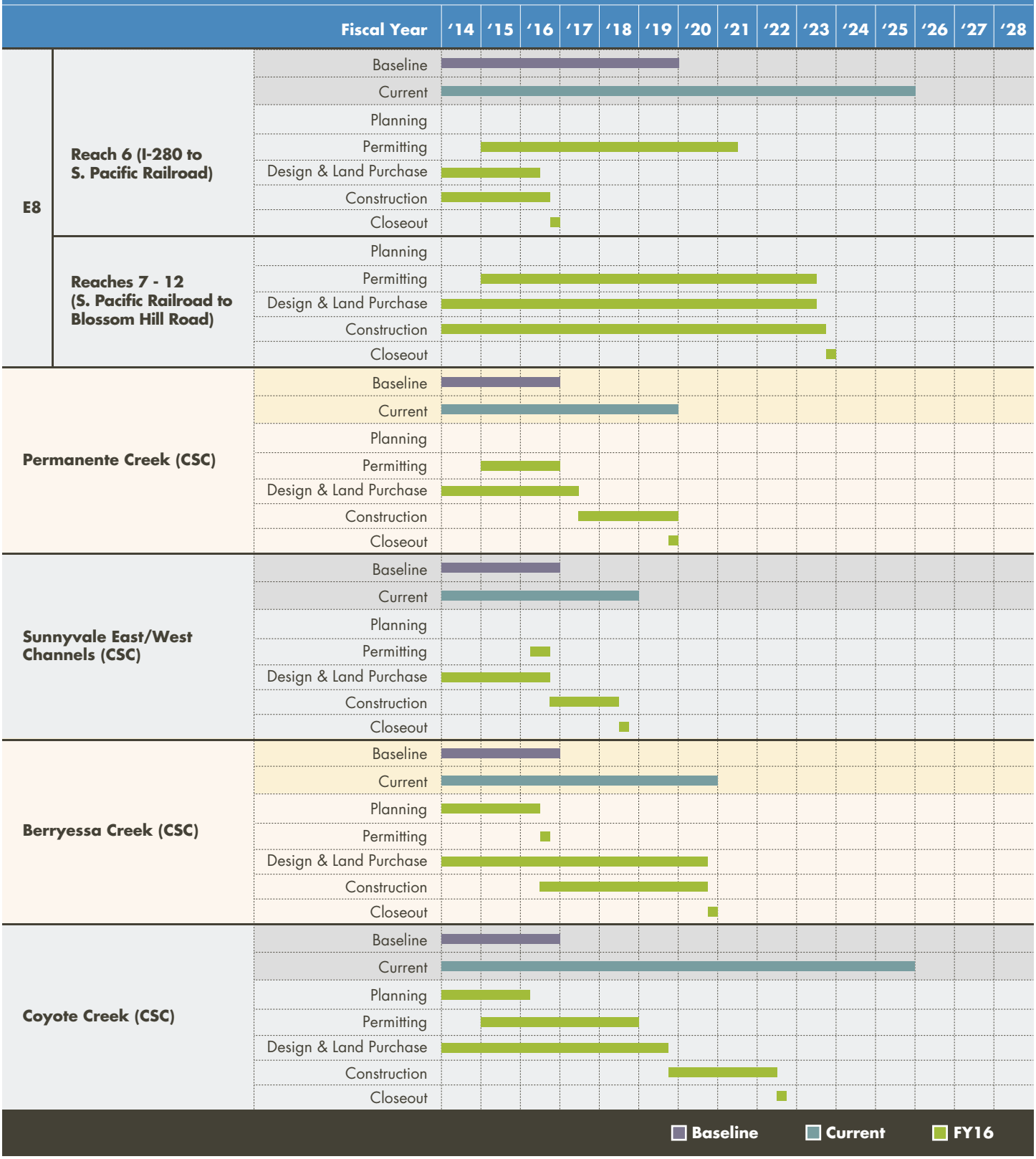
Schedule Comparison Between CIP FY15-19 & CIP FY16-20 (As of June 30, 2015)



Schedule Comparison Between CIP FY15-19 & CIP FY16-20 (As of June 30, 2015)



Schedule Comparison Between CIP FY15-19 & CIP FY16-20 (As of June 30, 2015)



This page intentionally left blank

Appendices

Appendix A: Annual Financial Summary Fiscal Year 2015-2016 ($ Thousands)

	Adopted Budget	Budget Adjustment	Adjusted Budget	Budgetary Actual Total			% Received
Revenue							
Special Tax	40,124		40,124			39,684	99%
Interest	1,150		1,150			1,577	137%
Other	3,569		3,569			2,747	77%
Subtotal	**44,843**		**44,843**			**44,007**	**98%**
Transfers & Refunding Proceeds	-		-			-	0%
Total Funding Sources	**44,843**		**44,843**			**44,007**	**98%**

Costs	Adopted Budget	Budget Adjustment	Adjusted Budget	Budgetary Actual Total			% of Budget Spent
				Actual	Encumbrance	Total	
Priority A: Ensure a safe, reliable water supply							
A1 Main Avenue and Madrone Pipelines Restoration	1,177	370	1,547	909	10	919	59%
A2 Safe, Clean Water Partnerships and Grants	259	–	259	48	172	221	85%
A3 Pipeline Reliability Project	–	–	–	–	–	–	0%
Subtotal	**1,435**	**370**	**1,805**	**958**	**182**	**1,140**	**63%**
Priority B: Reduce toxins, hazards and contaminants in our waterways							
B1 Impaired Water Bodies improvements	1,431	–	1,431	1,017	102	1,119	78%
B2 Inter-agency Urban Runoff Program	700	–	700	605	8	613	88%
B3[1] Pollution Prevention Partnerships and Grants	828	–	828	100	633	733	89%
B4 Good Neighbor Program: Illegal Encampment Cleanup	925	–	925	920	–	920	100%
B5 Hazardous Materials Management and Response	38	–	38	21	–	21	55%
B6 Good Neighbor Program: Remove Graffiti and Litter	448	200	648	536	34	571	88%
B7[2] Support Volunteer Cleanup Efforts and Education	98	–	98	100	4	104	105%
Subtotal	**4,469**	**200**	**4,669**	**3,299**	**782**	**4,081**	**87%**
Priority C: Protect our water supply from earthquakes and natural disasters							
C1 Anderson Dam Seismic Retrofit	14,000	–	14,000	14,000	–	14,000	100%
C2 Emergency Response Upgrades	292	100	392	394	4	398	102%
Subtotal	**14,292**	**100**	**14,392**	**14,394**	**4**	**14,398**	**100%**
Priority D: Restore wildlife habitat and provide open space							
D1 Management of Revegetation Projects	968	–	968	470	–	470	48%
D2 Revitalize Riparian,Upland and Wetland Habitat	693	–	693	193	–	193	28%
D3[1] Grants and Partnerships to Restore Wildlife Habitat and Provide Access to Trails	2,172	–	2,172	167	1,302	1,468	68%
D4 Fish Habitat and Passage Improvements	2,610	(50)	2,560	1,585	303	1,889	74%
D5 Ecological Data Collection and Analysis	626	–	626	312	77	389	62%
D6 Creek Restoration and Stabilization	–	416	416	285	–	285	69%
D7 Partnerships for the Conservation of Habitat Lands	–	–	–	–	–	–	–
D8 South Bay Salt Ponds Restoration Partnership	18	–	18	26	–	26	143%
Subtotal	**7,087**	**366**	**7,453**	**3,038**	**1,682**	**4,720**	**63%**
Priority E: Provide flood protection to homes, business, schools, and highways							
E1.1 Vegetation Control for Capacity	1,505	(200)	1,305	893	124	1,017	78%
E1.2 Sediment Removal	475	–	475	355	1	356	75%
E1.3 Maintenance of Newly Improved Creeks	–	–	–	–	–	–	0%
E1.4 Vegetation Management for Access	359	–	359	348	1	348	97%
E2.1 Coordination with Local Municipalities on Flood Communication	134	–	134	107	–	107	80%
E2.2 Flood–Fighting Action Plans	–	–	–	–	–	–	0%
E3 Flood Risk Reduction Studies	819	–	819	842	6	848	104%
E4 Upper Penitencia Creek	385	–	385	–	–	–	0%
E5 San Francisquito Creek	6,886	22,604	29,490	2,159	26,090	28,249	96%
E6 Upper Llagas Creek	52,072	14,968	67,040	6,806	92	6,897	10%
E7 San Francisco Bay Shoreline Study	2,004	6,218	8,222	399	(21)	378	5%
E8 Upper Guadalupe River	466	19,227	19,693	1,468	10	1,477	8%
Subtotal	**65,104**	**62,817**	**127,921**	**13,376**	**26,302**	**39,678**	**31%**
Permanente Creek Flood Protection	–	32,359	32,359	1,581	4,856	6,437	20%
Sunnyvale East & West Channels Flood Protection	299	12,361	12,660	1,145	8	1,153	9%
Berryessa Creek Flood Protection	3,839	17,751	21,590	13,310	4,217	17,527	81%
Coyote Creek Flood Protection Study and Partial Construction	–	711	711	78	–	78	11%
CSC Environmental Enhancement and Open Space Grant	80	–	80	67	–	67	83%
Calabazas Creek Miller to Wardell	–	–	–	–	–	–	0%
Subtotal	**4,219**	**63,182**	**67,400**	**16,180**	**9,081**	**25,261**	**37%**
Subtotal of All Outcome Costs	**96,605**	**127,035**	**223,640**	**51,245**	**38,033**	**89,278**	**40%**
SCW Planning & Development	2,016	(100)	1,916	2,339	12	2,351	123%
Debt Proceeds	(78,000)	–	(78,000)	(8,718)	–	(8,718)	
Debt Service	1,406	–	1,406	4	–	4	0%
Transfer for Winfield improvement	5	–	5	–	–	–	0%
Total Program Cost	**$22,033**	**$126,935**	**$148,968**	**$44,870**	**$38,045**	**$82,916**	**56%**
Net Increase/(Decrease) to Reserves	22,810		(104,125)			(38,908)	

Appendix A: Cumulative Financial Summary Fiscal Year 2013-2016 ($ Thousands)

	15-year Plan	FY13 Enc Bal & Cap Project Reserve	Board [1] Approved Adjusted	Adjusted 15-year Plan	Program-To-Date Actual Total	% Received	Current 15-year Forecast
Revenue							
Special Tax	722,739			722,739	115,488	16%	722,321
Interest	11,676			11,676	4,440	19%	14,204
Other	79,714			79,714	9,309	11%	82,900
Total	**814,129**			**814,129**	**129,237**	**16%**	**819,424**
Beginning CSC Reserves	115,623	80,474		196,097	178,074		178,074
Transfers & Refunding Proceeds	–	–			11,697		30,088
Total Funding Sources	**929,752**	**80,474**	**–**	**1,010,226**	**319,008**		**1,027,586**

	15-year Plan	FY13 Enc Bal & Cap Project Reserve	Board [1] Approved Adjusted	Adjusted 15-year Plan	Program-To-Date Actual Total			% of Forecast Spent	Current 15-year Forecast[3]	15-year Forecast/ above (below) 15-year Plan
					Actual	Encumbrance	Total			
Priority A: Ensure a safe, reliable water supply										
A1 Main Avenue and Madrone Pipelines Restoration	8,303	–	7,793	16,096	1,169	10	1,179	7%	16,096	0
A2 Safe, Clean Water Partnerships and Grants	2,360	–	–	2,360	372	501	873	37%	2,689	329
A3 Pipeline Reliability Project	12,923	–	995	13,918	–	–	–	0%	13,918	–
Subtotal	**23,586**	**–**	**8,788**	**32,374**	**1,541**	**511**	**2,052**	**6%**	**32,703**	**329**
Priority B: Reduce toxins, hazards and contaminants in our waterways										
B1 Impaired Water Bodies improvements	26,982	445	–	27,427	3,513	241	3,754	14%	25,584	(1,843)
B2 Inter-Agency Urban Runoff Program	12,641	–	–	12,641	1,828	8	1,836	15%	11,573	(1,069)
B3 Pollution Prevention Partnerships and Grants	7,595	–	–	7,595	716	1,039	1,755	23%	7,729	134
B4 Good Neighbor Program: Illegal Encampment Cleanup	5,209	105	–	5,314	3,066	97	3,163	60%	6,922	1,607
B5 Hazardous Materials Management and Response	618	–	–	618	67	–	67	11%	610	(8)
B6 Good Neighbor Program: Remove Graffiti and Litter	10,036	2	–	10,038	1,473	34	1,508	15%	9,514	(524)
B7 Support Volunteer Cleanup Efforts and Education	2,430	–	–	2,430	620	108	729	30%	1,962	(468)
Subtotal	**65,511**	**552**	**–**	**66,063**	**11,283**	**1,528**	**12,811**	**19%**	**63,892**	**(2,171)**
Priority C: Protect our water supply from earthquakes and natural disasters										
C1 Anderson Dam Seismic Retrofit	67,053	–	–	67,053	14,000	–	14,000	21%	66,053	(1,000)
C2 Emergency Response Upgrades	3,357	–	–	3,357	868	4	872	26%	3,521	164
Subtotal	**70,410**	**–**	**–**	**70,410**	**14,868**	**4**	**14,872**	**21%**	**69,574**	**(836)**
Priority D: Restore wildlife habitat and provide open space										
D1 Management of Revegetation Projects	22,259	–	–	22,259	1,776	–	1,776	8%	21,884	(375)
D2 Revitalize Stream, Upland and Wetland Habitat	18,190	–	–	18,190	394	–	394	2%	17,404	(786)
D3 Grants and Partnerships to Restore Wildlife Habitat and Provide Access to Trails	24,092	–	–	24,092	902	3,511	4,413	18%	24,779	686
D4 Fish Habitat and Passage Improvements	29,176	358	–	29,534	2,798	1,299	4,098	14%	26,347	(3,187)
D5 Ecological Data Collection and Analysis	9,020	–	–	9,020	799	185	984	11%	6,430	(2,590)
D6 Creek Restoration and Stabilization	16,719	–	–	16,719	332	–	332	2%	19,290	2,572
D7 Partnerships for the Conservation of Habitat Lands	10,524	–	–	10,524	–	–	–	0%	10,936	412
D8 South Bay Salt Ponds Restoration Partnership	4,694	–	(583)	4,111	217	–	217	5%	4,110	(1)
Subtotal	**134,673**	**358**	**(583)**	**134,448**	**7,218**	**4,995**	**12,213**	**9%**	**131,180**	**(3,268)**
Priority E: Provide flood protection to homes, business, schools, and highways										
E1.1 Vegetation Control for Capacity and Sediment Removal and Vegetation Management for Access	24,560	11	–	24,571	2,569	124	2,692	11%	25,850	1,279
E1.2 Sediment Removal	9,832	16	–	9,848	930	1	931	9%	7,968	(1,880)
E1.3 Maintenance of Newly Improved Creeks	19,051	–	–	19,051	–	–	–	0%	17,342	(1,709)
E1.4 Vegetation Management for Access	6,156	–	–	6,156	1,079	1	1,080	18%	7,067	910
E2.1 Coordination with Local Municipalities on Flood Communication	2,530	–	–	2,530	193	–	193	8%	1,764	(766)
E2.2 Flood–Fighting Action Plans	1,361	–	–	1,361	–	–	–	0%	–	(1,361)
E3 Flood Risk Reduction Studies	9,374	–	–	9,374	1,991	117	2,108	22%	8,686	(688)
E4 Upper Penitencia Creek	59,413	–	(10,496)	48,917	–	–	–	0%	51,238	2,321
E5 San Francisquito Creek	47,740	2,907	(526)	50,121	6,785	27,282	34,066	68%	50,843	722
E6 Upper Llagas Creek	84,098	6,784	22,610	113,492	22,046	395	22,441	20%	126,862	13,370
E7 San Francisco Bay Shoreline Study	22,288	–	17,052	39,340	1,313	107	1,420	4%	39,355	15
E8 Upper Guadalupe River	69,112	39,382	3,239	111,733	5,776	4,505	10,281	9%	112,685	952
Subtotal	**355,515**	**49,100**	**31,879**	**436,493**	**42,682**	**32,530**	**75,212**	**17%**	**449,660**	**13,167**
Clean, Safe Creeks Capital Flood Protection Projects										
Permanente Creek Flood Protection	22,111	9,398	23,921	55,430	4,293	4,900	9,193	17%	56,074	643
Sunnyvale East & West Channels Flood Protection	82,249	4,463	(29,252)	57,460	4,506	125	4,631	8%	59,546	2,086
Berryessa Creek Flood Protection	25,288	6,757	8,851	40,896	27,229	6,278	33,507	82%	47,592	6,695
Coyote Creek Flood Protection Study & Partial Construction	18,663	5,757	(1,774)	22,646	614	–	614	3%	22,646	0
CSC Environmental Enhancement & Open Space Grant [2]	–	2,864	–	2,864	2,264	1,242	3,506	122%	4,266	1,402
Calabazas Creek Miller to Wardell	–	1,223	–	1,223	66	–	66	5%	1,223	–
Subtotal	**148,311**	**30,462**	**1,746**	**180,519**	**38,971**	**12,546**	**51,517**	**29%**	**191,346**	**10,827**
Subtotal of All Outcome Costs	**798,007**	**80,472**	**41,829**	**920,308**	**116,564**	**52,114**	**168,677**	**18%**	**938,356**	**18,048**
SCW Planning & Development	31,999	2	–	32,002	5,446	12	5,458	17%	33,690	1,688
Cost of Financing	43,119	–	–	43,119	–	–	–	0%	58,622	15,503
Debt Proceeds	–	–	–	–	(8,718)	–	(8,718)	0%	–	–
Debt Service	–	–	–	–	4	–	4	0%	–	–
Winfield Warehouse	–	–	–	–	–	–	–	0%	0	0
Overhead Adjustment	–	–	–	–	283	–	283	0%	–	–
Market Valuation Reserve	–	–	–	–	–	–	195	0%	–	–
Currently Authorized Projects Reserve [3]	–	–	–	–	–	–	147,357	0%	–	–
Operating & Capital Reserve	56,627	–	(41,829)	14,798	–	–	5,751	39%	1,103	(13,696)
Total Program Cost	**$929,753**	**$80,474**	**–**	**$1,010,227**	**$113,579**	**$52,126**	**$319,008**	**32%**	**$1,031,770**	**$21,543**

[1] Board approved adjustments include changes to Safe Clean Water capital projects based on the Board approved FY16 CIP.

[2] The $4.3M Current 15-yr Forecast includes CSC encumbrance carryfoward, plus additional cost to administer remaining CSC grants.

[3] The $147.4M in Currently Authorized Projects Reserve represents unspent capital projects' budgets that will be carried forward and spent in a future year. Each projects' reserve is accounted for in the Adjusted 15-yr Plan and Current 15-yr Forecast.

Appendix B: Inflation Assumptions

	Actual FY14	Budget FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28
COLA Increase %	1.5%	2.0%	3.0%	3.0%	3.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Step Increase %	0.2%	0.3%	0.3%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
Benefits Rate	52.7%	50.5%	49.6%	52.4%	55.5%	58.6%	60.8%	62.8%	64.8%	66.6%	68.6%	70.7%	72.9%	75.3%	77.8%
Supplies & Svcs Inflation*	3.0%	2.3%	2.7%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Construction Cost Inflation**	4.9%	2.3%	3.5%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%

*Actual supplies and services inflation based on the San Francisco-Oakland-San Jose Consumer Price Index for all urban consumers as of June
** Actual construction cost inflation based on Engineering News Record results for the San Francisco Bay Area

Appendix C: Grantee and Partners Information

SCW Project Number	Grantee	Project Name	Description of Project	Amount Awarded	Total Project Cost
A2	City of Mountain View	Advanced Metering Infrastructure Feasibility Study and Pilot	Evaluate available Advanced Metering Infrastructure (AMI) systems and their ability to optimize meter reading efficiency, increase customer service, and promote water-use efficiency within Mountain View.	$50,000	$175,000
A2	Purissima Hills Water District	Residential Advanced Metering Program	Test the efficacy of AMI in reducing water use amongst Purissima Hills Water District Customers.	$50,000	$99,200
A2	Velocitron LLC	Micro Streams Faucet Adapter	Install micrometer sensors in businesses in Santa Clara County to determine water use and detect leaks to help save water.	$30,000	$60,000
			A2 Sub-Total	$130,000	$334,200
B3	West Valley College	West Valley College North Walk Storm Water Quality Improvements	Treat runoff from 6.0 acres in the North Walk and Parking Lot 6 sub-watersheds. The project includes the installation of storm water planters, rain gardens and bio-swales to promote infiltration and provide water quality treatment.	$71,068	$1,283,001
B3	Silicon Valley Senior Services	Environmental Assist Pharmaceutical Pick-Up (EAPP)Program	EAPP's dedicated volunteers in conjunction with local police/sheriff departments help decrease the amount of pharmaceuticals in our drinking water by assisting seniors and the disabled for safe pick-up of pharmaceutical waste; and providing information and education to Santa Clara residents about safe disposal.	$90,525	$152,185

Appendix C: Grantee and Partners Information cont...

SCW Project Number	Grantee	Project Name	Description of Project	Amount Awarded	Total Project Cost
B3	South Bay Clean Creeks Coalition	South Bay Creek Cleanup Program	The SBC3 Program recruits volunteers through trail & park tabling, canvassing adjacent neighborhoods. These volunteers can participate in TEAM 222 Clean Up program which conducts clean ups every other month at multiple sites, including corporate events; and work on citizen monitoring network.	$60,000	$217,600
B3	San Francisco Bay Wildlife Society	Don Edwards San Francisco Bay NWR Clean-Up 2016	Collaborate with San Jose Conservation Center and Volunteers from Don Edwards San Francisco Bay NWR to remove trash from south San Francisco Bay tidal marshlands, mudflats and adjacent uplands in Santa Clara County. Integrate LitteratiTM a social media technology, to create a litter database for long-term trash reduction and provide an interpretive display for education and outreach.	$35,391	$73,390
B3	Santa Clara County Creeks Coalition	Trash Free North Coyote Creek Watershed Stewardship and Engagement Project	Conduct 12 volunteer trash cleanups and outreach activities, conduct outreach activities, recruit over 700 volunteers from business and community organizations and implement a docent-led walks program along 5 miles of north Coyote Creek from Tasman Drive to Jackson Street.	$89,399	$142,239
B3	Acterra Stewardship	Greening Urban Watersheds	Over a 3-year period, provide designs for 4 rain barrels, 2 cisterns and 4 bio-retention/ rain garden projects; coordinate 12 hands-on workshops to install rain barrels/gardens on city properties, and conduct 21 community creek cleanup events along 3 creeks; remove 13,000 pounds of trash from 4 miles of riparian corridors.	$93,617	$189,261
B3	Regents of the University of California	Effective Storage and Composting of Livestock Manures	Over a 45-month period, establish demonstration sites at four locations at McClellan Ranch, Emma Prusch and Martial Cottle Parks and the South County Airport. Outreach to livestock owners for proper manure storage and safe composting. The work will minimize pathogens from manures from entering storm water and creeks by demonstrating effective and safe composting.	$60,000	$213,845
B3	County of Santa Clara	Pollution Prevention and Zero Waste Project	Implement the Green Business Program, a third-party verified compliance-based program addressing surface water quality, storm water protection, pollution prevention and education. The program identifies pollution sources and provides ways to reduce use of toxic materials, and implement storm water protection practices. The program benefits water quality by avoiding impacts of improper management and air deposition on water.	$200,000	$ 690,000
			B3 Sub-Total	$700,000	$2,961,521

Appendix C: Grantee and Partners Information cont...

SCW Project Number	Grantee	Project Name	Description of Project	Amount Awarded	Total Project Cost
D3	Trout Unlimited	Lower Uvas-Carnaderos Creek Agricultural Wet Fort Alternative Design	This partnership will result in the design of a free span bridge and the abandonment of the existing bridge. This would eliminate the fish migration barrier and improve water quality and riparian conditions. The District's contribution will provide a matching fund for a state grant application.	$24,450	$115,000
D3	West Valley College	West Valley College Wildcat Creek Native Vegetation Enhancement	Remove approximately 2 acres of invasive, non-native vegetation within the WVC campus and re-vegetate the area with native species, propagated from a collection of native vegetation planted on campus during past native re-vegetation efforts on campus.	$165,000	$247,707
D3	Acterra	Arastradero Creek Watershed Enhancement	Install 2,000 linear feet of swale-and-berm structures on contour in the basin feeding Arastradero Creek, and low step structures to raise the groundwater table; remove invasive plant species along 1,000 linear feet of Arastradero Creek and plant a diversity of native species in their place to increase native vegetation and support wildlife.	$107,561	$217,566
D3	Acterra	Byrne Preserve Riparian Enhancement	Restore a degraded tributary to Moody Creek located in Byrne Preserve. The work includes community engagement and education, monitoring of vegetation and channel geometry, invasive plant removal, and native plant re-vegetation.	$136,469	$231,812
D3	Midpeninsula Regional Open Space District	Hendrys Creek Restoration Project	Enhance 3/4 miles of the watershed through removing 14 in-stream structures; invasive plants from 4.44 acres of canyon; and by installing 0.33 acres of watershed specific, contract grown riparian and upload plants along the impacted creek banks and former road; and seeding 1.5 acres with native grasses, acorns and buckeye seeds on the former building pads, and improving the road located along the creek and tributaries.	$484,650	$762,546
D3	Loma Prieta Resource Conservation District	Sycamore Alluvial Woodland Restoration Phase II—Feasibility	This project includes a propagation study designed to test techniques to produce California sycamore seedlings vegetatively for use in a pilot restoration project. Study results will be shared through a high-quality PowerPoint presentation and distributed to all interested parties in the broader restoration and nursery community.	$79,953	$142,797
D3	Working Partnerships	Coyote Creek Creek Invasive Plant Removal and Revegetation	Prepare a plan for a project to remove invasive plants from the Coyote Creek Watershed and re-vegetate areas of the creek with native plants. The project will hire homeless individuals or formerly homeless individuals in transition housing to do the work.	$24,750	$33,000
D3	City of Mountain View	Permanente Creek Watershed Enhancement Project	Project will involve the removal of trash and non-native invasive plants along 2,350 linear feet of Permanente Creek. One thousand local watershed plants will be revegetated along the creek providing habitat enhancement for multiple riparian species, special emphasis will be placed on enhancing habitat for two special status species: burrowing owls (foraging habitat) and the San Francisco common yellowthroat (nesting and foraging habitat). This project will provide a unique educational opportunity for the local community, businesses and several educational establishments who will volunteer on this project along with Santa Clara Valley Audubon Society and Acterra.	$43,920	$64,582

Appendix C: Grantee and Partners Information cont...

SCW Project Number	Grantee	Project Name	Description of Project	Amount Awarded	Total Project Cost
D3	Save The Bay	Palo Alto Baylands Tidal Lagoon Transition Zone Habitat Restoration Project	Save The Bay will restore and enhance 1.25 acres of high value tidal marsh transition zone habitat at this site immediately adjacent to existing tidal salt marsh in the Palo Alto Baylands Nature Preserve. It will create or improve crucial habitat that provides connectivity and refugia for waterfowl, shorebirds, and other species such as the federally-endangered Ridgway's Rail and salt marsh harvest mouse. Our project is ready to implement and will increase the adaptive capacity and resilience of tidal marsh species by enhancing the plant community and wildlife habitat both now and in light of future predicted sea level rise scenarios.	$95,868	$233,574
D3	City of Santa Clara	Ulistac Restoration 2016 Project	Ulistac Natural Area is a 40 open space preserve bordering Guadalupe Creek. Ulistac Restoration 2016 Project will improve trails and ramp access to the levee, restore 1.2 acres of riparian habitat along the Guadalupe River and enhance 1.26 acres of Live Oak Woodland habitat through removal of invasive non-native plants and trees, planting of native species, and documentation of native tree survival. Grant matching funds (25%) will be provided through City of Santa Clara CIP fund #3179 ($25,000) and volunteer labor donation (6450 hours, or $77,400 equivalent), in cooperation with Ulistac Natural Area Restoration & Education Project, Inc. and partnership with Santa Clara University Department of Environmental Studies and Sciences and Santa Clara Audubon Society. (Authorized by City Resolution #16-8301.)	$165,249	$291,679
D3	Friends of Stevens Creek Trail	Stevens Creek Steelhead Passage Improvement Project	Conduct a Phase 1 study plan to (1) analyze alternatives and identify a preferred alternative for improving fish passage and (2) develop alternatives and identify a preferred alternative to improve fish migration at project sites.	$52,162	$76,237
D3	San Francisco Bay Bird Observatory	Establishing Forster's Tern Nesting Colonies for the South Bay Salt Pond Restoration Project Using Innovative Technologies	This project will deploy and maintain 300 decoys and 6 electronic call systems during the 2017 and 2018 breeding seasons (March-August) to attract birds to nest. Findings will be shared with the Don Edwards San Francisco Bay National Wildlife Refuge and the South Bay Salt Pond (SBSP) Restoration Project's outreach program; through Project's website, newsletter, and presentations at stakeholder meetings. Using innovative technologies, this project aims to establish a healthy nesting population of at-risk Forster's terns in Alviso Pond A16 on the Don Edwards San Francisco Bay National Wildlife Refuge. Benefits of this project include attraction of 50 or more Forster's tern breeding pairs to Alviso Pond A16 and establishment of nesting colonies with nest success rates of 60% or more.	$217,032	$517,533
D3	City of San José	Evergreen Creek Corridor Restoration	The City will correct the poor placement of outlets in the sedimentation basin above the project sites and restore vegetation. District funded work will focus on removing 6.2 acres of non-native landscape ; establishing irrigation and planting native plants along Quimby Creek and Upper Fowler Creek.	$191,041	$664,686

Appendix C: Grantee and Partners Information cont...

SCW Project Number	Grantee	Project Name	Description of Project	Amount Awarded	Total Project Cost
D3	Children's Discovery Museum of San Jose	Bill's Backyard: Bridge to Nature	CDM is developing a 27,500 square foot outdoor space named Bill's Backyard: Bridge to Nature. It will feature a tree structure to climb up, a hillside to roll down with tunnels to crawl through, a dig pit to shovel in, a dry creek bed to explore that mimics the adjacent Guadalupe River, and areas to build with natural materials like willows, reeds and grasses. Families will also have the chance to see demonstration projects and sustainability solutions up-close, providing xeriscape ideas to consider for use in their own backyards, such as permeable hardscape, drought-tolerant and native plants, rain gardens to retain surface water, water collection systems and solar panels. The District funds will support the work for eliminating all grass and plant native plants for increased bio-diversity in the riparian environment and attract beneficial insects, migratory birds, small mammals and even Monarch butterflies.	$142,771	$2,291,062
D3	Santa Clara Valley Chapter of the California Native Plant Society	Plant Pathogen Training and Education at CNPS Nursery	Develop instructional/training videos to educate nursery professionals in pathogen control Best management practices (BMPs); promote safe use of California native plants through outreach and education events hosted by the California Native Plant Society (CNPS) throughout Santa Clara Valley Watersheds, and provide a demonstration and training sites at CNPS Nursery in Hidden Villa, Los Altos Hills, to implement plant pathogen control BMPs onsite, to share successes and lessons with other nurseries, and train volunteers and the larger community in pathogen control best practices.	$50,574	$70,993
			D3 Sub-Total	$1,981,450	$5,960,774
			A2, B3 and D3 Combined Total	$2,811,450	$9,256,495

This page intentionally left blank

Santa Clara Valley Water District

Santa Clara Valley Water District
5750 Almaden Expressway, San Jose, CA 95118-3686
Phone: (408) 265-2600 Fax: (408) 266-0271
www.valleywater.org