Flood Protection Capital Improvements

FLOOD PROTECTION OVERVIEW

Of the approximately 800 miles of creeks in Santa Clara County, Valley Water has jurisdiction and manages 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 working for flood protection 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 flood plain 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 a special parcel tax in 2000 and 2012 to fund the continuation of Valley Water's flood protection capital improvements; specifically, moving upstream from the completed downstream work or starting new work on creeks that have not had flood protection work.

Lower Peninsula Watershed

Major Capital Improvements Completed

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

Major Capital Improvements Identified in the CIP

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

West Valley Watershed

Major Capital Improvements Completed

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

Major Capital Improvements Identified in the CIP

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

Guadalupe Watershed

Major Capital Improvements Completed

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

Major Capital Improvements Identified in the CIP

- Guadalupe River–Upper, Interstate 280 to Blossom Hill Road (Clean, Safe Creeks/Safe, Clean Water)
- 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 Old Piedmont Road (Clean, Safe Creeks)
- Berryessa Creek from Lower Penitencia Creek to Calaveras Boulevard
- Coyote Creek Montague Expressway to Tully Road (Clean, Safe Creeks/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 Road
- Uvas Creek

Major Capital Improvements Identified in the CIP

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

Multiple Watersheds

Major Capital Improvements Identified in the CIP

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

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 Final CIP in May.

A financial analysis of the Watershed and Steam Stewardship Fund and Safe, Clean Water Fund, the funding sources for flood protection capital improvements, was conducted to determine if there are limitations to funding all of the projects proposed for the FY 2021-25 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, u/s Hwy 101
- Upper Llagas, Phase 2 (Reaches 5, 6, 7B, 8, and 14)
- Coyote Creek, Montague Expy. to Tully Road

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.

Valley Water staff collects high water marks from significant storm events, conducts topographic surveys and collected information on vegetation growth following the 2017 storm events. The analyses, completed in 2018 for Lower Guadalupe River, indicated that a section of the Lower Guadalupe River, from upstream of Tasman Drive to Airport Parkway, no longer has conveyance capacity for the 100-year event for which it was designed. Valley Water is actively exploring options to restore the river to 100-year flow capacity and has performed significant vegetation removal during the FY 2019-20 stream maintenance season, but there are many challenges ahead. Preliminary assessments indicate that vegetation removal as permitted under the existing SMP alone will not be enough to restore the design conveyance. The Guadalupe River, Tasman Drive to I-880 Project was included in the FY 2020-24 CIP to

investigate options for immediate interim measures and to conduct an alternatives analysis and environmental evaluation of additional measures, such as construction of a floodwall or levee raising to re-establish flow conveyance capacity and freeboard for a 100-year event.

The project's funding has been increased by $95 million in the FY 2021-25 CIP to reflect all future planning, design and construction costs to restore design flow conveyance capacity.

The Palo Alto Flood Basin Tide Gate Structure Improvement Project increased in cost by $20 million due to increased construction phase cost estimates

The voter approved Safe, Clean Water program is providing funding for some of the highest priority flood protection projects including:

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

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

Delays in the federal funding for many of the USACE projects have extended the schedules beyond the dates committed by Valley Water. Therefore, Valley Water is evaluating the option of proceeding with the local funding option on several of these projects.

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

Partially Funded and Unfunded CIP Projects

- Coyote Creek, Montague Expy. to Tully Road (actual cost will not be known until the planning study is completed in March 2020)
- San Francisquito Creek 100-year flood protection upstream of Highway 101
- Upper Berryessa Creek, I-680 to Old Piedmont Road (unfunded; $20 million)
- Upper Llagas Creek, Buena Vista Road to Llagas Road
- Upper Penitencia Creek, Coyote Creek to Dorel Drive (USACE funding is unlikely)

Flood Protection Capital Improvements

Flooding on Coyote Creek caused by severe storm in February 2017 led Valley Water to reevaluate the schedule, level of flood protection, and funding sources for the Coyote Creek Project. A public hearing was held on June 13, 2017 to extend the Coyote Creek project to Tully Road and evaluate a project that would provide protection from a 20- to 25-year flood event. A preliminary cost range of $40-85 million was identified through a planning study and presented to the Board in December 2019. Based upon the project's remaining secured funding of approximately $28 million, the project was deemed to have a shortfall between $12-57 million.

Staff worked with the Board CIP Committee to identify possible funding for construction of this project. In response to a recommendation from the Board CIP Committee, on December 17, 2019, the Board directed staff to reallocate $21 million (uninflated dollars) from the Upper Penitencia Creek from Coyote Creek to Dorel Drive (Safe, Clean Water) to the Coyote Creek, Montague Expy. to Tully Road. The reallocation of funds would go towards addressing the Coyote Creek Project's shortfall, while still leaving sufficient funds in the Upper Penitencia Creek Project to construct the local-funding-only project.

Additionally, in response to a Board CIP Committee recommendation, the Board held a public hearing on January 14, 2020 to modify the Upper Llagas Creek Flood Protection Project local-funding-only key performance indicator (KPI) to increase the length of the project to be built by the available local funds from approximately 2.9 miles to approximately 4.9 miles. This modified KPI entails constructing Reaches 4 and 5 (portion), 7a and 8 (portion) as well as the onsite compensatory mitigation at Lake Silveira. The remaining Project elements, namely Reaches 5 (portion), 6, 7b, 8 (portion) and 14, will be built later once external or other funding sources become available.

Flood Protection Capital Improvements

The following table is a project funding schedule for flood protection capital improvements resulting from this year's priority process and financial analysis. Detailed information for each project can be found in this document on the following pages in the order presented in this table. The chart also identifies partially funded projects and estimated unspent appropriation from FY 2019-20.

Flood Protection Capital Improvements ($K)

Project Number	PROJECT NAME	Through FY19	FY20	FY20 Unspent	FY21	FY22	FY23	FY24	FY25	FY26-35	TOTAL
	LOWER PENINSULA WATERSHED										
10394001	Palo Alto Flood Basin Tide Gate Structure Improvements	2,474	1,918	1,512	82	5,379	9,627	7,350	5,935	-	32,765
10244001s	Permanente Creek, SF Bay to Foothill Expressway	99,330	7,560	483	-	-	-	-	-	-	106,890
10284007s	San Francisquito Creek, SF Bay thru Searsville Dam (E5)	59,946	2,805	783	4,315	21,121	-	-	-	-	88,187
	WEST VALEY WATERSHED										
26074002	Sunnyvale East and West Channels	30,997	4,441	15,413	2,032	17,829	14,650	486	-	-	70,435
	GUADALUPE WATERSHED										
30114002	Canoas Creek, Rodent Damage Repair	7,307	-	420	-	-	-	-	-	-	7,307
30154019	Guadalupe River Tasman Dr - I-880	90	1,000	9	3,296	2,380	29,689	29,795	29,968	-	96,218
26154001s	Guadalupe River–Upper, I-280 to Blossom Hill Road (E8)	134,556	139	23,174	945	13,545	18,091	2,309	-	-	169,585
	COYOTE WATERSHED										
26174041s	Berryessa Creek, Calaveras Boulevard to Interstate 680	54,552	1	23	27	-	-	-	-	-	54,580
40174004s	Berryessa Ck, Lower Penitencia Ck to Calaveras Blvd	126,066	-	4,903	45	923	162	-	-	71,236	198,432
26174043	Coyote Creek, Montague Expressway to Tully Road	14,000	941	1,013	2,403	6,984	21,186	19,117	1,691	-	66,322
40264011	Cunningham Flood Detention Certification	11,251	555	30	2	33	-	-	-	-	11,841
40334005	Lower Penitencia Ck Improvements, Berryessa to Coyote Cks.	16,297	8,989	7,827	954	606	637	328	-	-	27,811
40264007s	Lower Silver Creek, I-680 to Cunningham (Reach 4-6)	101,549	740	765	167	55	58	-	-	-	102,569
40324003s	Upper Penitencia Creek, Coyote Creek to Dorel Drive	13,195	1,812	1,261	1,381	2,774	232	2,201	1,711	13,485	36,791
	UVAS LLAGAS WATERSHED										
50284010	Llagas Creek–Lower, Capacity Restoration, Buena Vista Road to Pajaro River	6,947	-	2,809	-	-	3,404	3,401	-	-	13,752
26174051s	Llagas Creek–Upper, Buena Vista Avenue to Llagas Road	113,330	12,415	5,418	46,713	48,091	47,278	11,816	3,756	1,593	284,992
	MULTIPLE WATERSHEDS										
00044026s	San Francisco Bay Shoreline (E7)	35,910	36,432	944	14,398	28,922	2,399	35,159	766	266	154,252
62084001	Watersheds Asset Rehabilitation Program	24,455	11,481	-	11,423	8,679	8,984	9,301	9,630	93,085	177,038
	TOTAL	852,252	91,229	66,787	88,183	157,321	156,397	121,263	53,457	179,665	1,699,767

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 FY19	FY20	FY20 Unspent	FY21	FY22	FY23	FY24	FY25	FY26-35	TOTAL
12	Watershed Stream Stewardship Fund	402,143	61,130	23,336	34,151	56,387	72,395	102,643	49,542	107,964	886,355
26	Safe, Clean Water and Natural Flood Protection Fund	450,109	30,099	43,451	54,032	100,934	84,002	18,620	3,915	71,701	813,412
	TOTAL	852,252	91,229	66,787	88,183	157,321	156,397	121,263	53,457	179,665	1,699,767

FY 2019-20 Funds to be reappropriated

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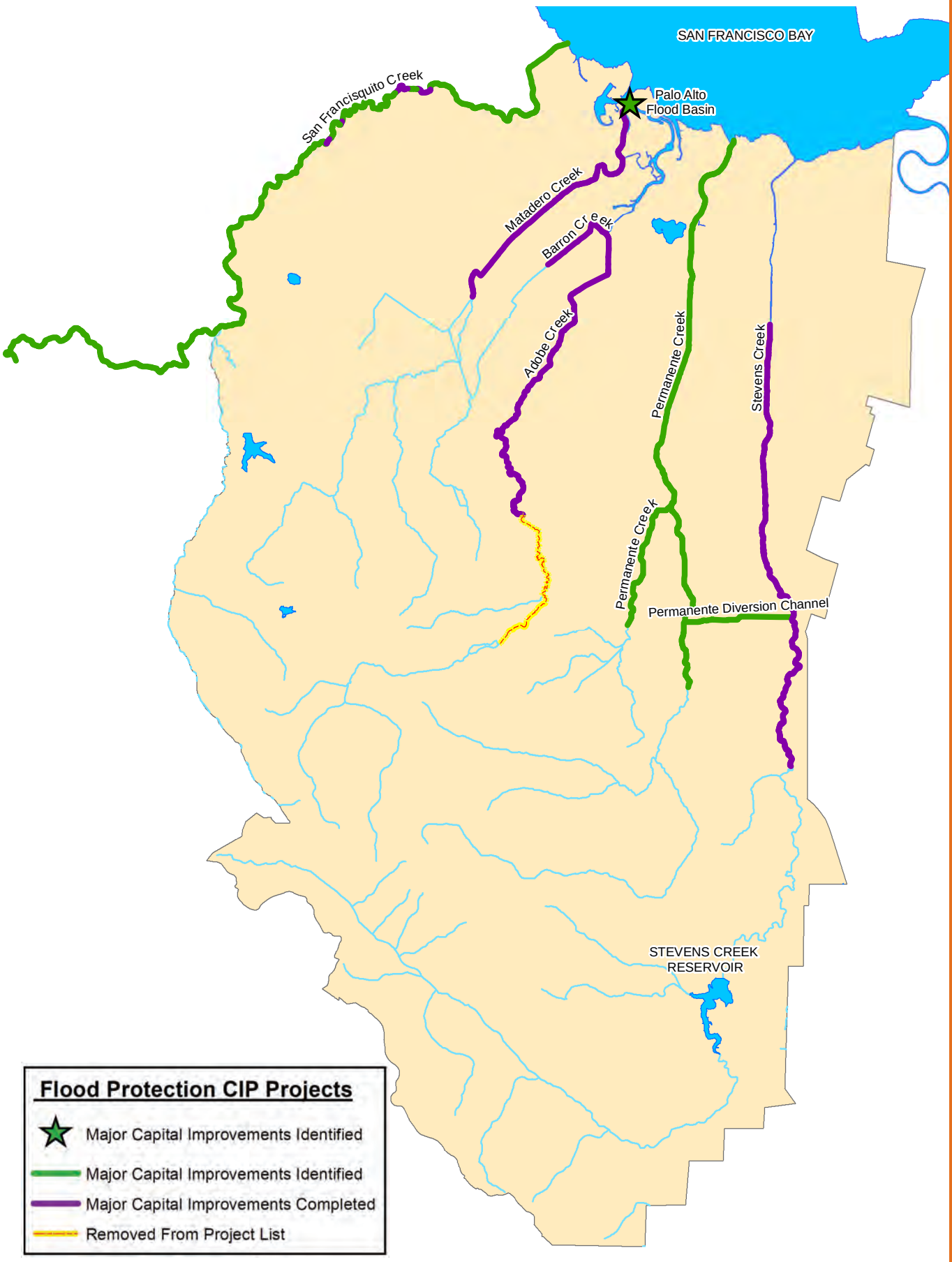
Lower Peninsula Watershed



Project	**Palo Alto Flood Basin Tide Gate Structure Improvements**
Program	Flood Protection - Lower Peninsula Watershed
Project No.	10394001
District Contact	Ngoc Nguyen nnguyen@valleywater.org

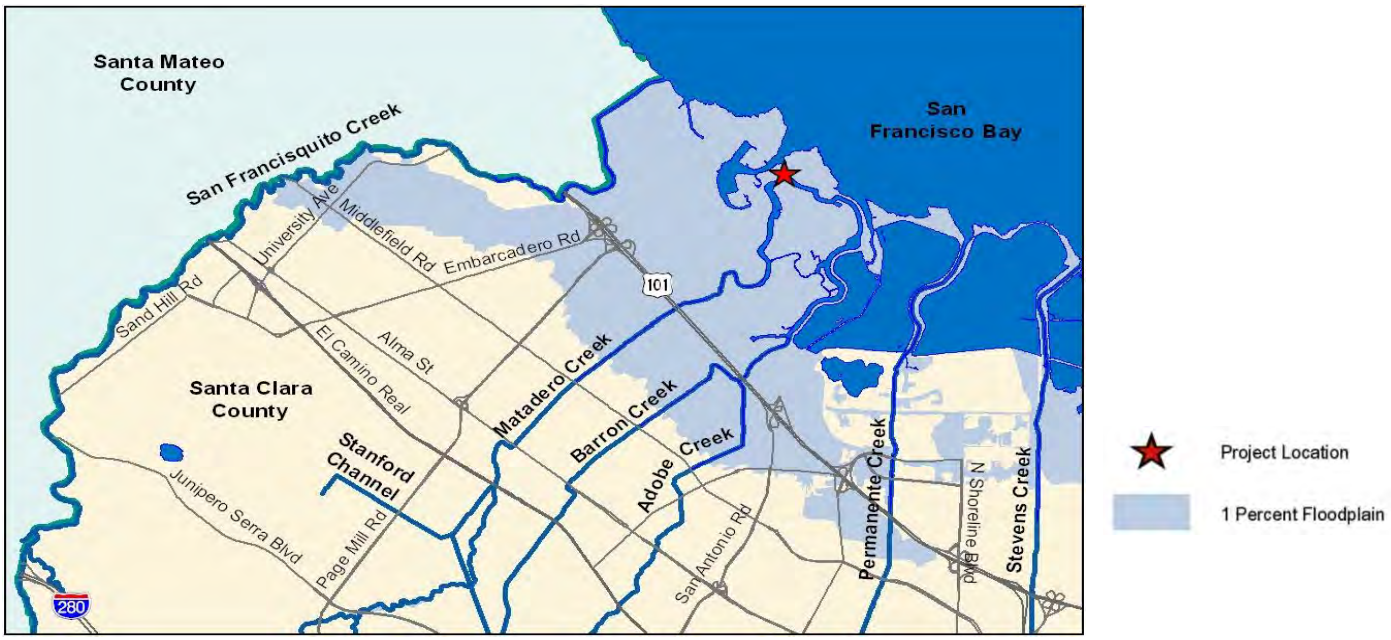
View from the west side of the Palo Alto tide gates facing east

PROJECT DESCRIPTION

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

- Prepare an Emergency Action Plan (EAP) 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 SAFER Bay, South Bay Shoreline, and Mountain View Ponds projects.
- Protect habitat in the Palo Alto Flood Basin and around the work area.

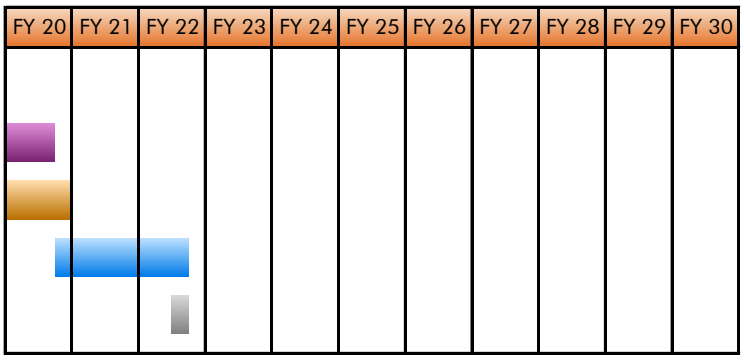
PROJECT LOCATION



SCHEDULE & STATUS

November 2018 to January 2022

Phase	Cost
Plan	931
Permits	1,058
Design	1,965
Construct	26,429
Closeout	90
	30,523



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY19	FY20	FY21	FY22	FY23	FY24	FY25	Future	
10394001-Palo Alto Flood Basin Tide Gate Structure Improvements	1,429	1,451	1,518	5,030	8,985	6,785	5,325	0	30,523
with inflation	1,429	1,451	1,594	5,379	9,627	7,350	5,935	0	32,766

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total
Project	FY19	FY20		FY21	FY22	FY23	FY24	FY25	Future	
10394001-Palo Alto Flood Basin Tide Gate Structure Improvements	2,474	1,918	1,512	82	5,379	9,627	7,350	5,935	0	32,766

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Watershed&Stream Stewardship Fund	32,766
Other Funding Sources	0
Total	**32,766**

OPERATING COST IMPACTS

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

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

Permanente Creek, looking downstream at the golf course foot bridge

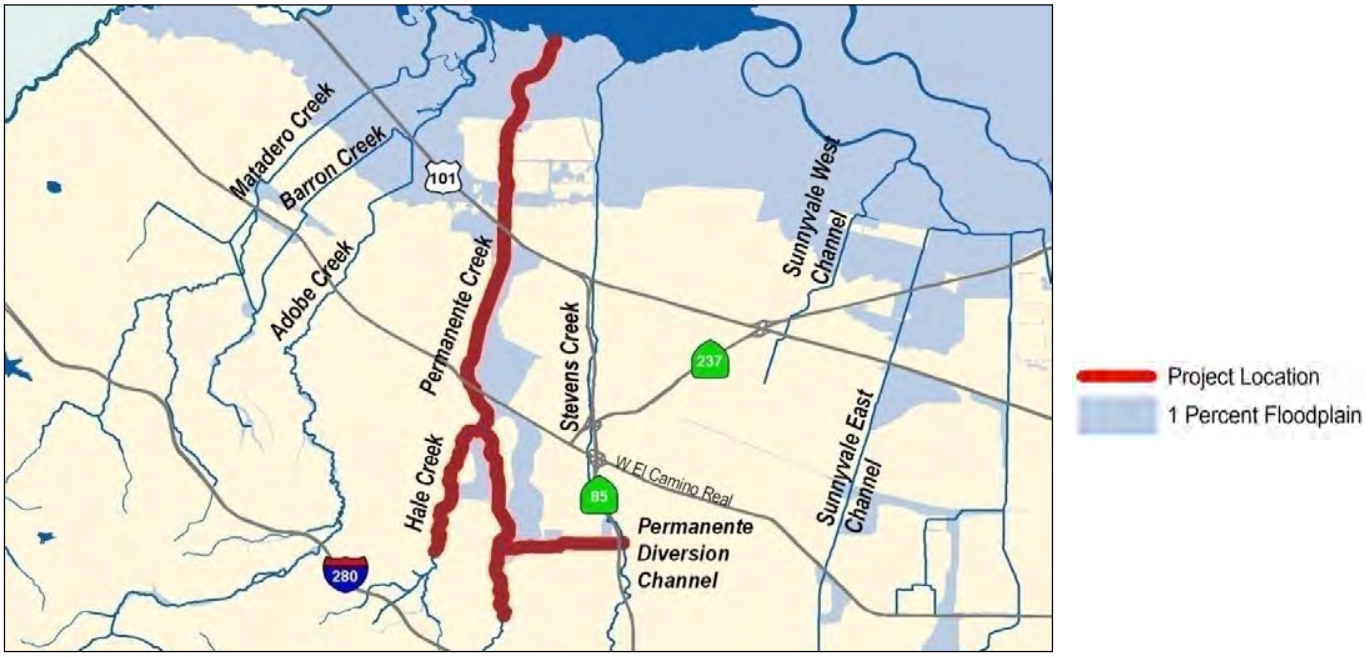
PROJECT DESCRIPTION

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

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

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

PROJECT LOCATION

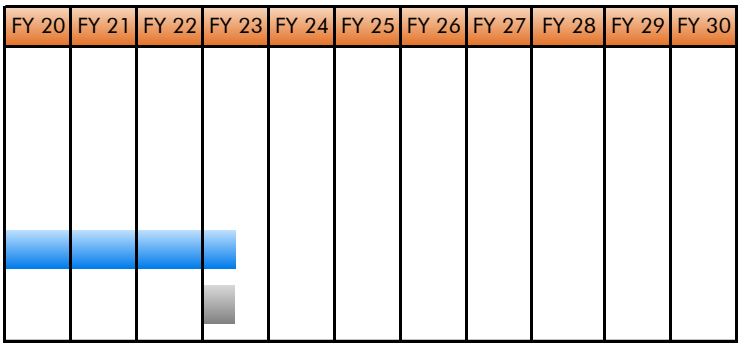


SCHEDULE & STATUS

July 2001 to June 2022

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

Phase	Cost
Plan	10,049
Permits	3,799
Design	17,302
Construct	65,033
Closeout	50
	106,648



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	**FY19**	**FY20**	**FY21**	**FY22**	**FY23**	**FY24**	**FY25**	**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	81,475	7,569	217	20	0	0	0	0	89,281
with inflation	81,475	7,569	228	22	0	0	0	0	89,294
TOTAL	98,838	7,569	217	20	0	0	0	0	106,644
with inflation	98,838	7,569	228	22	0	0	0	0	106,657

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total
Project	**FY19**	**FY20**		**FY21**	**FY22**	**FY23**	**FY24**	**FY25**	**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	81,789	7,560	305	0	0	0	0	0	0	89,349
TOTAL	**99,330**	**7,560**	**483**	**0**	**0**	**0**	**0**	**0**	**0**	**106,890**

Adjusted Budget includes adopted budget plus approved budget adjustments. Allocated funding exceeds total planned expenditures by approximately $233,000. 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	88,326
City of Mountain View	1,023
Total	**106,890**

OPERATING COST IMPACTS

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

USEFUL LIFE: 30+ Years

Project	**San Francisquito Creek, San Francisco Bay through Searsville Dam**
Program	Flood Protection – Lower Peninsula Watershed
Project No.	10284007s
District Contact	Ngoc Nguyen nnguyen@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:

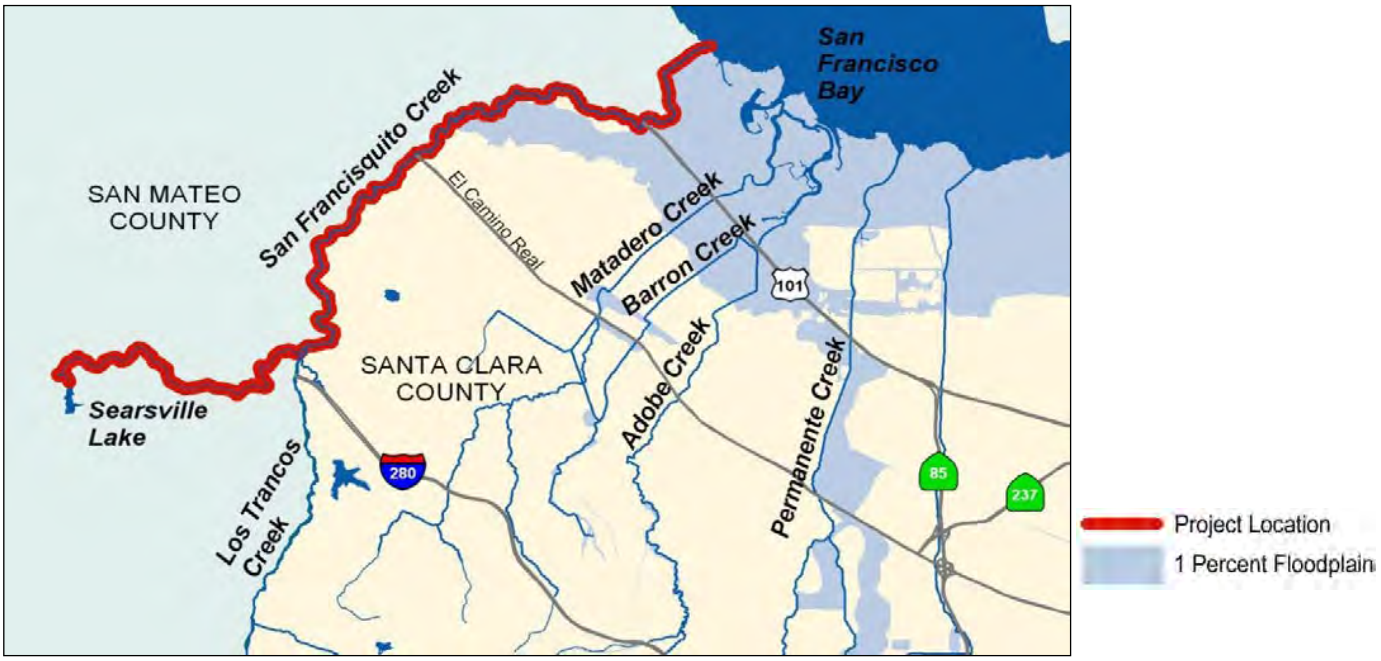
- Provide flood protection.
- Reduce bank erosion and sedimentation-related impacts along San Francisquito Creek.
- Avoid potential adverse impacts on fish and wildlife habitats.
- Minimize impacts to the creek's environmental resources and restore the riparian corridor where feasible.

The San Francisquito construction project will provide 100-year flood protection from San Francisco Bay to Highway 101 and replace two bridges between Highway 101 and Middlefield Road.
This project is accounted for in the following job numbers: (10284007 & 10284008 are Completed)

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

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

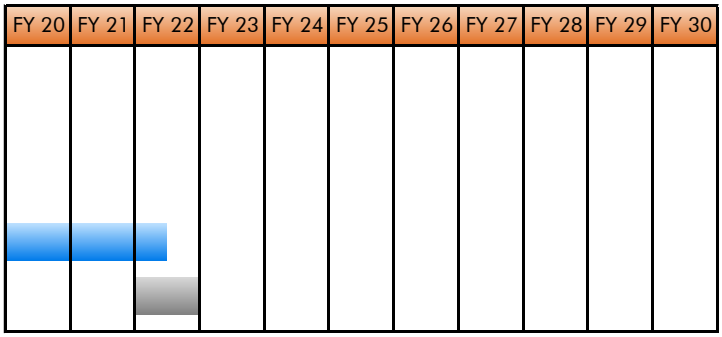
PROJECT LOCATION



SCHEDULE & STATUS

June 2003 to June 2020

Phase	Cost
Plan	4,313
Permits	1,617
Design	14,467
Construct	62,967
Closeout	125
	86,353



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	**FY19**	**FY20**	**FY21**	**FY22**	**FY23**	**FY24**	**FY25**	**Future**	
10284007-San Francisquito Ck, Bay-Searsville Dam	3,740	0	0	0	0	0	0	0	3,740
with inflation	3,740	0	0	0	0	0	0	0	3,740
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.	46,537	2,971	4,926	19,783	0	0	0	0	74,217
with inflation	46,537	2,971	5,098	21,121	0	0	0	0	75,727
TOTAL	**58,562**	**3,082**	**4,926**	**19,783**	**0**	**0**	**0**	**0**	**86,353**
with inflation	**58,562**	**3,082**	**5,098**	**21,121**	**0**	**0**	**0**	**0**	**87,863**

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total
Project	**FY19**	**FY20**		**FY21**	**FY22**	**FY23**	**FY24**	**FY25**	**Future**	
10284007-San Francisquito Ck, Bay-Searsville Dam	4,064	0	324	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.	47,486	2,805	783	4,315	21,121	0	0	0	0	75,727
TOTAL	**59,946**	**2,805**	**1,107**	**4,315**	**21,121**	**0**	**0**	**0**	**0**	**88,187**

Adjusted Budget includes adopted budget plus approved budget adjustments. Allocated funding exceeds total planned expenditures by approximately $324,000. Excess funds will be returned to Fund Reserves at the close of the project.

FUNDING SOURCES

(in thousands $)

SCVWD Watershed Stream Stewardship Fund	5,678
SCVWD Safe, Clean Water and Natural Flood Protection Fund	57,246
JPA and Member Agencies (D/S Funding)	5,480
Unsecured Grants and Partnerships (U/S Funding)	19,783
Total	**88,187**
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 (Newell Road Bridge)	7,100

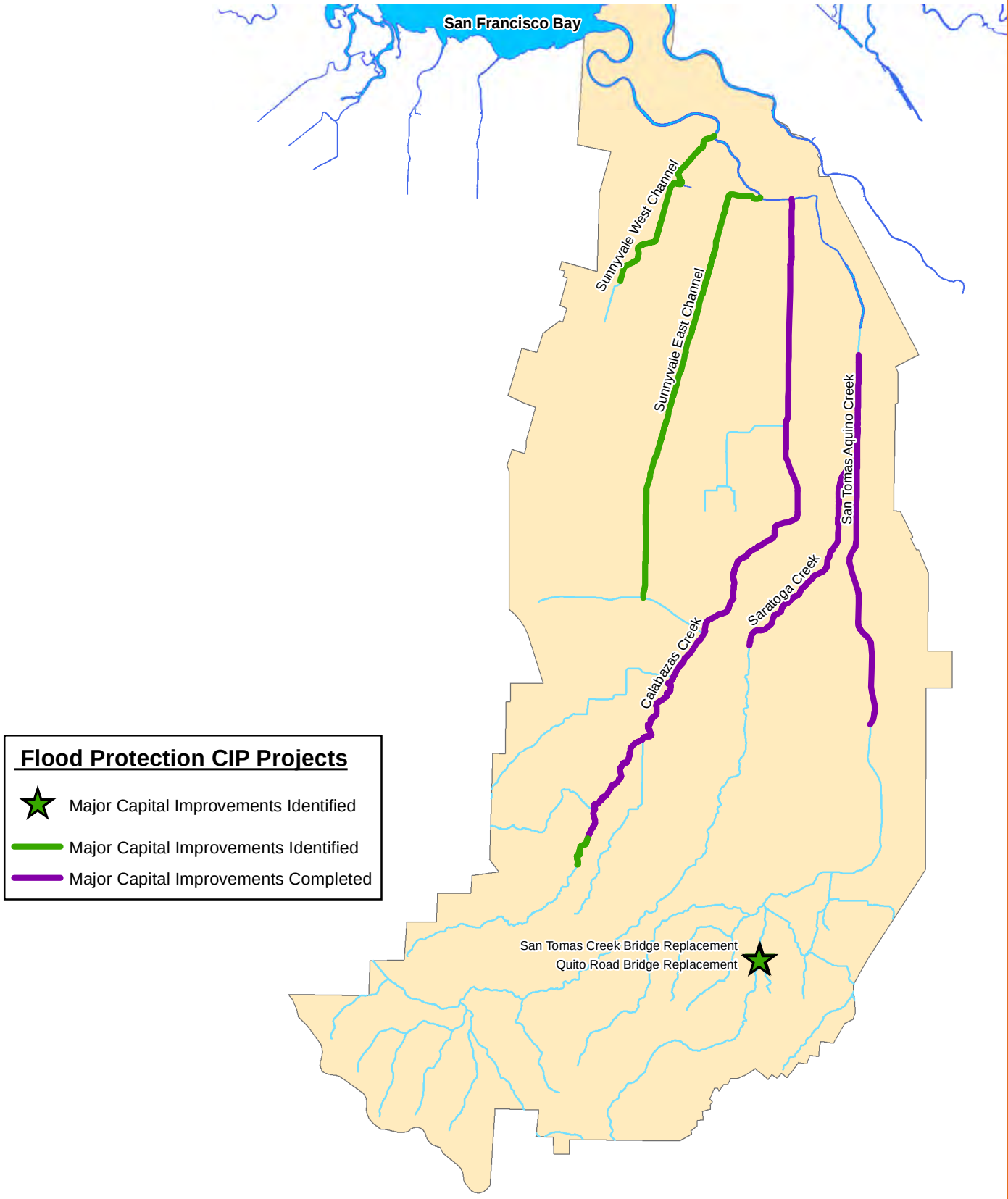
County and Corps participation are for Feasibility Study activities only. Additional funding will be negotiated during subsequent phases.

OPERATING COST IMPACTS

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

USEFUL LIFE: Not Available

West Valley Watershed



Project	**Sunnyvale East and West Channels Flood Protection Project**
Program	Flood Protection – West Valley Watershed
Project No.	26074002
District Contact	Tim Bramer tbramer@valleywater.org

Sunnyvale West Channel looking upstream from Java Drive

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 (EIR) to reduce construction costs and minimize construction coordination issues between the 2 channels.

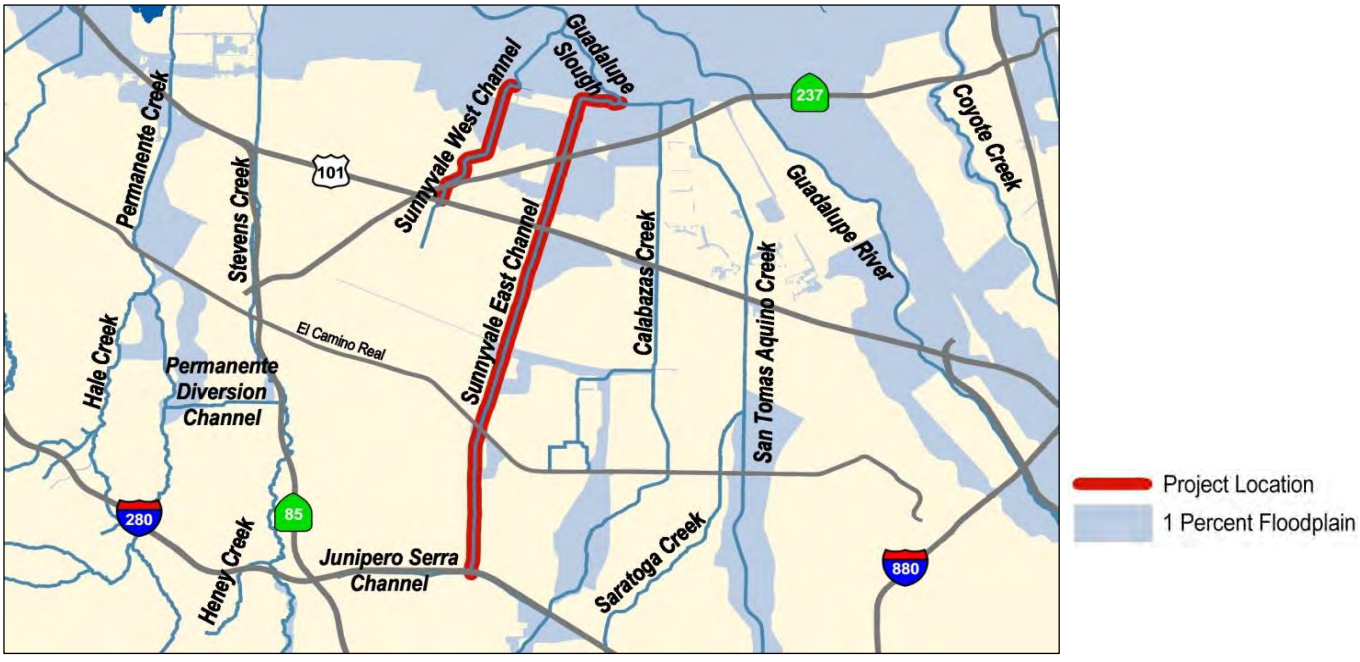
The West Channel extends approximately 3 miles and upgrades existing channel capacity to provide 1% (or 100-year) riverine flood protection for 47 acres of highly valuable industrial lands. The East Channel extends approximately 6.4 miles and upgrades existing channel capacity to provide 1% riverine 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 3 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.

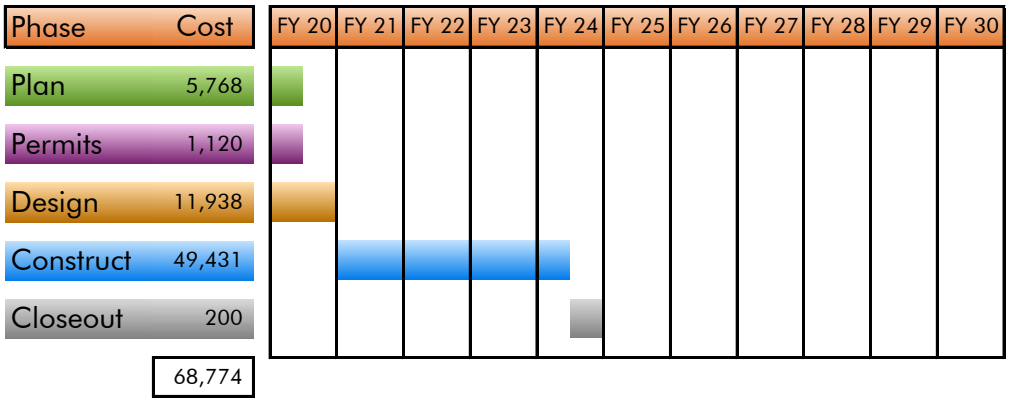
This project meets the commitments of the voter approved Safe, Clean Water Program. For a full description of the SCW benefits and KPI's, please visit www.valleywater.org.

PROJECT LOCATION



SCHEDULE & STATUS

January 2006 to December 2023



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	**FY19**	**FY20**	**FY21**	**FY22**	**FY23**	**FY24**	**FY25**	**Future**	
26074002-Sunnyvale East and West Channels Flood Protection Project	18,525	1,500	16,900	17,158	14,043	400	0	0	68,526
with inflation	18,525	1,500	17,445	17,829	14,650	486	0	0	70,435

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total
Project	**FY19**	**FY20**		**FY21**	**FY22**	**FY23**	**FY24**	**FY25**	**Future**	
26074002-Sunnyvale East and West Channels Flood Protection Project	30,997	4,441	15,413	2,032	17,829	14,650	486	0	0	70,435

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

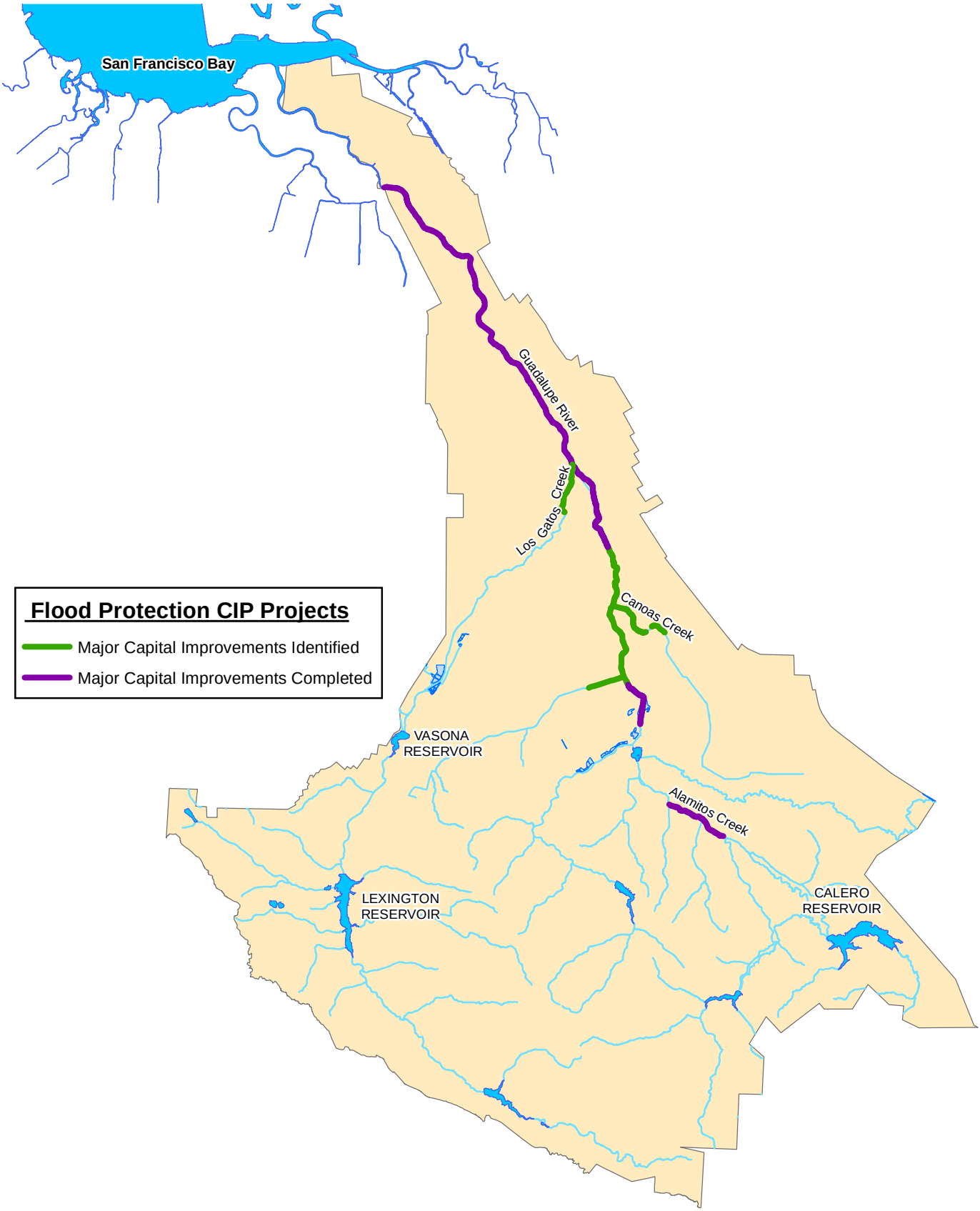
SCVWD Clean, Safe Creeks and Natural Flood Protection Fund	70,435
Other Funding Source	0
Total	**70,435**

OPERATING COST IMPACTS

The completion of this project is anticipated to increase operating costs by approximately $190,000 per year based on O&M forecasting, beginning in FY 2023. 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 JUA are not applicable.

USEFUL LIFE: 30+ Years

Guadalupe Watershed



Project	**Canoas Creek Rodent Damage Repair**
Program	Flood Protection - Guadalupe Watershed
Project No.	30114002
District Contact	Ngoc Nguyen nnguyen@valleywater.org

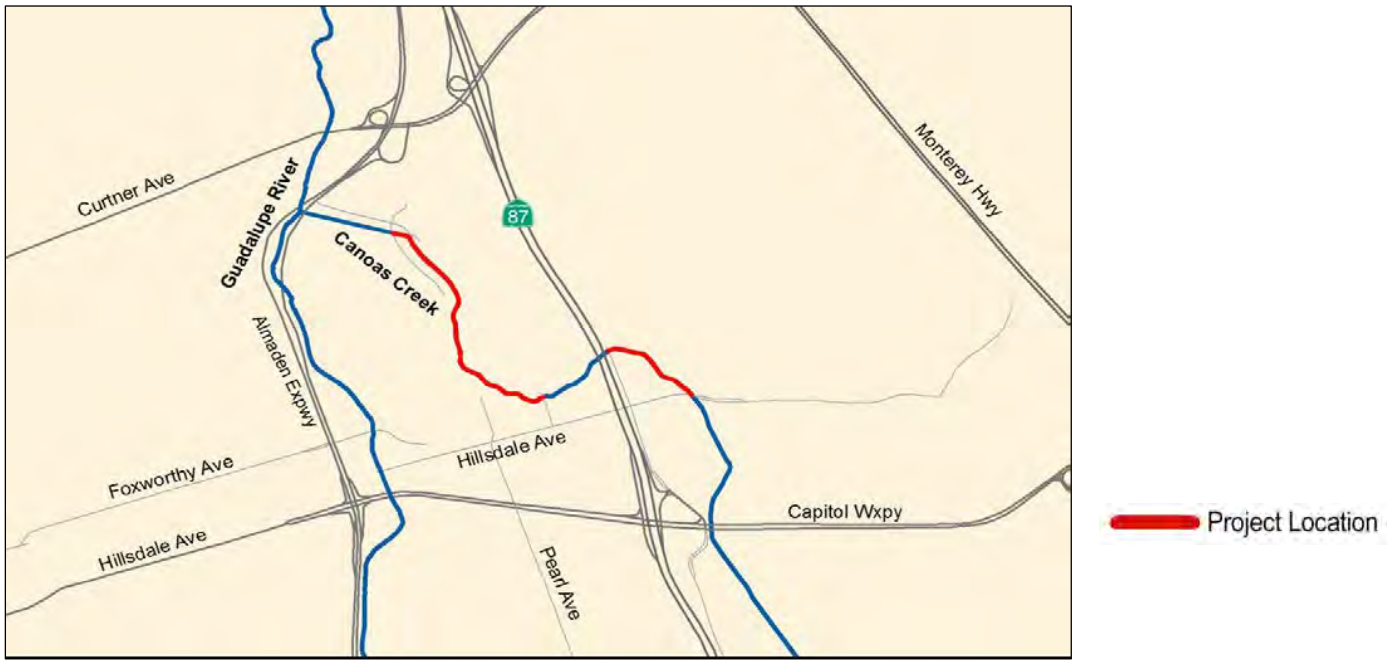
View of damage caused by burrowing animals along Canoas Creek in the Guadalupe Watershed

PROJECT DESCRIPTION

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

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

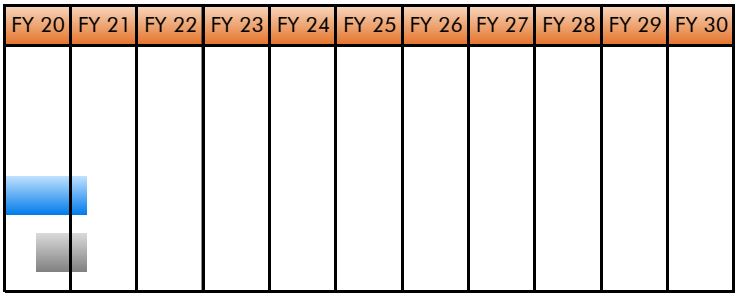
PROJECT LOCATION



SCHEDULE & STATUS

March 2015 to June 2020

Phase	Cost
Plan	33
Design	584
Construct	6,248
Closeout	5
	6,887



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY19	FY20	FY21	FY22	FY23	FY24	FY25	Future	
30114002-Canoas Creek Rodent Damage Repair	6,850	37	0	0	0	0	0	0	6,887
with inflation	6,850	37	0	0	0	0	0	0	6,887

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY19	FY20		FY21	FY22	FY23	FY24	FY25	Future	
30114002-Canoas Creek Rodent Damage Repair	7,307	0	420	0	0	0	0	0	0	7,307

Adjusted Budget includes adopted budget plus approved planned budget adjustments. Funding exceeds planned expenditures by approximately $420,000. Excess funding will be returned to reserves upon completion of the project.

FUNDING SOURCES

(in thousands $)

Watershed Stream Stewardship	7,307
Other Funding Sources	0
Total	7,307

OPERATING COST IMPACTS

Operating cost impacts will be determined at the end of the construction phase.

USEFUL LIFE: 30+ Years

Project	**Guadalupe River Tasman Dr - I-880**
Program	Flood Protection - Guadalupe Watershed
Project No.	30154019
District Contact	Vincent Gin vgin@valleywater.org

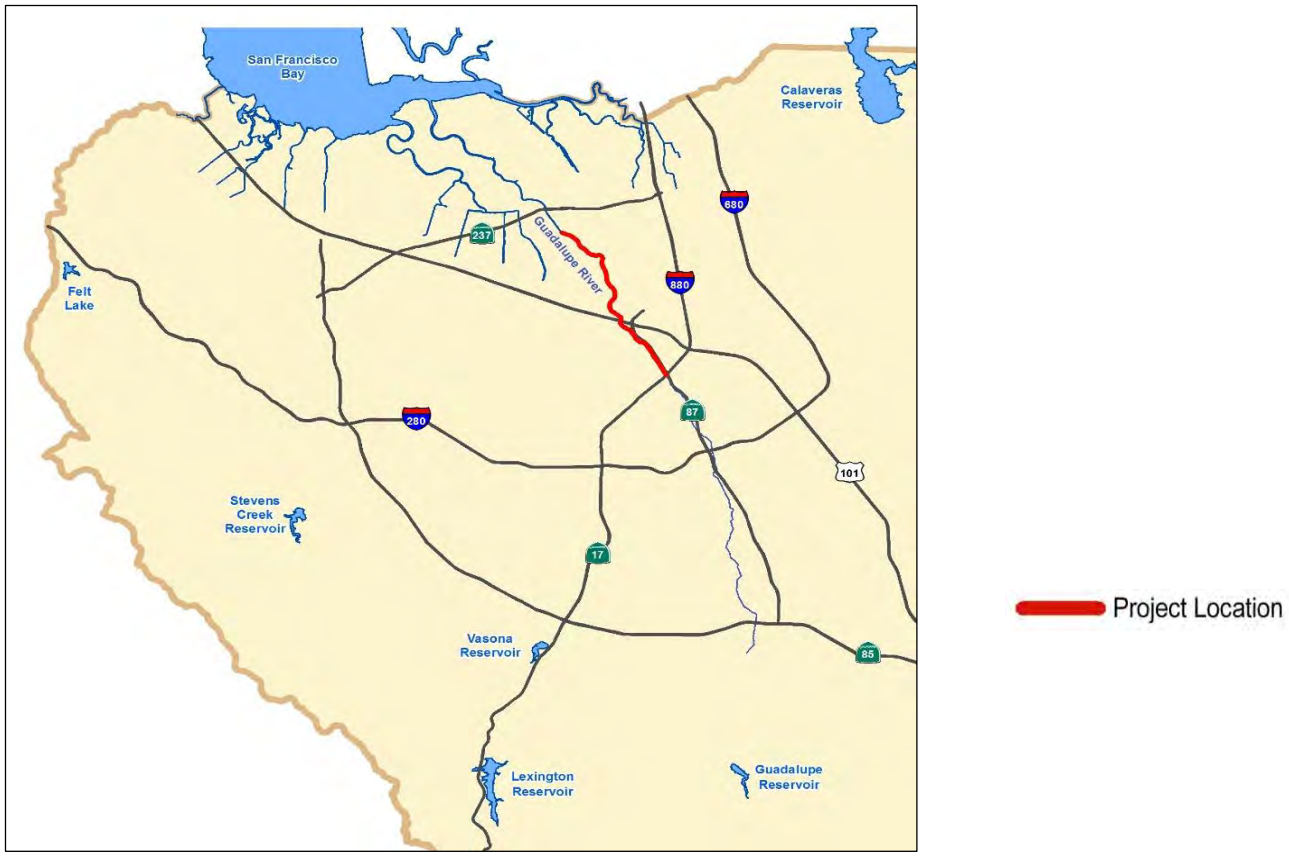
East bank of the Guadalupe River, looking upstream toward Trimble Road.

PROJECT DESCRIPTION

This project plans and evaluates the options to restore the 100-year flood conveyance capacity from Tasman Drive to Interstate 880 on the Guadalupe River, to accomplish the following objective,

- Develop a plan to restore the lower Guadalupe River to 100-year flow capacity.

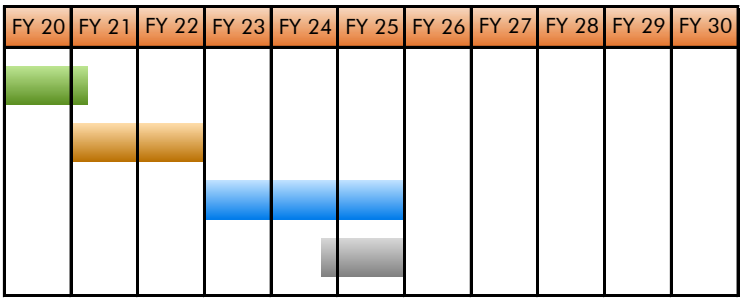
PROJECT LOCATION



SCHEDULE & STATUS

July 2014 to June 2031

Phase	Cost
Plan	1,406
Design	4,972
Construct	81,183
Closeout	50
	87,611



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY19	FY20	FY21	FY22	FY23	FY24	FY25	Future	
30154019-Guadalupe River Tasman Dr - I-880	81	1,000	3,148	2,159	27,061	27,061	27,111	0	87,621
with inflation	81	1,000	3,305	2,380	29,689	29,795	29,968	0	96,218

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY19	FY20		FY21	FY22	FY23	FY24	FY25	Future	
30154019-Guadalupe River Tasman Dr - I-880	90	1,000	9	3,296	2,380	29,689	29,795	29,968	0	96,218

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Watershed Stream Stewardship Fund	96,218
Other Funding Sources	0
Total	**96,218**

OPERATING COST IMPACTS

N/A

USEFUL LIFE: N/A

Project	**Guadalupe River–Upper, Interstate 280 to Blossom Hill Road**
Program	Flood Protection – Guadalupe Watershed
Project No.	26154001s
District Contact	Ngoc Nguyen nnguyen@valleywater.org

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

PROJECT DESCRIPTION

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

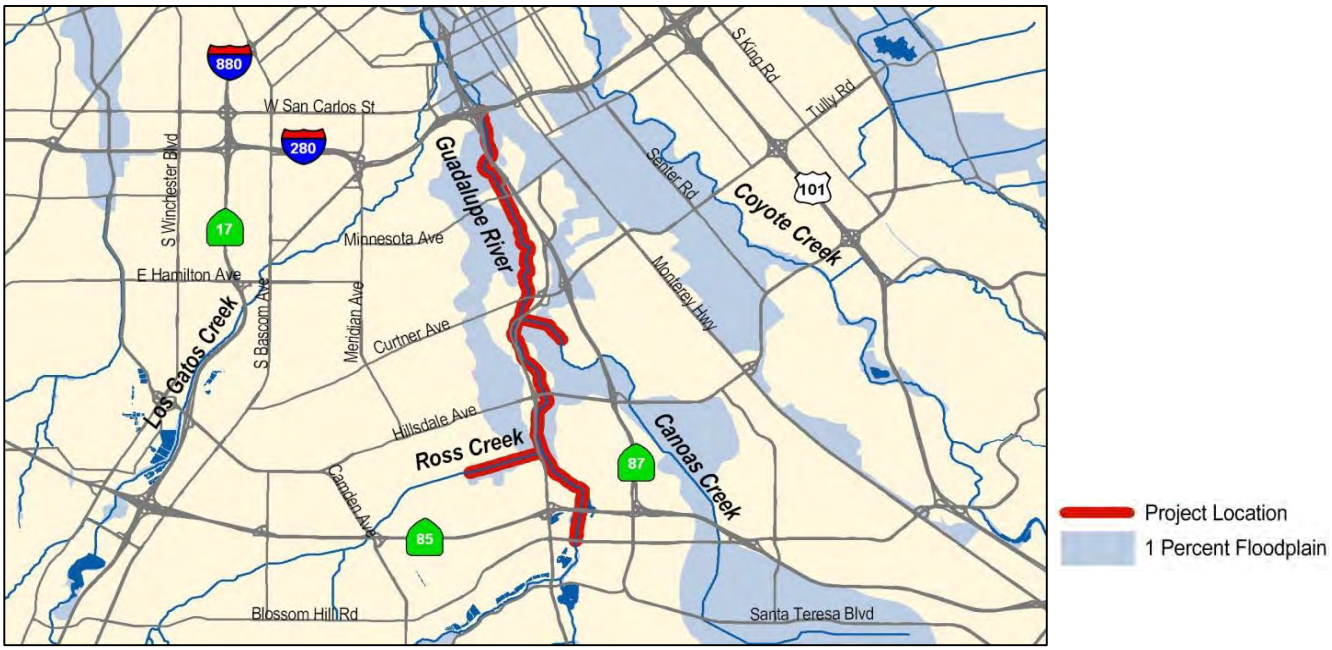
- Provide one-percent flood protection to nearly 7,000 parcels along the Guadalupe River, from I-280 to Blossom Hill Road, including portions of Ross Creek and Canoas Creek.
- Provide long-term net gains of 15 acres in riparian forest acreage, quality, and continuity of wildlife habitat, and conditions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

This project is accounted for in the following job numbers:

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

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

PROJECT LOCATION

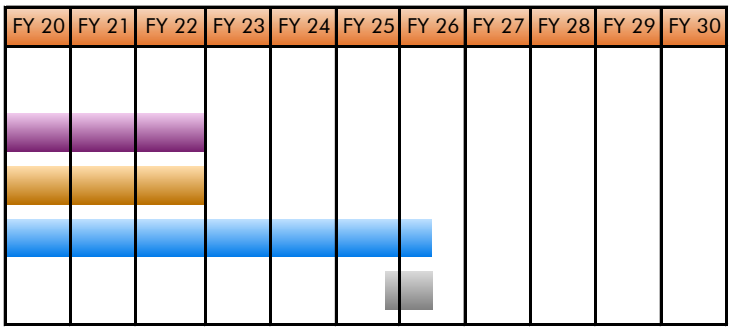


SCHEDULE & STATUS

September 1985 to June 2025

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

Phase	Cost
Plan	9,107
Permits	2,675
Design	76,319
Construct	73,229
Closeout	166
	165,476



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	**FY19**	**FY20**	**FY21**	**FY22**	**FY23**	**FY24**	**FY25**	**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)	33,098	1,660	900	1,885	30	0	0	0	37,573
with inflation	33,098	1,660	945	2,022	35	0	0	0	37,760
26154003-Guadalupe Rv—Upper, SPRR to Blossom Hill Rd. (R7-12)	65,495	730	8,600	23,790	16,850	1,900	0	0	117,365
with inflation	65,495	730	9,030	25,667	18,056	2,309	0	0	121,287
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	**109,131**	**2,390**	**9,500**	**25,675**	**16,880**	**1,900**	**0**	**0**	**165,476**
with inflation	**109,131**	**2,390**	**9,975**	**27,689**	**18,090**	**2,309**	**0**	**0**	**169,585**

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total
Project	**FY19**	**FY20**		**FY21**	**FY22**	**FY23**	**FY24**	**FY25**	**Future**	
26154001-Guadalupe Rv—Upr, Fish Passage Mods	2,651	0	0	0	0	0	0	0	0	2,651
26154002-Guadalupe Rv—Upr, I-280 to SPRR (R6)	34,619	139	0	945	2,022	35	0	0	0	37,760
26154003-Guadalupe Rv—Upper, SPRR to Blossom Hill Rd. (R7-12)	89,399	0	23,174	0	11,523	18,056	2,309	0	0	121,287
Actuals in closed project numbers	7,887	0	0	0	0	0	0	0	0	7,887
TOTAL	**134,556**	**139**	**23,174**	**945**	**13,545**	**18,090**	**2,309**	**0**	**0**	**169,585**

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

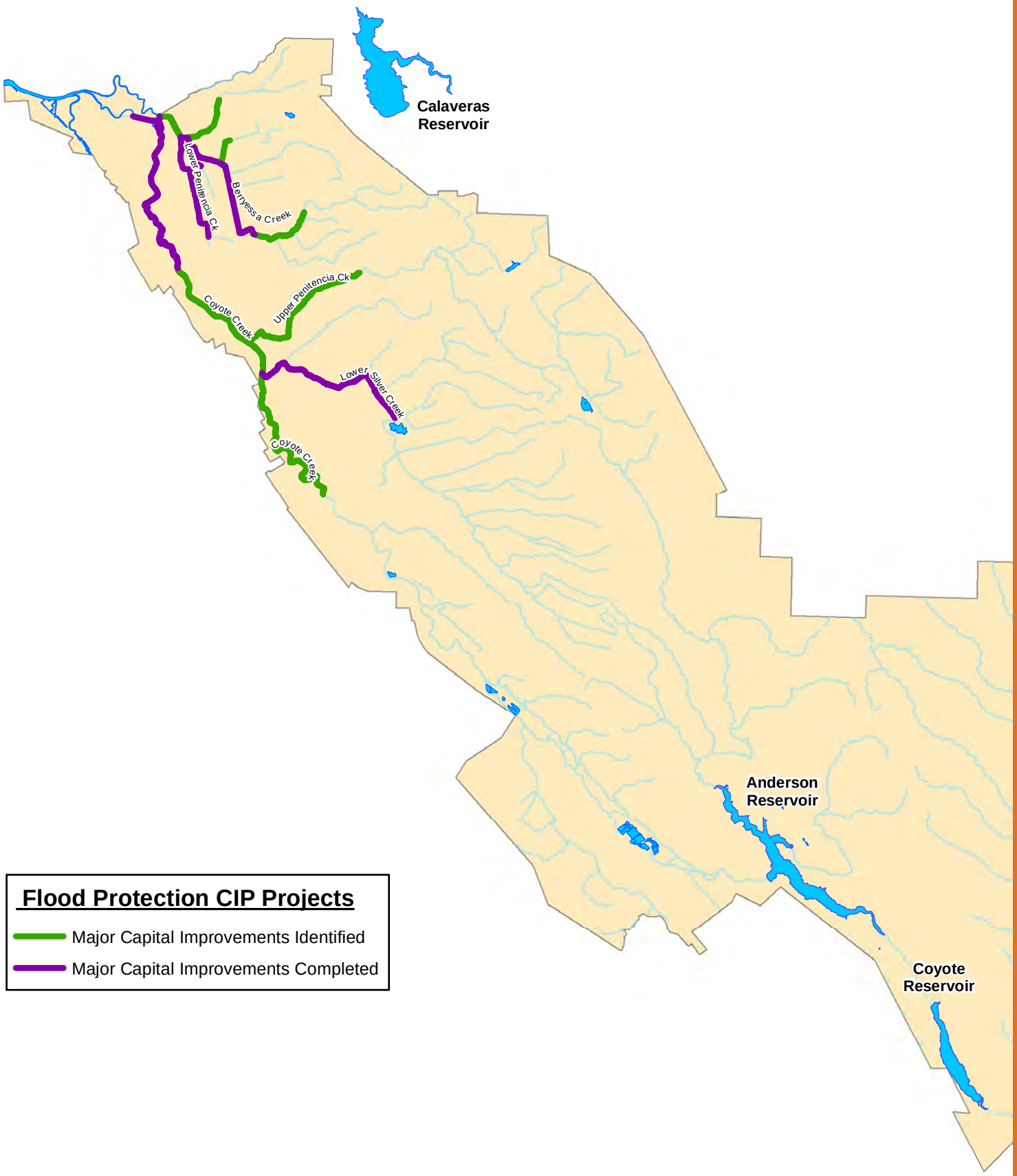
SCVWD Watershed Stream Stewardship Fund	12,000
SCVWD Safe, Clean Water and Natural Flood	123,817
State of California	29,177
City of San Jose	4,591
Total	**169,585**
U.S. Army Corps of Engineers - In-kind Services	188,000

OPERATING COST IMPACTS

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

USEFUL LIFE: 30+ Years

Coyote Watershed



Flood Protection CIP Projects

- Major Capital Improvements Identified
- Major Capital Improvements Completed

Project	**Berryessa Creek, Calaveras Boulevard to Interstate 680**
Program	Flood Protection – Coyote Watershed
Project No.	26174041s
District Contact	Ngoc Nguyen nnguyen@valleywater.org

Berryessa Creek near flood stage at Piedmont Road in San Jose

PROJECT DESCRIPTION

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

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

This project is accounted for in the following job numbers:

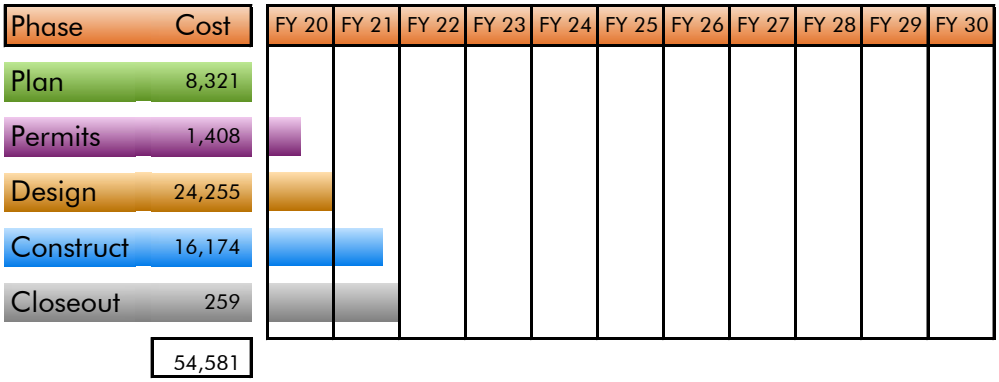
26174041—Coordination with Corps
26174042—Reimbursable work—Lands, Easements, Rights of Way, Relocations and Disposal (LERRDs)

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

PROJECT LOCATION

SCHEDULE & STATUS

January 2000 to June 2021



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	**FY19**	**FY20**	**FY21**	**FY22**	**FY23**	**FY24**	**FY25**	**Future**	
26174041-Berryessa Creek, Corps Coordination	22,443	13,100	50	0	0	0	0	0	35,593
with inflation	22,443	13,100	50	0	0	0	0	0	35,593
26174042-Berryessa Creek, LERRDs	17,462	1,526	0	0	0	0	0	0	18,988
with inflation	17,462	1,526	0	0	0	0	0	0	18,988
TOTAL	**39,905**	**14,626**	**50**	**0**	**0**	**0**	**0**	**0**	**54,581**
with inflation	**39,905**	**14,626**	**50**	**0**	**0**	**0**	**0**	**0**	**54,581**

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total
Project	**FY19**	**FY20**		**FY21**	**FY22**	**FY23**	**FY24**	**FY25**	**Future**	
26174041-Berryessa Creek, Corps Coordination	35,566	0	23	27	0	0	0	0	0	35,593
26174042-Berryessa Creek, LERRDs	18,986	2	0	0	0	0	0	0	0	18,988
TOTAL	**54,552**	**2**	**23**	**27**	**0**	**0**	**0**	**0**	**0**	**54,581**

Adjusted Budget includes adopted budget plus approved budget adjustments. Allocated funding exceeds planned expenditures by approximately $6,604,000. Excess funds will be returned to Fund Reserves at the end of the project.

FUNDING SOURCES

(in thousands $)

SCVWD Clean, Safe Creeks and Natural Flood Protection Fund	18,981
State of California	25,600
Department of Water Resources (Prop 1E)	10,000
Total	**54,581**
U.S. Army Corps of Engineers - In-kind Services	13,600

OPERATING COST IMPACTS

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

USEFUL LIFE: 30+ Years

Project	**Berryessa Creek, Lower Penitencia Creek to Calaveras Boulevard**
Program	Flood Protection – Coyote Watershed
Project No.	40174004s
District Contact	Ngoc Nguyen NNguyen@valleywater.org

Berryessa Creek upstream of the confluence with Lower Penitencia Creek

PROJECT DESCRIPTION

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

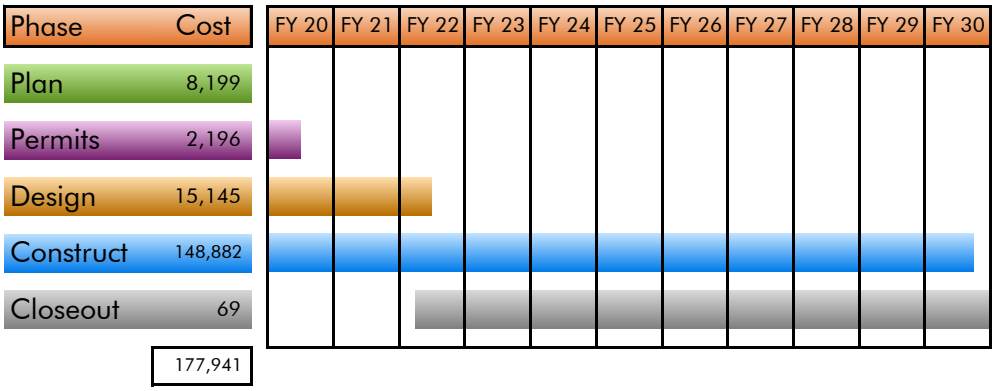
- Provide one-percent flood protection to 1,823 homes, businesses, and public buildings in the surrounding area.
- Improve the structural integrity of the levees.
- Improve maintenance access and safety for Valley Water staff.
- Identify opportunities to integrate recreation inputs consistent with the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

PROJECT LOCATION

SCHEDULE & STATUS

March 2001 to June 2027

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



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	**FY19**	**FY20**	**FY21**	**FY22**	**FY23**	**FY24**	**FY25**	**Future**	
40174004-Berryessa Creek, Lower Penitencia Creek to Calaveras Boulevard Phase 1	46,724	105	100	100	0	0	0	0	47,029
with inflation	46,724	105	105	110	0	0	0	0	47,044
40174005-Berryessa Creek, Lower Penitencia Creek to Calaveras Boulevard Phase 2	58,214	16,120	1,510	837	140	0	0	0	76,821
with inflation	58,214	16,120	1,586	923	162	0	0	0	77,004
40C40397-Berryessa Creek, Lower Penitencia Creek to Calaveras Boulevard Phase 3	0	0	0	0	0	0	0	54,091	54,091
with inflation	0	0	0	0	0	0	0	71,236	71,236
TOTAL	**104,938**	**16,225**	**1,610**	**937**	**140**	**0**	**0**	**54,091**	**177,941**
with inflation	**104,938**	**16,225**	**1,691**	**1,033**	**162**	**0**	**0**	**71,236**	**195,285**

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total
Project	**FY19**	**FY20**		**FY21**	**FY22**	**FY23**	**FY24**	**FY25**	**Future**	
40174004-Berryessa Creek, Lower Penitencia Creek to Calaveras Boulevard Phase 1	50,191	0	3,362	0	0	0	0	0	0	50,191
40174005-Berryessa Creek, Lower Penitencia Creek to Calaveras Boulevard Phase 2	75,875	0	1,541	45	923	162	0	0	0	77,004
40C40397-Berryessa Creek, Lower Penitencia Creek to Calaveras Boulevard Phase 3	0	0	0	0	0	0	0	0	71,236	71,236
TOTAL	**126,066**	**0**	**4,903**	**45**	**923**	**162**	**0**	**0**	**71,236**	**198,432**

Adjusted Budget includes adopted budget plus approved budget adjustments. Allocated funding exceeds planned expenditures by approximately $3,147,000. Excess funds will be returned to Fund Reserves at the close of the project.

FUNDING SOURCES

(in thousands $)

SCVWD Watershed Stream Stewardship Fund	183,418
Department of Water Resources (Prop 1E)	15,014
Total	**198,432**

OPERATING COST IMPACTS

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

USEFUL LIFE: 30+ Years

Project	**Coyote Creek, Montague Expressway to Tully Road**
Program	Flood Protection – Coyote Watershed
Project No.	26174043
District Contact	Ngoc Nguyen NNguyen@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 9 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.

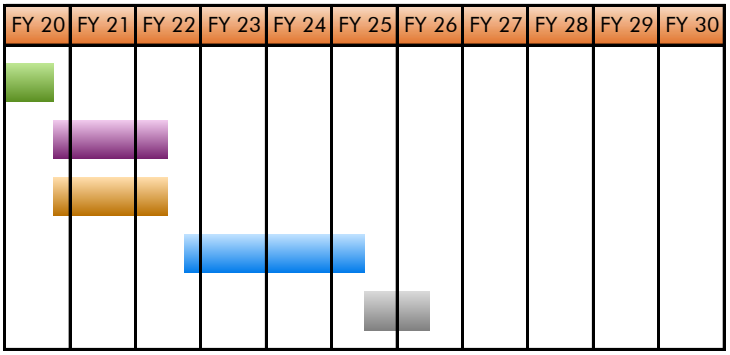
This project meets the commitments of the voter approved Safe, Clean Water Program. For a full description of the SCW benefits and KPI's, please visit www.valleywater.org.

PROJECT LOCATION

SCHEDULE & STATUS

November 2017 to March 2025

Phase	Cost
Plan	8,808
Permits	516
Design	7,594
Construct	42,173
Closeout	206
	59,746



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures						Total
Project	FY19	FY20	FY21	FY22	FY23	FY24	FY25	Future	
26174043-Coyote Creek, Montague Expressway to Tully Road	12,987	941	3,253	6,400	18,750	16,090	1,325	0	59,746
with inflation	12,987	941	3,416	6,984	21,186	19,117	1,691	0	66,322

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total
Project	FY19	FY20		FY21	FY22	FY23	FY24	FY25	Future	
26174043-Coyote Creek, Montague Expressway to Tully Road	14,000	941	1,013	2,403	6,984	21,186	19,117	1,691	0	66,322

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Clean, Safe Creeks and Natural Flood Protection Fund	66,322
Other Funding Source	0
Total	**66,322**

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.

USEFUL LIFE: 30+ Years

Project	**Cunningham Flood Detention Certification**
Program	Flood Protection – Coyote Watershed
Project No.	40264011
District Contact	Ngoc Nguyen NNguyen@valleywater.org

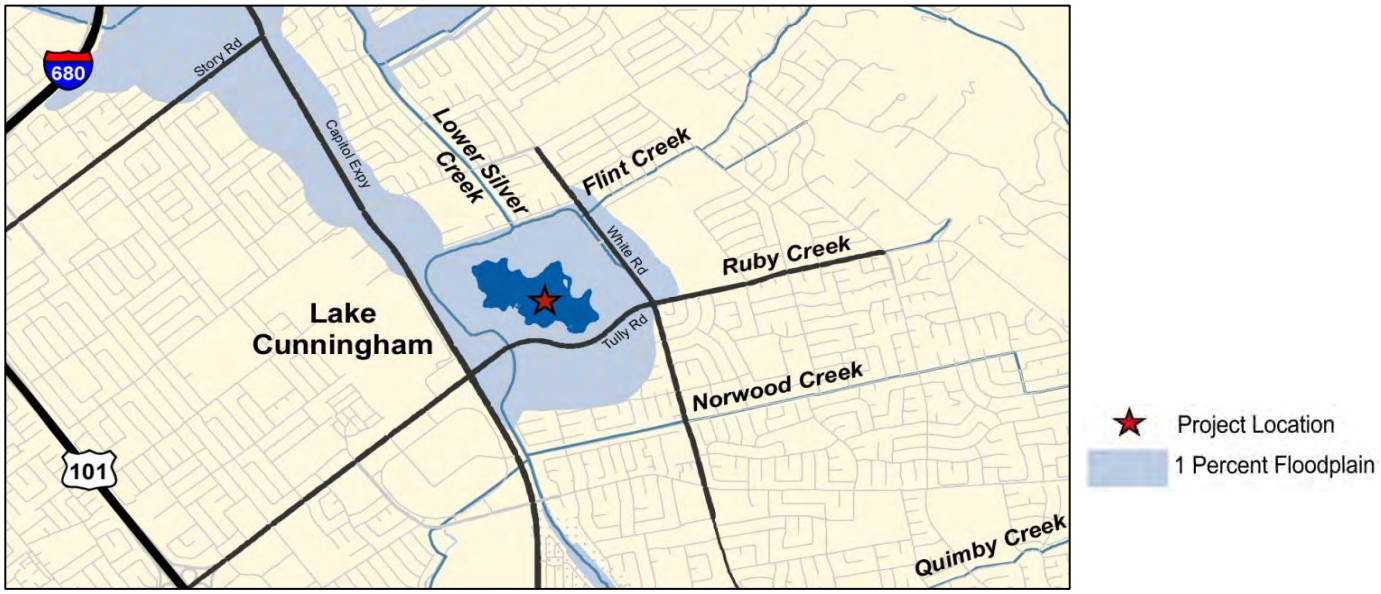
Flooding from Lower Silver Creek in February 1969 at the future site of Lake Cunningham Regional Park

PROJECT DESCRIPTION

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

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

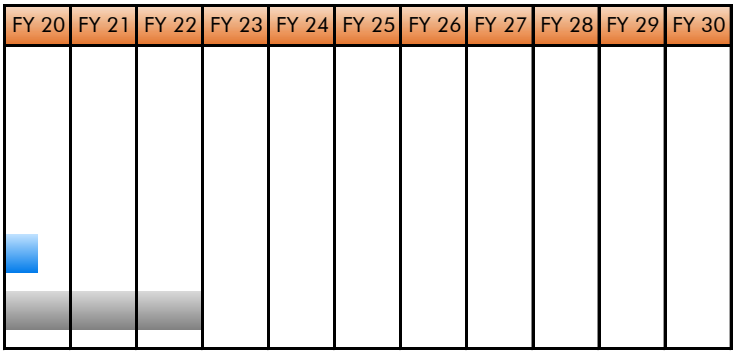
PROJECT LOCATION



SCHEDULE & STATUS

August 1999 to Decmber 2019

Phase	Cost
Plan	2,323
Permits	366
Design	2,278
Construct	6,435
Closeout	15
	11,837



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures						Total
Project	FY19	FY20	FY21	FY22	FY23	FY24	FY25	Future	
40264011-Cunningham Flood Detention Certification	11,010	767	30	30	0	0	0	0	11,837
with inflation	11,010	767	32	33	0	0	0	0	11,842

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total
Project	FY19	FY20		FY21	FY22	FY23	FY24	FY25	Future	
40264011-Cunningham Flood Detention Certification	11,251	556	30	2	33	0	0	0	0	11,842

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Watershed Stream Stewardship Fund	6,542
California Department of Water Resources	1,000
Natural Resource Conservation Service	4,300
Total	**11,842**

OPERATING COST IMPACTS

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

USEFUL LIFE: 30+ Years

Project	**Lower Penitencia Creek Improvements, Berryessa to Coyote Creeks**
Program	Flood Protection – Coyote Watershed
Project No.	40334005
District Contact	Ngoc Nguyen NNguyen@valleywater.org

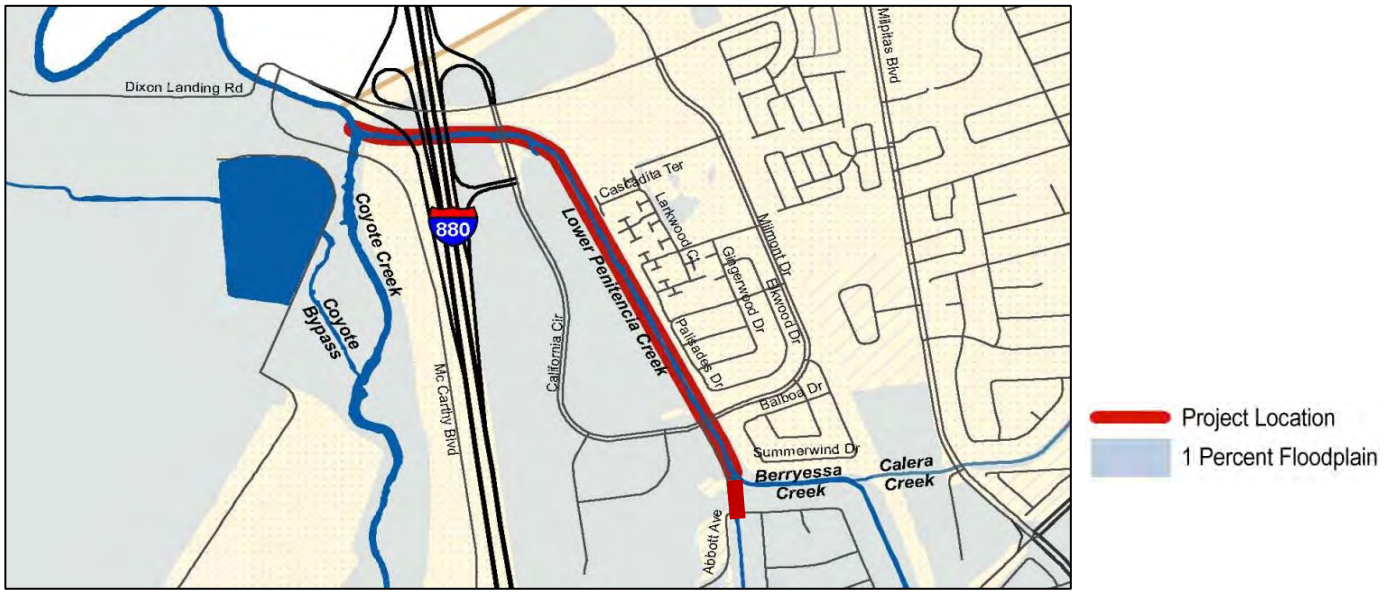
Lower Penitencia Creek, looking downstream from Milmont Drive

PROJECT DESCRIPTION

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

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

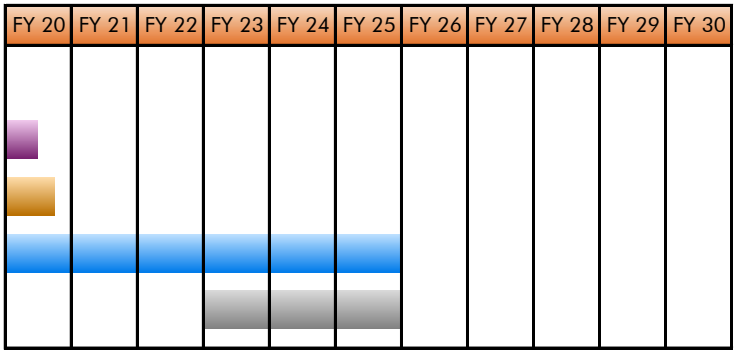
PROJECT LOCATION



SCHEDULE & STATUS

October 2010 to June 2022

Phase	Cost
Plan	3,573
Permits	797
Design	4,409
Construct	17,898
Closeout	20
	27,278



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures						Total
Project	FY19	FY20	FY21	FY22	FY23	FY24	FY25	Future	
40334005-Lower Penitencia Creek Improvements, Berryessa to Coyote Creeks	8,804	8,656	8,500	550	550	270	0	0	27,330
with inflation	8,804	8,656	8,781	606	637	328	0	0	27,812

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total
Project	FY19	FY20		FY21	FY22	FY23	FY24	FY25	Future	
40334005-Lower Penitencia Creek Improvements, Berryessa to Coyote Creeks	16,297	8,990	7,827	954	606	637	328	0	0	27,812

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Watershed Stream Stewardship Fund	22,812
Department of Water Resources (Prop 1E)	5,000
Total	**27,812**

OPERATING COST IMPACTS

Operating cost impacts will be established during the design phase.

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
District Contact	Tim Bramer TBramer@valleywater.org

Lower Silver Creek looking upstream from Capital Expressway

PROJECT DESCRIPTION

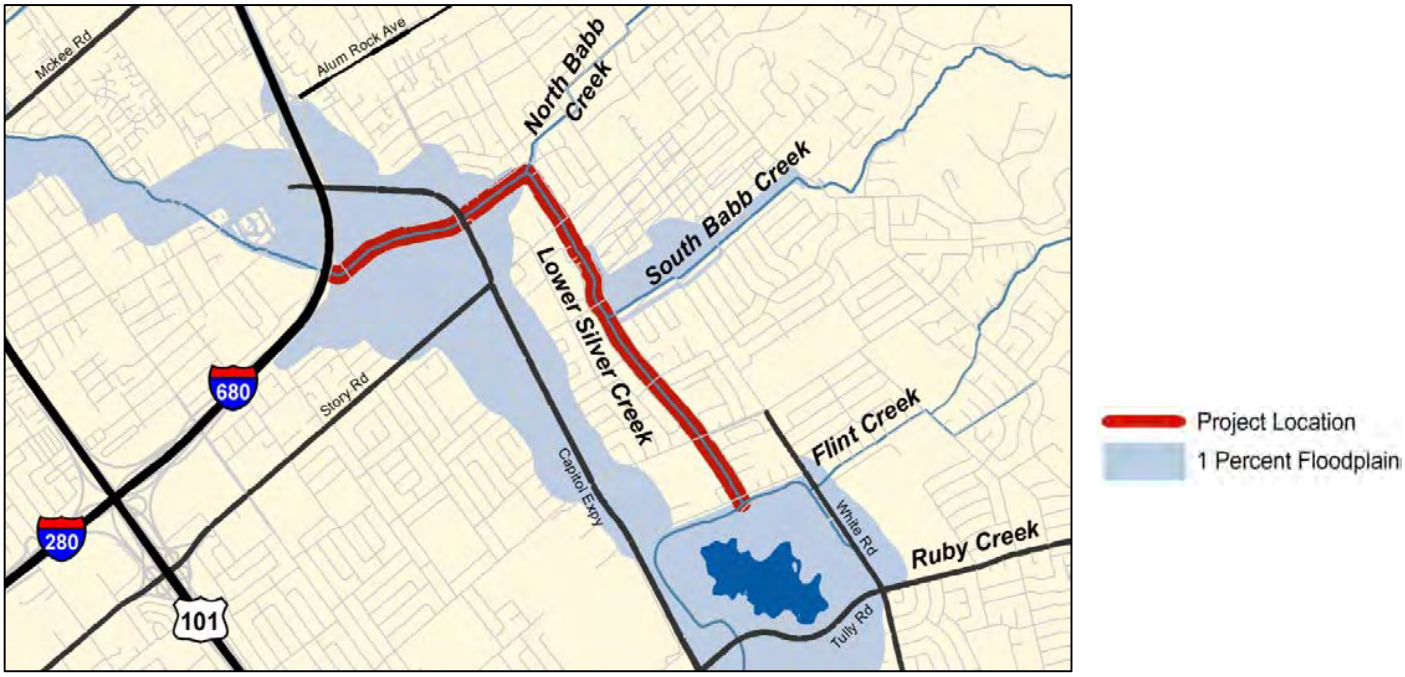
This project is part of a flood control project that partners with the Natural Resource Conservation Service (NRCS) to plan, design and construct improvements along approximately 2.3 miles of Lower Silver Creek, from Interstate 680 to Lake Cunningham. This project includes elements that are eligible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

- Increase flood protection to 3,800 parcels in the surrounding area.
- Allow for on-site mitigation of project impacts, and in some cases enhancement of existing habitat values by increased wetlands and riparian habitat.
- Improve vehicle and pedestrian bridges crossing Lower Silver Creek.
- Develop 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 job numbers:

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

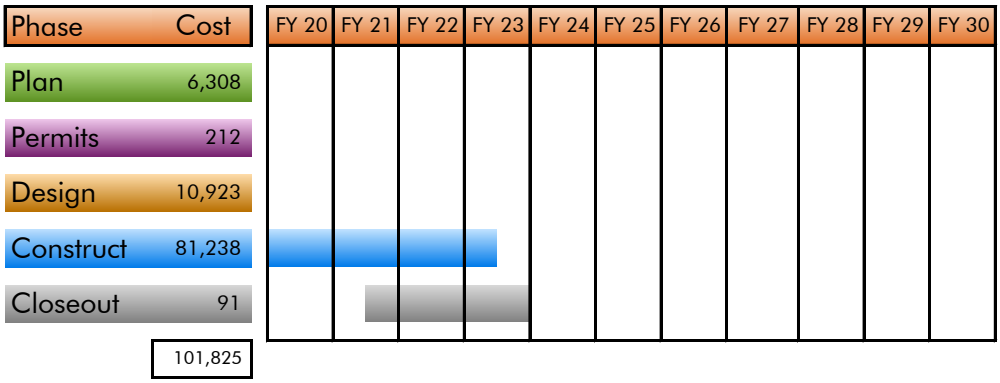
PROJECT LOCATION



SCHEDULE & STATUS

August 2008 to June 2023

Planning and Design phases are complete



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	**FY19**	**FY20**	**FY21**	**FY22**	**FY23**	**FY24**	**FY25**	**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)	95,073	1,934	160	50	50	0	0	0	97,267
with inflation	95,073	1,934	167	55	58	0	0	0	97,287
40264012-Lower Silver Creek, LERRDs (R4-6)	1,897	250	40	0	0	0	0	0	2,187
with inflation	1,897	250	42	0	0	0	0	0	2,189
TOTAL	99,341	2,184	200	50	50	0	0	0	101,825
with inflation	99,341	2,184	209	55	58	0	0	0	101,847

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total
Project	**FY19**	**FY20**		**FY21**	**FY22**	**FY23**	**FY24**	**FY25**	**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)	96,266	741	0	167	55	58	0	0	0	97,287
40264012-Lower Silver Creek, LERRDs (R4-6)	2,912	0	765	0	0	0	0	0	0	2,912
TOTAL	101,549	741	765	167	55	58	0	0	0	102,570

Adjusted Budget includes adopted budget plus approved budget adjustments. Funding exceeds planned expenditures by approximately $723,000. Excess funding will be returned to reserves upon completion of the project.

FUNDING SOURCES

(in thousands $)

SCVWD Watershed Stream Stewardship Fund	49,480
State of California	8,414
Natural Resource Conservation Service - ARRA	20,676
California Department of Water Resources	24,000
Total	**102,570**

OPERATING COST IMPACTS

The current average estimated operating budget impacts for the project post-construction are projected at $230k/year as evaluated by Watersheds O&M Engineering Support staff. Projected operating and maintenance costs include sediment removal, vegetation management, and bank protection. Other operations and maintenance costs anticipated will include encampment cleanup and graffiti removal on Project floodwalls.

USEFUL LIFE: 50+ Years

Project	**Upper Penitencia Creek, Coyote Creek to Dorel Drive**
Program	Flood Protection – Coyote Watershed
Project No.	40324003s
District Contact	Ngoc Nguyen NNguyen@valleywater.org

Flooding at King Road on Upper Penitencia Creek

PROJECT DESCRIPTION

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

Objectives:

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

This project is accounted for in the following job numbers:

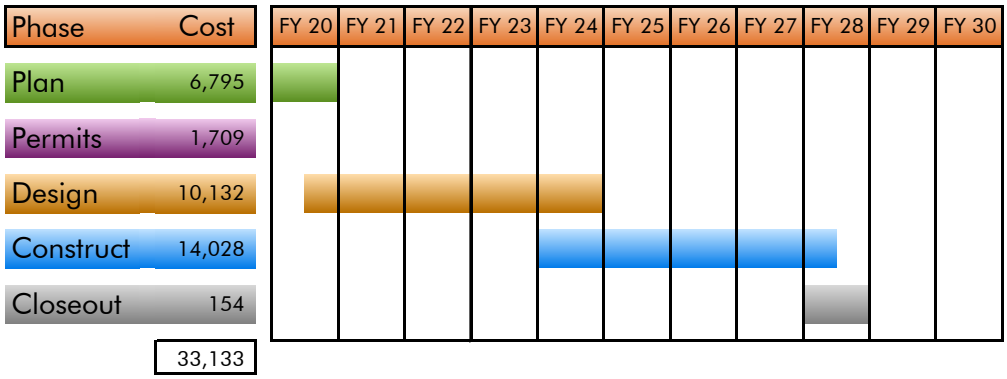
- 40324003 Conduct initial stages of Planning Phase through FY18.
- 26324001 Safe Clean Water Program

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

PROJECT LOCATION

SCHEDULE & STATUS

July 2000 to December 2019



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	**FY19**	**FY20**	**FY21**	**FY22**	**FY23**	**FY24**	**FY25**	**Future**	
40324003-Upper Penitencia Ck, Coyote Ck to Dorel Dr, Corps	9,467	10	0	0	0	0	0	0	9,477
with inflation	9,467	10	0	0	0	0	0	0	9,477
40324005-Upper Penitencia Ck, Coyote Ck to Dorel Dr, LERRDs	2,305	10	0	0	0	0	0	0	2,315
with inflation	2,305	10	0	0	0	0	0	0	2,315
26324001-Upper Penitencia Ck, Coyote Ck to Dorel Dr	649	1,305	2,516	2,516	200	1,811	1,341	11,003	21,341
with inflation	649	1,305	2,642	2,774	232	2,201	1,711	13,485	24,999
TOTAL	**12,421**	**1,325**	**2,516**	**2,516**	**200**	**1,811**	**1,341**	**11,003**	**33,133**
with inflation	**12,421**	**1,325**	**2,642**	**2,774**	**232**	**2,201**	**1,711**	**13,485**	**36,791**

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total
Project	**FY19**	**FY20**		**FY21**	**FY22**	**FY23**	**FY24**	**FY25**	**Future**	
40324003-Upper Penitencia Ck, Coyote Ck to Dorel Dr, Corps	8,970	507	0	0	0	0	0	0	0	9,477
40324005-Upper Penitencia Ck, Coyote Ck to Dorel Dr, LERRDs	7,347	0	5,032	0	0	0	0	0	0	7,347
26324001-Upper Penitencia Ck, Coyote Ck to Dorel Dr	1,910	1,305	1,261	1,381	2,774	232	2,201	1,711	13,485	24,999
TOTAL	**18,227**	**1,812**	**6,293**	**1,381**	**2,774**	**232**	**2,201**	**1,711**	**13,485**	**41,823**

Adjusted Budget includes adopted budget plus approved budget adjustments. Approved Funding exceeds planned expenditures by approximately $5,032,000. Excess funding will be returned to reserves at the end of the project.

FUNDING SOURCES

(in thousands $)

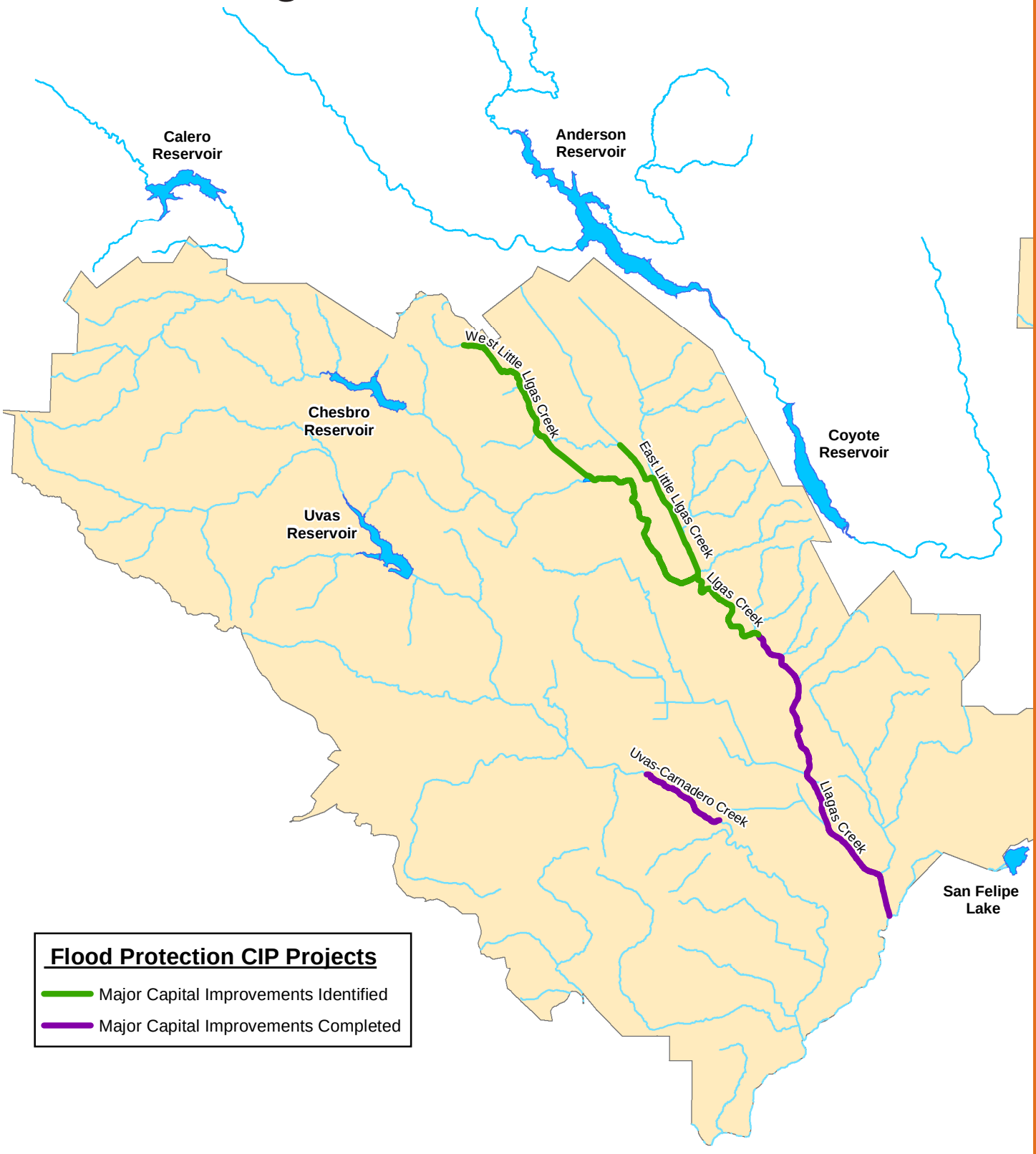
SCVWD Watershed Stream Stewardship Fund	16,824
SCVWD Safe, Clean Water Fund	24,999
Total	**41,823**
U.S. Army Corps of Engineers - In-kind Services	102,720

OPERATING COST IMPACTS

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

USEFUL LIFE: Not Available

Uvas/Llagas Watersheds



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

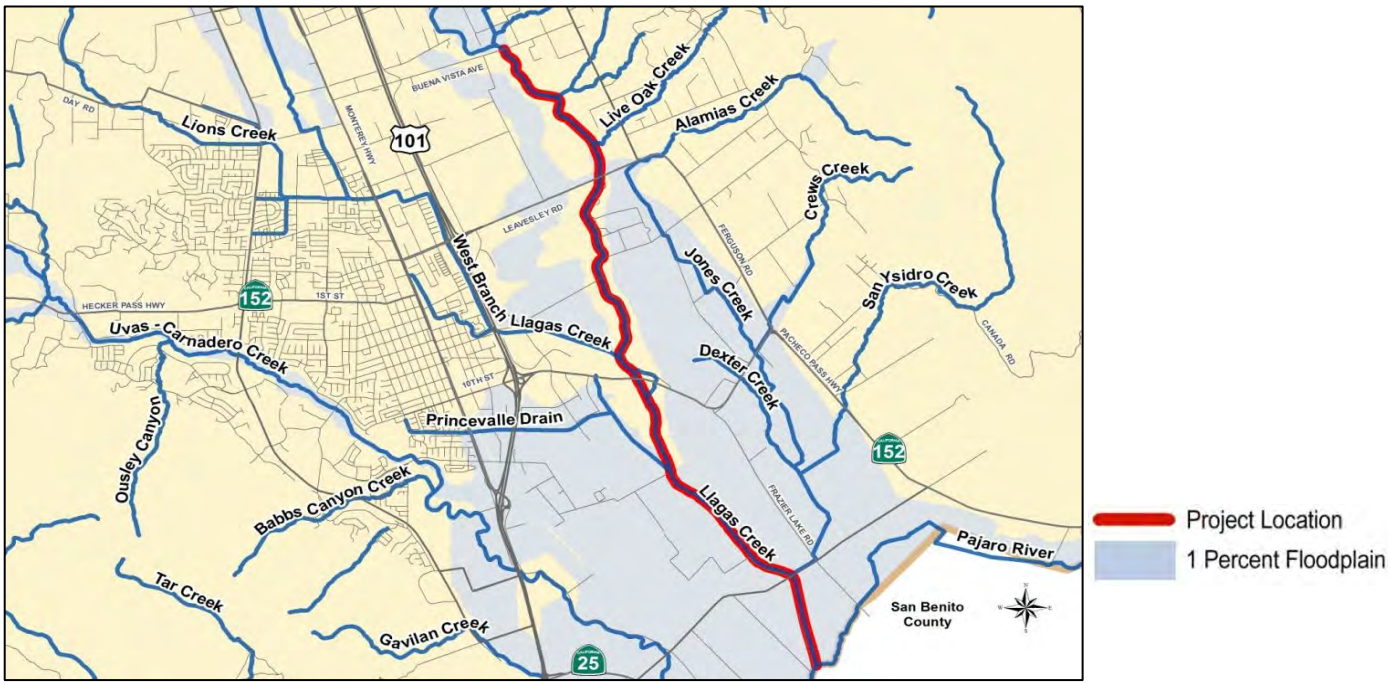
Lower Llagas Creek near Pajaro River

PROJECT DESCRIPTION

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

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

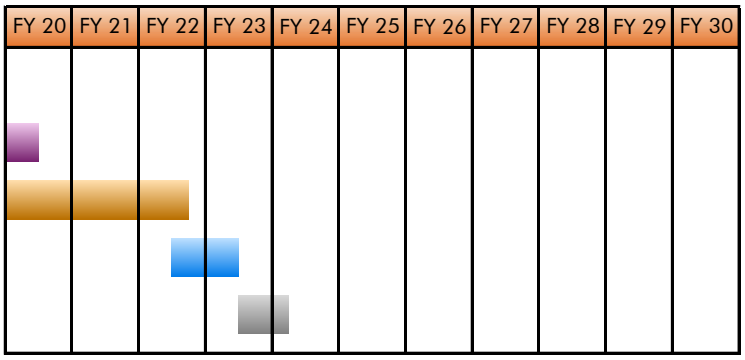
PROJECT LOCATION



SCHEDULE & STATUS

September 2008 to July 2023

Phase	Cost
Plan	3,258
Permits	1,052
Design	2,748
Construct	5,600
Closeout	100
	12,758



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY19	FY20	FY21	FY22	FY23	FY24	FY25	Future	
50284010-Llagas Creek–Lower, Capacity Restoration, Buena Vista Avenue to Pajaro River	3,323	815	820	1,350	3,450	3,000	0	0	12,758
with inflation	3,323	815	861	1,488	3,864	3,401	0	0	13,752

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total
Project	FY19	FY20		FY21	FY22	FY23	FY24	FY25	Future	
50284010-Llagas Creek–Lower, Capacity Restoration, Buena Vista Avenue to Pajaro River	6,947	0	2,809	0	0	3,404	3,401	0	0	13,752

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Watershed Stream Stewardship Fund	12,632
State of California	1,120
Total	13,752

OPERATING COST IMPACTS

Operating costs unknown since planning (consideration of alternatives) is not complete.

USEFUL LIFE: 30+ Years

Project	**Llagas Creek–Upper, Buena Vista Avenue to Llagas Road**
Program	Flood Protection – Uvas/Llagas Watershed
Project No.	26174051s
District Contact	Tim Bramer TBramer@valleywater.org

Llagas Creek floods at Watsonville Road and the surrounding area

PROJECT DESCRIPTION

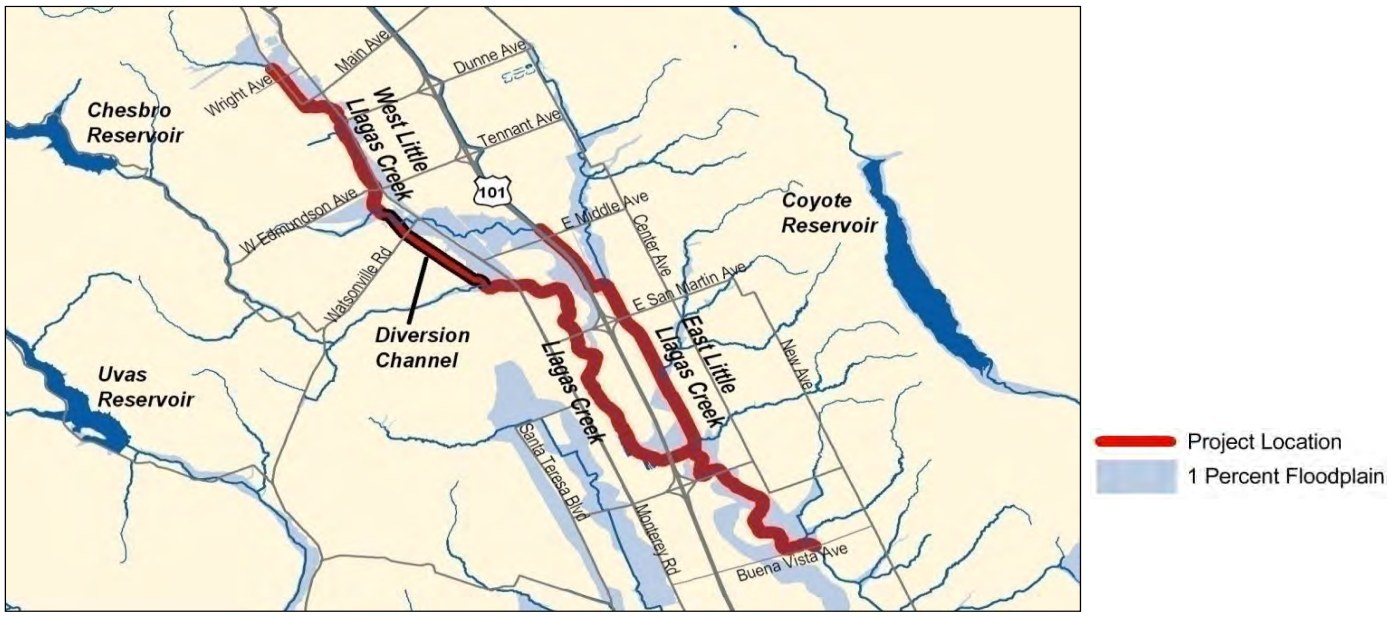
This project continues a Clean, Safe Creeks project in partnership with the U.S. Army Corps of Engineers (USACE) and the state to plan, design, and construct improvements along 13.9 miles of channel. The project extends from Buena Vista Avenue to Llagas Road, including West Little Llagas Creek in downtown 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 job numbers:

- 26174051- Reaches 4-8 & 14 - Reimbursable - Lands, Easements, Rights of Way, Relocation, & Disposal (LERRDs)
- 26174052- Reaches 4-8 & 14 - Construction/Coordination with the Corps
- 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, Project E6. For a full description of the SCW benefits and KPI's, please visit www.valleywater.org.

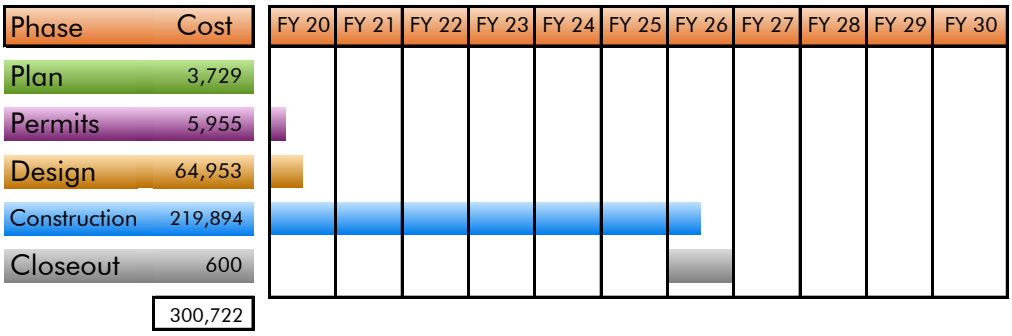
PROJECT LOCATION



SCHEDULE & STATUS

July 2000 to June 2026

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



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	**FY19**	**FY20**	**FY21**	**FY22**	**FY23**	**FY24**	**FY25**	**Future**	
26174051-Llagas Ck—Upper, LERRDs	39,784	5,255	0	0	0	0	0	0	45,039
with inflation	39,784	5,255	0	0	0	0	0	0	45,039
26174052-Llagas Ck—Upper, Corps Coordination	11,024	40,042	45,250	46,250	45,250	11,400	3,050	250	202,516
with inflation	11,024	40,042	46,713	48,091	47,278	11,816	3,277	332	208,572
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	21,775	1,000	900	900	1,050	1,050	1,150	950	28,775
with inflation	21,775	1,000	945	992	1,216	1,276	1,468	1,261	29,933
50C40335-Llagas Ck—Upper, Construction Rch 5, 6, & 7b	0	17,510	6,000	0	0	0	0	0	23,510
with inflation	0	17,510	6,180	0	0	0	0	0	23,690
TOTAL	**74,029**	**63,807**	**52,150**	**47,150**	**46,300**	**12,450**	**4,200**	**1,200**	**277,776**
with inflation	**74,029**	**63,807**	**53,838**	**49,083**	**48,493**	**13,092**	**4,745**	**1,593**	**284,989**

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	**FY19**	**FY20**		**FY21**	**FY22**	**FY23**	**FY24**	**FY25**	**Future**	
26174051-Llagas Ck—Upper, LERRDs	43,057	1,983	1	0	0	0	0	0	0	45,040
26174052-Llagas Ck—Upper, Corps Coordination	40,895	10,171	0	46,713	48,091	47,278	11,816	3,277	332	208,572
26174053-Llagas Ck—Upper, Technical Studies	1,446	0	0	0	0	0	0	0	0	1,446
26174054-Llagas Ck—Upper, Design	27,932	261	5,418	0	0	0	0	479	1,261	29,933
50C40335-Llagas Ck—Upper, Construction Rch 5, 6, & 7b	0	17,510	0	6,180	0	0	0	0	0	23,690
TOTAL	**113,330**	**29,925**	**5,419**	**52,893**	**48,091**	**47,278**	**11,816**	**3,756**	**1,593**	**284,990**

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	125,464
Watershed Stream Stewardship Fund	23,690
State of California	39,208
City of Morgan Hill	3,341
NRCS Grants (Unsecured)	75,386
Total	**284,989**
U.S. Army Corps of Engineers - In-kind Services	65,000

OPERATING COST IMPACTS

Operation-maintenance costs post-construction are currently anticipated to be approximately $850k per year.

USEFUL LIFE: 30+ Years

Multiple Watersheds

Flood Protection CIP Projects

Major Capital Improvements Identified

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

Project	**San Francisco Bay Shoreline**
Program	Flood Protection – Multiple Watersheds
Project No.	00044026s
District Contact	Ngoc Nguyen NNguyen@valleywater.org

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

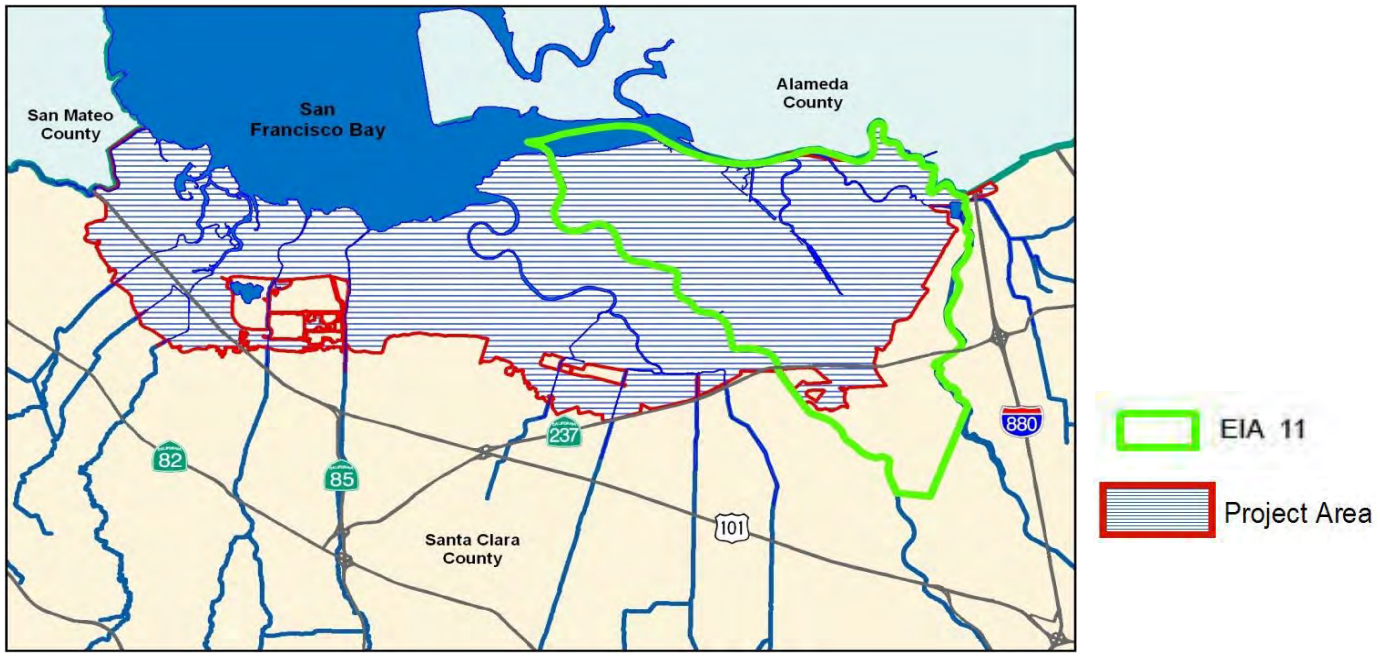
PROJECT DESCRIPTION

This project partners with the California Coastal Conservancy, U.S. Army Corps of Engineers (Corps), and key stakeholders to conduct an integrated, multi-objective project along the San Francisco Bay Shoreline. Project number 00044026 funded the Corps Feasibility Study effort for the North San Jose area, known as Economic Impact Area 11 (EIA 11) which was completed in FY 17; this project number will continue to fund other Shoreline efforts outside of the Safe, Clean Water (SCW) project numbers. Valley Water share of the EIA 11 flood risk management design and construction is $46.8M. It is expected that a grant from Measure AA will partially fund this project. SCW funds will provide $15 million toward the District's cost share of the design and partial construction efforts for EIA 11 and $5 million toward the Valley Water's cost share of the planning and design efforts for the remaining EIAs to accomplish the following objectives:

- Provide integrated fluvial and one-percent 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 LOMR from the Federal Emergency Management Agency at completion of the Construction Phase.
- Coordinate closely with the South Bay Salt Pond Restoration Project, City of San Jose, U.S. Fish and Wildlife Services, the community and key stakeholders.

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

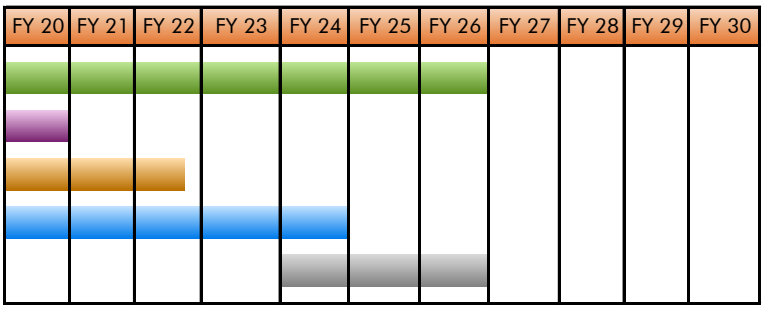
PROJECT LOCATION



SCHEDULE & STATUS

July 2005 to June 2026

Phase	Cost
Plan	18,111
Permits	349
Design	7,031
Construct	117,271
Closeout	-
	147,162



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	**FY19**	**FY20**	**FY21**	**FY22**	**FY23**	**FY24**	**FY25**	**Future**	
00044026-San Francisco Bay Shoreline	14,020	36,690	13,948	26,872	1,572	30,572	100	100	123,874
with inflation	14,020	36,690	14,398	28,574	1,820	34,551	128	133	130,312
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	9,955	7,561	0	0	0	0	0	0	17,516
with inflation	9,955	7,561	0	0	0	0	0	0	17,516
26444002-Other EIAs Planning	2,133	680	600	600	500	500	500	100	5,613
with inflation	2,133	680	630	662	579	608	638	133	6,062
TOTAL	**26,467**	**44,931**	**14,733**	**27,472**	**2,072**	**31,072**	**600**	**200**	**147,362**
with inflation	**26,467**	**44,931**	**15,028**	**29,235**	**2,399**	**35,158**	**766**	**265**	**154,249**

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	**FY19**	**FY20**		**FY21**	**FY22**	**FY23**	**FY24**	**FY25**	**Future**	
00044026-San Francisco Bay Shoreline	17,278	33,432	0	14,398	28,574	1,820	34,551	128	133	130,312
62044042-Shoreline Early Implementation	359	0	0	0	0	0	0	0	0	359
26444001-EIA 11 Design & Part Construction	14,516	3,000	0	0	0	0	0	0	0	17,516
26444002-Other EIAs Planning	3,757	0	944	0	348	579	608	638	133	6,062
TOTAL	**35,910**	**36,432**	**944**	**14,398**	**28,921**	**2,399**	**35,158**	**766**	**265**	**154,249**

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Watershed Stream Stewardship Fund	65,943
SCVWD Clean, Safe Creeks and Natural Flood Protection Fund (Environmental Enhancement Grant)	2,011
SCVWD Safe, Clean Water and Natural Flood Protection Fund	23,578
California Department of Water Resources	420
SFBRA Measure AA (Grant)	61,466
SFBRA Measure AA (Ballot Reimbursement)	831
Total	**154,249**
Federal Partners, South Bay Salt Ponds (SBSP)	48,470
State, SBSP	14,720
Foundations, Packard-Hewlett-Goldman-Moore, SBSP	17,060
Coastal Conservancy, Shoreline	2,010
Federal, Corps of Engineers, Shoreline	8,990
Total Partnership Funding for In-kind Services	**91,250**

OPERATING COST IMPACTS

Operating costs will be determined during the planning phase.

USEFUL LIFE: Not Available

Project	**Watersheds Asset Rehabilitation Program**
Program	Flood Protection - Multiple Watersheds
Project No.	62084001
District Contact	Ngoc Nguyen NNguyen@valleywater.org

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

PROJECT DESCRIPTION

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

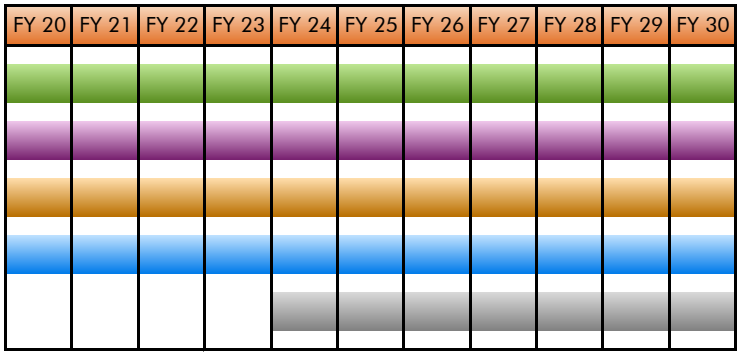
- Excavation and rebuilding of eroded soil material.
- Installation of rodent barriers such as mesh or fabric.
- Repairing the banks with methods commensurate with the extents of damage and environmental constraints.
- Geomorphic channel restoration with bed and bank repair.
- Outfall restoration and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

PROJECT LOCATION

SCHEDULE & STATUS

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

Phase	Cost
Plan	3,812
Permits	5,585
Design	16,808
Construct	97,209
Closeout	670
	146,456



EXPENDITURE SCHEDULE

(in thousands $)

	Actuals Thru	Planned Expenditures							Total
Project	FY19	FY20	FY21	FY22	FY23	FY24	FY25	Future	
62084001-Watersheds Asset Rehabilitation Program	24,561	11,375	11,050	8,100	8,100	8,100	8,100	67,070	146,456
with inflation	24,561	11,375	11,423	8,679	8,984	9,301	9,630	93,085	177,037

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands $)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total
Project	FY19	FY20		FY21	FY22	FY23	FY24	FY25	Future	
62084001-Watersheds Asset Rehabilitation Program	24,455	11,481	0	11,423	8,679	8,984	9,301	9,630	93,085	177,037

Adjusted Budget includes adopted budget plus approved budget adjustments.

FUNDING SOURCES

(in thousands $)

SCVWD Watershed Stream Stewardship Fund	177,037
City of Palo Alto (Matadero Creek)	227
Total	177,037

OPERATING COST IMPACTS

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

USEFUL LIFE: Not Available