

DRAFT



Valley Water

FY 2021-22 Annual Report

Safe, Clean Water and Natural Flood Protection

FY 2021-22 Annual Report

Safe, Clean Water

and Natural Flood Protection

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November 22, 2022



Valley Water

Clean Water • Healthy Environment • Flood Protection

Valley Water

Safe, Clean Water and Natural Flood Protection

FY 2021-22 Annual Report

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Valley Water

Safe, Clean Water and Natural Flood Protection FY 2021-22 Annual Report

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Message from the CEO



Rick L. Callender, Esq.
Chief Executive Officer, Valley Water

"In a year of severe drought, the Safe, Clean Water Program provided the much-needed funding to expand water conservation rebates and pilot new programs to help the community use less water."

November 2022

Fiscal Year 2021-22 (FY22) marked the first year Valley Water implemented the renewed Safe, Clean Water and Natural Flood Protection Program (Safe, Clean Water Program), which Santa Clara County voters overwhelmingly approved in November 2020, to address new and growing challenges.

In a year of severe drought, the Safe, Clean Water Program provided the much-needed funding to expand water conservation rebates and pilot new programs to help the community use less water. To find out more and take advantage of our robust conservation rebates and programs, visit watersavings.org.

The renewed Safe, Clean Water Program became effective on July 1, 2021. This report provides an update on the progress of the program's 32 projects during FY22. The projects are categorized under the following six Safe, Clean Water Program priorities:

- **Priority A:** Ensure a Safe, Reliable Water Supply
- **Priority B:** Reduce Toxins, Hazards, and Contaminants in our Waterways
- **Priority C:** Protect Our Water Supply and Dams from Earthquakes and Other Natural Disasters
- **Priority D:** Restore Wildlife Habitat and Provide Open Space
- **Priority E:** Provide Flood Protection to Homes, Businesses, Schools, Streets, and Highways
- **Priority F:** Support Public Health and Public Safety for Our Community

The following are highlights of the FY22 accomplishments from each of Valley Water's core mission areas.

Water Supply

Water Conservation Rebates and Programs: Valley Water issued over \$2.3 million in 1,431 rebates to convert more than one million square feet (sq ft) of lawn into water-wise landscapes, upgrade irrigation equipment and install rainwater capture systems. Of these rebates, the Safe, Clean Water Program provided \$861,069 for 751 rebates to convert over 861,000 sq ft of lawns to low water use plants. In FY22, the Landscape Rebate Program participation increased significantly, with a 145% rise in applications compared to FY21. The Safe, Clean Water Program provided \$1 million

in FY22 to help increase landscape conversion rebates, expand conservation programs, pilot new programs and expand outreach. For more information, see Project A2.

Anderson Dam Seismic Retrofit: Since the groundbreaking ceremony for the Anderson Dam Tunnel Project on July 7, 2021, Valley Water has made great strides in the first phase of the larger Anderson Dam Seismic Retrofit Project. The Anderson Dam Tunnel Project, which includes constructing a new tunnel, is on pace for 2024 completion. In FY22, major construction activities included drilling 244 holes deep into the hillside next to Anderson Dam in Morgan Hill. Inside each hole, workers placed a 120-foot-long steel bar, up to 2-1/4 inches in diameter. The steel bars, each weighing about 1,600 pounds, were covered with 12 inches of concrete. The work to reinforce roughly 15,000 square feet of the hillside was a milestone in an overall effort to build a new outlet tunnel at Anderson Dam. The new tunnel will allow Valley Water to draw down the reservoir reliably and quickly, providing greater control over the water levels in the reservoir and increasing public safety. For more information, see Project C1.

Flood Protection

Upper Llagas Creek Flood Protection: Construction of Phase 1 of the project (from Monterey Road to Watsonville Road in Morgan Hill) began in September 2019 and was completed ahead of schedule in April 2022. It included channel excavation and construction of Lake Silveira wetlands. Valley Water also continued construction on Phase 2A of the project, including an approximately 2,300 linear feet horseshoe-shaped underground tunnel to carry high water flows. Construction of Phase 2A is expected to be completed in FY24. For more information, see Project E6.

Vegetation Control and Sediment Removal: Valley Water completed 1,853 acres of in-stream vegetation management to reduce flood risk along 205 miles of streams throughout Santa Clara County. We also completed seven sediment removal projects, removing 28,034 cubic yards of sediment to ensure flood protection projects continue to provide the protection they were designed to give. The Safe, Clean Water Program partly funded the sediment removal project. For more information, see Project F1.

Stewardship

Fish Passage Improvements: Valley Water provided the City of San José with \$1 million in cost-share funding to construct a new interim pedestrian bridge, replacing the Singleton Road low-water crossing at Coyote Creek. Valley Water also provided the city permitting and design assistance for the project that was completed in October 2021. The low-water crossing was a fish passage barrier and its removal opened about 17 miles of upstream Coyote Creek area for migratory fish to access a better, cold-water habitat. For more information, see Project D4.3.

Fish Habitat Improvements: In June 2022, Valley Water began construction on the large woody debris and gravel augmentation project to improve the fish habitat along Uvas Creek in Gilroy. The project is designed to increase instream habitat diversity, shelter complexity and the amount of instream shelter at three sites along Uvas Creek. For more information, see Project D4.5.

Hale Creek Enhancement Pilot: In June 2022, Valley Water began constructing the Hale Creek Enhancement Pilot Project. The project is designed to increase channel flood capacity and improve the ecology of the creek system. In coordination with the San Francisco Bay Regional Water Quality Control Board, this project has been prioritized and selected for a pilot study to restore geomorphic creek features in a confined urbanized setting. Construction is scheduled to be completed in FY23. For more information, see Project D6.1.

Good Neighbor Program: Encampment Cleanup: Valley Water managed 1,457 acres to clean up trash, debris and hazardous pollutants generated from encampments and to reduce the amount of these pollutants entering streams. Responding to higher volumes of encampment-generated trash and debris in creeks throughout the county, Valley Water exceeded the annual project key performance indicator of managing 300 acres annually. For more information, see Project F5.

Trash Removal: Five of the Safe, Clean Water projects include trash removal components to reduce and remove contaminants in our local streams and bay. This work is accomplished not only by Valley Water but with the help of volunteers and grantees. In FY22, 1,006 tons of trash were removed from local waterways. For more information, see Projects B1, B2, B4, F5 and F6.

Safe, Clean Water Grants and Partnerships: The Valley Water Board approved \$1.5 million in grants, including mini grants, for stewardship activities, such as pollution prevention, volunteer cleanups and education, water conservation and wildlife habitat restoration, etc. For more information, see Project F9.

To ensure transparency and accountability, the Board established an Independent Monitoring Committee (IMC) to track the program's progress and ensure outcomes are achieved cost-efficiently. Each year, our Valley Water Directors authorize the finalization of the prior fiscal year's annual report and submittal to the IMC for its review. Valley Water appreciates each IMC member for volunteering and looks forward to the committee's review.

The accomplishments presented in this report would not have been possible without Valley Water's dedicated employees, each of whom is committed to the success of the Safe, Clean Water Program.

The FY22 annual report is available to the public at <https://www.valleywater.org/safe-clean-water-and-natural-flood-protection-program/safe-clean-water-program-archive>. Also available is the Safe, Clean Water Program's 5-Year Implementation Plan for Fiscal Years 2022-2026.

We welcome your inquiries and insightful comments on the FY22 annual report.

Sincerely,

A handwritten signature in black ink, appearing to read 'Rick Callender', followed by a long horizontal line.

Rick L. Callender, Esq.
Chief Executive Officer
Santa Clara Valley Water District

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List of Abbreviations

Abbreviation	Description
AAC	Adopt-A-Creek
ACWA	Association of California Water Agencies
AMI	Advanced Metering Infrastructure
ADSRP	Anderson Dam Seismic Retrofit Project
AQPI	Advanced Quantitative Precipitation Information
AVW	Access Valley Water
BART	Bay Area Rapid Transit
BASMAA	Bay Area Stormwater Management Agencies Association
BCDC	San Francisco Bay Conservation and Development Commission
BMP	Best management practice
BRRIT	Bay Restoration Regulatory Integration Team
Cal-IPC	California Invasive Plan Council
CAP	Continuing Authorities Program
CASQA	California Stormwater Quality Association
CDFW	California Department of Fish and Wildlife
CCNEET	Coyote Creek Native Ecosystem Enhancement Tool
CEO	Chief Executive Officer
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFS	Cubic feet per second
CIP	Capital Improvement Program
CLOMR	Conditional Letter of Map Revision
CRAM	California Rapid Assessment Method
CRS	Community Rating System
CSC	Clean, Safe Creeks and Natural Flood Protection Plan
CY	Cubic yards
DEIR	Draft Environmental Impact Report
DSOD	Division of Safety of Dams
EAP	Emergency Action Plan
EOC	Emergency Operations Center
EIA	Economic Impact Area
EIR	Environmental Impact Report

List of Abbreviations

ESA	Endangered Species Act
FCSA	Feasibility Cost Share Agreement
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
FY	Fiscal year
GI	General Investigation
GIS	Geographic Information Systems
GSI	Green Stormwater Infrastructure
IMC	Independent Monitoring Committee
IRWMP	San Francisco Bay Area Integrated Regional Water Management Plan
KPI	Key performance indicator
LEDPA	Least Environmentally Damaging Practicable Alternative
LFA	Limiting Factors Analysis
LOMR	Letter of Map Revision
LWD	Large woody debris
MAC	Multi-Agency Coordination
MidPen	Mid-Peninsula Regional Open Space District
MOA	Memorandum of agreement
MOU	Memorandum of understanding
NASA	National Aeronautics and Space Administration
NCCP	Natural Communities Conservation Plan
NFIP	National Flood Insurance Program
NMFS	National Marine Fisheries Service
NOAA	National Oceanographic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NWR	National Wildlife Refuge
O&M	Operations and maintenance
RFP	Request for proposal
RWQCB	Regional Water Quality Control Board
RWRC	Recycling & Waste Reduction Commission
SBSRP	South Bay Salt Pond Restoration Project
SCC	Santa Clara County
SCPP	Stream Corridor Priority Plan
SCVURPPP	Santa Clara Valley Urban Runoff Pollution Prevention Program
SFCJPA	San Francisquito Creek Joint Powers Authority

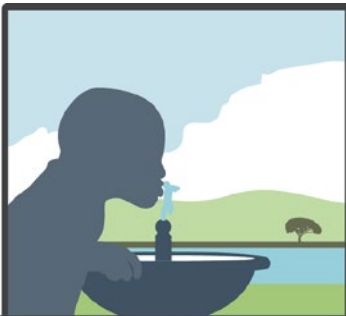
List of Abbreviations

SFEI	San Francisco Estuary Institute
SFPUC	San Francisco Public Utilities Commission
SJPD	San José Police Department
SMP	Stream Maintenance Program
SPRR	Southern Pacific Railroad
SWRCB	State Water Resources Control Board
SWRP	Storm Water Resource Plan
TAC	Technical Advisory Committee
TMDL	Total Maximum Daily Load
UPRR	Union Pacific Railroad
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Services
USGS	U.S. Geological Survey
Valley Water	Santa Clara Valley Water District
VHA	Santa Clara Valley Habitat Agency
VHP	Santa Clara Valley Habitat Plan
VTa	Santa Clara Valley Transportation Authority

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Safe, Clean Water

and Natural Flood Protection



Priority A

Ensure a safe, reliable
water supply

Safe, Clean Water
and Natural Flood Protection



Priority B

Reduce toxins, hazards and
contaminants in our waterways

Safe, Clean Water
and Natural Flood Protection



Priority C

Protect our water supply and dams from
earthquakes and other natural disasters

Safe, Clean Water
and Natural Flood Protection



Priority D

Restore wildlife habitat
and provide open space access

Safe, Clean Water
and Natural Flood Protection



Priority E

Provide flood protection to homes,
businesses, schools, streets and highways

Safe, Clean Water
and Natural Flood Protection



Priority F

Support public health and
public safety for our community

Safe, Clean Water
and Natural Flood Protection

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Program Summary

In November 2020, Santa Clara County voters overwhelmingly approved Measure S, a renewal of Valley Water's Safe, Clean Water and Natural Flood Protection Program (Safe, Clean Water Program).

Voters first approved a community-focused program to address our waterways and water supply in 2000 as the Clean, Safe Creeks and Natural Flood Protection Plan, then again in 2012 as the Safe, Clean Water and Natural Flood Protection Program.

To ensure the renewed Safe, Clean Water Program reflected community needs and priorities while balancing the diverse interests of stakeholders to the furthest extent possible, Valley Water conducted extensive public engagement and gathered feedback from more than 21,000 community members.

For transparency and accountability, Valley Water will publish annual reports providing progress updates for each project under the following renewed Safe, Clean Water Program priorities.

Priority A: Ensure a Safe, Reliable Water Supply

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

Priority C: Protect Our Water Supply and Dams from Earthquakes and Other Natural Disasters

Priority D: Restore Wildlife Habitat and Provide Open Space

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

Priority F: Support Public Health and Public Safety for Our Community

The voter-approved measure includes a provision for the Valley Water Board to direct staff to modify projects or not implement projects due to various factors, including federal and state funding limitations, regulatory issues, etc. Changes to project key performance indicators (KPIs) are considered "modifications." Also, as the Program progresses, project description, benefits, geographic area of benefit and funding or schedule, which don't impact KPIs, may need to be adjusted due to various factors.

A Change Control Process, which is consistent with the provisions of the measure, requires that the Board make all Safe, Clean Water Program adjustments during publicly held board meetings. Furthermore, any modification or a decision not to implement a project requires a formal public hearing on the matter, which is to be noticed by publication and notifications to interested parties.

This is the first annual report to be prepared for the renewed Program that is implemented on a 15-year financial cycle. It provides project status towards accomplishing the KPIs and the targets identified in the Safe, Clean Water Program's 5-Year Implementation Plan for Fiscal Years 2022-2026 or Valley Water's FY 2022-2026 Capital Improvement Program. The project status categories with definitions are listed below:

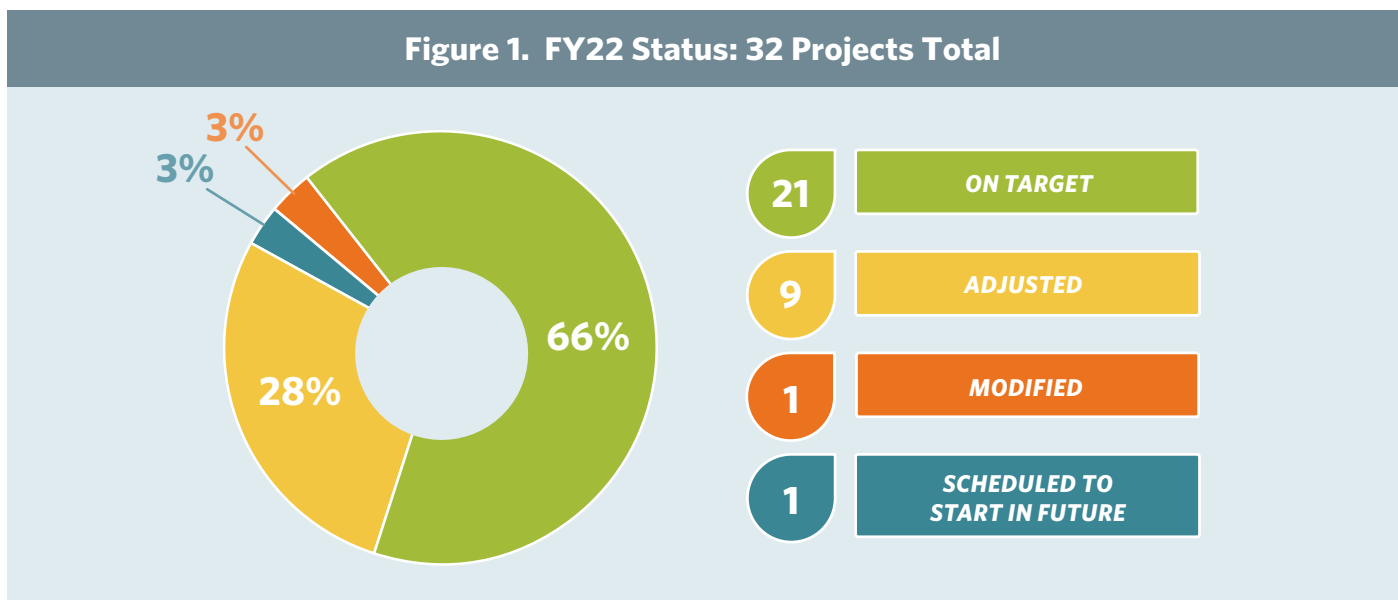
- On Target – Status indicates the project is on track to meet targets.
- Adjusted – Status indicates the potential that targets will not be met, and implementation required a Board-approved schedule adjustment (future year status will be based upon the Board-approved adjusted schedule).
- Modified – Status indicates the Board formally modified the project following a public hearing (future year status' will be based upon the modified project targets).
- Not on Target – Status indicates that the target has not been or will not be met.
- On Hold – Status indicates that work on delivering the project KPIs is temporarily on hold while progress is being made on

addressing challenges to meeting targets.

- Scheduled to Start – Status indicates that the project is scheduled to start in a future fiscal year.
- Completed – Status indicates that the project has been completed and the KPIs have been met.

Program Performance

There are 32 projects under the Safe, Clean Water Program. As indicated in Figure 1, 66% (21 projects) are On Target (■); 28% (9 projects) required schedule Adjustments (■); 3% (1 project) was Modified (■); 3% (1 project) was Scheduled to Start in future years (■).



In FY22, the Board approved modifying Project F5: Good Neighbor Program: Encampment Cleanup KPI #1. The KPI was changed to “Manage 300 acres annually to clean up trash, debris, and hazardous pollutants generated from encampments and to reduce the amount of these pollutants entering streams.” The Board also adjusted the project description and benefits. The modification and text adjustments were in response to the changing legal, political and social climate related to encampment sites and homelessness in Santa Clara County.

For nine capital projects, the Board approved schedule adjustments. These included A3: Pipeline Reliability, D4.1 Ogier Ponds, D6.2 Bolsa Road Fish Passage Improvement, E2: Sunnyvale East and Sunnyvale West Channels Flood Protection, E4: Upper Penitencia Creek Flood Protection, E5: San Francisquito Creek Flood Protection and E8: Upper Guadalupe River Flood Protection. In addition, Valley Water Board also approved fund transfer schedule adjustments for A1: Pacheco Reservoir Expansion and C1: Anderson Dam Seismic Retrofit. These adjustments, which the Board approved with the 5-Year Implementation Plan for Fiscal Years 2022-2026 in June 2021, were in response to rising capital project costs that put long-term pressure on the Safe, Clean Water Program Fund (Fund). The fund transfer schedule adjustments were necessary to ensure that Valley Water delivers the KPIs while responsibly managing the Fund in compliance with the Board’s fiscal policies.

Valley Water continues to pursue external funding, including grants, such as the Natural Resources Conservation Service (NRCS) grant for Project E6: Upper Llagas Creek Flood Protection. Valley Water has received a commitment from the NRCS to fund up to \$80 million for Phase 2B of the Upper Llagas Creek Project. Valley Water is now working with NRCS to complete the agency’s consultation requirements so that the project can receive the funding. Valley Water is also seeking low-cost federal loans from the Water Infrastructure Finance and Innovation Act of 2014 (WIFIA) funded by the U.S. Environmental Protection Agency (EPA). In November 2021, EPA invited Valley Water to apply for a WIFIA loan for projects included in the Safe, Clean Water Program. Subsequently, in February 2022, Valley Water submitted the full loan application. The Safe, Clean Water Projects to benefit from the WIFIA funding, if awarded, include the D4.1: Almaden Lake Improvement Project, E1: Coyote Creek Flood Protection, E2: Sunnyvale East and Sunnyvale West Channels Flood Protection and E4: Upper Penitencia Creek Flood Protection.

Risk Factors Impacting Projects

For capital projects, the annual report also utilizes a rating system that provides confidence levels for schedule, funding, permits and jurisdictional complexity (the level to which other entities or jurisdictions can impact a project's deliverables). By applying a confidence level to each of these topics, the IMC and community are aware of the risk factors that could impact the progress and status of each project. The confidence levels are addressed under the Opportunities and Challenges section for each of the capital projects. Appendix C, titled Capital Projects Jurisdictional Complexities, provides the confidence levels for each capital project, including jurisdictional complexity related to funding sources, regulatory permitting, and coordination between cities, counties and other agencies. Listed below are the three confidence levels and their definitions:

High - Applies to projects that have achieved the following: received full funding, received regulatory permits, met schedule milestones (and will continue to move forward on schedule) and, if applicable, jurisdictional complexity issues have been resolved.

Moderate - Applies to projects that are in the process of the following: receiving funding from other sources, receiving permits, recommending the Board approve a schedule adjustment and, if applicable, resolving jurisdictional complexity issues.

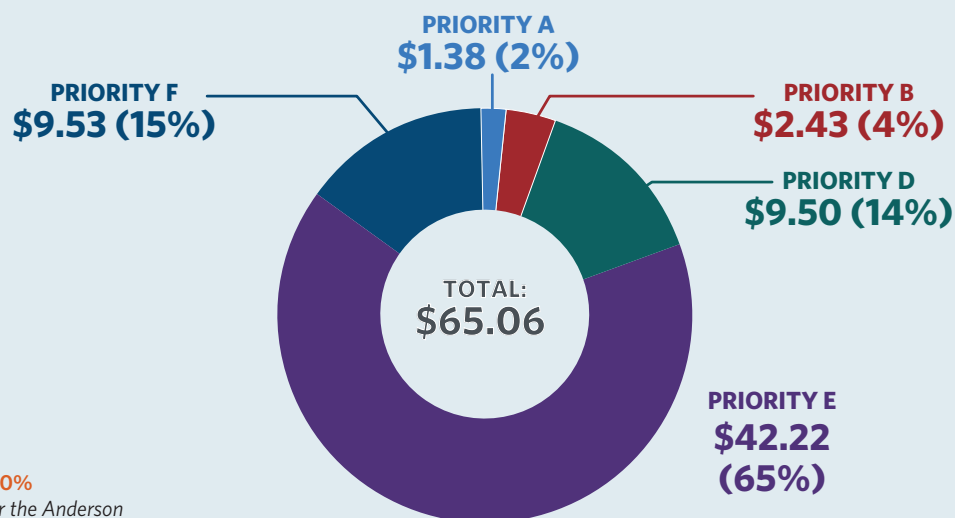
Low - Applies to projects that have a high probability of experiencing or already have been denied funding, denied permits, delayed in schedule and, if applicable, jurisdictional complexity issues that are impacting the project's completion.

Annual Budget and Expenditures

For Fiscal Year 2021-22 (FY22), the adjusted budget for the renewed Safe, Clean Water Program totaled \$146.6 million. Actual funds expended and encumbered as of June 30, 2022 (inclusive of 2012 Safe, Clean Water program closeout costs, current program-related costs and debt service), were approximately \$71.6 million or 49% of the renewed Safe, Clean Water Program's adjusted budget.

The under-spending was primarily due to delays in capital project construction, which occurred for several reasons. These included design changes and coordination with external partners; the need to reapply for environmental regulatory permits due to design changes because of external partnerships; lengthier negotiations with the permitting agencies; additional time required to complete studies in preparation for design or permit applications; and coordination with property owners for Valley Water to acquire right-of-way property rights. Among the capital projects with underspent budgets during FY22 were Sunnyvale East and Sunnyvale West Channels Flood Protection (E2), Upper Penitencia Creek Flood Protection (E4), San Francisquito Creek Flood Protection (E5), Upper Llagas Creek Flood Protection (E6), Almaden Lake Improvement (D4.2) and Bolsa Road Fish Passage Project (D6.2).

Figure 2. FY22 Expenditures: Priorities A-F (\$ millions)



Significant Increase in Construction Costs

The construction industry is in a period of exceptionally steep and fast-rising materials costs, compounded by major supply-chain disruptions and difficulty finding enough workers. In FY21, the actual cost escalation rate reached 14%. Meanwhile, demand for construction remains high. As a result, in FY22, contractors' bid prices were, on average, 12% above Valley Water engineers' estimate. This trend of escalating construction costs is expected to continue through FY24, fueled by high energy costs, inflation and elevated interest rates. Increased construction costs make public investment more difficult. Meanwhile, Valley Water continues to pursue alternative funding sources, including federal and state grants and loans, to counter the effects higher construction costs on the budget.

For further project and contact information, visit <https://www.valleywater.org/safe-clean-water-and-natural-flood-protection-program>.

Figure 3. FY22 Project Status

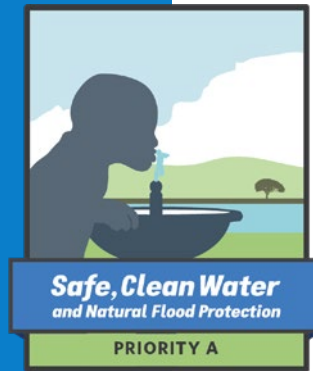
Project	Project Description	Status
Priority A : Ensure a Safe, Reliable Water Supply		
A1	Pacheco Reservoir Expansion	ADJUSTED*
A2	Water Conservation Rebates and Programs	ON TARGET
A3	Pipeline Reliability	ADJUSTED
Priority B: Reduce Toxins, Hazards, and Contaminants in Our Waterways		
B1	Impaired Water Bodies Improvement	ON TARGET
B2	Inter-Agency Urban Runoff Program	ON TARGET
B3	Hazardous Materials Management and Response	ON TARGET
B4	Support Volunteer Cleanup Efforts	ON TARGET
Priority C : Protect our Water Supply and Dams from Earthquakes and Other Natural Disasters		
C1	Anderson Dam Seismic Retrofit	ADJUSTED*
Priority D: Restore Wildlife Habitat and Provide Open Space		
D1	Management of Riparian Planting and Invasive Plant Removal	ON TARGET
D2	Revitalize Riparian, Upland and Wetland Habitat	ON TARGET
D3	Sediment Reuse to Support Shoreline Restoration	ON TARGET
D4	Fish Habitat and Passage Improvement	ADJUSTED
D5	Ecological Data Collection and Analysis	ON TARGET
D6	Restoration of Natural Creek Functions	ADJUSTED
D7	Partnerships for the Conservation of Habitat Lands	ON TARGET
Priority E: Provide Flood Protection to Homes, Businesses, Schools, Streets, and Highways		
E1	Coyote Creek Flood Protection	ON TARGET
E2	Sunnyvale East and Sunnyvale West Channels Flood Protection	ADJUSTED
E3	Lower Berryessa Flood Protection, including Tularcitos and Upper Calera Creeks (Phase 3)	SCHEDULED TO START
E4	Upper Penitencia Creek Flood Protection	ADJUSTED
E5	San Francisquito Creek Flood Protection	ADJUSTED
E6	Upper Llagas Creek Flood Protection	ON TARGET
E7	San Francisco Bay Shoreline Protection	ON TARGET
E8	Upper Guadalupe River Flood Protection	ADJUSTED
Priority F: Support Public Health and Public Safety for Our Community		
F1	Vegetation Control and Sediment Removal for Capacity	ON TARGET
F2	Emergency Response Planning and Preparedness	ON TARGET
F3	Flood Risk Assessment Studies	ON TARGET
F4	Vegetation Management for Access and Fire Safety	ON TARGET
F5	Good Neighbor Program: Encampment Cleanup	MODIFIED
F6	Good Neighbor Program: Graffiti and Litter Removal and Public Art	ON TARGET
F7	Emergency Response Upgrades	ON TARGET
F8	Sustainable Creek Infrastructure for Continued Public Safety	ON TARGET
F9	Grants and Partnerships for Safe, Clean Water, Flood Protection and Environmental Stewardship	ON TARGET

*The project is adjusted only in terms of the Safe, Clean Water Program KPI of providing funding for the two projects and is not reflective of the overall project schedule.

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Priority A

Ensure a Safe, Reliable Water Supply



Priority A projects upgrade aging water infrastructure, such as dams, pipelines and water storage and treatment systems, to reduce the risk of water outages. It includes the Pacheco Reservoir Expansion Project to increase water storage to provide more security for our drinking water supplies in emergencies and the project to provide water conservation rebates and programs to increase water-use efficiency and ensure sustainability for drinking water supplies throughout the county.

Project A1: Pacheco Reservoir Expansion

Project A2: Water Conservation Rebates and Programs

Project A3: Pipeline Reliability



Landscape Rebate Program

PROJECT A1

PACHECO RESERVOIR EXPANSION

A collaboration between Valley Water, the San Benito County Water District and the Pacheco Pass Water District, the Pacheco Reservoir Expansion Project is a strategic and long-term investment toward ensuring a more reliable supply of safe, clean drinking water in the face of climate change.

This project will boost Pacheco Reservoir's operational capacity from 5,500 acre-feet to up to 140,000 acre-feet, enough to supply up to 1.4 million residents with water for one year in an emergency. Located in southeast Santa Clara County, the expanded reservoir will also reduce the frequency and severity of water shortages during droughts, protect our drinking water supply and infrastructure and improve habitat for fish.

Valley Water has taken into consideration 2030 and 2070 projected future conditions with climate change to ensure that the reservoir is not only viable today, but can withstand the changes expected in the future.

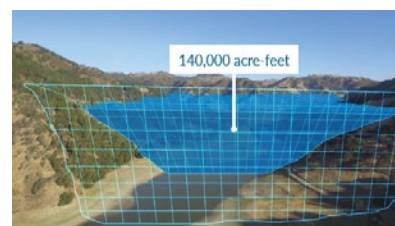
Benefits

- Ensures a reliable supply of drinking water
- Provides an emergency supply of drinking water
- Improves habitat for fish, including federally threatened steelhead
- Reduces flood risk to disadvantaged communities
- Allows for environmental water management that supports habitat projects and other environmental water needs
- Addresses climate change

Key Performance Indicator (FY22-36)

1. Provide a portion of funds, up to \$10 million, to help construct the Pacheco Reservoir Expansion Project.

Geographic Area of Benefit: Countywide



Rendering of the proposed expanded reservoir.

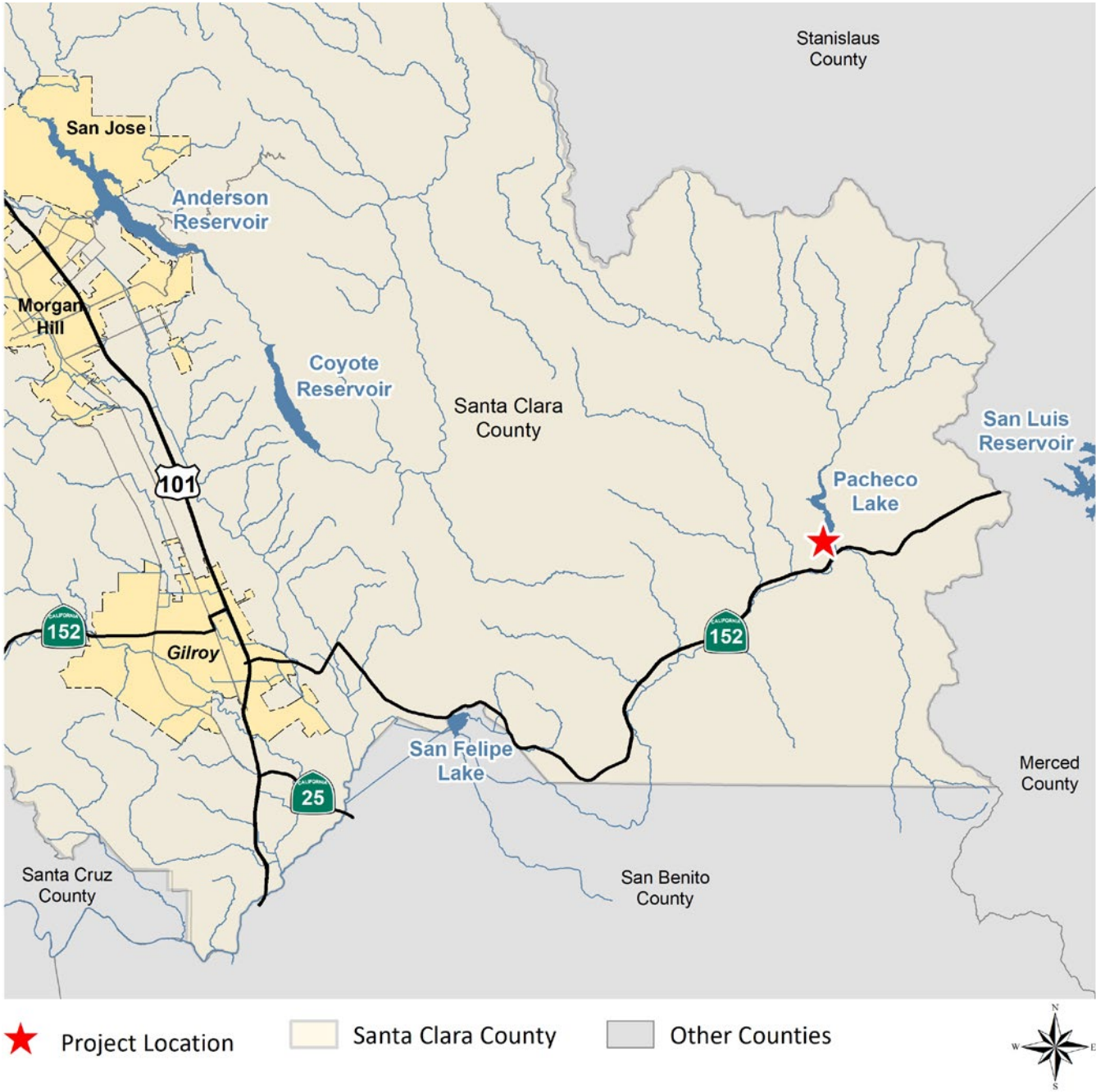
ADJUSTED

Project A1 FY22 Highlights

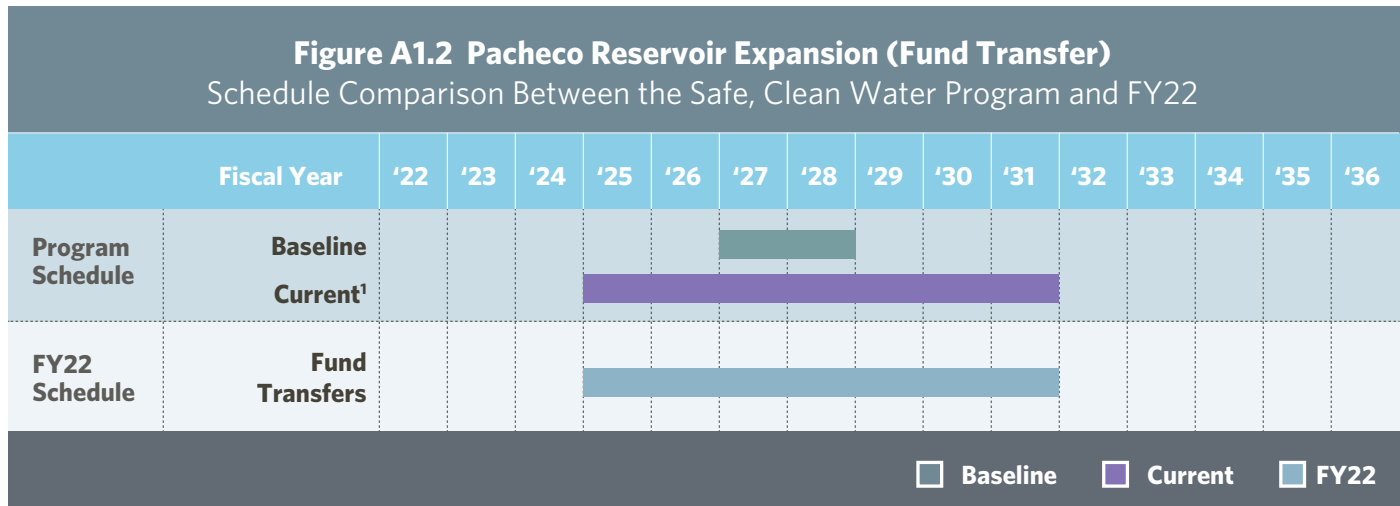
- Released Draft Environmental Impact Report.
- The California Water Commission increased funds to \$504 million from the Prop. 1 Water Storage Investment Program.
- Submitted the Water Infrastructure Finance and Innovation Act federal loan application to the Environmental Protection Agency.

Project Location

Figure A1.1



Schedule



1 Board approved schedule adjustment through the Change Control Process in FY21. The project is adjusted only in terms of the Safe, Clean Water Program KPI of providing funding and is not reflective of the overall project schedule.

Status History

Fiscal Year	Status
FY 22	ADJUSTED

Status for FY22: ADJUSTED (Funding Schedule Adjustment)

The FY22 annual project status is adjusted because, in FY21, the Board approved adjusting the schedule to transfer \$10 million from the Safe, Clean Water Fund (Fund 26) to the Water Utility Fund (Fund 61) over seven years from FY25-31 instead of in two years of FY27 and FY28 as initially planned. The Board approved the fund transfer schedule adjustment on June 8, 2021, during the approval of the Safe, Clean Water Program's 5-Year Implementation Plan: Fiscal Years 2022-2026. The Board's action is to help maintain the health of the Safe, Clean Water Fund in the face of increasing capital project costs.

PROGRESS ON KPI #1:

As per the adjusted schedule, the fund transfer will begin in FY25 and be completed in FY31.

Financial Information

There was no Safe, Clean Water budget allocation for this project in FY22 since, under the adjusted schedule, the first fund transfer is to occur in FY25.

Figure A1.3 Pacheco Reservoir Expansion
Financial Summary (\$ Thousands)

Fiscal Year 2021-2022								15-year Plan	
Adopted Budget	Project Carryforward	Budget Adjustments	Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Adjusted 15-yr Plan Spent
				Actual	Encumbrance	Total			
\$0	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$10,009	0%

Opportunities and Challenges

Progress

On November 9, 2021, the Valley Water Board approved a funding commitment for the project to remain eligible for up to \$496 million in conditional funding from the state's Prop 1 Water Storage Investment Program (WSIP).

On November 17, 2021, Valley Water released the Draft Environmental Impact Report (DEIR). Valley Water extended the DEIR review period from January 21, 2022, to February 15, 2022.

On March 16, 2022, the California Water Commission (CWC) increased the potential funding amounts for the seven projects in WSIP, increasing the total conditional funding for the Pacheco Reservoir Expansion Project to \$504 million.

In April 2022, Valley Water applied for a Water Infrastructure Finance and Innovation Act (WIFIA) loan. It is a low-cost federal loan that is typically cheaper than what Valley Water can borrow on its own.

Permits

Valley Water continues to meet with regulatory agencies to identify the National Environmental Policy Act (NEPA) lead agency for the project. Regulatory agencies provided comments to the DEIR for Valley Water's review. Based on the state Department of Water Resources Division of Safety of Dams' (DSOD's) request, Valley Water will move forward with an earth-fill dam with 140,000 acre-feet reservoir design at the project site.

Confidence levels

Schedule: *Moderate Confidence*

The project is currently in the design phase and on schedule. Valley Water does not own the property, so access to perform site investigations will always be a challenge.

Funding: *Moderate Confidence*

Valley Water Board has committed to funding the project, which continues to be eligible to receive CWC grant funding. Valley Water has applied for a WIFIA loan and continues to solicit outside entities to partner financially.

Permits: *Moderate Confidence*

Valley Water has received Draft EIR comments and is preparing responses with regulators' concurrence. At the request of DSOD, it will be an earth-fill dam and 30% design is complete.

Jurisdictional Complexity: *Moderate Confidence*

San Benito County Water District and the Pacheco Pass Water District are project partners. San Benito County Water District is interested in investing in the project to serve its customers. Pacheco Pass Water District will maintain its water rights and is interested in transferring the Pacheco Reservoir operations and the property to Valley Water.

See Appendix C: Capital projects Jurisdictional Complexities for a list of confidence levels for each project by outside agency for funding, regulatory permitting, cities, counties and other agencies.

PROJECT A2

WATER CONSERVATION REBATES AND PROGRAMS

This project to help meet and exceed long-term water conservation and reliability goals will increase water-use efficiency in the landscape, residential, schools and commercial sectors through water conservation rebates, technical assistance and public education.

Water Conservation rebate programs may include a residential leak detection and assistance program, an expanded landscape rebate program that promotes California-native plant species as well as water-saving plants, advanced metering infrastructure (AMI) and a restaurant-efficiency and school-efficiency upgrade program.

Water use requires a lot of energy to extract, convey, treat and distribute. By reducing the demand for water, conservation reduces greenhouse gas emissions. Conservation also helps adapt to climate change by conserving limited water supplies and lessening demand in the face of an uncertain water-supply future.

Benefits

- Helps county residents exceed the countywide goal of conserving 110,000 acre-feet of water per year by 2040
- Increases water supply reliability
- Reduces greenhouse gases
- Reduces pollution to the Bay by reducing irrigation runoff

Key Performance Indicators (FY22-36)

1. Award up to \$1 million per year toward specified water conservation program activities, including rebates, technical assistance, and public education, within the first seven (7) years of the Program.

Geographic Area of Benefit: Countywide



A volunteer prepares a tree for drought by covering near the base with mulch to save water and add nutrients to the soil.

ON TARGET

Project A2 FY22 Highlights

- Provided \$1 million towards water conservation activities, including rebates.
- Helped double the landscape rebate rate from \$1 per sq ft to \$2 per sq ft.
- Launched pilot water conservation programs.

Status History

Fiscal Year	Status
FY 22	ON TARGET

Status for FY22: **ON TARGET**

PROGRESS ON KPI #1:

Landscape Rebate Program (LRP)

In FY22, Valley Water issued over \$2.3 million in 1,431 rebates to convert more than one million square feet of lawn into water-wise landscapes, to upgrade irrigation equipment and to install rainwater capture systems. Of these rebates, the Safe, Clean Water Program provided \$861,069 for 751 rebates to successfully convert over 861,000 square feet (sq ft) of lawn to low water use plants. The increase in the rebate rate from \$1 per sq ft to \$2 per sq ft made possible by the Safe, Clean Water Program funding as well as expanded messaging due to the severe drought in the county significantly boosted LRP participation, with a 145% rise in applications compared to FY21. Among the sites benefiting from the rebate were:

- 40,417 sq ft of lawn converted at The Waters Condominium Association in Mountain View
- 37,664 sq ft of lawn converted at International Business Machine in San José
- 17,141 sq ft of lawn converted at the San Tomas Commerce Park in Santa Clara

Lawn Busters

In July 2021, Valley Water expanded a partnership with the local nonprofit organization Our City Forest to offer the Lawn Busters Program to low-income community members, US veterans and other disadvantaged community members. With the funding contributions from the Safe, Clean Water Program, payment for converting lawns to low water-use landscapes was increased from \$2 per square foot to \$4 per square foot. In FY22, 22,974 sq ft of lawns were converted across 21 projects. Additional educational services were included in the expanded partnership, and with the support of Valley Water, Our City Forest hosted seven (7) Do-it-Yourself (DIY) Lawn Busters workshops. The workshops covered native plant species selection and landscape design. Participants had the opportunity to remove a turf lawn, install plants and place mulch at a residential site at each workshop.

Webinar Series

Valley Water utilized the Safe, Clean Water funding to offer virtual webinars focused on various outdoor water efficiency topics, monthly from April to June. The webinar series commenced with a sheet mulching program in April 2022. Live language interpretation services were provided to extend access to non-English speakers. Valley Water invited local professionals to share their expertise and provide resources to help enhance public knowledge of drought conditions, associated watering regulations and maintaining water efficient landscapes and irrigation systems. The May event focused on programming irrigation controllers for healthy landscapes to save water and align with Valley Water's two-day per week watering requirement. The June event focused on caring for trees during a drought. The series will continue through the fall (FY23).

2022 Landscape Summit

Valley Water successfully hosted its 2022 Landscape Summit for landscape professionals on February 17, 2022, through a contract with California Water Efficiency Partnership (CalWEP). The 2022 Landscape Summit included the following topics:

- State of the Valley's Water
- How New State Laws Will Impact the Landscape Community
- Introducing the Bloom! Campaign from the California Native Plant Society
- Ask an Expert: Tips and Tricks for Native Plant Maintenance

Qualified Water Efficient Landscaper Training

Valley Water used the Safe, Clean Water Program funding to secure a contractor, CalWEP, to administer the Qualified Water Efficient Landscaper (QWEL) training for landscape professionals who live or work within Santa Clara County. The QWEL training presents an affordable, proactive local approach to reducing landscape water demand. The training provides an expected 240 graduates with knowledge in water efficient and sustainable landscape practices, including water management and preservation of other valuable resources. Valley Water will continue to offer this training throughout FY23 and FY24.

Train-the-Trainer Home-Scale Permaculture Program

Safe, Clean Water funding was used to contract with a local nonprofit, Smart Yards Education, to put on a series of weekend workshops for community members who will disseminate information to others about the importance of outdoor water resource management and conservation. Participants will gain an understanding of the impact of home-scale permaculture water management strategies ("slow it, spread it, sink it"), as well as the skills to design, implement and maintain these systems, including presentations, energy-water nexus, soil and plant relationships. The training is scheduled for spring of 2023 and will prioritize reaching the Spanish-speaking community.

Irrigation Scheduler Web Application Development

Using project funds, Valley Water has contracted an irrigation professional to create online irrigation tools and educational resources for the public to support water conservation through irrigation efficiency. This includes an online irrigation scheduling tool utilizing local weather data to create site specific irrigation schedules. It would also provide for videos to support the online irrigation scheduling tool and general irrigation tips, as well as additional educational resources, such as tree irrigation tips. These much-needed tools and resources will empower the public to better manage their irrigation water usage.

Financial Information

In FY22, 99% of funding was expended.

Figure A2.1 Water Conservation Rebates and Programs
Financial Summary (\$ Thousands)

Fiscal Year 2021-2022							15-year Plan	
Adopted Budget	Project Carryforward	Budget Adjustments	Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan
				Actual	Encumbrance	Total		
\$1,013	\$0	\$0	\$1,013	\$1,000	\$0	\$1,000	99%	\$7,892
								13%

Opportunities and Challenges

Program Enhancement and Development

Safe, Clean Water Program funding allowed Valley Water to pilot additional programs, including the webinar series and Train-the-Trainer Home-Scale Permaculture Program which would not have been possible without this funding. It also allowed for an increase in participation in existing programs, increasing the likelihood of the community meeting Valley Water's long-term savings targets of nearly 99,000 acre-feet in 2030 and nearly 110,000 acre-feet in 2040. The total square footage of lawn converted in FY22, at just over 1 million was more than the three previous fiscal years combined.

Additional resources required to meet increased rebate demand

The increased rebate rate enabled by the Safe, Clean Water Program funding coinciding with the drought call was both a challenge and an opportunity. Opportunity because the drought further increased public awareness and demand for the rebates, but a challenge because the significant spike in participation led to increased wait times and the need to bring on

more full-time and temporary staff, interns and vendor support to handle the increase. Significant time investments were needed to train new staff effectively. The increased participation levels created an environment to obtain vendors who could ensure consistent customer service. This allowed staff to focus on higher level program management and enhancement.

COVID-19 impacts

There was a reduced commitment from the public to attend the DIY Lawn Busters Workshops' hands-on learning projects due to COVID-19 concerns and protocols. Additionally, there was a backlog of Lawn Busters applications as COVID-19 affected processing and project timelines through impacts to recruitment and inspection processes.

Labor shortage challenge

Our City Forest relies on AmeriCorps staff, which experienced a labor shortage, thus impacting the Lawn Busters Program.

PROJECT A3

PIPELINE RELIABILITY PROJECT

This project constructs four (4) line valves at various locations along the East, West and Snell treated water pipelines in Saratoga, Cupertino and San José.

Continued from the 2012 Safe, Clean Water Program, this project is closing out its design phase and nearing construction. Once constructed, this project will allow Valley Water to isolate sections of pipelines for scheduled maintenance and repairs following a catastrophic event, such as a major earthquake, and allow the network of emergency wells to operate, even when there is damage upstream and downstream of individual wells.

Benefits

- Supports shorter service interruption in the case of a pipeline break
- Provides operational flexibility for pipeline maintenance work
- Improves drinking water reliability
- Reduces the amount of water released in streams in the event of a pipeline maintenance or repair

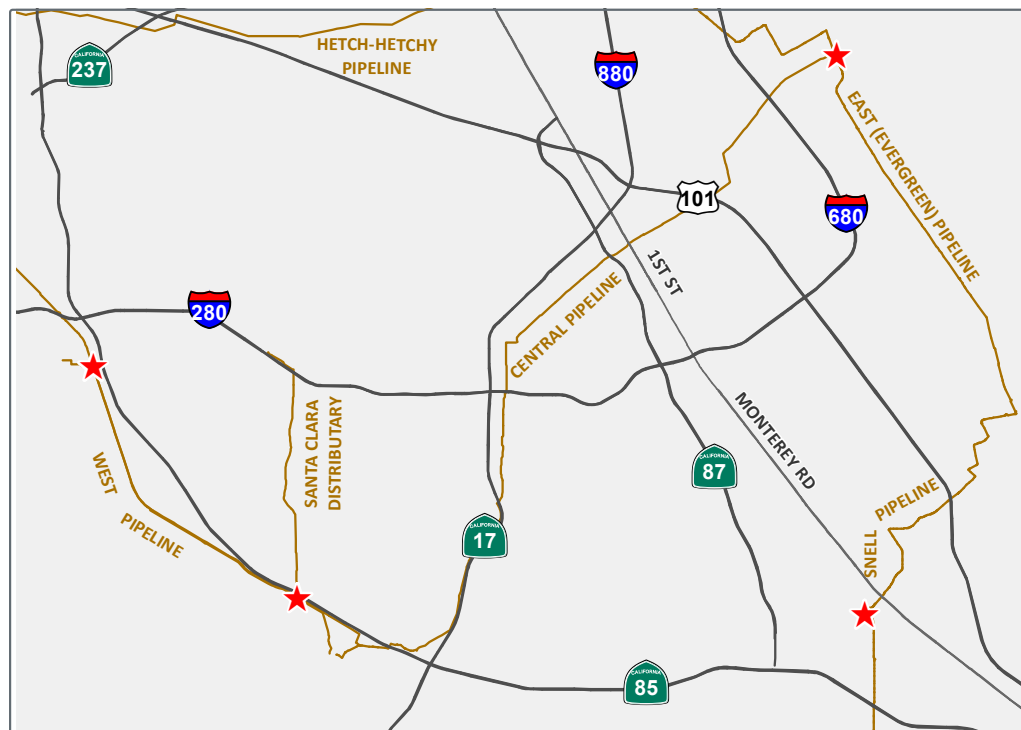
Key Performance Indicator (FY22-36)

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

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

Project Location

Figure A3.1



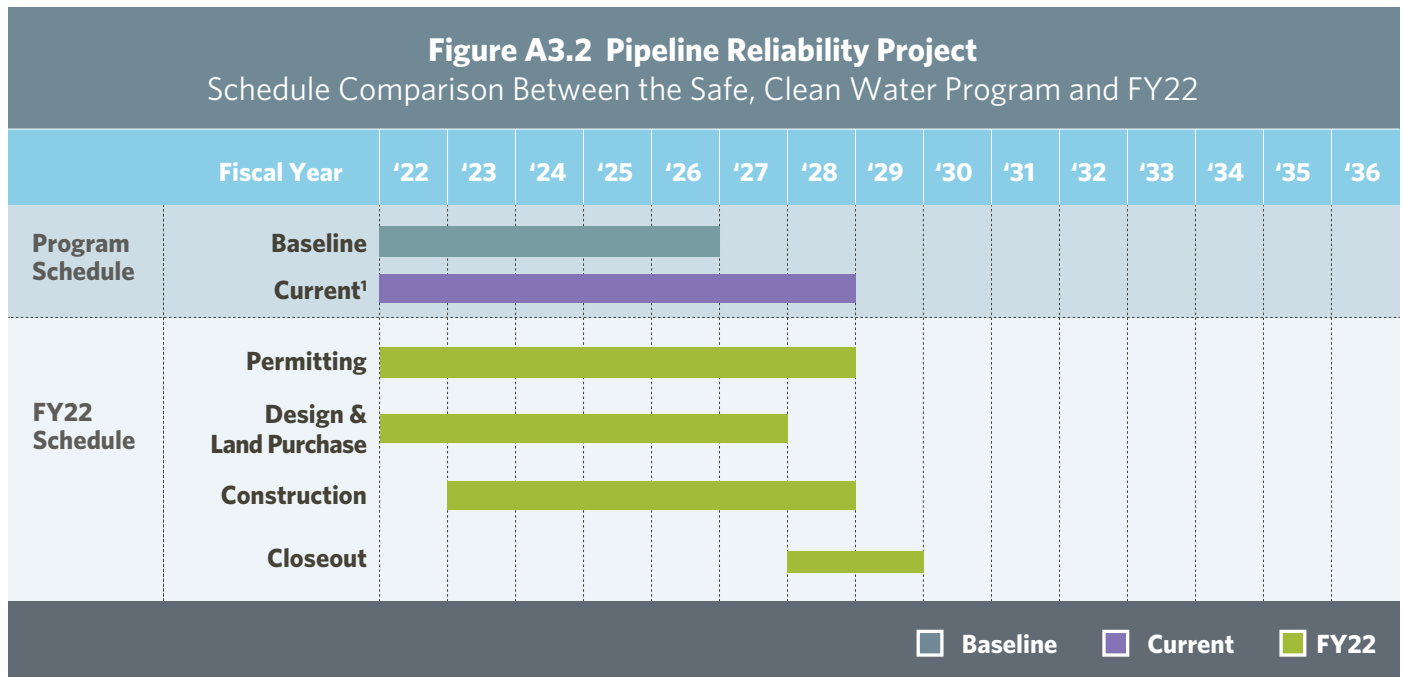
Plunger Valve at Main Avenue Ponds Vault.

ADJUSTED

Project A3 FY22 Highlights

- Completed the 100% design documents for the four (4) line valves.

Schedule



1 Board approved schedule adjustment through the Change Control Process in FY21.

Status History

Fiscal Year	Status
FY 22	ADJUSTED

Status for FY22: **ADJUSTED** (Schedule Adjustment)

The FY22 annual project status is “Adjusted” because, in FY21, the Board approved a schedule adjustment, extending the project completion date by two years to FY28 instead of FY26. The project is incorporated into Valley Water’s 10-Year Pipeline Inspection and Rehabilitation program to ensure coordination with the long-term operations and maintenance pipeline shutdown schedule. The schedule adjustment was required due to updates to the Pipeline Inspection and Rehabilitation program, developed with input from water retailers. The Board approved the schedule adjustment on May 11, 2021, during the approval of the Fiscal Years 2022-2026 Five-Year Capital Improvement Program (CIP). As a result, the project is now scheduled to begin construction of the first valve in the summer of FY23 and complete the final valve in FY28.

PROGRESS ON KPI #1:

In FY22, Valley Water completed the 100% design documents for the four (4) line valves. Construction is scheduled for FY23 through FY28, in conjunction with the 10-Year Pipeline Inspection and Rehabilitation Program. The first valve to be constructed is on Snell Pipeline, followed by two along West Pipeline and the final along East Pipeline.

Financial Information

In FY21, 133% of the annual project budget was expended.

The over-expenditure was associated with the acquisition of easements for the project.

Figure A3.3 Pipeline Reliability Project
Financial Summary (\$ Thousands)

Fiscal Year 2021-2022								15-year Plan	
Adopted Budget	Project Carryforward	Budget Adjustments	Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Adjusted 15-yr Plan Spent
				Actual	Encumbrance	Total			
\$315	(\$30)	\$0	\$285	\$380	\$0	\$380	133%	\$9,930	4%

Opportunities and Challenges

Acquisition of Easements

Permanent and temporary easement acquisitions are required for the project. Easements will be needed from Pacific Gas and Electric (PG&E), the Union Pacific Railroad and private property owners. Line valves will be installed in existing Valley Water pipeline easements and public rights-of-way to the greatest extent possible.

Confidence Levels

Schedule: *Moderate Confidence*

The installation of the valves will require the pipelines to be dewatered, which will take the pipeline out of service. Project construction is coordinated with the long-term maintenance plan and other projects to minimize the water supply disruption to the community. It is currently projected that construction will be completed in FY28 due to maintenance and other projects.

Funding: *High Confidence*

Funding from the Safe, Clean Water Program is expected to be sufficient to complete the project work.

Permits: *Moderate Confidence*

Permit acquisition from Union Pacific Railroad may be challenging. There has been no indication that permit acquisition from other agencies or entities will be challenging.

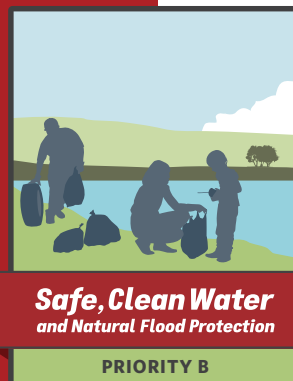
Jurisdictional Complexity: *Moderate Confidence*

Valley Water is coordinating with the County of Santa Clara, City of San José, City of Saratoga, City of Cupertino, PG&E, the Union Pacific Railroad and the West Valley Sanitation District. Union Pacific Railroad may pose some jurisdictional issues. There has been no indication that jurisdictional issues would arise from other agencies or entities.

See Appendix C: Capital Projects Jurisdictional Complexities for a list of confidence levels for each project by outside agency for funding, regulatory permitting, cities, counties and other agencies.

Priority B

Reduce Toxins, Hazards, and Contaminants in Our Waterways



Priority B projects use multiple strategies to reduce and remove contaminants in our local creeks, streams and bays. Along with mercury treatment systems in our reservoirs, projects under this priority prevent toxins from entering waterways by working with municipalities and other agencies across the region to reduce runoff pollution. The priority includes funding to support the implementation of green stormwater infrastructure and provide rapid emergency response to hazardous materials spills and support volunteer cleanup efforts.

Project B1: Impaired Water Bodies Improvement

Project B2: Inter-agency Urban Runoff Program

Project B3: Hazardous Materials Management and Response

Project B4: Support Volunteer Cleanup Efforts



Water Column Sampling

PROJECT B1

IMPAIRED WATER BODIES

IMPROVEMENT

This project reduces pollutants in streams, reservoirs and groundwater of Santa Clara County by supporting surface water quality pollution prevention activities. These programs address water quality concerns currently identified by local and state regulatory agencies, as well as contaminants of emerging concern. Initiatives under this project are consistent with the Regional Water Quality Control Board (RWQCB) impaired water bodies designation and Total Maximum Daily Loads (TMDLs), which are the maximum amount of a pollutant that a water body can receive and still safely meet water quality standards. Under this project, Valley Water studies and implements methods to reduce methylmercury formation in reservoirs, and helps create and carry out realistic plans to reduce contaminants, such as nutrients, bacteria, pesticides, polychlorinated biphenyls (PCBs) and others, in local creeks and reservoirs.

This project addresses both greenhouse gas (GHG) reduction and climate change adaptation, as reservoirs are a major source of GHG emissions (i.e. methane) during low oxygen conditions. Oxygenation is the current mechanism to control mercury in fish and may reduce methane emissions. Oxygenation can also reduce the formation of harmful algal blooms, which may become more frequent with warmer temperatures.

Benefits

- Reduces contaminants in streams and reservoirs
- Improves water quality, including water slated for drinking water treatment plants
- Increases understanding of mercury cycling in reservoirs to develop strategies that reduce toxic methylmercury in fish consumed by people and wildlife
- Increases the scientific understanding of environmental pollutants to assist in developing actions to manage them
- Supports regulatory compliance with surface water quality standards for local creeks and reservoirs
- Addresses climate change

Key Performance Indicators (FY22-36)

1. Investigate, develop, and implement actions to reduce methylmercury in fish and other organisms in the Guadalupe River Watershed.
2. Prepare and update a plan for the prioritization of surface water quality improvement activities, such as addressing trash and other pollutants.
3. Implement at least two (2) priority surface water quality improvement activities identified in the plan per 5-year implementation period.

Geographic Area of Benefit: Countywide



Lichen sampling at Guadalupe Reservoir for analysis to determine atmospheric mercury deposition.

ON TARGET

Project B1 FY22 Highlights

- Operated oxygenation treatment systems in two (2) reservoirs (Almaden and Calero)
- Completed monthly water quality monitoring at Almaden, Guadalupe, Calero, and Stevens Creek reservoirs, and quarterly monitoring at Almaden Lake.
- Entered into a collaborative agreement with the University of California, Merced to study the use of sorbents for mercury remediation in mine-impacted reservoirs.
- Entered into a collaborative agreement with the University of California, Santa Cruz, to study local atmospheric mercury deposition near the New Almaden Mining District.
- Coordinated with project partners to implement the second 5-year phase of the Coordinated Monitoring Program for the Guadalupe River Watershed Mercury TMDL project.
- Implemented three (3) surface water quality improvement activities across nine (9) water bodies

Status History

Fiscal Year	Status
FY 22	ON TARGET

Status for FY22: **ON TARGET**

PROGRESS ON KPI #1:

In FY22, Valley Water conducted several activities to investigate, develop, and implement actions to reduce methylmercury in fish and other organisms in the Guadalupe River Watershed. These activities are listed below.

- Valley Water deployed hypolimnetic oxygenation systems (HOSs) at Almaden Reservoir from May to September 2021 and at Calero Reservoir from May to October 2021. The HOSs were redeployed at these reservoirs in May 2022. HOSs were not deployed at Guadalupe and Stevens Creek reservoirs due to low reservoir water levels and the need to preserve cold water releases for fish downstream. HOS operation can increase the temperature of reservoir releases, particularly when storage volume is low. To maintain cold water releases for as long as possible, Valley Water decided to delay oxygenation until drought conditions improve. Although Stevens Creek Reservoir is not in the Guadalupe River Watershed, it still contains fish with elevated mercury and is included in the study for comparative purposes.
- Valley Water continued modeling to investigate the possible warming effects of HOS operation and researching alternative treatment methods (described below). Based on modeling results, Valley Water decreased the flow rate of the Almaden Reservoir HOS in summer 2022 to meet oxygenation goals while minimizing the warming of reservoir outflow.
- Also, Valley Water briefly continued the operation and evaluation of four (4) solar-powered circulators in Almaden Lake to improve dissolved oxygen concentration at the lake bottom. The circulators were turned off in August 2021 and not operated for the remainder of FY22 to avoid mixing nutrient-rich bottom water into the surface where it could stimulate algae blooms. Given these constraints, Valley Water does not expect to restart the circulators and plans to remove them during the Almaden Lake Improvement Project (Project D4: Fish Habitat and Passage Improvement).
- Valley Water completed monthly water quality monitoring at Almaden, Guadalupe, Calero and Stevens Creek reservoirs. Valley Water monitored Almaden Lake monthly through December 2021, after which the RWQCB approved reducing monitoring frequency from monthly to quarterly. In August 2021, Valley Water completed fish monitoring at Almaden, Calero, Guadalupe and Stevens Creek reservoirs. In December 2021, Valley Water submitted a biennial progress report on mercury TMDL activities to RWQCB. The report can be found at tinyurl.com/GuadalupeMercuryTMDL2021.
- Pursuant to the adaptive implementation of the Guadalupe River Watershed Mercury TMDL Program for the 2022-2023 reporting period, Valley Water will initiate a collaborative research project with the University of California, Merced (UC Merced) to study sorbent treatment methods for mercury control as an alternative to reservoir oxygenation. Sorbent treatment methods have the benefit that they do not cause warming or mixing. The project aims to develop a sorbent application method that could be used in a field trial in Guadalupe Reservoir in lieu of hypolimnetic oxygenation. In FY22, Valley Water executed a collaborative agreement with UC Merced to conduct a two-year laboratory evaluation. The project will begin in early FY23.
- In December 2021, Valley Water entered into a collaborative agreement with the University of California, Santa Cruz, to study local atmospheric mercury deposition near the New Almaden Mining District using lichens as bioindicators. Field data collection was completed in spring 2022. Sample analysis and reporting were underway and a technical report is expected in FY23.
- Valley Water coordinated with project partners and the RWQCB to implement the second 5-year phase of the Coordinated Monitoring Program for the Guadalupe River Watershed Mercury TMDL project. Valley Water partners with the County of Santa Clara, Midpeninsula Regional Open Space District, and Guadalupe Rubbish Disposal Company on the TMDL project. For more information on the TMDL project, visit tinyurl.com/GuadalupeMercuryTMDL. Stream fish monitoring scheduled for summer 2021 was delayed as four (4) of the six (6) approved monitoring stations were dry or with water temperature exceeding permit thresholds. Fish monitoring will resume when drought conditions improve.

PROGRESS ON KPI #2:

Valley Water periodically reviews the Prioritization and Implementation of Pollution Prevention and Reduction Activities Plan to Address Impaired Water Bodies in Santa Clara County (Prioritization Plan). The review follows the San Francisco Bay RWQCB Triennial Review of the Basin Plan, which prioritizes projects addressing various impairment types. Valley Water uses RWQCB's Triennial Review and its list of impaired water bodies to evaluate potential projects in water bodies within our jurisdiction. RWQCB completed its Triennial Review in November 2021, and Valley Water will begin updating the Prioritization Plan in summer 2022 (FY23). Since RWQCB priorities change over time as impairments are addressed and new problems are identified, the Prioritization Plan is a living document that is updated according to changing priorities. The June 2017 Prioritization Plan can be accessed at tinyurl.com/PrioritizationPlan2017.

PROGRESS ON KPI #3:

In FY22, Valley Water implemented three (3) surface water quality improvement activities. Figure B1.1 lists the activities and applicable waterbodies.

Surface Water Quality Improvement Activity #1: Accumulation Point Mapping and Removal (Coyote Creek and Guadalupe River)

Valley Water and the City of San José completed visual trash assessments along Coyote Creek in October 2021 and Guadalupe River in November 2021. In spring 2022, 40 cubic yards of trash were removed from Coyote Creek and 105 cubic yards of trash were removed from Guadalupe River. The Coyote Creek and Guadalupe River Trash Accumulation Point GIS map can be accessed at tinyurl.com/TrashRafts2021.

Surface Water Quality Improvement Activity #2: Reservoir Greenhouse Gas Emission Study

Valley Water is conducting a collaborative project with the University of California, Davis, to study greenhouse gas emissions from the surfaces of Almaden, Chesbro, Stevens Creek, and Uvas reservoirs. Since January 2021, researchers have completed sampling events to measure gas storage in reservoir sediments (measured quarterly) and greenhouse gas fluxes from reservoir surfaces in conjunction with atmospheric and water quality data (measured monthly). Data collection will continue through 2022, and results will be synthesized in a final report or manuscript. The primary goal of the study is to quantify greenhouse gas emissions from all Valley Water reservoirs for incorporation into its inventory of greenhouse gases. Valley Water uses this greenhouse gas inventory to achieve carbon neutrality through its Climate Change Action Plan.

Surface Water Quality Improvement Activity #3 Unhoused Best Practices

Valley Water is collaborating with the Santa Clara County Parks and Recreation Department and the cities of Morgan Hill and Gilroy to provide vouchers for responsible disposal of wastewater for unhoused individuals living in RVs. Vouchers can be used for free RV waste disposal at Coyote Lake and Mt. Madonna County Parks. In FY22, Morgan Hill and Gilroy homeless outreach providers distributed waste disposal vouchers to unhoused individuals.

Figure B1.1 Priority Pollution Prevention and Reduction Activities	
Water Quality Improvement Activity	Waterbody ¹
#1: Accumulation Point Mapping and Removal	Coyote Creek Guadalupe River
#2: Reservoir Greenhouse Gas Emission Study	Almaden Reservoir Chesbro Reservoir Stevens Creek Reservoir Uvas Reservoir
#3: Unhoused Best Practices	Pajaro River Llagas Creek Uvas Creek
Total: 3 Pollution Prevention Activities	9 Waterbodies

¹ "Waterbody" includes creeks, lakes and reservoirs.

Financial Information

In FY22, 97% of the annual project budget was expended.

Figure B1.2 Impaired Water Bodies Improvement Financial Summary (\$ Thousands)									
Fiscal Year 2021-2022								15-year Plan	
Adopted Budget	Project Carryforward	Budget Adjustments	Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Adjusted 15-yr Plan Spent
				Actual	Encumbrance	Total			
\$1,686	\$0	\$0	\$1,686	\$1,313	\$319	\$1,632	97%	\$33,510	6%

Opportunities and Challenges

Pollution Prevention Partnership Opportunities

Valley Water continues to explore partnerships with cities, non-profits and volunteer groups to implement priority pollution prevention and reduction activities in 10 water bodies throughout the county. This includes:

- Working with the City of San José on trash in Guadalupe River and Coyote Creek.
- Increased collaboration with the RWQCB and mercury researchers, as well as invitations to present mercury findings at various conferences.
- Partnership with USGS and UC Merced on mercury studies.
- Coordinated Monitoring Program for Guadalupe River mercury monitoring.
- Active participation in the California Lake Management Society.

In addition, the project is coordinated with the ongoing Guadalupe and Calero dam seismic retrofit projects to protect and improve reservoir water quality.

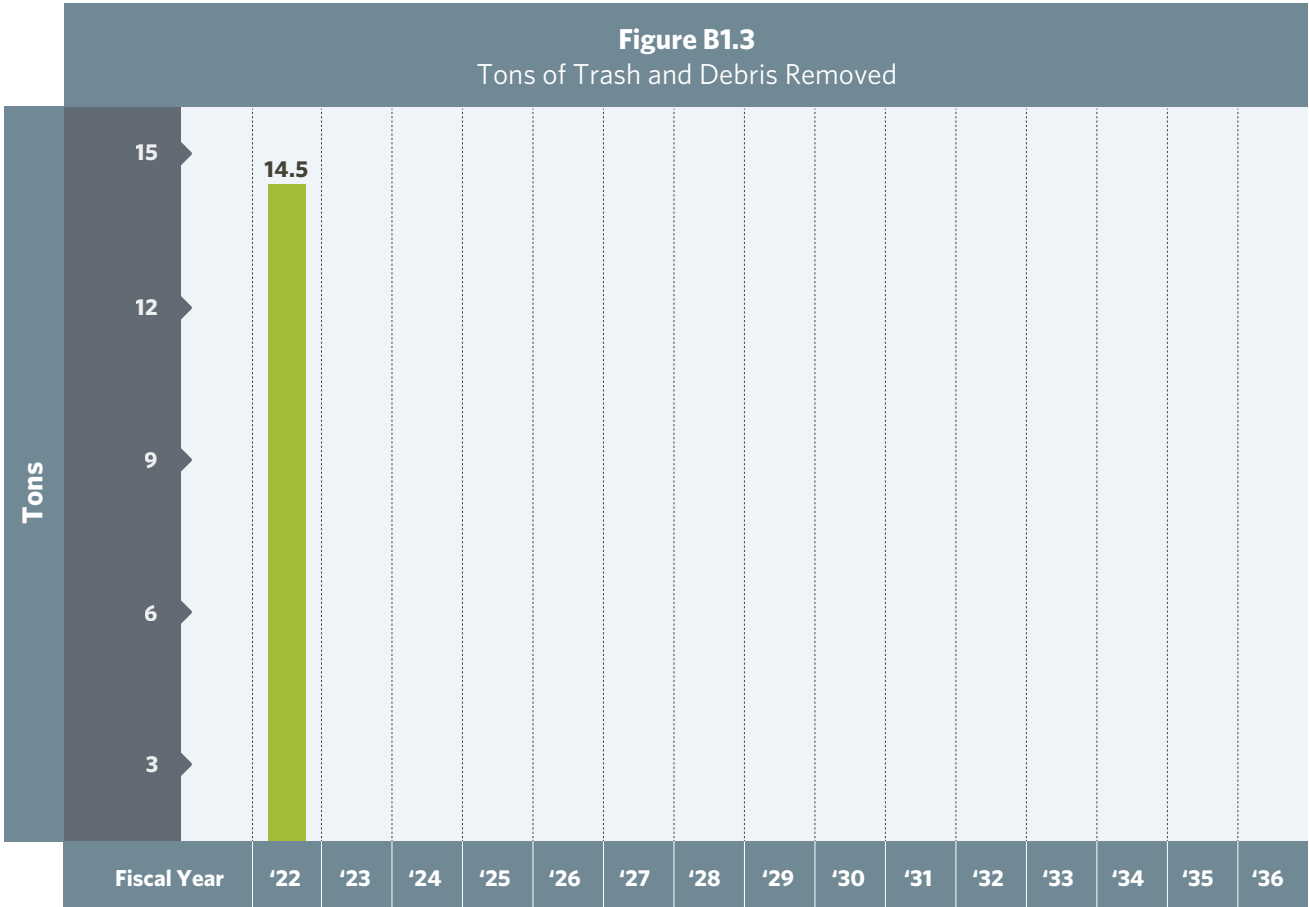
Oxygenation Opportunities and Challenges

Operating the oxygenation systems consistently can be a challenge due to maintenance issues. The systems require stable voltages and specialized maintenance. The reservoirs are in rural areas that sometimes experience power failures or voltage fluctuations. This caused shutdowns that required manual reset. High ambient air temperatures resulted in additional shutdowns due to overheating. To avoid overheating, Valley Water preemptively shut down the systems when high temperatures were predicted. Maintaining the functionality of the air compressors and oxygen generators requires frequent inspections and maintenance, which are both costly.

Hypolimnetic oxygenation using line diffuser systems may increase temperature, turbidity and algae blooms, especially under drought or low water conditions. Guadalupe and Stevens Creek Reservoirs were not oxygenated in 2021 or 2022 due to low water levels and concerns about temperature and turbidity increases in reservoir releases.

To better understand the effects of the oxygenation system on Stevens Creek Reservoir discharge, Valley Water conducted a one-year study that began in June 2020. The study results will help Valley Water optimize the operation of the oxygenation system to maximize overall benefits. The study plan can be found at tinyurl.com/StevensCkStudy2021. A project data report has been completed and can be found at tinyurl.com/StevensCkData2021.

To address drawbacks of HOSs and achieve better methylmercury reduction in fish, Valley Water is exploring other activities such as the sorbent study described above, modeling to optimize systems, and alternative methods of oxygenation that may lessen negative effects.



PROJECT B2

INTER-AGENCY URBAN RUNOFF PROGRAM

This project supports Valley Water’s continued participation in the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) and South County stormwater programs. These programs enable Valley Water to reduce stormwater pollution through technical support and regional leadership. In addition, this project supports stormwater pollution prevention activities in South County Watersheds and green stormwater infrastructure (GSI). GSI allows rainwater runoff from roads, parking lots and other impervious surfaces to soak into the ground and be filtered by soil rather than discharge into storm drains that transport the water to creeks.

Project B2 allows Valley Water to participate in the regulatory development process related to stormwater by participating in stormwater permit re-issuance and providing review, analysis and comments on various water quality regulatory efforts. This project also allows Valley Water to collaborate with local agencies on public education and outreach activities to help prevent urban runoff pollution at the source.

Multi-benefit projects, such as green stormwater infrastructure, are important strategies to address water quality. Green infrastructure uses plants to soak water into the ground, which slows down, spreads and helps absorb rainwater instead of having it go down a storm drain. This improves water quality, can increase groundwater supplies and reduces peak flows to a creek.

Benefits

- Partners with municipalities and other agencies to reduce contaminants in stormwater and improve surface water quality in our streams, reservoirs, lakes and wetlands
- Maintains Valley Water compliance with the Regional Water Quality Control Board requirements in National Pollutant Discharge Elimination System (NPDES) permits
- Allows continued participation in SCVURPPP and South County urban runoff programs
- Allows Valley Water to help direct required monitoring efforts in ways that benefit Valley Water programs and projects
- Promotes stormwater pollution prevention
- Facilitates collaboration with partners on stormwater projects that provide multiple benefits and support Valley Water’s mission
- Addresses climate change

Key Performance Indicators (FY22-36)

1. Address trash in creeks by maintaining trash capture devices or other litter control programs.
2. Maintain Valley Water’s municipal stormwater compliance program and partner with cities to address surface water quality improvements, including participation in at least three (3) countywide, regional, or statewide stormwater program committees to help guide regulatory development, compliance, and monitoring.
3. Support at least one (1) stormwater quality improvement activity per 5-year implementation period in Santa Clara County, including providing up to \$1.5 million over 15 years to support implementation of green stormwater infrastructure consistent with Santa Clara Basin and South County Stormwater Resource Plans

Geographic Area of Benefit: Countywide



Trash boom cleaning at Thompson Creek.

ON TARGET

- Operated four (4) trash capture devices (booms) in the county, collecting approximately 2.5 tons of trash.
- Cleaned 12 hot spots, removing 0.4 tons of trash.
- Maintained several partnerships with cities and the county.
- Initiated the second phase of the South County Pet Waste Outreach Project
- Continued working with the Central Coast Regional Water Board to reduce nutrient loading in the Uvas/Llagas Watershed.

Status History

Fiscal Year	Status
FY 22	ON TARGET

Status for FY22: **ON TARGET**

PROGRESS ON KPI #1:

In FY22, a total of four (4) trash capture devices (booms) were operated in Santa Clara County. Approximately 25 cubic yards (2.5 tons) of trash were collected and removed in San José and approximately 0.18 cubic yard (0.018 ton) were collected and removed in Palo Alto (Figure B2.3).

The four (4) booms were located at:

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

The City of Palo Alto manages the Matadero and Adobe creek booms under an agreement with Valley Water, which obtained environmental permits. Per the agreement, the two (2) booms in Palo Alto are removed each year between December and April, while the booms in San José are typically left in the creeks all year. Valley Water inspects all booms regularly.

In addition to booms, the stormwater National Pollutant Discharge Elimination System (NPDES) permit requires Valley Water to clean up designated “hot spots.” Under Project B2, 12 hot spots were cleaned this year, removing 4.3 cubic yards (0.43 ton) of trash.

PROGRESS ON KPI #2:

Maintained Municipal Stormwater Compliance Program

In FY22, Valley Water maintained the municipal stormwater compliance program as required under the Municipal Regional Stormwater Permit (MRP) of the NPDES stormwater program.

In FY22, permittees, including Valley Water, worked with the San Francisco Bay Regional Water Quality Control Board (RWQCB) on planning for the re-issuance of the MRP. The current MRP expired at the end of 2020 but was administratively extended to allow additional time for the development of the reissued permit, which became effective on July 1, 2022.

Maintained Partnerships with Cities and Santa Clara County

In FY22, Valley Water maintained North County partnerships through participation in the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP). SCVURPPP is a partnership with Santa Clara County and 13 cities within the county to reduce pollution in urban runoff to the “maximum extent practicable” which will improve the water quality of South San Francisco Bay and the streams of Santa Clara County. Valley Water staff chairs the SCVURPPP Management Committee. Valley Water participated in various regional stormwater workgroups in cooperation with SCVURPPP and other countywide stormwater organizations. More information about SCVURPPP partnership activities:

- Valley Water contributes 30% of the SCVURPPP and chairs the management committee. More information can be found at <https://scvurppp.org>.
- Information on the SCVURPPP regional outreach program can be found at <https://www.mywatershedwatch.org>.
- SCVURPPP, municipalities and Valley Water submit annual stormwater reports to the RWQCB with accomplishments on the required activities. The reports are available at <https://smarts.waterboards.ca.gov/smarts/faces/SwSmartsLogin.xhtml>.

Valley Water also maintained South County partnerships by participating in the South County Stormwater Coordination Committee. The committee includes representatives from Valley Water, the County and the cities of Gilroy and Morgan Hill.

The committee meets regularly to discuss pollution prevention, stormwater permit compliance and other relevant issues.

Valley Water continued participating in the Santa Clara County Technical Advisory Committee (TAC) to the Recycling and Waste Reduction Commission (RWRC). The TAC works on various relevant issues, including waste and litter reduction, outreach, green business and reducing disposables.

Additionally, Valley Water served on California Stormwater Quality Association (CASQA) subcommittees. More information is available at <https://www.casqa.org/about/subcommittees>.

PROGRESS ON KPI #3:

In FY22, Valley Water initiated efforts to support two stormwater quality improvement activities in Santa Clara County.

South County Pet Waste Outreach

Valley Water worked with Santa Clara County and the cities of Morgan Hill and Gilroy to conduct a second phase of the South County Pet Waste Outreach project outreach in the spring and summer of 2022. This followed the success of the initial FY21 project that was funded by the 2012 Safe, Clean Water Program.

The initial project included signage in public parks, a mailer and a digital survey that provided information on the surface water quality impacts of improperly disposed of pet waste. After the outreach was completed in June 2021, field surveys reported an overall decrease in pet waste, especially in areas with signage.

The second phase of the project focused on additional locations in South County, including dog parks. Results from the second year of outreach will be available in FY23.

South County Nutrient Program

Valley Water continued working with Central Coast Regional Water Board to identify ways Valley Water can assist in reducing nutrient loading in the Uvas/Llagas Watershed. This followed Valley Water's spatial analysis of South County agricultural parcels to identify farms at high risk for nutrient and pesticide pollution. The analyses, funded by the 2012 Safe, Clean Water Program, considered a robust collection of attributes, including predicted nitrate concentrations in shallow groundwater, crop and irrigation type and soil erosivity.

Financial Information

In FY22, 83% of the annual project budget was expended.

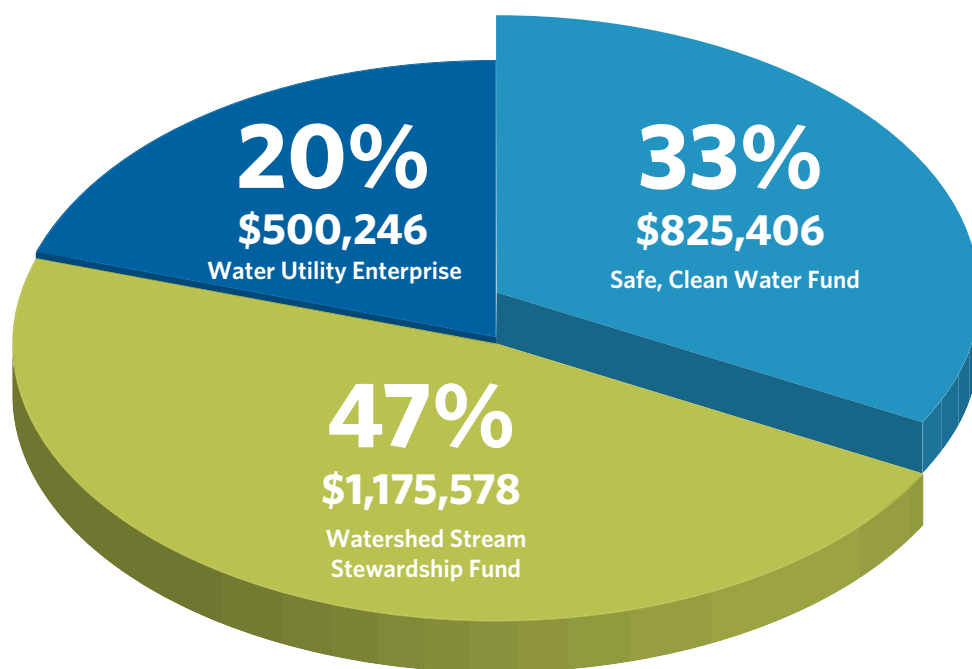
The under-expenditure was due to several factors. The Santa Clara Valley Urban Runoff Pollution Prevention Program refunded several years of accumulated unspent funds in the form of discounted annual fees. Additionally, low flow conditions in creeks exacerbated by ongoing drought conditions resulted in less trash and debris accumulation at trash booms. Fewer cleanup services than anticipated were needed to adequately service the trash booms. Finally, COVID-related downsizing resulted in curtailments of outreach events.

Figure B2.1 Inter-agency Urban Runoff Program Financial Summary (\$ Thousands)									
Fiscal Year 2021-2022								15-year Plan	
Adopted Budget	Project Carryforward	Budget Adjustments	Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Adjusted 15-yr Plan Spent
				Actual	Encumbrance	Total			
\$825	\$0	\$0	\$825	\$685	\$0	\$685	83%	\$19,758	3%

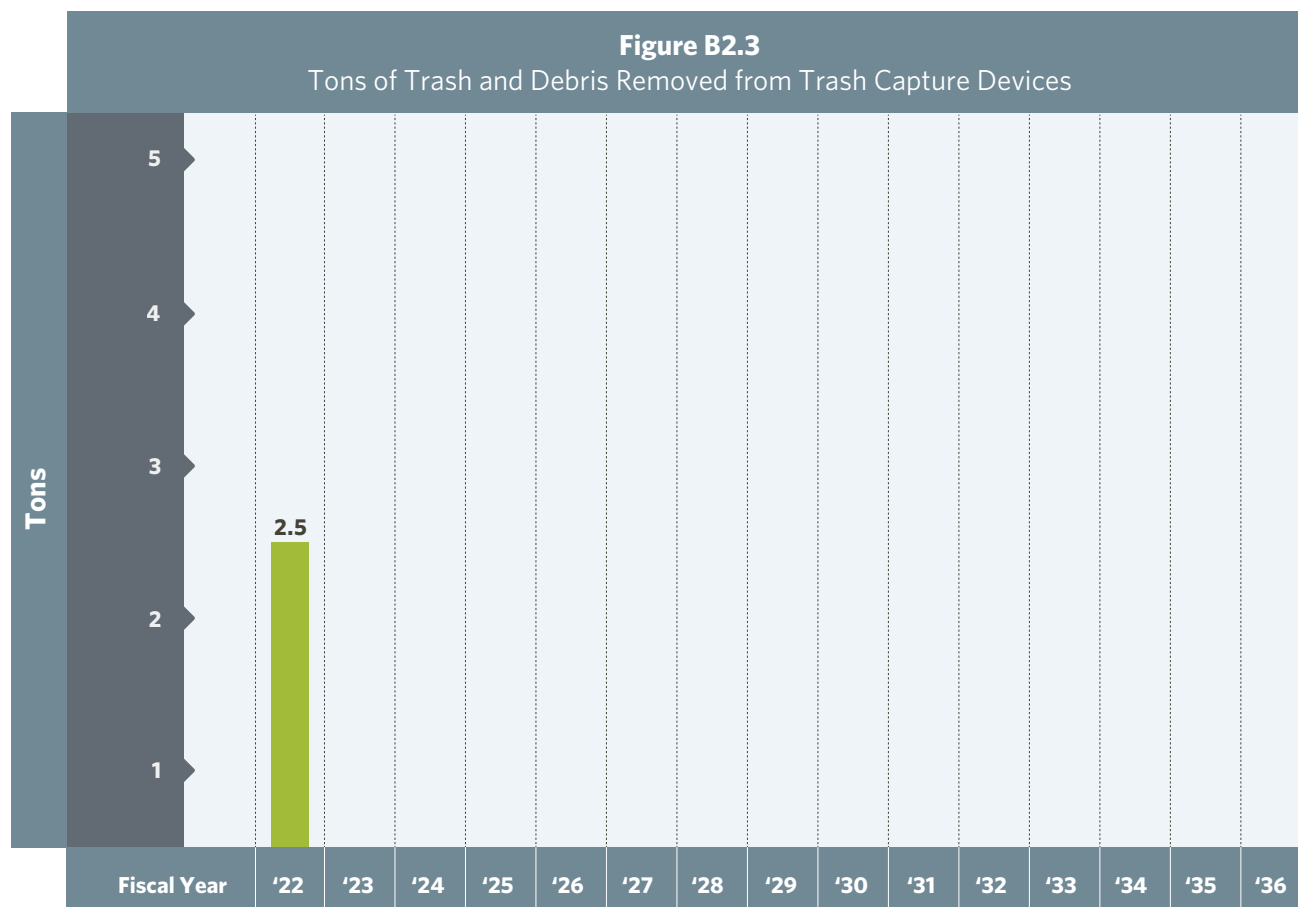
Figure B2.2

Inter-agency Urban Runoff Program

Total FY22 Project Budget: \$2,501,230



Valley Water funds this project with more than the Safe, Clean Water Program fund (Fund 26). Figure B2.2 shows the project's total adjusted annual budget inclusive of all Valley Water funding sources.



Opportunities and Challenges

Trash Prevention

Through collaboration with cities as part of SCVURPPP, the Zero Litter Initiative and the RWRC TAC, Valley Water works on preventing trash through education and outreach. Valley Water's outreach and school education programs also address reducing litter and waste.

Encampments

Encampments along waterways are increasing and contributing significant amounts of trash to urban creeks. Several of the Priority B and Priority F projects focus on trash cleanup and pollution prevention at encampments. Valley Water meets regularly internally as well as with the City of San José to coordinate resources and cleanup efforts. Valley Water also hosts the Environmental Creek Cleanup Committee to discuss homelessness and encampment issues and bring recommendations to the Board.

Coordination to Optimize Funding

The interest and enthusiasm for volunteer cleanup are very high, despite volunteer activities having been impacted by the COVID-19 pandemic. Some activities appear to overlap with activities covered in Projects B2, B4, F5, F6 and F9. To avoid duplication, staff within those projects continued to coordinate with each other, so that all the funding sources were optimized.

PROJECT B3

HAZARDOUS MATERIALS MANAGEMENT AND RESPONSE

This project allows Valley Water to continue providing a local number to report hazardous materials spills 24 hours a day, 7 days a week. Valley Water staff will respond within two (2) hours of the initial report, with spill cleanup in Valley Water rights-of-way performed in a timely manner. Appropriate agencies will be alerted when spills are outside Valley Water jurisdiction.

Benefits

- Prevents and reduces contaminants in surface and groundwater
- Encourages public to engage in protecting our waterways
- Provides a quick, professional response that reduces impacts of hazardous materials spills

Key Performance Indicator (FY22-36)

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

Geographic Area of Benefit: Countywide

Status History

Fiscal Year	Status
FY 22	ON TARGET

Status for FY22: ON TARGET

PROGRESS ON KPI #1:

In FY22, Valley Water received 112 incident calls countywide, of which 18 received an on-site response; 11 were classified as urgent. The remaining 94 calls did not receive on-site responses because they were outside of Valley Water's jurisdiction, were reporting an event that occurred in the past and was already mitigated or were addressed by another Valley Water team. Valley Water met 100% of its required two (2) hour or less response time for urgent calls, with an average response time of 78 minutes countywide.

Financial Information

In FY22, 75% of the annual project budget was expended. Expenditures under this project can fluctuate widely based on the following:

1. The number of calls received;
2. The number of calls requiring a field response;
3. The varying amount of time required to resolve/mitigate once in the field; and
4. The unspecified amount of waste to be disposed under the Emergency Response Program.



Coordinating with dive team to remove a vehicle from Uvas Reservoir.

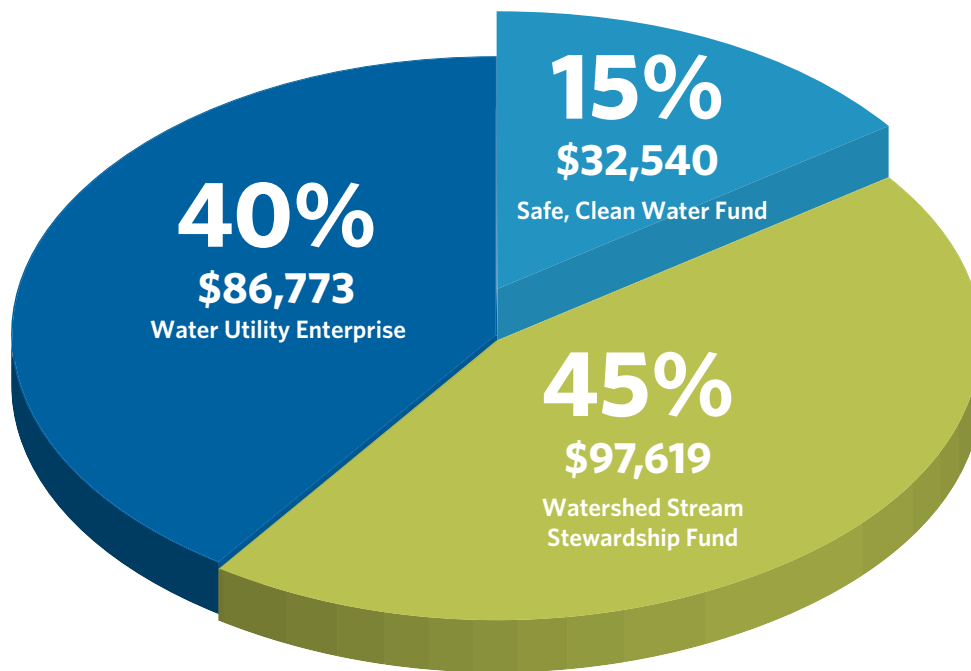
ON TARGET

Project B3 FY22 Highlights

- Met 100% of the required two (2) hour or less response time for urgent calls, with an average response time of 78 minutes countywide.
- Received 112 incident calls countywide, of which 18 received an on-site response and 11 were classified as urgent.

Figure B3.1 Hazardous Materials Management and Response Financial Summary (\$ Thousands)									
Fiscal Year 2021-2022								15-year Plan	
Adopted Budget	Project Carryforward	Budget Adjustments	Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Adjusted 15-yr Plan Spent
				Actual	Encumbrance	Total			
\$33	\$0	\$0	\$33	\$25	\$0	\$25	75%	\$1,054	2%

Figure B3.2
Hazardous Materials Management and Response
Total FY22 Project Budget: \$216,932



Valley Water funds this project with more than the Safe, Clean Water Program fund (Fund 26). Figure B3.2 shows the project's total adjusted annual budget inclusive of all Valley Water funding sources.

PROJECT B4

SUPPORT VOLUNTEER CLEANUP EFFORTS

This project provides funding for Valley Water's creek stewardship program to support volunteer cleanup activities, such as National River Cleanup Day, California Coastal Cleanup Day, the Great American Litter Pick Up, Adopt-A-Creek and the Creek Connections Action Group; along with creekwise education and regional coordination efforts.

Benefits

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

Key Performance Indicator (FY22-36)

1. Fund Valley Water's creek stewardship program to support volunteer cleanup activities, such as annual National River Cleanup Day, California Coastal Cleanup Day, the Great American Litter Pick Up, and the Adopt-A-Creek Program.

Geographic Area of Benefit: Countywide

Status History

Fiscal Year	Status
FY 22	ON TARGET

Status for FY22: ON TARGET

PROGRESS ON KPI #1:

- In FY22, Valley Water continued funding of countywide volunteer cleanup activities (Graph B4.2)
- California Coastal Cleanup Day (September 18, 2021): A total of 913 volunteers removed approximately 29,432 pounds of debris, including 1,347 pounds of recyclables, along 99.5 miles of waterways in Santa Clara County. Valley Water hosted the annual event in Santa Clara County in partnership with the Creek Connections Action Group (CCAG). The CCAG came together to host a hybrid effort, with staff leading in-person sites near the creeks and also neighborhood cleanups where volunteers took to the streets using the CleanSwell app to track their own clean-up efforts.
- National River Cleanup Day (May 21, 2022): This year, the event took place on Saturday, May 21. Volunteers were able to register on Eventbrite to receive safety guidelines, recycling and hazardous waste information, and sign up to pick up supplies such as trash bags, litter sticks and gloves at a variety of locations throughout the County. Volunteers recorded their cleanup efforts on the CleanSwell app. A total of 596 volunteers removed about 25,265 pounds of trash including 2,570 pounds of recyclables along 36 miles in Santa Clara County.
- Great American Litter Pickup (N/A): No Great American Litter Pickup in 2022
- Adopt-A-Creek (year-round): This year, the program increased the number of new partners and was more accessible to the public with interactive creeks maps. As of June 2022, we were at 73 active adopted sites with 68 groups committing to host a minimum of two (2) cleanup events per year. Partners continue to utilize the online customer



Volunteers removing trash from the banks of Guadalupe River in San José during the 2022 National River Cleanup Day Event.

ON TARGET

Project B4 FY22 Highlights

- Continued to fund three (3) of the four (4) countywide volunteer cleanup activities.
- 913 volunteers removed about 29,432 pounds of trash on the California Coastal Cleanup Day.
- 596 volunteers removed about 25,265 pounds of trash on the National River Cleanup Day.
- The Adopt-A-Creek program continues to increase the number of new partners and was more accessible to the public with interactive creeks maps.

service center, Access Valley Water, to report cleanup numbers and request trash pickups. Valley Water continues to utilize social media to outreach and increase awareness of the program.

Financial Information

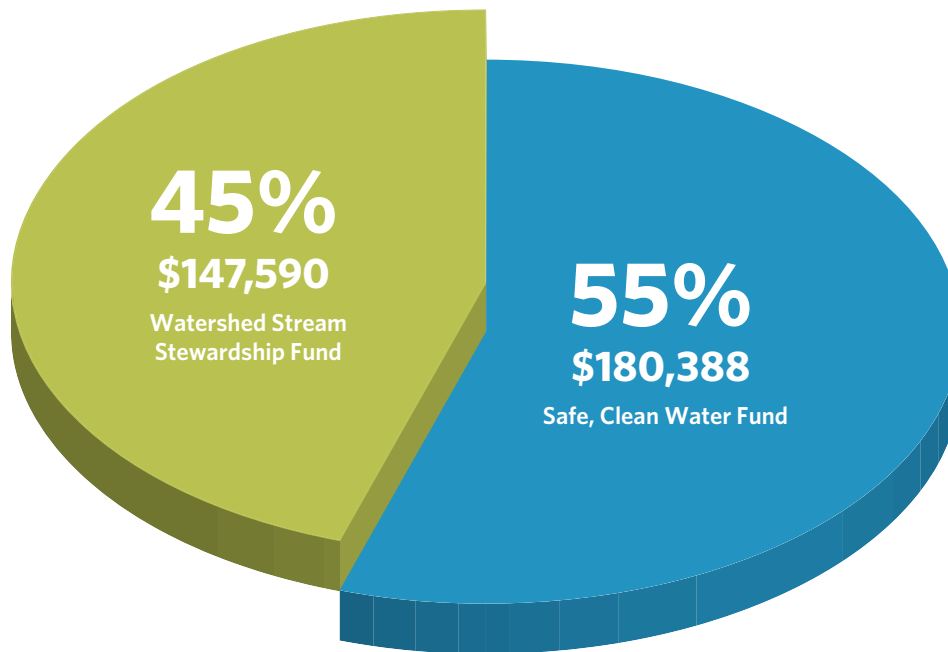
In FY22, 51% of the annual budget was expended. Due to a six (6) month vacancy in the program, labor hours were not fully expended.

Figure B4.1 Support Volunteer Cleanup Efforts Financial Summary (\$ Thousands)									
Fiscal Year 2021-2022								15-year Plan	
Adopted Budget	Project Carryforward	Budget Adjustments	Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Adjusted 15-yr Plan Spent
				Actual	Encumbrance	Total			
\$180	\$0	\$0	\$180	\$87	\$6	\$93	51%	\$5,198	5%

Figure B4.2

Support Volunteer Cleanup Efforts: Creek Stewardship

Total FY22 Project Budget: \$327,978



Valley Water funds this project with more than the Safe, Clean Water Program fund (Fund 26). Figure B4.2 shows the project's total adjusted annual budget inclusive of all Valley Water funding sources.

Opportunities and Challenges

Volunteer Creek Cleanup Partnership Program

Valley Water attends monthly Creek Partners meetings with the City of San José for better coordination on cleanup efforts and for ongoing communication with various community organizations.

Annual Volunteer Recognition Event

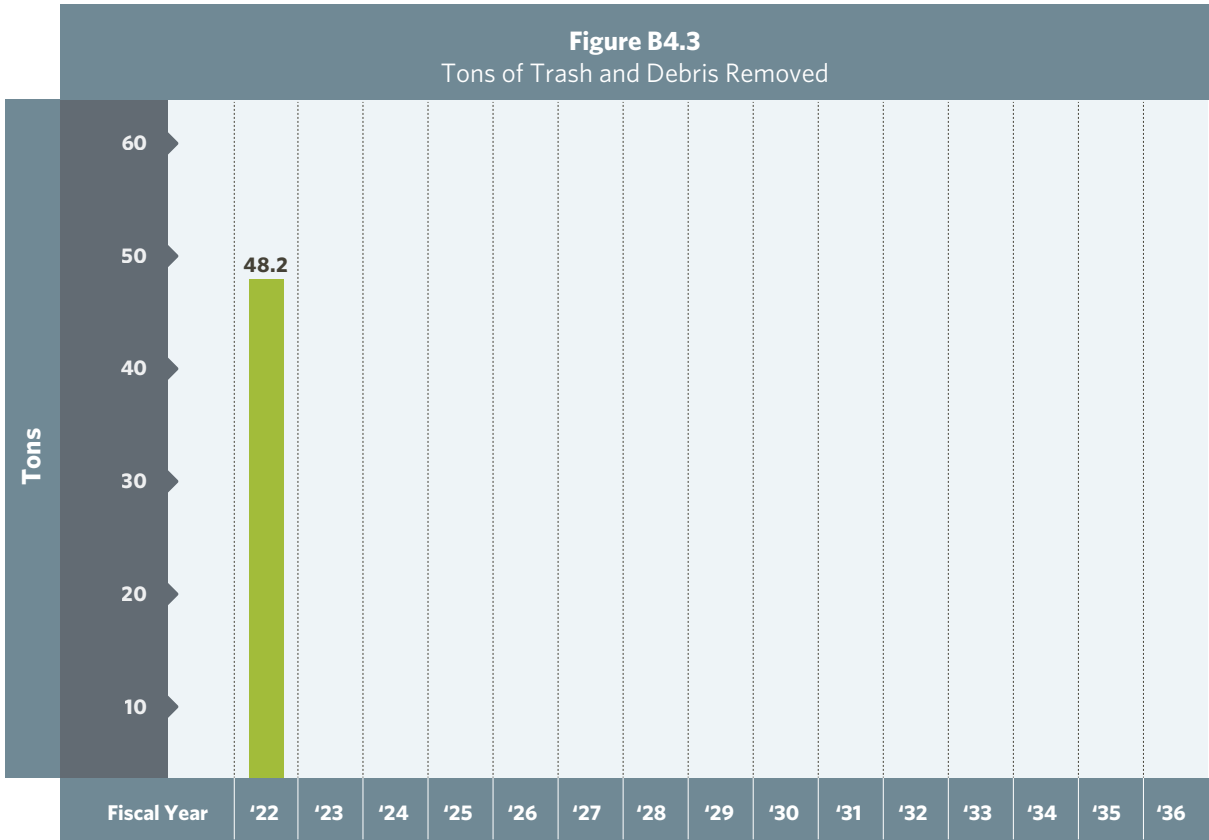
As an opportunity for continued improvement of the Adopt-A-Creek (AAC) program and to further connect with volunteers, each winter, Valley Water holds a volunteer recognition event for AAC partners, Water Ambassadors and National River Cleanup and Coastal Cleanup volunteers. The event continues to serve as an opportunity to recognize volunteers and their contributions in maintaining clean and healthy creeks and to help recruit new AAC partners. The next volunteer recognition event is planned for the winter of 2022.

COVID-19 Impacts to Creek Stewardship Activities

In alignment with the public health order due to the COVID-19 pandemic, some large group cleanup events and activities were limited. Valley Water staff encouraged local neighborhood opportunities and alternatives to host smaller scale cleanups to avoid large group gatherings.

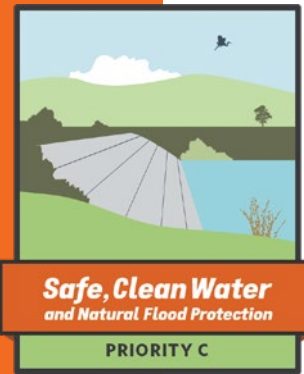
Coordination to Optimize Funding

The interest and enthusiasm for volunteer cleanup are very high, despite volunteer activities having been impacted by the COVID-19 pandemic. Some activities appear to overlap with activities covered in Projects B2, B4, F5, F6 and F9. To avoid duplication, staff within those projects continued to coordinate with each other, so that all the funding sources were optimized.



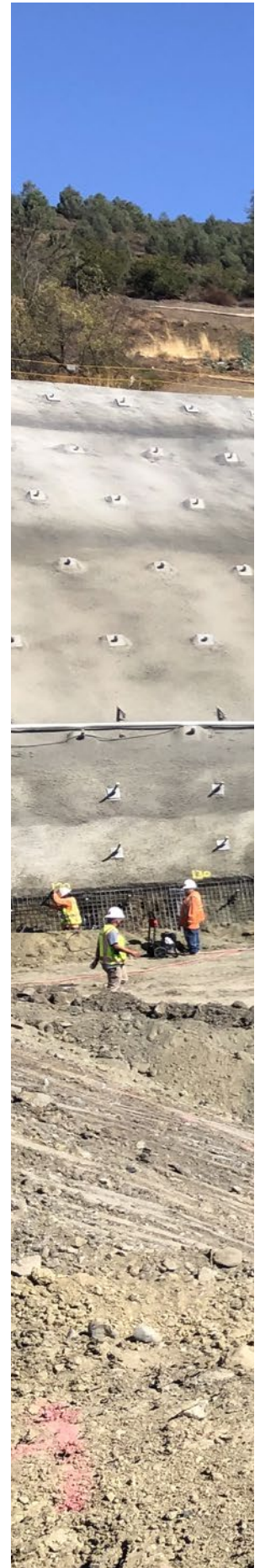
Priority C

Protect Our Water Supply and Dams from Earthquakes and Other Natural Disasters



The Priority C project helps protect our drinking water supply and water quality infrastructure from natural disasters, such as earthquakes. This priority provides partial funding to retrofit Anderson Dam so that it can safely withstand a large earthquake. Known as the Anderson Dam Seismic Retrofit project, the project would continue to ensure public safety and secure a reliable water supply.

Project C1: Anderson Dam Seismic Retrofit



PROJECT C1

ANDERSON DAM SEISMIC RETROFIT

Anderson Reservoir is currently limited in its capacity due to seismic concerns, costing Santa Clara County valuable drinking water resources. This project, which continues the 2012 Safe, Clean Water project, provides a portion of the funds required to help restore the full operating capacity of Anderson Reservoir.

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

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

Benefits

- Brings the dam into compliance with today's seismic standards
- Increases reliability and safety of our area's largest reservoir by protecting it from earthquakes
- Eliminates operational restrictions issued by the two regulatory agencies—the Federal Energy Regulatory Commission (FERC) and the California Department of Water Resources Division of Safety of Dams (DSOD). In February 2020, FERC directed Valley Water to begin safely lowering the reservoir to an elevation of 488 feet (essentially almost emptying the reservoir) beginning October 1, 2020. This project would restore Anderson Reservoir to its full capacity of approximately 90,373 acre-feet of water storage for our current and future water supply
- Ensures compliance with environmental laws and regulations
- Enhances native fish and wildlife habitat
- Minimizes the risk of uncontrollable releases from the reservoir, which could cause downstream flooding

Key Performance Indicator (FY22-36)

1. Provide portion of funds, up to \$54.1 million, to help restore full operating reservoir capacity of 90,373 acre-feet.

Geographic Area of Benefit: Countywide



Crew installing soil nails to reinforce the hillside surrounding the Diversion Portal area.

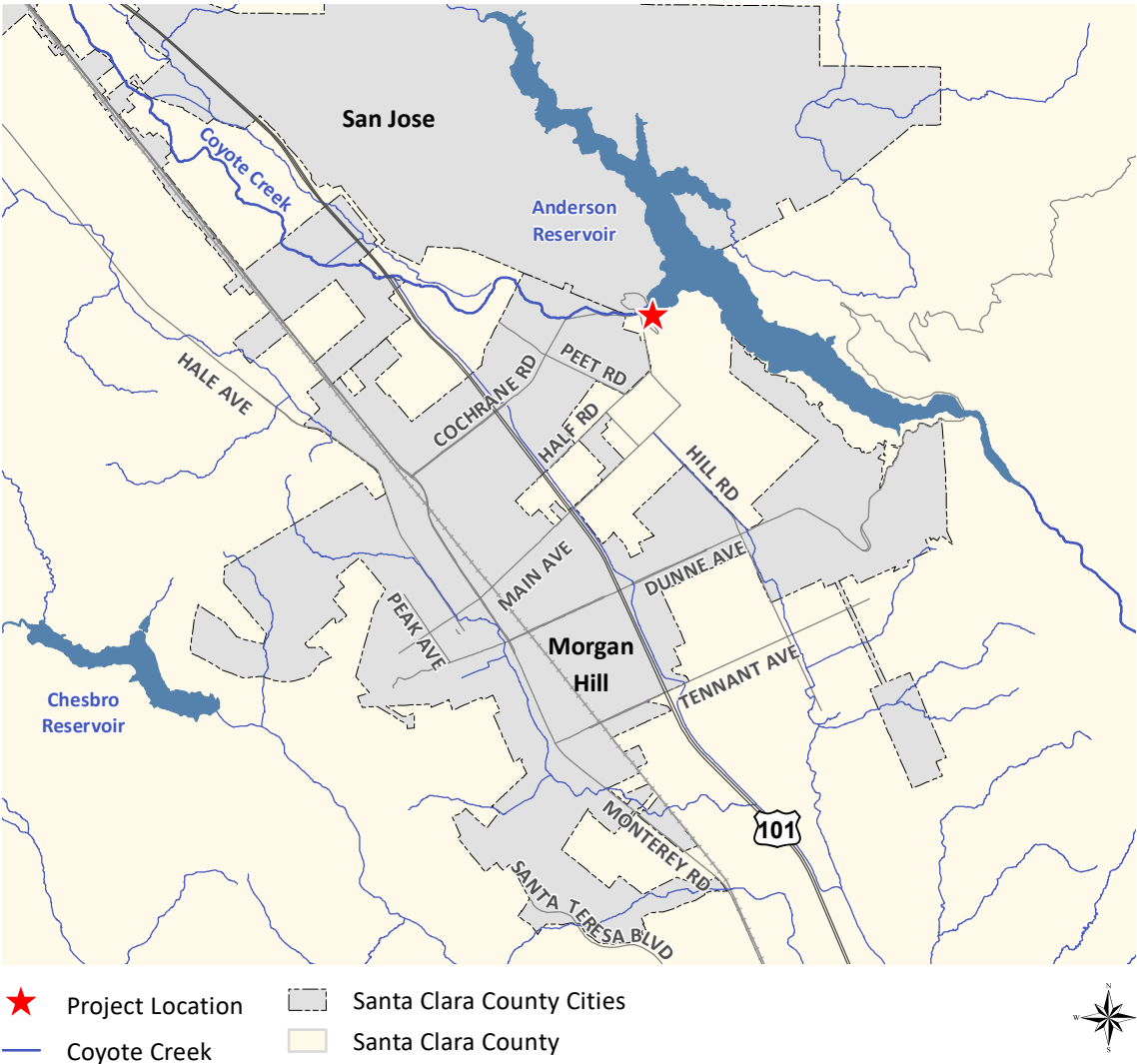
ADJUSTED

Project C1 FY22 Highlights

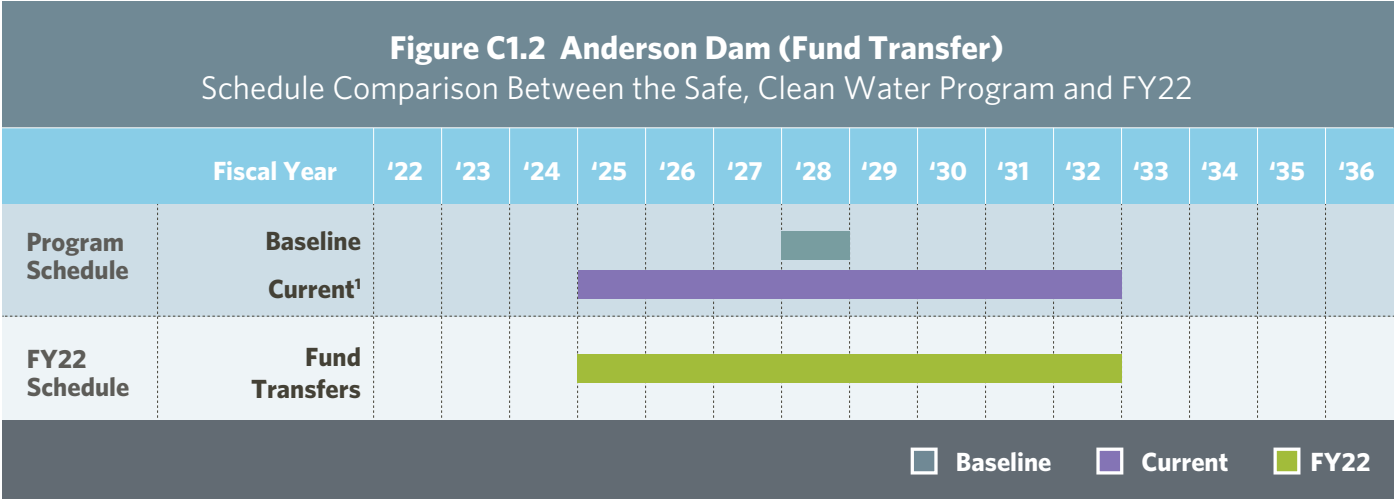
- Construction on a new tunnel at the Anderson Dam continued on schedule.
- Strengthened about 15,000 square feet of hillside adjacent to the dam with steel bars and concrete.
- Commenced construction on extending the existing Cross Valley Pipeline Extension.
- Continued work on the Anderson Dam Seismic Retrofit Project 90% design.

Project Location

Figure C1.1



Schedule



1 Board approved schedule adjustment through the Change Control Process in FY21. The project is adjusted only in terms of the Safe, Clean Water Program KPI of providing funding and is not reflective of the overall project schedule.

Status History

Fiscal Year	Status
FY 22	ADJUSTED

Status for FY22: **ADJUSTED** (Funding Schedule Adjustment)

The FY22 annual project status is adjusted because, in 2021, the Board approved adjusting the schedule to transfer \$54.1 million to the Water Utility Fund (Fund 61) over eight years from FY25-32 instead of in FY28 as initially planned. The Board approved the fund transfer schedule adjustment on June 8, 2021, during the approval of the Safe, Clean Water Program's 5-Year Implementation Plan: Fiscal Years 2022-2026. The Board's action is to help maintain the health of the Safe, Clean Water Fund in the face of increasing capital project costs.

PROGRESS ON KPI #1:

As per the adjusted schedule, the fund transfer will begin in FY25 and be completed in FY32.

Financial Information

There was no Safe, Clean Water budget allocation for this project in FY22 since, under the adjusted schedule, the first fund transfer is to occur in FY25.

Figure C1.3 Anderson Dam Seismic Retrofit Financial Summary (\$ Thousands)									
Fiscal Year 2021-2022								15-year Plan	
Adopted Budget	Project Carryforward	Budget Adjustments	Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Adjusted 15-yr Plan Spent
				Actual	Encumbrance	Total			
\$0	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$54,712	0%

Opportunities and Challenges

Progress

Anderson Dam Tunnel Project (ADTP): On July 7, 2021, Valley Water held a groundbreaking ceremony for the Anderson Dam Tunnel Project (ADTP), which is the first phase of the Anderson Dam Seismic Retrofit Project (ADSRP). ADTP, which includes constructing a new tunnel, is on pace for a mid-2024 completion. This large diameter tunnel will allow Valley Water to better maintain water levels in Santa Clara County's largest reservoir. In FY22, major construction activities included preparing the Diversion Portal area from where the tunnel will be excavated and reinforcing the hillside surrounding the Diversion Portal area by installing approximately 240, 120-foot-long steel bars (soil nails) across the hillside.

ADTP followed the February 2020 order by the Federal Energy Regulatory Commission (FERC), the federal dam regulator, directing Valley Water to immediately implement risk reduction measures to protect the public from the risk of Anderson Dam failure due to seismic activity and develop and implement necessary avoidance, minimization and mitigation measures. The FERC order included maintaining Anderson Reservoir at a level no higher than 565 feet elevation immediately and begin lowering the reservoir to an elevation of 488 feet in a safe manner no later than October 1, 2020. FERC issued a second order on October 1, 2020, that approved the measures of the Reservoir Drawdown and Operations Plan necessary for Valley Water to effectuate the reservoir drawdown. The October 2020 order included drawdown of the reservoir, reservoir bank and rim

stability improvements, existing intake structure modifications, imported water releases and Cross Valley Pipeline extension, and steelhead and fish avoidance and minimization measures.

In compliance with the February 2020 FERC order, Valley Water immediately restricted the reservoir to 565 feet elevation; began defining the interim risk reduction measures; and initiated emergency consultation processes regarding adverse environmental impacts of these interim risk reduction measures with the regulatory agencies, as appropriate. Furthermore, Valley Water created a project that is described in the Anderson Dam Federal Energy Regulatory Commission Order Compliance Project (FOCP) Engineer's Report. The FOCP project includes ADTP as well as four other sub-projects. The four sub-projects and their progress status in FY22 are:

- Coyote Creek Flood Protection Measures - 90% design was completed; land acquisition continued; and construction contract anticipated to be awarded in late 2022 (FY23)
- Coyote Percolation Pond Dam Replacement - 60% design completed, a vendor for rubber dam was selected and design of the rubber dam is underway;
- Cross Valley Pipeline Extension - Construction contract commenced in November 2021 and about 50% of the 7,100-foot-long pipeline was installed; and
- Coyote Creek Stream Augmentation Fish Protection Measure (installation of chillers) -100% design was completed and the procurement order for the chillers was placed.

DSOD and FERC have authorized Valley Water to utilize phased approvals to allow the contractor to construct the project. The intent of the phased approvals is to allow the ADTP to move forward while giving FERC and DSOD additional time to review and authorize the more complex components of the project. Valley Water had received approval for four phases and continued working with regulatory agencies on the fifth and final phase. Valley Water expects to receive FERC approval for phase five in early FY23.

Additionally, Valley Water continued to progress on the completion of environmental obligations for the FOCP, including permit compliance and development of advanced designs for the required Habitat Mitigation and Monitoring Plan that serves to provide compensatory mitigation for impacts to Coyote Creek.

Anderson Dam Seismic Retrofit Project (ADSRP): Meanwhile, Valley Water continued to work with FERC to update the environmental/construction schedule of the ADSRP. Valley Water plans to release the ADSRP Draft Environmental Impact Report (EIR) for public review in February 2023 (FY23).

Valley Water also continued work on the ADSRP 90% design, which is scheduled to be completed in the fall of 2022. Construction of the remaining ADSRP elements, including the high-level outlet works and removing and reconstructing the spillway and the dam embankment, will commence after completion of ADTP and will take seven (7) years and is dependent on the permit requirements and the field conditions.

In addition to advancing the ADSRP designs, Valley Water has been developing conservation measures that will improve habitat conditions in Coyote Creek to offset the anticipated impacts to the Coyote Creek and fisheries that will occur as a result of ADSRP. Valley Water has been working closely with the regulatory agencies since early 2018. More recently, Valley Water has been focused on the development of the draft Biological Assessment for National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (USFWS) protected species, as well as conservation measures that are to be included in the ADSRP undertaking, such as the Ogier Ponds Geomorphic Restoration Project.

Valley Water continued holding monthly technical working group and bi-monthly interagency consultation meetings with key regulatory agencies and the Santa Clara County Department of Parks and Recreation (SCCParks). In addition, Valley Water continued to engage key agencies through FY22 to carry out permit compliance for FOCP and to make progress on the environmental review that is necessary to secure permits for ADSRP construction (also see Permit section below).

Valley Water also continued to work with other stakeholders and the community to keep them informed of the project progress. Staff also provided the Board regular updates on the project progress.

On January 26, 2021, the Board directed staff to pursue the surrender and decommissioning of the Anderson Hydroelectric Facility. The facility, which has been operating at the Anderson Dam for over 30 years, has been generating renewable energy as part of the overall Valley Water energy portfolio. Over the last several years, Valley Water has made significant strides in diversifying our energy portfolio towards much more economically favorable and greener solutions to the point that almost 100% of Valley Water's energy use is from carbon-free sources at a very competitive cost. Meanwhile, as with any aging infrastructure, the cost of operating and maintaining the facility has been increasing and exceeds the revenues from power generation at the facility.

As a result, the Board directed staff to take the necessary steps to seek FERC's approval to surrender and decommission the facility, including but not limited to:

- Evaluate the surrender of the license exemption and decommissioning of the facility in the ADSRP EIR; and
- Coordinate with FERC and other regulatory agencies to submit all applications and obtain any necessary approval to implement decommissioning of the facility as part of the ADSRP.

Valley Water intends to submit the application to FERC for the surrender and decommissioning of the Anderson Hydroelectric Facility in the summer of 2023.

Cost Escalation

On February 15, 2022, staff informed the Board of the overall ADSRP project cost increase. The total project cost increased by \$589 million from \$647 million (FY2022-26 CIP) to \$1.2 billion. There are several factors that caused the price increase, including:

- Originally, the project's objective was to seismically retrofit the 70-year-old dam. During the design phase, investigations revealed a more extensive retrofit was necessary to prevent the dam from slumping in the event of a large earthquake. Consequently, it was necessary to construct an entirely new tunnel outlet and completely remove and replace the entire dam
- Additional State and Federal regulatory requirements added previously unforeseen work
- Increased project duration due to environmental permitting requirements
- A Federal order split the project into two phases
- Supply chain and workforce shortages caused by the COVID-19 pandemic

Permits

While the FOCF and the ADSRP are two separate independent projects, Valley Water's goal is to incorporate most ADTP infrastructure into the future ADSRP infrastructure and facilities. CEQA and National Environmental Policy Act (NEPA) compliance and regulatory approval processes for the ADSRP continue in parallel to the approval, construction, and operation of the FOCF.

FERC is the federal lead agency under NEPA and issued an Environmental Assessment (EA) in support of its ordered dam safety directive on October 1, 2020. FERC issued a supplemental EA for the remaining components of the FOCF on February 2, 2021.

The proposed projects are covered activities under the Santa Clara Valley Habitat Plan (VHP), and the VHP will provide the federal Endangered Species Act and state Natural Community Conservation Planning Act compliance for several special-status species the project may affect, including California tiger salamander, California red-legged frog and coyote ceanothus. Consistent with Habitat Plan requirements, Valley Water has consulted with wildlife agencies with project-specific design and construction details. Several additional informal consultation efforts have also occurred with individual regulatory agencies, including site visits with the U.S. Army Corps of Engineers (USACE), the California Department of Fish and Wildlife (CDFW), Regional Water Quality Control Board (RWQCB) and the National Marine Fisheries Service (NMFS).

Additionally, Coyote Creek downstream of Anderson Dam is a designated critical habitat for Central California Coast steelhead and essential fish habitat for Chinook salmon. Early coordination with resource agencies indicates potential construction-related water quality concerns, fish passage considerations and operational effects will require appropriate evaluation. Extensive consultation has continued with NMFS, CDFW, State Water Resources Control Board (SWRCB), RWQCB and Valley Habitat Agency on these issues throughout the year.

The Draft EIR to be released for public review in early 2023 will further evaluate the magnitude of impacts of implementing the project. In addition, Valley Water will continue to engage natural resource agencies through the development of environmental documentation to support natural resource permitting efforts.

Figure C1.4 Anderson Dam Seismic Retrofit
Project Schedule FY22

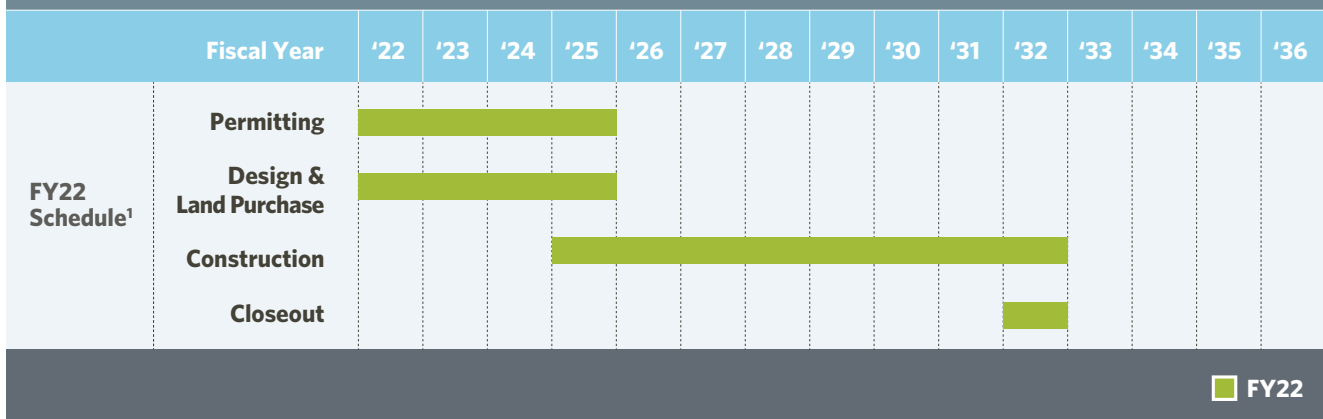


Figure C1.5 Anderson Dam Tunnel Project
Project Schedule FY22

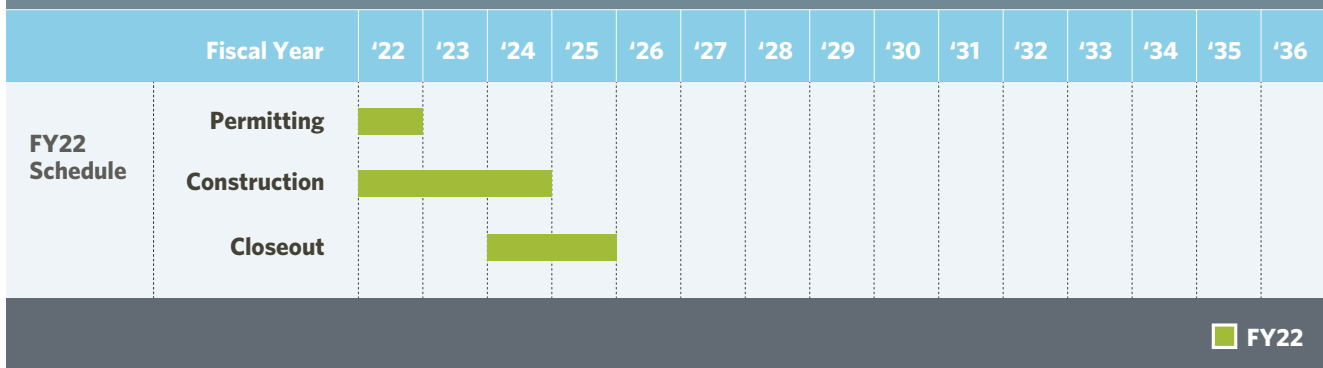
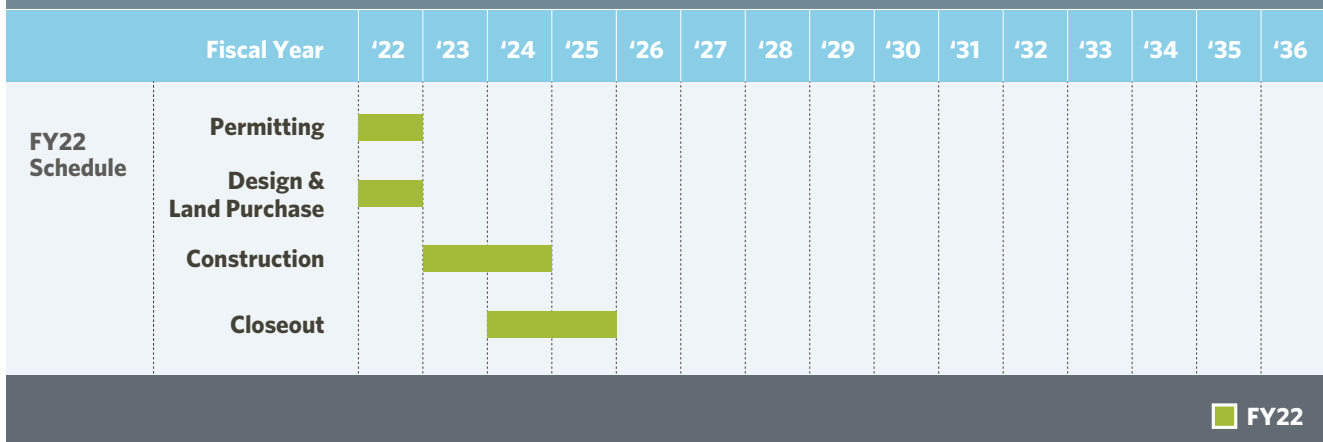


Figure C1.6 Coyote Creek Flood Management Measures
Project Schedule FY22



Confidence levels

Anderson Dam Seismic Retrofit Project:

Schedule: *Moderate confidence*

As a result of the FERC order, Valley Water expedited completing the plans and specifications for the FOCP first. Construction for FOCP started in the summer of 2021 and the estimated start of construction for the ADSRP is 2025.

Funding: *High confidence*

The total project cost is estimated at \$1.2 billion and is in Valley Water's Fiscal Years 2023-27 Capital Improvement Program.

Permits: *Moderate confidence*

Anderson Dam is operated under licenses from DSOD and FERC. The project design will require their approval before construction. The permits from these agencies will depend mostly on the technical complexity of the project. DSOD and FERC will review the project at various design stages to facilitate the issuance of the permits from the different agencies that will be required for this project, including USACE, NMFS, CDFW, California Department of Industrial Relations/California Occupational Safety and Health, State Water Resources Control Board, and the Santa Clara Valley Habitat Plan. The SWRCB issued a final water quality certification for the FOCP on November 9, 2020. USACE and CDFW issued the final FOCP permits in June and August of 2021. The schedule for ADSRP permits cannot be easily predicted; the current permitting path assumes natural resource agency permits will be obtained for the ADSRP by fall 2024 (FY25).

Jurisdictional Complexity: *Moderate confidence*

Reservoir through a lease agreement with Valley Water. Valley Water is working with these various agencies throughout the project.

FERC Order Compliance Project:

Schedule: *High confidence*

Construction for the first FOCP sub-project, ADTP, started in the summer of 2021 and is expected to be completed in 2024. The Cross Valley Pipeline Extension sub-project is expected to be completed in December 2022. The other three FOCP sub-projects, Coyote Creek Flood Management Protection Measures, Coyote Percolation Pond Dam Replacement, and Coyote Creek Stream Augmentation Fish Protection Measure (Chillers) are planned for completion in 2024.

Funding: *High confidence*

The FOCP sub-projects cost is estimated at \$350 million (of the total project cost of \$1.2 billion) and is in Valley Water's Fiscal Years 2023-27 Capital Improvement Program.

Permits: *High confidence*

Valley Water has received permits for FOCP from USACE, State Water Resources Control Board, and California Department of Fish and Wildlife. The Santa Clara Valley Habitat Plan compliance forms and fees have been submitted. Almost all FERC authorizations have been received and State Office of Historic Preservation codes are being completed under Section 106. Valley Water is still heavily involved with permit compliance and evaluating whether permit modifications are required for design modifications that have arisen.

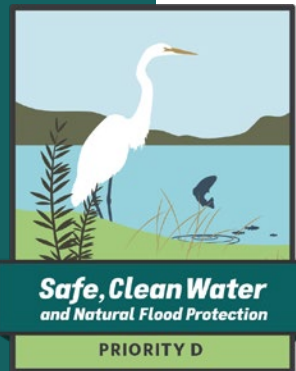
Jurisdictional Complexity: *High confidence*

Valley Water owns and operates Anderson Dam and Reservoir, which are located within the City of Morgan Hill. Valley Water and Santa Clara County Parks have entered a Property Use Agreement to facilitate property right transfers, which should be completed by December 2022.

See Appendix C: Capital Projects Jurisdictional Complexities for a list of confidence levels for each project by outside agency for funding, regulatory permitting, cities, counties and other agencies.

Priority D

Restore Wildlife Habitat and Provide Open Space



Priority D projects restore and protect wildlife habitat. Work under this priority includes controlling non-native, invasive plants; replanting native species; and maintaining previously replanted areas. Other projects include removing barriers to fish movement, improving steelhead habitat and stabilizing eroded creek banks. To support restoration projects, Valley Water will continue to build and update a comprehensive watershed database that tracks stream ecosystem conditions helping Valley Water and other organizations make informed watershed, asset management and natural resource decisions.

Project D1: Management of Riparian Planting and Invasive Plant Removal

Project D2: Revitalize Riparian, Upland and Wetland Habitat

Project D3: Sediment Reuse to Support Shoreline Restoration

Project D4: Fish Habitat and Passage Improvement

Project D5: Ecological Data Collection and Analysis

Project D6: Restoration of Natural Creek Functions

Project D7: Partnerships for the Conservation of Habitat Lands



PROJECT D1

MANAGEMENT OF RIPARIAN PLANTING AND INVASIVE PLANT REMOVAL

This project supports Valley Water management of at least 300 acres of existing riparian planting projects and 200 acres of invasive plant removal projects throughout the five (5) watersheds. The project also funds maintenance of future riparian planting and invasive plant removal sites, which are anticipated as part of upcoming environmental mitigation requirements. Funding for this project ensures that all required riparian planting and invasive plant removal projects are maintained as functional habitat that can support wildlife. In addition, this project includes targeted control of especially damaging non-native, invasive plant species, such as *Arundo donax*, throughout the county.

Climate change has increased temperatures and lengthened growing seasons, which facilitates the spread of non-native invasive vegetation by allowing it to establish early in spring before native species, thus transforming ecosystems. Management of riparian planting and invasive plant removal helps prevent the spread of non-native species, making the natural habitat less vulnerable and more resilient to climate change. Furthermore, restoring habitats that are damaged during regular operations is an important component of sustainable stewardship to protect nearby natural areas. It helps improve native habitat.

Benefits

- Maintains 300 acres of existing riparian planting sites
- Maintains 200 acres of existing invasive plant management projects
- Allows Valley Water to monitor plant survival and habitat functions
- Complies with environmental laws, which require long-term habitat mitigation for routine stream maintenance, flood protection and water supply projects
- Provides for the maintenance of future riparian planting and invasive plant management sites
- Addresses climate change

Key Performance Indicators (FY22-36)

1. Maintain a minimum of 300 acres of riparian planting projects annually to meet regulatory requirements and conditions.
2. Maintain a minimum of 200 acres of invasive plant management projects annually to meet regulatory requirements and conditions.
3. Remove 25 acres of *Arundo donax* throughout the county over a 15-year period.

Geographic Area of Benefit: Countywide



Revegetation at Permanente Creek.

ON TARGET

Project D1 FY22 Highlights

- Maintained 301.9 acres of riparian planting projects at 75 sites.
- Maintained 765 acres of invasive plant management projects at 26 sites.
- Removed 0.5 acres of *Arundo donax* at 13 sites.

Status History

Fiscal Year	Status
FY 22	ON TARGET

Status for FY22:

ON TARGET

PROGRESS ON KPI #1:

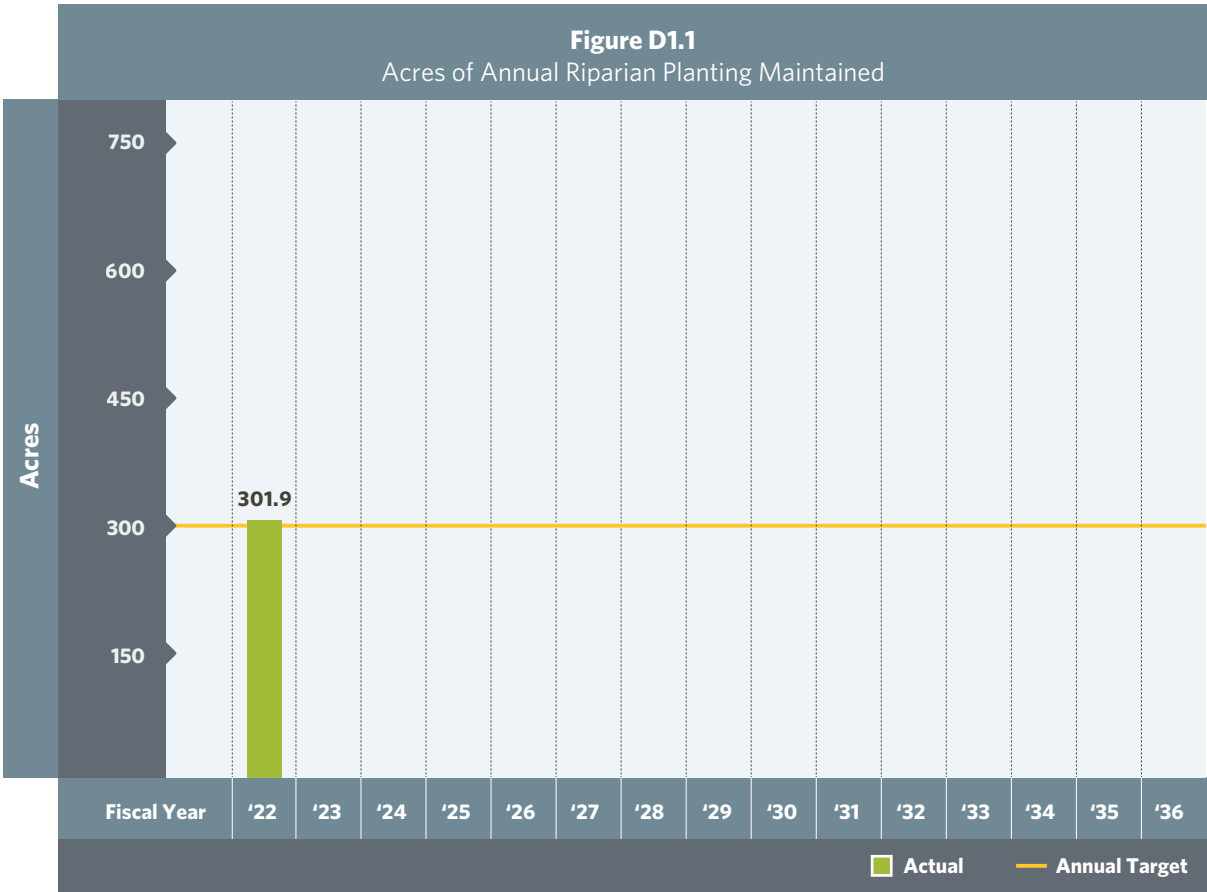
- In FY22, Valley Water maintained 301.9 acres of riparian planting projects at 75 sites throughout Santa Clara County. This maintenance work included invasive plant control, pruning, mowing and irrigation of four (4) recently planted sites that require more maintenance. Infill and replacement planting were conducted at two planting sites to increase overall native plant cover due to losses experienced during the recent drought. Valley Water monitors the mitigation sites as per the success criteria established by various regulatory agencies. Valley Water provides monitoring reports to the regulatory agencies on an annual basis. The monitoring reports can be found at: tinyurl.com/D1AgencyReports.

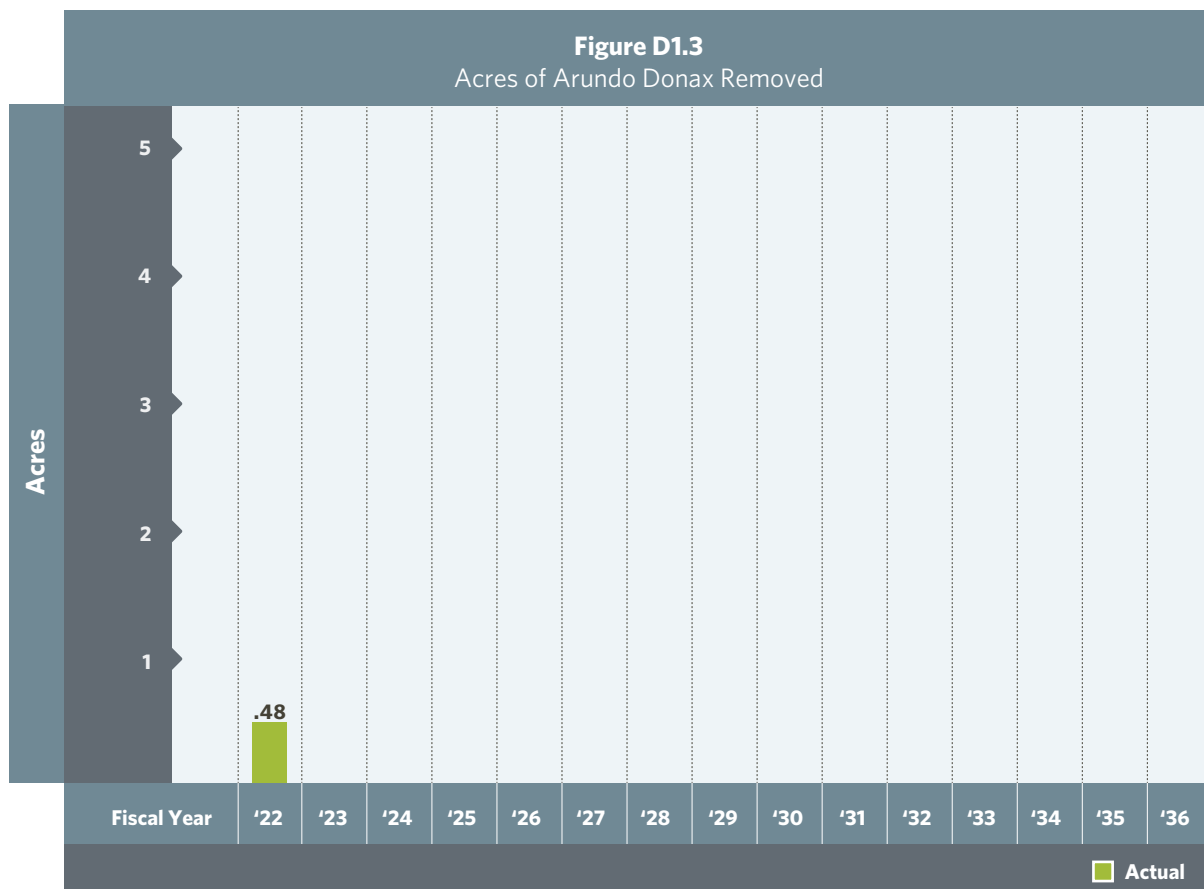
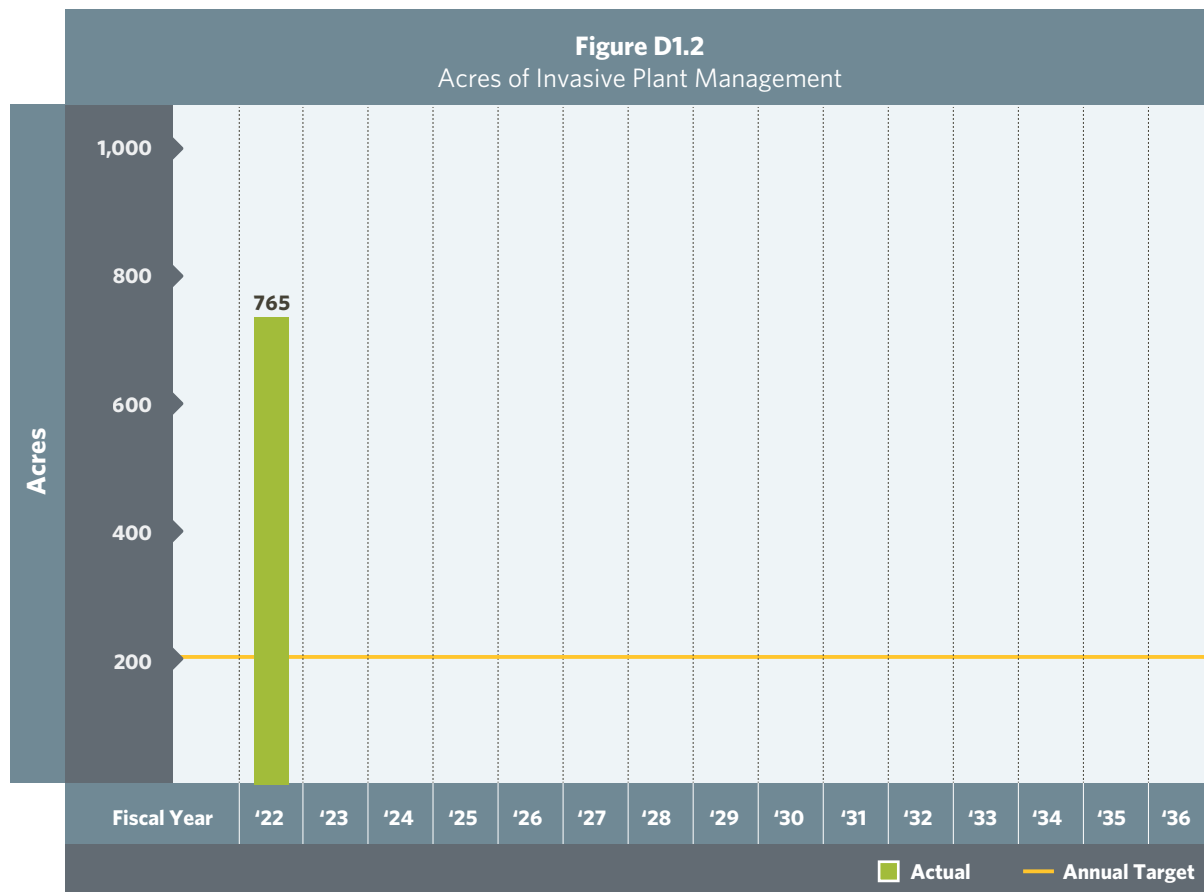
PROGRESS ON KPI #2:

- In FY22, Valley Water maintained 765 acres of invasive plant management projects at 26 sites throughout the county.

PROGRESS ON KPI #3:

- In FY22, Valley Water removed 0.5 acres of Arundo donax at 13 sites throughout the county.





Financial Information

In FY22, 71% of the annual project budget was expended.

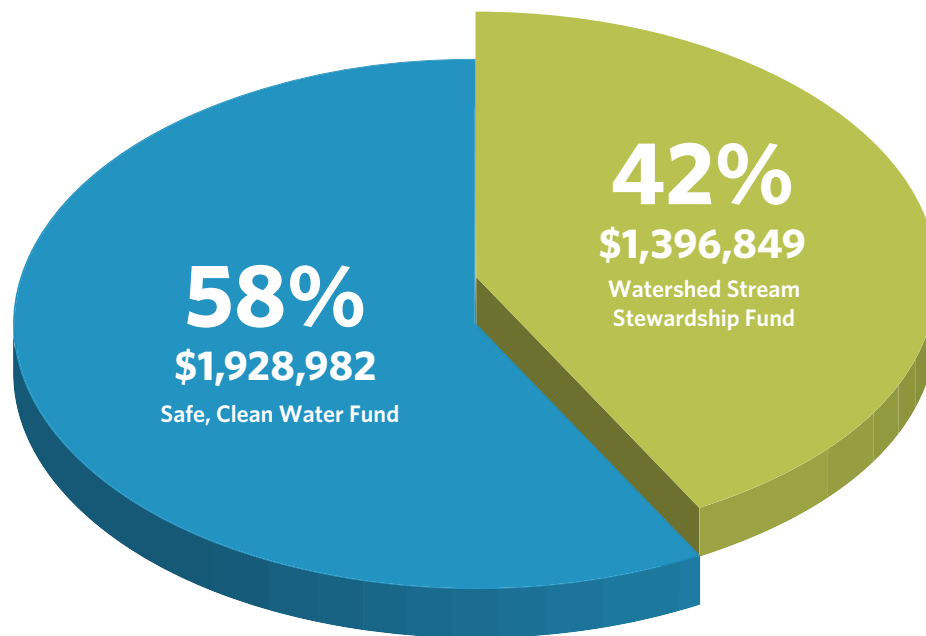
The project is underspent because the proliferation of encampments in mitigation sites has partially reduced the ability for staff to service sites safely without police support.

Figure D1.4 Management of Riparian Planting and Invasive Plant Removal Financial Summary (\$ Thousands)									
Fiscal Year 2021-2022								15-year Plan	
Adopted Budget	Project Carryforward	Budget Adjustments	Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Adjusted 15-yr Plan Spent
				Actual	Encumbrance	Total			
\$1,929	\$0	\$0	\$1,929	\$1,367	\$3	\$1,370	71%	\$52,744	3%

Figure D1.5

Management of Riparian Planting and Invasive Plant Removal

Total FY22 Project Budget: \$3,325,831



Valley Water funds this project with more than the Safe, Clean Water Program fund (Fund 26). Figure D1.5 shows the project's total adjusted annual budget inclusive of all Valley Water funding sources.

Opportunities and Challenges

Resources

In FY22, Valley Water met the KPIs by supplementing staff resources with skilled contract labor. Labor crews are supervised by Valley Water lead workers, including four out of five new positions filled in FY22. Contract labor will continue to be a valuable resource for delivering project KPIs.

Drought Impacts

Valley Water has resumed the use of spreading fresh woodchips around planting basins in riparian planting projects to retain moisture, discourage weed growth and improve soil health. This has been implemented as a result of declining plant performance and growth during the recent drought. Woodchips are sourced and handled to reduce risk of contamination by Phytophthora and other known plant pathogens.

Encampment Impacts

The presence of unhoused individuals living along the creeks continues to pose a challenge for servicing mitigation sites and conducting routine vegetation management work. Worker safety is prioritized over routine vegetation management work where unsafe conditions exist.

New Capital Project Mitigation

As the capital projects are constructed, and after the initial 3-year plant establishment period, additional acreages of mitigation will become part of Project D1 and will require maintenance to meet their 10-year success criteria. Projections show that the following acres of mitigation will be transitioned into Project D1, resulting from the completion of specific capital projects:

- FY23 – An estimated 33 acres of mitigation from the Upper Guadalupe River, Upper Berryessa Creek, Lower Berryessa Creek, Permanente Creek and Cunningham Detention Basin Flood Protection projects.
- FY24 – An estimated 66.5 acres of mitigation from the Sunnyvale Channel, San Francisquito Creek, Upper Llagas Creek Phase 1, Lower Silver Creek Flood Protection projects and Hale Creek Enhancement Project.
- FY25 – An estimated 60 acres of mitigation from the Upper Llagas Creek Phase II Flood Protection Project.
- FY26 – An estimated 1.8 acres of mitigation from the Palo Alto Flood Basin Tidal Gate Project.
- FY27 – An estimated 3 acres of mitigation from the Almaden Lake Project.

These additional 164 mitigation acres will require significant maintenance. Newer planting projects have higher maintenance needs than established ones. Valley Water anticipates providing a lower level of service on older, established planting sites and will prioritize maintenance of recently planted sites and capital project mitigation as these transitions occur. Older planting sites will continue to be evaluated to improve ecological health, invasive species control, and wildfire resiliency. Valley Water continues to use contract labor crews to supplement its staff resources to comply with the mitigation requirements.

Figure D1.6
Acres of Riparian Planting
Projected New Acreage in Future FYs

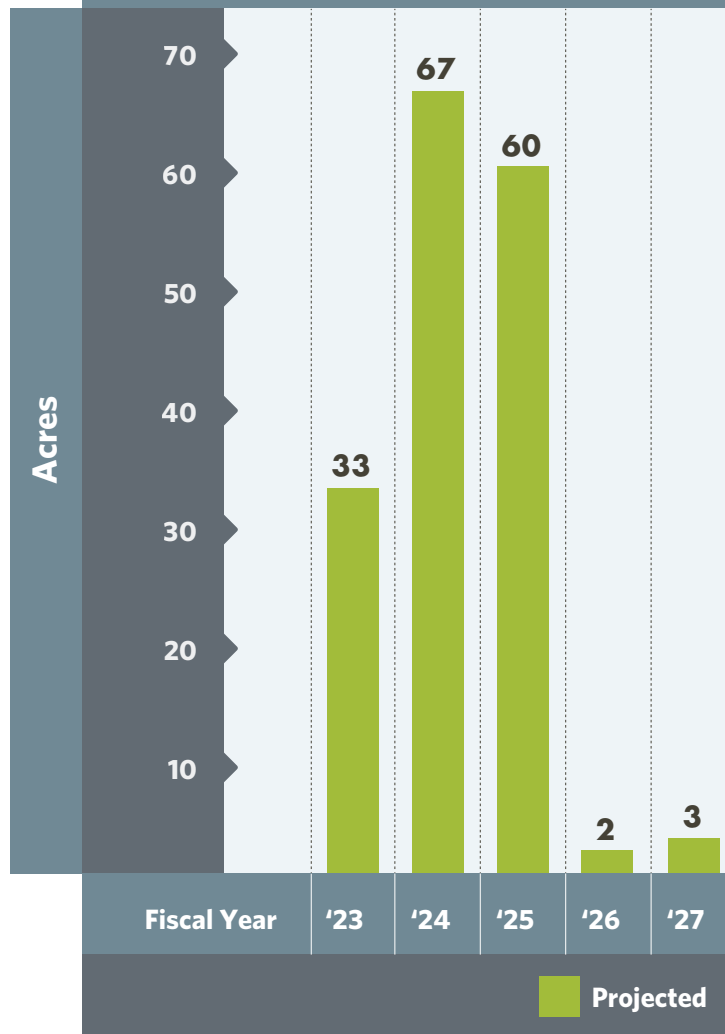
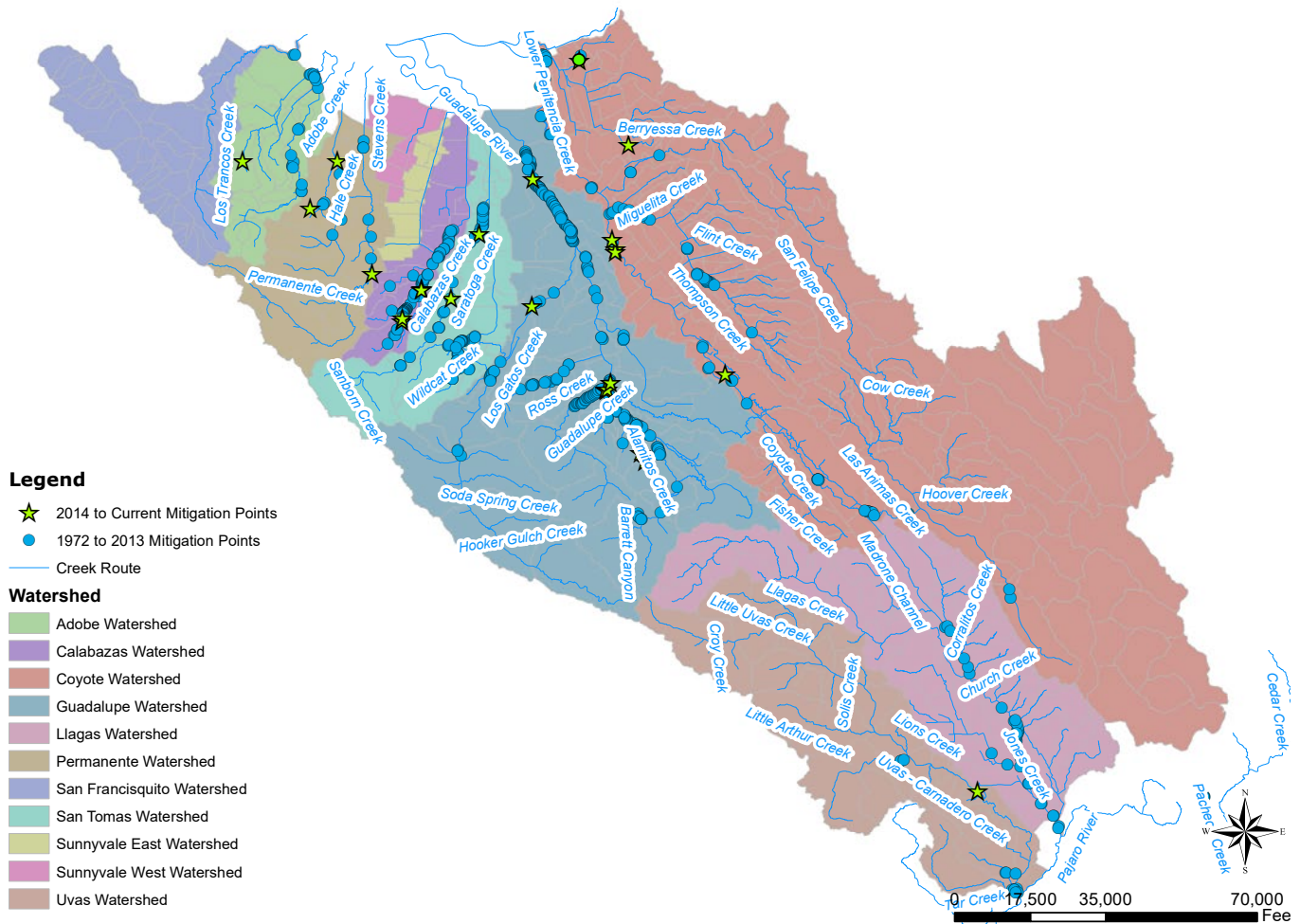


Figure D1.7

FY22 Revegetation Maintenance: 301.9 Acres



PROJECT D2

REVITALIZE RIPARIAN, UPLAND AND WETLAND HABITAT

This project allows Valley Water to revitalize habitat for rare, threatened or endangered species or vegetation types, and create a more contiguous corridor for wildlife, including pollinators. Funding helps to restore degraded habitat by removing invasive plants and/or revegetating with native species. Funding is prioritized for projects that include community partnerships or provide education for nearby landowners and other stakeholder groups on the control of harmful species.

The project will also create an Early Detection and Rapid Response Program to identify and treat small infestations of new weeds before they become established.

Increasing the quality and quantity of native habitat areas and improving the connections between them are important adaptive strategies to support native species as climate conditions change. It increases access to new areas for migration and more room for hiding, hunting, breeding and rearing as needs evolve and increase.

Benefits

- Increases viability of native plant species by reducing competition from non-native, invasive species
- Improves habitat by installing tidal, riparian, and upland plant species or allowing native vegetation to passively regenerate after treatment/removal of invasive species
- Improves ecological function of existing riparian, wetland and potentially upland habitats to support more diverse wildlife species
- Improves patchy wildlife corridors by increasing connectivity with nearby habitat areas
- Increases community awareness about the damaging impact that non-native, invasive plants have on local ecosystems
- Helps to prevent new invasive species from becoming established
- Early Detection Invasive Species Information Sheets will guide staff and public on identification and treatment options, raise public awareness, and help prevent the spread of new noxious weeds

Key Performance Indicators (FY22-36)

1. Revitalize at least 21 acres over a 15-year period through native plant revegetation and/or removal of invasive exotic species.
2. Develop an Early Detection and Rapid Response Program Manual.
3. Identify and treat at least 100 occurrences of emergent invasive species over a 15-year period, as identified through the Early Detection and Rapid Response Program.
4. Develop at least eight (8) information sheets for Early Detection of Invasive Plant Species.

Geographic Area of Benefit: Countywide



Upland native seed test plot at the burrowing owl habitat enhancement site at the San José - Santa Clara Regional Wastewater in Alviso.

ON TARGET

Project D2 FY22 Highlights

- Valley Water and its partners revitalized 0.31 acres.
- Identified and documented 61 populations of target emergent invasive species (253 total populations since 2018).
- Restoring a portion of the San José - Santa Clara Regional Wastewater Facility lands in Alviso for pollinator and burrowing owl foraging habitat. Over 825 plants installed in upland habitat island and seasonal wetland.

Status History

Fiscal Year	Status
FY 22	ON TARGET

Status for FY22: **ON TARGET**

PROGRESS ON KPI #1:

In FY22, Valley Water and its D2 partners revitalized 0.31 acre.

- California State Coastal Conservancy (Conservancy) – In FY22, the Conservancy treated 5.5 acres of invasive *Spartina* within a matrix of over 8,700 acres of tidal marsh and ecotone habitats in Valley Water’s service area. Of the 5.5 acres, a small area (0.01 ac) is new treatment in the Sunnyvale Baylands marsh. The remaining acreage is retreatment, ensuring that this aggressive invader and ecosystem engineer does not regain a foothold in sensitive bayland habitats, imperiling endangered species such as the Ridgway’s rail.
- Grassroots Ecology – In FY22, Valley Water entered into a new agreement with Grassroots Ecology (Grassroots) to restore a section of the San José - Santa Clara Regional Wastewater Facility buffer lands in Alviso for pollinator and burrowing owl foraging habitat. Over 825 plants were installed in January and February 2022 into upland habitat islands and seasonal wetland test plots, using staff time as well as five volunteer workdays and two days with the AmeriCorps Watershed Stewards Program. Summer 2022 (FY23) monitoring will include a bioblitz assessing pollinator diversity in the restoration area and the adjacent weedier mowed burrowing owl mound plain area. The 0.3-acre area is adjacent to a 201-acre site, which is managed for burrowing owls by the Santa Clara Valley Habitat Agency (Habitat Agency). The current effort is a native revegetation pilot project and talks are ongoing about a future collaboration with the Habitat Agency and Grassroots to expand the footprint of the current restoration area.
- Midpeninsula Regional Open Space District (Midpen) – In FY22, Midpen’s Integrated Pest Management Coordinator position was vacated and remained vacant for most of the year. This decreased their capacity for invasive plant removal work under the partnership. However, their outreach and volunteer work in collaboration with Grassroots Ecology continued. Grassroots continued their work at the Bogey Bog wetland area in Bear Creek Redwoods, providing 11 service-learning events, which averaged eight volunteers per event (events were limited in the number of participants to ensure social distancing). Service-learning events are volunteer events where Grassroots staff provide information about the habitat where work is being performed (in this case, the unique redwood wetland ecosystem) and about invasive plant eradication, provide training in invasive plant removal methods and then volunteers do invasive plant removal. Midpen’s revitalization effort includes invasive vegetation removal (including teasel, yellow star-thistle, French broom and stinkwort) and installing wetland container plants and native seeds at the service learning events. The total proposed project area is 11.7 acres, work has been initiated on 5.9 acres and is anticipated to continue through FY27. Acreage to be credited to D2 will be determined beginning in FY23. Midpen also began a new project at the summit of St. Joseph’s Hill, restoring grassland habitat by removing French broom, yellow star-thistle and coyote brush. The entire planned project area is approximately 26 acres and work is anticipated to continue through FY27.
- City of San José – In FY22, the City of San José and its contractor continued revitalizing approximately 1.5 acres at the Coyote Creek invasive *Arundo donax* (giant reed) removal site between Oakland Road and Berryessa Road, with a combination of retreatment of previously treated subsites and an expansion to new subsites on the east side of Coyote Creek due to the presence of encampments on the west side of the creek. Revegetation using a native seed mix continues after invasive vegetation removal activities. Calendar year 2022 is the final year of the five-year agreement with the city and the acreage of successfully treated *Arundo* will be assessed and reported under KPI #1 at the end of the agreement term (in FY23).

PROGRESS ON KPI #2:

In FY22, Valley Water initiated the process to hire a consultant to assist in the development of the Early Detection and Rapid Response (EDRR) Program and its manual. Initially, it was thought that the EDRR program would be developed as a stand-alone program. However, the opportunity presented itself to integrate the EDRR program with a Valley Water-wide Integrated

Invasive Pest Management Program (IIPMP), in collaboration with the Water Utility Enterprise (WUE). The IIPMP will: 1) develop a program manual, including EDRR; 2) complete California Environmental Quality Act compliance documentation of the IIPMP; and 3) obtain regulatory environmental permits to implement invasive plant management activities pursuant to the IIPMP. The program will address the spread and management of invasive vegetation which impacts the operations and maintenance of both WUE and Watershed assets. Invasive vegetation degrades the quality of the environment, poses direct and indirect risks to health and human safety and impacts the resiliency of Valley Water's lands, assets and infrastructure. IIPMP will streamline the process for addressing the spread of invasive plant species, incorporate existing programs and permits to the extent possible and increase the ability for Valley Water to operate its assets safely and effectively.

A consultant is expected to be onboard in early FY23. Meanwhile, in FY22, Valley Water developed a draft target list of EDRR species.

PROGRESS ON KPI #3:

In FY22, Valley Water identified and documented 61 populations of target emergent invasive species. A total of 253 populations of target species have been identified and documented since 2018. These will be treated once the EDRR program is operational.

PROGRESS ON KPI #4:

Information sheets will be developed for high-priority early detection species in the county. The timeline for information sheet development is expected to coincide with that of the EDRR manual, currently anticipated to begin in FY23.

Financial Information

In FY22, 68% of the annual project budget was expended.

For FY22, the project was underspent primarily due to the reduced Midpen capacity for invasive plant removal work under the partnership efforts mentioned above. Additionally, the budget was predicated on the assumption that the EDRR program would be developed as a stand-alone program, whereas it has since been integrated with IIPMP. The process to contract an experienced consulting firm to develop the IIPMP resulted in less than anticipated staff time usage for KPI #2 in FY22.

Figure D2.1 Revitalize Riparian, Upland and Wetland Habitat
Financial Summary (\$ Thousands)

Fiscal Year 2021-2022								15-year Plan	
Adopted Budget	Project Carryforward	Budget Adjustments	Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Adjusted 15-yr Plan Spent
				Actual	Encumbrance	Total			
\$1,011	\$0	(\$113)	\$897	\$368	\$243	\$611	68%	\$9,027	16%

Opportunities and Challenges

Regional Collaboration

Valley Water is a founding and active member of the Santa Clara County Wildlife Corridor Technical Working Group, with partners including the United States Fish and Wildlife Services (USFWS), California Department of Fish and Wildlife (CDFW), Caltrans, VTA, Santa Clara County Parks, Habitat Agency, Peninsula Open Space Trust (POST), OSA, The Nature Conservancy (TNC), Midpen and others.

In FY22, Valley Water, VTA, Habitat Agency and Caltrans started planning for a wildlife corridor enhancement project in Coyote Valley. This project will involve the clearing of several blocked culverts under US Highway 101, as well as fencing realignment and installation of a wildlife jump-out (a one-way escape ramp to allow animals that are within the highway's fenced right-of-way to exit to the safe side of the fence) at a previously cleared culvert immediately adjacent to Valley Water's

existing D2 restoration site. This wildlife jump-out will be the first one installed in Caltrans District 4 (Bay Area counties). The project is expected to be completed in FY23.

Valley Water is also an active member of the Santa Clara Weed Management Area (SCWMA) working group with Santa Clara County Parks, California State Parks, County of Santa Clara Division of Agriculture, Caltrans, OSA and other area partners. Both the wildlife corridor and SCWMA working groups offer Valley Water strong, diverse and strategic partnerships. They increase opportunities to revitalize more habitats, expand EDRR, treat more invasive plant occurrences, disseminate information sheets, conduct public outreach and education.

Drought

A continuing challenge is the ongoing severe drought, which has increased in frequency and intensity over the past 20 years. The drought increases the importance of removing non-native and invasive plant species to strengthen the viability of native vegetation and habitats by reducing competition for water, nutrients, space, disease transmission, hybridization (genetic integrity) and wildfire risk. A series of historically normal water years are necessary to build resilience to the ecological stresses presented by drought and climate change.

Encampments

Encampments along county waterways by the unhoused continues to be an issue. It has affected the city's work at the Coyote Creek site and impacts other D2 efforts, where sites cannot be fully assessed or revitalized due to unsafe working conditions. There are several impacts to habitats at encampments, including vegetation clearing, excavated or compacted soil, temporary structures, unsanitary soil and water quality, trash and debris and fire. Encampments are localized, though common along urban creeks. More information is available throughout this report, especially in Project F5: Good Neighbor Program: Encampment Cleanup.

PROJECT D3

SEDIMENT REUSE TO SUPPORT SHORELINE RESTORATION

This project reuses local sediment removed through Valley Water’s Stream Maintenance Program, capital projects and other local sources to create and restore tidal marsh habitat. Sediment may be reused to support the South Bay Salt Pond Restoration project or other environmental enhancement and restoration projects. Valley Water removes sediment from streams to maintain their capacity to carry floodwaters. To secure environmentally appropriate reuse sites, this project continues the existing partnership with the U.S. Fish and Wildlife Service (FWS) and explores partnerships with others. This project also funds site improvements necessary to facilitate sediment delivery to the reuse sites.

Beneficial reuse of sediment has become a key component in tidal marsh restoration around the Bay. As sea levels rise, natural sedimentation and vegetation rates cannot keep up and tidal zones are in danger of being submerged, erasing environmental gains from restoration work. By delivering clean sediment from local creeks that would have naturally flowed into the San Francisco Bay, this project accelerates natural marsh-building processes and helps to keep up with sea-level rise. Activities necessary for sediment reuse may include testing, transport, cover material, and site improvements required for access.

Benefits

- Accelerates progress of important tidal wetland restoration projects
- Reduces disposal costs for sediment that has been removed from local channels
- Reduces disposal of clean fill into local landfills
- Addresses climate change

Key Performance Indicators (FY22–36)

1. Maintain partnership agreements to reuse sediment to improve the success of salt pond and tidal marsh restoration projects and activities.
2. Provide up to \$4 million per 15-year period to support activities necessary for sediment reuse.

Geographic Area of Benefit: Countywide

Status History

Fiscal Year	Status
FY 22	ON TARGET

Status for FY22:

ON TARGET



Equipment moving sediment at Pond A8 in Sunnyvale.

ON TARGET

Project D3 FY22 Highlights

- Collected approximately 6,472 cubic yards of soil from the Stream Maintenance Program and stockpiled it along Pond A8 to create a 30:1 slope ecotone.
- Maintained an agreement with USFWS to facilitate sediment disposal from local creeks along the South Bay Salt Ponds.

PROGRESS ON KPI #1:

In May 2019, Valley Water and the United States Fish and Wildlife Services (USFWS) entered a memorandum of agreement to facilitate sediment disposal from local creeks along the South Bay Salt Ponds. This agreement, which replaced the initial agreement signed in March 2014, is in effect until December 2023.

PROGRESS ON KPI #2:

In FY22, approximately 6,472 cubic yards of soil from the Stream Maintenance Program (SMP) was stockpiled along the southern edge of Pond A8 to create a future 30:1 slope ecotone, a gentle slope that will be a good substrate for marsh vegetation to grow. In January and February of 2022, the stockpiled soil was moved into the pond by Valley Water crews and was subsequently covered with approved soil by a USFWS contractor. During the year, Valley Water expended \$202,018 to support sediment reuse.

Financial Information

In FY22, 86% of the annual project budget was expended.

The under-expenditure was because, during the FY22 budget development, the plan was to charge sediment testing and the contracted quality assurance officer required by the Quality Assurance Project Plan (QAPP) to this Safe, Clean Water project starting in FY22. However, only sediment testing was charged to this project as the quality assurance officer funding had been encumbered under another project funded by the Watershed Fund (Fund 61).

Figure D3.1 Sediment Reuse to Support Shoreline Restoration
Financial Summary (\$ Thousands)

Fiscal Year 2021-2022								15-year Plan	
Adopted Budget	Project Carryforward	Budget Adjustments	Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Adjusted 15-yr Plan Spent
				Actual	Encumbrance	Total			
\$234	\$0	\$0	\$234	\$202	\$0	\$202	86%	\$4,081	5%

Opportunities and Challenges

Coordination with Project F1: Vegetation Control and Sediment Removal for Capacity

To the extent possible, Valley Water coordinates its sediment removal activities, funded partly by Project F1: Vegetation Control and Sediment Removal for Capacity with Project D3: Sediment Reuse to Support Shoreline Restoration. More specifically, removed sediment that meets specific reuse criteria is delivered to USFWS-owned Pond A8 to provide suitable substrate (e.g., dirt, gravel, sand, etc.) on which marsh vegetation can grow.

Habitat Improvement

This project provides an important opportunity to assist the South Bay Salt Pond Restoration Program (SBSRP). The sediment is being used to construct a broad, gentle slope that will increase marshland acreage that absorbs energy during storm surges providing resilient flood protection and protecting adjacent property, a former landfill from erosion, while providing habitat for many wetland species. After the slope is constructed, it will be revegetated with an appropriate array of native tidal marsh plant species and planting methods developed by the San Francisco Bay Bird Observatory with Valley Water funding.

Maximize Sediment Reuse

Because of the higher standards required under the new Quality Assurance Project Plan (QAPP), Valley Water is unable to find enough soil that meets the thresholds as cover material. There is a limited amount of soil that meets the foundation criteria and even less for cover and that limits our ability to deposit the soil at Pond A8. SBSRP, USFWS and Valley Water staff are working with the Regional Water Quality Control Board to modify the criteria for reuse material.

PROJECT D4

FISH HABITAT AND PASSAGE IMPROVEMENT

This project helps restore and maintain healthy fish populations, especially steelhead, by improving fish passage and habitat. Sites may include Alamitos Creek at Almaden Lake and County of Santa Clara-owned Ogier Ponds, where human-made creek alterations disrupt fish migration. Project D4, which includes coordinating and partnering with other external parties, incorporates studies of streams throughout the county to determine what and where habitat improvements will most benefit steelhead. These studies can be used by regional partners to implement complementary habitat enhancements.

The project also continues funding to place instream gravel, boulders, large wood, or other features to enhance fish habitat at appropriate locations. By adding natural stream features such as large wood, we can create habitat to provide refuge during fish migration, prolonged drought, or extreme rainfall events. Additionally, habitat restoration can improve ecosystem function and increase resiliency to climate change. By restoring natural functions, issues such as water quality may be less exacerbated and native species can continue to flourish and adapt.

Benefits

- Improves habitat and passage for steelhead and other native fish within Santa Clara County watersheds
- Contributes to required mitigation for environmental impacts of reservoir and recharge operations and countywide Stream Maintenance Program
- Maintains investment in earlier habitat improvements
- Addresses climate change

Key Performance Indicators (FY22–36)

1. Complete planning and design for one (1) creek/lake separation.
2. Construct one (1) creek/lake separation project in partnership with local agencies.
3. Use \$8 million for fish passage improvements by June 30, 2028.
4. Update study of all major steelhead streams in the county to identify priority locations for fish migration barrier removal and installation of large woody debris and gravel as appropriate.
5. Complete five (5) habitat enhancement projects based on studies that identify high priority locations for large wood, boulders, gravel, and/or other habitat enhancement features.

Geographic Area of Benefit: Countywide



Completed pedestrian bridge across Coyote Creek at Singleton Road allowing unimpeded fish passage.

ADJUSTED

Project D4 FY22 Highlights

- Provided the City of San José with \$1 million in cost-share funds to construct a new interim pedestrian bridge (now complete), replacing the Singleton Road low-water crossing at Coyote Creek and opening 17 miles of upstream area for migratory fish to access a better, cold-water habitat.
- Began construction on the large woody debris and gravel augmentation project to improve the fish habitat along Uvas Creek in Gilroy.

Project Location

Figure D4.1 Ogier Ponds (KPI#1)



Figure D4.2 Almaden Lake Improvement Project (KPI#2)

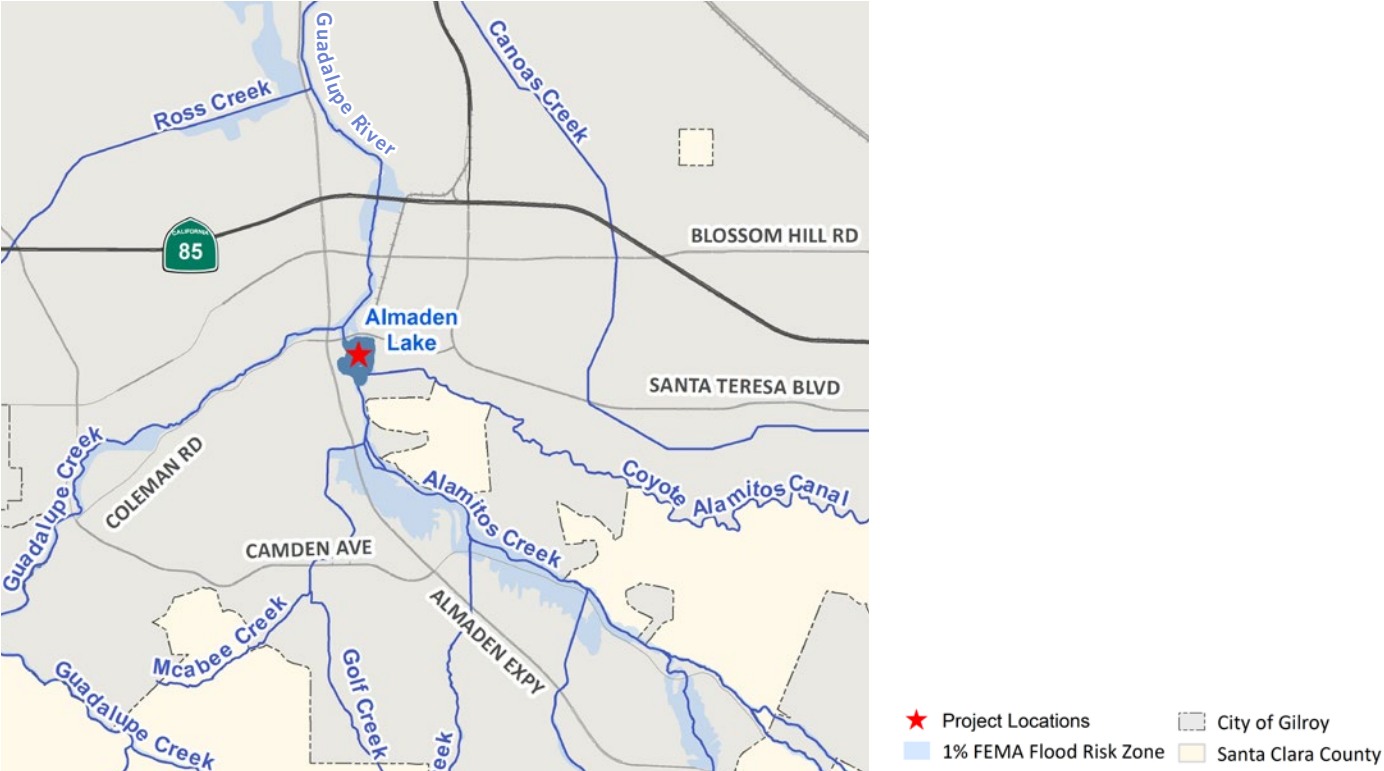
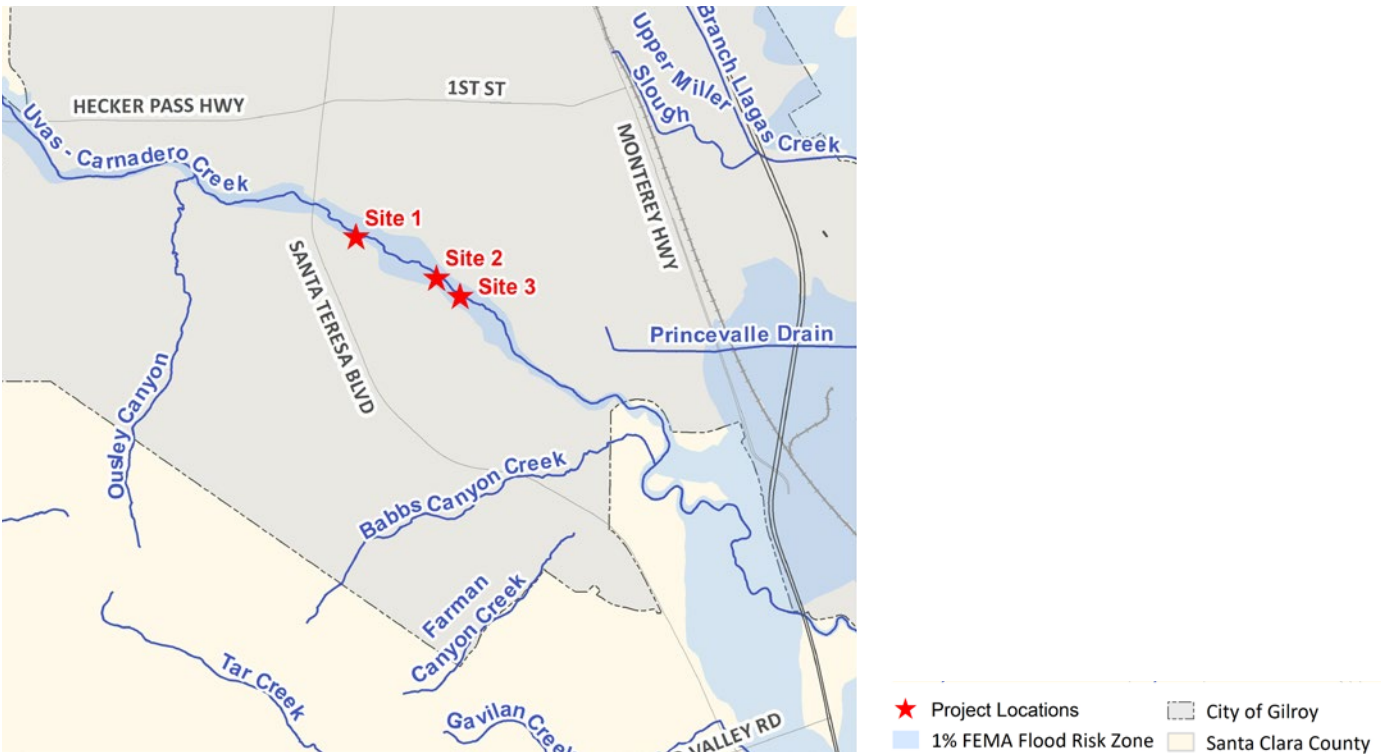
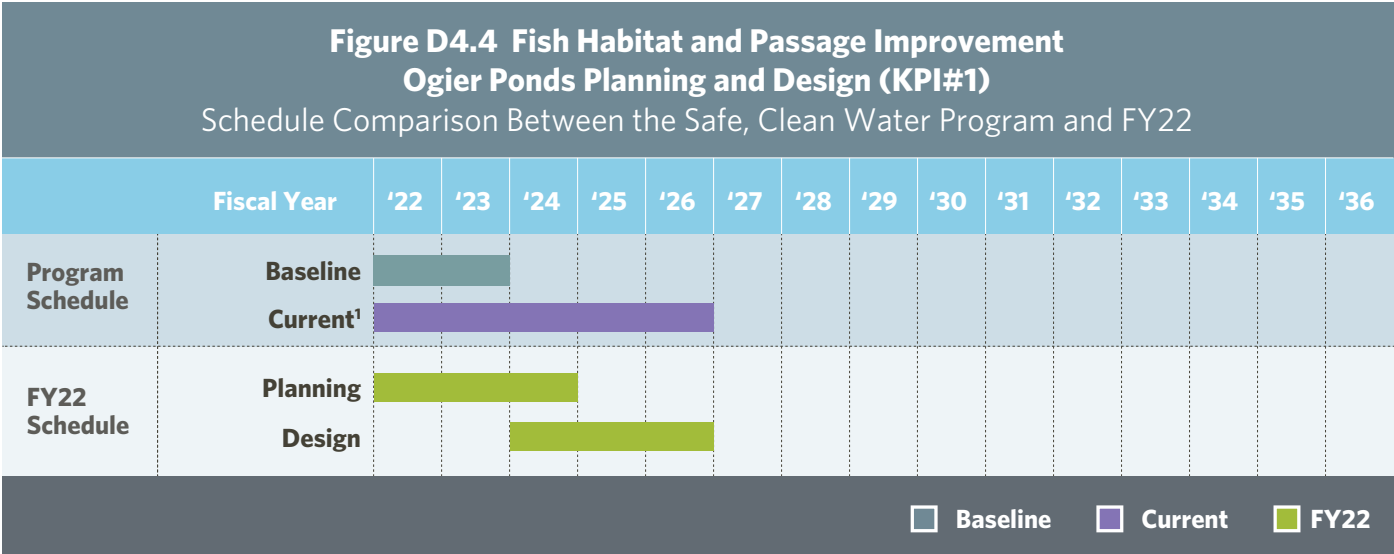


Figure D4.3 Uvas Creek Fish Habitat Improvement Project (KPI#5)

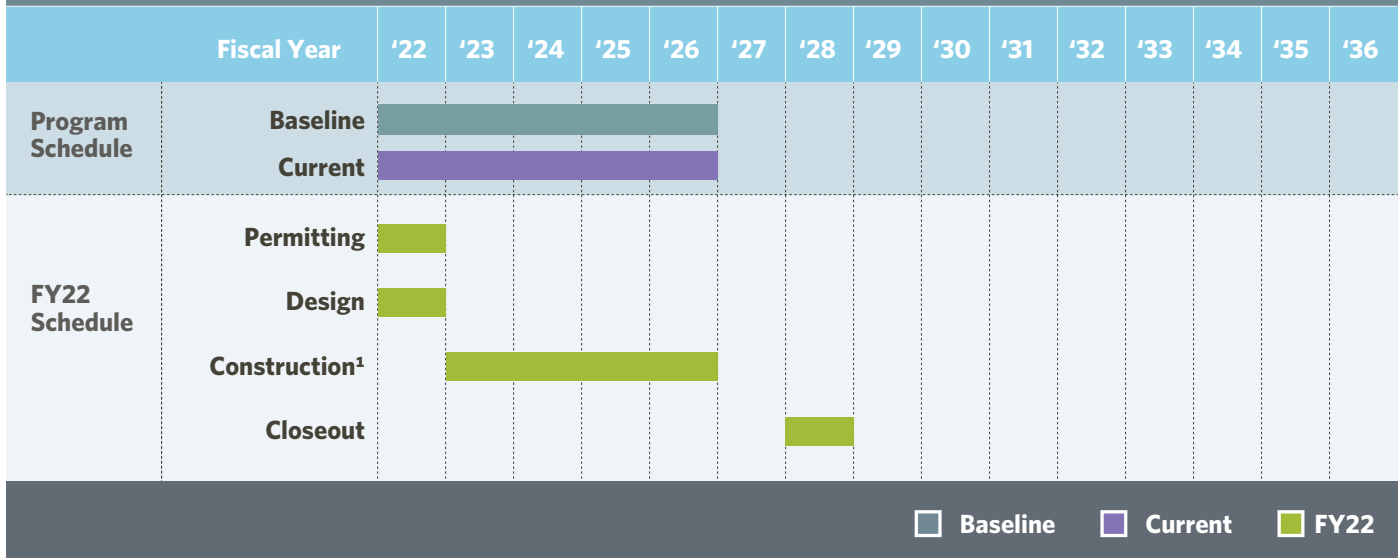


Schedule



1 Board approved schedule adjustment through the Change Control Process in FY22.

**Figure D4.5 Fish Habitat and Passage Improvement
Almaden Lake Improvement Project (KPI#2)**
Schedule Comparison Between the Safe, Clean Water Program and FY22



1 Construction also includes a three-year plant establishment period, not shown.

Status History

Fiscal Year	Status
FY 22	ADJUSTED

Status for FY22: **ADJUSTED** (Schedule Adjustment)

The FY22 project status is “Adjusted” following the Board’s approval on June 28, 2022, to extend Ogier Ponds project planning and design by a year to be completed in FY26 instead of FY25.

The schedule adjustment was required because investigations during the planning phase revealed additional project complexities, requiring further refining of the project schedule. Furthermore, the project is being considered as a conservation measure in the Anderson Dam Seismic Retrofit Project (ADSRP), adding additional complexity to the project and impacting the planning study. As a result, the planning study is expected to be finalized in FY24, with the project design to be completed in FY26.

PROGRESS ON KPI #1:

Ogier Ponds

In June 2022, the Board approved adjusting the project schedule, with planning and design to be completed in FY26 instead of FY25.

Earlier in the year, Valley Water began preparing a Master License Agreement (MLA) for the Ogier Ponds planning study following a request from the Santa Clara County Parks & Recreation Department (County Parks), which owns the ponds.

In September 2020, Valley Water had agreed to a final Memorandum of Agreement (MOA) provided by County Parks.

However, the MOA was not completed as County Parks was considering Ogier Ponds alongside other Valley Water projects, including the Anderson Dam Seismic Retrofit Project. Subsequently, County Parks requested a new MLA for planning before the final MOA.

County Parks approval of the MLA and MOA is expected in FY23. Meanwhile, Valley Water continued preliminary planning tasks in advance of the executed MLA and MOA. In May 2021, Valley Water had provided County Parks with a preliminary conceptual plan to separate Coyote Creek from the Ogier Ponds complex.

PROGRESS ON KPI #2:

Almaden Lake Improvement Project

In FY22, Valley Water completed refinements on the 60% design plans, specifications and cost estimate for the Almaden Lake Improvement Project. Valley Water is completing the resource agency permit applications. Valley Water continues to work with the City of San José on the project design for the new park area. Pending permit acquisition, construction could start in FY23.

The project aims to protect the environment and improve water quality at Almaden Lake in South San Jose. The project's key objectives are to separate Alamitos Creek from Almaden Lake and return it to flow into the Guadalupe River naturally; reduce the production of methylmercury and mercury in fish in Almaden Lake; improve fish passage and habitat for native fish; and minimize impacts to the park and trails.

PROGRESS ON KPI #3:

Fish Passage Improvements

In October 2021 (FY22), the City of San José, in partnership with Valley Water, completed the construction of a new interim pedestrian bridge, replacing the Singleton Road low-water crossing at Coyote Creek. During the year, Valley Water continued to provide the city permitting and design assistance for the project. Valley Water Board approved the cost-share agreement in June 2021 and in July 2021, Valley Water provided the city \$1.0 million in cost-share to fund the construction. With the interim pedestrian bridge construction completed, Valley Water will continue to monitor the project until 2031.

While the culverts of the low-water crossing marginally functioned to convey water, they were a barrier to fish passage and had impeded fish migration for decades. The barrier removal opened about 17 miles of upstream Coyote Creek area for migratory fish to access a better, cold-water habitat.

PROGRESS ON KPI #4:

Fish Habitat Improvement Study

In FY22, Valley Water began research to determine which creek sections to target for a new quantitative fish passage barrier and prioritization analysis. Two streams are expected to be selected and work will begin in FY23.

PROGRESS ON KPI #5:

Fish Habitat Improvements

In FY22, Valley Water began construction on the large woody debris and gravel augmentation (LWDGA) project to improve the fish habitat along Uvas Creek in Gilroy. The construction start was pushed to later part of the year primarily due to a lengthy U.S. Army Corps of Engineers (USACE) approval process. Construction is scheduled to be completed in FY23.

The project is designed to increase instream habitat diversity, shelter complexity, and the amount of instream shelter at three sites along Uvas Creek. The design of Site 1, located approximately 1,200 feet downstream of Santa Teresa Boulevard, consists of an engineered log jam (ELJ) of rootwad logs on the right bank intended to create hydraulic complexity and increase shelter cover and complexity. The ELJs for Sites 2 and 3, located 1,500 feet and 600 feet respectively upstream of Miller Avenue, include a bar apex jam at each site designed to cause channel bifurcation and increase habitat complexity.

Figure D4.6

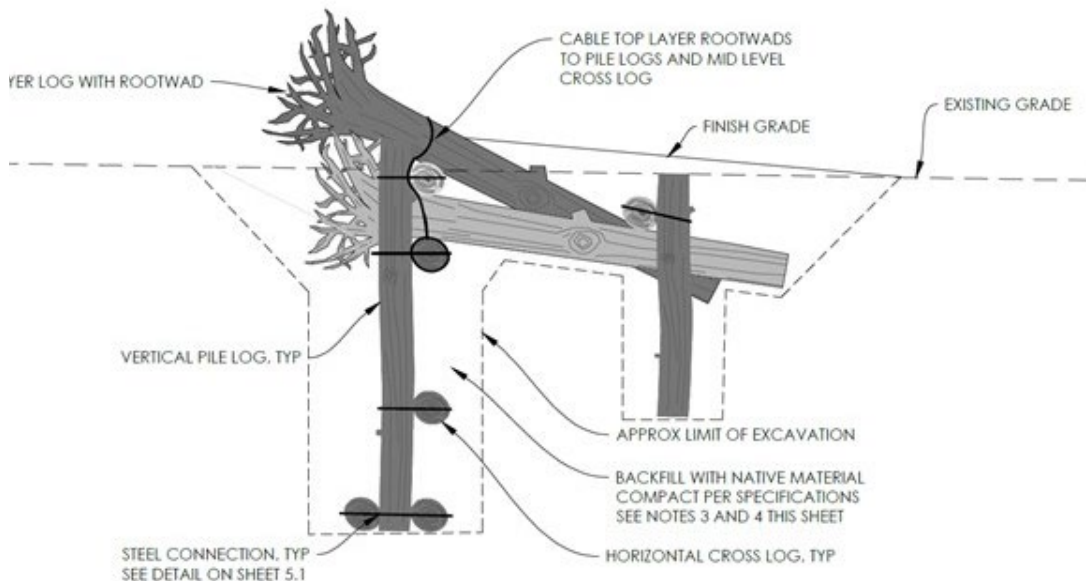


Illustration of Uvas Creek Site 2 engineered log jam structure.

Financial Information

In FY22, 26% of the annual project budget was expended.

The Ogier Ponds Planning Study (KPI #1) expended 112% of its annual budget. The over-expenditure was due to unanticipated support for ADSRP as a conservation element to the ADSRP permit process. Staff expended significant hours attending meetings, providing permit information, and collecting data for gravel augmentation.

The Almaden Lake Improvement Project (KPI #2) expended 10% of its annual budget because advertisement for construction and award did not take place in FY22. Pending permit acquisition and final design, construction is anticipated to begin in FY23.

The Fish Passage Improvements project (KPI #3) expended approximately 93% of its annual budget. The project was under-expended because bulk of the Singleton Road project construction costs were encumbered under the 2012 Safe, Clean Water Program. The actual construction was carried out in FY22.

The Fish Habitat Improvement project (KPIs #4 and #5) expended 76% of its annual budget. The under-expenditure was due to a delay in starting construction of the Uvas Creek LWDGA project, primarily because of a lengthy USACE approval process.

Figure D4.7 Fish Habitat and Passage Improvements
Financial Summary (\$ Thousands)

Fiscal Year 2021-2022									15-year Plan	
Project No. and Name	Adopted Budget	Project Carry-forward	Budget Adjustments	Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Adjusted 15-yr Plan Spent
					Actual	Encumbrance	Total			
26044003 Ogier Ponds Planning Study	\$1,051	\$70	\$0	\$1,121	\$1,246	\$6	\$1,252	112%	\$3,602	35%
26044001 Almaden Lake Capital Project	\$9,325	\$339	\$0	\$9,664	\$1,000	\$0	\$1,000	10%	\$51,209	3%
26044002 Fish Passage Improvement	\$980	\$0	(\$800)	\$180	\$167	\$0	\$167	93%	\$1,385	14%
26042002 Fish Habitat Improvement	\$865	\$0	\$0	\$865	\$658	\$1	\$660	76%	\$9,314	9%
Future Fish Passage Improvement Project Placeholder	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,813	0%
Total	\$12,222	\$409	(\$800)	\$11,831	\$3,072	\$8	\$3,080	26%	\$72,323	5%

Opportunities and Challenges

Confidence Levels

Ogier Ponds

Schedule: *Moderate confidence*

Valley Water does not own the property and will work closely with County Parks staff during planning and design activities. The planning study area will be affected by the Anderson Dam project, which is expected to convey higher than typical creek flows and deliver higher than typical sediment during the multi-year dam reconstruction.

Funding: *High confidence*

The Safe, Clean Water funding covers the cost of the planning and design phases.

Permits: *N/A*

The confidence level for permits will be determined if the project moves past the planning phase.

Jurisdictional Complexity: *Moderate confidence*

The project includes a high level of regulatory engagement as there are several listed species at the site; however, the primary objective is habitat restoration, which is expected to reduce regulatory challenges. The project is dependent on close coordination with County Parks.

Almaden Lake

Schedule: *Moderate confidence*

Resource agency permit applications are anticipated to be completed in summer 2022. Valley Water will continue to progress design to 90% and 100%. Final construction documents will need to incorporate any permit requirements. Pending permit acquisition, construction to start in FY23.

Funding: *Moderate confidence*

The Safe, Clean Water funding covers the cost of the planning, design and construction phases. However, in view of the escalating construction costs, the project construction may require additional funding. Valley Water continues to explore alternative funding sources, including federal and state grants and loans.

Permits: *Moderate confidence*

Valley Water anticipates some challenges with the acquisition of the regulatory permits for this project and is moderately confident it will receive the permits necessary to complete construction of this project. Valley Water will conduct stakeholder meetings with the regulators.

Jurisdictional Complexity: *High confidence*

Coordination with the City of San José is ongoing. This project is located on City of San José and Valley Water property and these entities have a longstanding partnership for the operation and maintenance of Almaden Lake and Almaden Lake Park.

2012 Program Funded Study Continued

In FY22, Valley Water continued the second phase of the Study of Santa Clara County Steelhead to Identify High-priority Locations for Gravel Augmentation and Large Woody Debris Placement. The second phase covers six steelhead streams in the county, namely Llagas, Pacheco, Los Trancos, San Francisquito and Calero creeks and Pajaro River. The first phase of the study, which was completed in FY18, assessed Alamitos, Guadalupe, Los Gatos, Uvas, Upper Penitencia, Coyote and Stevens creeks and Guadalupe River. The second phase is expected to be completed in FY23.

The study, funded by the 2012 Safe, Clean Water Program, includes a GIS-based reach prioritization tool that prioritized reaches based on the following eight criteria:

- Criterion 1: Source Watershed Disconnection
- Criterion 2: Remaining Source Protection
- Criterion 3: Likelihood to Improve Geomorphic Function
- Criterion 4: Proximity to Sediment Sink
- Criterion 5: Likelihood to Improve Steelhead Habitat
- Criterion 6: Risk of Increased Flooding
- Criterion 7: Ease of Implementation
- Criterion 8: Passage Impediments

San Francisquito Creek, Los Trancos Creeks and Pajaro River did not have any reaches amongst the highest scoring for either gravel augmentation or large woody debris and were, therefore, not considered in the field assessment stage. Based on further field assessments and prioritization efforts, conceptual design plans for the eight locations in Calero, Pacheco and Llagas creeks are expected to be completed in FY23.

See Appendix C: Capital Projects Jurisdictional Complexities for a list of confidence levels for each project by outside agency for funding, regulatory permitting, cities, counties and other agencies.

PROJECT D5

ECOLOGICAL DATA COLLECTION AND ANALYSIS

This project continues to build and update watershed data to track stream ecosystem conditions, helping Valley Water and other county agencies and organizations make informed watershed, asset management and natural resource decisions. The new and updated information will be used to develop or modernize integrated watershed plans (such as watershed profiles, One Water Plan and Stream Corridor Priority Plans) that identify potential projects, support grant applications, environmental analyses and permits, and are shared with land use agencies, environmental groups, and the public to make efficient and coordinated environmental decisions throughout the county. These data and plans will help integrate and enhance Valley Water's programs, projects, maintenance and stewardship actions through standardized, repeatable and defensible measurements that guide, organize and integrate information on stream and habitat conditions.

Measuring changes in ecological conditions through time allows Valley Water, resource agencies, land managers and the public to understand and respond to climate change effects and evolving creek and habitat conditions.

Benefits

- Improves natural resource, watershed and asset management decisions
- Provides a systematic, scientific guide for decisions and actions to improve stream conditions
- Supports effective and environmentally sound design options
- Provides reliable data on countywide stream conditions and basis for measuring the success of past mitigation and environmental stewardship project projects
- Facilitates a watershed approach to resource management, permitting and restoration planning
- Addresses climate change

Key Performance Indicator (FY22-36)

1. Reassess and track stream ecological conditions and habitats in each of the county's five (5) watersheds every 15 years.
2. Provide up to \$500,000 per 15-year period toward the development and updates of five (5) watershed plans that include identifying priority habitat enhancement opportunities in Santa Clara County.

Geographic Area of Benefit: Countywide

Status History

Fiscal Year	Status
FY 22	ON TARGET

Status for FY22: **ON TARGET**



CRAM survey on Guadalupe Creek tributary.

ON TARGET

Project D5 FY22 Highlights

- Commenced the Guadalupe River Watershed reassessment effort.
- Completed data collection for Valley Water's Reference Vegetation Study which documents the composition and conditions of the county's most pristine native plant communities.
- Helped fund stream temperature monitoring in the Upper Pajaro River watershed.
- Maintained and enhanced the Coyote Creek Native Ecosystem Enhancement Tool.

PROGRESS ON KPI #1:

In early FY22, Valley Water released the Coyote Creek Watershed Reassessment 2020 report, the first watershed reassessment of its kind in California. The report compares the ecological condition of creeks throughout the Coyote Creek watershed over 10 years, from 2010 to 2020. The report can be accessed at <https://fta.valleywater.org/dl/8UUOKot6aQ>.

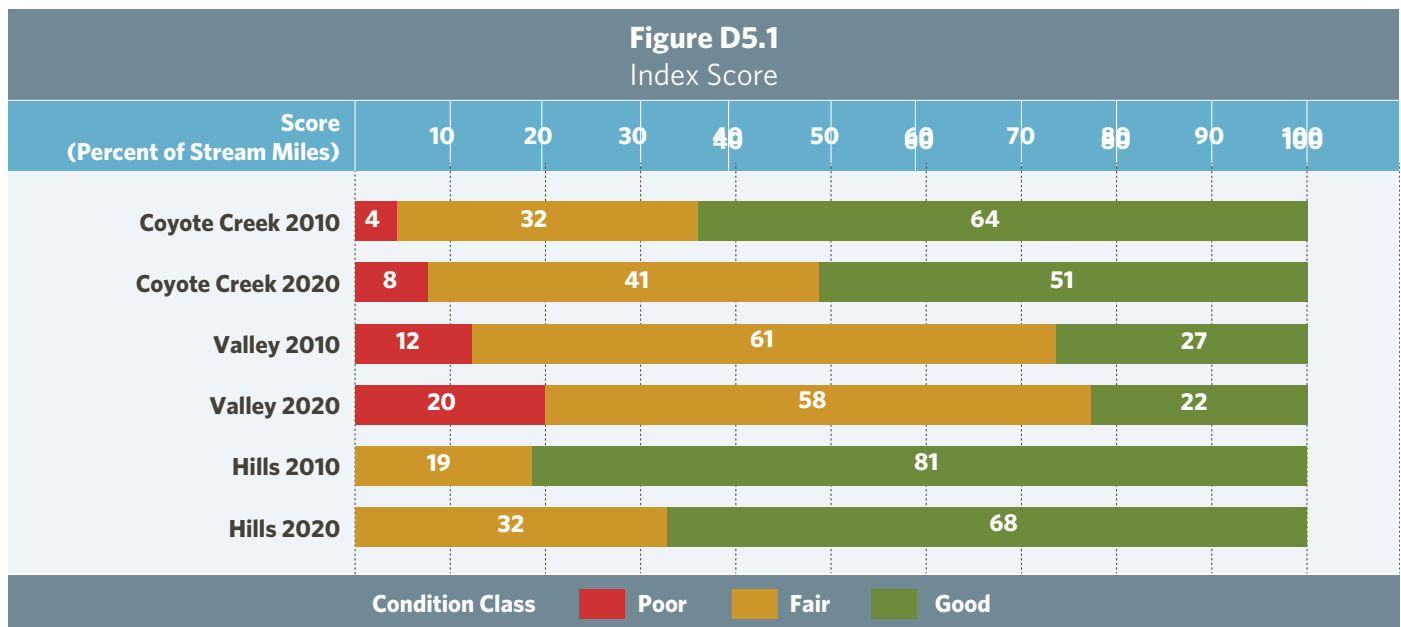
In November 2021 (FY22), Valley Water commenced the Guadalupe River Watershed reassessment effort. Preparatory tasks involved: hiring a consultant to support the design, site selection, watershed analysis, and reporting of the effort; hiring a contractor to implement the field surveys; extensive landowner outreach to gain permission to access the sites; developing decontamination protocols and acquiring associated materials to reduce the risk of spreading aquatic invasive species and plant pathogens during fieldwork; and field survey equipment and materials acquisition. Beginning in July and continuing through the summer of 2022 (FY23), Valley Water and its qualified contractor field support will survey the condition of riverine habitat at approximately 75 sites throughout the Guadalupe River Watershed. Valley Water originally assessed this watershed in 2012. A reassessment report, including the results of the reassessment and a comparison with the 2012 assessment, is expected to be completed and available in FY23.

Valley Water uses the California Rapid Assessment Method (CRAM) to assess the ecological condition of creeks in Santa Clara County's five major watersheds and document changes over time. To learn more about the methodology, visit <https://www.cramwetlands.org/>. The CRAM scores that form the basis of the watershed assessments and that have been done for other projects along numerous county creeks, lakes, and wetlands, can be accessed on <https://ecoatlas.org/>.

Several new opportunities for applying the ecological assessments and planning information generated by Project D5 occurred in FY22. Project D5 CRAM scores in Santa Clara County watersheds were used to identify sites with excellent ecological conditions that might serve as references for Valley Water's Reference Vegetation Study. This study, which Project D5 helped to fund and for which fieldwork and data entry was completed in FY22, provides detailed documentation of the composition and conditions of Santa Clara County's most pristine native plant communities. The study included numerous regionally native vegetation communities, with an emphasis on wetland and riparian habitats. At over 300 sample plots, the Vegetation Rapid Assessment method (modified from a California Native Plant Society 2018 online at <https://www.cnps.org/plant-science/field-protocols-guidelines>) was used to document plant species, percent cover, and key physical conditions, and vegetation classified under the Manual of California Vegetation (Sawyer et al. 2009 online at <https://vegetation.cnps.org/>). This understanding improves restoration and mitigation designs, site selection and success, helps standardize permit conditions and increases climate resiliency of projects. In addition to these applications, the study informs the One Water Plan, its individual watershed plans, and Stream Corridor Priority Plans. While the study method details, data analyses, and results are still being prepared, the study's raw data is provided to the public on the Project D5 webpage.

In coordination with Valley Water's One Water plan development, Project D5 helped to fund stream temperature monitoring in the Upper Pajaro River watershed in Santa Clara County, beginning in FY22. This watershed is designated as a critical habitat for south-central California Coast steelhead. While other major watersheds in the county are monitored for temperature, the Upper Pajaro River watershed has not had an organized temperature monitoring effort in place in over a decade. This monitoring will help document baseline temperature conditions, which are an essential component of aquatic habitat condition, help assess the success of mitigation and restoration projects, and help guide future stewardship efforts. The data will be critical for the One Water Plan's Upper Pajaro River watershed management. Seven water temperature data loggers were deployed in strategic locations to leverage historical data and aid current and future projects, and the data will be made available on the Environmental Monitoring Information Management System (EM-IMS) database that Project D5 established under the 2012 Safe, Clean Water Program.

Project D5 also continued to help fund the maintenance and enhancement of the Coyote Creek Native Ecosystem Enhancement Tool (CCNEET). CCNEET is the Stream Corridor Priority Plan for Coyote Creek between Anderson Dam and Montague Expressway. In FY22, the CCNEET team worked with Santa Clara County Parks and Recreation Department to add existing and planned recreational resources to the tool. Soon CCNEET users will be able to easily view these resources and learn more about them so that such resources can be avoided or potentially relocated and improved as a part of ecological enhancement efforts. More information about CCNEET is available at <https://www.sfei.org/content/video-tour-coyote-creek-native-ecosystem-enhancement-tool>.



PROGRESS ON KPI #2:

- In FY22, Valley Water determined that completing draft One Water watershed plans was a necessary precursor to any Safe, Clean Water-funded additional detailed studies, analysis or tools to be developed for watershed planning. For this reason, no Safe Clean Water funds for Project D5, KPI #2 were expended in FY22. Valley Water has initiated the development of One Water plans for Upper Pajaro River Watershed and Guadalupe River Watershed. Early results of planning indicate that a Pajaro River Native Ecosystem Enhancement Tool for the Upper Pajaro River watershed, where collaborative efforts to identify and prioritize habitat enhancements at the sub-watershed scale have never occurred, may be a logical next step for FY23.

Financial Information

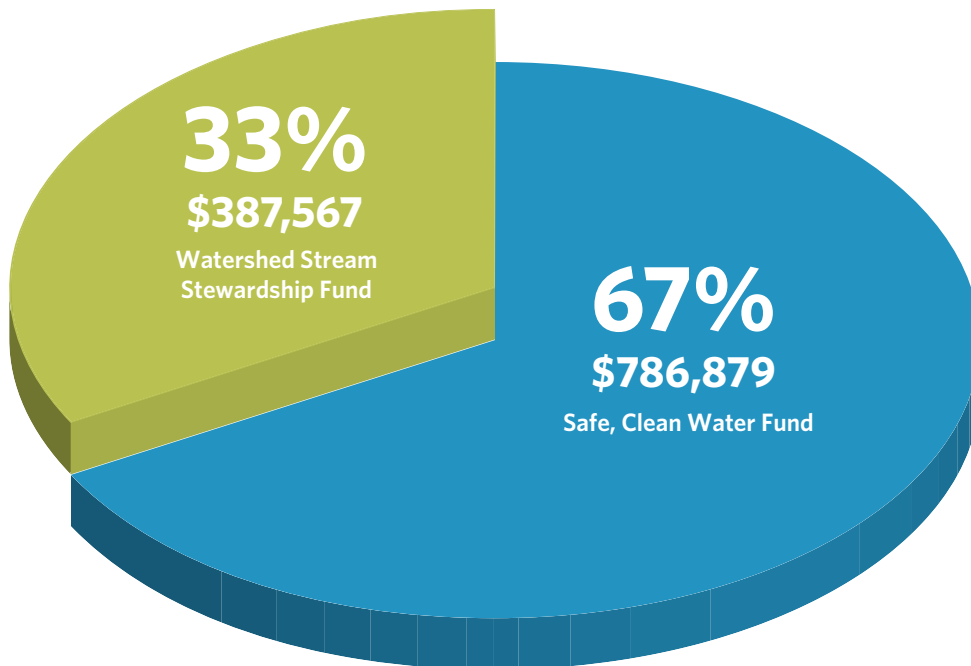
KPI #1: In FY22, 42% of the annual budget for KPI #1 was expended. The under-expenditure was to a slight delay in the Guadalupe River Watershed reassessment fieldwork. The fieldwork was to begin in May 2022, however, contracting has delayed the start until July 2023. As a result, the purchase of equipment and materials and intensive Valley Water staff effort to conduct fieldwork budgeted for FY22 did not happen during the year.

KPI #2: In FY22, 2% of the annual budget for KPI #2 was expended. The under-expenditure was due to a decision to complete draft One Water watershed plans for Upper Pajaro River Watershed and Guadalupe River Watershed, using non-Safe, Clean Water Program funds, prior to embarking on additional detailed studies or assessments that would be funded in part by the Safe, Clean Water Program KPI #2. Funds are expected to be spent in FY23 to support one or more watershed plans, including related detailed studies or assessments.

Figure D5.2 Ecological Data Collection and Analysis
Financial Summary (\$ Thousands)

Fiscal Year 2021-2022									15-year Plan	
Project No. and Name	Adopted Budget	Project Carry-forward	Budget Adjustments	Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Adjusted 15-yr Plan Spent
					Actual	Encumbrance	Total			
26041047 Ecological Data Collection and Analysis	\$787	\$0	\$0	\$787	\$181	\$151	\$332	42%	\$7,102	5%
26041049 Watershed Plan	\$101	\$0	\$0	\$101	\$2	\$0	\$2	2%	\$500	0%
Total	\$888	\$0	\$0	\$888	\$183	\$151	\$333	38%	\$7,602	5%

Figure D5.3
Ecological Data Collection and Analysis (KPI #1)
Total FY22 Project Budget: \$1,174,446



Valley Water funds this project with more than the Safe, Clean Water Program fund (Fund 26). Figure D5.3 shows the project's total adjusted annual budget inclusive of all Valley Water funding sources.

Opportunities and Challenges

CRAM surveys and watershed assessments continue to directly support the One Water Plan, its individual watershed plans and Stream Corridor Priority Plans, watershed approaches to permitting, mitigation, restoration, and stewardship. In March 2022, the Board adopted the One Water Countywide Framework and Coyote Creek Watershed Plan, a major opportunity for natural resource management. Partnerships continue to be essential to conducting the watershed assessments and implementing enhancement projects. Climate change, drought (especially its increasing frequency and intensity in the past 20 years), disease, invasive species, urban sprawl, and wildfire continue to affect ecological conditions and challenge enhancement efforts. A series of historically normal water years are necessary to build resilience to the ecological stresses. Opportunities for habitat conservation, stewardship and enhancement increase in value.

Increased encampments along local waterways by the unhoused, challenge ecological conditions and the implementation of Project D5 in several ways. Where there are concentrated numbers of unhoused along waterways, survey sites can be blocked or covered, and survey crews occasionally encounter unsafe working conditions. These areas can be cleared of vegetation; soil can be excavated or compacted; temporary structures erected; and have unsanitary water quality and notable trash and debris, resulting in degraded ecological conditions. However, such impacts tend to be localized and are mostly contained within the urban core. Valley Water leads and participates in numerous efforts with community partners to reduce such impacts, but without significant reductions in the unhoused population, these impacts are anticipated to continue.

PROJECT D6

RESTORATION OF NATURAL CREEK FUNCTIONS

This project will develop, compile and use local hydrologic and geomorphic data to identify, design and construct projects to restore and improve natural functions and stability of stream channels.

Geomorphically appropriate channels will be more resilient to damage from more intense rainfall patterns caused by climate change.

Benefits

- Uses scientific principles to improve sediment balance and reduce erosion, enhance percolation and reduce instability and sedimentation in creeks
- Can help reduce annual maintenance cost for sediment removal where erosion and incision problems can be addressed
- Improves native aquatic habitat
- Improves the aesthetic value of a stream
- Addresses climate change

Key Performance Indicators (FY22-36)

1. Construct the Hale Creek Enhancement Pilot Project, which includes restoration and stabilization of a 650-foot section of concrete-lined channel on Hale Creek, between Marilyn Drive and North Sunshine Drive on the border of Mountain View and Los Altos.
2. Construct the Bolsa Road Fish Passage Project along 1,700 linear feet of Uvas-Carnadero Creek in unincorporated Santa Clara County, which includes geomorphic design features that will restore stability and stream function.
3. Identify, plan, design, and construct a third geomorphic-designed project to restore stability and stream function by preventing incision and promoting sediment balance throughout the watershed.

Geographic Area of Benefit: Countywide



Installed sheet piles at Hale Creek

ADJUSTED

Project D6 FY22 Highlights

- Began construction of the Hale Creek Enhancement Pilot Project.
- Completed design for the Bolsa Road Fish Passage Improvement project and advertised the project for construction.

Project Location

Figure D6.1 Hale Creek Enhancement Pilot Project (KPI#1)

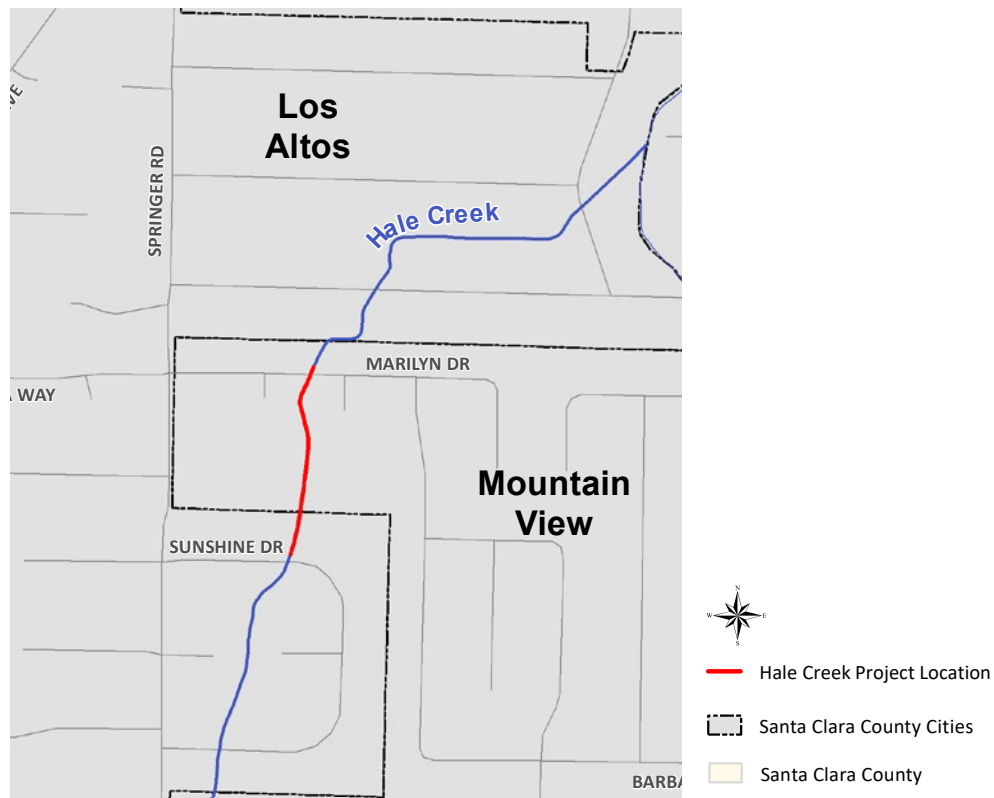
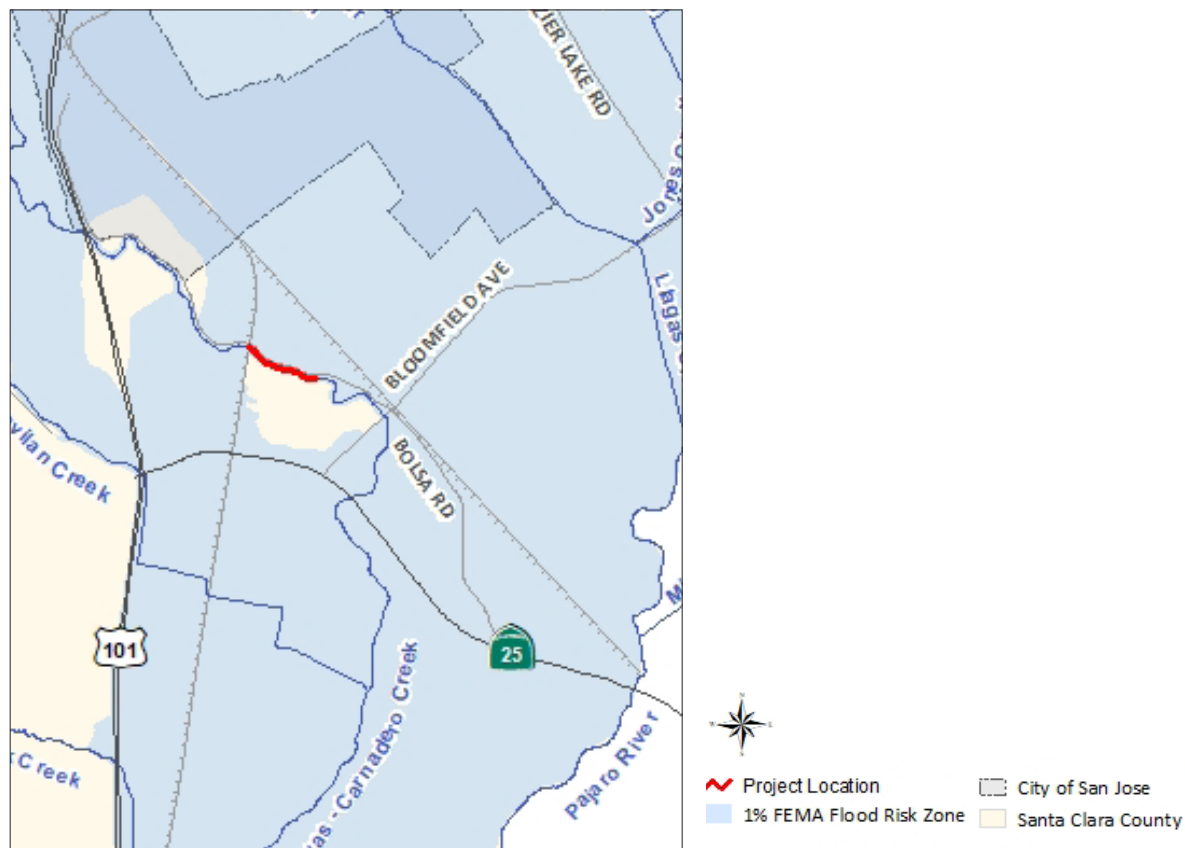
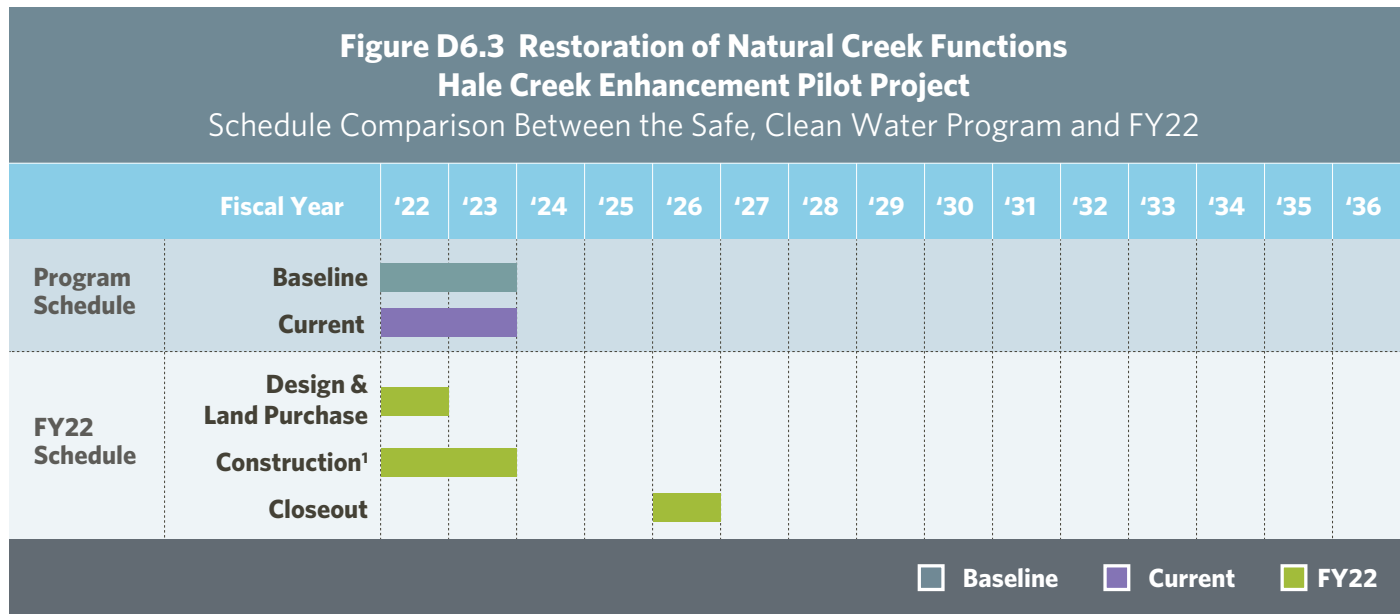


Figure D6.2 Bolsa Road Fish Passage Project (KPI#2)



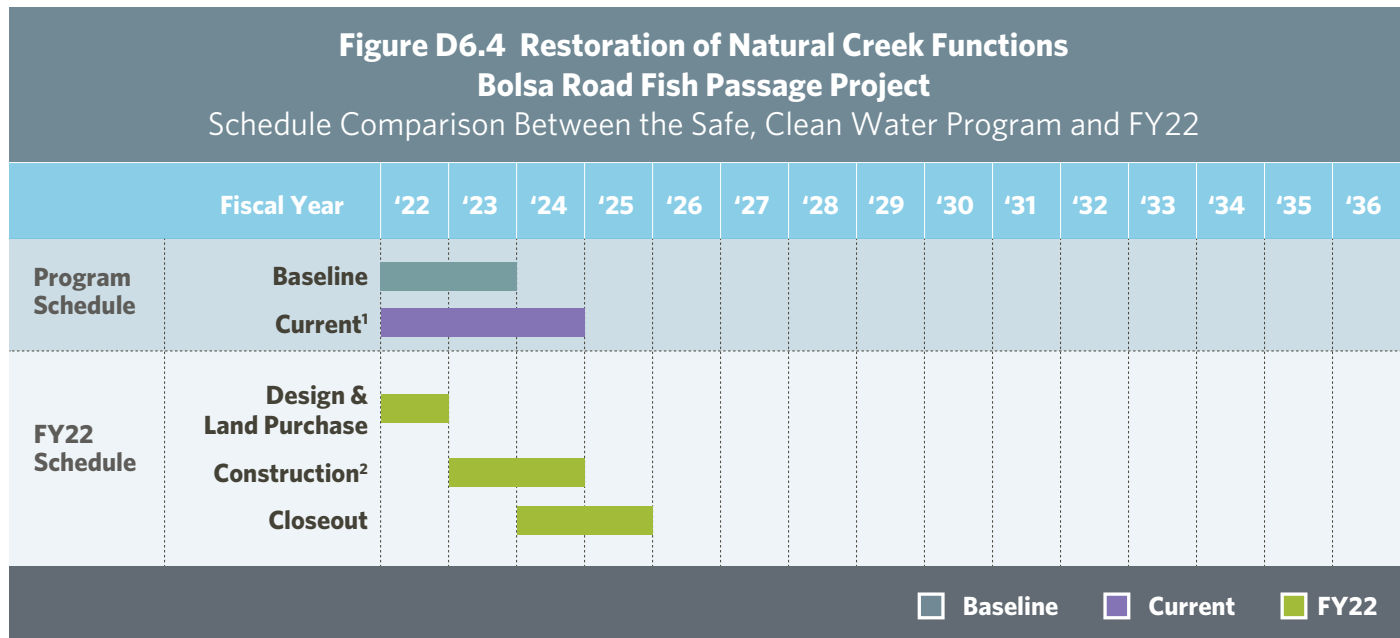
Schedule

Hale Creek Enhancement Pilot Project



1 Construction also includes a three-year plant establishment period, not shown.

Bolsa Road Fish Passage Project



1 Board approved schedule adjustment through the Change Control Process in FY22.

2 Construction also includes a three-year plant establishment period, not shown.

Status History

Fiscal Year	Status
FY 22	ADJUSTED

Status for FY22: **ADJUSTED** (Schedule Adjustment)

The FY22 annual project status for the Bolsa Road Fish Passage Project was adjusted following the Board's June 28, 2022, approval for project construction to be extended by a year to be completed in FY24 instead of FY23.

The schedule adjustment was necessitated because permit acquisition required lengthier negotiations with the permitting agencies, which resulted in a delay in advertising for project construction. The project is expected to be awarded in July 2022 with the goal to complete the in-channel work within the FY23 construction season. While in-channel construction is anticipated to be completed by the end of FY23, out-of-channel work may extend into FY24.

PROGRESS ON KPI #1:

Hale Creek Enhancement Pilot

In June 2022, Valley Water began construction of the Hale Creek Enhancement Pilot Project. Construction is scheduled to be completed in FY23. In coordination with the San Francisco Bay Regional Water Quality Control Board (RWQCB), this project has been prioritized and selected for a pilot study to restore geomorphic creek features in a confined urbanized setting. For detailed information about the geomorphology and design, view the Hale Creek Enhancement Pilot Project planning study memo, available online at www.valleywater.org/HaleCkPlanningMemo.

PROGRESS ON KPI #2:

Bolsa Road Fish Passage Project

The schedule was adjusted for construction to be extended by a year to be completed in FY24. The project construction is expected to be awarded in July 2022 with the goal to complete the in-channel work within the FY23 construction season to the extent practicable. The project consists of installing a gradually sloped riffle-pool stream complex and rehabilitating the banks adjoining the riffles and pools to achieve a stable channel configuration.

The project will restore the stream invert elevation after decades of channel incision and channel bottom lowering. The stream bottom will be steadily elevated over existing fish passage barriers, including a Union Pacific Railroad (UPRR) crossing support slab as well as a dysfunctional Denil fish ladder that was previously installed to bypass the UPRR crossing. Restoring the steelhead trout passage downstream of the UPRR crossing will provide access to spawning grounds in the upper reaches of the watershed. The project will also provide maintenance access for the riffle-pool system, restored banks and vegetation of Uvas-Carnadero Creek downstream of the UPRR crossing.

PROGRESS ON KPI #3:

The site for a third geomorphic-designed project is to be identified later in the 15-year Program cycle, based on project prioritization work done through the One Water watershed plans.

Financial Information

In FY22, 65% of the annual project budget was expended.

The under-expenditure was because of the delay in construction of Hale Creek Enhancement Pilot Project and the Bolsa Road Fish Passage Project.

Hale Creek Enhancement Pilot Project expended 64% of its annual budget. This was primarily due to a delay in right-of-way acquisition which, in turn, delayed the construction start to June 2022 versus earlier in the spring of 2022. As a result, much of the construction budget will now be spent in FY23.

Bolsa Road Fish Passage Project expended 65% of its annual budget. Permitting delays necessitated a schedule adjustment which moved the construction start to FY23, instead of FY22. The allocated budget for construction will now be spent in FY23.

There was no budget allocation for KPI #3 as the project site is to be identified later in the Program cycle.

Figure D6.5 Restoration of Natural Creek Functions
Financial Summary (\$ Thousands)

Fiscal Year 2021-2022									15-year Plan	
Project No. and Name	Adopted Budget	Project Carry- forward	Budget Adjust- ments	Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Adjusted 15-yr Plan Spent
					Actual	Encumbrance	Total			
26164001 Hale Creek Enhancement	\$3,824	\$0	\$0	\$3,824	\$1,411	\$1,053	\$2,464	64%	\$6,070	41%
26044004 D6 Bolsa Road Fish Passage Improvement	\$2,205	\$0	\$0	\$2,205	\$798	\$642	\$1,440	65%	\$6,641	22%
Future Project Placeholder	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,658	0%
Total	\$6,029	\$0	\$0	\$6,029	\$2,209	\$1,695	\$3,904	65%	\$19,369	20%

Opportunities and Challenges

Confidence Levels

Hale Creek Enhancement Pilot Project

Schedule: *High confidence*

Valley Water has obtained all necessary right-of-way for construction and construction started in June.

Funding: *High confidence*

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

Permits: *High confidence*

Valley Water has received the final remaining permit, RWQCB permit, for this project.

Jurisdictional Complexity: *High confidence*

This project is located on the border of Mountain View and Los Altos, and both cities have been supportive of the project. Valley Water will collaborate closely with both the cities during construction.

The work is being done on existing Valley Water right-of-way and easements. Valley Water has received cooperation from the adjoining project neighbors. PG&E has completed the relocation of the overhead electric lines that cross and run along the creek in several locations.

Site 2: Bolsa Road Fish Passage Project Schedule Adjustment

Confidence Levels

Schedule: *High confidence*

All work items for the Bolsa Road Fish Passage project are within Valley Water's maintenance easement. Permission to Enter agreements with adjoining commercial properties were executed in May 2019 for the contractor to access the project site safely on the south bank to avoid the busy traffic along Bolsa Road. Valley Water has received cooperation from the adjoining project neighbors.

Funding: *High confidence*

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

Permits: *High confidence*

Valley Water has received permits from the RWQCB and USACE. CDFW has issued the final Streambed Alteration Agreement for the project. Permit amendments to include the Operation and Maintenance permanent access ramps in the design have been secured.

Jurisdictional Complexity: *High confidence*

Valley Water has received cooperation from the adjoining project neighbors and Permission to Enter agreements for construction from project neighbors were extended to the end of 2025 to cover post-construction vegetation management activities.

See Appendix C: Capital Projects Jurisdictional Complexities for a list of confidence levels for each project by outside agency for funding, regulatory permitting, cities, counties and other agencies.

PROJECT D7

PARTNERSHIPS FOR THE CONSERVATION OF HABITAT LANDS

Funding from this project helps the community acquire and protect important habitat land to preserve local ecosystems. The project supports implementation of multi-agency agreements, such as the Valley Habitat Plan, that pool mitigation or conservation dollars to protect or restore large areas of habitat land.

Acquiring, restoring, connecting and protecting habitat areas helps native species to adapt to a changing climate. Large, contiguous land patches allow species room to move and adapt, to find cover from the damaging effects of climate change and to reestablish resting and rearing areas.

Benefits

- Protects, enhances and restores natural resources in Santa Clara County
- Contributes to the recovery of special status species
- Coordinates regional mitigation or conservation projects to create larger, less fragmented conservation lands that are more beneficial for wildlife and the environment
- May fulfill a portion of Valley Water's responsibilities to the Valley Habitat Plan
- Addresses climate change

Key Performance Indicator (FY22-36)

1. Provide up to \$8 million per 15-year period for the acquisition or enhancement of property for the conservation of habitat lands.

Geographic Area of Benefit: Countywide

Status History

Fiscal Year	Status
FY 22	ON TARGET

Status for FY22: ON TARGET

PROGRESS ON KPI #1:

Valley Water is exploring partnerships and identifying opportunities for acquisition and enhancement of habitat lands.



Coyote Ceanothus

ON TARGET

Project D7 FY22 Highlights

- Continued to engage potential partners, such as the Valley Habitat Agency, regarding opportunities for acquisition and enhancement of habitat lands in the county.

Financial Information

Since the project is still in the exploratory stage, no Safe, Clean Water funds were budgeted or expended in FY22.

Figure D7.1 Partnerships for the Conservation of Habitat Lands Financial Summary (\$ Thousands)									
Fiscal Year 2021-2022								15-year Plan	
Adopted Budget	Project Carryforward	Budget Adjustments	Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Adjusted 15-yr Plan Spent
				Actual	Encumbrance	Total			
\$0	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$8,008	0%

Opportunities and Challenges

Valley Water had ongoing engagement with potential partners such as the Valley Habitat Agency regarding opportunities for acquisition and enhancement of habitat lands in Santa Clara County. One challenge with Project D7 is spreading out funding expenditures throughout the 15-year cycle. If too much is spent on opportunities identified early in the cycle, the ability to partner on opportunities that come up later may be missed. Alternatively, waiting too long to commit funds may also be a limitation. Criteria for allocation of D7 funds will be updated to ensure prioritization of high-value habitat lands for acquisition and enhancement.

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Priority E

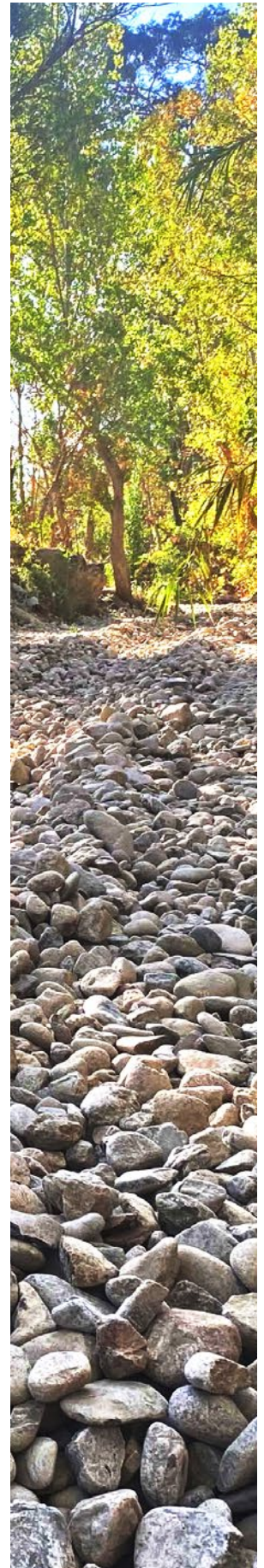
Provide Flood Protection to Homes, Businesses, Schools, Streets, and Highways



Priority E focuses on providing flood protection through major capital construction projects. Projects are prioritized to protect the largest number of people, homes and businesses, as well as safeguard the highways, streets, public transportation and business centers that people depend on for their livelihoods.

Almost all the construction projects under this priority describe a preferred project that relies on state and federal government funding and a local-funding-only project. Should federal funding become scarce, Valley Water would reduce the project scope to the local-funding-only project, as described in the individual project summaries. Whenever possible, Valley Water also leverages funds from state, local municipalities and other stakeholders.

Climate change is a global reality and is expected to result in sea-level rise and more variable weather patterns, leading to potentially bigger and more frequent floods. Valley Water incorporates climate change projections, especially sea-level rise, in design and construction of more resilient flood protection projects that increase the capacity of channels to convey higher storm events without overbanking into local streets, highways and neighborhoods.



Project E1: Coyote Creek Flood Protection

Project E2: Sunnyvale East and Sunnyvale West Channels Flood Protection

Project E3: Lower Berryessa Flood Protection, including Tularcitos and Upper Calera Creeks (Phase 3)

Project E4: Upper Penitencia Creek Flood Protection

Project E5: San Francisquito Creek Flood Protection

Project E6: Upper Llagas Creek Flood Protection

Project E7: San Francisco Bay Shoreline Protection

Project E8: Upper Guadalupe River Flood Protection

PROJECT E1

COYOTE CREEK FLOOD PROTECTION, MONTAGUE EXPRESSWAY TO TULLY ROAD—SAN JOSÉ

This project is to plan, design and construct improvements along approximately nine (9) miles of Coyote Creek, between Montague Expressway and Tully Road, in San José. The primary objective is to provide protection from floods up to the level that occurred on February 21, 2017, equivalent to approximately a 5% flood (20-year event). In December 2019, the Valley Water Board of Directors voted to allocate local funding for construction of the preferred project; however, Valley Water is also exploring additional external funding sources and partnership opportunities.

Since 2017, Valley Water has implemented several short-term interim projects to help reduce the risk of flooding along Coyote Creek. These include the installation of an interim floodwall and embankment along the creek in the Rock Springs community. This structure protects the Rock Springs community from a flood event equivalent to the February 2017 flood. Other interim projects include repairing a 150-foot levee adjacent to the South Bay Mobile Home Park, installing flood gauges on bridges that provide real-time visual information on water levels and removing invasive vegetation from Valley Water and City property in parts of the creek that experienced the most flooding.

Benefits

- Protects approximately 600 parcels from the level of flooding that occurred on February 21, 2017, approximately a 5% flood
- Improves water quality, enhances stream habitat and increases recreational opportunities
- Provides opportunities to incorporate revegetation and aesthetic elements to the Coyote Creek park chain in the project
- Addresses climate change

Key Performance Indicator (FY22–36)

1. Construct flood protection improvements along Coyote Creek between Montague Expressway and Tully Road to provide protection from floods up to the level that occurred on February 21, 2017, approximately a 5% (20-year) flood event.

Geographic Area of Benefit: San José



Public open house for Coyote Creek Flood Management Measures Project at Selma Olinder Park in San José.

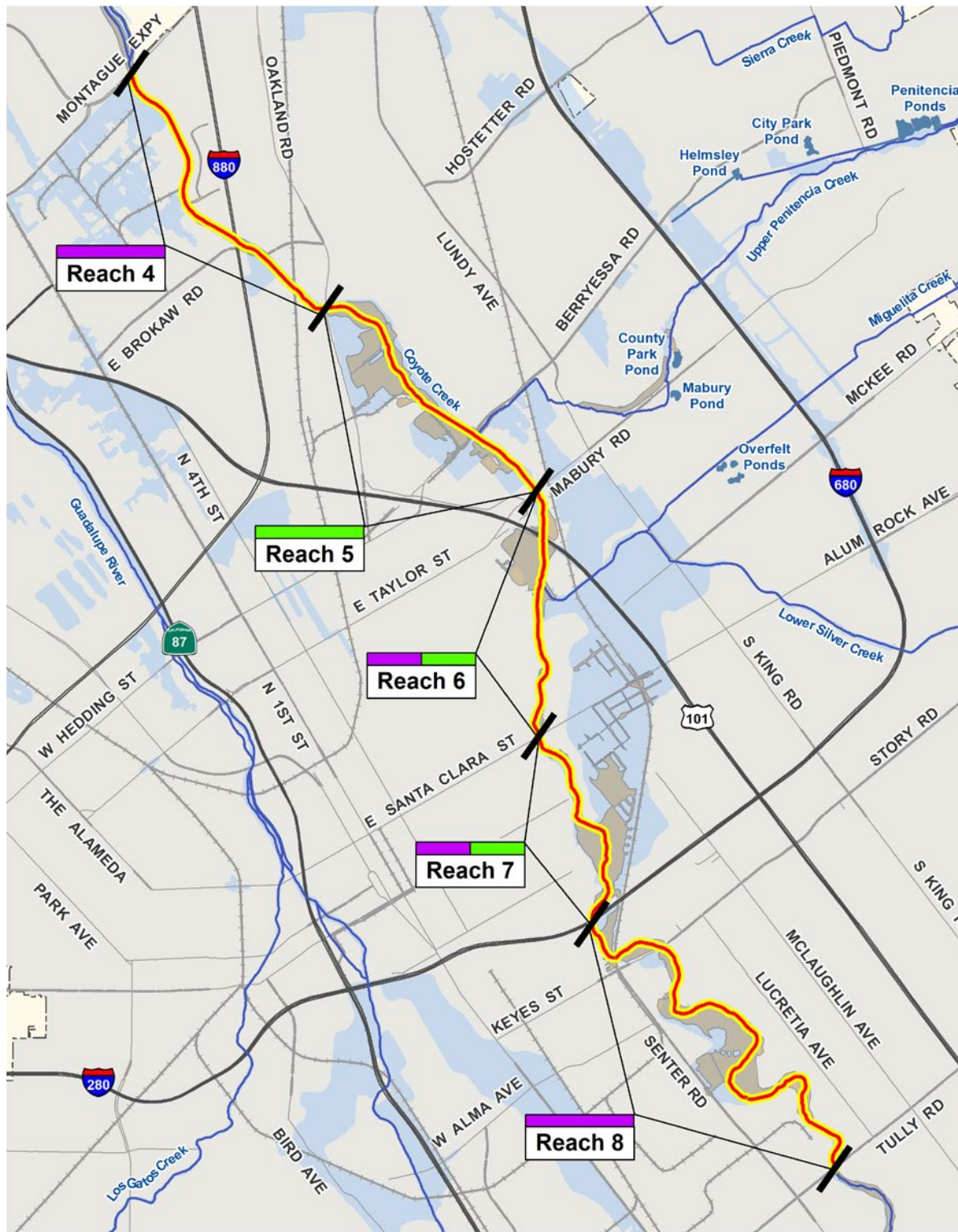
ON TARGET

Project E1 FY22 Highlights

- Completed 90% design for the Coyote Creek Flood Management Measures Project, which the Water Utility Enterprise is funding as part of the Anderson Dam Seismic Retrofit project.
- Completed 30% design for the Coyote Creek Flood Protection Project funded by the Safe, Clean Water Program.
- Conducted outreach, including public meetings, to provide updates and to gain community input on the proposed flood protection elements.

Project Location

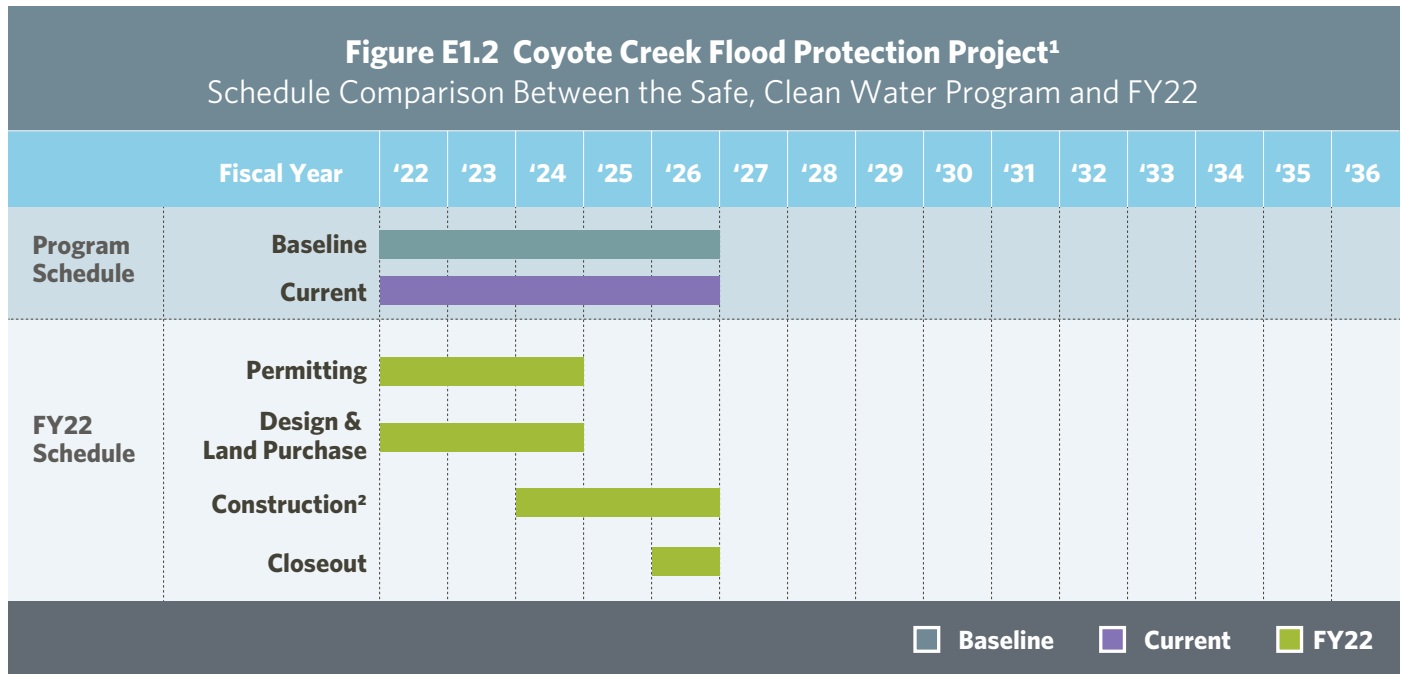
Figure E1.1



- Coyote Creek Flood Protection Project (CCFPP)
- Coyote Creek Flood Management Measure (CCFMMP)
- Project Location
- Locally Funded Project
- 1% FEMA Flood Risk Zone
- 2017 Flood Event
- City of San Jose
- Santa Clara County



Schedule



- 1 40% of the project is being constructed as part of the FERC-ordered compliance project for Anderson Dam and, therefore, the schedule for those elements is shown under Project C1: Anderson Dam Seismic Retrofit.
- 2 Construction also includes a three-year plant establishment period, now shown.

Status History

Fiscal Year	Status
FY 22	ON TARGET

Status for FY22: **ON TARGET**

PROGRESS ON KPI #1:

In FY22, Valley Water completed 30% design for the Coyote Creek Flood Protection Project, which is one element of the Coyote Creek project. The Coyote Creek project is comprised of two projects—the Coyote Creek Flood Protection Project (CCFPP) and the Coyote Creek Flood Management Measures Project (CCFMMP). The Safe, Clean Water Program is funding CCFPP, while Valley Water's Water Utility Fund is funding CCFMMP.

The Federal Energy Regulatory Commission (FERC) has jurisdiction over Anderson Dam, located on Coyote Creek in Morgan Hill. In February 2020, FERC directed Valley Water to immediately implement risk reduction measures to protect the public from the risk of Anderson Dam failure due to seismic activity and develop and implement necessary avoidance, minimization and mitigation measures. In compliance with the FERC order, Valley Water took several actions, including the expedited construction of the Anderson Dam Tunnel Project (ADTP), an element of a part of the Anderson Dam Seismic Retrofit Project.

Valley Water identified areas within Coyote Creek at flood risk because of the construction of the new low-level outlet under the ADTP. Approximately 40% of the Coyote Creek project is necessary to be designed, constructed and expedited as avoidance and minimization measures in anticipation of the construction of the ADTP.

Consequently, Valley Water created CCFMMP to be implemented along mid-Coyote Creek in San José, between Highway 280 and Oakland Rd. It consists of the acquisition or elevation of up to 10 structures on nine (9) parcels and the construction of up to seven (7) spans of off-stream floodwalls or levees to reduce flood risks arising from higher maximum Anderson Dam low-level outlet flows, and Coyote Creek inflows resulting from storm events. 90% Plans have been completed for CCFMMP and

a construction contract is anticipated to be awarded in late 2022. CCFMMP must be constructed by the completion of ADTP, which is scheduled for FY24.

CCFPP, which is the remaining approximately 60% of the flood protection project, continues to be funded by the Safe, Clean Water Program. CCFPP will need to be constructed by the end of 2025 (FY26), the same time as the completion of the Anderson Dam Stage 2 diversion system.

The two projects—CCFPP and CCFMMP—will continue on their individual project timelines. The map below shows Reach 5 and sections of Reaches 6 and 7 as part of CCFMMP, with construction anticipated to begin in late 2022 (FY23) and last through early 2024 (FY24). Reaches 4, 8, and parts of 6 and 7 comprise CCFPP, with construction anticipated to start in early 2024 (FY24) and be completed by the end of 2025 (FY26).

In FY22, Valley Water continued its outreach efforts. In September 2021, Valley Water presented to the City of San Jose's Parks and Recreation Commission the proposed project elements in the city's parks.

Valley Water, in partnership with the City of San Jose's Parks, Recreation and Neighborhood Services Department, hosted three public meetings in October 2021 to receive neighborhood input on the proposed flood protection elements located in the city's parks. The input helped Valley Water refine the selected flood reduction alternatives. In February 2022, Valley Water hosted a virtual public meeting to provide an update on the progress of the design and how the public input was incorporated. Valley Water also hosted two open house-style public meetings in May 2022 to engage with the communities and respond to their questions on the progress of the projects.

Financial Information

In FY22, 77% of the annual project budget was expended.

The under-expenditure was because real estate transactions for project easements were not completed and the agreement for construction management services was not awarded in FY22. Also, the level of CEQA documentation had not been finalized in FY22.

Figure E1.3 Coyote Creek Flood Protection Financial Summary (\$ Thousands)									
Fiscal Year 2021-2022								15-year Plan	
Adopted Budget	Project Carryforward	Budget Adjustments	Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Adjusted 15-yr Plan Spent
				Actual	Encumbrance	Total			
\$1,596	\$1,282	\$26	\$2,903	\$2,202	\$45	\$2,247	77%	\$46,605	7%

Opportunities and Challenges

Funding Opportunities

Valley Water is evaluating many funding opportunities for the Coyote Creek project. Alternative funding sources, including federal funding, state grants and additional local funding sources, are being explored. For this project, Valley Water is also seeking a low-cost federal loan under the Water Infrastructure Finance and Innovation Act of 2014.

Construction Schedule Challenge

An important challenge is that the CCFPP needs to be implemented by the end of 2025 (FY26), the same time as the completion of the Anderson Dam Stage 2 diversion system. This allows approximately four years for the project to be designed and constructed, which is an ambitious target for a large and complicated project.

Confidence Levels

Schedule: *Moderate confidence*

Based on the expedited adjusted schedule with a target completion date of FY26, Valley Water should be able to meet the current project schedule given successful permitting and right-of-way acquisitions.

Funding: *Moderate confidence*

The Safe, Clean Water Program is funding CCFPP, which is approximately 60% of the larger Coyote Creek project. Valley Water's Water Utility Fund is funding CCFMMP, which constitutes the remaining 40% of the Coyote Creek project. However, completion of both projects may require additional funding. Valley Water continues to explore alternative funding sources, including federal funding, state grants and other local funding sources.

Permits: *Moderate confidence*

The project is designed to minimally impact creek resources, with almost all elements outside the creek banks. By minimizing in-channel work and its impacts, the permit application and acquisition process should proceed more expeditiously.

Jurisdictional Complexity: *High confidence*

All local agencies, the City of San José and the County of Santa Clara, are fully cooperating due to the significant need for the project.

See Appendix C: Capital Projects Jurisdictional Complexities for a list of confidence levels for each project by outside agency for funding, regulatory permitting, cities, counties and other agencies.

PROJECT E2

SUNNYVALE EAST AND SUNNYVALE WEST CHANNELS FLOOD PROTECTION, SAN FRANCISCO BAY TO INVERNESS WAY AND ALMANOR AVENUE—SUNNYVALE

This project is to upgrade approximately 6.4 miles of the existing Sunnyvale East Channel to provide 1% flood protection (100-year event) to 1,618 parcels and approximately three (3) miles of the existing West Channel to provide 1% flood protection for 47 acres of highly valuable industrial lands, including the Onizuka Air Force Base.

The Sunnyvale East Channel and Sunnyvale West Channel improvement projects have been combined into a single flood protection project with a single Environmental Impact Report (EIR) to reduce construction costs and improve efficiencies. Both projects decrease channel turbidity and sediment by repairing erosion sites, thereby improving water quality and reducing sediment to the San Francisco Bay.

In 2018, Valley Water entered into a Memorandum of Understanding with Google, LLC (Google) to incorporate Google's proposed enhancement effort along 1,100 linear feet of the Sunnyvale West Channel into the project. This portion of the project will also be part of Google's Caribbean Campus Project. Valley Water has completed 100% design and has submitted all required permit applications for the project. Once all permits are received, Valley Water will begin construction.



Google Sunnyvale West Channel Enhancement Project (looking North/Downstream).

ADJUSTED

Project E2 FY22 Highlights

- The Board approved an agreement with Google for them to construct and maintain their West Channel Enhancement project.
- The Board approved the CEQA addendum, addressing project changes resulting from the partnership with Google as well as the City of Sunnyvale Wastewater Pollution Control Plant.
- 99% of the project design was completed.

Benefits

- Provides 1% flood capacity for approximately 6.4 miles of channel along Sunnyvale East and approximately three (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 channel water quality by providing erosion control measures to decrease sediment and turbidity
- Identifies recreational opportunities that can be integrated by the City of Sunnyvale and others as appropriate
- Addresses climate change

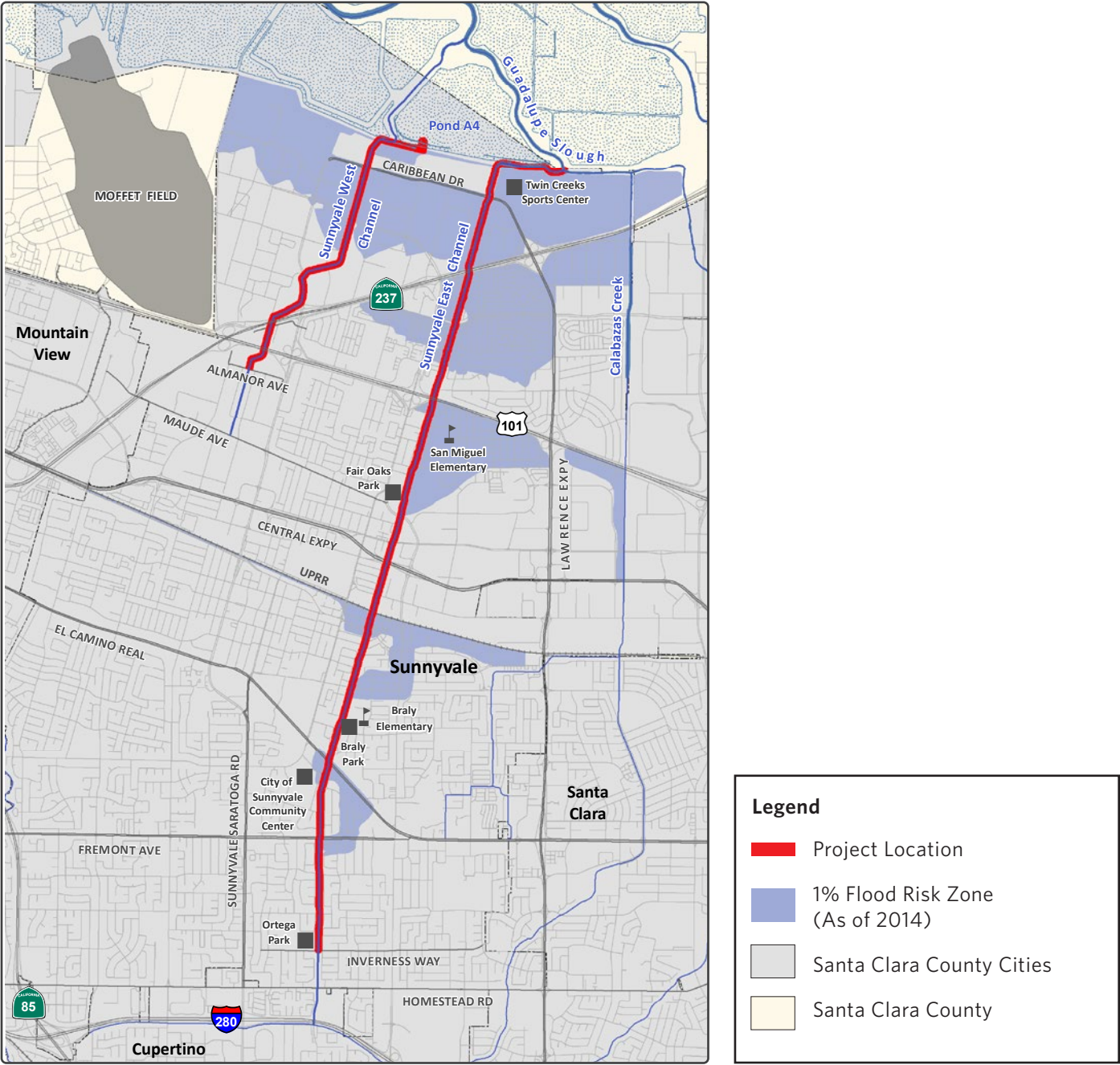
Key Performance Indicator (FY22-36)

1. Provide 1% (100-year) flood protection for 1,618 properties and 47 acres (11 parcels) of industrial land, while improving stream water quality and working with other agencies to incorporate recreational opportunities.

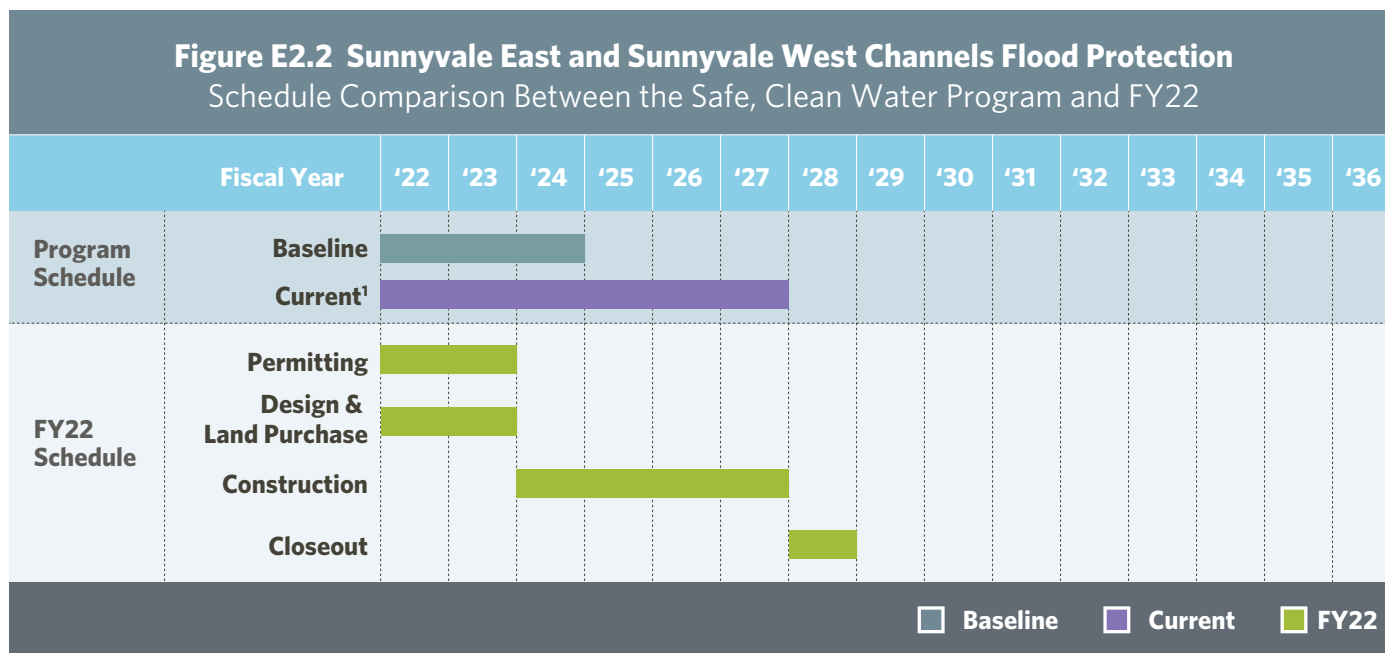
Geographic Area of Benefit: Sunnyvale

Project Location

Figure E2.1



Schedule



1 Board approved schedule adjustment through the Change Control Process in FY21 and FY22.

Status History

Fiscal Year	Status
FY 22	ADJUSTED

Status for FY22: **ADJUSTED** (Schedule Adjustment)

The FY22 annual project status is adjusted following the Board's approval for project construction to occur in FY24-27, instead of the previously adjusted schedule of FY22-26. Earlier in FY21, the Board had approved a schedule adjustment for construction to be completed in FY26 instead of FY24. The Board approved the initial adjustment on June 8, 2021, during the approval of the Safe, Clean Water Program's 5-Year Implementation Plan: Fiscal Years 2022-2026.

The latest schedule adjustment, approved on June 28, 2022, was required because of the coordination with Google LLC (Google) regarding their Caribbean Campus Project that enhances approximately 1,100 linear feet of the Sunnyvale West Channel and generates onsite mitigation for use by Valley Water.

In June 2017, Valley Water submitted all the required permit applications to various state and federal regulatory agencies. However, the resource agencies requested Valley Water address project impacts with onsite and in-kind mitigation instead of an offsite mitigation bank as Valley Water had proposed in the 2017 permit application. In 2018, Valley Water entered a Memorandum of Understanding with Google to share costs associated with integrating flood conveyance improvements on the West Channel with Google's campus development project. The project, referred to as the West Channel Enhancement Project, provides excess onsite and in-kind mitigation that Valley Water will utilize to offset some of the impacts of the Sunnyvale East and Sunnyvale West Channels Project.

In February 2022, following continued coordination with Google, the Board approved an agreement with Google for them to construct and maintain their West Channel Enhancement Project. Meanwhile, due to the length of elapsed time for completion of the Valley Water agreement with Google, in June 2021, the San Francisco Bay Regional Water Quality Control Board (RWQCB) denied Valley Water's 2017 permit application and requested that the 401 Water Certification application be

resubmitted. Previous review comments from the RWQCB will be incorporated into the application re-submittal.

Since portions of the project have been refined and five (5) years have transpired since permit applications in 2017, Valley Water will resubmit permit applications in early FY23 to the RWQCB, the California Department of Fish and Wildlife, Bay Conservation and Development Commission and the U.S. Army Corps of Engineers (USACE). The USACE will initiate consultation with the U.S. Fish and Wildlife Service and National Marine Fisheries Service.

PROGRESS ON KPI #1:

- In FY22, Valley Water continued working on the final design, which is expected to be completed in FY23 when the City of Sunnyvale and resource agency permit comments are incorporated.
- Valley Water has acquired most right-of-way and temporary staging area easements for project construction. Valley Water continued to work on executing leasing agreements from the adjacent property owners—Santa Clara County and the San Francisco Public Utilities Commission (SFPUC)—for temporary construction staging and temporary construction easements. All leasing agreement acquisitions are anticipated to be executed in FY23, prior to construction advertisement.
- Valley Water expects to resubmit permit applications in early FY23. Depending on how long permit negotiations with the various resource agencies take, Valley Water hopes to receive the regulatory permits by FY24. Upon receipt of the required permits, the project will be immediately advertised for construction (FY24), with anticipated completion in FY27.
- On April 24, 2018, the Board approved a Memorandum of Understanding (MOU) with Google to form a partnership. On Feb. 22, 2022, the Board approved an agreement with Google for a design change along approximately 1,100 linear feet of the Sunnyvale West Channel as part of its proposed site development for the Google Caribbean Campus Project. The Google project will create onsite and in-kind mitigation opportunities by constructing a wider channel with larger setback levees without floodwalls. The Google project will enhance public access and provide Valley Water the opportunity to utilize excess onsite and in-kind mitigation created by the Google project to offset some impacts from the Valley Water project. Valley Water has agreed to contribute \$2.6 million towards the Google project. The amount of \$2.6 million represents the estimated costs for the flood protection improvements, as designed by Valley Water, within the Google project limits that Valley Water will no longer need to construct.
- In addition, on February 22, 2022, the Board approved the CEQA addendum, which addresses project changes resulting from the Google Caribbean Campus Project and the Valley Water-City of Sunnyvale Wastewater Pollution Control Plant joint shared wall project.
- In December 2020, an amendment to a cost-sharing agreement between Valley Water and the City of Sunnyvale to construct recreational trails was finalized, extending an original 2016 cost-sharing agreement to December 2025. This extension accommodates the delayed construction timeline for the project. A related and preceding Joint Use Agreement between Valley Water and the City of Sunnyvale for recreational trail use and maintenance remains in place, as enacted in 2016, for a term of 25 years (until 2041).

Financial Information

In FY22, approximately 38% of the annual project budget was expended.

During the development of the FY22 budget, negotiations were still ongoing with Google and it was assumed that Valley Water would be required to prepay in FY22 the \$2.6 million to Google. However, under the final Google-Valley Water agreement, Valley Water will pay \$2.6 million after Google completes the work and Valley Water approves the work (FY23 or FY24). As a result, the unspent dollars from FY22 will be moved into future years, while future spending will also be adjusted in accordance with the changed construction schedule. The overall project cost is not expected to change.

Figure E2.3 Sunnyvale East and Sunnyvale West Channels Flood Protection
Financial Summary (\$ Thousands)

Fiscal Year 2021-2022								15-year Plan	
Adopted Budget	Project Carryforward	Budget Adjustments	Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Adjusted 15-yr Plan Spent
				Actual	Encumbrance	Total			
\$0	\$3,271	\$0	\$3,271	\$1,253	\$0	\$1,253	38%	\$49,268	3%

Opportunities and Challenges

Confidence Levels

Schedule: *Moderate confidence*

Valley Water continues to work on acquiring the temporary rights-of-way acquisitions needed for construction and executing the necessary relocation agreements with the various utility owners. These activities are expected to be finalized in FY23, which would allow project construction to begin in FY24. The design is 100% complete, except for incorporating City of Sunnyvale utility relocation design revisions and incorporation of the pending permit conditions into the construction documents.

Permanent rights-of-way required for the project have been acquired.

Sunnyvale East Channel

The most significant schedule challenge is the phased construction timeline to replace the existing Caribbean Drive Bridge with a new triple-reinforced concrete box (RCB) culvert and the relocation of existing utilities crossing the bridge. The Caribbean Drive Bridge currently conveys multiple utilities, including 12-inch water and reclaimed water lines, multiple AT&T fiber-optic lines and PG&E power lines. Coordination with AT&T and PG&E to relocate fiber-optic lines and temporary relocation of power lines is ongoing and expected to be finalized before construction begins in FY24. Valley Water had previously requested the City of Sunnyvale to consider allowing a complete closure of Caribbean Drive to avoid a two-year construction window, expensive detours, lane closures, public safety, and other concerns involving partial closure. The City of Sunnyvale elected to require Valley Water to phase the construction with a partial closure of Caribbean Drive, thus requiring a two-year construction window.

Sunnyvale West Channel

The most significant schedule challenge is coordinating the Carl Road RCB culvert construction with the City of Sunnyvale Wastewater Pollution Control Plant (WPCP). Carl Road crossing serves as the only access to portions of the WPCP outlet pond facilities and the west landfill. In addition, vital landfill gas extraction lines and city sanitary sewer vitrified clay pipe (VCP) mains cross the existing Carl Road culvert and are required to remain in service 24 hours a day, seven days a week. To minimize the risk of interrupting service from damage to the existing VCP sewer lines during the construction and to partner with the city to replace aging sewer pipes, the sewer lines will be replaced with a single 36-inch sewer line. This line will cross the West Channel and connect to the existing sewer system.

Also, Valley Water and the City of Sunnyvale are partnering on a cost-sharing agreement for a shared portion of a perimeter wall (floodwall/security) around the city WPCP, located along the Sunnyvale West Channel. The shared portion of the wall would act as both a floodwall and a security wall for the WPCP. This shared portion of the wall would be constructed by the City of Sunnyvale, with a design review by Valley Water. The city is currently working on finalizing the design for the shared portion of the perimeter wall and estimates construction to begin in 2023.

These partnerships with the city and Google described above resulted in minor project changes that required Valley Water to prepare an EIR addendum, which the Board approved on February 22, 2022.

Funding (combined): *Moderate confidence*

The Safe, Clean Water Program funding covers the cost of the planning, design and construction phases. However, in view of the escalating construction costs, the project construction may require additional funding. Valley Water continues to explore alternative funding sources, including federal and state grants and loans.

Under the Board-approved agreement with Google, Valley Water will contribute \$2.6 million to the Google project, which is the estimated amount Valley Water would have spent to construct that reach. Therefore, the Valley Water/Google cost-sharing has not resulted in additional construction costs for Valley Water.

Also, Valley Water is working with the City of Sunnyvale to finalize the cost-sharing agreement for the shared portion of the new perimeter wall around the city's WPCP. Similar to the Google agreement, the upcoming cost-share agreement between Valley Water and the city would only include the cost that Valley Water would have incurred to design and construct the Valley Water shared length of the wall. Valley Water's estimated contribution for the shared wall is currently \$400,000 for the design and \$3.55 million for the construction, subject to Board approval.

Permits (combined): *Moderate confidence*

The most significant overall challenge to the project is securing the necessary regulatory agency permits in a timely manner to proceed with construction. Valley Water submitted all the required permit applications in June 2017 to the various state and federal regulatory agencies. However, due to the elapsed time, in June 2021, the RWQCB denied Valley Water's 2017 application and requested that the 401 Water Quality Certification be resubmitted, incorporating the project revisions addressed in Valley Water's CEQA addendum.

There is an ongoing discussion with the regulatory agencies regarding the nature and origin of the Sunnyvale East and West Channels. Valley Water constructed the storm drain systems in the 1950s and 1960s. Both channels have no naturally occurring headwaters, resulting in extremely limited existing channel vegetation; the project's environmental impacts are expected to be minimal. Valley Water will continue to work with the RWQCB to address their concerns and reduce the project impacts to the extent possible.

Upon receipt of the various regulatory agency permits, permit conditions and requirements will be incorporated into the Final Construction Documents before the project can be advertised for construction, anticipated in FY24.

Jurisdictional Complexity (combined): *High confidence*

The entire project is within the limits of the City of Sunnyvale. Valley Water has coordinated the planning and design efforts by forwarding to the city the 30%, 60%, 90% and 100% design submittals for review and comment. Valley Water continues to work with the city to address their comments on the various city utility relocation designs required for the project. Valley Water and the city have previously executed a cost-sharing agreement to construct public trails as part of the project and have executed a Joint Use Trail Agreement. Google and Valley Water continue to meet monthly to coordinate the planning, design and construction of this project and several other Google-Valley Water projects.

See Appendix C: Capital Projects Jurisdictional Complexities for a list of confidence levels for each project by outside agency for funding, regulatory permitting, cities, counties and other agencies.

PROJECT E3 LOWER BERRYESSA FLOOD PROTECTION, INCLUDING TULARCITOS AND UPPER CALERA CREEKS (PHASE 3)—MILPITAS

This project is located in the City of Milpitas and includes Tularcitos Creek and Upper Calera Creek, which are two tributary creeks of Lower Berryessa Creek. Once constructed, this project will provide 1% (100-year event) flood protection to 1,100 parcels affected by Upper Calera Creek from the drop structure upstream of Arizona Avenue upstream to José Higuera Adobe Park, and to an estimated 320 parcels along Tularcitos Creek between its confluence with Berryessa Creek and Interstate 680. Additionally, this project will address inadequate maintenance access along all three creeks, which has made past maintenance more difficult, costly and time-consuming. Design for this project is slated to begin in 2032.

Benefits

- Provides 1% flood protection for an estimated 1,420 parcels along Upper Calera and Tularcitos creeks
- Improves access for long-term channel maintenance for both creeks
- Incorporates opportunities to integrate levees with the City of Milpitas trail system
- Identifies opportunities for stream habitat enhancement and/or restoration
- Addresses climate change

Key Performance Indicator (FY22-36)

1. With local funding only: Complete the design phase of the 1% (100-year) flood protection project to protect an estimated 1,420 parcels.

Geographic Area of Benefit: Milpitas



Berryessa Creek upstream of the confluence with Lower Penitencia Creek.

SCHEDULED TO START

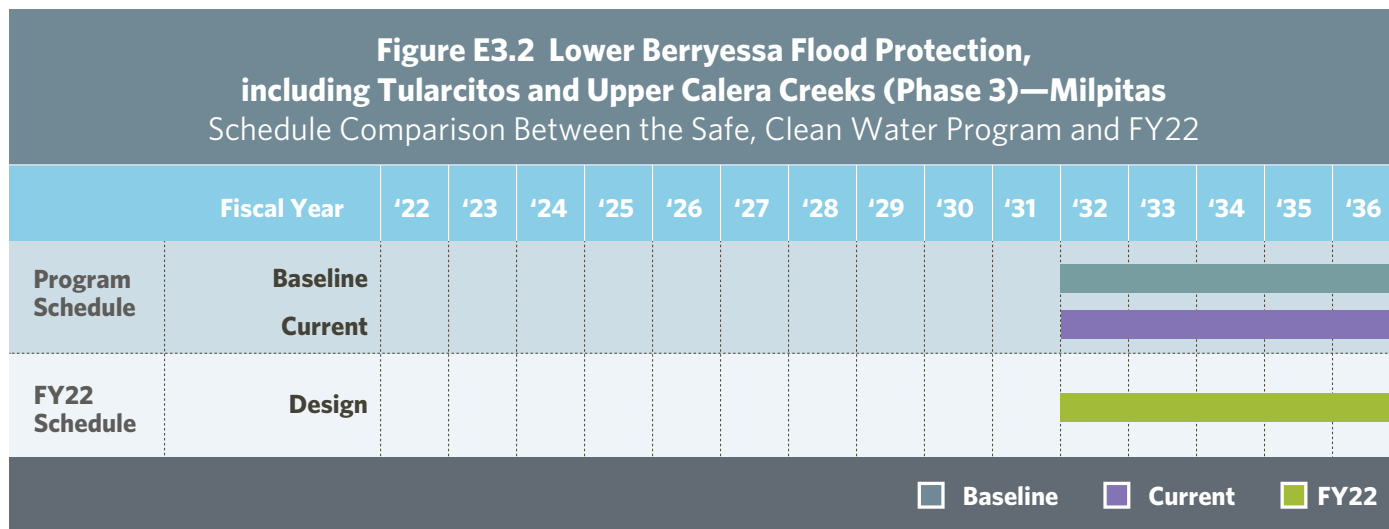
Project E3 FY22 Highlights

- This project is scheduled to begin in FY32.

Figure E3.1



Schedule



Status History

Fiscal Year	Status
FY 22	SCHEDULED TO START

Status for FY22: **SCHEDULED TO START**

This project is scheduled to begin in FY32

Financial Information

This project is scheduled to begin in FY32, therefore, there was no budget allocation or expenditures in FY22

Figure E3.3 Lower Berryessa Flood Protection
Financial Summary (\$ Thousands)

Fiscal Year 2021-2022								15-year Plan	
Adopted Budget	Project Carryforward	Budget Adjustments	Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Adjusted 15-yr Plan Spent
				Actual	Encumbrance	Total			
\$0	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$8,194	0%

Opportunities and Challenges

Opportunities and challenges related to this project may materialize during the project delivery cycle and will be reported in subsequent annual reports.

Confidence Levels

The confidence levels will be determined when work on the project begins in FY32.

PROJECT E4

UPPER PENITENCIA CREEK FLOOD PROTECTION, COYOTE CREEK TO DOREL DRIVE—SAN JOSÉ

Preferred project: A federal-state-local partnership

This project continues a partnership with the U.S. Army Corps of Engineers (USACE), to plan, design and construct improvements along 4.2 miles of Upper Penitencia Creek from the confluence with Coyote Creek to Dorel Drive. Part of the project will protect the area around the Bay Area Rapid Transit's (BART) Berryessa station near King Road, which would otherwise be subject to flooding.

In addition to providing flood protection, this multi-objective project will provide ecological restoration and recreation benefits while preserving the water supply. The natural creek channel will be preserved while adjacent existing open space and parkland will remain as recreational areas, only rarely taking the role as a temporary floodplain so that floodwaters do not enter surrounding neighborhoods and commercial areas. Proposed construction measures may include modified floodplains, limited levees/floodwalls, a bypass channel, and fish passage improvements.

Local-funding-only project

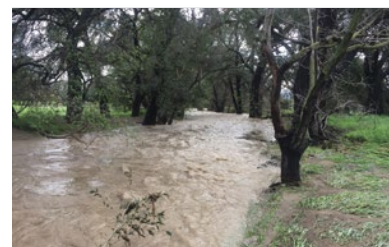
The original local-funding-only project was to acquire all necessary rights-of-way and construct a 1% (100-year event) flood protection project from Coyote Creek confluence to King Road, which would have protected 450 parcels. In December 2019, the Valley Water Board directed staff to use the available local funding to complete the design and construction of the locally funded project as well as build the reaches of the preferred project that can be constructed with the available funding. This approach extends the local-funding-only project from King Road to Capital Avenue and provides 1% flood protection for an additional 800 parcels. As a result, the new local-funding-only project would be to construct flood improvements along Upper Penitencia Creek from the confluence of Coyote Creek to Capital Avenue to increase the 1% flood protection provided with local available dollars to 1,250 parcels, including the new Berryessa BART station.

Benefits

- Preferred project provides up to 1% flood protection to approximately 8,000 homes, schools and businesses.
- Local-funding-only project provides 1% flood protection to 1,250 parcels, including the new Berryessa BART station.
- Restores/enhances ecological and riparian habitat
- Reduces sedimentation and maintenance requirements
- Improves water quality in Upper Penitencia and Coyote creeks
- Provides opportunities for recreation improvements consistent with the City of San José and Santa Clara County Park master plans
- Addresses climate change

Key Performance Indicators (FY22-36)

1. Preferred project with federal and local funding: Construct a flood protection project to provide 1% (100-year) flood protection to 8,000 parcels.



Upper Penitencia Creek along Commodore Park.

ADJUSTED

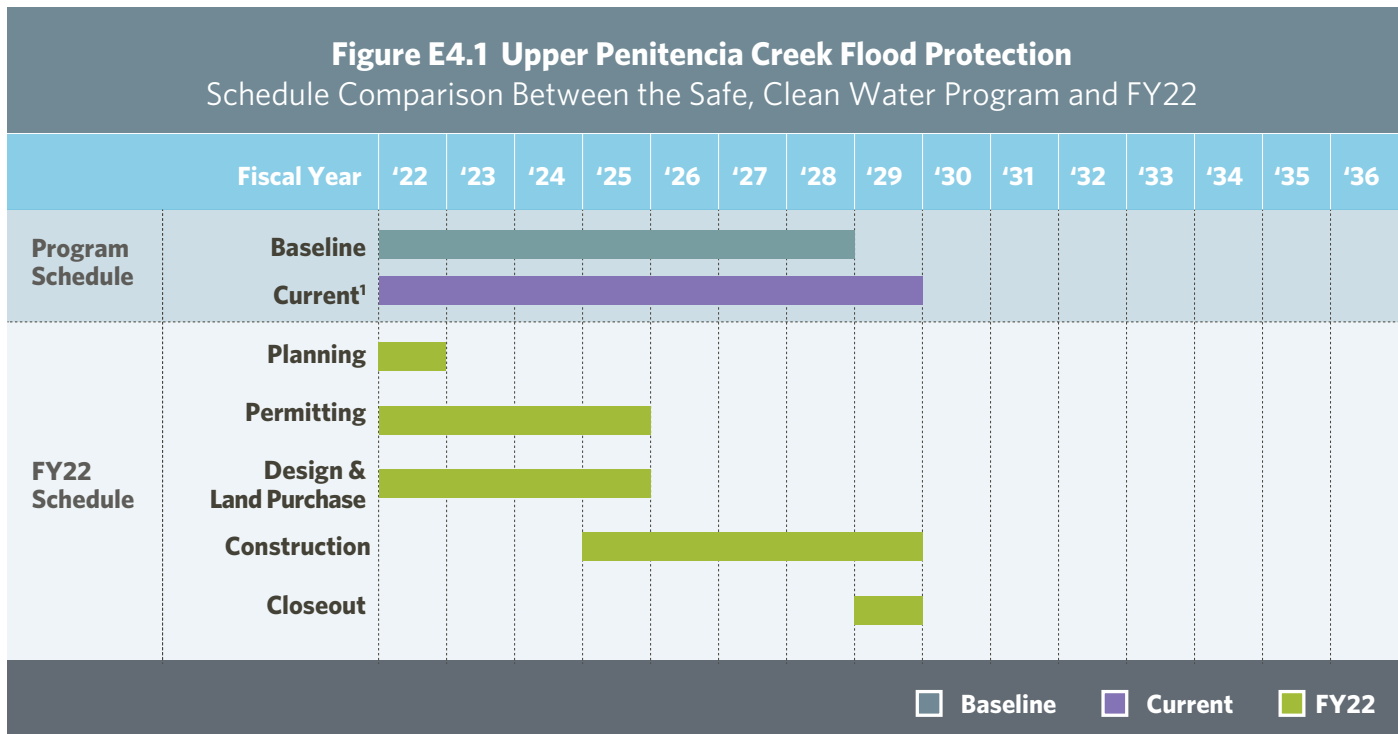
Project E4 FY22 Highlights

- Completed the Planning Study.
- Project and the preferred alternatives presented at resource agencies meeting.

2. With local funding only: Construct a 1% (100-year) flood protection project from Coyote Creek confluence to Capital Avenue to provide 1% (100-year) flood protection to 1,250 parcels, including the new Berryessa BART station.

Geographic Area of Benefit: San José

Schedule



1 Board approved schedule adjustment through the Change Control Process in FY22.

Status History

Fiscal Year	Status
FY 22	ADJUSTED

Status for FY22: ADJUSTED (Schedule Adjustment)

The FY22 annual project status is adjusted because on June 28, 2022, the Board approved pushing back the locally funded only project construction by a year to begin in FY25 instead of FY24 and complete in FY29 instead of FY28.

The schedule adjustment was required because of the delay in completing the Geomorphology Study to develop geomorphic and ecological restoration/enhancement, which pushed back the completion of the Planning Study Report (PSR). The Geomorphology Study, which was scheduled to be finished in early FY22, was completed in March 2022. The PSR, which incorporates the results and implications of the geomorphology study, was finalized in May 2022, pushing the Design Phase to early FY23.

PROGRESS ON KPI #1 & #2 (COMBINED):

In FY22, there was no federal funding from USACE for this project and Valley Water focused on the local-funded-only KPI. Valley Water finalized the planning study, focusing on a multi-purpose project that would provide long-term benefits for flood protection, fish and wildlife, riparian vegetation, water supply and recreation.

In FY22, Valley Water completed the Planning Study. Design is scheduled to begin in early FY23. During the year, Valley Water finalized the PSR, the preliminary Plan & Profile Sheets (Plans), and a geomorphology study to assist in the channel restoration. Prior to finalization, the PSR went through Quality Control (QC) review in June 2021 and was updated with the QC comments and the results from the geomorphology study. Valley Water management reviewed the PSR in January 2022. The PSR was finalized in May 2022.

On December 14, 2021, Valley Water presented the project and the preferred alternatives at a resource agencies meeting. Among the resource agencies participating in the meeting were the Environmental Protection Agency, the U.S. Army Corps of Engineers, the California Department of Fish and Wildlife, the U.S. Fish and Wildlife Services, the National Marine Fisheries Service, and the San Francisco Bay Regional Water Quality Board. The feedback received from the resource agencies will help the design team develop CEQA and Permitting strategy.

Financial Information

In FY22, 13% of the annual project budget was expended.

The delay in concluding the Geomorphology Study delayed completion of the PSR and overall Planning Phase. The Geomorphology Study to develop geomorphic and ecological restoration/enhancement was completed in March 2022. The PSR, which incorporates the results of the geomorphology study, was finalized in May 2022, pushing the Design Phase to early FY23. It also delayed getting a CEQA consultant on board which was a big part of the budget.

Figure E4.2 Upper Penitencia Creek Financial Summary (\$ Thousands)									
Fiscal Year 2021-2022								15-year Plan	
Adopted Budget	Project Carryforward	Budget Adjustments	Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Adjusted 15-yr Plan Spent
				Actual	Encumbrance	Total			
\$114	\$2,515	\$2,522	\$5,151	\$662	\$17	\$679	13%	\$23,592	3%

Opportunities and Challenges

Water Supply

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

Ecosystem Restoration

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

Recreation

There are several parks and open spaces along the creek and the Penitencia Creek Trail. These recreational features are well-used by the community, and there are opportunities for this project to work jointly with its partners to improve these resources. A significant benefit the project will provide is the construction and extension of the Penitencia Creek Trail down to the Coyote Creek confluence and connecting it to the Coyote Creek Trail system.

Confidence Levels

Schedule: *Moderate confidence*

Most of the preferred project is on public land and Valley Water has been working closely with the public entities to get the project built on schedule. A portion of the preferred project is on private land and Valley Water has been working closely with the landowner to secure the necessary land dedication for the project. There is the potential of finding cultural artifacts along the project site during construction, which may result in schedule delays.

Funding: *Moderate confidence*

In FY14-18, Valley Water aggressively pursued federal funding for the project. The USACE scope of the project was limited to a single-purpose flood risk reduction project, while the community and environmental regulatory agencies advocated for a multi-purpose project. In support of a multi-purpose project, Valley Water decided to move forward with planning, which would also facilitate a local funding only project aimed at meeting multiple beneficial goals, including water quality, and providing opportunities for recreation improvements and habitat restoration.

Permits: *High confidence*

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

Jurisdictional Complexity: *Moderate confidence*

The project is entirely within the City of San José. A tri-party agreement between the City of San José, Santa Clara County and Valley Water to jointly use mutual resources along the creek for recreation, flood protection and water supply purposes aligns the local jurisdictions well with the project. Coordination with the city and county has gone well regarding the project reaches from Coyote Creek to Capitol Avenue. If and when Valley Water moves forward with the upper reaches, Capitol Avenue up to Dorel Drive, Valley Water will have to conduct significant coordination efforts with the city and county to develop plans and land-use agreements for flood detention on public land.

See Appendix C: Capital Projects Jurisdictional Complexities for a list of confidence levels for each project by outside agency for funding, regulatory permitting, cities, counties and other agencies.

PROJECT E5

SAN FRANCISQUITO CREEK FLOOD PROTECTION, SAN FRANCISCO BAY TO UPSTREAM OF HIGHWAY 101—PALO ALTO

This project is sponsored by the San Francisquito Creek Joint Powers Authority (SFCJPA), of which Valley Water is a member agency, in partnership with the U.S. Army Corps of Engineers (USACE).

Preferred project: A federal-state-local partnership

The project is to construct improvements along San Francisquito Creek from San Francisco Bay to Middlefield Road and additional detention of floodwaters upstream of Highway 280 to provide 1% (100-year event) flood protection, ecosystem protection and recreational benefits to surrounding communities.

Local-state-funding-only partnership

Highway 101 to Pope-Chaucer Bridge

This stretch of the project will remedy channel constrictions and replace bridges at Newell Road and Pope/Chaucer streets to allow the channel to contain floodwaters of approximately 7,500 cubic feet per second, equivalent to approximately a 1.4% flood event (70-year event). Allowing this level of water to flow through the channel will protect approximately 3,000 parcels in Palo Alto from a flood event close to the February 1998 flood, the largest on record. Currently the channel can only convey approximately a 7% flood event (approximately a 15-year event).

Newell Road Bridge

The Newell Road bridge replacement, unlike the rest of the project elements in this stretch, is sponsored by the City of Palo Alto, which has applied for funding through Caltrans' Highway Bridge Program (HBP). The project has been programmed by Caltrans to fund approximately 89% of the total cost for replacing the Newell Road bridge, while the local match funds, approximately 11% of the total cost, will be funded by Valley Water through the Safe, Clean Water Program renewal. The City of East Palo Alto and the SFCJPA continue to provide input on the Newell Road bridge replacement.

The SFCJPA continues to pursue partnerships with federal, state and local agencies for additional construction funding.

In 2019, Valley Water completed the construction of the San Francisco Bay to Highway 101 reach of the project to provide 1% flood protection and ecosystem benefits to the neighboring communities. Major improvements included construction of approximately 4,000 feet of floodwall and creating a significantly wider creek marsh plain. Therefore, completion of this stretch protects approximately 3,000 parcels in Palo Alto from a flood event close to the February 1998 flood, the largest on record.

Benefits

- Provides 1% flood protection to approximately 3,000 homes and businesses in Palo Alto
- Local-state-funding-only project provides approximately 1.4% (70-year event) flood protection for approximately 3,000 homes and businesses in Palo Alto
- Reduces bank erosion and sedimentation-related impacts along San Francisquito Creek
- Provides new or improved habitats for endangered species



Location of proposed in-channel widening along San Francisquito Creek.

ADJUSTED

Project E5 FY22 Highlights

- Continued to develop the design document for channel widening upstream of Highway 101. The design is expected to be completed in FY23.
- The City of Palo Alto is expected to complete the design documents for the Newell Road Bridge in FY23.
- Pope-Chaucer Street Bridge at 80% design and going through the Palo Alto Architectural Review Board process.

- Improves water quality
- Enhances recreational opportunities for the community
- Leverages dollars via cost-shares and grants from the state Department of Water Resources and the California Department of Transportation
- Addresses climate change

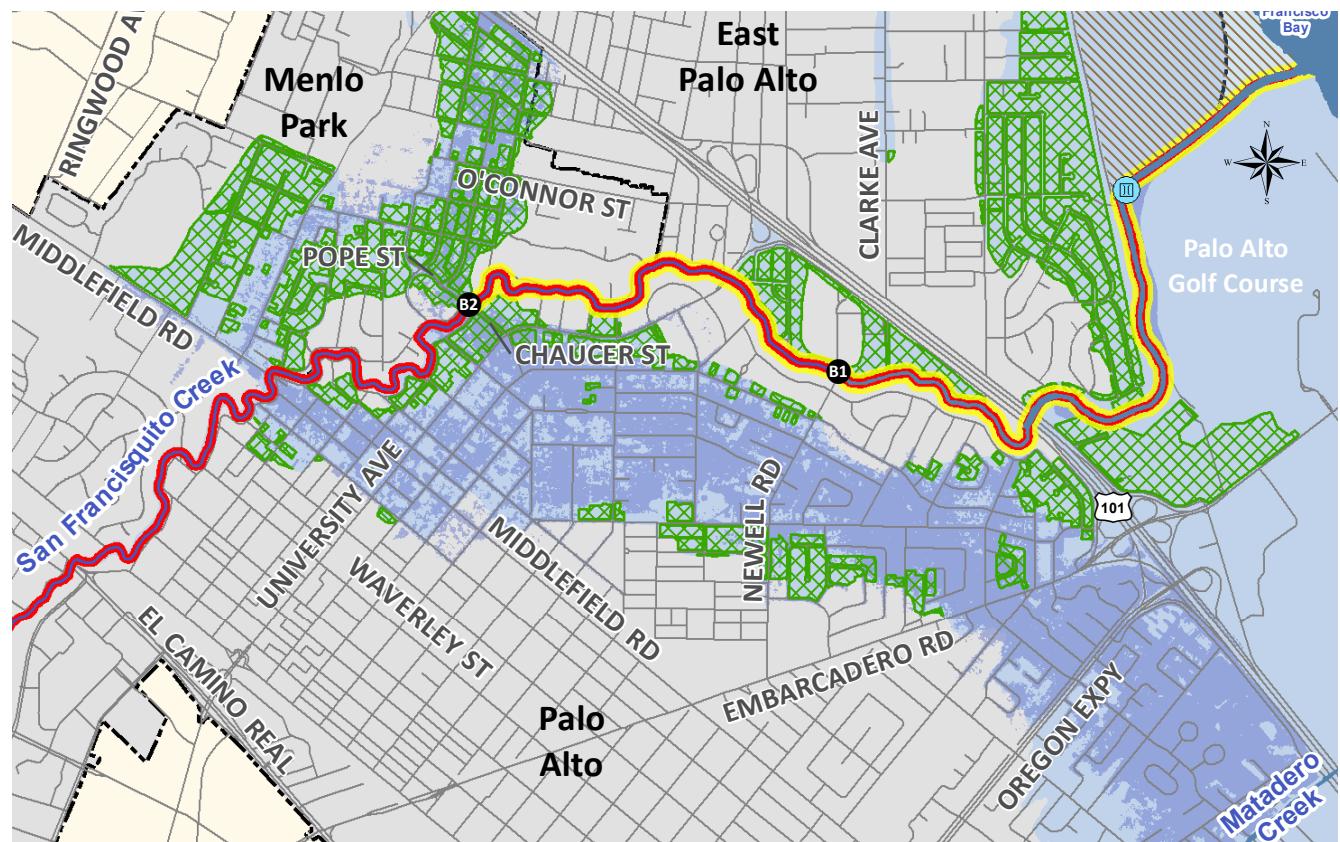
Key Performance Indicators (FY22-36)

1. Preferred project with federal, state and local funding: Protect more than 3,000 parcels by providing 1% (100-year) flood protection.
2. With state and local funding only: Protect approximately 3,000 parcels by providing 1% (100-year) flood protection downstream of Highway 101, and approximately 1.4% (70-year) protection upstream of Highway 101.

Geographic Area of Benefit: Palo Alto

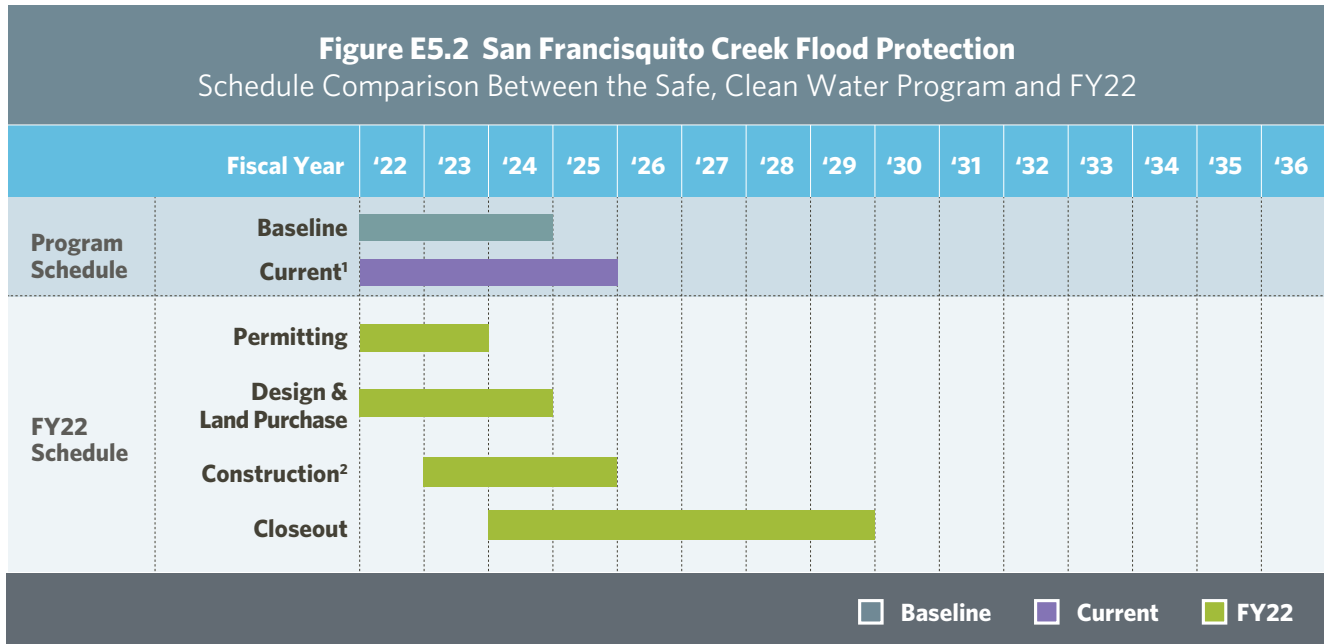
Project Location

Figure E5.1



- | | | |
|--|---|--|
| ■ Preferred Project (KPI #1) | ■ 1% FEMA Flood Risk Zone | 101 Friendship Bridge |
| ■ Local-State Funded Only Project (KPI #2) | ■ Updated 1% Flood Risk Zone | Bridge Modification Projects: |
| ■ Locally Funded Project Improvement Area | ■ Cities | ● Newell Rd (Palo Alto) |
| ■ Faber Tract Marsh | ■ California Counties | ● Pope/Chaucer St (Valley Water) |

Schedule



1 Board approved schedule adjustment through the Change Control Process in FY22.

2 Construction also includes a three-year plant establishment period, not shown.

Status History

Fiscal Year	Status
FY 22	ADJUSTED

Status for FY22: **ADJUSTED** (Schedule Adjustment)

The FY22 annual project status is "Adjusted" because, on June 28, 2022, the Board approved extending the state- and local-funding only project (KPI #2) construction timeline period by a year to be completed in FY25 instead of FY24.

The schedule adjustment was required to allow for completion of the United States Army Corps of Engineers Continuing Authorities Program Section 205 (CAP 205) Study. In FY19, project sponsor San Francisquito Creek Joint Powers Authority (SFCJPA) Board, of which Valley Water is a member, approved the staff recommendation to seek federal funding through the CAP 205 process. The CAP 205 Study must be completed, and state and federal regulatory permits secured before constructing the project. Other factors contributing to the proposed schedule changes include: acquiring easements from private property owners; and completing a Supplemental Environmental Impact Report for the additional scope of work to retrofit the existing top of bank floodwalls.

PROGRESS ON KPI #1 AND #2:

S.F. Bay to Highway 101 Project (completed)

Local-state-funding only - design and construction of 1% flood protection project

Construction of flood protection improvements for this reach was completed on May 14, 2019. It included constructing approximately 4,000 feet of floodwall; excavating sediment and degrading the existing levee from East Bayshore Road to Geng Road; degrading approximately 600 feet of levee on the East Palo Alto side of the creek adjacent to the Faber Marsh; and completing approximately 800 feet of the new offset levee on the Palo Alto side of the creek. Mitigation planting installation was completed in the summer of 2019.

Upstream of Highway 101 Project

Federal, state and local funding - planning and design of 1% flood protection project

In FY22, the SFCJPA and USACE continued to work on completing a Feasibility Study through the CAP 205 process. The draft USACE feasibility study report is expected in summer 2022, and the final study report is expected in early 2023 (FY23). The SFCJPA and Valley Water continue to support the USACE CAP 205 study. This follows SFCJPA Board's June 2019 decision to approve the staff recommendation to pursue options for USACE funding that did not require Congressional authorization through the USACE CAP 205 process. The SFCJPA and USACE formally initiated the CAP 205 process in early FY20. After adopting the SFCJPA FY21/22 Operation Budget, the SFCJPA entered into a Feasibility Cost Share Agreement (FCSA) with the USACE on June 4, 2021 (FY21).

The SFCJPA continued its effort in preparing applications for regulatory permits to construct the upstream Reach of the San Francisquito Creek project. Permit applications will be submitted by the summer of 2022 to acquire permits by the winter of 2022 (FY23).

Local-state-funding-only - construction of approximately 70-year flood protection project

Channel widening

- Valley Water continued to develop the design document for channel widening upstream of Highway 101. The design document is being coordinated with the SFCJPA and USACE and is expected to be completed by late 2022 (FY23).
- Construction is expected to begin in the late spring of 2024 (FY24) and be completed by December 2024 (FY25).
- The Final Environmental Impact Report (EIR) was completed and certified by the SFCJPA board in September of 2019.

Newell Road Bridge

The City of Palo Alto is responsible for planning, permitting, designing and constructing the Newell Road Bridge Replacement project. The planning, permitting and design phases are primarily funded by a Caltrans grant. Valley Water is contributing the required local cost share for the grant. The City of Palo Alto Council certified the Final Environmental Impact Report and approved the proposed project in June 2020. The design is scheduled to be completed by the end of 2022 (FY23). Construction is anticipated to begin in the spring of 2023 (FY23) and the in-channel work must be completed by October 2023, with any remaining work outside top-of-bank completed by winter 2023 (FY24).

Pope/Chaucer Street Bridge

Pope-Chaucer Street Bridge is currently at 80% design and going through the Palo Alto Architectural Review Board (ARB) process. After receiving input from the ARB at its December 17, 2020, study session, the SFCJPA and Valley Water began preparing for the hearing scheduled in summer 2022. The design documents are expected to be completed by late 2022 (FY23). Because the Pope/Chaucer Street Bridge is located further upstream of the Newell Road Bridge and because both bridges cannot be replaced in the same construction season due to negative traffic impacts, construction of the Pope/Chaucer Street Bridge would begin after the construction of the Newell Road Bridge and channel improvements are completed.

Any delays in the construction of the Newell Road Bridge or channel widening would delay the construction schedule for the Pope/Chaucer Bridge. However, staff is considering the option of advancing the construction of the Pope/Chaucer Bridge replacement ahead of the construction of the Newell Road Bridge and channel widening. Under this option, the flow conveyance capacity would be temporarily constricted to maintain the existing capacity to avoid transference of risk of additional flooding downstream. The temporary flow constrictions at Pope/Chaucer Bridge would be removed once the Newell Road Bridge is replaced and channel widening is complete. Staff will continue to assess this option in FY23.

Financial Information

In FY22, approximately 12% of the annual project budget was expended.

The underspending was primarily due to the schedule adjustment required to allow for completion of the CAP 205 Study, delay in preparing state and federal regulatory permit applications, funding shortfalls, and the need to acquire easements from private property owners and complete a Supplemental Environmental Impact Report for the additional scope of work to retrofit the existing top of bank floodwalls.

Figure E5.3 San Francisquito Creek
Financial Summary (\$ Thousands)

Fiscal Year 2021-2022									15-year Plan	
Project No. and Name	Adopted Budget	Project Carryforward	Budget Adjustments	Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Adjusted 15-yr Plan Adjusted
					Actual	Encumbrance	Total			
262842002 Construction (SF Bay to Highway 101 and Upstream Elements)	\$12,721	\$0	\$100	\$12,821	\$1,219	\$266	\$1,485	12%	\$46,501	5%

Opportunities and Challenges

Confidence Levels

Upstream of Highway 101 Project

Schedule: *Low confidence*

Prior to constructing the local-state-funding-only project, easements from private property owners must be secured, the CAP 205 study must be completed, and state and federal regulatory permits must be secured.

Project completion could be pushed to FY26 due to the complexities and uncertainties related to securing regulatory permits and easements, as well as funding shortfalls for a multi-jurisdictional project.

Funding: *Moderate confidence*

There is a funding shortfall due to increasing construction costs and currently unknown design elements for the local-state-funding-only project. Valley Water's funding contribution has been secured through the renewal of the Safe, Clean Water Program. Additionally, the project is expected to receive between \$8.9 million and \$17.7 million in grants, while continuing to seek additional grant funding. As the funding shortfall narrows, the SFCJPA member agencies plan to enter into a construction funding agreement to close any remaining funding gap. Additionally, the SFCJPA, in conjunction with USACE, continues to seek \$8.2 million in federal construction funding through the CAP 205 process for channel widening for 70-year flow conveyance upstream of Highway 101.

Permits: *Moderate confidence*

Valley Water does not expect any significant challenges with the acquisition of the regulatory permits for the upstream Highway 101 project and is moderately confident it will receive the permits necessary to complete construction of the local-state-funding-only project by the Safe, Clean Water Program's identified completion date. The SFCJPA has conducted stakeholder meetings with regulators to address their concerns and has incorporated their comments in the EIR to facilitate the permitting process. The SFCJPA continues its effort in preparing applications for regulatory permits to construct the upstream of Highway 101 project. Permit applications will be submitted by summer 2022 to acquire permits by the fall of 2022 (FY23).

Jurisdictional Complexity: *High confidence*

The jurisdictional complexity of this project is unparalleled among Safe, Clean Water projects, as this project requires cooperation with the SFCJPA and its member agencies, which include Valley Water, the cities of Palo Alto, East Palo Alto and Menlo Park and the San Mateo County Flood and Sea Level Rise Resiliency District (previously known as San Mateo County Flood Control District). In addition, there are key project stakeholders, including USACE and Stanford University's Searsville Dam Project. Despite this, Valley Water has high confidence that the jurisdictions will continue to work together to accomplish

the common goal of providing flood protection along San Francisquito Creek. The SFCJPA continues to work very closely with its member agencies to further this project along, and staff from all member agencies meet regularly to ensure a strong collaborative relationship is maintained.

See Appendix C: Capital Projects Jurisdictional Complexities for a list of confidence levels for each project by outside agency for funding, regulatory permitting, cities, counties and other agencies.

PROJECT E6

UPPER LLAGAS CREEK FLOOD PROTECTION, BUENA VISTA AVENUE TO LLAGAS ROAD—MORGAN HILL, SAN MARTIN, GILROY

Preferred project: A federal-state-local partnership

This project continues a partnership with the U.S. Army Corps of Engineers (USACE) and the State of California to plan, design and construct improvements along 13.9 miles of channel. The project extends from Buena Vista Avenue to Llagas Road and includes West Little Llagas Creek in downtown Morgan Hill. The federally authorized preferred project protects the urban area of Morgan Hill from a 1% flood (100-year event) 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.

Local-funding-only project

Construct flood protection improvements along Llagas Creek from Buena Vista Avenue to Highway 101 in San Martin (Reaches 4 and 5 (portion)), Monterey Road to Watsonville Road in Morgan Hill (Reach 7a), approximately W. Dunne Avenue to W. Main Avenue (a portion of Reach 8), and onsite compensatory mitigation at Lake Silveira.

In September 2019, Valley Water began construction on the locally funded Reaches 4, 7a, a portion of Reach 5 and Lake Silveira, which is expected to be completed in 2022. Construction of the approximately 2,300 linear feet of a horseshoe-shaped underground tunnel and approximately 1,600 linear feet of twin reinforced concrete box culverts upstream and downstream of the tunnel to carry high water flows is scheduled to begin in November 2020. Construction is expected to take 2.5 years.

Benefits

- Provides 1% flood capacity for four (4) miles along West Little Llagas Creek within downtown Morgan Hill, protecting approximately 1,100 homes and 500 businesses
- Provides 10% (10-year event) flood protection to approximately 1,300 agricultural acres in Morgan Hill, Gilroy and San Martin
- Locally funded project provides improved flood protection for a limited number of homes and businesses in Morgan Hill
- Improves stream habitat and fisheries
- Creates additional wetlands
- Improves stream water quality
- Identifies opportunities to integrate recreation improvements with the City of Morgan Hill and others as appropriate
- Addresses climate change

Key Performance Indicators (FY22–36)

1. Preferred project with federal and local funding: Plan, design and construct flood protection improvements along 13.9 miles of Upper Llagas Creek from Buena Vista Avenue to Llagas Road to provide flood protection to 1,100 homes, 500 businesses, and 1,300 agricultural acres, while improving stream habitat.



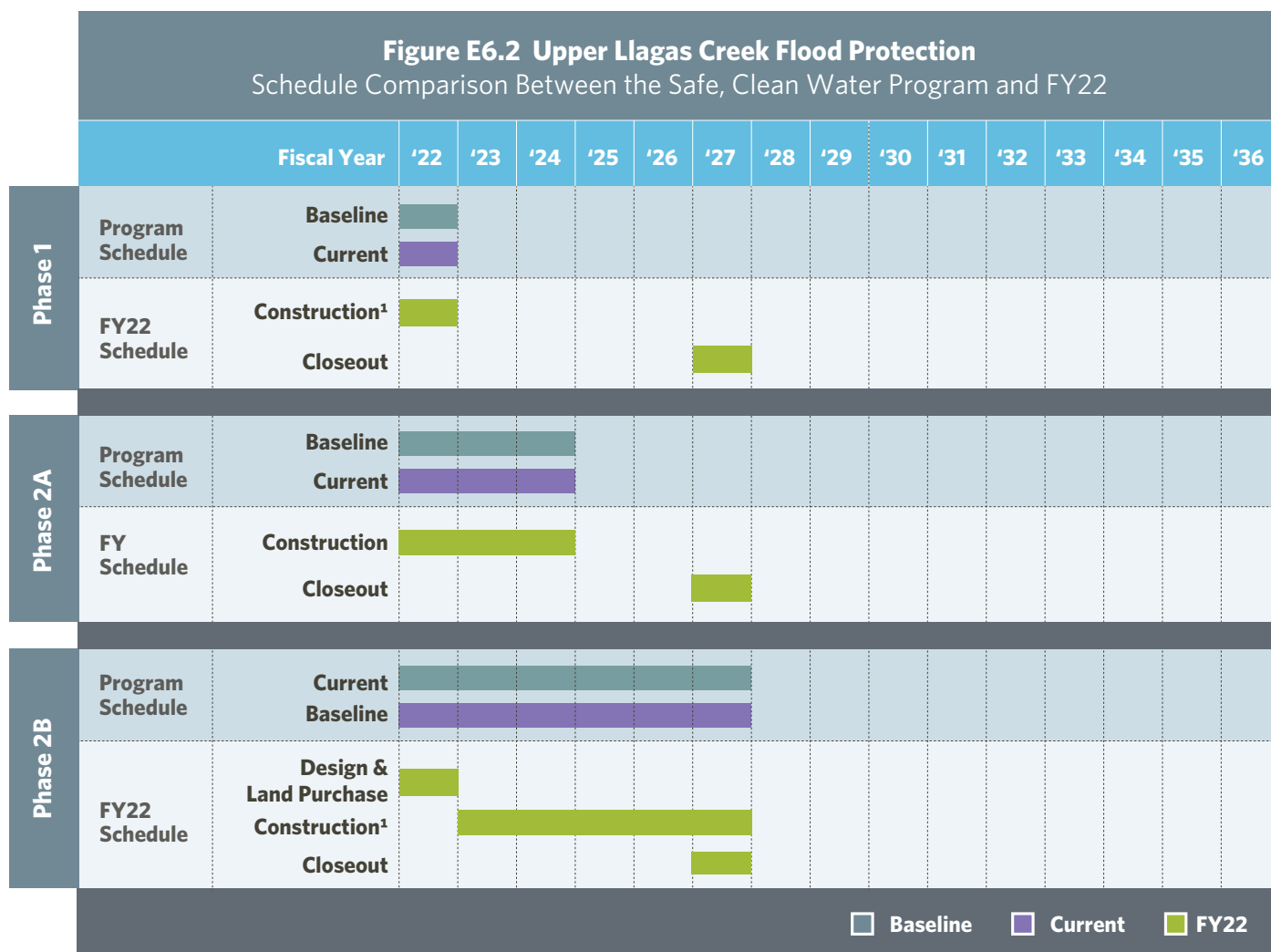
Llagas Creek Reach 4 post-construction storm event, upstream of Rucker Avenue.

ON TARGET

Project E6 FY22 Highlights

- Completed Phase 1 construction ahead of schedule.
- Continued Phase 2A construction, including an underground tunnel underneath a stretch of downtown Morgan Hill.
- Restored approximately 2,000 linear feet of stream channel and constructed Lake Silveira wetlands.

Schedule



1 Construction also includes a three-year plant establishment period, not shown.

Status History

Fiscal Year	Status
FY 22	ON TARGET

Status for FY22:

ON TARGET

PROGRESS ON KPI #1 AND #2 (COMBINED):

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

In April 2022, Valley Water completed Phase 1 construction. Construction, which began in September 2019 (FY20), was completed ahead of schedule. It included channel excavation, construction of the on-site compensatory mitigation, Lake Silveira wetlands, Masten Avenue Bridge concrete underpinning, Monterey Road Bridge concrete lining, installation of rock slope protection, storm drain outfall modifications, removal of concrete rubble, debris and legacy trash, and destruction of

monitoring wells. It also included the installation of bat boxes, as well as removal of 12.5 acres of invasive blackberry at Lake Silveira and excavation to restore 2,000 linear feet of Llagas Creek from Lake Silveira towards Monterey Highway. Completion of flood protection improvements was followed by a three-year native plant establishment and maintenance period that began in March 2022. Therefore, the Phase 1 completion date for the three-year native plant establishment and maintenance period is anticipated to be completed in April 2025 (FY25).

Phase 2A – A portion of Reach 8 from Ciolino Avenue upstream to approximately 300 feet north of the existing West Main Avenue and Hale Avenue intersection.

Phase 2A construction began in June 2021 within a portion of Reach 8 in downtown City of Morgan Hill. Phase 2A includes approximately 2,300 linear feet of a horseshoe-shaped underground tunnel 14-ft x 12 ft and approximately 1,600 linear feet of 10 ft x 9 ft twin Reinforced Concrete Box Culverts (RCBs) upstream and downstream of the proposed tunnel to carry high water flows. Low flows will remain within the existing creek that winds through downtown Morgan Hill within Reach 8. Construction is expected to be completed in FY24.



Underground tunnel beneath Nob Hill Terrace in Morgan Hill (May 2022).

Phase 2B - Construction of Reach 6 (Highway 101 upstream to Monterey Road), Reach 7B (Watsonville Road to Ciolino Avenue), the remaining portion of Reach 8 (approximately West Main Avenue to Llagas Road), and Reach 14 (confluence with Reach 4 upstream to Sycamore Avenue).

Phase 2B construction consists of approximately 1,900 linear feet of twin reinforced concrete box culverts (10 ft x 9 ft), creek modifications and excavation by widening and deepening, installation of culverts at various street crossings, construction of an inlet basin weir split-flow structure and bridge underpinning work. It also includes installation of instream complexities, removal of plantings and non-native plantings, habitat enhancements, revegetation, utility relocations and coordination, outfall modifications, aggregate base maintenance roads, access ramps, and community outreach and coordination.

- Construction is anticipated to take approximately three (3) years to complete, followed by a three-year plant establishment period.
- Phase 2B right-of-way requires the acquisition of seven (7) additional parcels and six (6) temporary construction easements. These acquisitions are anticipated to be completed in FY23.
- Phase 2B construction is anticipated to cost approximately \$80 million.

Phase 2B is still pending funding and Valley Water is seeking external funding, including a National Resources Conservation

Service (NRCS) grant. Valley Water has received a commitment from the NRCS to fund up to \$80 million for Phase 2B. Valley Water is now working with NRCS to complete that agency's consultation requirements so that we can receive the funding in 2023. Valley Water is also exploring a low-cost federal loan under the Water Infrastructure Finance and Innovation Act (WIFIA) Program. The project is near shovel-ready, and the current estimated schedule is for construction to begin in FY23. Upon completion of Phases 1, 2A and Phase 2B, the project will provide flood protection to 1,100 homes, 500 businesses and 1,300 agricultural acres while improving stream habitat.

Financial Information

In FY22, approximately 53% of the annual project budget was expended.

The primary reason for the underspending is that the Phase 2A advertisement and award was delayed by several months because of coordinating and incorporating the City of Morgan Hill's Hale Avenue extension design. The Phase 2A contractor also took several months longer than anticipated to mobilize and begin the significant construction work.

Lastly, Phase 2B construction (the last remaining phase) is anticipated to be advertised for construction once funding is secured, anticipated in the second half of FY23.

Figure E6.3 Upper Llagas Creek Financial Summary (\$ Thousands)										
Fiscal Year 2021-2022									15-year Plan	
Project No. and Name	Adopted Budget	Project Carry-forward	Budget Adjustments	Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Adjusted 15-yr Plan Spent
					Actual	Encumbrance	Total			
26174051 Real Estate Acquisition	\$0	\$32	\$3,048	\$3,080	\$1,382	\$0	\$1,382	45%	\$3,055	45%
26174052 Construction	\$58,292	\$1,616	\$13	\$59,920	\$29,502	\$3,716	\$33,217	55%	\$175,350	28%
26174054 Design	\$0	\$2,303	\$0	\$2,303	\$214	\$0	\$214	9%	\$5,178	10%
Total	\$58,292	\$3,951	\$3,061	\$65,304	\$31,097	\$3,716	\$34,813	53%	\$183,583	28%

Opportunities and Challenges

Confidence Levels

Phase 1, Phase 2A, and Phase 2B of the project are constructed independently.

Phase 1

Schedule: *High confidence*

Phase 1 construction was completed in FY22. The post-construction three-year native plant revegetation maintenance establishment period is underway and anticipated to be completed in April 2025 (FY25).

Funding: *High confidence*

Fully funded through the Safe, Clean Water Program.

Jurisdictional Complexity: *High confidence*

Cooperation on the project has included USACE, California Department of Fish and Wildlife (CDFW), Central Coast Regional

Water Quality Control Board, California Department of Water Resources (DWR) (state subventions), City of Morgan Hill, and the County of Santa Clara.

Phase 2A

Schedule: *High confidence*

Phase 2A construction began in June 2021 and is anticipated to be completed in FY24.

Funding: *High confidence*

Fully funded through the Safe, Clean Water Program.

Jurisdictional Complexity: *High confidence*

Cooperation on the project has continued with the USACE, CDFW, Central Coast Regional Water Quality Control Board, DWR (state subventions), and the City of Morgan Hill.

Phase 2B

Schedule: *Moderate confidence*

Valley Water continues to work on the remaining Phase 2B acquisitions. Valley Water must obtain the necessary rights-of-way to be able to advertise Phase 2B of the project for construction. Valley Water is moderately confident that property acquisitions will be completed in FY23. Funding for Phase 2B is still pending. The current estimated schedule is for construction advertisement to occur in the second half of FY23. The project will take three (3) years to construct, followed by a three-year native plant revegetation establishment period.

Funding: *Moderate confidence*

Valley Water has received a commitment from the Natural Resources Conservation Service (NRCS) to fund up to \$80 million for Phase 2B of the Upper Llagas Creek Project. Valley Water is now working with NRCS to complete that agency's consultation requirements so that we can receive the funding in 2023. Valley Water is also exploring a low-interest WIFIA loan for the project.

Jurisdictional Complexity: *High confidence*

Given the successful completion of Phase 1 construction and the successful start of Phase 2A construction, confidence is high that cooperation on the Phase 2B of the project will continue with the USACE, CDFW, Central Coast Regional Water Quality Control Board, DWR (state subventions), City of Morgan Hill, and the County of Santa Clara.

See Appendix C: Capital Projects Jurisdictional Complexities for a list of confidence levels for each project by outside agency for funding, regulatory permitting, cities, counties, and other agencies.

PROJECT E7

SAN FRANCISCO BAY SHORELINE PROTECTION—MILPITAS, MOUNTAIN VIEW, PALO ALTO, SAN JOSÉ, SANTA CLARA AND SUNNYVALE

This project is a partnership with the California State Coastal Conservancy, the U.S. Army Corps of Engineers (USACE) and regional stakeholders to provide tidal flood protection, restore and enhance tidal marsh and related habitats, and provide recreational and public access opportunities along Santa Clara County's shoreline.

This project relies on federal participation from the USACE to develop the project and prepare the plans. Without federal participation, Valley Water cannot implement planning, design and construction on our own due to limited available funding. The Safe, Clean Water funding provides a portion of the local share of funding for planning, design and construction phases for Economic Impact Areas (EIAs) 1-4, and a portion of the local share of funding for the planning study and design phases for EIAs 5-9.

The 2012 Safe, Clean Water Program has already provided \$15 million as a portion of Valley Water's local share of funding for flood protection improvements in Economic Impact Area (EIA) 11, which is the urban area of North San José and the community of Alviso. Once completed, EIA 11 will provide flood protection to more than 1,000 residential structures and 100 non-residential structures, and allow for the restoration of 2,900 acres of tidal marsh and related habitats.

The project will provide coastal flood protection from a rising sea level, and will restore and enhance tidal marsh by using a combination of flood protection levees, wetlands and transitional zone habitats also known as ecotones. Ecotones will provide an additional protective buffer for the levee and allow marsh habitat to migrate upslope as the sea level rises. This approach of using natural infrastructure will help develop a resilient and adaptable flood protection system that can evolve in the future.

Benefits

- Provides planning and design to protect nearly 4,700 acres and more than 5,000 structures, including roads, highways, parks, airports and sewage treatment plants in Santa Clara County
- Allows for restoration of tidal marsh habitat for endangered wildlife such as the salt marsh harvest mouse and Ridgway's rail; rich feeding grounds for shorebirds; and nursery areas for young fish such as leopard sharks and steelhead
- Provides educational, recreational and public access opportunities
- Protects more than 4,300 structures (EIAs 1-4)
- Allows for the restoration of 400 acres of tidal marsh and related habitats (EIAs 1-4)
- Addresses climate change

Key Performance Indicators (FY22-36)

1. Provide a portion of the local share of funding for planning, design and construction phases for the Santa Clara County shoreline area, EIAs 1-4.
2. Provide a portion of the local share of funding for planning and design phases for the Santa Clara County shoreline area, EIAs 5-9.



S.F. Bay Shoreline

ON TARGET

Project E7 FY22 Highlights

- Valley Water contributed \$150,000 towards the local cost share for the Phase II Feasibility Study.
- USACE is expected to complete the Phase II Feasibility Study in FY25
- USACE received \$1.5 million to begin the Shoreline Phase III Feasibility Study and is awaiting implementation guidance to begin the study.

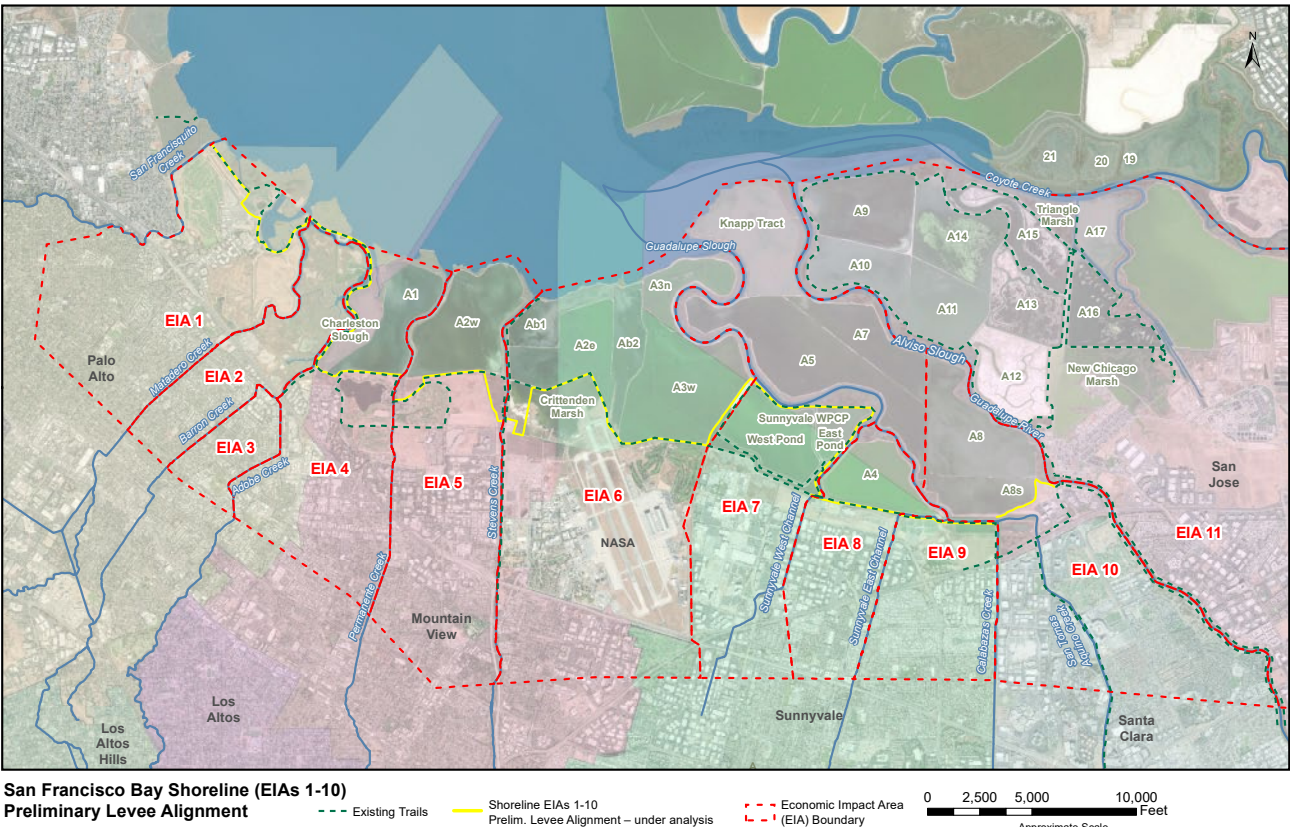
Geographic Area of Benefit: Milpitas, Mountain View, Palo Alto, San José, Santa Clara and Sunnyvale

Project Location

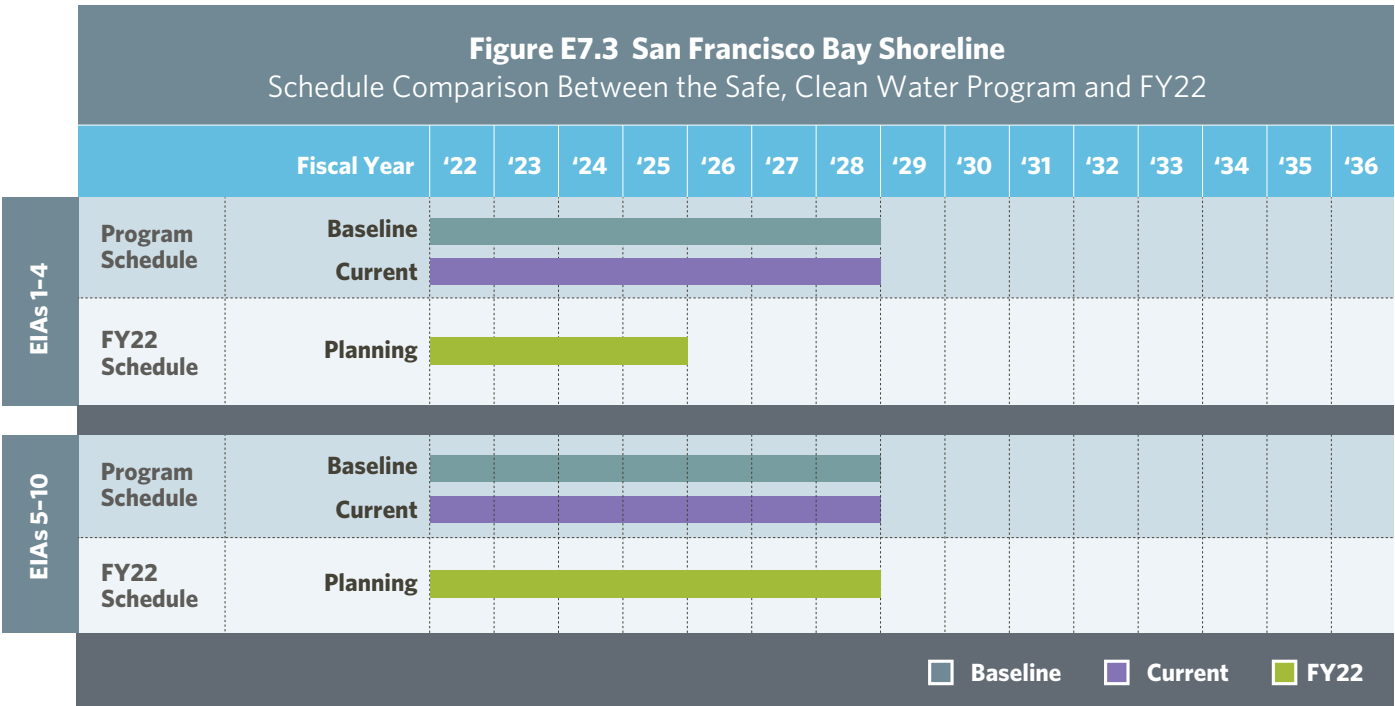
Figure E7.1
South San Francisco Bay Shoreline Protection
EIA 11 Project Construction Phases



Figure E7.2



Schedule



Status History

Fiscal Year	Status
FY 22	ON TARGET

Status for FY22: ON TARGET

PROGRESS ON KPI #1:

In FY22, Valley Water contributed \$150,000 towards the local cost share for the Phase II Feasibility Study.

The USACE submitted an exemption request to their USACE Headquarters to extend the feasibility study schedule and budget. An exemption from the USACE standard three-year feasibility study is required due to more stringent environmental requirements. The USACE received approval of the Phase II feasibility study exemption request in September 2021 for a total cost of \$6.2 million and an expected completion date of April 2025. An Amendment No. 1 to incorporate the study exemption into the Feasibility Cost Share Agreement was executed in March 2022 between USACE, Valley Water and California State Coastal Conservancy.

PROGRESS ON KPI #2:

In March 2022, USACE was notified that they received \$1.5 million in funding to begin the Shoreline Phase III feasibility study. Valley Water and USACE have not initiated the process to enter into a Feasibility Cost Share Agreement (FCSA) as the USACE is still awaiting implementation guidance to begin the feasibility study. When the FCSA is entered into, Valley Water will be required to provide a match of \$1.5 million for the study.

Financial Information

In FY22, approximately 18% of the budget was expended.

For KPI #1, 31% of the annual budget was expended. The under-expenditure was because the USACE had enough funding in FY22 to complete the economic analysis and Valley Water staffing participation slowed. Funding contributions will resume in FY23 per the approved exemption to study cost and schedule in September 2021 and executed Amendment to the Feasibility Cost Share Agreement in March 2022.

For KPI #2, 0% of the annual budget was expended.

The under-expenditure was because the USACE was still awaiting implementation guidance to begin the feasibility study.

Figure E7.4 San Francisco Bay Shoreline
Financial Summary (\$ Thousands)

Fiscal Year 2021-2022									15-year Plan	
Project No. and Name	Adopted Budget	Project Carryforward	Budget Adjustments	Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Adjusted 15-yr Plan Spent
					Actual	Encumbrance	Total			
26444002 EIAs 1-4	\$1,359	\$14	\$0	\$1,372	\$424	\$0	\$424	31%	\$15,906	3%
26444004 EIA 5-10	\$1,045	\$0	\$0	\$1,045	\$0	\$0	\$0	0%	\$14,502	0%
Total	\$2,403	\$14	\$0	\$2,417	\$424	\$0	\$424	18%	\$30,408	1%

Opportunities and Challenges

Confidence Levels

Schedule: *Moderate confidence*

The USACE initiated the Phase II Feasibility Study in September 2019 and additional time is required to complete the study effort because the Bay Area is one of the most stringent regulatory environments in the nation and requires more time to complete the coordination and due diligence work that the resource agencies have come to expect to have a permittable project. An exemption request was submitted to USACE Headquarters for approval to increase the study phase from three (3) years to five-and-a-half years. The USACE received approval of the Phase II feasibility study exemption request in September 2021 to extend the completion of the Chief's Report to April 2025.

Funding: *Moderate confidence*

Additional federal funds are required to complete the extensive analysis required to meet both regulatory and USACE requirements. The exemption request submitted to USACE Headquarters increases the feasibility cost from \$3 million to \$6.2 million.

Permits: USACE has begun to engage the regulatory agencies on obtaining feedback on the Phase II feasibility study efforts.

Jurisdictional Complexity: *Moderate confidence*

The confidence level is moderate due to the complexity involved with extensive regional coordination for a significant coastal flood protection project with an estimated price tag of nearly \$800 million. In FY20, the USACE, Valley Water and State Coastal Conservancy agreed to continue a phased study approach in which USACE will study EIAs 1-4 in the Phase II Feasibility Study, followed by seeking separate federal funds to study the remaining EIAs 5-10 in a future Phase III Feasibility Study. Other agencies that Valley Water is continuing to work with include the cities of Palo Alto, Mountain View and Sunnyvale, along with the National Aeronautics and Space Administration's (NASA) Ames Research, United States Fish and

Wildlife Service and Midpeninsula Regional Open Space District. Currently Safe, Clean Water provides approximately \$3 million for a portion of the local share of funding to support only planning efforts.

See Appendix C: Capital Projects Jurisdictional Complexities for a list of confidence levels for each project by outside agency for funding, regulatory permitting, cities, counties and other agencies.

PROJECT E8

UPPER GUADALUPE RIVER FLOOD PROTECTION, HIGHWAY 280 TO BLOSSOM HILL ROAD—SAN JOSÉ

Preferred project: A federal-state-local partnership

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

USACE has initiated a General Re-evaluation Report (GRR) of the preferred project, which is anticipated to be completed by October 2023. The scope of the project may change as a result of the GRR findings.

Local-funding-only project

The locally funded project entails constructing flood protection improvements along 4,100 feet of Guadalupe River between the Southern Pacific Railroad (SPRR) crossing, downstream of Willow Street, to the Union Pacific Railroad (UPRR) crossing, downstream of Padres Drive (Reach 7). It also includes completing a gravel augmentation project along approximately 800 linear feet of the Upper Guadalupe River in San José, from approximately the Union Pacific Railroad Bridge to West Virginia Street Bridge to improve aquatic habitat for migrating steelhead and channel stability. Flood damage will be reduced through the local-funding-only project. However, protection from the 1% (100-year event) flood is not provided without completion of the entire Upper Guadalupe River Flood Protection Project.

Mitigation elements of the project, namely Reach 10B (from Curtner Avenue to Almaden Expressway) and Reach 12 (from Brahm Lane to Blossom Hill Road), were completed in 2015 in partnerships with USACE. Construction on the gravel augmentation project is scheduled to begin in August 2021.

Benefits

- Preferred project will construct 1% flood conveyance capacity for 5.5 miles of channel in San José, protecting approximately 6,280 homes, 320 businesses and 10 schools/institutions
- Local funding only constructs improvements to 4,100 linear feet of Guadalupe River between the Southern Pacific Railroad (SPRR) crossing, downstream of Willow Street, to the Union Pacific Railroad (UPRR) crossing downstream of Padres Drive to convey 1% flow
- Improves stream habitat values and fisheries
- Improves stream water quality
- Allows for creekside trail access
- Addresses climate change

Key Performance Indicators (FY22–36)

1. Preferred project with federal and local funding: Construct a flood protection project to provide 1% (100-year) flood protection to 6,280 homes, 320 businesses and 10 schools and institutions.



Reach 6, site 1 of the Aquatic Habitat Improvement Project (post-construction).

ADJUSTED

Project E8 FY22 Highlights

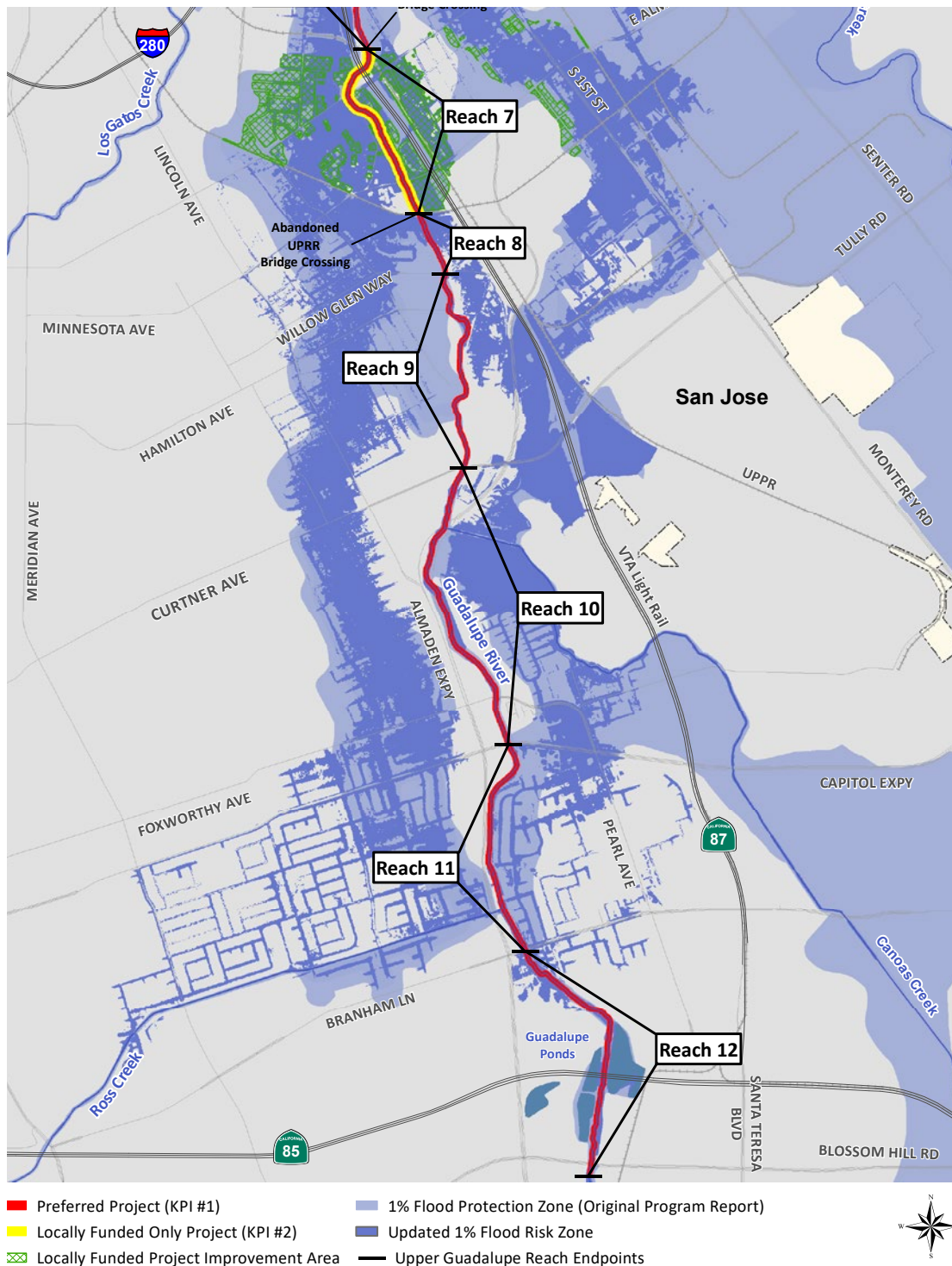
- Constructed the Reach 6 Aquatic Habitat Improvement Project.
- The USACE's General Re-evaluation Study continued and is expected to be completed in FY24.

With local funding only: Construct flood protection improvements along 4,100 feet of Guadalupe River between the Southern Pacific Railroad (SPRR) crossing, downstream of Willow Street, to the Union Pacific Railroad (UPRR) crossing, downstream of Padres Drive, and provide gravel augmentation along approximately 800 linear feet of the Upper Guadalupe River in San José, from approximately the Union Pacific Railroad Bridge to West Virginia Street Bridge to improve aquatic habitat for migrating steelhead and channel stability.

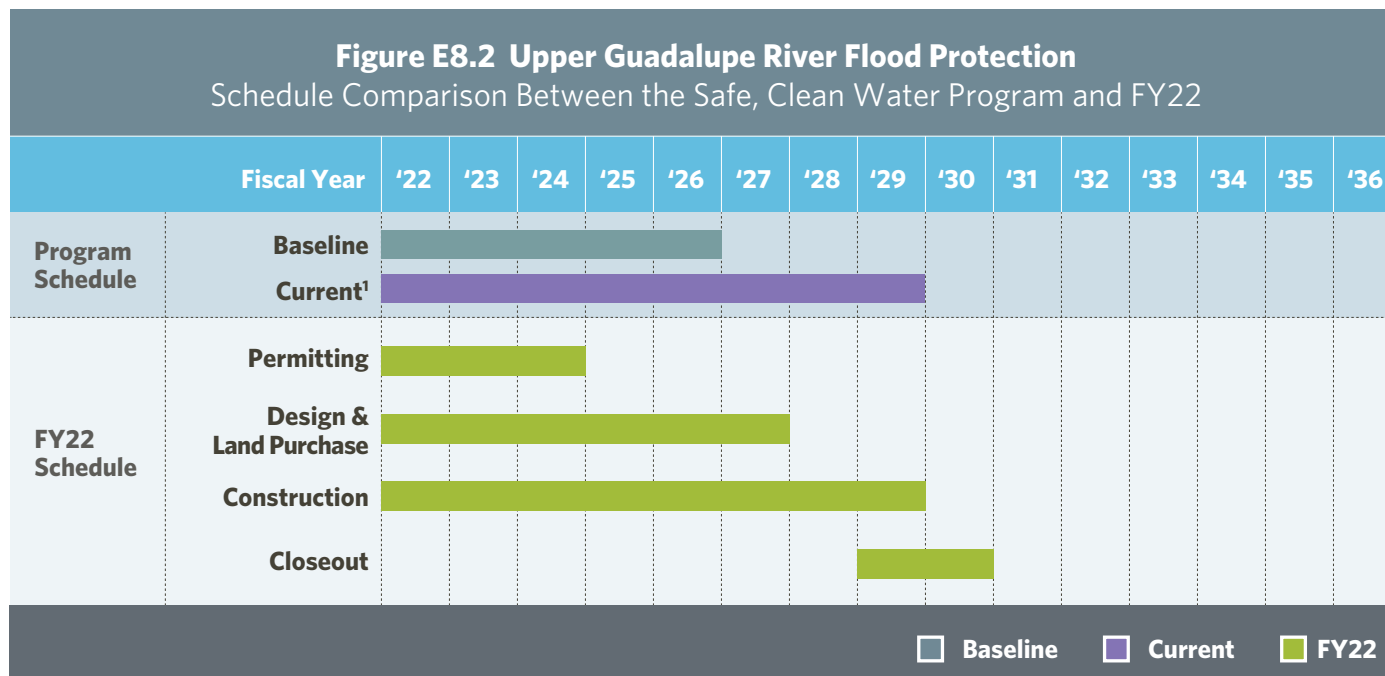
Geographic Area of Benefit: San José

Project Location

Figure E8.1



Schedule



1 Board approved schedule adjustment through the Change Control Process in FY21.

Status History

Fiscal Year	Status
FY 22	ADJUSTED

Status for FY22: **ADJUSTED** (Schedule Adjustment)

The FY22 annual project status is "Adjusted" following the Board approval postponing the construction schedule for the local-funding only project (KPI #2) by three years, with construction estimated to be completed in FY29. The adjustment is necessary to allow USACE to conduct a General Re-evaluation Study, a study to re-evaluate the scope of the entire project and the associated benefits and construction cost that can help make the project more competitive for federal funding. A new preferred project (KPI #1) will be developed following the completion of the study in FY24. Meanwhile, if Valley Water were to assume the responsibility of continuing the design of the local-funding only project in FY24, project construction could be completed in FY29. The Board approved the schedule adjustment on May 11, 2021, during the approval of the Fiscal Years 2022-2026 Five-Year Capital Improvement Program (CIP).

PROGRESS ON KPI #1 AND #2 (COMBINED):

While the locally funded project requires Valley Water to only construct Reach 7 flood protection improvements and Reach 6 aquatic habitat improvement, Valley Water has previously used local funding (under the 2012 Safe, Clean Water Program and the preceding Clean, Safe Creeks Plan) to complete Reaches 6, 10B and 12 and move the project forward.

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

In August 2021, Valley Water began constructing the Reach 6 Aquatic Habitat Improvement Project, which is part of the local-funding only project under KPI #2. Valley Water completed installing the two gravel sites in October 2021. Mitigation planting, the last element of the construction project, was completed in November 2021. Valley Water is currently monitoring the stability of the two gravel augmentation sites and will continue this effort until 2026.

Reaches 7 to 12 (from the UPRR bridge crossing downstream of Willow Street to Blossom Hill Road)

Reach 7, stretching from the UPRR bridge crossing downstream of Willow Street to the abandoned UPRR bridge upstream of Alma Avenue, is part of the local funding only project, KPI #2. Valley Water has adequate local funding to complete this reach. Furthermore, Reaches 6, 10B and 12 of the project were completed by 2015.

Since FY15, lack of federal funding has stalled the design and construction of the flood protection elements of Reaches 7-12 (excluding Reach 10B and Reach 12). USACE has completed 65% design documentation for Reaches 7 and 8 and has been waiting for federal funds to complete the design and begin construction. Due to increases in project construction cost estimates, in FY20, USACE received funding to perform the General Re-evaluation Study. In January 2021, the USACE began the General Re-evaluation Study, which is expected to take approximately three (3) years to complete in FY24. A new preferred project (KPI #1) schedule will be developed following the completion of the General Re-evaluation Study.

Financial Information

In FY22, 51% of the annual project budget was expended.

The under-expenditure was because the actual construction cost of the Reach 6 Aquatic Habitat Improvement Project, was lower than estimated. Also, the FY22 budget for Reaches 7 to 12 included contingency dollars for any increase in Valley Water's participation costs in the General Re-evaluation Study, which were not required during the year. Furthermore, the budget included staff time to review the Tentatively Selected Plan, which was postponed by the USACE until August 2022 (FY23).

Figure E8.3 Upper Guadalupe River Financial Summary (\$ Thousands)										
Fiscal Year 2021-2022									15-year Plan	
Project No. and Name	Adopted Budget	Project Carryforward	Budget Adjustments	Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Adjusted 15-yr Plan Spent
					Actual	Encumbrance	Total			
26154002 Reach 6 (I-280 to S. Pacific Railroad)	\$563	\$1,125	\$0	\$1,688	\$973	\$89	\$1,062	63%	\$3,715	29%
26154003 Reaches 7-12 (S. Pacific Railroad to Blossom Hill)	\$0	\$888	\$0	\$888	\$260	\$0	\$260	29%	\$64,059	8%
Total	\$563	\$2,014	\$0	\$2,576	\$1,233	\$89	\$1,322	51%	\$67,775	9%

Opportunities and Challenges

Confidence Levels

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

Valley Water completed the construction of the Reach 6 Aquatic Habitat Improvement Project. The two gravel sites were installed by October 2021. Mitigation planting, the last element of the construction project, was completed in November 2021.

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

Schedule: *Low confidence*

The schedule has been affected due to USACE's need to re-evaluate the scope of the entire project and the associated benefits and construction cost in hopes to make the project more competitive for federal funding. This has delayed design and construction efforts for Reaches 7 and 8. Once the General Re-evaluation Study has concluded, a new schedule will be determined for this project.

Funding: *Low confidence*

Federal funding appropriation continues to be the main challenge for this project. The project did receive federal funds in FY20 for the General Re-evaluation Study of all elements of Reaches 7 to 12. The USACE will be evaluating the entire project to determine the preferred scope of work. Valley Water will need to continue working with USACE leadership and federal elected officials to encourage federal appropriations for the design and construction of the remaining project reaches.

Permits: *Moderate confidence*

USACE will acquire all the required permits once the General Re-evaluation Study is concluded and a path forward for the project is determined.

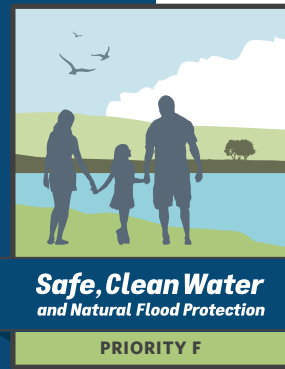
Jurisdictional Complexity: *Low confidence*

As a local sponsor, Valley Water is responsible for acquiring all the rights-of-way and relocation of utilities. Even after Valley Water acquires easements or joint-use agreements for the project from Caltrans, the Joint Power Board/Caltrain and the City of San José, these agencies will continue to have jurisdiction over the Upper Guadalupe Flood Protection Project. Cooperation between the City of San José and the Joint Power Board/Caltrain has been satisfactory. Valley Water and the City of San José were able to complete the purchase of rights-of-way for the Willow Street and Alma Avenue bridge extension elements of the project. The Joint Power Board/Caltrain has been coordinating with Valley Water for their railroad bridge replacement project just upstream of Reach 6.

See Appendix C: Capital Projects Jurisdictional Complexities for a list of confidence levels for each project by outside agency for funding, regulatory permitting, cities, counties and other agencies.

Priority F

Support Public Health and Public Safety for Our Community



With the advent of the COVID-19 pandemic that drastically altered our worldview, the critical need for safe, clean water supplies and essential water infrastructure, particularly during emergencies, has come into sharper focus. This new priority pulls together multi-benefit projects that were previously placed under other priorities in the 2012 Safe, Clean Water Program and groups them based on their common benefit of supporting public health and public safety along our waterways and critical infrastructure.

This priority includes enhanced funding to support public safety by partnering with local municipalities on services related to encampment cleanups; reducing trash and other pollutants from entering waterways from encampments to support public health; and ongoing vegetation control and sediment removal activities to maintain conveyance capacity of flood protection projects. It also provides additional funding for grants and partnerships for local agencies, organizations and individuals for water conservation, pollution prevention, creek cleanups and education, wildlife habitat and access to trails and open space.

Additionally, it includes two new efforts: a project to fund public art to beautify Valley Water property and infrastructure to deter graffiti and litter; and a long-term effort to ensure that existing flood protection infrastructure continues to function sustainably for continued public safety. Other projects include vegetation management for access and fire safety, removing flood-inducing blockages and improving coordination and communication in flood emergencies.



Stream maintenance in Coyote Creek

Project F1: Vegetation Control and Sediment Removal for Capacity

Project F2: Emergency Response Planning and Preparedness

Project F3: Flood Risk Assessment Studies

Project F4: Vegetation Management for Access and Fire Safety

Project F5: Good Neighbor Program: Encampment Cleanup

Project F6: Good Neighbor Program: Graffiti and Litter Removal and Public Art

Project F7: Emergency Response Upgrades

Project F8: Sustainable Creek Infrastructure for Continued Public Safety

Project F9: Grants and Partnerships for Safe, Clean Water, Flood Protection and Environmental Stewardship

PROJECT F1 VEGETATION CONTROL AND SEDIMENT REMOVAL FOR CAPACITY

This project supports Valley Water’s ongoing vegetation control and sediment removal activities that reduce flood risk by maintaining the design conveyance capacity of flood protection projects. The project includes controlling in-stream vegetation and tree growth and removing sediment at appropriate intervals. Before carrying out in-stream maintenance, Valley Water’s personnel perform biological pre-construction surveys to minimize environmental impacts. This project also helps fund future maintenance of flood protection projects completed under the Safe, Clean Water Program.

This project comprises two (2) sub-projects that support Valley Water’s ongoing vegetation control and sediment removal activities. These sub-projects are:

- F1.1 Vegetation Control for Capacity
- F1.2 Sediment Removal for Capacity

Benefits

- Ensures that existing flood protection projects continue to provide flood protection
- Improves water quality

Key Performance Indicator (FY22–36)

1. Maintain completed flood protection projects for flow conveyance.

Geographic Area of Benefit: Countywide

Status History

Fiscal Year	Status
FY 22	ON TARGET

Status for FY22:

ON TARGET

PROGRESS ON KPI #1:

In FY22, Valley Water managed 206 miles of improved channels by removing sediment or in-stream vegetation to maintain flood protection projects for flow conveyance, thus keeping pace with the 5-Year Implementation: Fiscal Years 2022-2026 Plan annual target of managing a minimum of 100 miles.

F1.1: Vegetation Control for Capacity

In FY22, Valley Water completed 1,853 acres of in-stream vegetation management to reduce flood risk along 205 miles of streams throughout the county using an integrated combination of mechanical, hand labor and herbicide methods.

F1.2: Sediment Removal for Capacity



Sediment removal from Matadero Creek, downstream of Green Road in Palo Alto.

ON TARGET

Project F1 FY22 Highlights

- Managed 206 miles of improved channels by removing sediment or in-stream vegetation to maintain flood protection projects for flow conveyance.
- Completed 1,853 acres of in-stream vegetation management to reduce flood risk.
- Completed seven (7) projects, removing approximately 28,034 cubic yards of sediment along 1.2 miles to maintain design capacity.

In FY22, Valley Water completed seven (7) projects, removing approximately 28,034 cubic yards (CY) of sediment along 1.2 miles to maintain design capacity (Figure F1.2). The Safe, Clean Water Program funds 21% of this work. Figure 1.1 shows the quantities of sediment removed from each watershed/creek, and a corresponding map can be found at tinyurl.com/FY22sediment.

Figure F1.1 Vegetation Control and Sediment Removal for Capacity Sediment Removed		
Watershed	Creek	Sediment Removed (CY)
Lower Peninsula	Permanente Creek	32
West Valley	San Tomas Aquino Creek (4 sites)	26,712
Coyote	Lower Silver Creek	1,235
Coyote	Thompson Creek	55
Total		28,034

Financial Information

In FY22, 64% of the annual project budget was expended.

This included 65% of the annual Vegetation Control for Capacity budget being expended. The under-expenditure was due to a marked reduction in in-stream vegetation due to ongoing drought conditions resulting in creek dry-back.

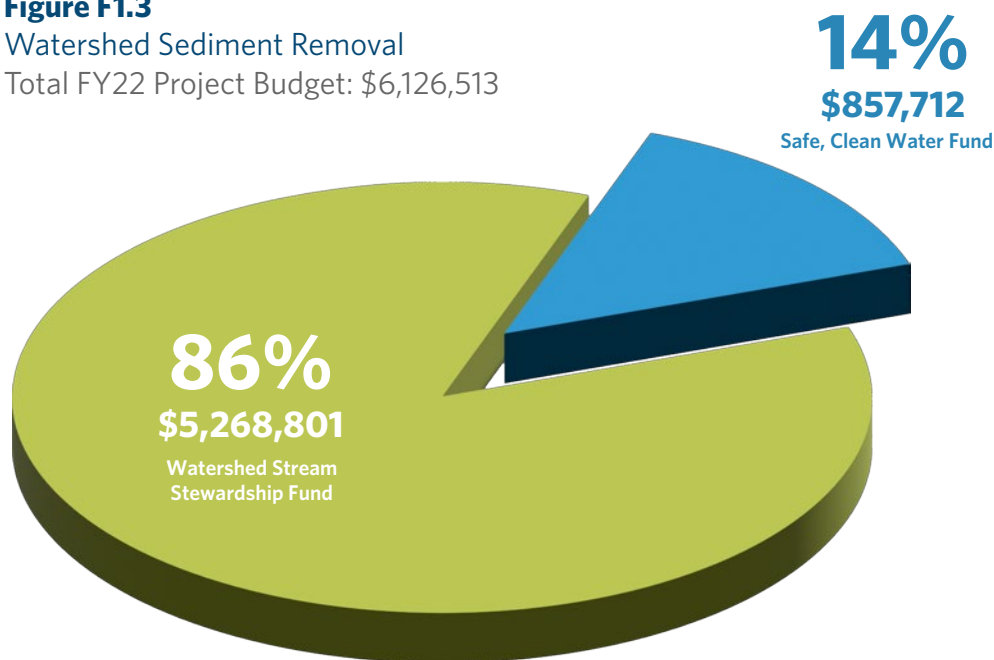
For Sediment Removal for Capacity, 62% of the annual project budget was expended. The under-expenditure was due to the shifting of work from sediment removal projects to erosion repair projects, as well as the lack of rain in recent years, resulting in less sediment deposition in the creeks.

Figure F1.2 Vegetation Control and Sediment Removal For Capacity Financial Summary (\$ Thousand)										
Fiscal Year 2021-2022									15-year Plan	
Project No. & Name	Adopted Budget	Project Carryforward	Budget Adjustments	Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Adjusted 15-yr Plan Spent
					Actual	Encumbrance	Total			
26771067 Vegetation Control for Capacity	\$3,395	\$0	\$0	\$3,395	\$2,203	\$0	\$2,203	65%	\$78,061	3%
26761023 Sediment Removal for Capacity	\$858	\$0	\$0	\$858	\$528	\$0	\$529	62%	\$25,625	2%
Total	\$4,253	\$0	\$0	4,253	\$2,731	\$0	\$2,732	64%	\$103,687	3%

Figure F1.3

Watershed Sediment Removal

Total FY22 Project Budget: \$6,126,513



Valley Water funds this project with more than the Safe, Clean Water Program fund (Fund 26). Figure F1.3 shows the project's total adjusted annual budget inclusive of all Valley Water funding sources.

Opportunities and Challenges

Coordination with Project D3: Sediment Reuse to Support Shoreline Restoration

To the extent possible, Valley Water coordinates its sediment removal activities with Project D3: Sediment Reuse to Support Shoreline Restoration. More specifically, removed sediment that meets specific reuse criteria is delivered to the U.S. Fish and Wildlife Service (USFWS)-owned Pond A8 to provide suitable substrate (e.g., dirt, gravel, sand, etc.) on which marsh vegetation can grow. In FY22, a limited quantity of sediment was placed at Pond A8, as the majority of sediment did not meet specific reuse criteria and was therefore delivered to appropriate landfills.

Regulatory Approvals

Timely receipt of regulatory approvals, environmental and biological factors and the availability of equipment and materials are challenges that continue to affect the scheduling of routine stream maintenance work.

PROJECT F2

EMERGENCY RESPONSE PLANNING AND PREPAREDNESS

This project enables Valley Water to work with local municipalities to clearly delineate and communicate roles and responsibilities for floodplain management and flood emergency management. The resulting plans will also strengthen response capabilities for mutual assistance during other types of public health and safety emergencies or natural disasters. The project supports Valley Water's countywide emergency response, preparedness and mitigation activities, develops communication processes and disseminates web-based flood forecasting information developed under Project F7: Emergency Response Upgrades. Valley Water will also assist collaborating agencies in developing formal, site-specific flood-fighting strategies and will coordinate outreach throughout the county so that the public receives uniform warning messages during a flood emergency.

Benefits

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

Key Performance Indicators (FY22-36)

1. Coordinate with local municipalities to merge Valley Water-endorsed flood emergency processes with their own emergency response plans and processes.
2. Complete five (5) flood management plans/procedures per 5-year period, selected by risk priorities.
3. Train Valley Water staff and partner municipalities annually on disaster procedures via drills and exercises before testing the plans and procedures.
4. Test flood management plans/procedures annually to ensure effectiveness.

Geographic Area of Benefit: Countywide

Status History

Fiscal Year	Status
FY 22	ON TARGET

Status for FY22: ON TARGET

PROGRESS ON KPI #1:

In FY22, Valley Water worked with local municipalities to plan and exercise response plans to enhance capabilities to communicate and coordinate during an emergency. In addition, further collaboration with municipalities took place during the annual updates to current Emergency Action Plans (EAPs). The highlights of FY22 efforts follow:



Valley Water and City of San José testing JEAP at Ross Creek.

ON TARGET

Project F2 FY22 Highlights

- Updated the Joint Emergency Action Plan with the City of San José.
- Finalized the Lower Peninsula Emergency Action Plan.
- Facilitated the Joint Emergency Action Plan - Guadalupe River Flood Barrier tabletop exercise.
- Held the Anderson Dam Federal Energy Regulatory Commission (FERC) Functional Exercise.

- On March 10, 2022, Valley Water completed its annual collaboration with the City of San José to update the Joint Emergency Action Plan (Plan) as deemed necessary during the annual review. Valley Water staff from Operations and Maintenance Engineering Support, Field Operations, Communications, the Office of Emergency Services (OES) and other areas collaborated with city staff to develop a structured plan and deploy the Guadalupe River Flood Barrier tabletop exercise. The Plan was updated and signed by the city general manager and Valley Water CEO.
- Valley Water OES staff continued to participate in the monthly Santa Clara County Emergency Managers meeting, providing information on Valley Water's current work activities, particularly those involving collaboration with local agencies.

PROGRESS ON KPI #2:

- In FY22, Valley Water finalized the Lower Peninsula Emergency Action Plan (LPEAP), which includes the Permanente, Hale and San Francisquito creeks. Valley Water met with the City of Mountain View and the City of Los Altos to help develop the response procedures for Permanente Creek and Hale Creek. The LPEAP and other previously finalized emergency action plans can be found at: <https://www.valleywater.org/flooding-safety/flood-emergency-action-plans>
- While the LPEAP provides specific guidance for storm and flood response for San Francisquito Creek, additional guidance for San Francisquito Creek is provided in a separate San Francisquito Creek Multi-Agency Coordination Operations Plan for Severe Storm and Flood Response (SFC MAC). The San Francisquito Creek Joint Powers Authority (SFCJPA) and its member agencies, including Valley Water, adopted the San Francisquito Creek Multi-Agency Coordination Operations Plan in 1999.
- In FY22, Valley Water completed the Upper Penitencia Creek emergency response appendix, adding one more response procedure to the Joint Emergency Action Plan with the City of San José.

PROGRESS ON KPI #3:

- On February 10, 2022, Valley Water facilitated the Joint Emergency Action Plan - Guadalupe River Flood Barrier tabletop exercise. Besides Valley Water, staff from the City of San José and the County of Santa Clara attended the exercise. A total of 60 people attended the exercise. The flood barrier in-house procedure and the JEAP Guadalupe appendix were exercised, and the lessons learned were captured in the after-action plan.
- On September 16, 2021, Valley Water held the Anderson Dam Functional Exercise with multiple agencies participating. The exercise, which is a FERC requirement, is held every five years. Although Anderson Dam has been drained as Valley Water carries out construction to retrofit the dam to withstand a large earthquake, the exercise had artificialities that enabled the participants to experience this learning opportunity.
- On August 16, 2021, Valley Water held the Anderson Dam Federal Energy Regulatory Commission (FERC) Functional Exercise. The tabletop exercise included a training session at the outset to familiarize all attendees with the Anderson Dam EAP. This voluminous plan has grown in size as flood response procedures have been added as appendices. Therefore, a condensed five-page version of the EAP, called a 'supplemental,' was used as the training tool.
- On August 5, 2021, Valley Water held an organization-wide damage assessment drill that focused on a technology solution, specifically on the efficacy of the California Common Operating Picture (Cal COP) for Threat Awareness tool employed at Valley Water. Staff from the Security Unit, Dam Safety Team, Facilities Unit, Water Utility Plants and the Office of Emergency Services participated in the drill.

PROGRESS ON KPI #4:

- On February 10, 2022, Valley Water facilitated the Joint Emergency Action Plan - Guadalupe River Flood Barrier tabletop exercise. The flood barrier in-house procedure and the JEAP Guadalupe appendix were exercised, and the lessons learned were captured in the after-action plan. The debrief meeting for the after-action plan was held in late April.
- On September 16, 2021, Valley Water conducted the Anderson Dam Functional Exercise. This exercise is also referred to as the "FERC Exercise," as the Federal Regulatory Commission (FERC) requires all agencies with power-producing dams (e.g., Anderson Dam) to conduct a functional exercise every five years to validate the dam's Emergency Action Plan (EAP).
- For the exercise, Valley Water activated an Emergency Operations Center (EOC) team to manage and support Valley Water's response to a large earthquake scenario where Anderson Dam experienced damage. Per the Anderson Dam EAP, notifications were made to downstream agencies. Within the scenario, EOC Action Planning processes were implemented, Public Information coordination and Policy Group updates were provided, and command and control

structures were tested, all of which were synchronized to establish situational awareness during the early part of the large earthquake scenario. The exercise yielded an after-action report with recommended opportunities for improvement. City of Morgan Hill, City of Gilroy, City of San José, County of Santa Clara, and the National Weather Service supported the exercise. Valley Water EOC activated operations in a hybrid model, with OES and Security Office staff working on-site in the primary EOC facility while the remaining EOC staff connected virtually through Zoom.

Financial Information

In FY22, 46% of the annual project budget was expended.

The under-spending was because some planned training and exercise tasks were not realized in FY22. The future annual budget will be adjusted accordingly.

Figure F2.1 Emergency Response Planning and Preparedness
Financial Summary (\$ Thousands)

Fiscal Year 2021-2022								15-year Plan	
Adopted Budget	Project Carryforward	Budget Adjustments	Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Adjusted 15-yr Plan Spent
				Actual	Encumbrance	Total			
\$218	\$0	\$0	\$218	\$100	\$0	\$100	46%	\$7,269	2%

Opportunities and Challenges

Coordination with Project F7: Emergency Response Upgrades

When applicable, the flood forecasting products and data collected under Project F7: Emergency Response Upgrades are incorporated into Project F2: Emergency Response Planning and Preparedness documents to help inform decision-makers. Project F7 focuses on maintaining flood forecasting and warning capabilities and improving flood forecasting accuracy to assist flood responders by providing forecast rainfall and stream-flow and potential flooding information. Project F2 focuses on pre-event planning and collaboration with other agencies to develop flood response procedures that clarify roles and responsibilities before a flood event arises.

PROJECT F3

FLOOD RISK ASSESSMENT STUDIES

This project is to enable Valley Water scientists to update custom software models of local creeks for the most current and accurate understanding of potential flood risks in high priority flood-prone areas and then develop options for managing those risks. Existing models will be verified, updated and recalibrated as conditions change. Updating our knowledge-base will lead to more effective creek management and maintenance. Valley Water will also convey this information to the community and partner cities.

When creek conditions necessitate rehabilitation to preserve flood protection, this project also funds preliminary engineering studies to isolate problem areas and explore potential solutions.

Under the 2012 Safe, Clean Water Program, Valley Water completed engineering studies on five (5) reaches of creeks as part of the Flood Risk Assessment Studies project. These were on Coyote Creek (Bay to Anderson Dam, including Rock Springs Neighborhood); Adobe and Barron creeks tidal flood protection (Highway 101 to Middlefield Road in Palo Alto); Alamitos Creek (upstream of Almaden Lake in San José); and Ross Creek (Guadalupe River to Blossom Hill Road in San José). The Coyote Creek study completed under this project was utilized to develop the short-term interim projects that Valley Water built to help reduce the risk of flooding along Coyote Creek (See Project E1 - Coyote Creek Flood Protection Project). These include the installation of an interim floodwall and embankment along the creek to protect the Rock Springs community from a flood event equivalent to the February 2017 flood. Valley Water also updated the Alamitos Creek 2-D hydraulic (HEC-RAS) model of the 1% (100-year event) floodplain and shared the information with the City of San José.

Revising flood models on a regular basis enables Valley Water to keep pace with changes in rainfall patterns and intensity as our climate changes. An up-to-date understanding of flood risks allows us to work toward preventing future flooding.

Benefits

- Provides more current and accurate mapping of areas at risk of flooding
- Provides the technical basis for developing future flood protection plans, and for potential funding partnerships
- Identifies, in a timely manner, the needs to prevent creek deterioration
- Identifies the need for flood mitigation or creek rehabilitation projects
- Facilitates communication with partner cities on evolving flood risks and possible solutions
- Addresses climate change

Key Performance Indicators (FY22-36)

1. Complete engineering studies on three (3) creek reaches to address 1% (100-year) flood risk.
2. Annually, update floodplain maps on a minimum of three (3) creek reaches in accordance with new FEMA standards.

Geographic Area of Benefit: Countywide



Summer conditions at West Branch Llagas Creek and Lions Creek, upstream of Church Street in Gilroy

ON TARGET

Project F3 FY22 Highlights

- Completed the South Babb Creek engineering study.
- Further refined the Coyote Creek 2D HEC-RAS hydraulic model for the stretch extending between Highway 237 and Edenvale Gauge.
- Updated an urban hydrology model of the Berryessa Watershed to respond to comments from FEMA.
- Began a new floodplain study for the Llagas Watershed.

Status History

Fiscal Year	Status
FY 22	ON TARGET

Status for FY22: **ON TARGET**

PROGRESS ON KPI #1:

In FY22, Valley Water completed the South Babb Creek engineering study. The study incorporates refined hydraulic modeling and analyses to identify potential flood mitigation and 100-year flood protection projects on South Babb Creek for the area, which is known to have a flooding risk from its confluence with Lower Silver Creek to upstream of Clayton Rd. The study explores the feasibility, constructability and costs of the proposed alternative solutions.

PROGRESS ON KPI #2:

In FY22, Valley Water further refined the Coyote Creek 2D HEC-RAS hydraulic model for the stretch extending between Highway 237 and Edenvale Gauge. The updated model has been used to support the design of Project E1: Coyote Creek Flood Protection. Refinements included updating terrain data using 2020 Lidar data for Santa Clara County and recalibrating to February 2017 high water marks.

The updated model will also be used to map floodplains for the 10-, 25-, 50- and 100-year flow events for existing conditions as well as conditions after Project E1: Coyote Creek Flood Protection is completed. Maps and models will be shared with the City of San José for use in emergency operations and for their ongoing storm drain master plan effort.

In FY22, Valley Water modified an urban hydrology model of the Berryessa Watershed in response to comments from the Federal Emergency Management Agency (FEMA) as part of the review process. The model, which was originally developed under a FEMA grant, uses InfoWorks ICM software and is a state-of-the-art model that explicitly accounts for the routing of flows through the storm drain network. Floodplains developed from this model will be used to update the FEMA floodplain maps in the future as part of a regulatory floodplain map revision (Physical Map Revision). The final package was sent to FEMA in April 2022.

During the year, Valley Water began a new floodplain study for the Llagas Watershed, located in South County. An existing 1D, steady-state hydraulic model of Llagas Creek and its many tributaries is being expanded and improved. Specifically, the model is being converted to a 1D/2D unsteady hydraulic model that will be used to map out the floodplain for different flow events. This work will feed directly into Valley Water's One Water Plan. Work completed in FY22 includes adding two tributaries to the model, as well as initial work done to stabilize the unsteady model version. This work will continue into FY23.

Financial Information

In FY22, 87% of the annual project budget was expended.

The under-spending was because of a slight delay in executing a contract to hire a consultant towards the end of FY22. As a result, funding was not encumbered in FY22. The contract will be executed in FY23.

Figure F3.1 Flood Risk Assessment Studies
Financial Summary (\$ Thousands)

Fiscal Year 2021-2022							15-year Plan	
Adopted Budget	Project Carryforward	Budget Adjustments	Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan
				Actual	Encumbrance	Total		
\$1,270	\$0	\$0	\$1,270	\$1,098	\$5	\$1,103	87%	\$22,007
								5%

Opportunities and Challenges

Nexus to Other Valley Water Projects

One of the first tasks of an engineering study is to evaluate and, if needed, update the existing floodplain or flood risk areas. These refined floodplain risks and/or maps are incorporated into our emergency action plans, which both Valley Water and the cities use during flood events. The maps are shared with the cities directly as additional information to use when regulating development within the floodplain.

Updated flooding risk is also used to help prioritize projects, noting that flooding risk is one factor of many. If the engineering study is approved to become a capital project, the data collected from the engineering study forms the starting point for that project, providing key background information, updated hydraulic models, and some feasible alternatives for further development. For example, the Coyote Creek study completed under the 2012 Safe, Clean Water Program was utilized to develop the short-term flood relief measures that Valley Water constructed under the Coyote Creek Flood Protection Project. Similarly, the updated Coyote Creek 2D HEC-RAS hydraulic model is being used to support the design of Project E1: Coyote Creek Flood Protection.

PROJECT F4

VEGETATION MANAGEMENT FOR ACCESS AND FIRE SAFETY

This project supports Valley Water's ongoing vegetation management activities that reduce fire risk by maintaining creekside lands. These activities also ensure access for maintenance and emergency personnel and equipment.

The project includes vegetation management activities such as weed abatement, goat grazing, herbicide application and pruning to provide access and reduce fire risk. Before carrying out maintenance, Valley Water's personnel perform biological pre-construction surveys to minimize environmental impacts. Allocations for Project F4 also help fund future maintenance access of flood protection projects completed under the Safe, Clean Water Program.

Fire risk reduction will become a higher priority as the climate changes. This project will allow Valley Water to adapt to those changes.



Area requiring vegetation management along Alamos Creek, upstream of Mazzone Drive in San José.

ON TARGET

Project F4 FY22 Highlights

- Completed 3,311.8 acres of maintenance access work in all five (5) watersheds.

Benefits

- Provides safe access for maintenance of creek channels
- Reduces fire risk along creek channels
- Addresses climate change by preparing for increased fire risk through vegetation management

Key Performance Indicator (FY22-36)

- Provide vegetation management for access and fire risk reduction on an average of 495 acres per year, totaling 7,425 acres along levee, property lines and maintenance roads over a 15-year period.

Geographic Area of Benefit: Countywide

Status History

Fiscal Year	Status
FY 22	ON TARGET

Status for FY22: **ON TARGET**

PROGRESS ON KPI #1:

In FY22, Valley Water completed 3,311.8 acres of maintenance access work in all five (5) watersheds. Of this total acreage, 15% of the completed work was funded by the Safe, Clean Water Program for a total of 497 acres.

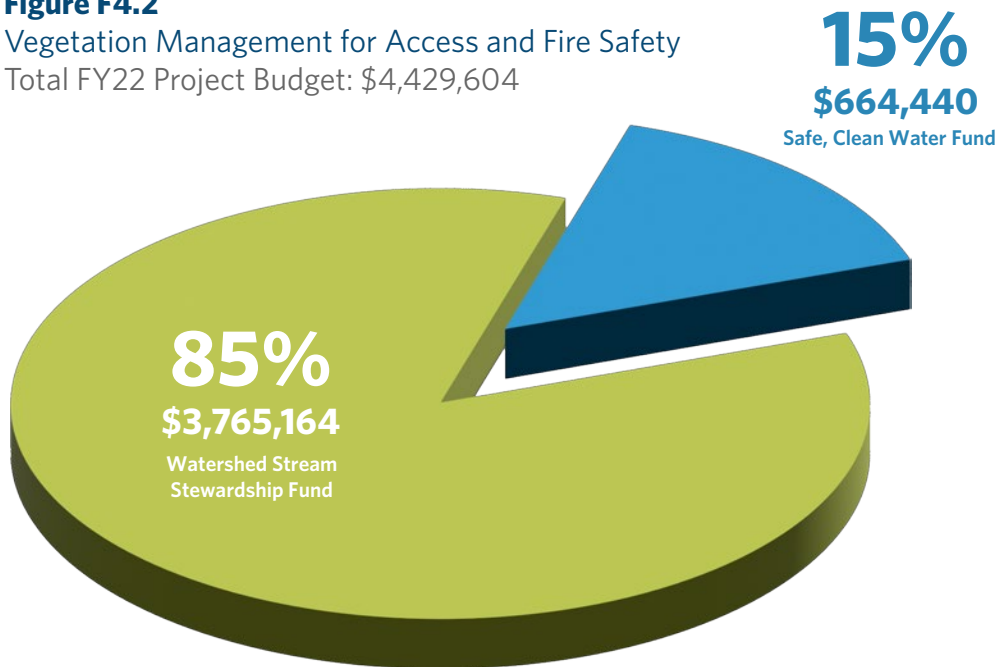
Financial Information

In FY22, 111% of the annual project budget was expended.

The overspending was due to increased mowing around encampments to help prevent the spread of fire along the creeks and into adjacent neighborhoods.

Figure F4.1 Vegetation Management for Access and Fire Safety Financial Summary (\$ Thousands)									
Fiscal Year 2021-2022								15-year Plan	
Adopted Budget	Project Carryforward	Budget Adjustments	Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Adjusted 15-yr Plan Spent
				Actual	Encumbrance	Total			
\$664	\$0	\$0	\$664	\$732	\$6	\$738	111%	\$12,013	6%

Figure F4.2
Vegetation Management for Access and Fire Safety
Total FY22 Project Budget: \$4,429,604



Valley Water funds this project with more than the Safe, Clean Water Program fund (Fund 26). Figure F4.2 shows the project's total adjusted annual budget inclusive of all Valley Water funding sources.

Opportunities and Challenges

The presence of unhoused individuals living along creeks in Santa Clara County continues to pose a challenge for servicing upland areas and performing annual fuel reduction work. Employee safety is prioritized over routine vegetation management work where unsafe conditions exist.

PROJECT F5

GOOD NEIGHBOR PROGRAM: ENCAMPMENT CLEANUP

This project supports Valley Water's independent efforts and ongoing coordination with local cities and agencies to clean up trash, debris and hazardous pollutants generated by encampments near waterways or on Valley Water property. Such encampments contribute to contamination of waterways and damage to Valley Water facilities. This project includes cooperative efforts to partner with local municipalities and other agencies for services related to encampment cleanups and to help provide alternatives to homelessness.

This project will also provide funding for local municipalities' services supporting staff safety as they work around encampments and discouraging re-encampments along waterways.

Benefits

- Reduces the accumulation of trash, debris, and hazardous pollutants in local waterways, including streams, wetlands, and water utility facilities (e.g. percolation ponds)
- Protects Valley Water facilities and reduces flood risk
- Improves the aesthetics of creeks in neighborhoods and along trails
- Coordinates Valley Water's efforts with multiple agencies to create lasting solutions to reduce encampments near waterways

Key Performance Indicators (FY22-36)

1. Manage 300 acres annually to clean up trash, debris, and hazardous pollutants generated from encampments and to reduce the amount of these pollutants entering streams.
2. Provide up to \$500,000 per year in cost-share with local agencies for services related to encampment cleanups, including services supporting staff safety, discouraging re-encampments along waterways or addressing the socio-environmental crisis with the goal of reducing the need for encampment cleanups.

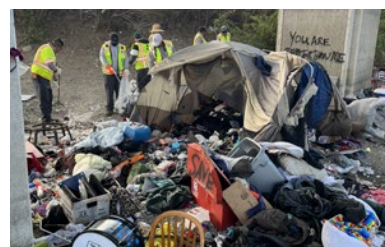
Geographic Area of Benefit: Countywide

Status History

Fiscal Year	Status
FY 22	MODIFIED

Status for FY22: **MODIFIED**

On July 13, 2021, (FY22), the Valley Water Board held a formal public hearing and approved modifying KPI #1 to: "Manage 300 acres annually to cleanup trash, debris, and hazardous pollutants generated from encampments and to reduce the amount of these pollutants entering streams." The Board also adjusted the project description, benefits and related Glossary definitions. The modification and text adjustments were in response to the changing legal, political and social climate as it related to encampment sites and homelessness in Santa Clara County.



Encampment cleanup at Guadalupe Ponds in San José.

MODIFIED

Project F5 FY22 Highlights

- Exceeded this KPI by managing 1,457 acres to clean up 868 tons of trash, debris, and hazardous pollutants from encampments.
- Provided \$11,200 to San José Police Secondary Employment Program to support staff during encampment cleanups.

On May 5, 2021, the proposed project modification and text adjustments were presented to the IMC as part of the review of the Draft 5-Year Implementation Fiscal Years 2022–2026 (FY22-26 Draft 5-Year Plan).

For more information on the Board’s decision and to view the Board meeting, visit tinyurl.com/VWBoardJuly13.

PROGRESS ON KPI #1:

In FY22, Valley Water exceeded this KPI by managing 1,457 acres to clean up 868 tons of trash, debris, and hazardous pollutants generated from encampments to reduce the amount of these pollutants entering streams.

PROGRESS ON KPI #2:

In FY22, Valley Water provided \$11,200 to San José Police Secondary Employment Program to support staff during encampment cleanups. This law enforcement presence may deter future additional encampments in areas where it is utilized. Valley Water has also initiated an effort to research and identify the best ways to partner with either a local agency or a non-profit to provide outreach services to the unhoused that eventually will help to reduce the need for encampment cleanups along our waterways through education and housing opportunities.

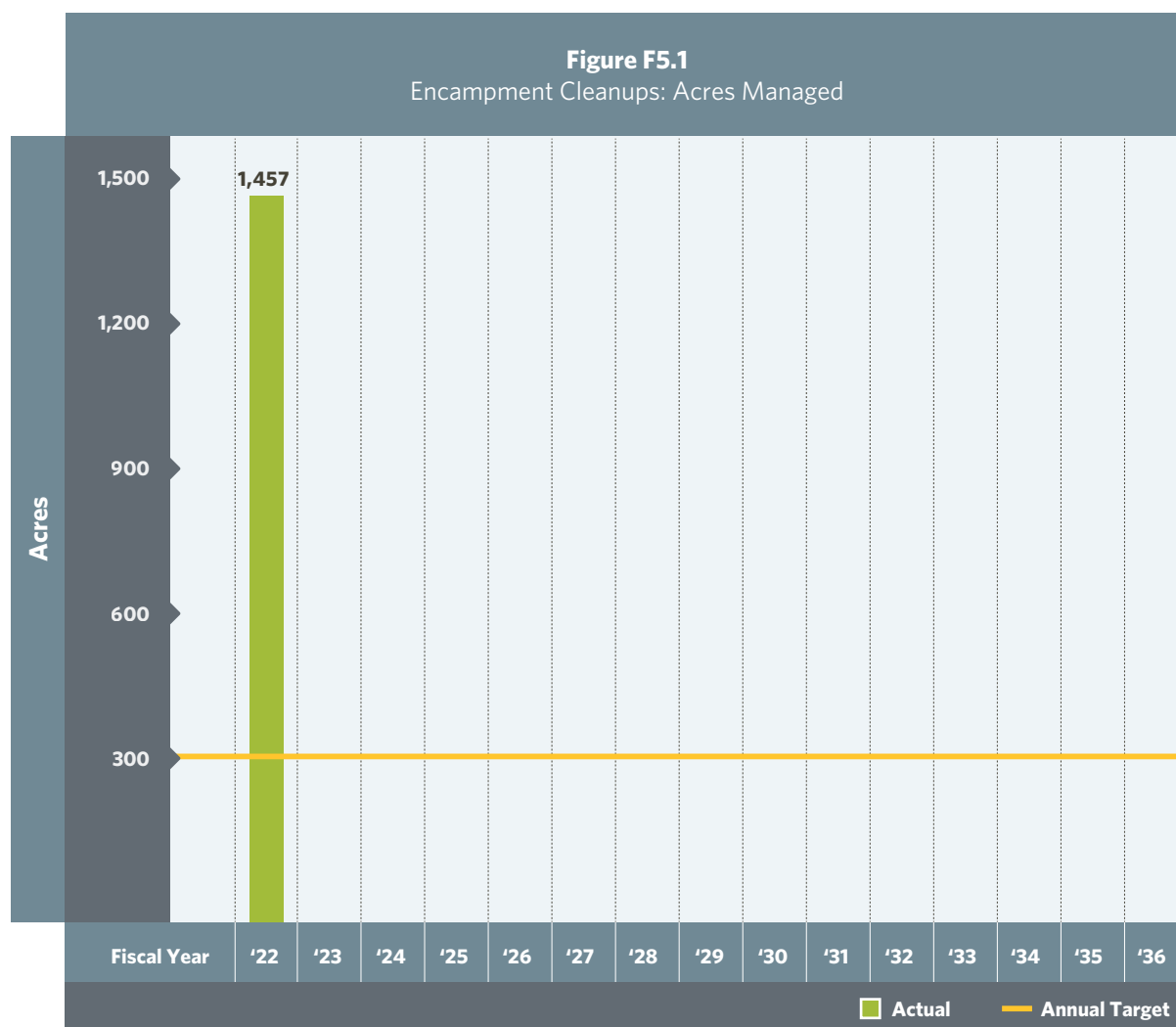
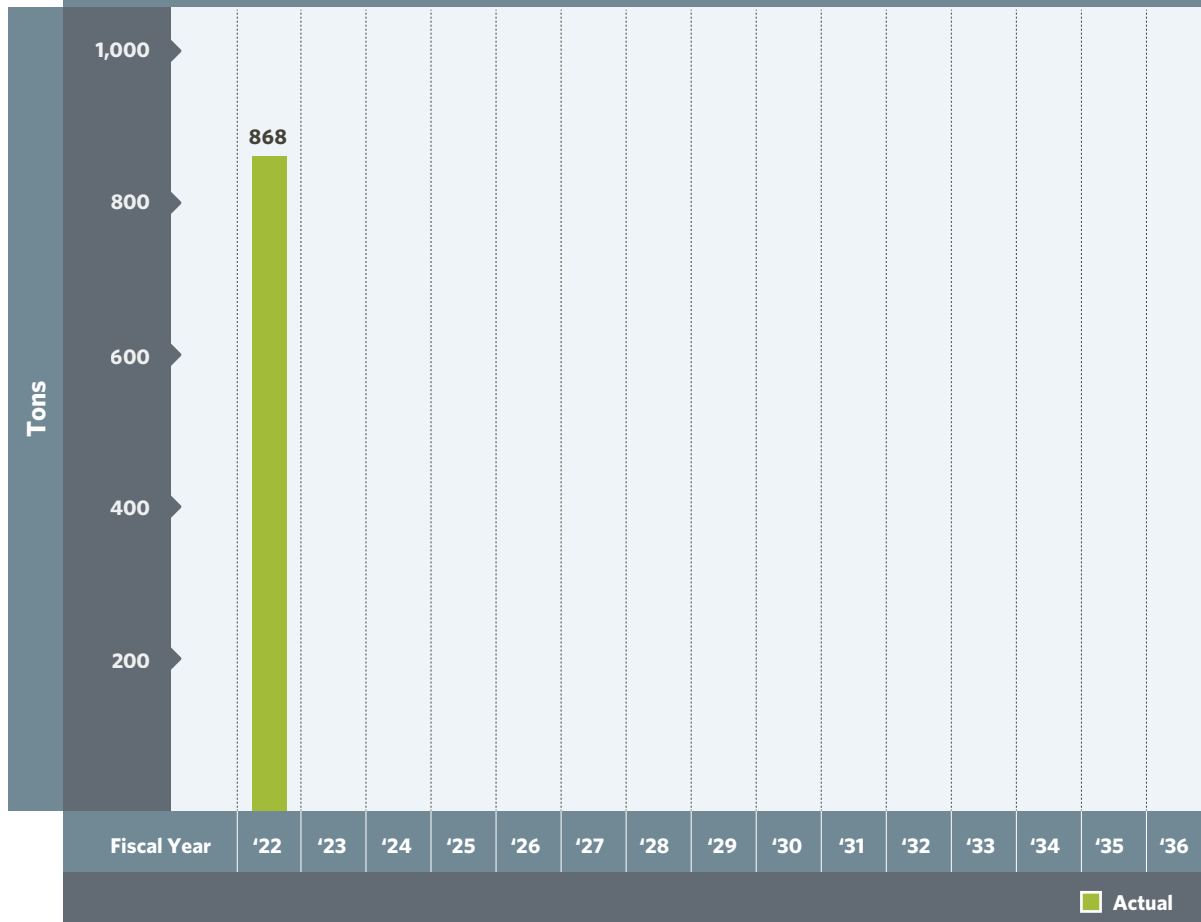


Figure F5.2
Trash and Debris Removed (tons)



Financial Information

In FY22, 115% of the annual project budget was expended.

The over-expenditure was a result of an increase in the amount of trash and debris generated by encampments in creeks throughout the county.

Valley Water expects the amount of unhoused living on waterways to continue to rise annually along with the cost for encampment cleanups until alternative housing opportunities are provided. Valley Water is currently exploring grant funding sources to support the increased need for services. One such funding source that will be applied for is a grant from the United States Environmental Protection Agency (EPA). The EPA manages a competitive grant program to support projects to protect and restore San Francisco Bay. This grant program, known as the San Francisco Bay Water Quality Improvement Fund began in 2008 to fund restoration of wetlands and watersheds, and reduce polluted runoff.

Figure F5.3 Good Neighbor Program: Encampment Cleanup
Financial Summary (\$ Thousands)

Fiscal Year 2021-2022								15-year Plan	
Adopted Budget	Project Carryforward	Budget Adjustments	Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Adjusted 15-yr Plan Spent
				Actual	Encumbrance	Total			
\$1,924	\$0	\$0	\$1,924	\$2,216	\$0	\$2,216	115%	\$38,709	6%

Opportunities and Challenges

COVID-19 Pandemic

During the COVID-19 pandemic, the Centers for Disease Control and Prevention (CDC) issued interim guidance to public agencies, recommending allowing people who are living unsheltered or in encampments to remain where they are if no individual housing options are available due to the risk of spreading the disease. This guidance from the CDC continued in FY22.

Homelessness

Additionally, in the case of *Martin v. Boise*, the U.S. Court of Appeal for the Ninth Circuit held that the City of Boise violated the Eighth Amendment of the U.S. Constitution (prohibiting cruel and unusual punishment) for enforcing two city ordinances that made it a misdemeanor to camp on streets, sidewalks, parks, or public places (camping ordinance), or to sleep in a public place without the owner's permission (part of a disorderly conduct ordinance) against homeless/unsheltered individuals sleeping overnight in public parks when there was not enough beds available in local homeless shelters to house all of the unsheltered.

A recent census count of the unhoused indicated an increase of approximately 10-15% since 2019 when the last census count was performed. This is noticeable in our local creeks and waterways, leading to increased costs to address the removal of trash, debris, and hazardous pollutants that are generated from the encampments.

Coordination to Optimize Funding

The interest and enthusiasm for volunteer cleanup are very high, despite volunteer activities having been impacted by the COVID-19 pandemic. Some activities appear to overlap with activities covered in Projects B2, B4, F5, F6 and F9. To avoid duplication, staff within those projects continued to coordinate with each other, so that all the funding sources were optimized.

PROJECT F6

GOOD NEIGHBOR PROGRAM: GRAFFITI AND LITTER REMOVAL AND PUBLIC ART

This project allows Valley Water to continue responding to requests for cleanup of illegal dumping, trash and graffiti on Valley Water's property and rights-of-way. Cleanup efforts include graffiti removal from floodwalls, concrete embankments, signs, structures and other Valley Water assets, as well as maintaining, repairing and installing fences and gates so that Valley Water structures and facilities remain safe and clean. The project also includes quarterly cleanups of problem trash sites to help reduce waterway pollution and keep creeks and riparian areas free of debris. The project also funds installation and maintenance of public art projects, such as murals, to beautify Valley Water property and infrastructure, to help deter graffiti and litter.

Benefits

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

Key Performance Indicators (FY22-36)

1. Cleanup identified trash and graffiti hotspots at approximately 80 sites four (4) times per year.
2. Respond to requests on litter or graffiti cleanup within five (5) working days.
3. Provide up to \$1.5 million over 15 years to implement public art projects on Valley Water property and infrastructure.

Geographic Area of Benefit: Countywide

Status History

Fiscal Year	Status
FY 22	ON TARGET

Status for FY22: **ON TARGET**



Removing trash and graffiti on Guadalupe Creek in San José.

ON TARGET

Project F6 FY22 Highlights

- Serviced 61 hotspots for 117 trash and debris cleanup visits during the year.
- Carried out 77 cleanup visits in response to staff inspection and public requests.
- Removed 72 tons of trash and debris.
- Valley Water Board approved a pilot mural design to be installed at Valley Water Headquarters.

PROGRESS ON KPI #1:

- Valley Water serviced 61 hotspots for a total of 117 trash and debris cleanup visits during the year. In addition, Valley Water carried out 78 cleanup visits in response to staff inspection and public requests. In FY22, Valley Water removed 72 tons (1009 cubic yards) of trash and debris.
- Valley Water serviced 83 identified graffiti hotspots on a bi-weekly basis, removing 59,059 square feet of graffiti. Frequent visits to these hotspots are important to discourage and deter graffiti activities. In addition, Valley Water also removed graffiti from sites based on inspection or public complaints. A total of 164,310 square feet of graffiti was removed during the year.

PROGRESS ON KPI #2:

In FY22, Valley Water received 233 complaints regarding illegal dumping and trash and 115 complaints regarding graffiti on Valley Water's online customer service center (Access Valley Water or AVW) and Valley Water's online graffiti application. All AVW complaints were responded to within five (5) working days. Each complaint is assessed to determine whether the reported location is on a property where Valley Water has land rights. All AVW complaints regarding litter cleanup were responded to within 4.1 days on average. For graffiti complaints, work was completed on average within 3.5 working days.

PROGRESS ON KPI #3:

- In FY22, Valley Water partnered with the Board-appointed Youth Commission and local artist/muralist Paul J. Gonzalez to implement a pilot mural at Valley Water Headquarters on the Blossom Hill Annex building in San José. The Board approved the mural design on May 10, 2022. The design incorporates many aspects representative of Valley Water's mission and includes imagery of nature, water infrastructure, water-efficient actions, Valley Water professions and the diverse Santa Clara County community. The mural also incorporates the diversity and representation of native plants, species and Valley Water's innovative technology and unique water portfolio. The installation of the mural is expected to be completed in FY23.
- In FY22, Valley Water conducted a competitive request for proposal (RFP) process and on-boarded a consultant to develop a Public Art Strategic Plan. In FY23, the consultant will conduct industry research and an assessment of Valley Water's public art opportunities to develop a comprehensive strategic plan. The plan will establish goals and guidelines to engage, support and increase awareness of Valley Water's mission in the community for the next 15 years.



Pilot mural artwork design for the Valley Water Blossom Hill Annex Building in San José

Financial Information

In FY22, 95% of the annual project budget was expended.

This included 100% of the annual budget for the cleanup of illegal dumping, trash and graffiti (KPIs #1 and #2) being expended.

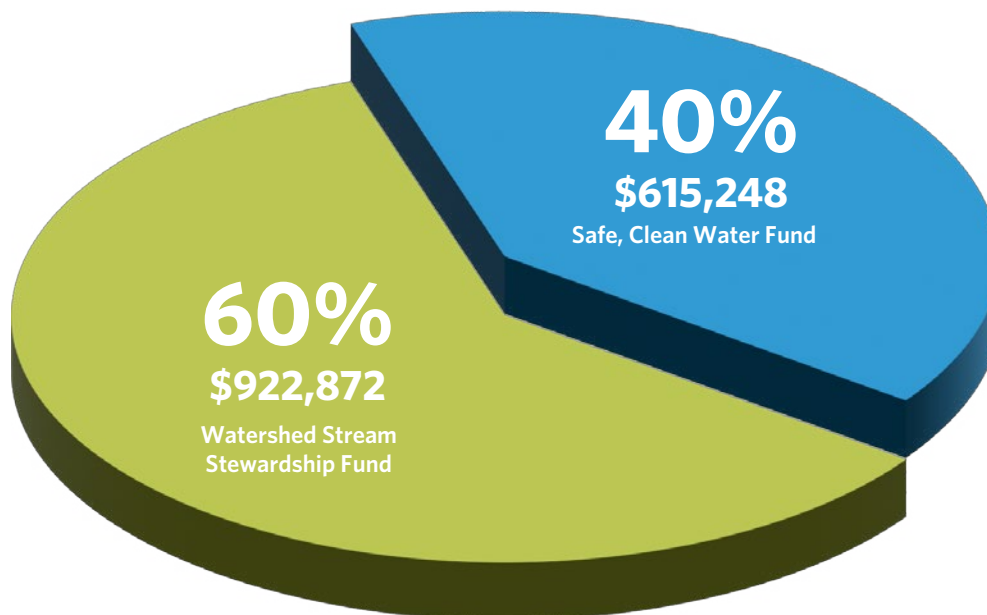
For public arts projects (KPIs #3), 73% of the annual budget was expended. The under-spending was due to less expenditures for maintenance and supplies. The benches did not require maintenance in FY22.

Figure F6.1 Good Neighbor Program: Graffiti and Litter Removal and Public Art Financial Summary (\$ Thousands)										
Fiscal Year 2021-2022									15-year Plan	
Project No. & Name	Adopted Budget	Project Carryforward	Budget Adjustments	Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Adjusted 15-yr Plan Spent
					Actual	Encumbrance	Total			
26761022 Graffiti and Litter Removal	\$615	\$0	\$0	\$615	\$617	\$0	\$617	100%	\$10,672	6%
26061020 Public Art	\$157	\$0	\$0	\$157	\$9	\$105	\$114	73%	\$2,536	5%
Total	\$772	\$0	\$0	\$772	\$626	\$105	\$731	95%	\$13,208	6%

Figure F6.2

Watershed Good Neighbor Maintenance

Total FY22 Project Budget: \$1,538,120

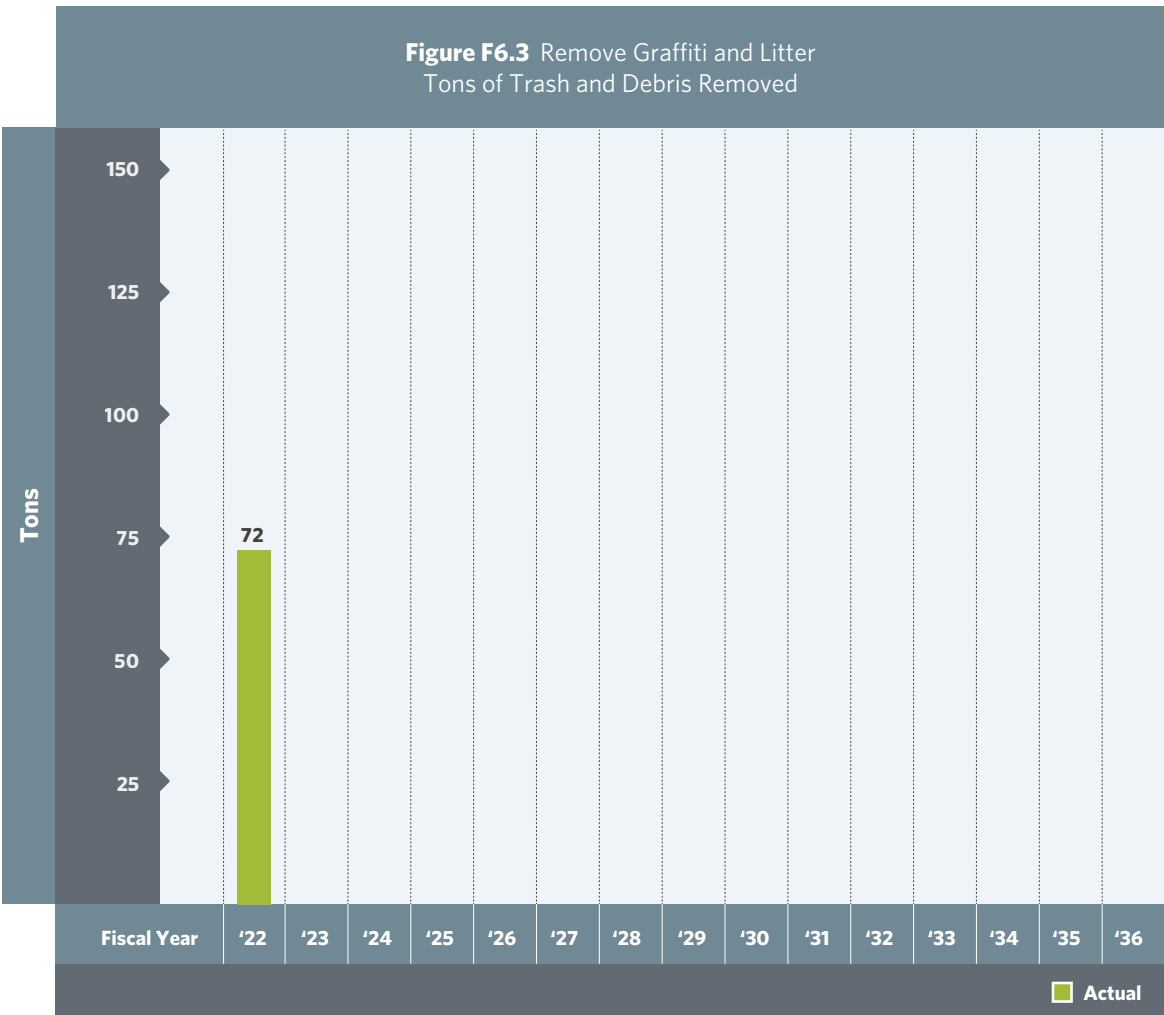


Valley Water funds this project with more than the Safe, Clean Water Program fund (Fund 26). Figure F6.2 shows the project's total adjusted annual budget inclusive of all Valley Water funding sources.

Opportunities and Challenges

Coordination to Optimize Funding

The interest and enthusiasm for volunteer cleanup are very high, although volunteer activities have been impacted by the COVID-19 pandemic. Some activities appear to overlap with activities covered in Projects B2, B4, F5, F6 and F9. To achieve cost-effectiveness and avoid duplication, additional coordination among these projects continued to optimize the use of the various funding sources.



PROJECT F7

EMERGENCY RESPONSE UPGRADES

This project supports ongoing development and maintenance of a robust flood forecasting system. The system facilitates the efficient dissemination of information to emergency responders and the public.

Benefits

- Improves the accuracy of flood forecasting services
- Improves emergency response times and information dissemination regarding upcoming storms and potential floods
- Provides information toward improving reservoir management to optimize flood risk reduction and water supply management
- Provides a real-time website that tracks and offers public access to local weather and flood forecasting information
- Increases atmospheric data collection network, data management and maintenance
- Addresses climate changes through an adaptation strategy to track and understand uncertain future weather patterns



X-Band radar atop Penitencia Water Treatment Plant.

ON TARGET

Project F7 FY22 Highlights

- Maintained the existing flood forecasting and warning capabilities in seven (7) flood-prone reaches.
- Completed migrating the old ALERT webpage to a cloud-hosting service, which should improve performance and reliability.

Key Performance Indicators (FY22-36)

1. Maintain existing capabilities for flood forecasting and warning.
2. Improve flood forecast accuracy and emergency response time working with the National Weather Service and through research and development.

Geographic Area of Benefit: Countywide

Status History

Fiscal Year	Status
FY 22	ON TARGET

Status for FY22: **ON TARGET**

PROGRESS ON KPI #1:

In FY22, Valley Water maintained the existing flood forecasting and warning capabilities in seven (7) flood-prone reaches: Upper Guadalupe River (which includes Ross Creek and Guadalupe River); West Little Llagas Creek; San Francisquito Creek; Uvas Creek; and Upper Penitencia Creek.

PROGRESS ON KPI #2:

In FY22, Valley Water completed migrating the old ALERT¹ webpage to a cloud-hosting service, which should improve performance and reliability. The new surface water monitoring website will replace the old ALERT webpage and consolidate the flood warning and flood watch pages.

¹ ALERT (Automated Local Evaluation in Real Time) is a flood warning system consisting of remote sensors, data transmission by radio and a computer software package developed by the National Weather Service.

The back-end of the flood forecast system was also overhauled in FY22 to prepare for future improvement. The upgrade allows us to do the following:

- Run many forecasts based on ensemble forecasts from the National Weather Service (NWS).
- Pave the way for future neural network and artificial intelligence applications.
- Reduce overhead costs by removing the need for proprietary software licenses.
- Better overall flexibility and scalability for hardware and model upgrades.

During the year, Valley Water also began initial work on incorporating forecast data from UC San Diego Scripps Institute – Center for Western Weather and Water Extremes (C3WE). C3WE has become a research leader in atmospheric rivers, the primary rain generator in the western United States, improving on current forecasts from NWS.

Financial Information

In FY22, 99% of the annual project budget was expended.

Figure F7.1 Emergency Response Updates Financial Summary (\$ Thousands)									
Fiscal Year 2021-2022								15-year Plan	
Adopted Budget	Project Carryforward	Budget Adjustments	Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Adjusted 15-yr Plan Spent
				Actual	Encumbrance	Total			
\$511	\$0	\$0	\$511	\$503	\$5	\$508	99%	\$13,195	4%

Opportunities and Challenges

Notification System

Now that the website is migrated and back-end systems are more stable, the next step is to setup a notification system that allows users to sign up for alerts. This feature is currently in the exploratory phase. Valley Water expects to test it in FY23.

PROJECT F8

SUSTAINABLE CREEK

INFRASTRUCTURE FOR CONTINUED PUBLIC SAFETY

This project supports Valley Water’s long-term efforts to ensure that existing flood protection infrastructure continues to function sustainably and provide the level of service originally intended. The project includes: (1) assessing and prioritizing existing creek and watershed infrastructure; (2) preparing watershed and/or creek asset management plans; and (3) implementing recommendations of asset management plans.

Undertaking this project provides for adaptive management of existing infrastructure, ensuring infrastructure continues to provide flood protection and public safety as climate and other changes evolve.

Benefits

- Ensures that existing flood protection infrastructure continues to function sustainably and provide the level of service originally intended
- Preserves and extends the life of flood protection infrastructure
- Strengthens the reliability of flood protection infrastructure

Key Performance Indicator (FY22-36)

1. Provide up to \$7.5 million in the first 15-year period to plan, design and construct projects identified through Watersheds asset management plans.

Geographic Area of Benefit: Countywide

Status History

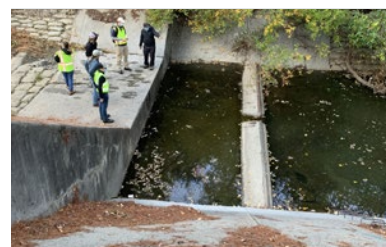
Fiscal Year	Status
FY 22	ON TARGET

Status for FY22: **ON TARGET**

PROGRESS ON KPI #1:

In FY22, funding from the Safe, Clean Water Program helped Valley Water to achieve the following:

- Develop a process for assessing, prioritizing and identifying creek infrastructure improvement projects;
- Assess and prioritize all Valley Water-owned creeks;
- Complete strategic planning for 15 creeks to identify potential planning studies, asset management plans and/or infrastructure improvement projects; and
- Completed 30% of an Asset Management Plan to address severe erosion and maintain constructed level of service on Stevens Creek.



Stevens Creek Asset Management Plan condition assessment site visit.

ON TARGET

Project F8 FY22 Highlights

- Assessed and prioritized all Valley Water-owned creeks.
- Completed strategic planning for 15 creeks to identify potential planning studies, asset management plans and/or infrastructure improvement projects.
- Completed 30% of an Asset Management Plan to address severe erosion and maintain the constructed level of service on Stevens Creek.

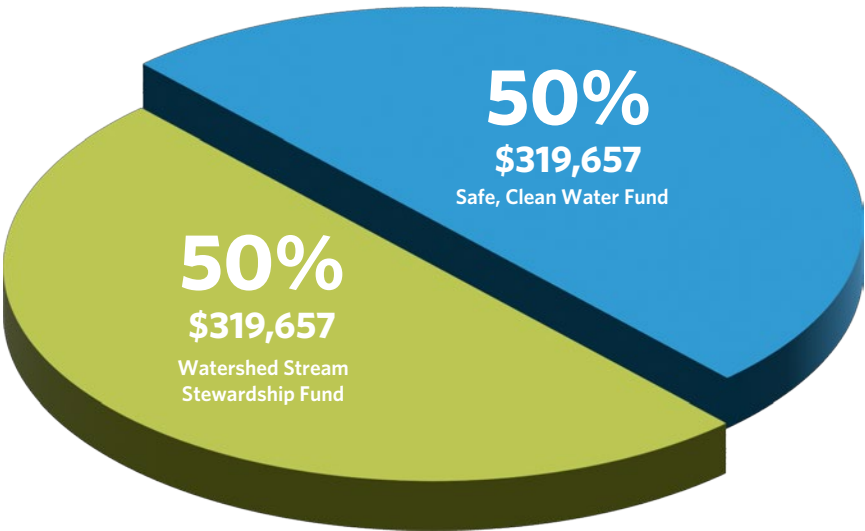
Financial Information

In FY22, 69% of the annual project budget was expended.

FY22 was the project’s first year of implementation and less than initially anticipated staff resources were utilized to get the program started.

Figure F8.1 Sustainable Creek Infrastructure for Continued Public Safety									
Fiscal Year 2021-2022								15-year Plan	
Adopted Budget	Project Carryforward	Budget Adjustments	Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Adjusted 15-yr Plan Spent
				Actual	Encumbrance	Total			
\$320	\$0	\$0	\$320	\$220	\$0	\$220	69%	\$7,501	3%

Figure F8.2
Sustainable Creek Infrastructure
Total FY22 Project Budget: \$639,314



Valley Water funds this project with more than the Safe, Clean Water Program fund (Fund 26). Figure F8.2 shows the project’s total adjusted annual budget inclusive of all Valley Water funding sources.

PROJECT F9

GRANTS AND PARTNERSHIPS FOR SAFE, CLEAN WATER, FLOOD PROTECTION AND ENVIRONMENTAL STEWARDSHIP

This project provides grants and partnerships for agencies, organizations and individuals for water conservation, pollution prevention, creek cleanups and education, wildlife habitat restoration and wildlife corridors and crossings, and access to trails and open space. Eligible projects include water conservation; recycled water programs and infrastructure; pollution prevention programs; watershed stewardship; creek cleanups; education; and developing plans and/or implementing projects that create or enhance wetland, riparian and tidal marsh habitat; protect special status species; improve fish passage and habitat; remove non-native, invasive plant species; plant native species; partnerships to remove flood-inducing blockages, and provide access to creekside trails or trails that provide a significant link to the creekside trail network.

Benefits

- Leverages community resources for efficient use of funds to implement projects that conserve water, prevent trash and contaminants from entering our waterways and groundwater, enhance creek and bay ecosystems, and expand trail and open space access
- Increases collaborations and partnerships with cities, the County, nonprofit organizations, schools and other stakeholders
- Promotes public involvement, awareness and education of safe, clean drinking water, flood protection and environmental stewardship through community-led projects
- Broadens opportunities for smaller jurisdictions

Key Performance Indicators (FY22-36)

1. Provide a grant and partnership cycle each year for projects related to safe, clean drinking water, flood protection and environmental stewardship.
2. Provide annual funding for bottle filling stations to increase drinking water accessibility, with priority for installations in economically disadvantaged communities and locations that serve school-age children and students.
3. Provide annual mini-grant funding opportunity for projects related to safe, clean drinking water, flood protection and environmental stewardship.
4. Provide up to \$3 million per 15-year period for partnerships with small municipalities (defined as under 50,000 people in the most recent census available), or special districts with boundaries substantially within the footprint of small cities, for projects aligned with the District Act and related to safe, clean drinking water, flood protection and environmental stewardship.

Geographic Area of Benefit: Countywide



Trail users learn about environmental stewardship and riparian corridors via educational signs installed along Los Gatos Creek Trail.

ON TARGET

Project F9 FY22 Highlights

- Approved over \$1.5 million in standard grants.
- Awarded \$40,000 in mini-grants.
- Awarded one partnership agreement for \$50,000 to the Silicon Valley Bicycle Coalition for the Ride Out the Drought project.

Status History

Fiscal Year	Status
FY 22	ON TARGET

Status for FY22: **ON TARGET**

PROGRESS ON KPI #1:

Standard Grants

The FY22 standard grant cycle was announced on December 1, 2021. The application period was January 3, 2022, through March 4, 2022. A total of 21 applications were received from 15 applicants. Nine (9) of the applicants had not received a standard grant in the past. Based on the evaluation panel review, 15 applications were recommended to the Board for funding, four (4) were not recommended and two (2) were deemed ineligible.

On May 24, 2022, the Board approved a total of \$1,549,321.50 in Safe, Clean Water standard grant funding for 15 projects. The following grantees and projects were approved for funding:

Pollution Prevention:

- County of Santa Clara – Green Business Program (\$187,500)
- Grassroots Ecology – McClellan Ranch Community Garden Hedgerow Project (\$38,569)
- Guadalupe River Park Conservancy – Preventing Litter to Restore the River Initiative (\$177,120)
- ReScape California – ReScape/Earth Foundries Bioswale Biochar Installation & Training Project (\$95,983)

Volunteer Cleanups and Education:

- Downtown Streets Team – Upper Penitencia Creek Cleanup, Outreach and Revitalization (\$78,783)
- Grassroots Ecology – California Naturalist Watershed Education Project (\$20,106)
- Guadalupe River Park Conservancy – Environmental Stewardship through Education & Program Scaffolding (\$86,080)
- IISME, dba Ignited – Santa Clara Water Weeks: Environmental Justice (\$126,871)
- Marshmallow Minds – Safe Birds, Safe Waters (\$54,880)
- Rural California Broadcasting Corp Krcb-TV Channel 22 – “Refreshing the Watershed: Steps You Can Take to Make a Difference,” a series of short-form educational videos that outline the whys and hows for individuals to support Santa Clara Valley Watershed stewardship and organizations engaged in that stewardship (\$50,000)
- Saved By Nature – Headwaters to the Bay (\$84,002)
- South County Compassion Center – Unhoused Creek Cleanup (\$52,725)

Wildlife Habitat Restoration:

- Grassroots Ecology – Mountain View Tidal Marsh Restoration Project (\$200,450)
- Grassroots Ecology – Arastradero Creek Floodplain Restoration Project (\$146,675)
- Talon Ecological Research Group – Fisher Creek Enhancement Project (\$149,580)

The FY22 allocation for standard grants was \$1.4 million. As part of the grant awards, the Board approved using the \$150,000 unspent in the FY22 budget for partnerships toward the standard grants to award to the 15 standard grant projects.



Grassroots Ecology and San José Conservation Corps members refurbish and bioretention area in Palo Alto.



Guadalupe River Park Conservancy and Downtown Street Team collect litter along the Coleman East Trailhead in San José.

Standard Partnerships

In FY22, Valley Water awarded one partnership agreement for \$50,000 to the Silicon Valley Bicycle Coalition for the Ride Out the Drought project.

For a cumulative list of standard grants and partnerships awarded to date, please visit tinyurl.com/SCWgrants.

PROGRESS ON KPI #2:

In FY22, Valley Water developed the new Bottle Filling Station grant funding opportunity, which includes a new, simplified and streamlined application and agreement process. Valley Water successfully piloted the application on one project. The Bottle Filling Station grant funding opportunity is expected to launch broadly in early FY23.

PROGRESS ON KPI #3:

In FY22, a total of \$40,000 in Safe, Clean Water mini-grant funding was awarded to the following projects:

- Compasspoint Mentorship - Alviso Marina Park Restroom Mural (\$5,000)
- Compasspoint Mentorship - Stevens Creek County Park Wall Mural (\$5,000)
- Evergreen Islamic Center - Industry and Faith-based Water Conservation Education (\$5,000)*
- Green Foothills Foundation - Community Advocates Leadership Academy (\$5,000)*

- Keep Coyote Creek Beautiful - Russo/McEntee School Mural (\$5,000)
- Midpeninsula Community Media Center - Public Service Announcement (PSA) Day (\$5,000)
- NuLeaf Tech Inc. - The NuTree Greywater Technology Device: Research for Compact Ecosystem Technology to Expand Laundry to Landscape Greywater Conservation in Santa Clara County (\$5,000)*
- Town of Los Gatos - Outside the Box (\$5,000)

In addition, 13 mini-grant applications were received in FY22 with a total request amount of \$61,800. Valley Water continues to review the applications submitted and is working with the mini-grant applicants to move their applications forward in the review process.

For a cumulative list of mini-grants awarded to date, please visit tinyurl.com/SCWgrants.

PROGRESS ON KPI #4:

In FY22, Valley Water continued to engage with small municipalities and special districts serving small municipalities on potential partnership projects.

Financial Information

In FY22, 46% of the annual project budget was expended.

The under-expenditure was due to delays in executing grant agreements, in part due to the standard grants being awarded near the end of FY22. Additionally, due to CEQA compliance requirements and past impacts from the COVID-19 public health orders, staff and grantees experienced delays in executing agreements for projects that were awarded funding. The grant funds that were budgeted for FY22 and unspent will be adjusted into FY23 to align with the agreements that need to be executed, per Board approval.

In addition, funding was made available for the bottle filling stations and the funds for the pilot application will be encumbered at the time the agreement is executed. Funding was made available for the small city partnerships, but no funds were awarded and staff continues to engage with eligible organizations on potential partnership projects. The budgeted funds for mini-grants were partially expended due to continued collaboration with applicants to strengthen project applications. This was in part due to the staffing transitions and resources available to administer these grant funding opportunities. These funds will be adjusted into FY23 to align with the applications submitted in FY22 and in progress.

Figure F9.1 Grants and Partnerships for Safe, Clean Water, Flood Protection and Environmental Stewardship
Financial Summary (\$ Thousands)

Fiscal Year 2021-2022								15-year Plan	
Adopted Budget	Project Carryforward	Budget Adjustments	Adjusted Budget	Budgetary Actual			% of Budget Spent	Adjusted 15-year Plan	% of Adjusted 15-yr Plan Spent
				Actual	Encumbrance	Total			
\$3,109	\$0	(\$522)	\$2,587	\$820	\$358	\$1,178	46%	\$53,057	2%

Opportunities and Challenges

Administering 2012 Safe, Clean Water Program Grants

From FY14-21, 101 standard grant projects and 10 partnerships were awarded. Of these, 30 projects were yet to be completed at the end of FY21 and Valley Water continues to administer these projects under the renewed Safe, Clean Water program. Similarly, of the 64 mini-grant projects awarded under the 2012 program, Valley Water continues to administer 25 mini-grants projects. For more details, please visit tinyurl.com/SCWgrants2012.

* These mini-grant applications were submitted in FY21 using A2 Water Conservation or D3 Habitat Restoration project criteria, and were awarded in FY22.

FY22 Safe, Clean Water Grant Program Improvements and Status of FY21 Audit Recommendations

The Board Audit Committee approved a desk audit of the grants program by an external auditor in FY20. The outcome of the desk audit was the recommendation for a subsequent performance audit for the grants program. In FY21, staff worked with the external auditor, subcontracted under TAP International, to identify streamlining opportunities and collect the 2012 Safe, Clean Water Program IMC and Board's requested metrics. In early 2021, the auditor completed the full program audit and presented findings and recommendations to the Board Audit Committee, the 2012 Program IMC and the entire Board for acceptance. As of the end of FY22, five of the 11 recommendations were achieved and six were in progress.

Key grant program updates for FY22:

- Moving forward with a grants redesign consultant. An RFP was issued for consultant services to redesign the grants program to address the audit recommendations of right sizing and the expanded project type criteria. No bids were submitted, so staff reached out to potential consultants for a sole-source contract. Staff identified a consultant to perform the grants project type criteria redesign, which includes developing new grant project requirements, qualifications and evaluation criteria to update and/or replace the current point and weight system and grant funding allocation matrix; developing one comprehensive set of project evaluation criteria that would apply to multi-benefit projects (projects of more than one project type); and expanding the eligible project types as described in the renewed Safe, Clean Water Program that Santa Clara County voters approved in November 2020. Staff continues to reach out to other potential consultants for the grants administration redesign and right sizing work.
- Continued to administer active grants while making improvements. Currently, Invoices are approved for payment within 26 days, on average, after being submitted by the grantee. There were a total of 84 active grants, which includes 58 standard grants and partnerships and 26 mini-grants.
- Nearing completion of the Grantee Guide and Grants Manual. Staff continues to work with a consultant to create a Grantee Guide and a Grants Manual to outline processes and procedures for applicants, grantees and staff. Preparation of these documents is underway and is routing for approval.
- Preparing for the second annual independent grantee survey. Staff plan to conduct the next anonymous survey of grantees in summer 2022. The last survey was conducted by an independent third-party in July 2021 and the results were presented to the Board Audit Committee in September 2021.
- Trainings to learn industry best practices. The grants management team attended the PEAK Grantmaking conference in March 2022.

Staffing

The audit and the previous 2012 Safe, Clean Water Program IMC had recommended increased staffing levels to address the growing need for program-dedicated staffing to manage the increasing number of grant projects. On May 11, 2021, the Board approved two additional staff positions for the program, which were filled in early FY22.

In late FY22, two staff members were promoted, which left two vacancies on the grants team. One position remained unfilled and as of June 30, 2022 is in the early recruiting process. Additional resources were also being secured to support the grants program.

COVID-19 Impacts to Safe, Clean Water Grants Program

In March 2020, the Santa Clara County Public Health Officer issued countywide guidance to slow the spread of COVID-19 in our community. As of the end of FY22, the countywide guidance, shelter-in-place orders and other restrictions, were mostly lifted. In FY22, Valley Water continued to receive and process several time-extension requests, schedule adjustment inquiries and delays to agreement executions due to the impacts of COVID-19. The Board approved longer agreement and amendment terms for FY22 standard grants to allow grantees more flexibility for any unforeseen delays.

Coordination to Optimize Funding

The interest and enthusiasm for volunteer cleanup are very high, despite volunteer activities having been impacted by the COVID-19 pandemic. Some activities appear to overlap with activities covered in Projects B2, B4, F5, F6 and F9. To avoid duplication, staff within those projects continued to coordinate with each other, so that all the funding sources were optimized.

Appendix A

Financial Information

Appendix B

Inflation Assumptions

Appendix C

Capital Projects Jurisdictional Complexities (Confidence Levels Regarding Outside Agencies)

Appendix D

Cumulative Trash Removal Data for Projects B1, B2, B4, F5 and F6

Appendix E

Schedule Comparison for Projects

Appendix F

Projects by Organizational Structure

Appendix G

Projects by Valley Water Mission Area

Appendix H

Countywide Map of Projects

Appendix I

Glossary

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The information presented in this report and all appendices are based on best available data at the time the report was developed. Financial information may change in the future.

FINANCIAL INFORMATION

To maintain transparency with members of the public the Appendix A section is prepared annually to complement the Safe, Clean Water and Natural Flood Protection (Safe, Clean Water) Annual Report. The Annual Report provides a wealth of information for individual program priorities and projects; the financial appendices summarize data for the entire program. The following schedules are included:

A-1.1 ANNUAL FINANCIAL SUMMARY highlights Safe, Clean Water projects by Priority for the year of the report (i.e. Fiscal Year 2021-2022). Information includes total program funding sources, annual adopted budget, any Board-approved budget adjustments, and actual expenditures.

A-1.2 CUMULATIVE FINANCIAL SUMMARY complements Appendix A-1.1, comparing the renewed Safe, Clean Water 15-year plan with cumulative program funding sources and expenditures. Similar to Appendix A-1.1, information includes total program funding sources, the adjusted 15-year plan by Priority (including any Board-approved budget adjustments), and actual program expenditures to date.

A-2.1 CURRENTLY AUTHORIZED PROJECT RESERVES shows current project reserve balance and increases to project reserves, if any. This appendix is focused on the report year only (i.e. Fiscal Year 2021-2022).

A-3.1 OTHER REVENUE compares other revenue sources by project, for the 15-year Safe, Clean Water program. Other revenue includes grants, state subventions, rental income, and cost share agreements or reimbursements. Program tax revenue is leveraged to bring in additional local, state and federal dollars, maximizing taxpayer dollars. Actuals to date and a forecast for remainder of the program are included. Other revenue sources are sorted by type and source.

A-3.2 TRANSFERS AND REFUNDING PROCEEDS identifies Safe, Clean Water transfers in, debt and refunding proceeds, and transfers out of the program. This appendix highlights activity to date and includes a forecast for the remaining 15-year program time frame. Where applicable, funds are identified by project.

Appendix A-1.1 Annual Financial Summary Fiscal Year 2021-2022 (\$ Thousands)

		Adopted Budget	Carry-forward	Budget Adjustment	Adjusted Budget	Budgetary Actual Total			% Received
Revenue	Special Tax	47,105		0	47,105	46,955			100%
	Interest	1,561		0	1,561	1,720			110%
	Other	7,560		0	7,560	5,522			73%
Subtotal		56,226		0	56,226	54,197			96%
Transfers In		2,522		85	2,606	2,606			103%
Total Funding Sources		58,748		85	58,833	56,803			97%
Safe, Clean Water Priority & Projects		Adopted Budget	Carry-forward	Budget Adjustment	Adjusted Budget	Budgetary Actual			% of Budget Spent
						Actual	Total Encumbrance	Total Budgetary Actual	
Priority A: Ensure a Safe, Reliable Water Supply	A1: Pacheco Reservoir Expansion	0	0	0	0	0	0	0	0
	A2: Water Conservation Rebates and Programs	1,013	0	0	1,013	1,000	0	1,000	99%
	A3: Pipeline Reliability	315	(30)	0	285	380	0	380	133%
	Subtotal	1,328	(30)	0	1,298	1,380	0	1,380	106%
Priority B: Reduce Toxins, Hazards, and Contaminants in Our Waterways	B1: Impaired Water Bodies Improvement	1,686	0	0	1,686	1,313	319	1,632	97%
	B2: Inter-agency Urban Runoff Program	825	0	0	825	685	0	685	83%
	B3: Hazardous Materials Management and Response	33	0	0	33	25	0	25	72%
	B4: Support Volunteer Cleanup Efforts	180	0	0	180	87	6	93	51%
	Subtotal	2,724	0	0	2,724	2,109	326	2,435	89%
Priority C: Protect Our Water Supply and Dams from Earthquakes and Other Natural Disasters	C1: Anderson Dam Seismic Retrofit	0	0	0	0	0	0	0	0
	Subtotal	0	0	0	0	0	0	0	0
Priority D: Restore Wildlife Habitat and Provide Open Space	D1: Management of Riparian Planting and Invasive Plant Removal	1,929	0	0	1,929	1,367	3	1,370	71%
	D2: Revitalize Riparian, Upland and Wetland Habitat	1,011	0	(113)	897	368	243	611	68%
	D3: Sediment Reuse to Support Shoreline Restoration	234	0	0	234	202	0	202	86%
	D4: Fish Habitat and Passage Improvement	12,222	409	(800)	11,831	3,072	8	3,080	26%
	D5: Ecological Data Collection and Analysis	888	0	0	888	183	151	333	38%
	D6 Restoration of Natural Creek Functions	6,029	0	0	6,029	2,209	1,695	3,904	65%
	D7: Partnerships for the Conservation of Habitat Lands	0	0	0	0	0	0	0	0
	Subtotal	22,313	409	(913)	21,808	7,400	2,099	9,499	44%

Appendix A-1.1 Annual Financial Summary Fiscal Year 2021-2022 (\$ Thousands), cont'd

Safe, Clean Water Priority & Projects		Adopted Budget	Carry-forward	Budget Adjustment	Adjusted Budget	Budgetary Actual			% of Budget Spent
						Actual	Total Encumbrance	Total Budgetary Actual	
Priority E: Provide Flood Protection to Homes, Businesses, Schools, Streets, and Highways	E1: Coyote Creek Flood Protection	1,596	1,282	26	2,903	2,202	45	2,247	77%
	E2: Sunnyvale East and Sunnyvale West Channels Flood Protection	0	3,271	0	3,271	1,253	0	1,253	38%
	E3: Lower Berryessa Flood Protection	0	0	0	0	0	0	0	0
	E4: Upper Penitencia Creek Flood Protection	114	2,515	2,522	5,151	662	17	679	13%
	E5: San Francisquito Creek Flood Protection	12,721	0	100	12,821	1,219	266	1,485	12%
	E6: Upper Llagas Creek Flood Protection	58,292	3,951	3,061	65,304	31,097	3,716	34,813	53%
	E7: San Francisco Bay Shoreline Protection	2,403	14	0	2,417	424	0	424	18%
	E8: Upper Guadalupe River Flood Protection	563	2,014	0	2,576	1,233	89	1,322	51%
	Subtotal	75,689	13,046	5,708	94,443	38,089	4,133	42,222	45%
Priority F: Support Public Health and Public Safety for Our Community	F1: Vegetation Control and Sediment Removal for Capacity	4,253	0	0	4,253	2,731	0	2,732	64%
	F2: Emergency Response Planning and Preparedness	218	0	0	218	100	0	100	46%
	F3: Flood Risk Assessment Studies	1,270	0	0	1,270	1,098	5	1,103	87%
	F4: Vegetation Management for Access and Fire Safety	664	0	0	664	732	6	738	111%
	F5: Good Neighbor Program: Encampment Cleanup	1,924	0	0	1,924	2,216	0	2,216	115%
	F6: Good Neighbor Program: Graffiti and Litter Removal and Public Art	772	0	0	772	626	105	731	95%
	F7: Emergency Response Upgrades	511	0	0	511	503	5	508	99%
	F8: Sustainable Creek Infrastructure for Continued Public Safety	320	0	0	320	220	0	220	69%
	F9: Grants and Partnerships for Safe, Clean Water, Flood Protection and Environmental Stewardship	3,109	0	(522)	2,587	820	358	1,178	46%
	Subtotal	13,042	0	(522)	12,519	9,047	480	9,527	76%
Subtotal of All Outcome Costs		115,096	13,425	4,272	132,793	58,026	7,037	65,062	49%
2012 Safe, Clean Water Program Closeout	Grants and Partnerships to Restore Wildlife Habitat and Provide Access to Trails	0	0	0	0	5	0	5	-
	San Francisquito Creek Flood Protection	0	112	(100)	12	12	0	12	100%
	Berryessa Creek Flood Protection	0	536	0	536	342	0	342	64%
	Permanente Creek Flood Protection	0	441	352	793	811	0	811	102%
	Subtotal	0	1,089	252	1,341	1,170	0	1,170	87%
Safe, Clean Water Planning and Development		5,606	0	(146)	5,460	4,396	6	4,403	81%
Debt Service		7,050	0	0	7,050	935	3	938	13%
Total Program Cost		127,752	14,514	4,378	146,644	64,528	7,046	71,574	49%
Debt Proceeds ¹		(100,000)	0	0	(100,000)	(56,000)	0	(56,000)	56%
Net Total		27,752	14,514	4,378	46,644	8,528	7,046	15,574	33%
Net Increase/(Decrease) to Reserves		30,996			12,189			41,230	
Total Outlay		158,748			158,833			112,803	71%

1 Debt Proceeds (Budget and Actual balances) are shown in the *Total Program Cost* section below with Debt Service Payments.

NOTE: Budgetary Actual numbers are based on the Draft Annual Comprehensive Financial Report and are subject to change.

Appendix A-1.2 Cumulative Financial Summary Fiscal Year 2021-2022 (\$ Thousands)

		15-year Plan	FY21 Actual Res Bal	Board Approved Adjusted¹	Adjusted 15-year Plan	Program-To-Date Actual Total				Current 15-year Forecast	% Received
Revenue	Special Tax	826,487	0	0	826,487	46,955				826,487	6%
	Interest	14,763	0	0	14,763	1,720				14,763	10%
	Other²	117,039	0	6,800	123,839	5,522				123,839	4%
Subtotal		958,289	0	6,800	965,089	54,197				965,089	
Beginning FY22 Reserves		0	170,749	0	170,749	0				170,749	
Transfers In³		2,516	0	0	2,516	2,606				2,516	
Debt Proceed		0	0	0	0	0				0	
Total Funding Sources		960,805	170,749	6,800	1,138,354	56,803				1,138,354	
		15-year Plan	FY21 Enc Bal & Cap Proj Resrvs	Board Approved Adjusted	Adjusted 15-year Plan	Program-To-Date Actuals			% of Adjusted 15-year Plan	Current 15-year Forecast⁸	15-year Forecast Above/(Below) Adjusted 15-year Plan
						FY22 Actual	Encumb-rance	Total			
Priority A: Ensure a Safe, Reliable Water Supply	A1: Pacheco Reservoir Expansion	10,000	0	9	10,009	0	0	0	0%	10,009	0
	A2: Water Conservation Rebates and Programs	7,892	0	0	7,892	1,000	0	1,000	13%	7,875	(17)
	A3: Pipeline Reliability	9,816	21	93	9,930	396	6	401	4%	14,141	4,210
	Subtotal	27,708	21	102	27,832	1,396	6	1,401	5%	32,025	4,192
Priority B: Reduce Toxins, Hazards, and Contaminants in Our Waterways	B1: Impaired Water Bodies Improvement	32,792	718	0	33,510	1,457	622	2,079	6%	32,039	(1,471)
	B2: Inter-agency Urban Runoff Program	19,758	0	0	19,758	685	0	685	3%	16,086	(3,672)
	B3: Hazardous Materials Management and Response	1,054	0	0	1,054	25	0	25	2%	637	(417)
	B4: Support Volunteer Cleanup Efforts	5,051	147	0	5,198	115	125	240	5%	5,303	105
	Subtotal	58,655	865	0	59,520	2,282	746	3,028	5%	54,065	(5,455)
Priority C: Protect Our Water Supply and Dams from Earthquakes and Other Natural Disasters	C1: Anderson Dam Seismic Retrofit	54,053	0	659	54,712	0	0	0	0%	54,712	0
	Subtotal	54,053	0	659	54,712	0	0	0	0%	54,712	0
Priority D: Restore Wildlife Habitat and Provide Open Space	D1: Management of Riparian Planting and Invasive Plant Removal	68,913	21	(16,190)	52,744	1,367	7	1,374	3%	53,825	1,080
	D2: Revitalize Riparian, Upland and Wetland Habitat	8,138	889	0	9,027	454	1,014	1,468	16%	9,252	226
	D3: Sediment Reuse to Support Shoreline Restoration	4,081	0	0	4,081	202	0	202	5%	4,194	113
	D4: Fish Habitat and Passage Improvement	44,142	2,183	25,998	72,323	3,300	670	3,970	5%	72,809	486
	D5: Ecological Data Collection and Analysis	7,540	62	0	7,602	233	151	383	5%	7,805	203
	D6: Restoration of Natural Creek Functions	14,539	2,246	2,584	19,369	2,209	1,695	3,904	20%	21,204	1,835
	D7: Partnerships for the Conservation of Habitat Lands	8,008	0	0	8,008	0	0	0	0%	8,007	0
	Subtotal	155,360	5,401	12,392	173,153	7,765	3,536	11,301	7%	177,097	3,944
Priority E: Provide Flood Protection to Homes, Businesses, Schools, Streets, and Highways	E1: Coyote Creek Flood Protection	41,771	903	3,931	46,605	3,102	48	3,149	7%	47,211	607
	E2: Sunnyvale East and Sunnyvale West Channels Flood Protection	32,965	14,072	2,231	49,268	1,253	36	1,290	3%	52,273	3,005
	E3: Lower Berryessa Flood Protection	8,202	0	(8)	8,194	0	0	0	0%	7,842	(352)
	E4: Upper Penitencia Creek Flood Protection	20,403	4,057	(868)	23,592	662	17	679	3%	23,473	(119)
	E5: San Francisquito Creek Flood Protection⁴	31,516	2,596	12,389	46,501	1,371	1,058	2,429	5%	70,460	23,959
	E6: Upper Llagas Creek Flood Protection⁴	126,325	20,409	36,849	183,583	41,061	10,300	51,361	28%	215,422	34,887
	E7: San Francisco Bay Shoreline Protection⁵	45,980	4	(15,576)	30,408	424	4	428	1%	42,505	12,097
	E8: Upper Guadalupe River Flood Protection	35,773	25,200	6,802	67,775	1,783	4,586	6,369	9%	68,866	1,091
	Subtotal	342,935	67,240	45,750	455,925	49,656	16,049	65,705	14%	528,052	75,175

Appendix A-1.2 Cumulative Financial Summary Fiscal Year 2021-2022 (\$ Thousands), cont'd

		15-yr plan	FY21 Enc Bal & Cap Proj Reserves	Board Approved Adjusted	Adjusted 15-yr Plan	Program-To-Date Actuals			% of Adjusted 15-yr Plan	Current 15-yr Forecast ³	15-yr Forecast Above/(Below) Adjusted 15-yr Plan
						FY22 Actual	Encumb-rance	Total			
Priority F: Support Public Health and Public Safety for Our Community	F1: Vegetation Control and Sediment Removal for Capacity	114,147	121	(10,581)	103,687	2,735	116	2,851	3%	92,714	(10,972)
	F2: Emergency Response Planning and Preparedness	7,178	91	0	7,269	156	26	182	2%	5,355	(1,914)
	F3: Flood Risk Assessment Studies	21,906	101	0	22,007	1,163	39	1,202	5%	23,061	1,054
	F4: Vegetation Management for Access and Fire Safety	12,001	12	0	12,013	732	6	738	6%	12,153	140
	F5: Good Neighbor Program: Encampment Cleanups	38,709	0	0	38,709	2,218	0	2,218	6%	39,274	565
	F6: Good Neighbor Program: Graffiti and Litter Removal and Public Art	13,092	117	0	13,208	685	105	790	6%	13,858	650
	F7: Emergency Response Upgrades	13,192	3	0	13,195	504	7	511	4%	12,865	(331)
	F8: Sustainable Creek Infrastructure for Continued Public Safety	7,501	0	0	7,501	220	0	220	3%	7,008	(493)
	F9: Grants and Partnerships for Safe, Clean Water, Flood Protections and Environmental Stewardship	53,057	0	0	53,057	820	358	1,178	2%	55,055	1,998
	Subtotal	280,783	445	(10,581)	270,646	9,233	656	9,889	4%	261,342	(9,304)
Subtotal of All Outcome Costs		919,494	73,972	48,322	1,041,789	70,331	20,994	91,324	9%	1,107,293	68,552
Closeout of 2012 Safe, Clean Water Program	Safe, Clean Water Partnerships and Grants	0	138	0	138	46	91	137	99%	138	0
	Pollution Prevention Partnerships and Grants	0	815	0	815	64	929	994	122%	815	0
	Grants and Partnerships to Restore Wildlife Habitat and Provide Access to Trails	0	3,224	0	3,224	483	2,553	3,036	94%	3,224	0
	San Francisquito Creek Flood Protection	0	66	0	66	12	0	12	18%	12	(54)
	Berryessa Creek Flood Protection	0	15,209	0	15,209	342	3,538	3,881	26%	16,707	1,498
	Permanente Creek Flood Protection	0	3,105	0	3,105	1,958	1,077	3,035	98%	3,582	477
	Subtotal	0	22,556	0	22,556	2,908	8,188	11,093	49%	24,477	1,921
Safe, Clean Water Planning & Development		22,062	39	10,371	32,471	4,415	18	4,433	14%	50,956	18,485
Debt Proceeds		(310,000)	0	1,000	(309,000)	(56,000)	0	(56,000)	-	(280,000)	-
Debt Service		296,123	157	(31,523)	264,757	1,005	57	1,063	0%	219,154	(45,603)
Total Program Cost		927,679	96,725	28,170	1,052,574	22,657	29,257	51,914	5%	1,121,880	43,354
Contingency Reserve		5,000	0	0	5,000	0	0	5,000		5,000	0
Rate Stabilization Reserve		25,000	0	0	25,000	0	0	25,000		4,500	(20,500)
Reserve for Encumbrance Balance		0	0	0	0	0	0	29,257		0	0
Currently Authorized Projects Reserves ⁶		0	0	0	0	0	0	123,268		0	0
Operating & Capital Reserve ⁷		33,126	0	0	85,780	0	0	22,371		87,515	1,734
Total Reserve Balance		63,126	0	0	115,780	0	0	204,895	177%	97,015	(18,766)
Total Outlay		990,805			1,168,354			256,809		1,218,895	21,541

- Board approved adjustments include changes to Safe Clean Water capital projects based on the Board approved FY22 CIP.
- The \$123.8M projected Other Revenue includes \$100M in unsecured grant funding for the following: (1) \$80M for Upper Llagas Creek and (2) \$23.5M for San Francisquito Creek.
- Transfers In of \$2.5M is for the Upper Penitencia Creek project.
- Adjusted 15 year Plan reflects unsecured funding sources; if funding is not secured project scope will be modified accordingly. See Appendix A-3.1 for more detail.
- Board Approved Adjustment for Shoreline is isolated to FY2021-22 and reflects other funding sources for the project modeled for financial planning purposes; total project cost and project KPIs remains the same.
- Currently Authorized Project Reserves represents unspent capital project budget that will be carried forward and spent in a future year; refer to Appendix A-2.1 for more detail.
- Operating and Capital Reserves are to ensure adequate working capital for cash flow needs and to provide a funding source for operating and capital needs that arise during the year. A negative balance would indicate funding needs are projected to exceed funding sources. See Summary Budget Book (Chapter 3 - Financial Review: Reserve Policy and Fund Balances) for further details.
- Current 15-year Forecast is a staff forecast on which the Board has not taken any action, and reflects the long term forecast from the planning cycle following the report year.

Appendix A-2.1 FY22 Currently Authorized Project Reserves (\$ Thousands)

	Currently Authorized Project Reserves		
	Unspent Capital Project Budget	Unspent FY22 Capital Project Reserves	Total Reserves
Priority A: Ensure a Safe, Reliable Water Supply			
A3: Pipeline Reliability Project	(95)	0	(95)
Subtotal	(95)	0	(95)
Priority D: Restore Wildlife Habitat and Provide Open Space			
D4: Fish Habitat and Passage Improvements	9,346	1,293	10,639
D6: Restoration of Natural Creek Functions	2,126	2,246	4,371
Subtotal	11,471	3,539	15,010
Priority E: Provide Flood Protection to Homes, Business, Schools, and Highways			
E1: Coyote Creek Flood Protection	657	0	657
E2: Sunnyvale East and Sunnyvale West Channels Flood Protection	2,018	14,036	16,054
E4: Upper Penitencia Creek Flood Protection	4,472	4,057	8,528
E5: San Francisquito Creek Flood Protection	11,353	1,634	12,988
E6: Upper Llagas Creek Flood Protection	30,820	3,531	34,351
E7: San Francisco Bay Shoreline Protection	1,993	0	1,993
E8: Upper Guadalupe River Flood Protection	1,272	20,135	21,407
Subtotal	52,585	43,393	95,978
Close out of 2012 Safe, Clean Water Program			
Berryessa Creek Flood Protection	193	11,671	11,864
Permanente Creek Flood Protection	(373)	884	511
Subtotal	(180)	12,554	12,375
Total	63,782	59,486	123,268

Appendix A-3.1: Other Revenue (\$ Thousands)

Other Revenue Sources	Project Numbers	Original Forecast	Preliminary Actuals Program-to-Date (FY22)	Preliminary Forecast FY23-36
Capital Reimbursements				
State Subventions				
E6: Upper Llagas Creek Flood Protection	26174051s	7,313	3,893	4,841
CSC: Berryessa Creek Flood Protection	26174041s	826	631	1,021
Grants				
E8: Upper Guadalupe River Flood Protection	26154003	0	226	0
National Resources Conservation Service Grant (Unsecured) E6: Upper Llagas Creek Flood Protection	26174051s	80,000	0	80,000
Department of Water Resources Prop. 84 Grant (Unsecured) E5: San Francisquito Creek Flood Protection		8,900	0	8,941
Other				
City of Morgan Hill E6: Upper Llagas Creek Flood Protection	26174051s	0	214	0
Cost Share Agreements				
San Francisquito Joint Powers Authority (Unsecured) E5: San Francisquito Creek Flood Protection	26284002s	20,000	0	23,514
Local Operating Grants				
Guadalupe River Coordinated Mercury Monitoring Plan B1: Impaired Water Bodies Improvement	26752043	0	7	0
Rental Income				
Safe, Clean Water (Fund 26)		0	374	0
Sources - Other*				
Safe, Clean Water (Fund 26)		0	177	0
Subtotal		117,039	5,522	118,317
Combined Grand Total (Actuals & Forecast)			123,839	

* Includes: Miscellaneous 1-time Receipts and other Non-Operating Income, Claims & Judgments, and Cost Recovery for the program

Appendix A-3.2 FY22 Transfers and Debt Proceeds (\$ Thousands)

	Preliminary Actuals FY22	Preliminary Forecast FY23-36
Debt Proceeds		
Commercial Paper	56,000	0
Bonds	0	144,000
Water Infrastructure Finance and Innovation Act (WIFIA)	0	80,000
Total	56,000	224,000
Transfers In		
Watersheds Stream Stewardship (Fund 12)		
E4: Upper Penitencia Creek Flood Protection	2,522	0
Transfer for funding prior to Measure S	85	-
Total	2,606	0
Transfers Out		
Water Utility Enterprise (Fund 61)		
A1: Pacheco Reservoir Expansion ¹	0	(10,009)
A2: Water Conservation Rebates and Programs ²	(1,000)	(6,862)
C1: Anderson Dam Seismic Retrofit ³	0	(54,712)
Total	(1,000)	(61,575)
Subtotal	57,606	162,426
Combined Grand Total		220,032

¹ Captured as a Priority A-1 expense
² Captured as a Priority A-2 expense
³ Captured as a Priority C-1 expense

Appendix B: Inflation Assumptions

Inflation Assumptions																
	Actual FY21	Actual FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36
COLA Increase \$	4.0%	4.0%	3.0%	3.0%	3.0%	3.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Step Increase \$	0.7%	1.5%	2.0%	2.0%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
Benefits Rate	52.0%	51.2%	55.8%	57.0%	57.3%	57.3%	58.2%	58.8%	59.7%	60.6%	61.5%	62.5%	63.6%	64.6%	67.8%	69.0%
Supplies & Svcs Inflation ¹	3.2%	5.4%	4.5%	4.5%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Construction Cost Inflation ²	3.4%	14.1%	3.5%	12.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%

¹ Actual supplies and services inflation based on the San Francisco-Oakland-Hayward Consumer Price Index for all urban consumers as of June 2022

² Actual construction cost inflation based on the City Cost Index of Engineering News Record results for the San Francisco Bay Area as of June 2022

Note: Inflation projections are developed in advance of the beginning of the next fiscal year. Actual inflation factors for Supplies & Services and Construction Costs are anticipate to be higher than projected in FY23.

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Appendix C: Capital Projects Jurisdictional Complexities (Confidence Level Regarding Outside Agencies) Fiscal year 2021-22

Partners and Outside Agencies	A1 Pacheco Reservoir Expansion	A3 Pipeline Reliability	C1 Anderson Dam Seismic Retrofit		D4 Fish Habitat and Passage Improvement		D6 Restoration of Natural Creek Functions		E1 Coyote Creek Flood Protection	E2 Sunnyvale East/ West Channels Flood Protection	E4 Upper Penitencia Creek Flood Protection	E5 San Francisquito Creek Flood Protection	E6 Upper Llagas Creek Flood Protection	E7 San Francisco Bay Shoreline Protection	E8 Upper Guadalupe River Flood Protection	
			ADSR	FOCP	Site 1: Almaden Lake	Site 2: Ogier Ponds	Site 1: Hale Creek	Site 2: Bolsa Road				Upstream of 101		EIAs 1-10	Reach 6	Reaches 7-12
Funding																
U.S. Army Corps of Engineers (Funding)											M	M		M		L
State Grants	H								M		M	M				
San Francisco Bay Restoration Authority (Measure AA)												M				
Water Infrastructure Finance and Innovation Act (WIFIA)	M		M	M	M				M	M	M					
Other	L								M			M	M	M		
Regulatory Permitting																
U.S. Army Corps of Engineers (Permits)	M		M	H	M	M	H	H		M	H	M	H		M	M
California Department of Fish and Wildlife	M	M	M	H	M	M	H	H	M	M	H	M	H		M	M
California Department of Industrial Relations/CA Occupational Safety			M	H												
Department of Water Resources Division of Safety Dams			M	H												
Federal Energy Regulatory Commission			M	H												
National Marine Fisheries Service			M	H	M	M		H	M	M	H	M	H		M	M
San Francisco Bay Regional Water Quality Control Board	M	M	M	H	M	M	H		M	M	H	M			M	M
Central Coast Regional Water Quality Control Board			M	H				H					H			
San Francisco Bay Conservation and Development Commission			M	H						M						
United States Fish and Wildlife Service	M		M	H				H	M		H	M	H		M	M
Valley Habitat Plan		M	M	H				H	M		H					
Santa Clara Valley Habitat Agency					M	M										
Cities																
Cupertino		H														
East Palo Alto												H				
Los Altos							M	H								
Menlo Park												H				
Morgan Hill			M	H												
Mountain View							M						H	M		

NOTE:
H- HIGH, M- MODERATE, L- LOW
Empty cells are not applicable to that project.

Appendix C: Capital Projects Jurisdictional Complexities (Confidence Level Regarding Outside Agencies) Fiscal year 2021-22, cont'd

Partners and Outside Agencies	A1 Pacheco Reservoir Expansion	A3 Pipeline Reliability	C1 Anderson Dam Seismic Retrofit		D4 Fish Habitat and Passage Improvement		D6 Restoration of Natural Creek Functions		E1 Coyote Creek Flood Protection	E2 Sunnyvale East/ West Channels Flood Protection	E4 Upper Penitencia Creek Flood Protection	E5 San Francisquito Creek Flood Protection	E6 Upper Llagas Creek Flood Protection	E7 San Francisco Bay Shoreline Protection	E8 Upper Guadalupe River Flood Protection	
			ADSR	FOCP	Site 1: Almaden Lake	Site 2: Ogier Ponds	Site 1: Hale Creek	Site 2: Bolsa Road				Upstream of 101		EIAs 1-10	Reach 6	Reaches 7-12
Palo Alto												M		M		
San José		H			H	H			H		M				H	M
Saratoga		H														
Sunnyvale										H				M		
Counties																
Santa Clara County		H	M	H	M	M			H	H	M	H	H	M		
San Mateo County												H				
San Benito County Water District	M															
Pacheco Pass Water District	M															
Other Agencies																
California Department of Transportation (Caltrans)										H		H	M			M
California State Coastal Conservancy														M		
Gate of Heaven Cemetery (Diocese of San José)																
Department of Water Resources		H										H	M			
Santa Clara Valley Habitat Agency					M	M										
Santa Clara County Parks & Recreation Department						M										
Federal Emergency Management Agency										M		M	M			
Peninsula Corridor Joint Power Boards (Caltrain)																M
Midpeninsula Regional Open Space District														M		
Santa Clara Valley Transportation Authority (VTA)		M									M					
Union Pacific Railroad		L														
West Valley Sanitation District		M														
NASA Moffett Field														M		
PG&E		M	M	H			M			H	M	M	M			L
San Francisquito Creek Joint Powers Authority												H				
San Mateo County and Sea level Rise Resiliency District												H				
Union Pacific Railroad		L											M			L
State Office of Historical Preservation								H								
San Francisco Public Utilities Commission (SF PUC)										H						

Appendix D: Cumulative Trash Removal Data for Projects B1, B2, B4, F5, F6 and F9¹

D-1: Estimated volume of trash removed by Projects B1, B2, B4, F5 and F6

Project	Estimated amount of trash and debris removed in Tons and Cubic Yards (CY)	
	FY22	
	Est. Tons	Est. CY
B1: Impaired Water Bodies Improvement (KPI#3: Accumulation point mapping and removal)²	14.5	145
B2: Inter-agency Urban Runoff Program (KPI#1: Trash booms)²	2.5	25
B2: Inter-agency Urban Runoff Program (KPI#1: Hot Spot cleanup)²	0.4	4
B4: Support Volunteer Cleanup Efforts (Cleanup day events)³	48	475
F5: Good Neighbor Program: Encampment Cleanups⁴	868	12,158
F6: Good Neighbor Program: Graffiti and Litter Removal and Public Art⁴	72	1,009
Estimated Totals	1,006	13,817

1 Grants and partnership trash removal information for Project F9 are included in Table D-4.

2 The San Francisco Bay Regional Water Quality Control Board has requested that all stormwater permittees report trash in volume rather than weight. Volume is a more meaningful measure of the trash present because it is not affected by the weight of wet vs. dry trash. For Projects B1 and B2, volume is visually estimated in the field and likely includes some vegetation and debris. Where data was only collected in weight, a conversion was used based on a solid waste calculator estimating 10 cubic yards per ton.

3 Adopt-A-Creek partners use number of bags and approximate weights to estimate pounds. Using pounds simplifies measurement for volunteers and is consistent with the efforts of the other jurisdictions implementing Coastal Clean Up and National River Clean Up Days. Pounds were converted to tons (2,000 pounds = 1 US ton). Tons were then converted to cubic yards using an estimate of 10 cubic yards per ton. For project B4 cleanup day even totals, the Safe, Clean Water Program funds 55% of this project.

4 Tons were converted to cubic yards using an estimate of 14 cubic yards per ton, which is based on a comparison with industry standard conversions and a watershed field operations field experiment and analysis. Project F5 and F6 quantities are based on landfill weights measured in tons.

D-2: Estimated volume of trash removed by watershed for Projects B1, B2, F5, and F6

San Francisco Bay Watersheds	Estimated cubic yards (CY) of trash and debris removed
	FY22
Lower Peninsula	53
West Valley	1,739
Guadalupe	3,679
Coyote	6,831
Uvas/Llagas (Pajaro)	1,039
Estimated Totals	13,341

1 Watershed information is not reported for Projects B4 and F9.

D-3: Estimated cost of trash removal activities for Projects B4, F5, and F6

Project	Estimated costs for trash removal
	FY22
B4: Volunteer Cleanup Efforts and Education	\$28,000
F5: Good Neighbor Program: Encampment Cleanup	\$2,218,126
F6: Good Neighbor Program: Graffiti and Litter Removal	\$605,620
Estimated Totals	\$2,851,746

1 Cost information for trash removal activities are not available for Projects B1 and B2 because project budgets are tracked as a whole and not by specific KPI. Grants and partnership cost information for Project F9 are included in Table D-4.

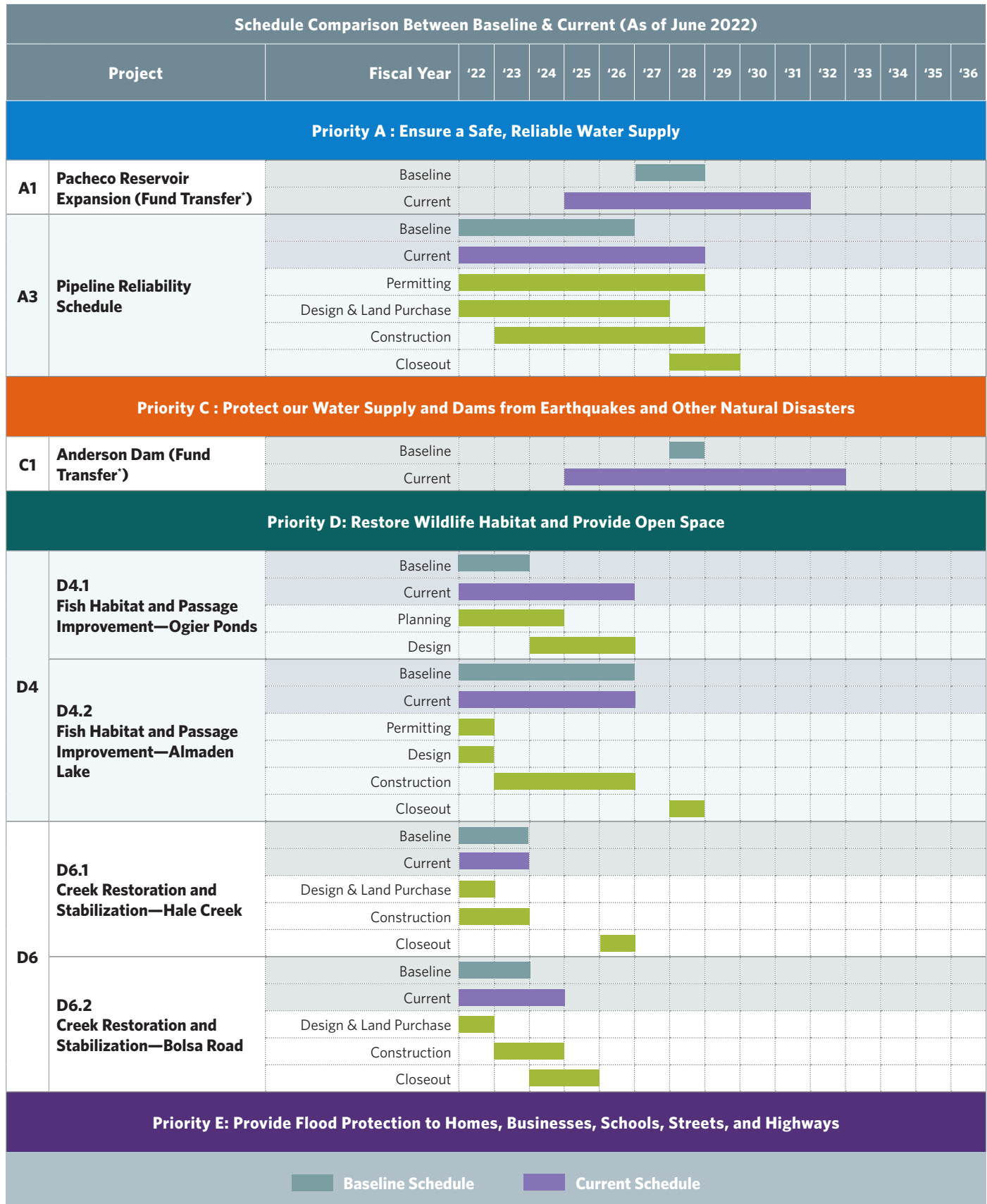
D-4: Trash removal information from partnerships and grants for Projects F9

Estimated amount of trash and debris removed in Pounds, Tons, and Cubic Yards (CY) ¹									
Project	Grant Cycle	Grantee/ community partner	Grant Project Name	Amount Awarded	Total Project Cost	Status	Estimated Amount of Trash Removed		
							Pounds	Tons	CY
Standard Grants and Partnership for Safe, Clean Water, Flood Protection and Environmental Stewardship (F9)	FY22	Downtown Streets Team	Upper Penitencia Creek Cleanup, Outreach, and Revitalization	\$78,783	\$131,378	Agreement execution in progress	N/A	N/A	N/A
	FY22	Grassroots Ecology	Mountain View Tidal Marsh Restoration Project	\$200,450	\$371,604	Agreement execution in progress	N/A	N/A	N/A
	FY22	Grassroots Ecology	McClellan Ranch Community Garden Hedgerow Project	\$38,569	\$158,360	Agreement execution in progress	N/A	N/A	N/A
	FY22	Guadalupe River Park Conservancy	Preventing Litter to Restore the River Initiative	\$177,120	\$449,145	Agreement execution in progress	N/A	N/A	N/A
	FY22	Marshmallow Minds	Safe Birds, Safe Waters	\$54,880	\$134,520	Agreement execution in progress	N/A	N/A	N/A
	FY22	Rural California Broadcasting Corp krob-Tv Channel 22	"Refreshing the Watershed: Steps you can take to make a difference," a series of short-form educational videos that outline the whys and hows for individuals to support Santa Clara Valley Watershed stewardship and organizations engaged in that stewardship	\$50,000	\$442,000	Agreement execution in progress	N/A	N/A	N/A
	FY22	Saved By Nature	Headwaters to the Bay	\$84,002	\$147,076	Agreement execution in progress	N/A	N/A	N/A
	FY22	South County Compassion Center (Gilroy Compassion Center)	Unhoused Creek Cleanup	\$52,725	\$144,211	Agreement execution in progress	N/A	N/A	N/A
	FY22	Talon Ecological Research Group	Fisher Creek Enhancement Project	\$149,579	\$399,980	Agreement execution in progress	N/A	N/A	N/A
Mini-Grants (F9)	FY22	Keep Coyote Creek Beautiful	Russo/ McEntee School Mural	\$19,885	\$5,000	In progress	N/A	N/A	N/A
	FY22	PitStop Outreach	We Keep It Clean!	\$16,000	\$5,000	Agreement execution in progress	N/A	N/A	N/A
Estimated Total							N/A pounds	N/A tons	N/A cubic yards

¹ These numbers are the original reported by each grantee. The other numbers were converted by staff.

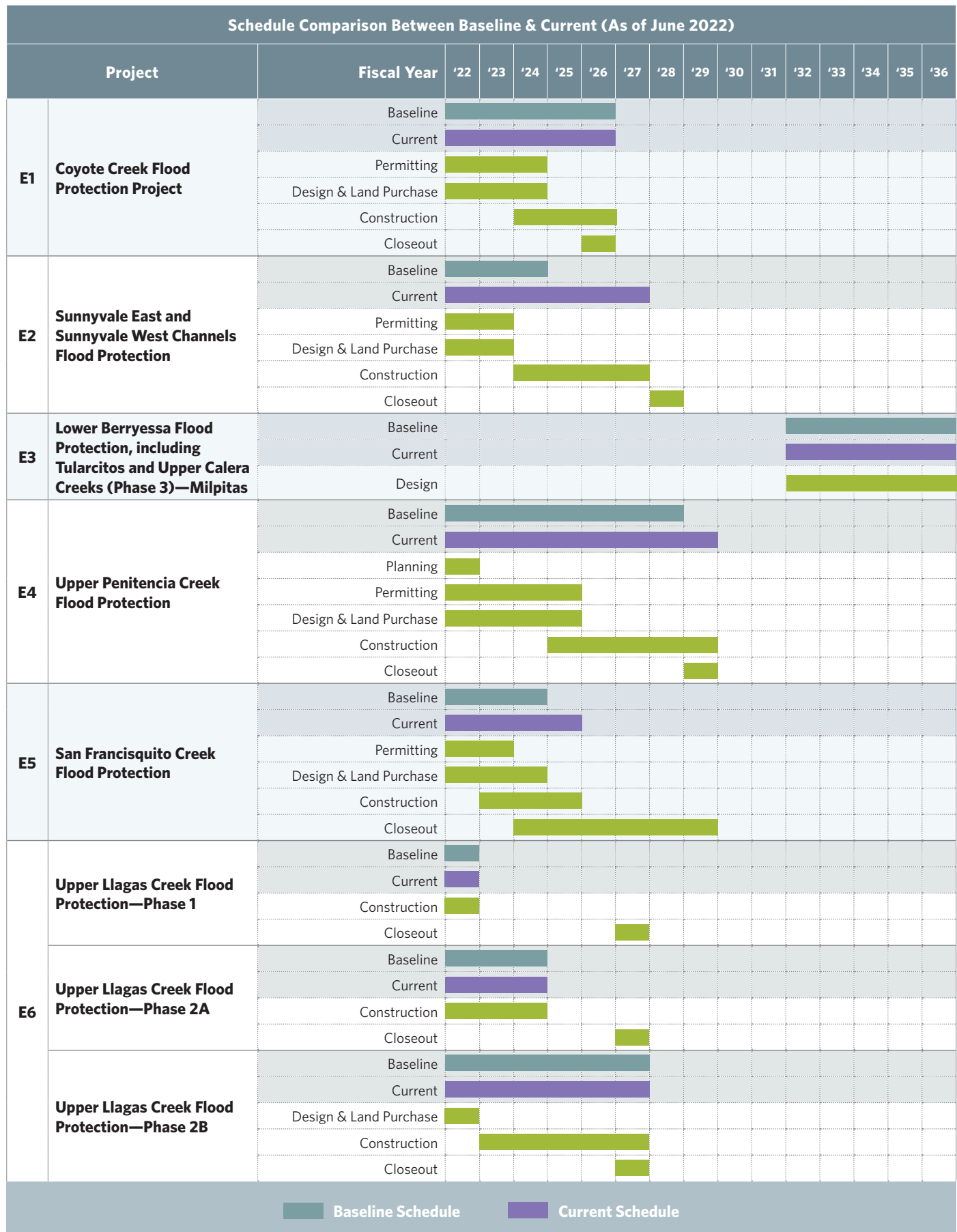
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Appendix E: Schedule Comparison for Projects

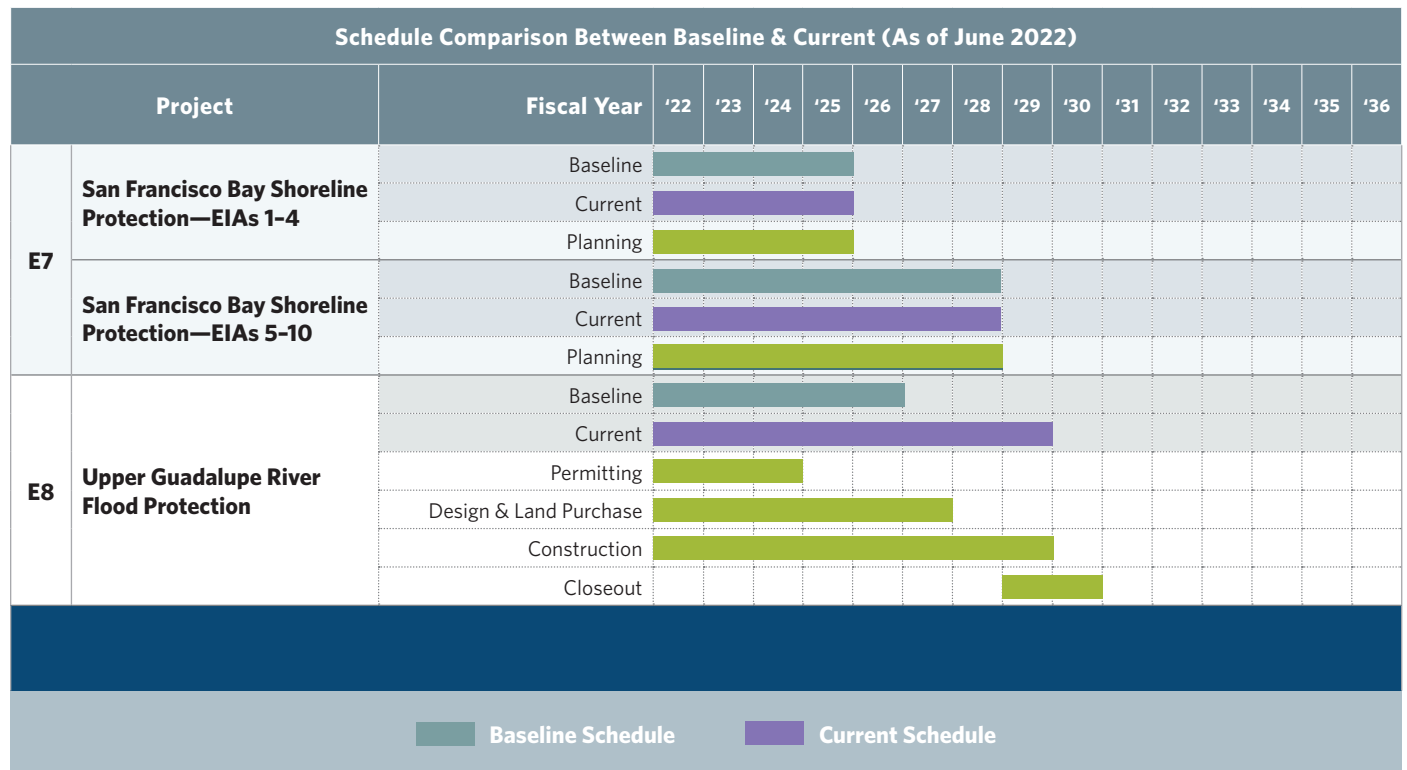


*The project is adjusted only in terms of the Safe, Clean Water Program KPI of providing funding for the two projects and is not reflective of the overall project schedule.

Appendix E: Schedule Comparison for Projects

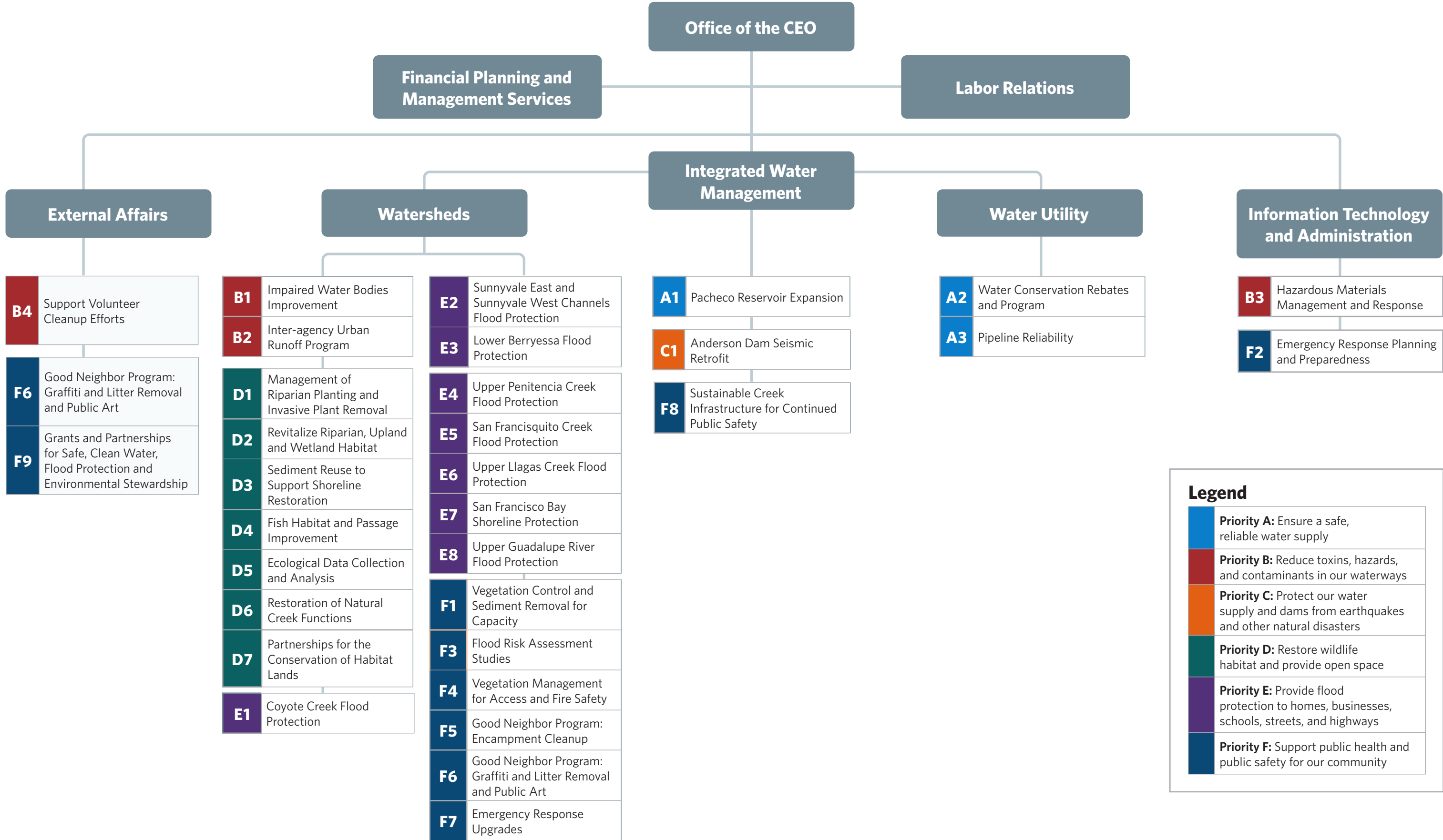


Appendix E: Schedule Comparison for Projects



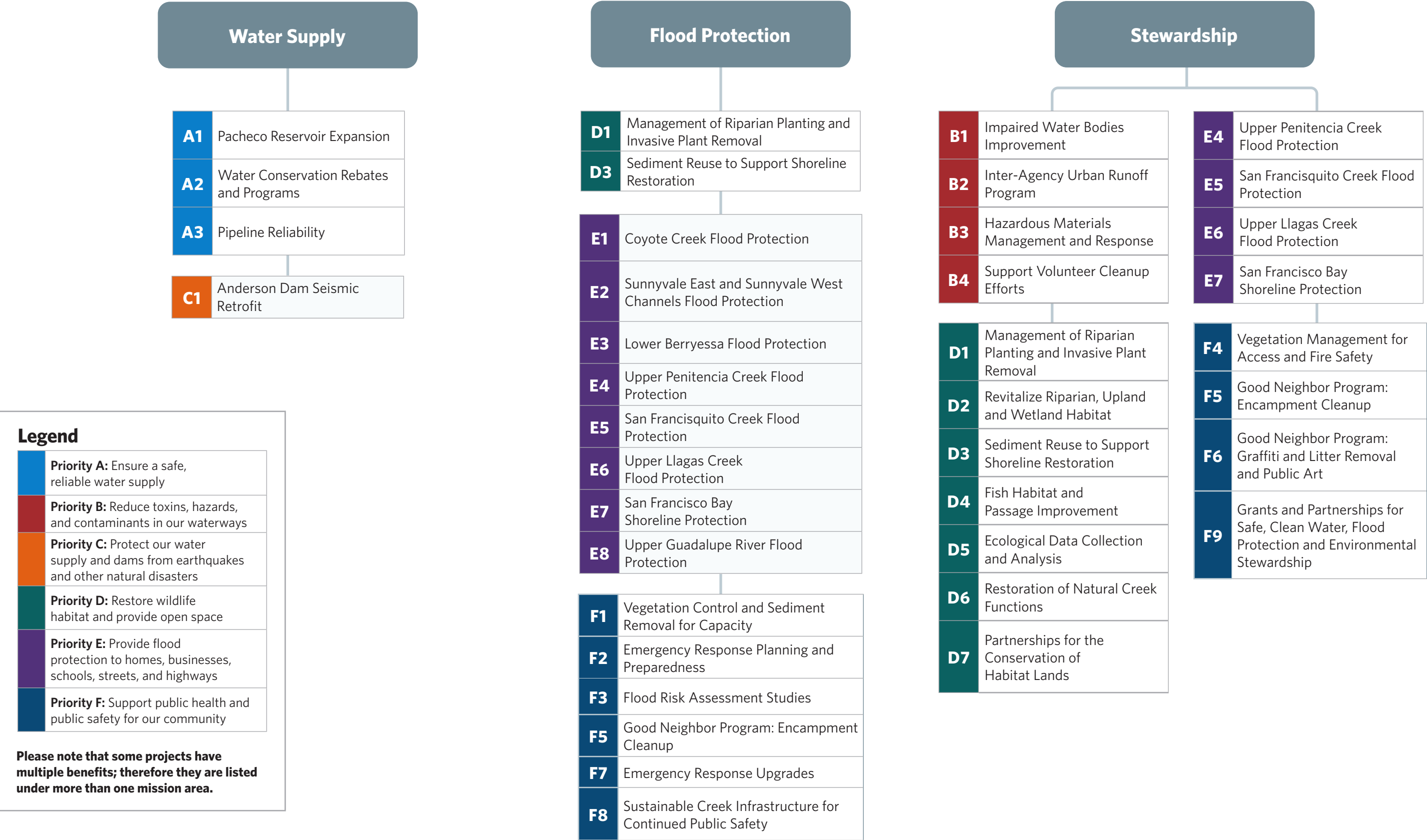
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Appendix F: Projects by Organization Structure



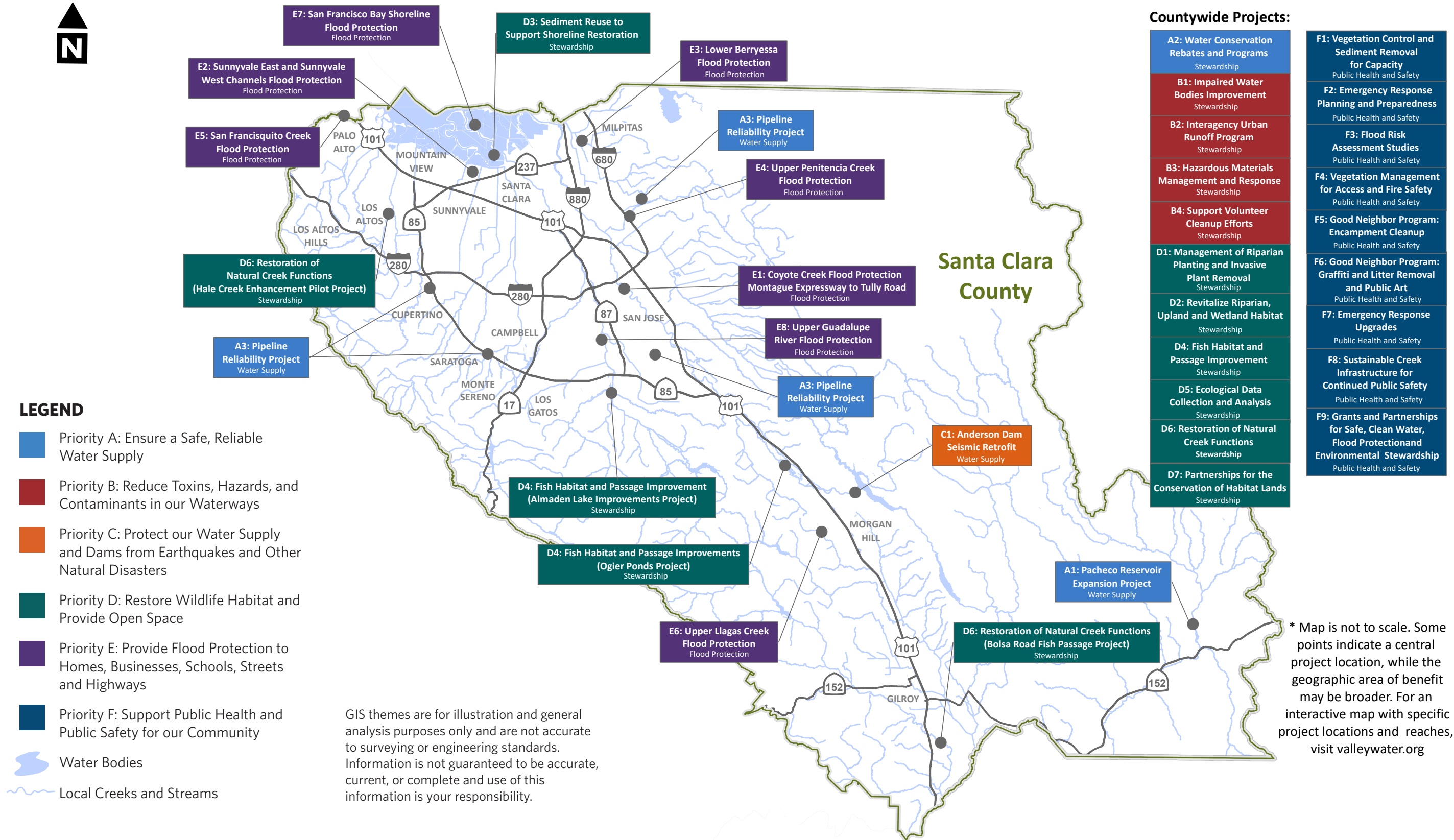
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Appendix G: Projects by Valley Water Mission Area



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Appendix H: Countywide Map of Projects



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Appendix I: Glossary

1% flood

A flood that has a 1% chance of occurring in any given year; also referred to as a 100-year flood.

50-year flood

A flood that has a 2% chance of occurring in any given year.

100-year flood

A flood that has a chance of occurring an average of once every 100 years; also referred to as a 1% flood.

Acre-feet (AF)

An acre-foot of water would cover 1 acre of land to a depth of 1 foot. 1 acre-foot equals approximately 325,000 gallons, the average amount of water used by 2 families of 5 in 1 year.

Aquifer

An underground geologic formation of rock, soil, or sediment that is saturated with water; an aquifer stores groundwater.

Backwater Effect

The effect which a dam or other obstruction has in raising the surface of the water upstream from it.

Bypass channel

A channel built to carry excess water from a stream or to divert water from the main channel and then return the water to the channel at a point further downstream.

Carryforward

A portion or total of the unspent balance of an appropriation that is made available for expenditure in the succeeding fiscal year.

Cleanup

The removal of trash and debris generated from encampments or other illegal dumping; by Valley Water or by Valley Water in partnership or coordination with other agencies.

Contingency Appropriation

A provision for unforeseen expenditures.

Contingency Reserve - Voter Approved Safe, Clean Water Fund

This reserve fund is established and maintained as financial or other business conditions warrant. Funds accumulated in this reserve are used to ensure that Valley Water delivers on the commitments made in the November 2020 ballot. The minimum funding level is \$0. The specific level is to be financially prudent and based on reasonably anticipated needs. The annual amount to contribute or withdraw will be determined as financial or other business conditions warrant and as approved by the Valley Water Board of Directors.

Currently Authorized Projects Reserve

These reserves are designated to fund those capital projects that are included in the annually adopted 5-Year Capital Improvement Program (CIP) and which have had funding appropriated by the Board in prior years. The amount of these reserves for each fund at the end of a given fiscal year shall be based on the accumulated unexpended and unencumbered balances of Board approved capital project appropriations remaining at the end of each fiscal year.

NOTE: Definitions of 'Cleanup' and 'Encampment' were adjusted and a new term, 'Encampment cleanup', was added on July 13, 2021.

Appendix I: Glossary

Ecosystem

An ecological community of plants, animals, and microorganisms in their environment, functioning together as a unit.

Ecotone

Transition area between two differing ecological spaces. Retains some of the characteristics of each respective ecological space, yet contains species not typically found in either environment.

Encampment

A site where people are living or storing personal property that is located illegally on Valley Water property or other public property. Encampments may generate trash, debris, and hazardous pollutants. Such encampments contribute to contamination of waterways and damage to Valley Water facilities.

Encampment cleanup

Valley Water, independently or in partnership and coordination with cities and local agencies, will seek to remove trash, debris and hazardous pollutants generated from encampments near waterways or on Valley Water property.

Encumbrances

Commitments related to unperformed (executory) contracts for goods or services. Encumbrances represent the estimated amount of expenditures that will result if unperformed contracts in process are completed.

Encumbrance Reserves

These reserves represent the balance of outstanding encumbrances (contractual commitments) at year end, for which the goods or services have not been received. The reserved balance is available for subsequent year expenditures based on the encumbered appropriation authority carried over to the next fiscal year. The funding level of these reserves will be adjusted annually, at year-end, based on the remaining balance of encumbrances still outstanding as of the end of the fiscal year.

Environmental enhancement

Action taken by Valley Water that benefits the environment, is not mitigation and is undertaken voluntarily. Enhancement actions may include environmental preservation or creation. In instances where enhancements are located in the same vicinity as a mitigation project, actions must exceed required compliance activities to be considered environmental enhancements.

Environmental Stewardship

To entrust the careful and responsible management of the environment and natural resources to one's care for the benefit of the greater community.

Erosion

The process by which soil is removed from a place by forces such as water or construction activity, and eventually deposited at a new place as sediment.

Fiscal year (FY)

A period that a company or government uses for accounting purposes and preparing financial statements. The fiscal year may or may not be the same as a calendar year. Valley Water uses a fiscal year that begins on July 1 and ends on June 30, which coincides with the State of California's fiscal year. The fiscal year is denoted by the year in which it ends, so spending incurred on November 14, 2015, would belong to fiscal year 2016. The federal government's fiscal year begins on October 1 and ends on September 30.

Appendix I: Glossary

Fisheries

An area with an associated fish or aquatic population.

Fish passage

A generic term for several methods incorporated into flood protection or other stream modification projects which allow native fish species to travel upstream to spawn.

Flood

A temporary inundation of inland or tidal waters onto normally dry land areas.

Flood conveyance capacity

The maximum amount of water that can flow through a channel, stream or culvert before there is flooding of surrounding properties.

Floodplain

The low, flat, periodically flooded lands adjacent to creeks and rivers.

Floodplain management

A city or county program of corrective, preventive and regulatory measures to reduce flood damage and encourage the natural and beneficial functions of floodplains. Careful local management of development in the floodplains results in construction practices that can reduce flood damages.

Floodwall

Walls used as levees to contain floodwaters within a stream. Floodwalls are used when right-of-way is limited.

Geomorphology/geomorphic

The study of the natural relationship between a stream and its bank and bed; pertaining to those processes that affect the form or shape of the surface of the earth, including creeks and streams.

Groundwater

Water that is found beneath the surface in small pores and cracks in the rock and substrate.

Gravel Augmentation

Gravel augmentation or gravel replenishment means artificially adding gravel suitable in size distribution for salmon and steelhead trout habitat enhancement including spawning and fry emergence to streambeds that lacks such gravel, typically due to upstream impoundments.

Habitat

The specific, physical location or area in which a particular type of plant or animal lives. To be complete, an organism's habitat must provide all of the basic requirements of life for that organism.

Appendix I: Glossary

Impaired water bodies

Waters that are too polluted or otherwise degraded to meet the water quality standards set by the State of California. Under the federal Clean Water Act, California is required to develop lists of impaired water bodies, including creeks, streams, and lakes.

Invasive plants

A non-native plant species that has spread into native or minimally managed plant communities (habitats).

Large woody debris (LWD)

The logs, sticks, branches, and other wood that falls into streams and rivers. This debris can influence the flow and shape of the stream channel. LWD plays an important biological role in streams by increasing channel complexity, enhancing fish habitat, and creating diversity in the food web.

Levee

An embankment constructed to provide flood protection from seasonal high water.

Market Valuation Reserve

The reserves for market valuation represent the increase/gain (only) in the market value of Valley Water's pooled investments as of the end of the fiscal year as a result of its compliance with the provisions of Government Accounting Standard Board Statement No. 31 (GASB 31), Accounting and Financial Reporting for Certain Investments and for External Investment Pools.

Methylmercury

An organic, highly toxic form of mercury that easily bioaccumulates in organisms, increasing in concentration as it travels up the food chain. Because of mercury contamination the public is advised against consuming fish caught in some Santa Clara County reservoirs and ponds.

Mitigation

Action taken to fulfill CEQA/NEPA, permit requirements and court-mandates to avoid, minimize, rectify or reduce adverse environmental impacts, or compensate for the impact(s) by replacing or providing substitute resources or environments.

Natural flood protection

A multiple-objective approach to providing environmental quality, community benefit and protection from creek flooding in a cost-effective manner through integrated planning and management that considers the physical, hydrologic and ecologic functions and processes of streams within the community setting.

Operating and Capital Reserve

These reserves serve to ensure adequate working capital for cash flow needs and to provide a funding source for operating and capital needs that arise during the year and, in the case of the water utility, to protect against revenue shortage caused by extreme weather events. The funding level for the Water Utility is a minimum of 15% of adopted budget operations outlays and a minimum of 50% for the Watershed Funds. For the General Fund and Internal Service Funds, the funding level is a minimum of 5% of total adopted budget operations outlays. The minimum level for each fund includes remaining available resources after the needs of all other reserves within those funds have been met. The specific level of this reserve is to be set based on reasonably anticipated needs.

Appendix I: Glossary

Oxygenation treatment systems

Treatment systems that help increase the relative oxygen levels in a body of water.

Pay-as-you-go

A funding mechanism which collects revenue until sufficient funds are available to begin construction of a project, in contrast to debt financing, in which a large sum is borrowed so that construction can begin sooner.

Permitting requirements

A mechanism used to enforce state and federal laws that protect environmentally sensitive areas. Before moving forward on projects, Valley Water is required to obtain permits from the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, NOAA Fisheries, Regional Water Quality Control Board and the California Department of Fish and Wildlife. Each permit gives the permitting agency an opportunity to attach specific measures to the project to reduce impact on the environment.

Preservation

Action taken to protect an ecosystem or habitat area by removing a threat to that ecosystem or habitat, including regulatory actions and the purchase of land and easements.

Reach (creek)

A portion of a creek or watercourse usually defined by both an upstream and a downstream unit.

Groundwater Recharge

The addition of new water to an aquifer or to the zone of saturation. See groundwater.

Refunding

A procedure whereby an issuer refinances outstanding bonds by issuing new bonds. There are generally two major reasons for refunding: to reduce the issuer's interest costs; or to remove a burdensome or restrictive covenant imposed by the terms of the bonds being refinanced. The proceeds of the new bonds are either deposited in escrow to pay the debt service on the outstanding bonds when due in an "advance refunding" or used to promptly (typically within 90 days) retire the outstanding bonds in a "current refunding."

Reserve

An account used to indicate that a portion of a fund's assets are legally restricted for a specific purpose and is, therefore, not available for general appropriation.

Respond

For hazardous materials response (project B3) "Responded to" means that responder arrives at site within two (2) hours. For litter and graffiti removal (project F6) "Responded to" means that a request for Valley Water action is acknowledged either verbally, in writing, or by email within five (5) working days.

Restoration/restore

Action taken by Valley Water, to the extent practicable, toward the re-establishment as closely as possible of an ecosystem's pre-disturbance structure, function, and value, where it has been degraded, damaged, or otherwise destroyed.

Appendix I: Glossary

Revegetate

To re-establish vegetation in areas which have been disturbed by project construction.

Revitalize

Improve habitat value, particularly in an effort to connect contiguous creek reaches of higher value, by removing invasive, non-native vegetation and diseased and/or non-thriving specimens, applying mulch to suppress weed competition, revegetating sites with native plants, and installing predation prevention measures such as browse protection or cautionary fencing to reduce impacts from animals and vandals.

Riparian

Pertaining to the banks and adjacent terrestrial habitat of streams, creeks or other freshwater bodies and watercourses.

Riparian corridor

The riverside or riverine environment next to a stream channel.

Riparian ecosystem

A natural association of soil, plants and animals existing within the floodplain of a stream and dependent for their survival on high water tables and river flow.

Safe, Clean Water Rate Stabilization Reserve

This reserve is required to offset timing differences between expenses and collection of the Safe, Clean Water special parcel tax to meet debt service coverage requirements. The minimum funding level is \$0. The specific level is to be financially prudent and based on reasonably anticipated needs. The annual amount to contribute or withdraw will be determined as financial conditions warrant and as approved by the Valley Water Board of Directors.

Sediment/sedimentation

Mineral or organic material that is deposited by moving water and settles at the bottom of a waterway. Sediment in a lake, reservoir or stream can either be suspended in the water column or deposited on the bottom. Sediment usually consists of eroded material from the watershed, precipitated minerals and the remains of aquatic organisms.

Special status species

Any species that is listed or proposed for listing as threatened or endangered by the U.S. Fish and Wildlife Service or National Marine Fisheries Service under the provisions of the Endangered Species Act; any species designated by the U.S. Fish and Wildlife Service as a "listed," "candidate," "sensitive," or "species of concern," and any species which is listed by the State of California in a category implying potential danger of extinction.

Special tax

Any tax imposed for specific purposes or any tax imposed by a special purpose district or agency, such as the Santa Clara Valley Water District. A special district contemplating a special tax levy must hold a noticed public hearing and adopt an ordinance or resolution prior to placing the tax on the ballot.

The ordinance or resolution must specify the purpose of the tax, the rate at which it will be imposed, the method of collection and the date of the election to approve the tax levy. Approval by a 2/3 vote of the city, county or district electorate is necessary for adoption.

Appendix I: Glossary

State Water Resources Control Board

The State Water Resources Control Board (State Water Board) was created by the Legislature in 1967. The mission of the State Water Board is to ensure the highest reasonable quality for waters of the State, while allocating those waters to achieve the optimum balance of beneficial uses. There are 9 regional water quality control boards that exercise rule-making and regulatory activities by basin. Santa Clara County is part of 2 regions: Region 2 - San Francisco Regional Water Quality Control Board (north of Morgan Hill) and Region 3 - Central Coast Regional Water Quality Control Board (south of Morgan Hill).

Subvention

Subventions are reimbursements for rights-of-way and relocation costs of channel improvements and levee projects provided to flood control agencies by the Department of Water Resources Flood Subventions Program.

Stream Maintenance Program (SMP)

Ensures flood protection projects continue to function as designed to protect homes and businesses along Valley Water streams. SMP work includes removal of sediment, management of vegetation, clearing of trash and debris, stabilization of eroded riverbanks over portions of 278 miles of creeks in Santa Clara County.

Threatened species

A species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

Total Maximum Daily Loads (TMDLs)

The maximum pollutant load a waterbody can receive (loading capacity) without violating water quality standards.

Trash capture devices

Innovative devices used to capture wastes and trash in bodies of water and on land. Comprise of nets and sharp implements which can snare waste items.

Urban runoff

The water that runs over the impervious areas in cities, collecting pollutants as it flows. Runoff is recognized as a major source of water impairment.

Valley Water 1% Flood Risk Zone

Per Valley Water modeling, this is the area representing parcels that have a 1% chance of experiencing flooding, including less than 1 foot, in any given year.

Watershed

Land area from which water drains into a major body of water.

Watershed stewardship

Protecting and enhancing the county's creeks, streams and water bodies to preserve a vibrant, healthy ecosystem and provide recreational opportunities when appropriate.

Appendix I: Glossary

Wetland

Areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support vegetation adapted for life in saturated soil conditions, as well as the diverse wildlife species that depend on this habitat.



YOUR TAX DOLLARS AT WORK



**Safe,
Clean
Water**
and Natural Flood Protection

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