Flood Protection Capital Improvements

FLOOD PROTECTION OVERVIEW

Of the approximately 800 miles of creeks in Santa Clara County, Valley Water has jurisdiction over and manages approximately 275 miles to meet the Board's Ends Policy E–3, "There is a healthy and safe environment for residents, businesses and visitors, as well as for future generations." Valley Water's goals are further defined in E-3.1, "Provide natural flood protection for residents, businesses, and visitors" and E-3.2, "Reduce potential for flood damages." The 275 miles of creeks are located in five watersheds: Lower Peninsula, West Valley, Guadalupe, Coyote, and Uvas/Llagas. Valley Water administers an asset management program for its flood protection infrastructure. The program includes a schedule for maintenance and rehabilitation to ensure that each facility functions as intended throughout its useful life.

Fifty years of flood protection management has significantly reduced the intensity and frequency of flooding in Santa Clara County. By 2005, Valley Water had provided flood protection to 93,253 of the 166,526 parcels in the floodplain and another approximately 10,445 have been protected since then.

The voters in Santa Clara County have supported Valley Water's flood protection efforts by approving benefit assessment funding in 1982, 1986, and 1990. Voters also approved three special parcel taxes. In 2000, voters approved the Clean, Safe Creeks and Natural Flood Protection Plan (Clean, Safe Creeks). The Clean, Safe Creeks Plan was replaced by the Safe, Clean Water and Natural Flood Protection Program, which voters approved in 2012 (2012 Safe, Clean Water). In 2020, voters approved the renewal of the Safe, Clean Water Program, which replaced the 2012 Safe, Clean Water Program in entirety. Unlike the first two special parcel taxes, which were set to sunset in 15-years from the date of implementation, the renewed Safe, Clean Water Program will continue until repealed by voters or until the Board determines the funding is no longer needed.

The renewed Safe, Clean Water Program - Fund 26, along with the Watershed and Stream Stewardship (1% ad valorem property tax) - Fund 12, are the two primary funding sources for flood protection projects.

Listed by watershed are the completed and current flood protection capital improvements, moving upstream from the completed downstream work or starting new work on creeks that have not had flood protection work.

Lower Peninsula Watershed

Major Capital Improvements Completed

- San Francisquito Creek from the S.F. Bay to Highway 101 (Safe, Clean Water)
- Adobe Creek from El Camino to West Edith Ave.
- Barron Creek
- Matadero Creek from Palo Alto Flood Basin to Barron Creek

Major Capital Improvements Identified in the CIP

- Palo Alto Flood Basin Structure Improvements
- Permanente Creek from S.F. Bay to Foothill Expressway (2012 Safe, Clean Water)
- San Francisquito Creek from Highway 101 to Searsville Dam (Safe, Clean Water)

West Valley Watershed

Major Capital Improvements Completed

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

Major Capital Improvements Identified in the CIP

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

Guadalupe Watershed

Major Capital Improvements Completed

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

Flood Protection Capital Improvements

Major Capital Improvements Identified in the CIP

- Guadalupe River–Upper, Interstate 280 to Blossom Hill Road (Safe, Clean Water)
- Guadalupe River, Tasman Drive to I-880

Coyote Watershed

Major Capital Improvements Completed

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

Major Capital Improvements Identified in the CIP

- Berryessa Creek from Calaveras Boulevard to Interstate 680 (2012 Safe, Clean Water)
- Berryessa Creek from Lower Penitencia Creek to Calaveras Boulevard (Safe, Clean Water)
- Coyote Creek Montague Expressway to Tully Road (Safe, Clean Water)
- Upper Penitencia Creek from Coyote Creek to Dorel Drive (Safe, Clean Water)

Uvas/Llagas Watershed

Major Capital Improvements Completed

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

Major Capital Improvements Identified in the CIP

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

Multiple Watersheds

Major Capital Improvements Identified in the CIP

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

CIP PLANNING PROCESS AND FINANCIAL ANALYSIS

The annual CIP Planning Process starts with collecting information on proposed new capital projects in July, followed by the validation of proposed new projects, preliminary scoping, review and financial analyses to produce a Draft CIP in February.

The Board then authorizes release of the Draft CIP to the public and local municipalities for review, conducts a public hearing, and approves the resolution to adopt the Final CIP in May.

A financial analysis of the Watershed and Stream Stewardship Fund and Safe, Clean Water Fund, the funding sources for flood protection capital improvements, was conducted to determine if there are limitations to funding all of the projects proposed for the FY 2022-26 CIP.

Funding required for portions of several CIP projects is contingent on grants and partnership agreements that are under development and not currently secured. As Valley Water works through the process to secure funding, the project schedules may be adjusted. Projects with unsecured funding include:

- San Francisquito Creek, upstream of Hwy 101
- Upper Llagas, Phase 2 (Reaches 5, 6, 7B, 8, and 14)

Further, many of the flood protection projects under the renewed Safe, Clean Water Program include iey performance indicators (KPIs) for a preferred project, which requires federal funding, and for a local-funding only version of the project, which can be constructed if federal funding is not received.

Operations and Maintenance Costs

It is understood that new capital projects have an impact on future operations and maintenance, and this is included in the financial analysis. Periodically throughout the project, projections of this impact are updated to reflect changes in the project elements.

Flood Protection Capital Improvements

Significant Project Updates from the Prior Year

Listed below are the changes to projects from the FY 2021-25 Adopted CIP:

- The Palo Alto Flood Basin Tide Gate Structure Improvements Project increased in cost by $6.3 million due to the extension of the project schedule by two years as a result of geotechnical recommendations to construct over 2.5 miles of levee trail surface improvements prior to constructing the tide gate structure in order to prevent structural damage to the exsisting levees.

- The San Francisco Bay Shoreline Project EIA 11 increased in cost by $36.3 million due to an increase USACE project construction costs for Reaches 1-3. Also, San Francisco Bay Shoreline, Other EIAs Project increased in cost by $40.8 million. The passing of Measure S for the SCW renewal means that funds for Phase II design and construction are now included in this Project.

- The Lower Berryessa, Lower Penitencia Creek to Calaveras Blvd. Project increased in cost by $22.7 million due to a three year extension in the overall project schedule and increase in construction phase costs.

- The Permanente Creek Flood Protection Project, Bay to Foothill Expwy. increased in cost by $6.1 million due to the discovery of cultural resources and ensuing project delays at the Rancho San Antonio Flood Detention Basin Project.

- The San Francisquito Flood Protection Project increased in cost by $6.3 million due to the increase in Right of way and construction phase costs based on assessments by SFCJPA.

- The Upper Llagas Flood Protection Project Phase 2A (local funding only) increased in cost by $22 million due to an increase in the construction cost estimates to include a $25.8 million shortfall.

The Safe, Clean Water Program

The Renewed Safe, Clean Water Program, approved by voters in 2020, is set to begin in FY 2021-22 and includes the following flood protection projects::

- San Francisquito Creek, SF Bay to Middlefield Road
- Sunnyvale East & West Channels
- Upper Guadalupe River, I-280 to Blossom Hill Road
- Upper Penitencia Creek, Coyote to Dorel Drive
- Coyote Creek, Montague Expy. to I-280
- Llagas Creek-Upper, Buena Vista Avenue to Llagas Road
- San Francisco Bay Shoreline - Design and Partial Construction of EIA 11 and Planning for other EIAs
- Berryessa Creek from Lower Penitencia Creek to Calaveras Boulevard - Phase 3

With the exception of the Berryessa Creek from Lower Penitencia Creek to Calaveras Boulevard - Phase 3, each of these projects were also included in the 2012 Safe, Clean Water Program. Additionally, the following projects were considered complete under the 2012 Safe, Clean Water Program, as the KPIs had been delivered, but are still included in the CIP as they are in the close-out phase:

- Berryessa Creek from Calaveras Boulevard to Interstate 680 (2012 Safe, Clean Water)
- Permanente Creek, San Francisco Bay to Foothill Expy. (2012 Safe, Clean Water)

For more information about the Safe, Clean Water Program visit valleywater.org. Please see Appendix C for the implementation schedule for the Renewed Program.

Flood Protection Capital Improvements

The following table is a project funding schedule for flood protection capital improvements resulting from this year's financial analysis. Detailed information for each project can be found in this document on the following pages in the order presented in this table. The chart also identifies partially funded projects and estimated unspent appropriation from FY 2020-21. requirements from each funding source for water supply capital.

Flood Protection Capital Improvements ($K)

Project Number	PROJECT NAME	Through FY20	FY21	FY21 Unspent	FY22	FY23	FY24	FY25	FY26	FY27-36	TOTAL
	LOWER PENINSULA WATERSHED										
10394001	Palo Alto Flood Basin Tide Gate Structure Improvements	4,392	83	552	3,062	8,849	8,862	8,898	4,904	-	39,050
10244001s	Permanente Creek, SF Bay to Foothill Expressway	108,572	7,645	178	-	-	-	-	-	-	116,217
10284007s	San Francisquito Creek, SF Bay thru Searsville Dam (E5)	62,751	370	1	12,725	24,295	6,885	-	-	-	107,026
	WEST VALEY WATERSHED										
26074002	Sunnyvale East and West Channels	35,438	2,480	-	17,705	14,555	456	-	-	-	70,634
	GUADALUPE WATERSHED										
30154019	Guadalupe River Tasman Dr - I-880	1,080	1,838	-	2,677	2,358	28,293	29,753	29,912	-	95,911
26154001s	Guadalupe River–Upper, I-280 to Blossom Hill Road (E8)	134,642	-	23,964	562	33	34	36	37	41,873	177,217
26154001	Guadalupe Rv–Upper, Fish Passage Mods	2,651	-	-	-	-	-	-	-	-	2,651
	COYOTE WATERSHED										
26174041	Berryessa Ck, Calaveras-I-680 - Corps	35,566	29	-	-	-	-	-	-	-	35,595
40174004	Berryessa Ck, Lower Penitencia Ck to Calaveras Blvd Phs 1	50,191	-	3,339	-	-	-	-	-	-	50,191
26174043	Coyote Creek, Montague Expressway to Tully Road	15,036	2,199	2,528	1,598	6,661	11,166	22,382	3,895	-	62,937
40264011	Cunningham Flood Detention Certification	11,806	4	3	28	-	-	-	-	-	11,838
40334005	Lower Penitencia Ck Improvements, Berryessa to Coyote Cks.	11,286	7,745	7,503	230	7,811	628	322	-	-	28,022
40264007s	Lower Silver Creek, I-680 to Cunningham (Reach 4-6)	102,288	167	784	28	55	-	-	-	-	102,538
40324003s	Upper Penitencia Creek, Coyote Creek to Dorel Drive	19,016	3,898	5,038	113	218	2,067	1,599	4,449	8,573	39,933
	UVAS LLAGAS WATERSHED										
50284010	Llagas Creek–Lower, Capacity Restoration, Buena Vista Road to Pajaro River	6,947	-	2,763	-	-	-	3,239	3,462	391	14,039
26174051s	Llagas Creek–Upper, Buena Vista Avenue to Llagas Road	125,315	47,476	4,555	59,398	57,413	32,386	9,433	1,496	-	332,917
	MULTIPLE WATERSHEDS										
00044026s	San Francisco Bay Shoreline (E7)	71,469	48,316	1	24,052	4,648	37,581	4,919	10,344	17,755	219,084
62084001	Watersheds Asset Rehabilitation Program	35,831	3,531	7,809	10,910	2,566	2,646	2,730	2,829	121,531	182,574
	TOTAL	912,688	136,499	59,018	145,376	130,347	131,381	83,585	63,434	263,372	1,866,682

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

Flood Protection - Funding Sources ($K)

Fund Number	FUND NAME	Through FY20	FY21	FY21 Unspent	FY22	FY23	FY24	FY25	FY26	FY27-36	TOTAL
12	Watershed Stream Stewardship Fund	373,614	72,394	25,453	50,871	24,241	74,289	45,335	43,338	186,977	871,059
26	Safe, Clean Water and Natural Flood Protection Fund	539,074	64,105	33,565	94,505	106,106	57,092	38,250	20,096	76,395	995,623
	TOTAL	912,688	136,499	59,018	145,376	130,347	131,381	83,585	63,434	263,372	1,866,682

FY 2020-21 Funds to be reappropriated

Project	**Palo Alto Flood Basin Tide Gate Structure Replacement**
Program	Flood Protection - Lower Peninsula Watershed
Project No.	10394001
Contact	Rechelle Blank rblank@valleywater.org

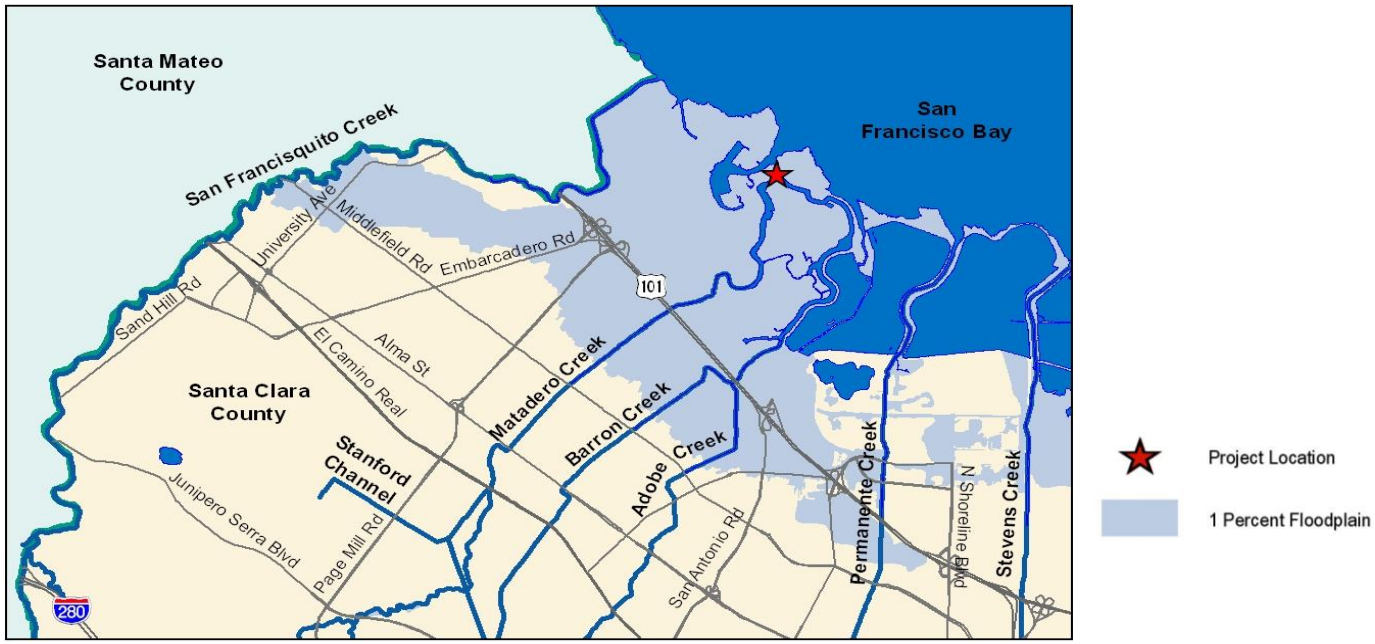
View from the west side of the Palo Alto tide gates facing east

PROJECT DESCRIPTION

This project plans, designs, and constructs a replacement tide gate structure for the Palo Alto Flood Basin to accomplish the following objectives:

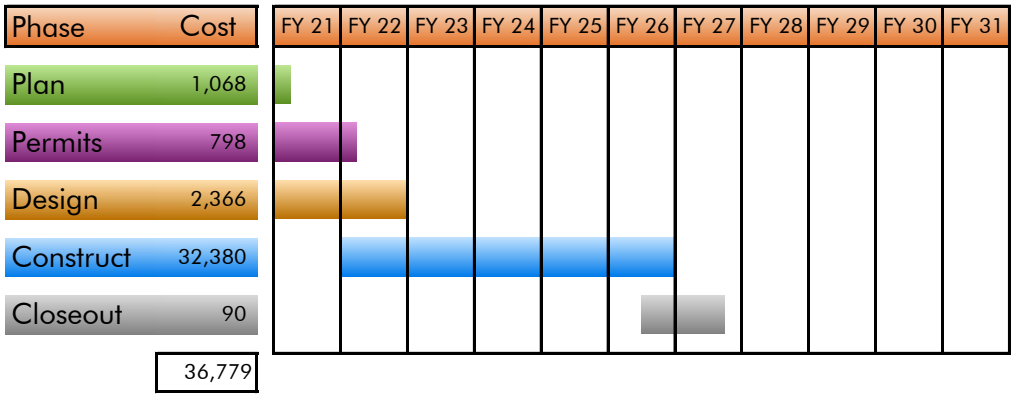
- Prepare an Emergency Action Plan and coordinate with the City of Palo Alto.
- Mitigate potential failure of the existing tide gates structure.
- Reduce the possibility of flooding in lower reaches of Matadero, Adobe, and Barron Creeks.
- Adapt to future sea level rise scenarios.
- Coordinate with the Strategy to Advance Flood protection, Ecosystems and Recreation along San Francisco Bay project, the South Bay Shoreline project, and the Mountain View Ponds project.
- Protect habitat in the Palo Alto Flood Basin and around the work area.

PROJECT LOCATION



SCHEDULE & STATUS

November 2018 to February 2027



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures						Total
Project	**FY20**	**FY21**	**FY22**	**FY23**	**FY24**	**FY25**	**FY26**	**Future**	
10394001-Palo Alto Flood Basin Tide Gate Structure Replacement	2,329	1,594	3,423	8,320	8,300	8,300	4,513	0	36,779
with inflation	2,329	1,594	3,614	8,849	8,862	8,898	4,904	0	39,049

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total
Project	**FY20**	**FY21**		**FY22**	**FY23**	**FY24**	**FY25**	**FY26**	**Future**	
10394001-Palo Alto Flood Basin Tide Gate Structure Replacement	4,392	83	552	3,062	8,849	8,862	8,898	4,904	0	39,049

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Watershed&Stream Stewardship Fund	39,049
Other Funding Sources	0
Total	**39,049**

OPERATING COST IMPACTS

Operating cost impacts are expected to be around $25K per year starting in FY27. Closer analysis will be determined at the completion of the construction phase.

Project	**Permanente Creek, San Francisco Bay to Foothill Expressway**
Program	Flood Protection – Lower Peninsula Watershed
Project No.	10244001s
Contact	Rechelle Blank rblank@valleywater.org

McKelvey Ball Park upon completion in February 2020

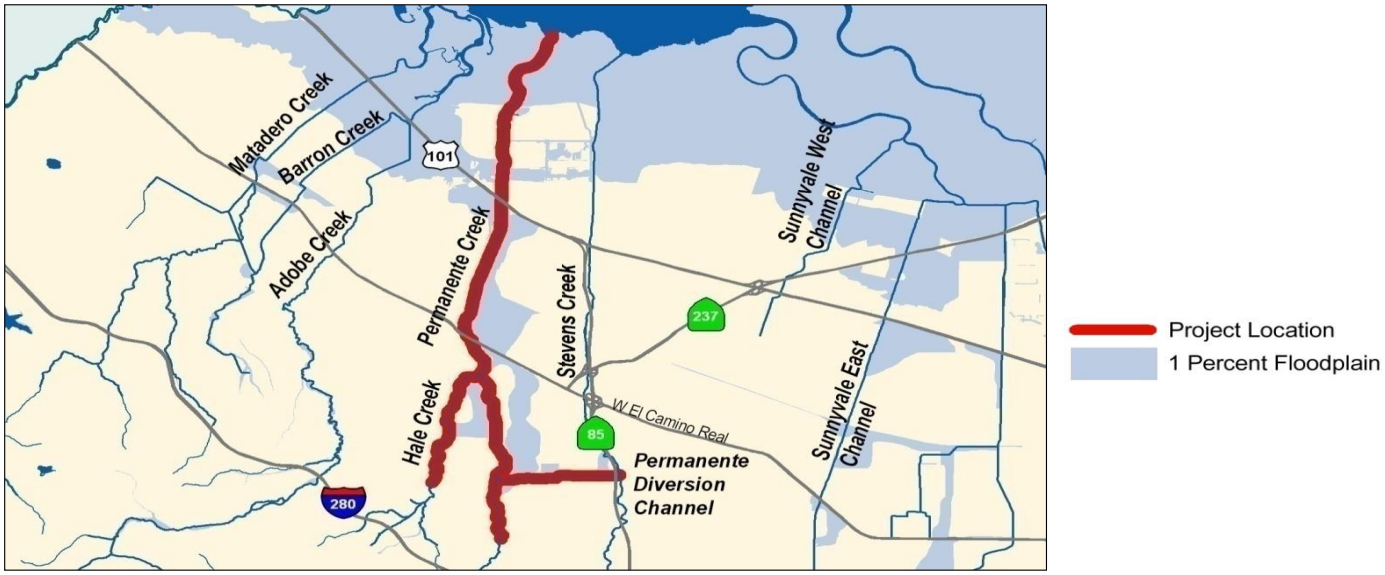
PROJECT DESCRIPTION

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

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

This project meets the commitments of the voter approved Safe, Clean Water Program (SCW). For a full description of the SCW benefits and KPIs, please visit www.valleywater.org.

PROJECT LOCATION

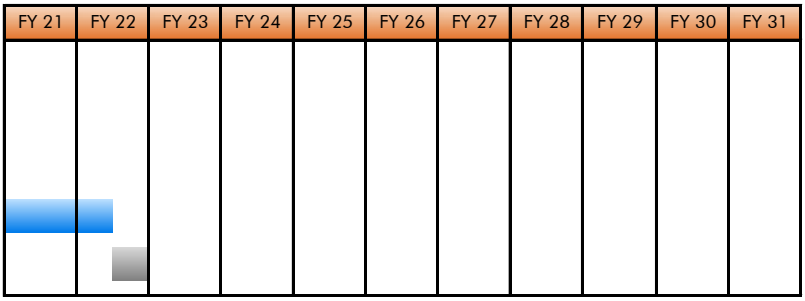


SCHEDULE & STATUS

July 2001 to June 2022

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

Phase	Cost
Plan	10,049
Permits	3,863
Design	17,641
Construct	79,894
Closeout	50
	116,039



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	**FY20**	**FY21**	**FY22**	**FY23**	**FY24**	**FY25**	**FY26**	**Future**	
10244001-Permanente Ck, Bay to Foothill Expwy – Lower Peninsula Fund	17,363	0	0	0	0	0	0	0	17,363
with inflation	17,363	0	0	0	0	0	0	0	17,363
26244001-Permanente Ck, Bay to Foothill Expwy – Clean, Safe Creeks Fund	88,639	10,037	0	0	0	0	0	0	98,676
with inflation	88,639	10,037	0	0	0	0	0	0	98,676
TOTAL	106,002	10,037	0	0	0	0	0	0	116,039
with inflation	106,002	10,037	0	0	0	0	0	0	116,039

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total
Project	**FY20**	**FY21**		**FY22**	**FY23**	**FY24**	**FY25**	**FY26**	**Future**	
10244001-Permanente Ck, Bay to Foothill Expwy – Lower Peninsula Fund	17,541	0	178	0	0	0	0	0	0	17,541
26244001-Permanente Ck, Bay to Foothill Expwy – Clean, Safe Creeks Fund	91,031	7,645	0	0	0	0	0	0	0	98,676
TOTAL	**108,572**	**7,645**	**178**	**0**	**0**	**0**	**0**	**0**	**0**	**116,217**

Adjusted Budget includes adopted budget plus approved budget adjustments. Allocated funding exceeds total planned expenditures by approximately $178,000. Excess funds will be returned to Fund Reserves at the close of the project.

FUNDING SOURCES

(in thousands $)

SCVWD Watershed Stream Stewardship Fund	17,541
SCVWD Clean, Safe Creeks and Natural Flood Protection Fund	97,653
City of Mountain View	1,023
Total	**116,217**

OPERATING COST IMPACTS

The completion of this project is anticipated to increase operating costs by approximately $360,000 per year, beginning in FY21. Increases in operations and maintenance costs include sediment removal at three flood detention sites, and bypass channel inlet and outlet operations and maintenance.

USEFUL LIFE: 30+ Years

Project	**San Francisquito Creek, San Francisco Bay through Searsville Dam (E5)**
Program	Flood Protection – Lower Peninsula Watershed
Project No.	10284007s
Contact	Rechelle Blank rblank@valleywater.org

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

PROJECT DESCRIPTION

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

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

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

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

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

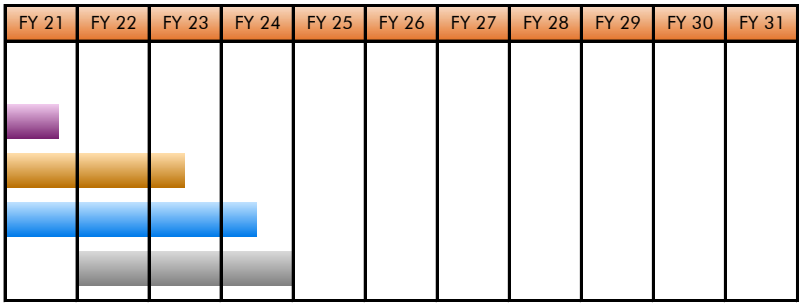
This project meets the commitments of the voter approved Safe, Clean Water Program (SCW), Project E5. For a full description of the SCW benefits and KPIs, please visit www.valleywater.org.

PROJECT LOCATION

SCHEDULE & STATUS

June 2003 to June 2024

Phase	Cost
Plan	4,637
Permits	1,665
Design	20,923
Construct	74,324
Closeout	100
	104,403



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	**FY20**	**FY21**	**FY22**	**FY23**	**FY24**	**FY25**	**FY26**	**Future**	
10284007-San Francisquito Ck, Bay-Searsville Dam	4,064	0	0	0	0	0	0	0	4,064
with inflation	4,064	0	0	0	0	0	0	0	4,064
10284008-San Francisquito Ck, Early Implementation	1,614	0	0	0	0	0	0	0	1,614
with inflation	1,614	0	0	0	0	0	0	0	1,614
26284001-San Francisquito Ck, Bay-Searsville Dam	6,671	111	0	0	0	0	0	0	6,782
with inflation	6,671	111	0	0	0	0	0	0	6,782
26284002-San Francisquito Ck - Construction - SF Bay to Middlefield Rd.	47,991	2,669	12,278	22,770	6,235	0	0	0	91,943
with inflation	47,991	2,669	12,726	24,295	6,885	0	0	0	94,565
TOTAL	**60,340**	**2,780**	**12,278**	**22,770**	**6,235**	**0**	**0**	**0**	**104,403**
with inflation	**60,340**	**2,780**	**12,726**	**24,295**	**6,885**	**0**	**0**	**0**	**107,025**

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total
Project	**FY20**	**FY21**		**FY22**	**FY23**	**FY24**	**FY25**	**FY26**	**Future**	
10284007-San Francisquito Ck, Bay-Searsville Dam	4,064	0	0	0	0	0	0	0	0	4,064
10284008-San Francisquito Ck, Early Implementation	1,614	0	0	0	0	0	0	0	0	1,614
26284001-San Francisquito Ck, Bay-Searsville Dam	6,782	0	0	0	0	0	0	0	0	6,782
26284002-San Francisquito Ck - Construction - SF Bay to Middlefield Rd.	50,291	370	1	12,725	24,295	6,885	0	0	0	94,565
TOTAL	**62,751**	**370**	**1**	**12,725**	**24,295**	**6,885**	**0**	**0**	**0**	**107,025**

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Watershed Stream Stewardship Fund	5,678
SCVWD Safe, Clean Water and Natural Flood Protection Fund	75,839
JPA and Member Agencies (D/S Funding)	5,508
Unsecured Grants and Partnerships (U/S Funding)	20,000
Total	**107,025**
San Francisquito Joint Powers Authority	11,040
U.S. Army Corps of Engineers - In-kind Services	3,000
County of San Mateo - In-kind Services	1,500
City of Palo Alto/Caltrans Grant (Newell Road Bridge)	8,941

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

OPERATING COST IMPACTS

These projects will have an estimated annual operating cost impact of approximately $250,000 beginning in FY24.

USEFUL LIFE: 30+ Years

Project	**Sunnyvale East and West Channels Flood Protection Project (E2)**
Program	Flood Protection – West Valley Watershed
Project No.	26074002
Contact	Rechelle Blank rblank@valleywater.org

Sunnyvale West Channel looking south at Carl Road

PROJECT DESCRIPTION

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

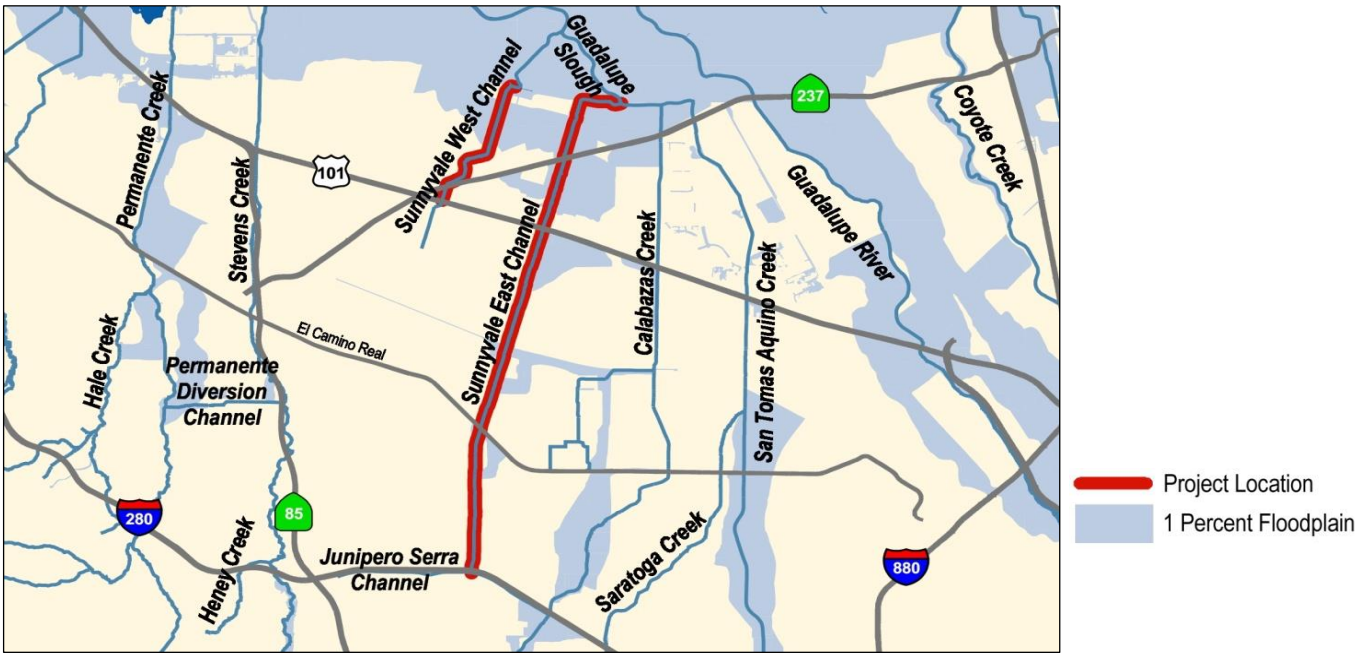
The West Channel extends approximately three miles and upgrades existing channel capacity to provide 1% (or 100-year) riverine flood protection for 47 acres of highly valuable industrial lands. The East Channel extends approximately 6.4 miles and upgrades existing channel capacity to provide 1% riverine flood protection for 1,618 parcels. Both projects decrease channel turbidity and sediment by repairing erosion sites, thereby improving water quality.

- Provides 1% flood capacity for approximately 6.5 miles of channel along Sunnyvale East and approximately three 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.

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

This project meets the commitments of the voter approved Safe, Clean Water Program (SCW) Project E2. For a full description of the SCW benefits and KPIs, please visit www.valleywater.org.

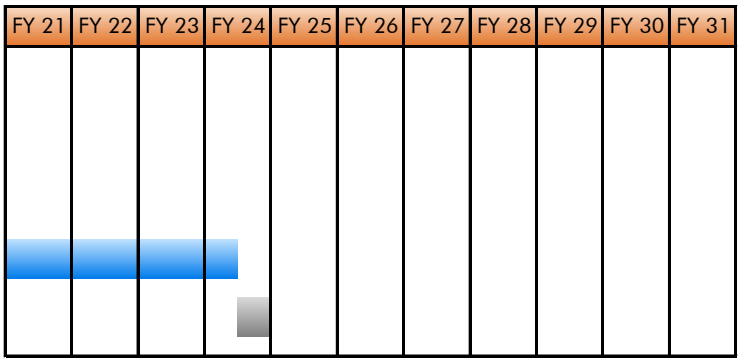
PROJECT LOCATION



SCHEDULE & STATUS

January 2006 to June 2024

Phase	Cost
Plan	5,770
Permits	1,137
Design	11,160
Construct	50,719
Closeout	200
	69,069



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	**FY20**	**FY21**	**FY22**	**FY23**	**FY24**	**FY25**	**FY26**	**Future**	
26074002-Sunnyvale East and West Channels Flood Protection Project (E2)	19,351	18,117	17,158	14,043	400	0	0	0	69,069
with inflation	19,351	18,117	17,705	14,555	456	0	0	0	70,184

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total
Project	**FY20**	**FY21**		**FY22**	**FY23**	**FY24**	**FY25**	**FY26**	**Future**	
26074002-Sunnyvale East and West Channels Flood Protection Project (E2)	35,438	2,480	450	17,255	14,555	456	0	0	0	70,184

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Clean, Safe Creeks and Natural Flood Protection Fund	70,184
Other Funding Source	0
Total	**70,184**

OPERATING COST IMPACTS

The completion of this project is anticipated to increase operating costs by approximately $210,000 per year based on Operations & Maintenance forecasting, beginning in FY24. Increases in operations and maintenance costs include graffiti removal, vegetation management, rodent abatement, good neighbor maintenance, and encampment cleanup in areas where the City of Sunnyvale's joint use agreements are not applicable.

USEFUL LIFE: 30+ Years

Project	**Guadalupe River Tasman Dr - I-880**
Program	Flood Protection - Guadalupe Watershed
Project No.	30154019
Contact	John Bourgeois jbourgeois@valleywater.org

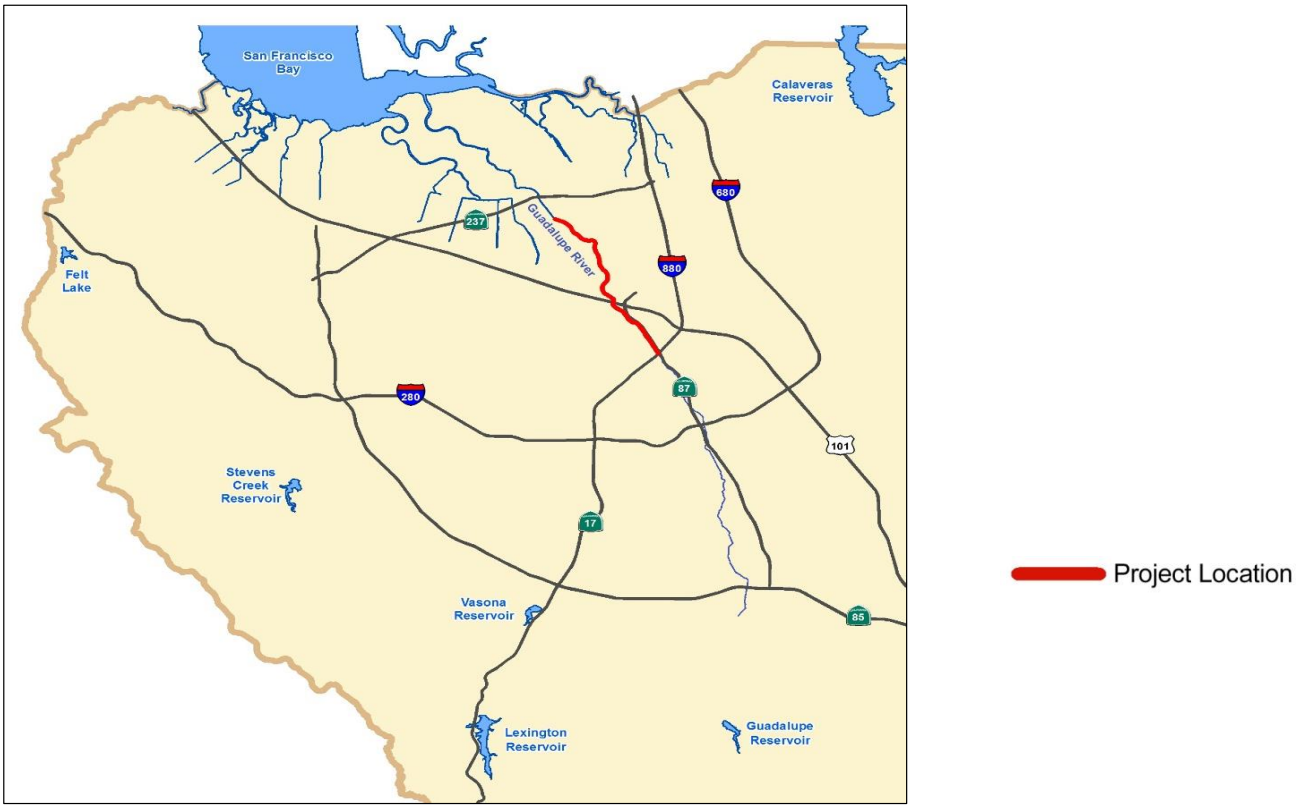
East bank of the Guadalupe River, looking upstream toward Trimble Road

PROJECT DESCRIPTION

This project plans, designs, and constructs improvements along the Guadalupe River from Tasman Drive to Interstate 880 to restore the 100-year flood conveyance capacity. The project will accomplish the following objective:

- Restore designed level of service along a portion of the Guadalupe River to provide 1% flood protection.

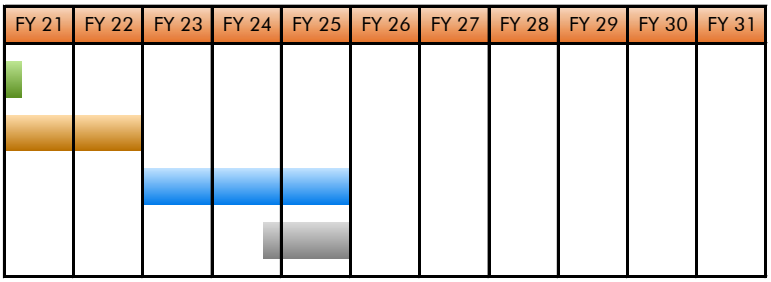
PROJECT LOCATION



SCHEDULE & STATUS

January 2019 to June 2025

Phase	Cost
Plan	2,468
Design	4,962
Construct	79,933
Closeout	50
	87,622



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY20	FY21	FY22	FY23	FY24	FY25	FY26	Future	
30154019-Guadalupe River Tasman Dr - I-880	872	2,047	2,561	2,159	25,811	27,061	27,111	0	87,622
with inflation	872	2,047	2,676	2,358	28,293	29,753	29,912	0	95,910

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total
Project	FY20	FY21		FY22	FY23	FY24	FY25	FY26	Future	
30154019-Guadalupe River Tasman Dr - I-880	1,080	1,838	-1	2,677	2,358	28,293	29,753	29,912	0	95,910

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Watershed Stream Stewardship Fund	95,910
Other Funding Sources	0
Total	95,910

OPERATING COST IMPACTS

N/A

USEFUL LIFE: N/A

Project	**Guadalupe River–Upper, Interstate 280 to Blossom Hill Road (E8)**
Program	Flood Protection – Guadalupe Watershed
Project No.	26154001s
Contact	Rechelle Blank rblank@valleywater.org

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

PROJECT DESCRIPTION

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

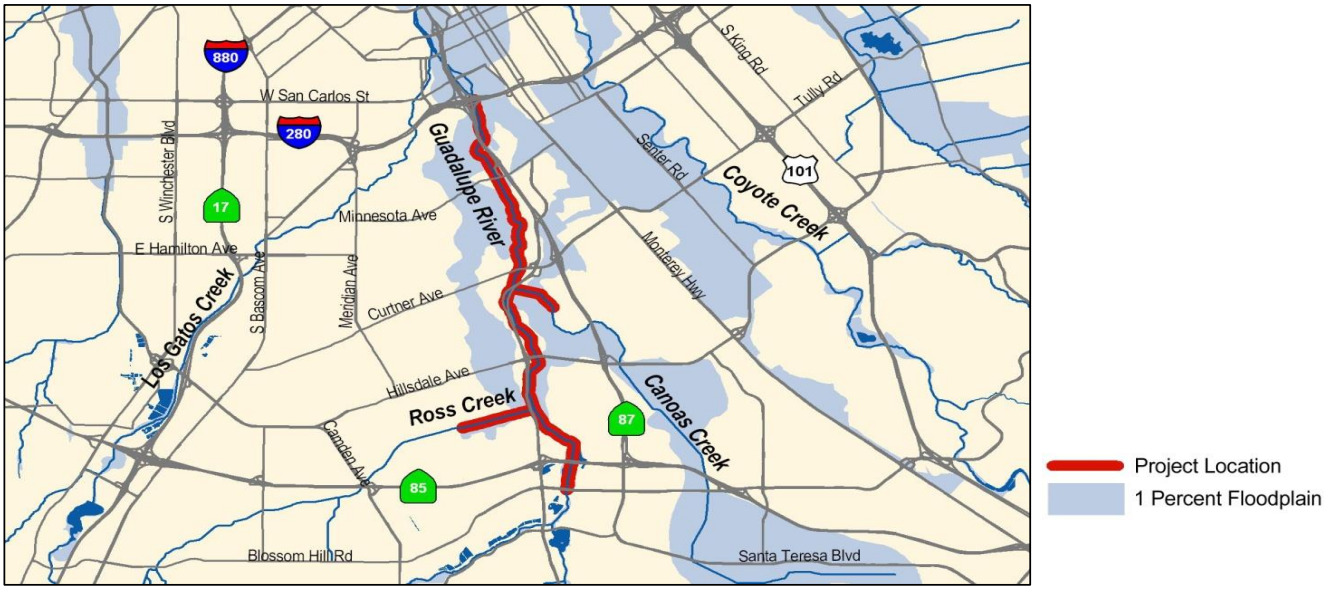
- Provide 1% flood protection to nearly 7,000 parcels along the Guadalupe River, from I-280 to Blossom Hill Road, including portions of Ross Creek and Canoas Creek.
- Provide long-term net gains of 15 acres in riparian forest acreage, quality, and continuity of wildlife habitat, and conditions favoring Chinook salmon and steelhead trout.
- Provide access to an additional 19 miles of suitable upstream spawning and rearing habitat, which would result in significant long-term beneficial impacts on fisheries resources.
- Coordinate with the City of San Jose and the community to establish a continuous maintenance road suitable for trail development between Interstate 280 and Los Alamitos Creek.
- Improve water quality by reducing bank erosion and sedimentation-related impacts along the river and tributaries.
- Address and resolve permit coordination activities and watershed integration issues through the Guadalupe Watershed Integration Working Group.

This project is accounted for in the following:

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

This project meets the commitments of the voter approved Safe, Clean Water Program (SCW), Project E8. For a full description of the SCW benefits and KPIs, please visit www.valleywater.org.

PROJECT LOCATION

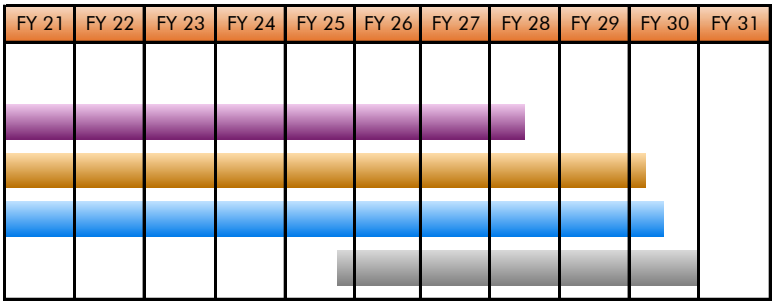


SCHEDULE & STATUS

September 1985 to June 2030

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

Phase	Cost
Plan	9,122
Permits	2,537
Design	76,626
Construct	73,446
Closeout	206
	165,908



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	**FY20**	**FY21**	**FY22**	**FY23**	**FY24**	**FY25**	**FY26**	**Future**	
26154001-Guadalupe Rv—Upr, Fish Passage Mods	2,651	0	0	0	0	0	0	0	2,651
with inflation	2,651	0	0	0	0	0	0	0	2,651
26154002-Guadalupe Rv—Upr, I-280 to SPRR (R6)	33,401	209	1,600	30	30	30	30	2,245	37,575
with inflation	33,401	209	1,657	33	34	36	37	2,997	38,404
26154003-Guadalupe Rv—Upper, SPRR to Blossom Hill Rd. (R7-12)	66,061	469	850	850	300	100	8,725	40,440	117,795
with inflation	66,061	469	888	928	342	119	10,634	48,834	128,276
Actuals in closed project numbers	7,887	0	0	0	0	0	0	0	7,887
with inflation	7,887	0	0	0	0	0	0	0	7,887
TOTAL	**110,000**	**678**	**2,450**	**880**	**330**	**130**	**8,755**	**42,685**	**165,908**
with inflation	**110,000**	**678**	**2,545**	**961**	**377**	**155**	**10,671**	**51,831**	**177,218**

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total
Project	**FY20**	**FY21**		**FY22**	**FY23**	**FY24**	**FY25**	**FY26**	**Future**	
26154001-Guadalupe Rv—Upr, Fish Passage Mods	2,651	0	0	0	0	0	0	0	0	2,651
26154002-Guadalupe Rv—Upr, I-280 to SPRR (R6)	34,705	0	1,095	562	33	34	36	37	2,997	38,404
26154003-Guadalupe Rv—Upper, SPRR to Blossom Hill Rd. (R7-12)	89,399	0	22,869	0	0	0	0	0	38,877	128,276
Actuals in closed project numbers	7,887	0	0	0	0	0	0	0	0	7,887
TOTAL	**134,642**	**0**	**23,964**	**562**	**33**	**34**	**36**	**37**	**41,874**	**177,218**

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Watershed Stream Stewardship Fund	12,000
SCVWD Safe, Clean Water and Natural Flood Protection	130,519
State of California	30,108
City of San Jose	4,591
Total	**177,218**
USACE - In-kind Services	188,000

OPERATING COST IMPACTS

The completion of this project is anticipated to increase operating costs by approximately $360,000 per year, beginning in FY21, for mitigation and monitoring labor and equipment, implementation of adaptive management measures, and operations and maintenance in accordance with the USACE Operations and Maintenance Manual.

USEFUL LIFE: 30+ Years

Project	**Berryessa Creek, Calaveras Boulevard to Interstate 680**
Program	Flood Protection – Coyote Watershed
Project No.	26174041s
Contact	Rechelle Blank rblank@valleywater.org

Berryessa Creek near flood stage at Piedmont Road in San Jose

PROJECT DESCRIPTION

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

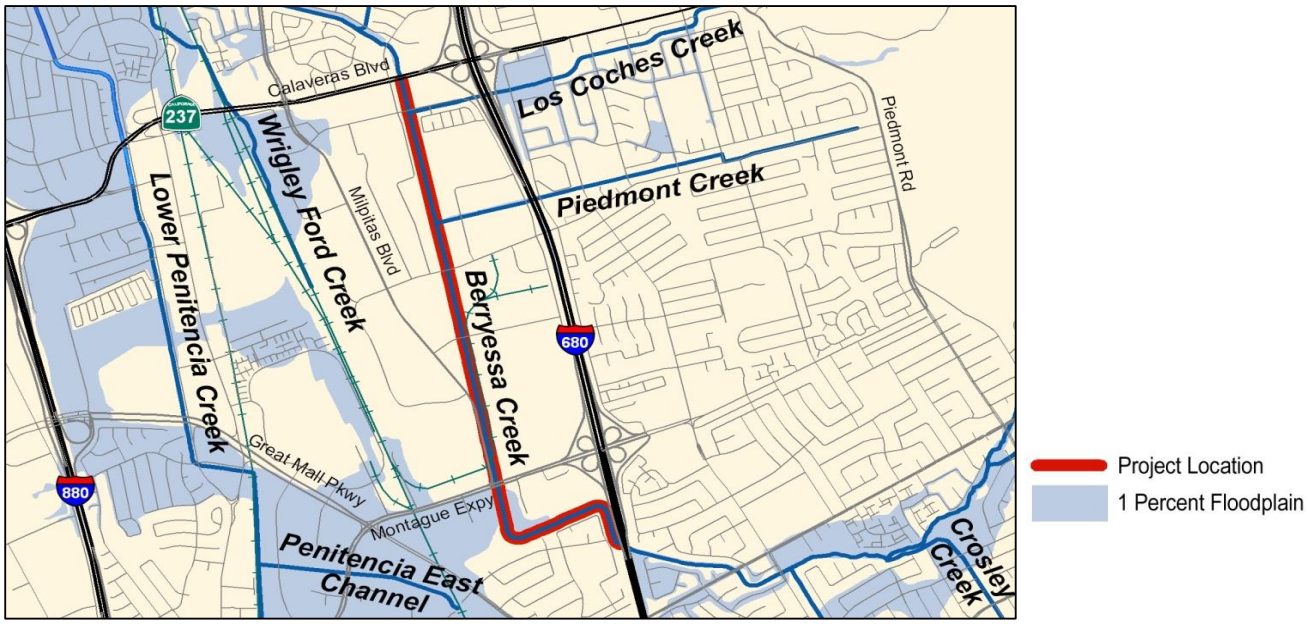
- Provide 1% flood protection to more than 1,100 homes, businesses, and public buildings.
- Reduce sedimentation and maintenance requirements.
- Mitigate for project impacts.
- Improve stream habitat values.
- Coordinate with the cities of San Jose and Milpitas, and the community to establish a continuous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

This project is accounted for in the following:

26174041 – Coordination with USACE
26174042 – Reimbursable work – Lands, Easements, Rights of Way, Relocations and Disposal

This project meets the commitments of the voter approved Safe, Clean Water Program (SCW). For a full description of the SCW benefits and KPIs, please visit www.valleywater.org.

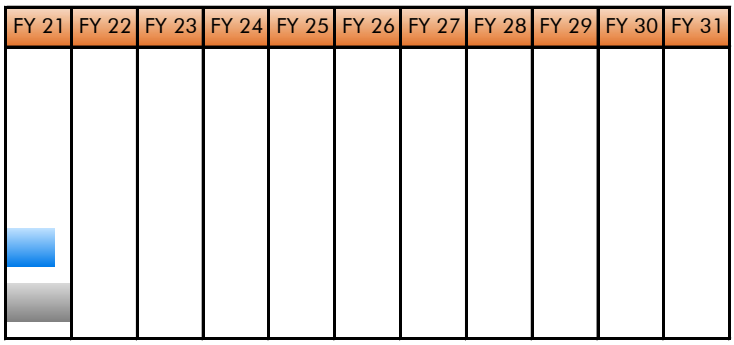
PROJECT LOCATION



SCHEDULE & STATUS

January 2000 to June 2021

Phase	Cost
Plan	8,323
Permits	1,561
Design	11,554
Construct	28,697
Closeout	248
	54,585



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	**FY20**	**FY21**	**FY22**	**FY23**	**FY24**	**FY25**	**FY26**	**Future**	
26174041-Berryessa Creek, USACE Coordination	22,860	12,735	0	0	0	0	0	0	35,595
with inflation	22,860	12,735	0	0	0	0	0	0	35,595
26174042-Berryessa Creek, LERRDs	17,557	1,433	0	0	0	0	0	0	18,990
with inflation	17,557	1,433	0	0	0	0	0	0	18,990
TOTAL	**40,417**	**14,168**	**0**	**0**	**0**	**0**	**0**	**0**	**54,585**
with inflation	**40,417**	**14,168**	**0**	**0**	**0**	**0**	**0**	**0**	**54,585**

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total
Project	**FY20**	**FY21**		**FY22**	**FY23**	**FY24**	**FY25**	**FY26**	**Future**	
26174041-Berryessa Creek, USACE Coordination	35,566	29	0	0	0	0	0	0	0	35,595
26174042-Berryessa Creek, LERRDs	18,987	3	0	0	0	0	0	0	0	18,990
TOTAL	**54,553**	**32**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**54,585**

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Clean, Safe Creeks and Natural Flood Protection Fund	18,985
State of California	25,600
Department of Water Resources (Prop 1E)	10,000
Total	**54,585**
USACE - In-kind Services	13,600

OPERATING COST IMPACTS

The completion of this project is anticipated to increase operating costs by approximately $100,000 per year, beginning in FY20, to maintain approximately two miles of new levees and flood walls, and for activities such as vegetation control and graffiti removal.

USEFUL LIFE: 30+ Years

Project	**Berryessa Creek, Lower Penitencia Creek to Calaveras Boulevard**
Program	Flood Protection – Coyote Watershed
Project No.	40174004s
Contact	Rechelle Blank rblank@valleywater.org

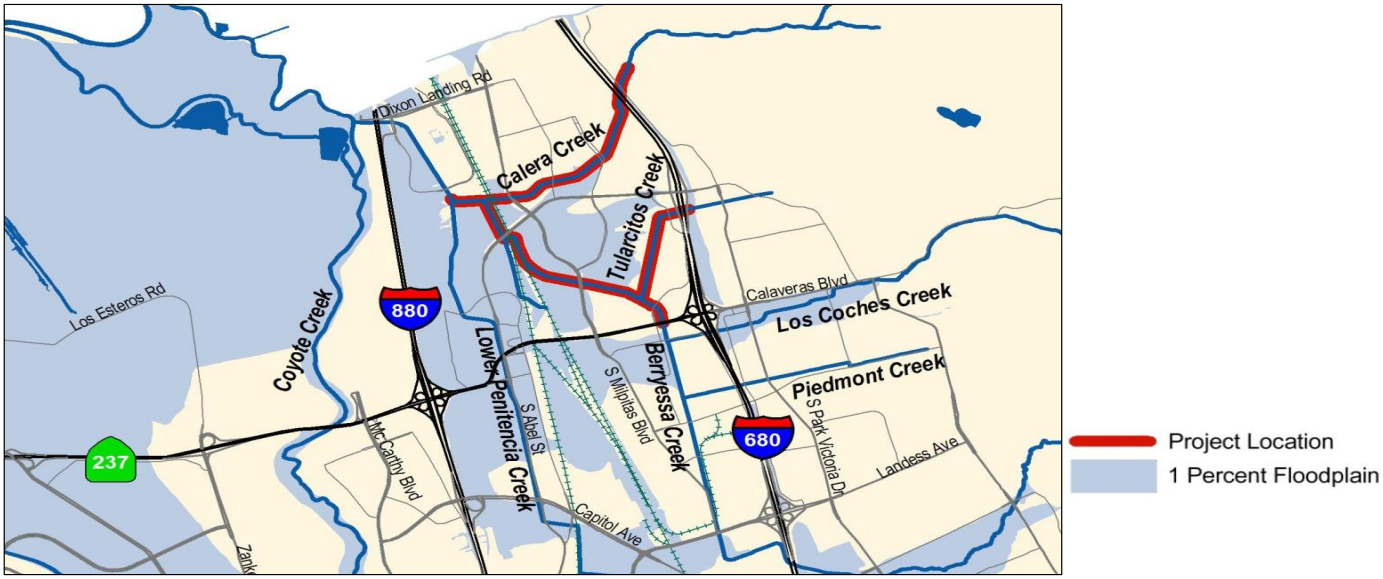
Berryessa Creek upstream of the confluence with Lower Penitencia Creek

PROJECT DESCRIPTION

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

- Provide 1% flood protection to 1,823 homes, businesses, and public buildings in the surrounding area.
- Improve the structural integrity of the levees.
- Improve maintenance access and safety for Valley Water staff.
- Identify opportunities to integrate recreation inputs consistent with the City of Milpitas' Trail Master Plan.
- Obtain a letter of map revision from the Federal Emergency Management Agency.

PROJECT LOCATION

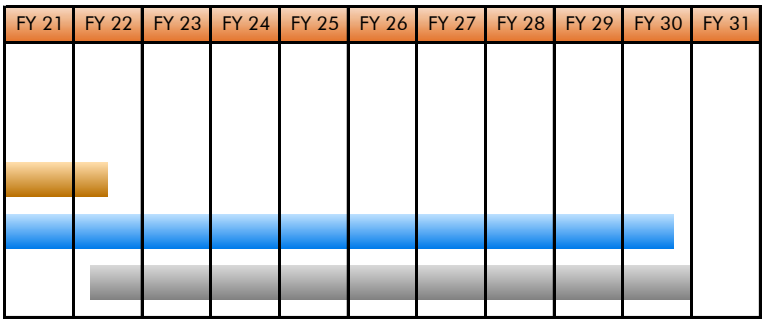


SCHEDULE & STATUS

March 2001 to June 2030

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

Phase	Cost
Plan	8,199
Permits	2,265
Design	21,408
Construct	158,037
Closeout	109
	191,398



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	**FY20**	**FY21**	**FY22**	**FY23**	**FY24**	**FY25**	**FY26**	**Future**	
40174004-Berryessa Creek, Lower Penitencia Creek to Calaveras Boulevard Phase 1	46,747	105	100	0	0	0	0	0	46,952
with inflation	46,747	105	105	0	0	0	0	0	46,957
40174005-Berryessa Creek, Lower Penitencia Creek to Calaveras Boulevard Phase 2	60,084	12,391	11,910	810	330	230	0	0	85,755
with inflation	60,084	12,391	12,288	885	377	274	0	0	86,299
40C40397-Berryessa Creek, Lower Penitencia Creek to Calaveras Boulevard Phase 3	0	0	0	0	0	0	1,690	52,401	54,091
with inflation	0	0	0	0	0	0	2,106	65,055	67,161
26C40420-Phase 3 Planning/Design (only)	0	0	0	0	0	0	0	4,600	4,600
with inflation	0	0	0	0	0	0	0	8,194	8,194
TOTAL	**106,831**	**12,496**	**12,010**	**810**	**330**	**230**	**1,690**	**57,001**	**191,398**
with inflation	**106,831**	**12,496**	**12,393**	**885**	**377**	**274**	**2,106**	**73,250**	**208,611**

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total
Project	**FY20**	**FY21**		**FY22**	**FY23**	**FY24**	**FY25**	**FY26**	**Future**	
40174004-Berryessa Creek, Lower Penitencia Creek to Calaveras Boulevard Phase 1	50,191	0	3,339	0	0	0	0	0	0	50,191
40174005-Berryessa Creek, Lower Penitencia Creek to Calaveras Boulevard Phase 2	62,075	10,715	315	11,973	885	377	274	0	0	86,299
40C40397-Berryessa Creek, Lower Penitencia Creek to Calaveras Boulevard Phase 3	0	0	0	0	0	0	0	2,106	65,055	67,161
26C40420-Phase 3 Planning/Design (only)	0	0	0	0	0	0	0	0	8,194	8,194
TOTAL	**112,266**	**10,715**	**3,654**	**11,973**	**885**	**377**	**274**	**2,106**	**73,250**	**211,846**

Adjusted Budget includes adopted budget plus approved budget adjustments. Allocated funding exceeds planned expenditures by approximately $3,235,000. Excess funds will be returned to Fund Reserves at the close of the project.

FUNDING SOURCES

(in thousands $)

SCVWD Watershed Stream Stewardship Fund	196,846
Safe, Clean Water Fund Measure S	8,194
Department of Water Resources (Prop 1E)	15,000
Total	**211,846**

OPERATING COST IMPACTS

The operating cost impacts of these projects are anticipated to average approximately $210,000 annually starting in FY20. Phase II completion is expected to cost $929,000 in FY21; in FY22, $956,000.

USEFUL LIFE: 30+ Years

Project	**Coyote Creek, Montague Expressway to Tully Road**
Program	Flood Protection – Coyote Watershed
Project No.	26174043
Contact	Rechelle Blank rblank@valleywater.org

February 2017 flood event, on Rock Springs Drive looking northeast towards Rocksprings Park

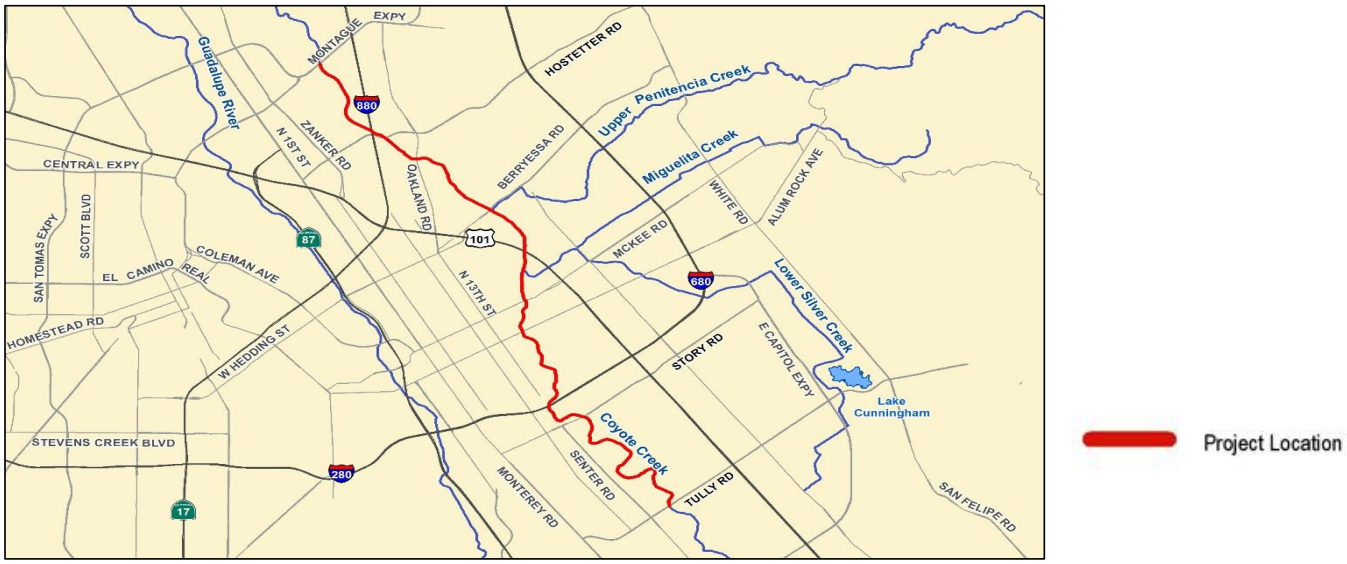
PROJECT DESCRIPTION

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

- To reduce the risk of flooding to homes, schools, businesses, and highways from approximately a 20 year flood event (February 2017 event), from Montague Expressway to Tully Road.
- Improve water quality, enhance stream habitat, and provide recreational opportunities.
- Incorporate aesthetic elements of the Coyote Creek park chain.
- Minimize long-term maintenance needs.

This project meets the commitments of the voter approved Safe, Clean Water Program (SCW). For a full description of the SCW benefits and KPIs, please visit www.valleywater.org.

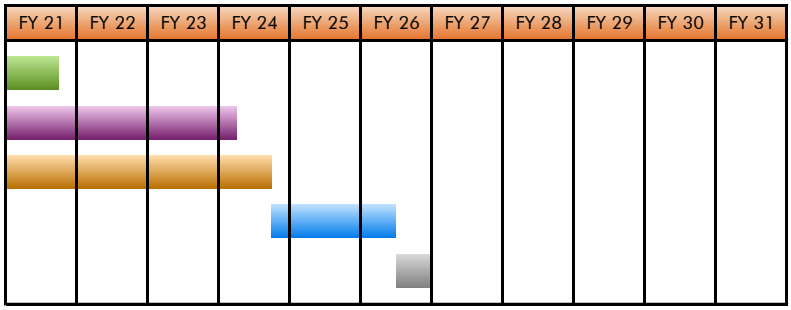
PROJECT LOCATION



SCHEDULE & STATUS

November 2017 to June 2026

Phase	Cost
Plan	9,723
Permits	1,516
Design	15,695
Construct	30,320
Closeout	106
	57,852



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	**FY20**	**FY21**	**FY22**	**FY23**	**FY24**	**FY25**	**FY26**	**Future**	
26174043-Coyote Creek, Montague Expressway to Tully Road	14,234	472	3,948	6,100	10,018	19,780	3,300	0	57,852
with inflation	14,234	472	4,126	6,661	11,166	22,382	3,895	0	62,936

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total
Project	**FY20**	**FY21**		**FY22**	**FY23**	**FY24**	**FY25**	**FY26**	**Future**	
26174043-Coyote Creek, Montague Expressway to Tully Road	15,035	2,199	2,528	1,598	6,661	11,166	22,382	3,895	0	62,936

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Clean, Safe Creeks and Natural Flood Protection Fund	62,936
Other Funding Sources	0
Total	**62,936**

OPERATING COST IMPACTS

Currently Valley Water has limited and sporadic property rights within the project limits along the creek, and ongoing maintenance costs are relatively small. Project implementation may include acquisition of continuous right of way for construction and future operations and maintenance. This project is expected to increase operating costs by approximately $1,000,000 per year starting in FY27.

USEFUL LIFE: 30+ Years

Project	**Cunningham Flood Detention Certification**
Program	Flood Protection – Coyote Watershed
Project No.	40264011
Contact	Rechelle Blank rblank@valleywater.org

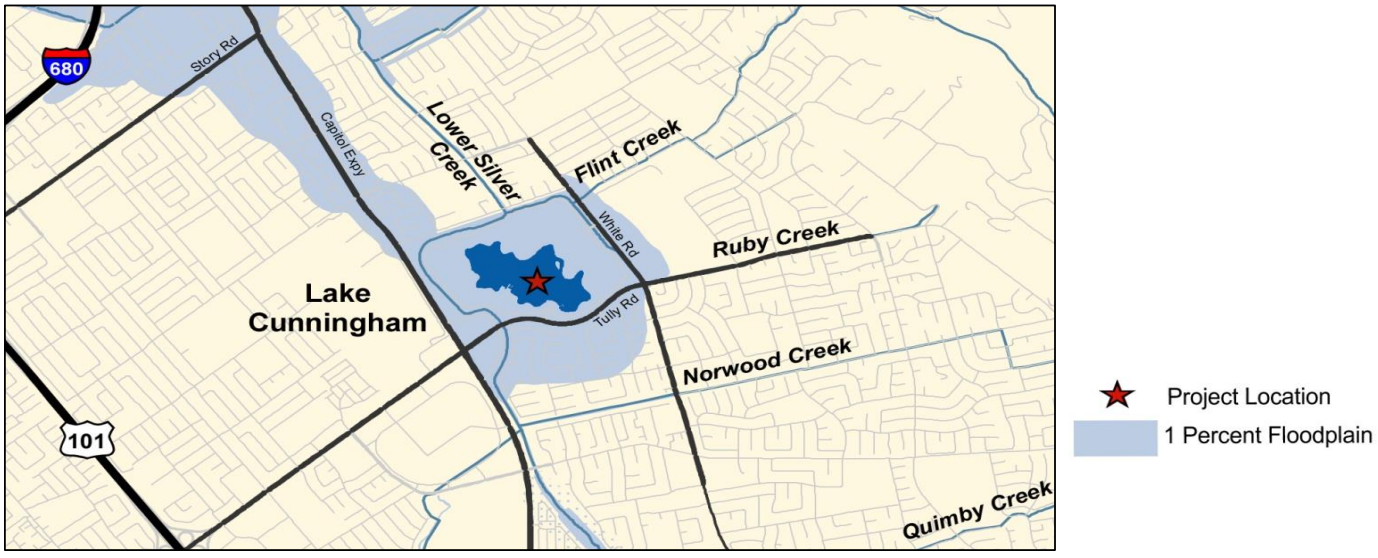
Flooding from Lower Silver Creek in February 1969 at the future site of Lake Cunningham Regional Park

PROJECT DESCRIPTION

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

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

PROJECT LOCATION



SCHEDULE & STATUS

August 1999 to June 2022

Phase	Cost
Plan	2,323
Permits	369
Design	2,288
Construct	6,721
Closeout	12
	11,837

FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30	FY 31

EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	**FY20**	**FY21**	**FY22**	**FY23**	**FY24**	**FY25**	**FY26**	**Future**	
40264011-Cunningham Flood Detention Certification	11,763	44	30	0	0	0	0	0	11,837
with inflation	11,763	44	31	0	0	0	0	0	11,838

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total
Project	**FY20**	**FY21**		**FY22**	**FY23**	**FY24**	**FY25**	**FY26**	**Future**	
40264011-Cunningham Flood Detention Certification	11,806	4	3	28	0	0	0	0	0	11,838

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Watershed Stream Stewardship Fund	8,120
California Department of Water Resources	1,000
Natural Resource Conservation Service	2,718
Total	**11,838**

OPERATING COST IMPACTS

The project is within Valley Water jurisdiction and it is designed to minimize maintenance activities such as sediment removal. Operating costs are expected to be approximately $60,000 per year starting in FY20.

USEFUL LIFE: 30+ Years

Project	**Lower Penitencia Creek Improvements, Berryessa to Coyote Creeks**
Program	Flood Protection – Coyote Watershed
Project No.	40334005
Contact	Rechelle Blank rblank@valleywater.org

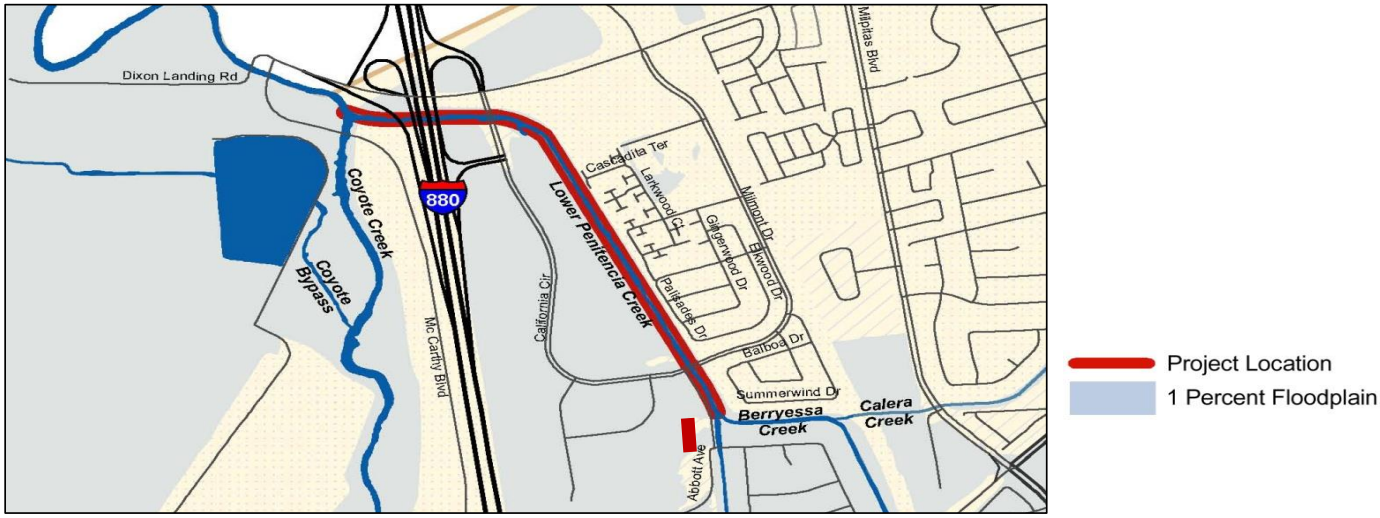
Lower Penitencia Creek, looking downstream from Milmont Drive

PROJECT DESCRIPTION

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

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

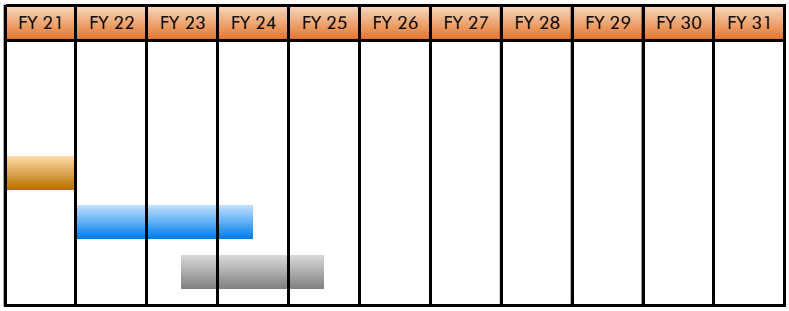
PROJECT LOCATION



SCHEDULE & STATUS

October 2010 to January 2024

Phase	Cost
Plan	3,574
Permits	1,131
Design	5,010
Construct	17,476
Closeout	20
	27,399



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY20	FY21	FY22	FY23	FY24	FY25	FY26	Future	
40334005-Lower Penitencia Creek Improvements, Berryessa to Coyote Creeks	9,651	1,878	7,500	7,550	550	270	0	0	27,399
with inflation	9,651	1,878	7,733	7,811	628	322	0	0	28,022

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total
Project	FY20	FY21		FY22	FY23	FY24	FY25	FY26	Future	
40334005-Lower Penitencia Creek Improvements, Berryessa to Coyote Creeks	11,287	7,745	7,503	230	7,811	628	322	0	0	28,022

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Watershed Stream Stewardship Fund	23,022
Department of Water Resources (Prop 1E)	5,000
Total	**28,022**

OPERATING COST IMPACTS

This project is expected to have an operating cost of approximately $215,000 per year, beginning in FY23.

USEFUL LIFE: 50 Years

Project	**Lower Silver Creek, I-680 to Cunningham Avenue (R4-6) Flood Protection Project**
Program	Flood Protection – Coyote Watershed
Project No.	40264008s
Contact	Rechelle Blank rblank@valleywater.org

Lower Silver Creek looking upstream from Capital Expressway

PROJECT DESCRIPTION

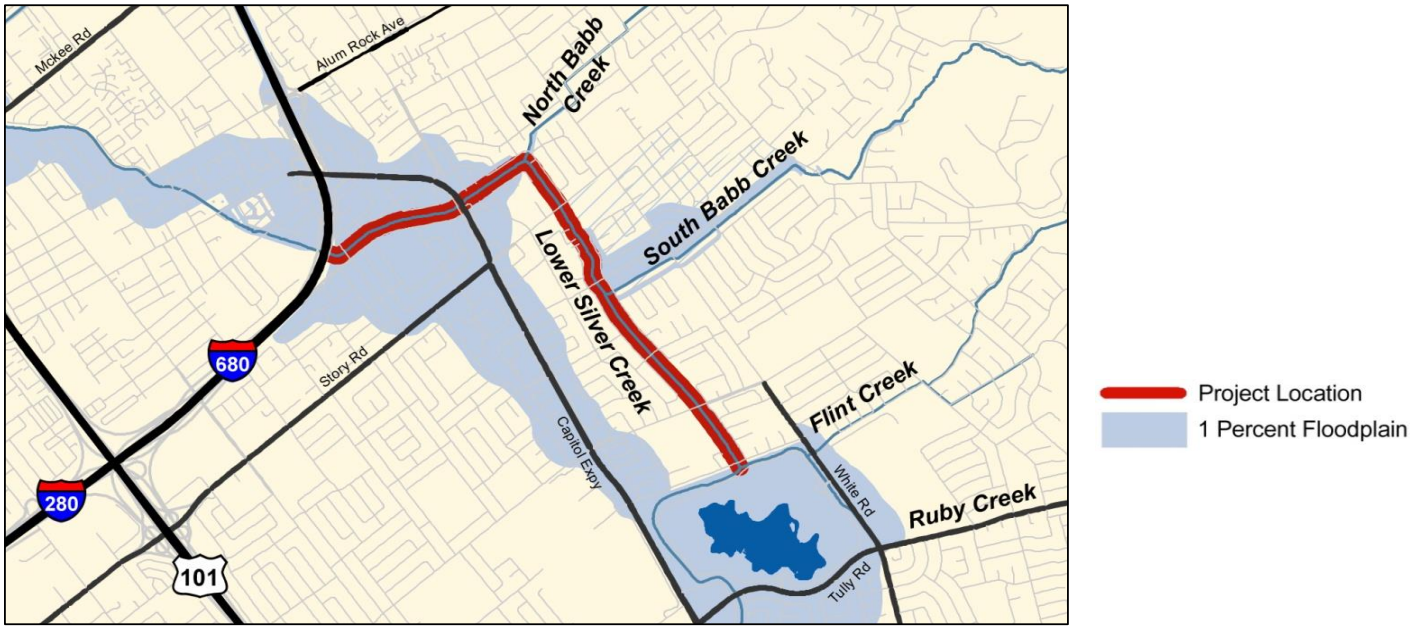
This project is part of a flood control project that partners with the Natural Resource Conservation Service to plan, design and construct improvements along approximately 2.3 miles of Lower Silver Creek, from Interstate 680 to Lake Cunningham. This project includes elements that are eligible for reimbursement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

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

This project is accounted for in the following:

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

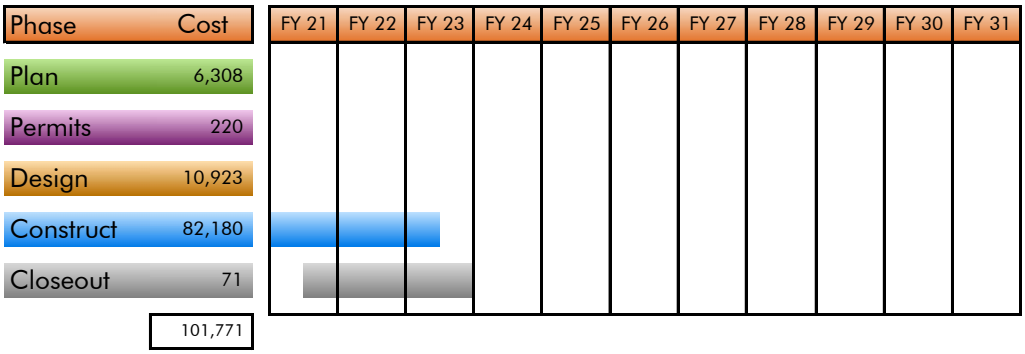
PROJECT LOCATION



SCHEDULE & STATUS

August 2008 to June 2023

Planning and Design phases are complete



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	**FY20**	**FY21**	**FY22**	**FY23**	**FY24**	**FY25**	**FY26**	**Future**	
40264007-Lower Silver Creek, Reach 4 Planning	2,371	0	0	0	0	0	0	0	2,371
with inflation	2,371	0	0	0	0	0	0	0	2,371
40264008-Lower Silver Ck, Nonreimbursable (R4-6)	94,581	2,567	50	50	0	0	0	0	97,248
with inflation	94,581	2,567	52	55	0	0	0	0	97,255
40264012-Lower Silver Creek, LERRDs (R4-6)	1,928	224	0	0	0	0	0	0	2,152
with inflation	1,928	224	0	0	0	0	0	0	2,152
TOTAL	98,880	2,791	50	50	0	0	0	0	101,771
with inflation	98,880	2,791	52	55	0	0	0	0	101,778

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	**FY20**	**FY21**		**FY22**	**FY23**	**FY24**	**FY25**	**FY26**	**Future**	
40264007-Lower Silver Creek, Reach 4 Planning	2,371	0	0	0	0	0	0	0	0	2,371
40264008-Lower Silver Ck, Nonreimbursable (R4-6)	97,005	167	24	28	55	0	0	0	0	97,255
40264012-Lower Silver Creek, LERRDs (R4-6)	2,912	0	760	0	0	0	0	0	0	2,912
TOTAL	102,288	167	784	28	55	0	0	0	0	102,538

Adjusted Budget includes adopted budget plus approved budget adjustments. Funding exceeds planned expenditures by approximately $760,000. Excess funding will be returned to reserves upon completion of the project.

FUNDING SOURCES

(in thousands $)

SCVWD Watershed Stream Stewardship Fund	49,122
State of California	8,740
Natural Resource Conservation Service - ARRA	20,676
California Department of Water Resources	24,000
Total	**102,538**

OPERATING COST IMPACTS

The operating cost impacts are estimated to be $230,000 per year beginning in FY20. Projected operating and maintenance costs include sediment removal, vegetation management, bank protection, graffiti removal, and encampment cleanup.

USEFUL LIFE: 50+ Years

Project	**Upper Penitencia Creek, Coyote Creek to Dorel Drive (E4)**
Program	Flood Protection – Coyote Watershed
Project No.	40324003s
Contact	Rechelle Blank rblank@valleywater.org

Flooding at King Road on Upper Penitencia Creek

PROJECT DESCRIPTION

Initially, this project partnered with the U.S. Army Corps of Engineers (USACE) to plan, design, and construct improvements along approximately 4.2 miles of Upper Penitencia Creek, from the confluence with Coyote Creek to Dorel Drive, to accomplish the objectives listed below. In 2016, the USACE's decided that the multi-objective project which is appropriate for this creek could not be funded under the existing single-purpose authorization. The Project was not included in the USACE's 2017 workplan.

Objectives:

- Provide 1% flood protection to more than 5,000 homes, businesses, and public buildings.
- Improve stream habitat values and fisheries potential.
- Reduce sedimentation and maintenance requirements.
- Identify opportunities to integrate recreation improvements consistent with the City of San Jose's Master Plans, the County's Penitencia Creek Master Plan, and Santa Clara Countywide Trails Master Plan.
- Incorporate Valley Water's Safe, Clean Water and Natural Flood Protection Program objectives.

This project is accounted for in the following:

- 40324003 Initial stages of Planning Phase through FY18
- 26324001 Safe, Clean Water Program

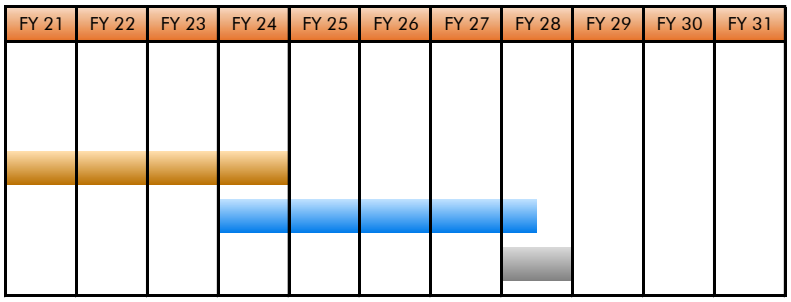
This project meets the commitments of the voter approved Safe, Clean Water Program (SCW), Project E4. For a full description of the SCW benefits and KPIs, please visit www.valleywater.org.

PROJECT LOCATION

SCHEDULE & STATUS

July 2000 to June 2028

Phase	Cost
Plan	7,230
Permits	610
Design	12,400
Construct	14,028
Closeout	154
	34,748



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	**FY20**	**FY21**	**FY22**	**FY23**	**FY24**	**FY25**	**FY26**	**Future**	
40324003-Upper Penitencia Ck, Coyote Ck to Dorel Dr, USACE	9,467	0	0	0	0	0	0	0	9,467
with inflation	9,467	0	0	0	0	0	0	0	9,467
40324005-Upper Penitencia Ck, Coyote Ck to Dorel Dr, LERRDs	2,309	0	0	0	0	0	0	0	2,309
with inflation	2,309	0	0	0	0	0	0	0	2,309
26324001-Upper Penitencia Ck, Coyote Ck to Dorel Dr	1,172	4,929	2,516	200	1,811	1,341	3,779	7,224	22,972
with inflation	1,172	4,929	2,629	218	2,067	1,599	4,449	8,573	25,636
TOTAL	**12,948**	**4,929**	**2,516**	**200**	**1,811**	**1,341**	**3,779**	**7,224**	**34,748**
with inflation	**12,948**	**4,929**	**2,629**	**218**	**2,067**	**1,599**	**4,449**	**8,573**	**37,412**

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total
Project	**FY20**	**FY21**		**FY22**	**FY23**	**FY24**	**FY25**	**FY26**	**Future**	
40324003-Upper Penitencia Ck, Coyote Ck to Dorel Dr, USACE	9,466	0	-1	1	0	0	0	0	0	9,467
40324005-Upper Penitencia Ck, Coyote Ck to Dorel Dr, LERRDs	4,831	0	2,522	0	0	0	0	0	0	4,831
26324001-Upper Penitencia Ck, Coyote Ck to Dorel Dr	4,719	3,898	2,516	113	218	2,067	1,599	4,449	8,573	25,636
TOTAL	**19,016**	**3,898**	**5,037**	**114**	**218**	**2,067**	**1,599**	**4,449**	**8,573**	**39,934**

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Watershed Stream Stewardship Fund	14,298
SCVWD Safe, Clean Water Fund	25,636
Total	**39,934**
USACE - In-kind Services	102,720

OPERATING COST IMPACTS

Operating costs are expected to average $790,000 per year beginning in FY25.

USEFUL LIFE: Not Available

Project	**Llagas Creek–Lower, Capacity Restoration, Buena Vista Avenue to Pajaro River**
Program	Flood Protection – Uvas/Llagas Watershed
Project No.	50284010
Contact	Rechelle Blank rblank@valleywater.org

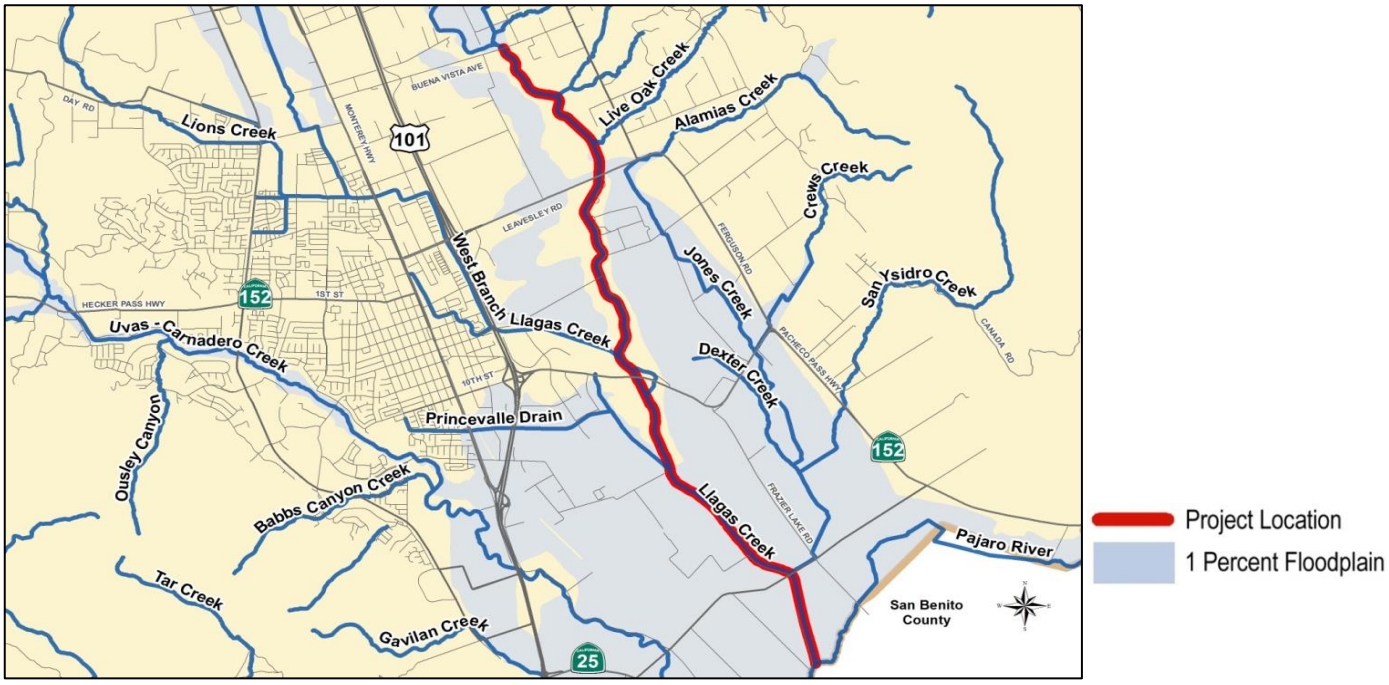
Lower Llagas Creek near Pajaro River

PROJECT DESCRIPTION

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

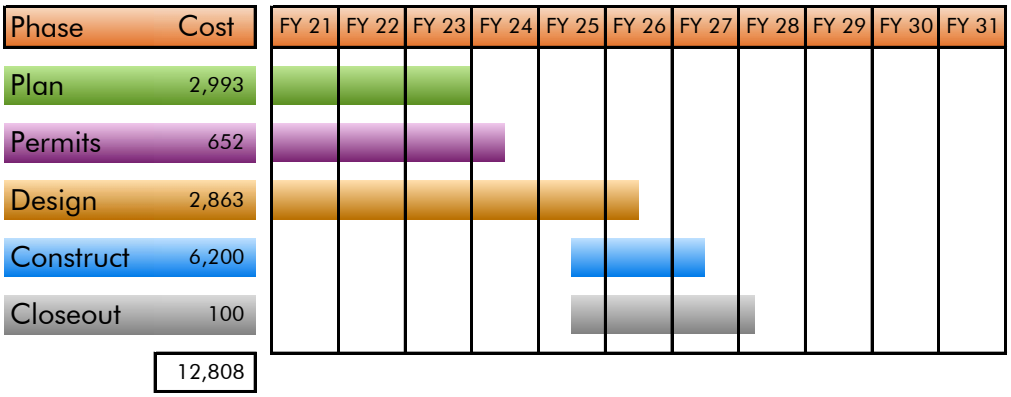
- Evaluate the current flood risk in the area surrounding the project versus the design level flood risk.
- Develop options to provide flood protection for Lower Llagas Creek Reaches 2 and 3 in accordance with Federal Emergency Management Agency criteria where applicable.
- Identify feasible opportunities for environmental restoration and corridor preservation.
- Coordinate planning, design, and construction efforts with the South County Regional Wastewater Authority.

PROJECT LOCATION



SCHEDULE & STATUS

September 2008 to July 2027



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY20	FY21	FY22	FY23	FY24	FY25	FY26	Future	
50284010-Llagas Creek–Lower, Capacity Restoration, Buena Vista Avenue to Pajaro River	3,323	861	124	1,250	950	3,000	3,000	300	12,808
with inflation	3,323	861	130	1,365	1,084	3,423	3,462	391	14,038

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY20	FY21		FY22	FY23	FY24	FY25	FY26	Future	
50284010-Llagas Creek–Lower, Capacity Restoration, Buena Vista Avenue to Pajaro River	6,947	0	2,763	0	0	0	3,239	3,462	391	14,038

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Watershed Stream Stewardship Fund	12,918
State of California	1,120
Total	14,038

OPERATING COST IMPACTS

Operating cost impacts will determined at the completion of the design phase.

USEFUL LIFE: 30+ Years

Project	**Llagas Creek–Upper, Buena Vista Avenue to Llagas Road (E6)**
Program	Flood Protection – Uvas/Llagas Watershed
Project No.	26174051s
Contact	Rechelle Blank rblank@valleywater.org

Llagas Creek floods at Watsonville Road and the surrounding area

PROJECT DESCRIPTION

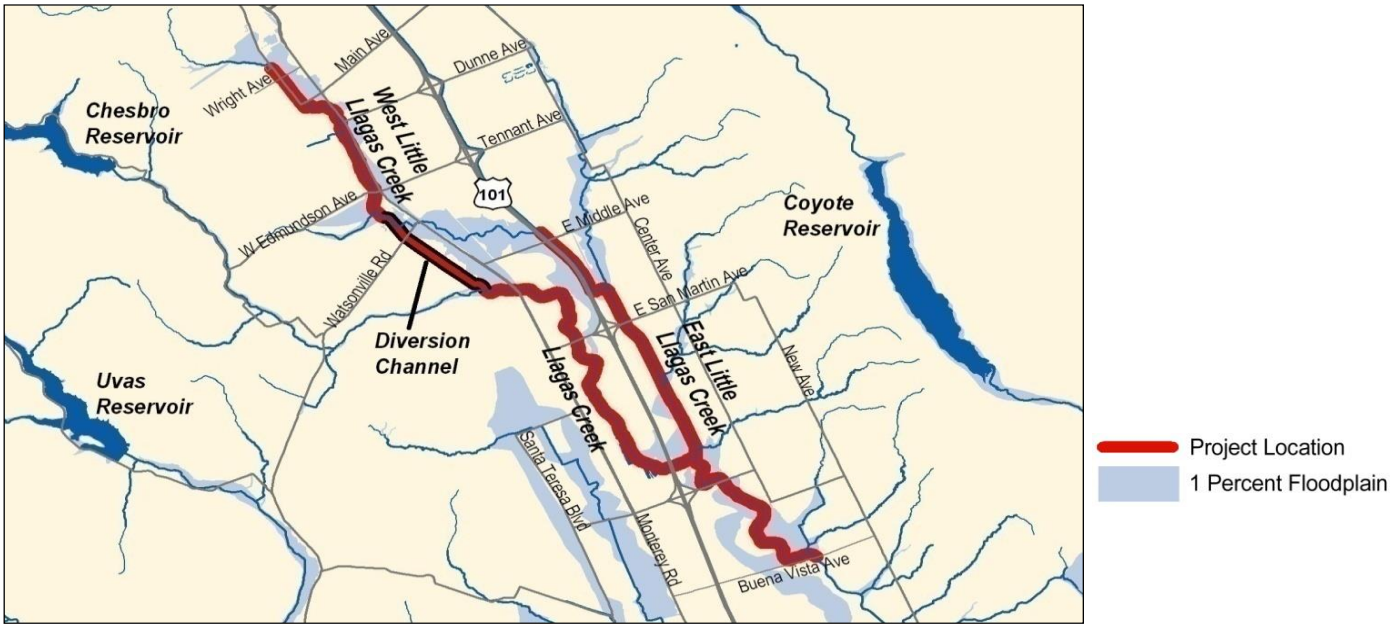
This project continues a Clean, Safe Creeks project in partnership with the U.S. Army Corps of Engineers (USACE) and the state to plan, design, and construct improvements along 13.9 miles of channel. The project extends from Buena Vista Avenue to Llagas Road, including West Little Llagas Creek in downtown Morgan Hill. The federally authorized preferred project protects the urban area of Morgan Hill from a 1% (or 100-year) flood, and reduces the frequency of flooding in surrounding areas. Construction includes channel modifications and replacement of road crossings. Valley Water 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.

This project is accounted for in the following:

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

This project meets the commitments of the voter approved Safe, Clean Water Program (SCW), Project E6. For a full description of the SCW benefits and KPIs, please visit www.valleywater.org.

PROJECT LOCATION

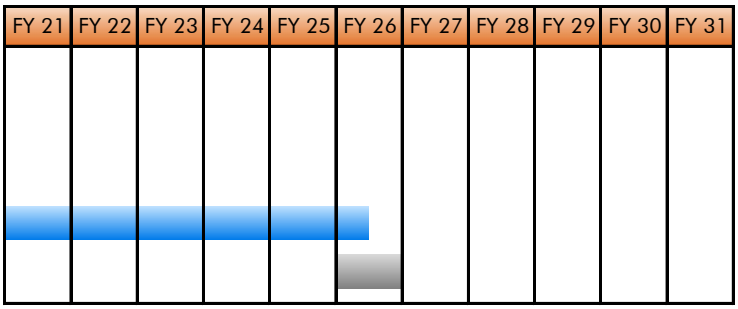


SCHEDULE & STATUS

July 2000 to June 2026

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

Phase	Cost
Plan	3,729
Permits	6,536
Design	64,455
Construct	238,346
Closeout	620
	324,692



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	**FY20**	**FY21**	**FY22**	**FY23**	**FY24**	**FY25**	**FY26**	**Future**	
26174051-Llagas Ck—Upper, LERRDs	42,335	2,623	20	20	20	20	0	0	45,038
with inflation	42,335	2,623	21	22	23	24	0	0	45,047
26174052-Llagas Ck—Upper, USACE Coordination	49,686	47,226	56,690	55,250	31,400	8,886	250	0	249,388
with inflation	49,686	47,226	59,398	57,413	32,386	9,242	312	0	255,662
26174053-Llagas Ck—Upper, Technical Studies	1,446	0	0	0	0	0	0	0	1,446
with inflation	1,446	0	0	0	0	0	0	0	1,446
26174054-Llagas Ck—Upper, Design	21,864	1,856	900	1,050	1,050	1,150	950	0	28,820
with inflation	21,864	1,856	941	1,147	1,198	1,371	1,184	0	29,561
50C40335-Llagas Ck—Upper, Construction Rch 5, 6, & 7b	17,510	6,180	0	0	0	0	0	0	23,690
with inflation	17,510	6,180	0	0	0	0	0	0	23,690
TOTAL	**132,841**	**57,885**	**57,610**	**56,320**	**32,470**	**10,056**	**1,200**	**0**	**324,692**
with inflation	**132,841**	**57,885**	**60,359**	**58,582**	**33,607**	**10,637**	**1,495**	**0**	**331,716**

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total
Project	**FY20**	**FY21**		**FY22**	**FY23**	**FY24**	**FY25**	**FY26**	**Future**	
26174051-Llagas Ck—Upper, LERRDs	45,040	0	82	0	0	0	7	0	0	45,047
26174052-Llagas Ck—Upper, USACE Coordination	50,636	47,476	1,200	58,198	57,413	32,386	9,242	312	0	255,662
26174053-Llagas Ck—Upper, Technical Studies	1,446	0	0	0	0	0	0	0	0	1,446
26174054-Llagas Ck—Upper, Design	28,193	0	4,473	0	0	0	184	1,184	0	29,561
50C40335-Llagas Ck—Upper, Construction Rch 5, 6, & 7b	17,510	6,180	0	0	0	0	0	0	0	23,690
TOTAL	**142,825**	**53,656**	**5,755**	**58,198**	**57,413**	**32,386**	**9,433**	**1,495**	**0**	**331,716**

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Clean, Safe Creeks and Natural Flood Protection Fund	17,900
SCVWD Safe Clean Water Program Fund	206,785
Watershed Stream Stewardship Fund	23,690
State of California	39,394
City of Morgan Hill	3,341
NRCS Grants (Unsecured)	80,000
Total	**331,716**
USACE - In-kind Services	65,000

OPERATING COST IMPACTS

Operation costs are currently anticipated to be approximately $1,500,000 per year, beginning in FY26.

USEFUL LIFE: 50+ Years

Project	**San Francisco Bay Shoreline (E7)**
Program	Flood Protection – Multiple Watersheds
Project No.	00044026s
Contact	Rechelle Blank rblank@valleywater.org

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

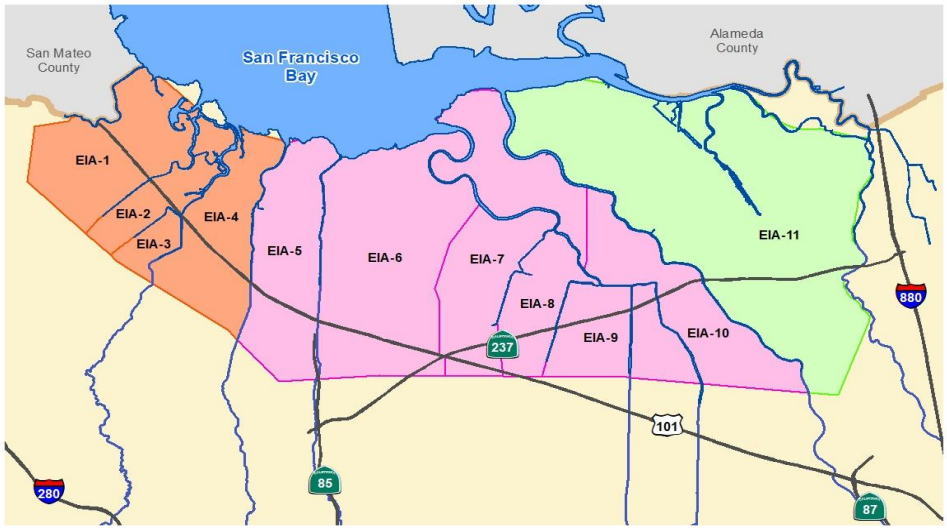
PROJECT DESCRIPTION

This project partners with the California Coastal Conservancy, U.S. Army Corps of Engineers (USACE) and key stakeholders to conduct an integrated, multi-objective project along the San Francisco Bay Shoreline. Project number 00044026 funded the USACE Feasibility Study effort for the North San Jose area, known as Economic Impact Area 11 (EIA 11) which was completed in FY17.; this project number will continue to fund other Shoreline efforts outside of the Safe, Clean Water (SCW) project numbers. For EIA 11, Shoreline Project received $177M under the USACE FY 2018 Disaster Supplemental Appropriations Bill. Valley Water's share of EIA 11 design and construction is $46.8M. Valley Water has been awarded a total of $61 million from a Measure AA grant to partially fund the design and construction of EIA 11. SCW funds will provide $15 million toward Valley Water's cost share of the design and partial construction efforts for EIA 11. SCW funds will provide for a portion of and $5 million toward the Valley Water's cost share of the planning, and design and construction phases efforts for project number 26444002 for of the Palo Alto-Mountain View area, known as EIA 1-4 (under project number 26444002) the remaining EIAs and planning and design phases of project number 26444004 for the area from Mountain View-Sunnyvale-San Jose area, known as EIA 5. The Shoreline Project will accomplish the following objectives:

- Provide integrated fluvial and 1% coastal flood protection.
- Provide protection for future sea level rise.
- Restore and/or enhance tidal marsh and related habitats.
- Provide recreational and public access opportunities.
- Pursue continued federal funding.
- Obtain a letter of map revision from the Federal Emergency Management Agency at completion of the Construction Phase.
- Coordinate closely with the South Bay Salt Pond Restoration Project, local jurisdictions/cities, U.S. Fish and Wildlife Service, the community and key stakeholders.

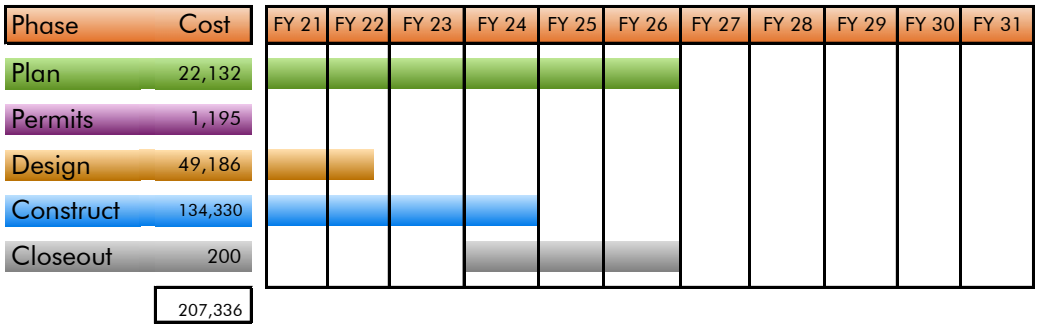
This project meets the commitments of the voter approved Safe, Clean Water Program (SCW), Project E7. For a full description of the SCW benefits and KPIs, please visit www.valleywater.org.

PROJECT LOCATION



SCHEDULE & STATUS

July 2005 to June 2026



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	**FY20**	**FY21**	**FY22**	**FY23**	**FY24**	**FY25**	**FY26**	**Future**	
00044026-San Francisco Bay Shoreline	20,379	77,775	21,007	1,572	30,572	100	100	0	151,505
with inflation	20,379	77,775	21,648	1,717	33,483	119	125	0	155,245
62044042-Shoreline Early Implementation	359	0	0	0	0	0	0	0	359
with inflation	359	0	0	0	0	0	0	0	359
26444001-EIA 11 Design & Part Construction	17,492	23	0	0	0	0	0	0	17,515
with inflation	17,492	23	0	0	0	0	0	0	17,515
26444002 - EIAs 1-4	3,003	754	1,300	1,684	2,591	1,025	5,200	10,400	25,957
with inflation	3,003	754	1,359	1,839	2,957	1,222	6,480	13,848	31,462
26444004 - EIAs 5-10	0	0	1,000	1,000	1,000	3,000	3,000	3,000	12,000
with inflation	0	0	1,045	1,092	1,141	3,578	3,739	3,907	14,501
TOTAL	**41,233**	**78,552**	**23,307**	**4,256**	**34,163**	**4,125**	**8,300**	**13,400**	**207,336**
with inflation	**41,233**	**78,552**	**23,006**	**3,556**	**36,440**	**1,342**	**6,605**	**17,755**	**219,082**

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	**FY20**	**FY21**		**FY22**	**FY23**	**FY24**	**FY25**	**FY26**	**Future**	
00044026-San Francisco Bay Shoreline	49,843	48,311	0	21,648	1,717	33,483	119	125	0	155,245
62044042-Shoreline Early Implementation	359	0	0	0	0	0	0	0	0	359
26444001-EIA 11 Design & Part Construction	17,510	5	0	0	0	0	0	0	0	17,510
26444002 - EIAs 1-4	3,757	0	0	1,359	1,839	2,957	1,222	6,480	13,848	31,462
26444004 - EIAs 5-10	0	0	0	1,045	1,092	1,141	3,578	3,739	3,907	14,501
TOTAL	**71,469**	**48,316**	**0**	**24,051**	**4,648**	**37,581**	**4,919**	**10,343**	**17,755**	**219,082**

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Watershed Stream Stewardship Fund	33,380
SCVWD Clean, Safe Creeks and Natural Flood Protection Fund (Environmental Enhancement Grant)	2,011
SCVWD Safe, Clean Water and Natural Flood Protection Fund	63,478
California Department of Water Resources	420
SFBRA Measure AA (Grant)	60,844
SFBRA Measure AA (Ballot Reimbursement)	831
State of California	58,118
Total	219,082
Federal Partners, South Bay Salt Ponds (SBSP)	48,470
State, SBSP	14,720
Foundations, Packard-Hewlett-Goldman-Moore, SBSP	17,060
Coastal Conservancy, Shoreline	2,010
Federal, USACE, Shoreline	8,990
Total Partnership Funding for In-kind Services	**91,250**

OPERATING COST IMPACTS

Operating costs will be determined upon completion of the construction phase.

USEFUL LIFE: 50+ Years

Project	**Watersheds Asset Rehabilitation Program**
Program	Flood Protection - Multiple Watersheds
Project No.	62084001
Contact	Rechelle Blank rblank@valleywater.org

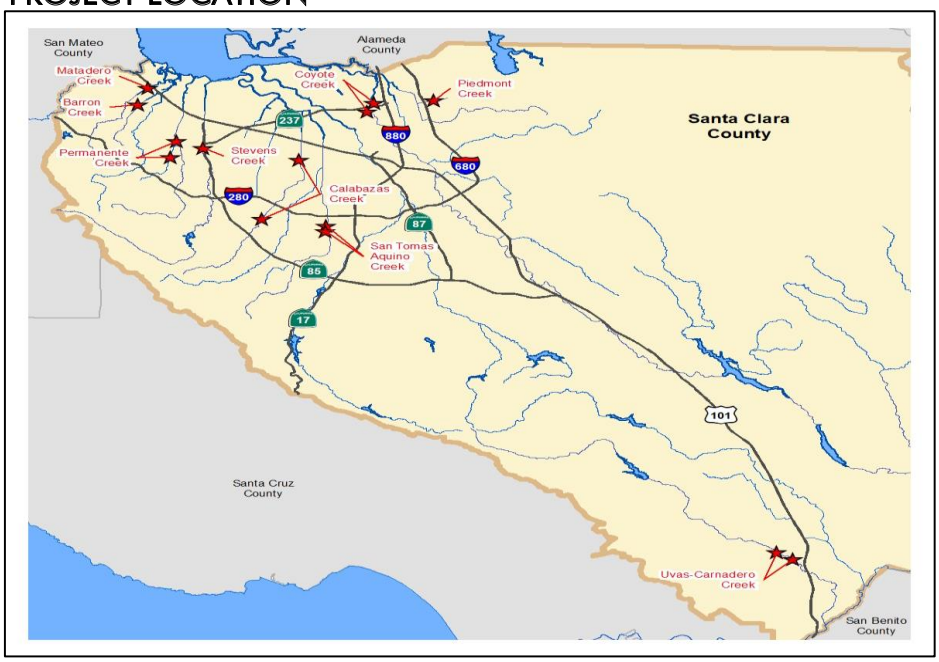
View of damage caused by burrowing animals along West Branch of Llagas Creek in the Uvas/Llagas Watershed

PROJECT DESCRIPTION

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

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

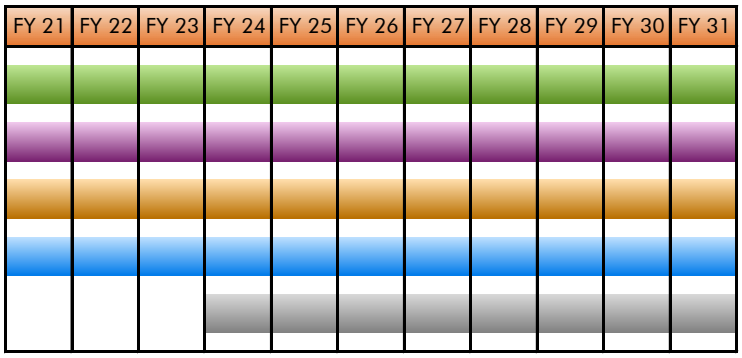
PROJECT LOCATION



SCHEDULE & STATUS

Several small projects go through the design and construction phases each year under the Stream Maintenance Program 2 permit.

Phase	Cost
Plan	3,512
Permits	4,985
Design	18,973
Construct	94,785
Closeout	670
	146,482



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY20	FY21	FY22	FY23	FY24	FY25	FY26	Future	
62084001-Watersheds Asset Rehabilitation Program	25,753	5,800	18,097	2,372	2,351	2,331	2,321	87,457	146,482
with inflation	25,753	5,800	18,719	2,566	2,646	2,730	2,829	121,530	182,575

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total
Project	FY20	FY21		FY22	FY23	FY24	FY25	FY26	Future	
62084001-Watersheds Asset Rehabilitation Program	35,831	3,531	7,809	10,910	2,566	2,646	2,730	2,829	121,530	182,575

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Watershed Stream Stewardship Fund	182,575
City of Palo Alto (Matadero Creek)	227
Total	**182,575**

OPERATING COST IMPACTS

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

USEFUL LIFE: Not Available