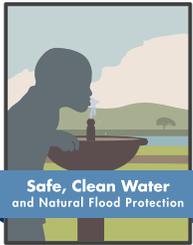


**Safe, Clean Water**  
and Natural Flood Protection



# 5-Year Implementation Plan

Fiscal Years 2019-2023







# Message from the CEO

As we enter into the sixth year of the 15-year Safe, Clean Water and Natural Flood Protection Program (Safe, Clean Water), we continue to make strides toward delivering on our commitments to the voters on water supply, flood protection and stewardship projects to provide Silicon Valley safe, reliable water for a healthy life, environment and economy.

During the first 5 years of the Safe, Clean Water Program, Valley Water completed 1 of its capital flood protection projects and began constructing 4 more, which will save Santa Clara County property owners thousands of dollars on costly flood insurance each year. The 8 projects with annual Key Performance Indicators (KPIs) continue to be on target and deliver the services promised to the community to reduce toxins, hazards and contaminants in our waterways through encampment cleanups, volunteer and education programs, revegetation projects, and more.

Furthermore, Valley Water completed multiple KPIs for various projects and laid the groundwork for many other projects to be completed in the next 5 years. Key highlights from the Safe, Clean Water Program's Fiscal Year (FY) 2014-2018 accomplishments consistent with Valley Water's core mission areas include:

## Water Supply

- **Main Avenue and Madrone Pipelines Restoration:** Construction began in FY18 and is scheduled to be completed in FY19. Once completed, this project will increase our groundwater recharge by about 2,000 acre feet per year and maximize the delivery of imported water to treatment plants supplying drinking water to North County.



- **Water to Go (Hydration Station) Grant Program:** Completed KPI #2 of the Safe, Clean Water Partnerships and Grants project in FY18 by funding grants for 50 bottle filling stations to help schools provide safe, clean drinking water to students and comply with the state mandate, SB 1413, and the Healthy Hunger-Free Kids Act. KPIs #1 and #3 (Water Conservation Grants and Nitrate Treatment System Rebate Program) will be completed in the next 5 years.

## Flood Protection

- **Calabazas Creek Flood Protection Project:** In 2014, Valley Water completed this project, which provides 1% flood protection to more than 2,400 parcels in Saratoga, San José and Cupertino.
- **San Francisquito Creek Flood Protection Project:** Construction of the San Francisco Bay to Highway 101 reach of the project began in FY16 and is targeted for completion in FY19. The reach upstream of Highway 101 is in the planning and design phase, with construction of the local-state-funding only project planned for completion by FY21. Once completed, this reach will protect approximately 3,000 parcels in Palo Alto from a flood event close to the February 1998 flood, the largest on record.

- **Permanente Creek Flood Protection Project:** Construction of the Rancho San Antonio and McKelvey Park detention sites and channel improvements began in FY17 and are on target for completion by FY19. Once completed, this project will provide 1% flood protection to approximately 1,664 parcels in Mountain View and Los Altos.
- **Berryessa Creek Flood Protection Project:** Channel construction work was completed in FY18 and the final phase of the bridge replacement project is scheduled for completion in FY19, 1 year ahead of the current project schedule. Once completed, this project will provide 1% flood protection to approximately 1,662 parcels in Milpitas and San José.
- **Coyote Creek Flood Protection Project:** After the project was modified in FY17 to extend the project reach to Tully Road, Valley Water identified and constructed a short-term flood relief solution for the Rock Springs neighborhood prior to the 2017-2018 winter season. Once completed, the preferred project will provide flood protection for approximately 1,000 parcels in San José from the level of flooding that occurred on February 21, 2017.
- **5 years, multiple milestones for Project D4** are expected, including the Almaden Lake creek/lake separation project and the Bolsa Fish Passage Improvements, which are scheduled to complete design and be ready for construction.
- **Trash Removal Projects:** Of the 7 projects in Priority B, 5 include trash removal components, with the goal of reducing and removing contaminants in our local creeks, streams and bay. This work is accomplished not only by Valley Water, but with the help of volunteers and grantees alike. In the first 4 years of the Safe, Clean Water Program, Valley Water recorded that approximately 4,182 tons of trash were removed from our waterways.
- **Safe, Clean Water Stewardship Grants:** In the first 4 years of the Safe, Clean Water Program, through Priorities A, B and D, Valley Water awarded more than \$7.6 million in grant funding toward project costs exceeding \$14 million. These dollars went to local grantees for projects addressing issues such as water conservation, water quality, green initiatives, storm water pollution reduction, storm water quality, trash removal and reduction along our waterways, restoring wildlife habitat, and providing access to trails. The Board of Directors also approved \$200,000 for a Pilot Mini-Grant Program that launched in FY18.

## Stewardship

- **Evelyn Bridge Fish Passage Project:** As part of KPI #3 of the Fish Habitat and Passage Improvement Project (Project D4), Valley Water completed construction of the Evelyn Bridge Fish Passage Project within Stevens Creek in FY16. The Project removed 2 drop structures, thereby increasing the sediment transport rates through the series of bridges and creating a sustainable low flow channel for fish passage. In the next

Along with the projects listed above, these projects are scheduled to be completed in the next 5 years: Emergency Response Upgrades, Creek Restoration and Stabilization, Flood Risk Reduction Studies, Upper Llagas Creek Flood Protection, Sunnyvale East and Sunnyvale West Channels Flood Protection, and the Clean, Safe Creeks Grants Projects.

To demonstrate our commitment to transparency and accountability, we continue to improve the Program processes and implement the annual recommendations from the Board of Directors and Independent Monitoring Committee. I'd like to acknowledge the committee members for their thorough annual review and dedication to the Program's integrity.

We welcome you to visit [valleywater.org](http://valleywater.org) for information on how to get involved in the Safe, Clean Water Program by applying for a grant or participating in volunteer opportunities. Working together, we can ensure that our county continues to maintain a safe, reliable water supply for our present and future needs.

We look forward to delivering meaningful results for our community during the next 5 years, as outlined in this 5 Year Implementation Plan for FY19-23.

Sincerely,

A handwritten signature in blue ink that reads "Norma Camacho". The signature is fluid and cursive, with the first name "Norma" being larger and more prominent than the last name "Camacho".

Norma Camacho  
Chief Executive Officer  
Santa Clara Valley Water District

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# Executive Summary

The Safe, Clean Water and Natural Flood Protection Program (Safe, Clean Water) is a long-term strategy to ensure uninterrupted water resources services in Santa Clara County. The Program was developed during more than 18 months of community collaboration with input from more than 16,000 residents and stakeholders, and was overwhelmingly approved by 74% of voters on November 6, 2012. The Program addresses the following 5 community 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 from earthquakes and natural disasters

**Priority D:** Restore wildlife habitat and provide open space

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

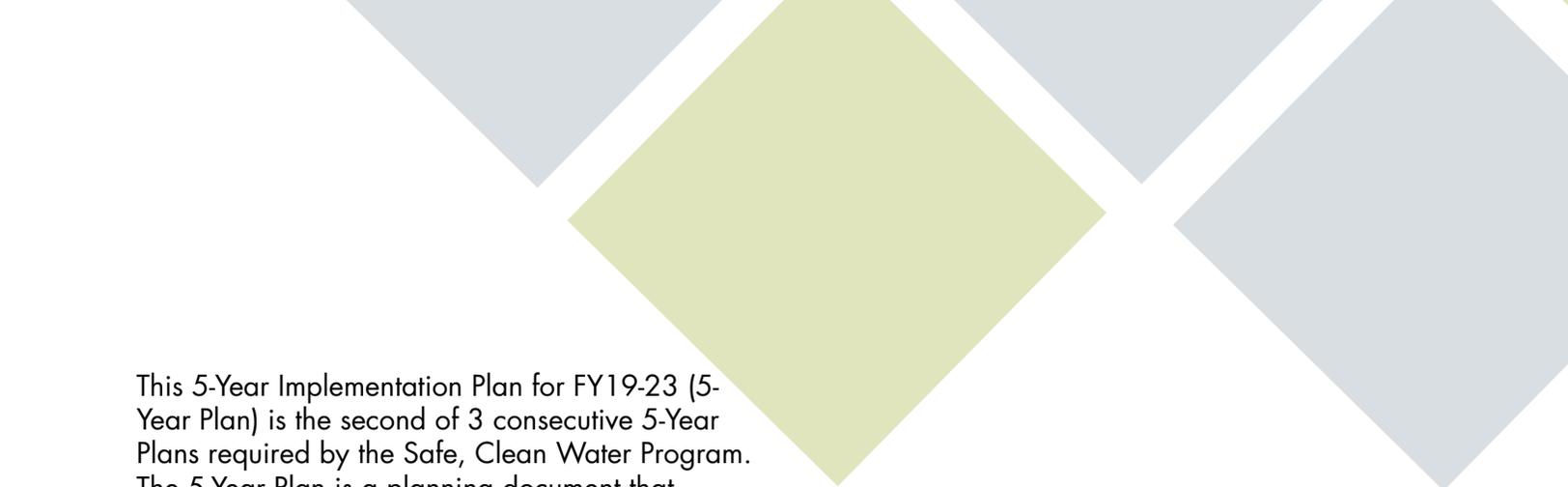
This Program combines the main operational areas of Valley Water in water supply, flood protection, and stewardship and represents an integrated approach. Many of the Safe, Clean Water projects are inter-related and are designed to work together to maximize the benefit to the community.

The Safe, Clean Water Program replaced the Clean, Safe Creeks and Natural Flood Protection Plan in its entirety when it became effective on July 1, 2013. The Safe, Clean Water Program extends funding at the same parcel tax rate approved under the previous Clean, Safe Creeks Plan and ensures a seamless continuation of critical water-related services to Santa Clara County.

During the first 5 years of the Program, from FY14-18, Valley Water accomplished multiple project milestones as well as improved the Safe, Clean Water Program implementation to

ensure transparency and accountability to the community we serve. The Program implementation improvements included the following:

- **Change Control Process:** A process was developed to track and approve adjustments to project text and schedules, and modifications to any project key performance indicator (KPI).
- **Flood Protection KPI Selection Process:** The flood protection capital projects include KPIs that allow for local-funding-only and preferred projects, which require federal funding. To address a recommendation from the Independent Monitoring Committee, a process was developed to decide if/when a project proceeds without federal funding.
- **Independent Performance Audit Recommendations:** In FY17, Valley Water completed the first of 2 independent performance audits of the Program and provided recommendations for Valley Water's consideration. Valley Water's Management Response document addressed each recommendation.
- **Independent Monitoring Committee (IMC) Recommendations:** Each year, the IMC reviews the Program annual report and makes recommendations to the Board of Directors. Of the Board-approved IMC recommendations, 100% were incorporated into the Program.
- **Office of External Affairs:** The Board of Directors approved the creation of the Office of External Affairs to centralize the management of the Safe, Clean Water Program's grant funding opportunities and volunteer programs. This reorganization increased the efficiency of project implementation and improved customer service to our community.



This 5-Year Implementation Plan for FY19-23 (5-Year Plan) is the second of 3 consecutive 5-Year Plans required by the Safe, Clean Water Program. The 5-Year Plan is a planning document that describes the work to be accomplished, as well as clarifies roles and responsibilities for implementing, measuring, monitoring and directing the Safe, Clean Water projects. To keep the commitment made to voters, the 5-Year Plan is prepared consistent with ballot language and the original Program Report.

The 5-Year Plan is a living document that is updated each year to include project adjustments and modifications, and incorporate recommendations from the IMC, Board of Directors and independent performance audits.

For more information about Valley Water and the Safe, Clean Water Program, visit [valleywater.org](http://valleywater.org).



**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 from  
earthquakes and natural disasters

**Safe, Clean Water**  
and Natural Flood Protection



**Priority D:**  
Restore wildlife habitat  
and provide open space

**Safe, Clean Water**  
and Natural Flood Protection



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

**Safe, Clean Water**  
and Natural Flood Protection

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## Section 1

# Introduction

During the 15-year Safe, Clean Water and Natural Flood Protection Program (Safe, Clean Water Program), there will be 3 separate 5-Year Implementation Plans (5-Year Plans), to allow for needed adjustments to reflect any economic, policy or regulatory changes that may occur during the life of the Program.

- **First 5-Year Plan:** fiscal years 2014 through 2018 (FY14-18)
- **Second 5-Year Plan:** fiscal years 2019 through 2023 (FY19-23)
- **Third 5-Year Plan:** fiscal years 2024 through 2028 (FY24-28)

As described in the original Program Report, the strategy of having 3 consecutive 5-Year Plans allows for continual refinement of all projects included in the Safe, Clean Water Program. As each 5-Year Plan proceeds, the IMC, Board and staff share information to keep projects on-track, with adjustments (and modifications, per the Change Control Process approved by the Board in FY16) being made as needed to ensure that key performance indicators are achieved on time and within budget.

Valley Water will update each subsequent 5-Year Plan to incorporate state and federal policy/regulatory changes, and economic fluctuations that influence Valley Water's ability to implement projects, as well as new or evolving terms or technologies that need clarification. The 5-Year Plans also incorporates recommendations from the independent performance audits of the Safe, Clean Water Program. As the funding sunset of the Safe, Clean Water Program approaches, the final 5-Year Plan will introduce closure options, which would be adjusted annually as necessary during the final years of the Program.

This document presents the implementation plan for the second 5 years of the Safe, Clean Water Program starting July 1, 2018 through June 30, 2023. This 5-Year Plan was developed following the ballot measure language (Appendix D, Resolution No. 12-62) and the original Program Report prepared in 2012; and is aligned with the Board of Directors Governance Policies.

This 5-Year Plan was presented to the Board of Directors for review and approval and reflects the Board's direction to staff on implementing and tracking the Program to comply with the ballot measure for the special tax.

This 5-Year Plan strategy provides a clear path toward implementation, while allowing for refinement of the projects when needed through the duration of the measure. Staff will use this document as guidance in implementing the Program to meet KPIs, monitor progress, and maintain schedules and budget commitments.

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# Implementation Strategies

The Safe, Clean Water and Natural Flood Protection Program (Safe, Clean Water) implementation is guided by transparency, accountability and efficiency at all levels. The Safe, Clean Water Program processes ensure that decisions are made in a public forum and are consistent with the voters' priorities. Where applicable, the Safe, Clean Water implementation milestones align with existing Valley Water processes and procedures for efficiency and coordination.

## Implementation Approach

### Assumptions

The successful implementation of the Safe, Clean Water Program will depend on several activities occurring as planned. Baseline assumptions include:

- Collection of special tax funds for the Safe, Clean Water Program through FY28.
- Special tax revenues occur as projected in Section 4 of this 5-Year Plan.
- Bonds are issued as outlined in Section 4 of this plan, with revenues and interest rates sufficiently close to original assumptions as outlined in the Safe, Clean Water Program documents.
- Timely acquisition of permits needed to complete projects.
- Ability to successfully enter partnerships needed to complete projects.

### Priorities and Projects

There are 38 projects organized under the 5 Safe, Clean Water Program priorities. Each project includes a project description, benefits, key performance indicators and the geographic area of benefit. The projects each have a designated funding allocation for the 15-year Program as well as a set project schedule. A full listing of the project

information is provided in Section 6. Any changes to these project elements must be approved by the Board through the Change Control Process as outlined later in this section.

### Key Performance Indicators

As described in the original Program Report, key performance indicators (KPIs) are used to monitor progress and completion for all projects in the Program. KPIs for all Safe, Clean Water projects were included in the election resolution approved by the voters in November 2012. The 5-Year Plan describes how KPIs will be measured and designates categories of completion for each project:

- Schedule-based: completed according to a timeline
- Performance-based: completion of a specific activity
- Fiscal-based: full funding allocation is expended to accomplish desired outcomes

KPIs for all projects in the Program are listed in Section 6 of this 5-Year Plan and in Appendix A.

The independent performance audit recommended that Valley Water consider revising output focused KPIs to better demonstrate success in meeting the intended outcomes. Valley Water acknowledged this finding; however, Valley Water takes a cautious approach to proposing modifications to language that was approved by voters. Per the Program's Change Control Process, modifications to KPIs require a formal public hearing and must be publicly noticed as set forth by Government Code Section 6066.

**Table 2.1 – Safe, Clean, Water Projects**

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

*Table 2.1 presents the Safe, Clean Water projects as grouped in the 5 priority areas, as well as the remaining Clean, Safe Creeks capital flood protection projects and grants projects to be completed as part of the Safe, Clean Water Program.*

## Implementation Processes

### Annual Valley Water Budget Process

Budgeting of Safe, Clean Water projects takes place annually as part of Valley Water's annual budget and is guided by the 5-year implementation plan. Each Safe, Clean Water project will be individually included in Valley Water's annual budget which the Board approves each year during a publicly noticed, open meeting where stakeholders are invited to provide comments. The 1-year budget provides detailed information on all Valley Water projects including project descriptions, goals, milestones and anticipated completion dates so that all elements can be coordinated to ensure steady progress.

### Capital Improvement Program Process

Valley Water prepares a Capital Improvement Program (CIP) plan annually. It is a 5-year rolling CIP, meaning that it is updated annually and covers the upcoming 5-year period. The CIP is approved by the Board each year and is publicly available for review. The CIP includes project descriptions, schedules and forecasting for funding. The CIP is the primary means of coordinating schedules and budgets on Valley Water capital projects. The Safe, Clean Water Program includes several capital projects, all of which are, and will continue to be, carried in the CIP.

The following capital projects are included in the Safe, Clean Water Program and descriptions of these projects are provided in Section 6.

The project name listed in the CIP is included in parenthesis, if different from the Safe, Clean Water project name:

- Project A1: Main Avenue and Madrone Pipelines Restoration
- Project A3: Pipeline Reliability Project (Water

Infrastructure Reliability Plan, Phase 2 (IRP2)  
Additional Line Valves)

- Project C1: Anderson Dam Seismic Retrofit
- Project D8: South Bay Salt Ponds Restoration Partnership
- Project E4: Upper Penitencia Creek Flood Protection (Upper Penitencia Creek, Coyote Creek to Dorel Drive)
- Project E5: San Francisquito Creek Flood Protection (San Francisquito Creek, San Francisco Bay through Searsville Dam)
- Project E6: Upper Llagas Creek Flood Protection (Llagas Creek – Upper, Buena Vista Avenue to Llagas Road)
- Project E7: San Francisco Bay Shoreline Protection (San Francisco Bay Shoreline)
- Project E8: Upper Guadalupe River Flood Protection (Guadalupe River – Upper, Interstate 280 to Blossom Hill Road)
- Permanente Creek Flood Protection (Permanente Creek, San Francisco Bay to Foothill Expressway)
- Sunnyvale East and Sunnyvale West Channels Flood Protection (Sunnyvale East and West Channels Improvement)
- Berryessa Creek Flood Protection (Berryessa Creek, Calaveras Boulevard to Interstate 680)
- Coyote Creek Flood Protection (Coyote Creek, Montague Expressway to Tully Road)

Priority D: Restore Wildlife Habitat and Provide Open Space, contains several projects that will likely generate capital projects in the future as studies are completed and restoration or stream stabilization sites are identified. When this occurs,

**Table 2.2—Estimated Timeline of Key Milestones**

Safe, Clean Water Program	Fiscal Year (FY)														
	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Board appoints IMC members <sup>1</sup>	◆		◆		◆		◆		◆		◆		◆		◆
Program annual report	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
IMC audit and annual report	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
IMC recommends program modifications to Board	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Board commissioned independent professional audit				◆					◆						
Board adopts 5-year implementation plan	◆				◆					◆					

<sup>1</sup>At-large positions and vacancies are filled as needed

**Table 2.2** shows the high-level key milestones to implement the Safe, Clean Water Program.

these projects will also be incorporated into the Valley Water’s overall CIP.

In FY14-18, the following Priority D projects became capital projects and are now included in the CIP.

- Project D4: Fish Habitat and Passage Improvement (Almaden Lake Improvements, SCW Fish Passage Improvements)
- Project D6: Creek Restoration and Stabilization (Hale Creek Enhancement Pilot Study)

**Change Control Process**

Over the life of the Program, Valley Water may need to update or adjust the Program, resulting from regulatory, economic, and technological changes outside the scope of Valley Water activities. Additionally, staff may have updates or recommendations to the Board for review and

direction on specific projects. For example, staff recommend how to establish evaluation criteria for the grants and partnerships offered in the Program; or recommend specific activities to pursue, based on studied alternatives. As described in the original Program Report, the Board must approve any Program changes in an open and public meeting.

To address this, a Change Control Process was developed in FY14-18 to ensure any and all changes to the Program are transparent and accountable to the community. Changes to the Program are categorized as either an adjustment or modification:

- **Adjustments:** Changes to a project’s description, benefits, geographic area of benefit, funding or schedule are considered “adjustments.” Adjustments are brought to the Board for approval through the annual report process and the 5-Year Plan process. Adjustments to project schedules are brought

to the Board for approval through the annual CIP progress update, typically in the spring.

- **Modifications:** Changes to a project KPIs are considered “modifications.” As outlined in the Board-adopted Resolution No. 12-62, the Board of Directors may direct that proposed projects in the Safe, Clean Water program be modified or not implemented depending upon a number of factors, including federal and state funding limitations. To modify a proposed project, the Board must hold a formal public hearing on the matter, which will be noticed by publication and notification to interested parties, before adoption of any such decision to modify or not implement a project. Public notice advertisements for the public hearing must comply with the 2-week notice requirements stated in California Government Code Section 6066.

Adjustments and modifications are described in the annual reports and are incorporated into the 5-Year Plans on an annual basis.

In FY14-18, the following modifications were made to the Program:

- **Project E5: San Francisquito Creek Flood Protection (FY14):** The modification reduced the minimum level of flood protection that will be provided by the local-state-funding-only project.
- **Coyote Creek Flood Protection (FY17):** The modification extended the project reach approximately 2.9 miles upstream to Tully Road to include the Rock Springs neighborhood and reduced the level of flood risk reduction. The modification matched the project to the February 21, 2017 flood

event level and incorporated areas impacted by that event.

- **Project A2, KPI #3: Nitrate Treatment System Rebate Program (FY18):** The modification reduced the maximum program funding to align with the demand for the Nitrate Treatment System Rebate Program.

### Flood Protection KPI Selection Process

As described in the original Program Report, the Safe, Clean Water Program leverages state and federal dollars to complete work that local funding alone cannot support. Capital projects for flood protection and infrastructure upgrades are expected to leverage more than \$400 million in state and federal funds to supplement local funding from the renewed tax.

State and federal participation are critical for the full implementation of the following capital projects:

- 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
- Berryessa Creek Flood Protection

With the exception of Project E7, the Program defines 2 15-year KPIs for each of these capital projects: one for the preferred federally funded project, and another for the local-only option. (Note, for Project E7, the 2 KPIs focus on the different Economic Impact Areas rather than the

different levels of flood protection based upon funding sources.)

To address a recommendation from the Independent Monitoring Committee (IMC), a process was developed for the Board to decide if/when a project proceeds without federal funding when the local-funding-only option has become a more viable choice.

In summary, the Flood Protection KPI Selection Process is triggered at the point when the U.S. Army Corps of Engineers (USACE) determines there is no longer a Federal interest in the project. Once this determination is made, Valley Water staff will prepare an item for a Board agenda meeting presenting the Board with the USACE's rationale for why they are no longer interested in the project and requesting authorization to move forward with the local-funding-only project KPI. Valley Water will inform project stakeholders about the recommended action in advance of the Board meeting and of the Board's decision after the Board meeting.

Because funding from federal and state sources has not been as reliable in recent years compared to previous decades, this Program will strategically assess progress and forecasts regarding continued partnerships and funding. Any changes made to the Safe, Clean Water Program will be evaluated and approved by the Board following the Change Control Process. As state and federal partnerships continue to evolve, each 5-Year Plan would include updated strategic direction for these partnered projects that depend on outside funding.

### **Grant and Partnership Programs Processes**

The Safe, Clean Water Program includes various grant and partnership programs as part of the following projects:

- Project A2: Safe, Clean Water Partnerships

and Grants (Water Conservation Grants and Water to Go Grant Program)

- Project B3: Pollution Prevention Partnerships and Grants
- Project B7: Support Volunteer Cleanup Efforts and Education
- Project D3: Grants and Partnerships to Restore Wildlife and Provide Access to Trails

As recommended by the independent performance audit, Valley Water has centralized and strengthened grants management. Starting in FY19, all grant and partnership projects will be managed by the Civic Engagement unit in the Office of External Affairs.

In FY14-18, processes and systems were established to track progress, monitor and report on the Program's grant and partnership projects. A grants management system is used to facilitate the pre- and post-award processes of the grants program.

As described in the original Program Report, the Board approves the specific selection criteria for each grant and partnership project, and sets minimum cost-share requirements for grantees and partners. The selection criteria for the grants and partnerships uses a science-based decision making process with stakeholder input.

Grant programs are released based on an estimated timeline (Table 2.3). The grants and partnerships selection process is approximately 6 months from announcement through grant agreement execution. The following actions are conducted during the application and selection process:

1. Announcement of the release of the grant application period (via news release; social media sites; email distribution lists; elected officials, nonprofit organizations,

**Table 2.3—Estimated Timing for SCW Grants and Partnerships**

Safe, Clean Water Projects		Fiscal Year (FY)														
		14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
A2	KPI #1: Water Conservation Grants	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆					
	KPI #2: Water to Go (Hydration Station) Grants	◆	◆	◆		◆										
	KPI #3: Nitrate Treatment System Rebates	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆					
B3	Pollution Prevention	◆		◆		◆		◆		◆		◆		◆		
B7	Support Volunteer Efforts	◆				◆	◆		◆		◆		◆		◆	
D3	Restore Wildlife Habitats	◆		◆		◆		◆		◆		◆		◆		
	Provide Access to Trails		◆			◆	◆		◆		◆		◆		◆	
	Mini-Grants					◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	

**Table 2.3** outlines the estimated timing for the implementation of the grants and partnerships.

- past grantees, and other key stakeholders; direct outreach into the communities; announcements at tabling and booth events, among other outreach efforts). Ongoing outreach happens throughout the application period. *(Length of time: 2 months)*
- 2. Host pre-proposal workshops during application period to allow applicants to get questions answered about potential projects from technical staff who are subject matter experts. Applications are accepted online via grants management system.
- 3. Application closes for review period. Review panel accesses submitted applications online and evaluates individually. Panelists convene together to discuss as a group the proposed projects to provide a comprehensive

overview. *(Length of time: 1.5 months)*

- 4. Grants program staff finalizes funding recommendations and presents to the Board of Directors for approval. *(Length of time: 1 month)*
- 5. Grants program staff works with the Office of District Counsel and grantees to execute grant agreements to commence grant-funded projects. *(Length of time: 1 month)*

**Capital Program Services Project Close-Out Process**

Per the Valley Water’s Quality and Environmental Management System (QEMS) procedures, as developed by the Asset Management Unit, at the completion of project construction, staff prepare

a Close-Out checklist to ensure the successful transition of the project to the maintenance and operations functions. The following are conducted at the final close-out phase:

1. Conduct Lessons Learned meeting with design, construction, environmental planner and Operations & Maintenance staff.
2. Meet with the Project Owner (Capital or Watershed deputy) to review lessons learned and conduct Customer Satisfaction Survey.
3. Deliver signed As-Built drawings to Records Management.
4. Prepare Construction-to-Operation Transition Report to transfer project knowledge to Operations & Maintenance staff for conducting routine maintenance per Operations & Maintenance Manual for the project.

3. Engage community stakeholders in the planning and delivery of each Safe, Clean Water project
4. Establish common themes, visual identity and language to portray the Program

The communications strategy outlines the staff roles; principles of public participation; best practices; Safe, Clean Water Program outreach; strategies and tools; editorial style guide; boilerplate language; audiences/stakeholders; and measurement and evaluation.

The graphic style guide outlines a visual standard for the Program typography, colors, priority icons and banners, informational materials and signage.

## **Communications and Public Outreach**

The success of the Safe, Clean Water ballot measure in November 2012 is in part attributed to Valley Water's engagement with the community. As the Safe, Clean Water Program moves into its second 5 years, it continues with a communication strategy to share the Program progress and milestones with the community to ensure engagement and clarity of messages. As outlined in the communications strategy document, the goals for the Safe, Clean Water Program communications strategy are the following:

1. Convey that Valley Water is delivering on its Safe, Clean Water commitments
2. Maximize opportunities to build awareness and recognition of Safe, Clean Water projects and accomplishments

# Roles and Responsibilities

## Valley Water Board of Directors

As described in the original Program Report, Valley Water's Board of Directors are the leaders and decision makers for the Safe, Clean Water and Natural Flood Protection Program (Safe, Clean Water). The values of the Valley Water Board are reflected in its policies that set the direction for all Valley Water activities, including this 5-Year Plan. Valley Water Board will support its policies by accomplishing a detailed review of the performance, financial analyses and strategies of the Safe, Clean Water Program every year.

Valley Water Board of Directors provide direction on the following Program decisions in open, publicly-noticed meetings:

- Adjustments to the Program through the Change Control Process
- If/when a project proceeds without federal funding when the local-funding-only option has become a more viable choice through the Flood Protection Project KPI Selection Process
- Implementation of recommendations made by the Independent Monitoring Committee
- Implementation of recommendations and findings provided by the independent performance audits
- Project budgets and budget adjustments through the annual Valley Water budget process
- Capital flood protection project budgets and schedules through the annual CIP process
- Finalization of each Program annual report
- Finalization of each 5-Year Implementation Plan
- Approval of specific selection criteria for each grant and partnership project
- Approval of minimum cost-share requirements for grantees and partners



Modifications, including non-implementation, require a formal public hearing as outlined in the Change Control Process.

The Board will perform a detailed review of the performance, financial analyses and strategies of the Safe, Clean Water Program each year using Valley Water’s annual budget documents and Safe, Clean Water annual reports prepared by Valley Water staff. The Board also initiates at least 2 professional, independent audits during the 15-year Program to ensure accountability.

During the first year of the Safe, Clean Water Program, the Board adopted a Resolution to form the Independent Monitoring Committee (IMC). The Resolution outlines the structure, composition and specific roles and responsibilities of this external committee. The Board appointed members to the IMC in accordance with the signed Resolution.

For more information about the Board of Directors, visit [valleywater.org](http://valleywater.org).

## Independent Monitoring Committee (IMC)

As described in the original Program Report, Valley Water Board developed the IMC to ensure transparency and accountability. The Board appointed volunteers external to Valley Water who provide an independent voice in tracking progress during the duration of the Safe, Clean Water Program. The IMC analyzes annual reports prepared by Valley Water staff and conducts annual audits of the Safe, Clean Water Program. The IMC also produces its own annual report to track Program implementation and results, and provide this information to the Board for its review.

In the first 5 years, the IMC established their role of conducting annual audits by analyzing the annual reports and writing their own report and recommendations for the Program. The IMC

presents the findings from their annual review to the Board each year for consideration. The original Program Report specifies that the IMC may recommend modifications to the Program at the fifth and tenth anniversaries. However, in practice, the IMC may, at any time, recommend adjustments or modifications to the projects that might be necessary to meet performance goals. Valley Water budgets for the IMC’s administrative support and annual reports. All IMC reports are available at [valleywater.org](http://valleywater.org).

Each year, the IMC determines how it will conduct its annual review and sets its meeting schedule. The IMC conducts its meetings in accordance with the provisions of the Brown Act (Open Meetings Law), in which all meetings are publicly-noticed, open to the public, and provide an opportunity for public comments.

## Valley Water Staff

Valley Water staff are responsible for planning Program implementation, executing the projects to meet pre-established KPIs, tracking and reporting on Program progress, and supporting the work of the IMC.

This section describes the distribution of executive responsibility for key Program elements, including: implementing projects for the 5 Program Priorities A through E; completing Clean, Safe Creeks capital projects; developing and supporting the IMC; and performing financial analysis/reporting for the Program.

To address the independent performance audit recommendation, staff and project ownership assignments were reorganized and reallocated from the initial structure to align with the Program implementation needs to meet performance indicators. In FY17, Valley Water added new positions and continues to evaluate resource needs and allocate resources as required and where

funding permits. For example, in FY18, 1 full-time position was added to support Project B1: Impaired Water Bodies Improvement and Project B2: Interagency Urban Runoff Program. In FY19, 4 full-time positions were added to support stewardship projects, such as Project D4: Fish Habitat and Passage Improvement. The current organizational structure and associated staff responsibilities are outlined below.

### **Chief Executive Officer**

The Chief Executive Officer (CEO) has overall responsibility for implementing the Safe, Clean Water Program in an effective and efficient manner, and for communicating with the Board and the public regarding the Program. Any Program or project changes including shifting of funds or adjustments to schedules or KPIs would be approved by the CEO before being presented to the Board for their discussion and approval.

The CEO has designated staff to perform the work of the Program. Each project is assigned staff at multiple levels to ensure accountability as outlined below:

- **Primary Owner** – The primary owners are the Chief Operating Officers who oversee the project and direct a team of Deputy Operating/Administrative Officers (Deputies), project managers and designees. Each assigned Owner ensures that the project teams under their purview receive adequate resources to accomplish the work of the Program. The Owners also monitor progress and financial status of individual projects; prepare updates to the Board; oversee development of and recommend strategies toward efficient project accomplishment, and serve as the point person for annual reporting on all projects under their purview. The Owners are responsible for projects meeting their KPIs on time and on budget.

- **Assigned Deputy** – The assigned deputies are Deputies who directly report to the Chiefs, are individually responsible for specific elements of the Safe, Clean Water Program, and oversee the specific project managers and designees. The Deputies provide a direct management link for monitoring and support of project progress. This reporting structure also allows for crossover responsibilities, so that Deputies typically oversee projects in several priority areas.
- **Project Managers and Designees** – The project managers and designees run the day-to-day operations.

### **Office of Watersheds**

The Chief Operating Officer of Watersheds reports directly to the CEO and has primary responsibility for implementation of the Safe, Clean Water Program. The Watersheds Chief coordinates and facilitates Program implementation, monitoring and instituting operational changes as necessary to ensure that the goals of the Safe, Clean Water Program are accomplished. The Watersheds Chief manages a team of Deputies who are individually responsible for specific elements of the Program, including the Safe, Clean Water Implementation staff, as outlined below.

### **Watershed Stewardship & Planning**

- Project B1: Impaired Water Bodies Improvement
- Project B2: Interagency Urban Runoff Program
- Project C2: Emergency Response Upgrades
- Project D2: Revitalize Stream, Upland and Wetland Habitat
- Project D3, KPI #1: Stream Corridor Priority Plans

- Project D4, KPI #4 & #5: Fish Habitat Improvements
- Project D5: Ecological Data Collection and Analysis
- Project D8: South Bay Salt Ponds Restoration Partnership
- Project E3: Flood Risk Reduction Studies
- Project E4: Upper Penitencia Creek Flood Protection
- Coyote Creek Flood Protection

#### **Watersheds Operations & Maintenance**

- Project B4: Good Neighbor Program: Encampment Cleanup
- Project B6: Good Neighbor Program: Remove Graffiti and Litter
- Project D1: Management of Revegetation Projects
- Project E1: Vegetation Control and Sediment Removal for Flood Protection

#### **Watersheds Design & Construction**

- Project D4: Fish Habitat and Passage Improvement
- Project D6: Creek Restoration and Stabilization
- Project E5: San Francisquito Creek Flood Protection
- Project E7: San Francisco Bay Shoreline Protection
- Project E8: Upper Guadalupe River Flood Protection
- Permanente Creek Flood Protection
- Berryessa Creek Flood Protection

#### **Safe, Clean Water Implementation**

Staff work with all Program management and staff to coordinate and facilitate the Program reports and documents, and act as the designated staff liaisons to the IMC. The Safe, Clean Water Implementation staff roles include:

- Coordinate development of 5-Year Plans for the Program
- Coordinate development of annual reports for the Program
- Coordinate implementation of the Change Control Process and Flood Protection Project KPI Selection Process
- Provide administrative support to the IMC with meeting coordination, report development and other requests for information
- Coordinate strategic recommendations and plans for adjustments to the Program as necessary
- Provide Board updates and communication on Safe, Clean Water implementation
- Maintain the Program website and other informational materials

#### **Office of Water Utility**

The Chief Operating Officer of Water Utility reports directly to the CEO and manages a team of Deputies who are individually responsible for specific elements of the Program as outlined below.

#### **Water Utility Capital**

- Project A1: Main Avenue and Madrone Pipelines Restoration
- Project A3: Pipeline Reliability Project
- Project C1: Anderson Dam Seismic Retrofit

- Project E6: Upper Llagas Creek Flood Protection
- Sunnyvale East and Sunnyvale West Channels Flood Protection

### **Raw Water Operations & Maintenance**

- Project D7: Partnerships for the Conservation of Habitat Lands

### **Water Supply**

- Project A2, KPI #3: Nitrate Treatment System Rebate Program

### **Office of Administration**

The Chief of Information Technology & Administrative Services reports directly to the CEO and manages a team of Deputies who are individually responsible for specific elements of the Program as outlined below.

#### **Security & Emergency Services**

- Project E2: Emergency Response Planning

#### **Human Resources & Office of Corporate Governance**

- Project B5: Hazardous Materials Management and Response

#### **Consultant Contracts Services**

Valley Water relies on contractors to perform/assist with many critical functions. To address an independent audit recommendation regarding delays and other inefficiencies in the procurement processes, Valley Water hired a consultant to conduct a 4-day workshop to identify process improvements. Following the workshop, Valley Water created a team focused on refining and implementing the improved process. The outcome of the process improvements is a shift from a transactional, customer self-service model to a customer service approach. The Consultant Contracts Services Group now drives the process from initiation to final agreement, with target timelines and defined roles and responsibilities for

project managers and Office of District Counsel.

### **Office of External Affairs**

In FY16, the Board created the Office of External Affairs and appointed the Chief Operating Officer of External Affairs to oversee Valley Water's Government Relations Unit and Communications Unit; as well as the newly created Civic Engagement Unit. The Chief Operating Officer of External Affairs reports directly to the CEO and manages a team of Deputies and Supervising Program Administrators who are individually responsible for specific elements of the Program as outlined below.

The independent performance audit recommended Valley Water ensure consistent stakeholder collaboration by establishing district-wide standards and adding stakeholder engagement steps to the project management process. As described in Valley Water's Management Response to the independent audit recommendation, the Office of External Affairs brings together the Government Relations Unit and the Communications Unit under the same Chief, which both aligned and bolstered both unit's abilities to engage stakeholders through increased communication, broadened outreach, and coordinated engagement strategies. Additionally, a designated communications representative is now assigned to coordinate and track the overall Program and project specific communications activities. This representative is in addition to the communications staff assigned to provide tailored community engagement support for each capital flood protection project.

#### **Government Relations**

This unit is responsible for advocacy at the local, state and federal levels for support for the overall Program and specific projects, including federal funding for the flood protection capital projects.

#### **Communications**

This unit is responsible for:

- Development and oversight of the Program’s communications strategy and graphic style guide
- Graphic services for all Program reports, documents and materials
- Community engagement and public outreach for the overall Program and project specific
- Media relations for the overall Program and project specific
- Posting Program materials to Valley Water website, including 5-Year Plans, Program annual reports, IMC reports and audits, and independent professional audits
- Outreach to publicize the exemption for low-income seniors program

### **Civic Engagement**

The creation of this unit addresses the independent audit recommendation to centralize and strengthen grants management by establishing a civic engagement role to manage volunteer sign ups, data and tracking, community engagement and materials for all projects. This unit is responsible for the following projects:

- Project A2, KPI #1: Water Conservation Grants
- Project A2, KPI #2: Water to Go (Hydration Station) Grant Program
- Project B3: Pollution Prevention Partnerships and Grants
- Project B7: Support Volunteer Cleanup Efforts and Education
- Project D3, KPI #2: Grants and Partnerships

to Restore Wildlife Habitat and Provide Access to Trails

- Clean, Safe Creeks Grants Projects

### **Financial Planning and Management Services Division**

The Chief Financial Officer reports directly to the CEO. This office has the responsibility for collection of the special tax through coordination with the County Tax Assessor’s Office. This office is also responsible for tracking revenues, expenditures and reserves, and for managing cash flows in compliance with the provisions of the Program. This office is responsible for providing the Program’s financial information for the annual report and 5-Year Plans; as well as preparing a written report for each fiscal year for which a special tax is to be levied and to file and record the same, all as required by governing law. The report includes the proposed special tax rates for the upcoming fiscal year. Typical responsibilities are listed below:

#### **County Tax Assessor’s Office Liaison**

- Establish and maintain financial controls to comply with the provisions of the Safe, Clean Water ballot measure
- Maintain current and accurate data on parcels subject to the special tax
- Coordinate with County to ensure tax rolls are correct
- Respond to inquiries regarding tax assessments
- Prepare annual report and annual tax rate setting resolution for Board approval

#### **Fund Management**

- Incorporate accounting of the special tax into Valley Water budgeting process
- Establish a unique special tax fund for tracking revenues and expenditures
- Manage cash flows to and from the special tax fund
- Develop and maintain long term forecasts to ensure financial sustainability of the Program
- Manage debt financing aspects of the Program
- Develop financial data (actual and projections) for incorporation into each fiscal year annual report

before the Board and Board actions in compliance with the Open Meeting Law of California

- Manage membership of the IMC

The Safe, Clean Water projects by Valley Water organizational structure is shown in Appendix G.

Safe, Clean Water and Natural Flood Protection

### **Continual Improvement**

The Continual Improvement Unit manages the independent professional audits of the Safe, Clean Water Program, as directed by the Board.

### **Office of District Counsel**

This office is responsible for reviewing the Program's implementation processes for compliance with all governing laws and ordinances.

### **Office of the Clerk of the Board**

This office is responsible for managing the formation and membership of the Independent Monitoring Committee (IMC). Typical responsibilities are listed below:

- Support formation of IMC including preparing IMC resolution and related Board agenda items
- Provide logistical support for all IMC meetings
- Ensure public access to items that will go

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## Section 4

# Financial Information

Program (Safe, Clean Water) including revenues, financing, expenditures, special tax rate structure, and details on the transition from the Clean, Safe Creeks Plan to the Safe, Clean Water Program. While the financial estimates in the original Safe, Clean Water Program Report were presented in 2012 dollars for the sake of simplicity, this 5-Year Plan presents financial information in terms of inflated dollars to reflect the reality of anticipated inflation. In other words, the financial analysis assumes that work done in the future will cost more than work done in the present due to anticipated higher prices for goods and services in the future.

Per the independent performance audit recommendation, Valley Water continues to use controls and processes for leveraging and collecting the special tax to adhere to the provisions of the Safe, Clean Water Program.

### Financial Highlights

#### Continuation of the Special Parcel Tax at Same Rate

The Safe, Clean Water Program is a continuation of the Clean, Safe Creeks special parcel tax. As a continuation, parcel taxes have continued to be assessed at the same rates (adjusted for the effects of inflation) as under the previous Clean, Safe Creeks Plan, which was replaced entirely by the new Program.

#### Consumer Price Index (CPI) Adjustment

To account for the effects of inflation, Valley Water Board of Directors may adjust the special tax amounts annually using the San Francisco-Oakland-San Jose Consumer Price Index for all Urban Consumers (CPI-U). Special tax amounts may be adjusted annually by the percentage increase in the year or years since April 30, 2013. However, in the event that the annual CPI-U increase is less than 3%, the annual increase for special tax rates

may be set at 3%.

#### Local Tax Cannot Be Taken by State

The Safe, Clean Water measure is a special parcel tax approved for specific, local purposes only. This means that the State of California cannot redirect these funds to fulfill its own financial obligations as it has in the past.

#### Built-In Sunset Clause

The Safe, Clean Water Program replaced the Clean, Safe Creeks Plan on July 1, 2013. The first revenue from the Safe, Clean Water special tax was received by Valley Water in January 2014. Like the previous Clean, Safe Creeks Plan, the new funding structure has a built-in sunset date, which means the tax will automatically end after 15 years on June 30, 2028.

#### Recovery of Flood or Other Natural Disaster Damage Repair Costs

Unanticipated disasters can cause significant damage to flood protection facilities and result in significant repair costs. For the purposes of the 15-year Program, unanticipated disasters are those that are declared disasters by the Governor of California or the President of the United States due to flooding or other natural disasters. Since these events do not occur frequently, the 15-year Program does not include funding to repair facility damage caused by disasters. As a result, in the event of an unanticipated disaster, the special tax rates shall be increased to meet the repair cost of Valley Water facilities damaged by flooding or other natural disasters, and the maximum tax rate shall be the percentage increase in CPI-U plus 4.5%, as necessary to cover the repair cost of Valley Water facilities. A special tax rate increase such as this can only be collected for 3 years after an unanticipated disaster has occurred.

#### Exemption for Low-Income Senior Citizens

Valley Water has continued to provide an

exemption from the special tax for residential properties owned by 1 or more persons over 65 years of age who occupy that property as their principal residence. In order to qualify, the applicant must be low income, own at least 50% of the property, and have attained age 65 before the end of the fiscal year in which the tax is due. The applicant must apply for the exemption each year. Low-income is defined as 75% of the state median total household income. The latest available data as of May 2018 indicates that the state median total household income level is \$67,739; “low income” would therefore be \$50,804.

Per the independent performance audit recommendation, Valley Water continues to use controls and processes for exempting low-income, owner-occupied residential properties from the special tax levied under the provisions of the Safe, Clean Water Program.

### Safe, Clean Water Programmatic Funding Sources

4 primary funding sources provide the resources to implement the projects under the Safe, Clean Water Program. They are the special parcel tax; starting reserves from unspent funds of the Clean, Safe Creeks Plan; state reimbursements; and interest earnings. Each source is discussed in greater detail below.

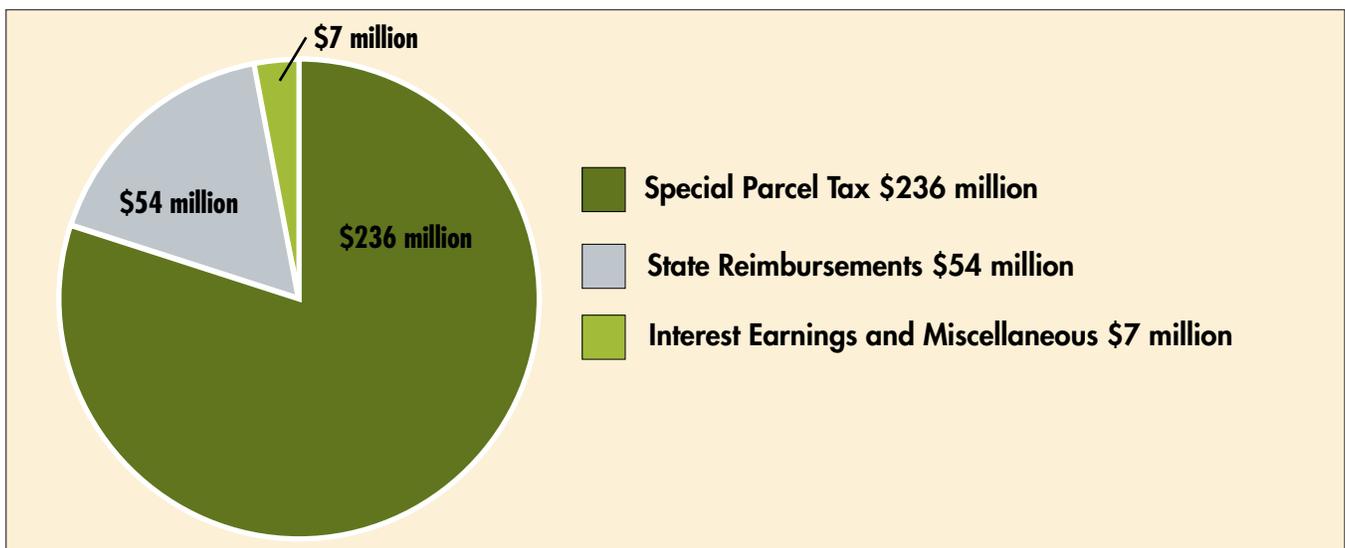
Over the 5-year period, total funding sources of \$297 million are anticipated. As illustrated in Chart 4.1 below, total funding comprises \$236 million from special parcel tax collections, \$54 million from state reimbursements, and \$7 million from interest earnings and miscellaneous sources.

### Special Parcel Tax Revenue

The primary source of revenue for the Safe, Clean Water Program is a special parcel tax. This is a local tax that can be used for any purpose approved by the voters, including capital projects, maintenance, and services that benefit the county as a whole—in other words, the entire Safe, Clean Water Program. Continuing the pre-existing special tax from the Clean, Safe Creeks Plan

**Chart 4.1: Funding Sources Second 5 Years (FY19-23)**

\$297 million 5-year estimated total



allows Valley Water to use the existing assessment formula to calculate tax amounts, and to use the existing database of property owners of record for collection. This results in a considerable cost savings by minimizing the administrative burden of initiating a new type of tax program.

The rate structure for calculating the proposed special tax is identical to the Clean, Safe Creeks structure that it replaces, and will be applied equitably and consistently throughout the county. Rates are based on land use and the size of each land parcel, which is directly related to stormwater runoff. The land use categories, their estimated stormwater runoff factors, and the special tax calculation formula are described in detail in Appendix C. Table 4.1 shows how the sixth year's parcel tax revenue would be assessed in FY18-19 by land use category based on the Santa Clara County tax roll.

Per the independent performance audit recommendation, Valley Water continues to use controls and processes for ensuring that the proceeds from the Safe, Clean Water Program special parcel tax are used for the Safe, Clean Water Program.

### **Beginning Clean, Safe Creeks Reserves**

The Clean, Safe Creeks Plan used pay-as-you-go financing, which means that funds were accumulated until sufficient monies became available to begin construction work. This financing structure avoided finance charges, but incurred project cost inflation while construction was deferred. Because the Safe, Clean Water Program replaced the Clean, Safe Creeks Plan in 2013—3 years before Clean, Safe Creek's original sunset date—it also picks up those accumulated reserves.

At the start of the Safe, Clean Water Program, approximately \$98 million was accumulated in reserves specifically to help satisfy Clean, Safe

Creeks commitments. Most of this accumulated amount was from set-aside revenue designated for capital project construction, and some was from efficiencies that saved money. These Clean, Safe Creeks reserve funds are being used to help construct and maintain the capital projects continued from the Clean, Safe Creeks Plan, which are described in Section 6. A portion of the reserve funds will also be available to support new Safe, Clean Water projects during the initial years.

### **State Reimbursements and Other Contributions**

The State Flood Control Subventions Program, administered by the California Department of Water Resources, provides financial reimbursements to local agencies (local sponsors) that construct federally authorized flood protection projects. The local sponsors are eligible to be reimbursed for the local share contribution for the rights-of-way and relocation costs for a federally authorized flood protection project.

Several capital projects in the Safe, Clean Water Program are eligible and have already begun to receive subvention monies. As such, state subventions related to Safe, Clean Water projects are a secondary revenue source in the Safe, Clean Water Program, with anticipated subventions estimated at \$62 million over the 15-year program (\$51 million of subventions in FY19-23). These subventions reimburse expenditures for the Upper Guadalupe River (\$24 million total, \$21 million for FY19-23), Upper Berryessa Creek (\$4 million total, \$4 million for FY19-23), and Upper Llagas Creek (\$34 million total, \$26 million for FY19-23) projects.

Valley Water also received a grant award from the Department of Water Resources (DWR) under Proposition 1E, Storm Water and Flood

**Table 4.1 – Estimated Special Parcel Tax Revenue for Property Tax Year 2018-19 by Land Use Category\***

Land Use		Acres	Parcel Count	Parcel Tax Assessment Revenue
Group A	Commercial and Industrial	32,097	19,451	\$14,013,157
Group B	Condominiums, Townhomes, Institutions, Apartments, Mobile Homes	14,751	94,935	\$6,708,954
Group C	Residential (Single Family to 4 Units)	97,344	351,692	\$22,833,394
Group D	Disturbed Urban, Vacant, Agriculture	63,647	10,250	\$420,530
Group E	Undisturbed Agriculture, Marsh, Ponds – Urban	196,955	1,984	\$85,613
	Undisturbed, Grazing, Brush, Forest – Rural	185,242	1,706	\$47,663
Group F	Well Site (Residential)	10	185	\$0
Assessment Override**		7,225	103	\$397,386
Exempt		168,127	20,460	\$0
S.C. County Collection Fee		-	-	(\$445,067)
TOTAL		765,398	500,766	\$44,061,630

\*Land use categories are described in Resolution No. 12-62, provided in Appendix D.

\*\*Assessment override values are corrections for parcels where actual land use differs from zoned land use.

**Table 4.1** shows how the parcel tax revenue would be assessed in fiscal year 2019 by land use category based on the Santa Clara County tax roll.

Management, for \$10 million in eligible funding to complete work on the Berryessa project. The project will construct improvements along the Berryessa Creek to provide flood protection to more than 1,100 homes, businesses, and public buildings, as well as improve stream habitat.

Reimbursements from local agencies, such as Morgan Hill and Mountain View, are estimated to be approximately \$2 million. The funds provided will help offset project expenditures for projects benefiting the respective jurisdictions.

Many Safe, Clean Water capital projects leverage local funding by partnering with the U.S. Army Corps of Engineers (USACE). USACE provides in-kind work such as planning, design and construction, but does not provide direct monetary contributions in the same way as the state subventions program; therefore, federal participation is not counted as revenue. Section 6 describes the projects that are federally authorized.

### **Interest Earnings and Miscellaneous**

Interest earnings are accumulated on funds waiting to be used. The amount accumulated is primarily earned on money waiting to be spent in the pay-as-you-go capital program financing method described below and is projected at \$5 million in FY 19-23. Miscellaneous sources include a \$2 million transfer from the Water Utility Enterprise fund anticipated in FY19 to reimburse the Safe, Clean Water Fund for a portion of the cost of the Main and Madrone Pipeline Restoration Project.

### **Additional Funding Sources**

Many of the Safe, Clean Water projects are only partially funded by revenue from this special parcel tax. There are other sources of funding that Valley Water uses to support these and many other projects and programs. Valley Water's Water Utility Enterprise (WUE) fund pays for a portion of several Safe, Clean Water activities in proportion to the

specific benefit to the Water Utility. For example, the Water Utility Enterprise Fund will pay for approximately 88% of the Anderson Dam Seismic Retrofit project (Project C1). Water Utility Enterprise Fund revenues include groundwater production charges, treated water charges, property taxes and interest earnings.

Valley Water's Watershed Stream Stewardship (WSS) fund also pays for a portion of many Safe, Clean Water activities. The main revenue sources for this fund are 1% ad valorem property taxes and subvention reimbursements. The funding for many flood control activities is shared between the Safe, Clean Water special parcel tax and the Watershed Stream Stewardship fund to provide a comprehensive flood protection program.

### **Pay-As-You-Go and Debt Financing for Capital Projects**

The Safe, Clean Water Program uses a combination of debt financing and pay-as-you-go funding to pay for capital projects. Debt financing is a way for Valley Water to borrow money up-front against the stream of revenue projected over the life of the Program. Approximately 12.8% of capital project costs are anticipated to be funded through debt financing via the issuance of Commercial Paper and/or Certificates of Participation (COPs).

Debt proceeds of \$30 million are planned for 2018, 2019 and 2021 for a total of \$90 million. Debt service of \$16.0 million is projected to be paid during FY19-23, and \$120 million over the life of the Program. Total debt service over the life of the Program is comprised of repaying the principal borrowed (\$90 million) and interest on the borrowed money (\$30 million), assuming an interest rate of 3.42% in FY19, 4.2% in FY20 and 5% from FY21-28. In addition, to free up more funds early in the Program, staff is working with Valley Water's financial advisor to construct a debt

service payment assumption where debt service payments are low in the early years and higher in the latter years. Appendix E is the preliminary debt amortization schedule that shows the assumed terms of the debt issuance and the timing and amounts of debt payments over the life of the Program. The actual terms of the debt issuance will be determined at a future date when the debt is issued and could be significantly different due to constantly changing capital market dynamics. In FY18, outstanding Valley Water debt obligations are rated AA+ by Fitch, Aa1 by Moody's and AA- by Standard & Poor's for water utility debt, and AA+, Aa1 and AA+ by Standard & Poor's, Moody's and Fitch respectively for Watershed debt.

This financing plan, combined with the revenue stream and carry-forward of the Clean, Safe Creeks reserves, will fully fund all Clean, Safe Creeks projects so that their commitments are met. Debt financing will also help fund Safe, Clean Water capital projects at the start of the Program, rather than waiting for reserves to build up.

## Funding Uses

The purpose of the Safe, Clean Water Program is to deliver capital projects and vital services to the residents of Santa Clara County. As mentioned earlier, the financial section of the original Safe, Clean Water Program document was presented in 2012 dollars, showing a total cost of \$720 million to meet the new Program's commitments. On an inflated basis, the original total Program cost was \$930 million. This includes adjusting for \$20 million of state subventions reimbursements for the Upper Llagas Creek project which were netted against the cost of the project in the original Program document. In other words, the \$20 million state subventions reimbursement is now reflected as revenue and the cost of the Upper Llagas Creek project is reported as \$20 million higher

accordingly.

The updated financial projection shows a total Program cost of \$954 million relative to the original \$930 million Program. The primary driver of that difference is an increase to undesignated funds driven by \$15.7 million of debt refunding proceeds. The updated projection can be grouped into: completion of Clean, Safe Creeks obligations (\$240 million), implementation of Safe, Clean Water priorities (\$640 million), planning and delivery (\$32 million), cost of debt financing (\$30 million), and undesignated contingency funds intended to offset unanticipated expenditures (\$12 million).

Since the Safe, Clean Water Program replaced the Clean, Safe Creeks Plan before its sunset date, the Program will fund completion of Clean, Safe Creeks commitments along with Safe, Clean Water projects. Remaining Clean, Safe Creeks commitments total \$240 million.

The 5 priorities in the Safe, Clean Water Program and their anticipated expenditures are summarized in Table 4.2. The table shows the original projections in 2012 dollars, and the same numbers projected with inflation. The table also provides the estimated costs for this 5-Year Plan.

## Planning and Delivery, Debt Financing Interest Expense, and Undesignated Contingency Funds

Planning and delivery costs and debt financing interest expense are part of the costs to deliver the Safe, Clean Water Program. Planning and delivery costs include capital project planning and delivery, special parcel tax revenue collection, and funding for at least 2 Program audits. Debt financing interest expense is the net cost of financing projects by borrowing money, as described earlier.

Undesignated contingency funds are monies set aside for unanticipated expenses. A lesson learned from the Clean, Safe Creeks Plan was that contingency funding is needed to cover the possibility of revenue shortages or unanticipated project changes and increased costs due to market fluctuations, etc.

Undesignated contingency funds are approximately \$12 million as of the writing of this document. This undesignated amount is roughly \$45 million lower than in the original plan primarily due to: (1) \$34 million increase to the estimated cost for the Upper Llagas Creek Flood Protection Project, and (2) \$22 million increase to the estimated cost for Berryessa Creek Flood Protection Project.

Ultimately any funding that is not utilized for voter approved Safe, Clean Water projects would be refunded to taxpayers.

### **Summary of Funding Sources and Uses**

As shown in Table 4.2, the Safe, Clean Water Program is balanced over the 15-year duration of the Program. The total funding sources of \$954 million are equal to the total funding uses. These funds will deliver the services and projects that Valley Water has committed to voters with passage of the November 2012 ballot measure to fund the Safe, Clean Water Program.

### **Compliance – Collecting and**

### **Tracking Revenue for the Safe, Clean Water Program**

Valley Water commissioned Moss Adams LLP to perform a compliance and performance audit of the original Clean, Safe Creeks Plan. Their report issued in June 2017 found that financial controls were in conformance such that:

1. The special tax was levied in accordance with the provisions of Measure B (2000).
2. Exemptions for low-income, owner-occupied residential properties were applied in accordance with the provisions of Measure B (2000).
3. The proceeds of the tax were used in accordance with the goals of the Program.

The financial controls continue to be in place to comply with the provisions of the new Safe, Clean Water measure.

**Table 4.2—Total Estimated Safe, Clean Water Funding Sources and Uses**

		Original 15-year estimated total in millions (2012 dollars)	Original 15-year estimated total in millions (inflated dollars)	15-year revised estimated total in millions (inflated dollars)	FY19-23 estimated total in millions (inflated dollars)
<b>Funding Sources</b>					
Special parcel tax revenue		\$548	\$723	\$715	\$236
Beginning Clean, Safe Creeks reserves		\$113	\$116	\$98	\$98
State reimbursements*		\$47	\$77	\$78	\$54
Interest and miscellaneous		\$12	\$14	\$64	\$7
<b>Total Funding Sources</b>		<b>\$720</b>	<b>\$930</b>	<b>\$954</b>	<b>\$395</b>
<b>Funding Uses</b>					
Priority A	Ensure a safe reliable water supply	\$15	\$24	\$31	\$14
Priority B	Reduce toxins, hazards and contaminants in our waterways	\$54	\$65	\$63	\$21
Priority C	Protect our water supply from earthquakes and natural disasters	\$48	\$70	\$69	\$2
Priority D	Restore wildlife habitat and provide open space	\$108	\$135	\$142	\$87
Priority E	Provide flood protection to homes, businesses, schools, and highways	\$201*	\$356	\$335	\$157
Subtotal		\$426	\$650	\$640	\$279
Planning and delivery		\$21	\$32	\$32	\$13
Debt financing**		\$21	\$43	\$30	(\$44)
Undesignated contingency		\$38	\$57	\$12	\$17
Cost of completing Clean, Safe Creeks Plan		\$214	\$148	\$240	\$77
<b>Total Funding Uses</b>		<b>\$720</b>	<b>\$930</b>	<b>\$954</b>	<b>\$342</b>

\*\$20 million of anticipated state subventions were netted against the Upper Llagas Creek project cost.

\*\*Cost of financing is the net of debt service less debt proceeds.

As shown in **Table 4.2**, the Safe, Clean Water program is balanced over the duration of the program.

# Monitoring and Oversight

This section describes reporting processes, annual reviews and independent performance audits that are performed to monitor and document progress toward completion of the Safe, Clean Water and Natural Flood Protection Program (Safe, Clean Water). All Safe, Clean Water Program reports and documents are accessible to the community at [valleywater.org](http://valleywater.org).

## Program Annual Reports

Staff prepare annual reports for each fiscal year of the Program, separate from the IMC reports described later in this section.

The staff-prepared annual report covers all projects and reports on project status based on established performance measures, trends and progress toward completion. The reports also discuss any challenges or opportunities that may affect the Program and include the status of anticipated federal and state funding. Staff annual reports are prepared following the close of each fiscal year of the Program in July, reflecting on the previous fiscal year.

Staff provides the draft annual report, with unaudited financials, to the Board for direction and approval in September and provides the final annual report with audited financials to the Board and IMC in November.

## Annual Rate-Setting Report

A separate rate-setting report is prepared for each fiscal year for which a special tax is to be levied, which will include the proposed special tax rates for the upcoming fiscal year. This report is provided to the Board prior to each fiscal year of the Program, and upon Board approval is filed and recorded as required by governing law.

## Independent Monitoring Committee

As a Board-appointed committee, the IMC provides external monitoring of the Program. With Valley Water-provided administrative support, the IMC conducts its own annual audit by reviewing annual reports prepared by Valley Water staff, and develops its own annual report regarding implementation of the intended results of the Safe, Clean Water Program. The IMC presents its annual report and recommendations to the Board for consideration for implementation.

All Board-approved IMC recommendations are incorporated into the Program each year and reflected in the 5-Year Plans. This process provides a foundation for transparency and accountability of the Safe, Clean Water Program by ensuring that the IMC makes independent reviews, findings and recommendations.

## Independent Professional Audits

To further assure Program accountability and transparency, the Board committed to conducting at least 2 independent professional audits of the Safe, Clean Water Program. Findings from the independent professional audits also inform the IMC as it reviews the Program and assesses or recommends potential modifications to the Board to meet performance goals. The audits may also make recommendations on the IMC role and the staff or IMC annual reports. The Board considers all findings and provides direction to staff as to any changes resulting from audit recommendations.

The first audit was conducted in FY17 and the audit recommendations are incorporated into this 5-Year Plan, as authorized by the Board.

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# Implementation: Fiscal Year 2019 Through Fiscal Year 2023

This section provides the 5-Year Plan for FY19-23 for each project in the Safe, Clean Water and Natural Flood Protection Program (Safe, Clean Water). Each project summary includes the project description, benefits, KPIs, summary of project's progress towards the previous 5-year targets, new 5-year targets which define the work to be achieved during the next 5 years of the Program, estimated funding, and how the 5-year targets will be measured. These targets are consistent with the Safe, Clean Water Program Report and ballot measure provided to the voters in 2012, and any subsequent adjustments or modifications approved by the Board through the Change Control Process.

The category of completion has been defined for each project and may include one or more of the following:

- Schedule-based: completed according to a timeline
- Performance-based: completion of a specific activity
- Fiscal-based: full allocation is expended to accomplish desired outcomes.

In the first 5 years (FY14-18), some projects were transitioned from the Clean, Safe Creeks Plan to the Safe, Clean Water Program. The Other Capital Flood Protection Projects and Clean, Safe Creeks Grants Projects outlines which projects were carried-forward under the new Program.

Appendix A provides a consolidated summary of all project KPIs, 5-year targets and funding projections.

Appendix B outlines the current schedule for each project, compared to the baseline 15-year estimated schedule provided to voters in 2012.

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5-Year Implementation Plan | FY2019 –2023

## Safe, Clean Water and Natural Flood Protection

### Priority A:

Ensure a safe, reliable  
water supply

Safe, Clean Water  
and Natural Flood Protection

# Priority A

## Ensure a Safe, Reliable Water Supply

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

### Project A1

Main Avenue and Madrone Pipeline Restoration

### Project A2

Safe, Clean Water Partnerships and Grants

### Project A3

Pipeline Reliability Project

## Project A1

### Main Avenue and Madrone Pipelines Restoration

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

#### Benefits

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

#### Key Performance Indicators (15-Year Program)

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

#### Geographic Area of Benefit

Countywide

#### Implementation

##### FY14-18 Summary

In FY14-18, Valley Water finalized the CEQA documentation (June 2017); finalized the design documents and advertised the project for construction (July 2017); awarded the construction contract (October 2017); and began construction (February 2018). The Board approved a schedule adjustment through the Change Control Process in FY16. The project is anticipated to be completed in FY19.

##### FY19-23 Targets

1. Restore transmission pipelines to full operating capacity of 37 cubic feet per second from Anderson Reservoir by end of FY19.
2. Restore ability to deliver 20 cubic feet per second to Madrone Channel by end of FY19.

**How will this be measured?**

- 1. Project completion.
- 2. Project completion.

**Completion Category**

Performance-based

**Funding**

<b>Project A1: Main Avenue and Madrone Pipelines Restoration (\$ Thousands)</b>				
	<b>FY14-18 Actuals</b>	<b>FY19-23 Projected</b>	<b>FY24-28 Projected</b>	<b>Current 15-Year Forecast</b>
Safe, Clean Water Fund	\$4,927	\$1,398	\$0	\$6,325
Water Utility Enterprise (Fund 61)	\$11,378	\$0	\$0	\$11,378
<b>Total</b>	\$16,305	\$1,398	\$0	\$17,703 <sup>1</sup>

<sup>1</sup> The original Safe, Clean Water Program funding level for Project A1 was set at \$5.4 million (2012 dollars). With the project scheduled for completion in FY19, the inflated amount of funding is \$6.3 million. The current 15-year forecast projects a total cost of \$17.7 million. The increase is a result of the addition of the design and construction of the connection to the Anderson Dam and other minor design changes. The Water Utility Enterprise Fund will cover the \$11.4 million remainder of the costs not covered by the Safe, Clean Water Program.

## Project A2

### Safe, Clean Water Partnerships and Grants

Grants and partnerships covered under this project include:

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

### Benefits

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

### Key Performance Indicators (15-Year Program)

1. Award up to \$1 million to test new conservation activities.
2. Increase number of schools in Santa Clara County in compliance with SB 1413 and the Healthy Hunger-Free Kids Act, regarding access to drinking water by awarding 100% of eligible grant requests for the installation of hydration stations; a maximum of 250 grants up to \$254,000.
3. Reduce number of private well water users exposed to nitrate above drinking water standards by awarding 100% of eligible rebate requests for the installation of nitrate removal systems; up to \$30,000 for all rebates.

### Geographic Area of Benefit

Countywide

## Implementation

### FY14-18 Summary

#### **KPI #1 - Water Conservation Grant Program**

The water conservation grant program exceeded the FY14-18 target of carrying out at least 3 grant cycles to test new conservation activities. 4 grant cycles were completed, awarding \$545,940 in grant funding to 13 applicants of the 37 grant applications received. Of the grants awarded, 3 grant projects were canceled and the funding (\$100,000) will be available in future application cycles. 3 grant projects were completed and final reports approved. The fifth grant cycle is underway in FY18.

#### **KPI #2 - Water to Go Grant Program**

The Water to Go (hydration station) grant program exceeded the FY14-18 target of awarding grants to up to 25 schools; and met and completed the program KPI in FY18. In FY14-18, 50 schools were awarded grants to install Water-to-Go stations through a partnership with First 5 Santa Clara County to administer the program. Each grant awarded was \$5,000 (\$250,000 total). The remaining funds were used to develop signage for the stations and conduct a survey to understand the outcomes of the program

#### **KPI #3 - Nitrate Treatment System Rebate Program**

The nitrate treatment system rebate program met the FY14-18 target of awarding 100% of eligible rebate requests. As of March 2018, 29 rebates totaling \$9,463 were awarded under this program. However, participation in this voluntary program continued to be very low despite modifying the program to increase incentives and expanding outreach. Per the IMC recommendation and Board approval, in FY18, this KPI was modified through the change control process to reduce the program funding level to include the funds spent to date to develop, administer and advertise the program, along with an annual amount of \$4,000 prospectively, which will be used for rebates throughout the project's completion date of 2023. The remaining project funds will be reallocated to another Safe, Clean Water project.

### FY19-23 Targets

1. Carry out at least 3 grant cycles to test new conservation activities.
2. KPI #2 completed.
3. Award up to 100% of eligible rebate requests subject to annual program budget for the installation of nitrate treatment systems.

#### **How will this be measured?**

1. Dollars awarded.
2. Not applicable.
3. Number of rebates awarded.

#### **Completion Category**

Fiscal-based

## Funding

<b>Project A2: Safe, Clean Water Partnerships and Grants (\$ Thousands)</b>				
	<b>FY14-18 Actuals</b>	<b>FY19-23 Projected</b>	<b>FY24-28 Projected</b>	<b>Current 15-Year Forecast</b>
Safe, Clean Water Fund	\$1,174	\$549	\$37	\$1,759
<b>Total</b>	\$1,174	\$549	\$37	\$1,759

## Project A3

### Pipeline Reliability Project

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

#### Benefits

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

#### Key Performance Indicator (15-Year Program)

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

#### Geographic Area of Benefit

Mountain View, Sunnyvale, Santa Clara, Cupertino, Saratoga, Los Gatos, Los Altos, Campbell, San José and Milpitas

#### Implementation

##### FY14-18 Summary

In FY14-18, no project activities were undertaken, since the project was scheduled to start in 2025. Per the IMC recommendations in FY16 and FY17, the Board approved a schedule adjustment through the change control process in FY17 to accelerate the project start date. The planning phase is scheduled to begin in FY19. Valley Water incorporated this work into the FY18-22 Capital Improvement Program.

##### FY19-23 Targets

1. Complete planning and design for the installation of 4 new line valves on treated water distribution pipelines. Line valve construction to be scheduled and coordinated to coincide with planned pipeline maintenance and rehabilitation work to minimize operational impacts.

##### How will this be measured?

1. Number of valves installed.

##### Completion Category

Performance-based

## Funding

<b>Project A3: Pipeline Reliability Project (\$ Thousands)</b>				
	<b>FY14-18 Actuals</b>	<b>FY19-23 Projected</b>	<b>FY24-28 Projected</b>	<b>Current 15-Year Forecast</b>
Safe, Clean Water Fund	\$0	\$11,589	\$0	\$11,589
<b>Total</b>	\$0	\$11,589	\$0	\$11,589



**Priority B:**  
Reduce toxins, hazards and  
contaminants in our waterways

**Safe, Clean Water  
and Natural Flood Protection**

# Priority B

## Reduce Toxins, Hazards and Contaminants in our Waterways

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

### **Project B1**

Impaired Water Bodies Improvement

### **Project B2**

Interagency Urban Runoff Program

### **Project B3**

Pollution Prevention Partnerships and Grants

### **Project B4**

Good Neighbor Program: Encampment Cleanup

### **Project B5**

Hazardous Materials Management and Response

### **Project B6**

Good Neighbor Program: Remove Graffiti and Litter

### **Project B7**

Support Volunteer Cleanup Efforts and Education

## Project B1

### Impaired Water Bodies Improvement

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

### Benefits

- Reduces contamination in creeks and reservoirs
- Improves water quality, including water going to drinking water treatment plants
- Reduces methylmercury in reservoirs to prevent its entry into the food web
- Improves ecosystem health by reducing mercury contamination in fish and other biota
- Supports regulatory compliance of TMDL standards affecting Valley Water operations

### Key Performance Indicators (15-Year program)

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

### Geographic Area of Benefit:

Countywide

### Implementation

#### FY14-18 Summary

#### **KPI#1: Operate and maintain existing treatment systems**

In FY14-18, Valley Water operated and maintained treatment systems in 4 reservoirs (Almaden, Calero, Guadalupe, and Stevens Creek) to remediate regulated contaminants. At this time, mercury is the only regulated contaminant in the 4 reservoirs. The treatment systems aim to reduce concentrations of nutrients in the water and mercury in fish and birds.

Additionally, Valley Water conducted water quality monitoring and fish sampling in each reservoir, addressed previous treatment system operational challenges, and achieved continuous operation during the summer months of 2016 and 2017. Valley Water studied the effectiveness of the treatment systems. Initial studies show a significant reduction in methylmercury in the hypolimnia of the reservoirs, however

methylmercury concentrations in the upper water column either increased or were unchanged. Only Guadalupe Reservoir exhibited a significant declining trend in fish tissue mercury concentrations and additional studies are needed to evaluate the factors that determine effectiveness of the systems.

**KPI #2: Prepare a prioritization plan**

In FY14-18, an initial Pollution Prevention Prioritization Plan (Plan) was drafted in 2015, updated in 2017, and will continue to be updated with new information such as regulatory actions and water quality data. Secondary criteria and ideas for projects will be further detailed prior to implementation. The Plan is also used for prioritizing pollution prevention activities for Project B2.

**KPI #3: Implement pollution prevention activities**

In FY14-18, Valley Water completed 2 pollution prevention and reduction activities that benefited 2 creeks (Guadalupe River and Coyote Creek). Pollution Prevention Activity #1 was trash accumulation point mapping and trash removal for the Guadalupe River. Pollution Prevention Activity #2 was trash reduction by preventing re-encampment of areas in both Coyote and Guadalupe by cost-sharing the activities of law enforcement personnel. Valley Water also initiated Pollution Prevention Activity #3, which is trash accumulation point mapping and trash removal for Coyote Creek in collaboration with the City of San Jose, and Pollution Prevention Activity #4, which is an angler survey of people fishing at mercury impaired water bodies and reservoirs. These activities are expected to be completed in FY19-23.

**FY19-23 Targets**

1. Operate and maintain treatment systems in 4 reservoirs (Almaden, Calero, Guadalupe, and Stevens Creek) to remediate regulated contaminants, including mercury.
2. Update the plan for prioritization of and implementation of pollution prevention and reduction activities in 10 creeks identified as impaired water bodies in Santa Clara County as needed.
3. Continue ongoing pollution prevention activities and implement at least 2 additional pollution prevention and reduction activities in 2 additional creeks.

**How will this be measured?**

1. Number of treatment systems operated and maintained.
2. Updates of plan as needed.
3. Number of pollution prevention and reduction activities implemented.

**Completion Category**

Performance-based

## Funding

<b>Project B1: Impaired Water Bodies Improvement (\$ Thousands)</b>				
	<b>FY14-18 Actuals</b>	<b>FY19-23 Projected</b>	<b>FY24-28 Projected</b>	<b>Current 15-Year Forecast</b>
Safe, Clean Water Fund	\$6,531	\$8,612	\$10,138	\$25,281
<b>Total</b>	\$6,531	\$8,612	\$10,138	\$25,281

## Project B2

### Interagency 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 programs that help Valley Water reduce stormwater pollution and meet regulatory requirements to reduce contaminants in surface water.

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

### Benefits

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

### Key Performance Indicators (15-Year Program)

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

### Geographic Area of Benefit

Countywide

### Implementation

#### FY14-18 Summary

#### **KPI #1: Install and operate trash capture devices**

In FY14-18, Valley Water installed 2 trash capture booms on Lower Silver Creek and on Thompson Creek in FY13-14 and has maintained the booms since installation. Additionally, Valley Water entered into an agreement with the City of Palo Alto to cooperate on trash booms for Adobe and Matadero Creeks. While the City of Palo Alto purchased the booms and is maintaining them, Valley Water ensured compliance with CEQA and permitting, and conducts regular inspections.

### **KPI #2: Maintain partnerships**

In FY14-18, Valley Water maintained multiple partnerships with all cities and the County to address surface water quality improvements. Valley Water is a member of the SCVURPPP, a partnership with Santa Clara County and 13 cities in the county to reduce pollution in urban runoff in creeks draining to San Francisco Bay. In July 2015, Valley Water renewed its agreement, and contributes 30% of SCVURPPP's funding each year to leverage resources and activities to achieve regulatory compliance and stewardship objectives. In December 2016, Valley Water was awarded a grant on behalf of SCVURPPP to develop a Stormwater Resource Plan for the Santa Clara County Basin. Valley Water also actively participates in the South County stormwater group, the Santa Clara County Technical Advisory Committee to the Recycling and Waste Reduction Commission, and the Bay Area Stormwater Management Agencies Association.

### **KPI #3: Support pollution prevention activities**

Valley Water completed 1 pollution prevention activity and made progress on a second pollution prevention activity. Pollution Prevention Activity #1 was to complete the South County Pajaro River Watershed Pathogen and Microbial Source Tracking Study to assist South County cities in identifying pathogen sources, which will help the cities develop strategies for targeted outreach and pollution prevention activities. Pollution Prevention Activity #2 is related to addressing nutrient impairment in the Pajaro River watershed.

### **FY19-23 Targets**

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

### **How will this be measured?**

1. Trash capture devices installed/operated.
2. Number of partnerships.
3. Number of pollution prevention activities.

### **Completion Category**

Performance-based

## Funding

<b>Project B2: Interagency Urban Runoff Program (\$ Thousands)</b>				
	<b>FY14-18 Actuals</b>	<b>FY19-23 Projected</b>	<b>FY24-28 Projected</b>	<b>Current 15-Year Forecast</b>
Safe, Clean Water Fund	\$3,257	\$3,873	\$4,633	\$11,762
Watershed Stream Stewardship (Fund 12)	\$4,659	\$5,516	\$6,598	\$16,773
Water Utility Enterprise (Fund 61)	\$1,982	\$2,347	\$2,381	\$6,710
<b>Total</b>	<b>\$9,898</b>	<b>\$11,736</b>	<b>\$13,611</b>	<b>\$35,246</b>

## Project B3

### Pollution Prevention Partnerships and Grants

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

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

#### Benefits

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

#### Key Performance Indicator (15-Year Program)

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

#### Geographic Area of Benefit

Countywide

#### Implementation

##### FY14-18 Summary

Valley Water met the FY14-18 targets for the program by developing competitive grant criteria related to preventing or removing pollution, providing 3 grant cycles (FY14, FY16, and FY18) and establishing 3 partnerships (FY14, FY15, and FY16). A total of \$1.8 million has been awarded in this program in FY14-18.

##### FY19-23 Targets

1. Provide 3 grant cycles and 2 partnerships that follow pre-established criteria related to pollution prevention.

**How will this be measured?**

- 1. Number of grant cycles and partnerships.

**Completion Category**

Performance-based

**Funding**

<b>Project B3: Pollution Prevention Partnerships and Grants (\$ Thousands)</b>				
	<b>FY14-18 Actuals</b>	<b>FY19-23 Projected</b>	<b>FY24-28 Projected</b>	<b>Current 15-Year Forecast</b>
Safe, Clean Water Fund	\$2,175	\$3,388	\$2,349	\$7,912
<b>Total</b>	\$2,175	\$3,388	\$2,349	\$7,912

## Project B4

### Good Neighbor Program: Encampment Cleanup

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

#### Benefits

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

#### Key Performance Indicator (15-Year Program)

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

#### Geographic Area of Benefit

Countywide

#### Implementation

##### ***FY14-18 Summary***

This project exceeded the FY14-18 targets and performed far more than 52 annual cleanups due to the increasing demand for Valley Water resources to address encampment cleanups along local waterways from cities and the community. These additional requests significantly impacted the project’s budget, and the allocated funding for this project will be expended in FY19. To address the funding needs for this project, the Board approved utilizing up to 90% of the net rental income from Watersheds Fund 12 Valley Water-owned residential rental properties to fund Project B4. To ensure the fiscal health of Fund 12, this is not scheduled to begin until FY20. The amount of funding transferred will be determined on an annual basis through FY28.

## **FY19-23 Targets**

1. Conduct 260 cleanups.\*

### **How will this be measured?**

1. Number of cleanups conducted

### **Completion Category**

Performance-based

\*An encampment consists of 1 or more structures occupied by an individual or family that is located illegally on Valley Water or other public property. An area where there are no structures, but where personal property is stored is also considered an encampment. A cleanup consists of the removal of trash and debris resulting from homeless encampments. Cleanups are conducted by Valley Water or Valley Water in coordination with other agencies.

## **Funding**

<b>Project B4: Good Neighbor Program: Encampment Cleanup (\$ Thousands)</b>				
	<b>FY14-18 Actuals</b>	<b>FY19-23 Projected</b>	<b>FY24-28 Projected</b>	<b>Current 15-Year Forecast</b>
Safe, Clean Water Fund	\$5,608	\$349 <sup>1</sup>	\$0 <sup>1</sup>	\$5,957
<b>Total</b>	\$5,608	\$349	\$0	\$5,957

<sup>1</sup> In FY19, the Homeless Encampment Ad Hoc Committee recommended and the Board approved a one-year operational approach and funding strategy pilot. In FY20, staff will report back to the committee and Board and receive direction on the long-term operational approach and funding plan for the project.

## Project B5

### Hazardous Materials Management and Response

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

#### Benefits

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

#### Key Performance Indicator (15-Year Program)

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

#### Geographic Area of Benefit

Countywide

#### Implementation

##### FY14-18 Summary

This project met the FY14-18 targets to respond to 100% of hazardous materials reports requiring urgent on-site inspection in 2 hours or less (e.g. sewage spill, vehicles in water bodies, etc.). Valley Water's Pollution Prevention Hotline received more than 500 calls from the public and Valley Water staff. Of the calls received, more than 150 were classified as "urgent" and received a field response within 2 hours of notification.

Starting in FY19, 2 new responders will be added to the Pollution Hotline team and lessons learned through a multi-agency training exercise will be implemented in future responses.

##### FY19-23 Targets

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

##### **How will this be measured?**

1. Percent of hazardous materials reports requiring urgent on-site inspection responded to in 2 hours or less.

##### **Completion Category**

Performance-based

## Funding

<b>Project B5: Hazardous Materials Management and Response (\$ Thousands)</b>				
	<b>FY14-18 Actuals</b>	<b>FY19-23 Projected</b>	<b>FY24-28 Projected</b>	<b>Current 15-Year Forecast</b>
Safe, Clean Water Fund	\$131	\$170	\$213	\$514
Watershed Stream Stewardship (Fund 12)	\$393	\$510	\$639	\$1,542
Water Utility Enterprise (Fund 61)	\$349	\$454	\$568	\$1,371
<b>Total</b>	<b>\$872</b>	<b>\$1,134</b>	<b>\$1,420</b>	<b>\$3,426</b>

## Project B6

### Good Neighbor Program: Remove Graffiti and Litter

This project allows Valley Water to continue responding to complaints about illegal dumping, trash and graffiti on Valley Water property and rights-of-way. Cleanup efforts include graffiti removal from headwalls, 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 sites to help reduce waterway pollution and keep creeks and riparian areas free of debris.

#### Benefits

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

#### Key Performance Indicators (15-Year Program)

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

#### Geographic Area of Benefit

Countywide

#### Implementation

##### FY14-18 Summary

This project met and exceeded the FY14-18 targets to conduct 20 cleanup events (4 per year) and respond to requests on litter or graffiti cleanup within 5 working days. Each cleanup event consists of cleaning all identified Hot Spot locations in each of the 5 zones (Lower Peninsula, West Valley, Guadalupe River, Coyote Creek and Pajaro River) once per quarter. 100% of requests were responded to within 5 working days, and 1.7 days on average. The use of a graffiti removal contractor was effective and will continue in FY19-23, because it allows Valley Water to focus on higher priority work.

##### FY19-23 Targets

1. Conduct 20 cleanup events (4 per year).
2. Respond to requests on litter or graffiti cleanup within 5 working days.

### How will this be measured?

1. Number of cleanup events conducted.
2. Percent of responses within 5 working days of request. Requests are responded to either verbally, in writing, or by e-mail.

### Completion Category

Performance-based

## Funding

<b>Project B6: Good Neighbor Program: Remove Graffiti and Litter (\$ Thousands)</b>				
	<b>FY14-18 Actuals</b>	<b>FY19-23 Projected</b>	<b>FY24-28 Projected</b>	<b>Current 15-Year Forecast</b>
Safe, Clean Water Fund	\$2,399	\$3,196	\$3,730	\$9,325
Watershed Stream Stewardship (Fund 12)	\$2,931	\$4,794	\$5,595	\$13,320
<b>Total</b>	\$5,329	\$7,990	\$9,326	\$22,645

## Project B7

### Support Volunteer Cleanup Efforts and Education

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

#### Benefits

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

#### Key Performance Indicators (15-Year Program)

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

#### Geographic Area of Benefit

Countywide

#### Implementation

##### FY14-18 Summary

##### **KPI #1: Grants and partnerships**

Valley Water met the FY14-18 target by developing competitive criteria related to cleanups, education and outreach, and stewardship activities; providing 2 grant cycles (FY14 and FY18); and establishing 1 partnership (FY18). A total of \$750,000 was awarded in this program in FY14-18.

##### **KPI #2: Creek cleanup volunteer programs**

Valley Water met the FY14-18 target by providing resources, including funding and staff time, for the 4 creek cleanup volunteer programs (National River Cleanup Day, California Coastal Cleanup Day, the Great American Pick Up, and Adopt-A-Creek). Valley Water continues to lead the efforts of the Creek Connections Action Group, a consortium of public agencies and non-profit organizations that share a goal of protecting Santa Clara County's waterways. These agencies include Valley Water, Santa Clara County Parks and Recreation, and the City of San José and various other city agencies.

##### FY19-23 Targets

1. Provide at least 2 grant cycles and 1 partnership.
2. Fund 4 annual creek cleanup volunteer programs.

**How will this be measured?**

1. Number of grant cycles and number of partnerships.
2. Number of annual programs funded.

**Completion Category**

Performance-based

**Funding**

<b>Project B7: Support Volunteer Cleanup Efforts and Education (\$ Thousands)</b>				
	<b>FY14-18 Actuals</b>	<b>FY19-23 Projected</b>	<b>FY24-28 Projected</b>	<b>Current 15-Year Forecast</b>
Safe, Clean Water Fund	\$929	\$978	\$737	\$2,643
Watershed Stream Stewardship (Fund 12)	\$251	\$800	\$603	\$1,654
<b>Total</b>	\$1,180	\$1,778	\$1,339	\$4,297

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5-Year Implementation Plan | FY2019 –2023

## Safe, Clean Water and Natural Flood Protection



### Priority C:

Protect our water supply from earthquakes and natural disasters

Safe, Clean Water  
and Natural Flood Protection

# Priority C

## Protect our Water Supply from Earthquakes and Natural Disasters

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

### Project C1

Anderson Dam Seismic Retrofit

### Project C2

Emergency Response Upgrades

## Project C1

### Anderson Dam Seismic Retrofit

Anderson Reservoir is currently limited to about 52% of its capacity due to seismic concerns, costing Santa Clara County valuable drinking water resources. This project covers earthquake retrofitting of Anderson Dam to improve reliability and safety, and returns the reservoir to its original storage capacity.

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

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

In December 2016, the Board was informed by Valley Water that findings from the geotechnical and geologic investigations performed during the project's design phase led to the conclusion that a more extensive dam retrofit than had originally been envisioned would have to be performed. Further, the Board was informed that the more extensive retrofit work would double the previous project's estimated cost. Valley Water presented the Board with a water supply cost-benefit analysis that showed the benefits of the more extensive retrofit project significantly outweighed the cost of not proceeding with the retrofit, which would require Valley Water to purchase additional imported water every year to make up for the loss of long-term storage at Anderson Reservoir. Based upon this information and analysis, the Board directed Valley Water to continue work on this critical infrastructure project.

### Benefits

- Brings the dam into compliance with today's seismic standards
- Increases reliability and safety of our area's largest reservoir by protecting it from earthquakes
- Eliminates operational restrictions issued by the state Department of Water Resources Division of Safety of Dams (DSOD) which would restore Anderson Reservoir to its full capacity of approximately 90,373 acre-feet, regaining 48% or about 43,500 acre-feet of water storage for our current and future water supply
- Ensures compliance with environmental laws requiring reservoir releases that maintain appropriate flows and temperatures to support downstream wildlife habitat
- Minimizes the risk of uncontrollable releases from the reservoir which could cause downstream flooding

### Key Performance Indicator (15-Year Program)

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

## Geographic Area of Benefit

Countywide

## Implementation

### FY14-18 Summary

This project met the FY14-18 target of providing \$14 million toward project completion. The Board approved adjusting the project schedule in FY16 to reflect the FY16 actual and FY28 planned fund transfers, rather than the project delivery schedule, to align with the project KPI.

### FY19-23 Targets

Not applicable. The final fund transfer is scheduled for FY28.

#### How will this be measured?

1. Not applicable.

#### Completion Category

Not applicable.

## Funding

<b>Project C1: Anderson Dam Seismic Retrofit (\$ Thousands)</b>				
	<b>FY14-18 Actuals</b>	<b>FY19-23 Projected</b>	<b>FY24-28 Projected</b>	<b>Current 15-Year Forecast</b>
Safe, Clean Water Fund	\$14,000	\$0	\$52,053	\$66,053 <sup>1</sup>
Water Utility Enterprise (Fund 61)	\$27,216	\$430,352	\$1,458	\$459,027
<b>Total</b>	\$41,216	\$430,352	\$53,511	\$525,080 <sup>2</sup>

<sup>1</sup> The total Safe, Clean Water Program funding level for this project was presented in 2012 dollars at \$45 million; however, this amount is subject to inflation and the current projection is shown.

<sup>2</sup> This total does not include expenditures prior to FY14.

## Project C2

### Emergency Response Upgrades

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

#### Benefits

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

#### Key Performance Indicator (15-Year Program)

1. Map, install, and maintain gauging stations and computer software on 7 flood-prone reaches to generate and disseminate flood warnings.

#### Geographic Area of Benefit

Countywide

#### Implementation

##### ***FY14-18 Summary***

This project met and exceeded the FY14-18 target of mapping, installing and maintaining gauging stations and computer software on 3 flood-prone reaches to generate and disseminate flood warnings. The project established 5 operational flood forecast locations at San Francisquito, Ross, Guadalupe, West Little Llagas, and Uvas creeks. In conjunction with the City of San José and the National Weather Service, Valley Water decided not to establish a forecast point at Coyote Creek and instead rely on the National Weather Service forecast point, rather than duplicate the forecast point and cause confusion. Additionally, the project improved computer software, modeling techniques, overall system architecture, and created a website to allow partners in local government and emergency operations to sign up to receive alerts via text and email.

**FY19-23 Targets**

1. Map, install, and maintain gauging stations and computer software on 7 flood-prone reaches to generate and disseminate flood warnings.

**How will this be measured?**

1. Establish flood forecast systems on 7 flood-prone reaches.

**Completion Category**

Performance-based

**Funding**

<b>Project C2: Emergency Response Upgrades (\$ Thousands)</b>				
	<b>FY14-18 Actuals</b>	<b>FY19-23 Projected</b>	<b>FY24-28 Projected</b>	<b>Current 15-Year Forecast</b>
Safe, Clean Water Fund	\$1,538	\$1,668	\$190	\$3,396
<b>Total</b>	\$1,538	\$1,668	\$190	\$3,396

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5-Year Implementation Plan | FY2019 –2023

## Safe, Clean Water and Natural Flood Protection

### Priority D:

Restore wildlife habitat  
and provide open space

Safe, Clean Water  
and Natural Flood Protection

# Priority D

## Restore Wildlife Habitat and Provide Open Space

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

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

### Project D1

Management of Revegetation Projects

### Project D2

Revitalize Stream, Upland and Wetland Habitat

### Project D3

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

### Project D4

Fish Habitat and Passage Improvement

### Project D5

Ecological Data Collection and Analysis

### Project D6

Creek Restoration and Stabilization

### Project D7

Partnerships for the Conservation of Habitat Lands

### Project D8

South Bay Salt Ponds Restoration Partnership

## Project D1

### Management of Revegetation Projects

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

### Benefits

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

### Key Performance Indicator (15-Year Program)

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

### Geographic Area of Benefit

Countywide

### Implementation

#### FY14-18 Summary

This project met the KPI in all fiscal years except for FY14. In FY14, the KPI was not met due to increased maintenance on newly planted sites in drought conditions which led to the inability to properly maintain other revegetation sites. The KPI was met in all other fiscal years and the project is on target.

New mitigation sites may require weekly maintenance that tapers to 2-3 times a year as the sites mature. Eventually the mitigation sites will become mature and maintenance may lessen or not need to occur on an annual basis. Thus, the 300 acres identified in the KPI are “rolling acres” and will consist of mitigation sites in various stages on an annual basis.

### **FY19-23 Targets**

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

#### **How will this be measured?**

1. Number of acres of revegetation projects maintained annually.

#### **Completion Category**

Performance-based

### **Funding**

<b>Project D1: Management of Revegetation Projects (\$ Thousands)</b>				
	<b>FY14-18 Actuals</b>	<b>FY19-23 Projected</b>	<b>FY24-28 Projected</b>	<b>Current 15-Year Forecast</b>
Safe, Clean Water Fund	\$3,528	\$6,684	\$7,817	\$18,029
Watershed Stream Stewardship (Fund 12)	\$2,554	\$4,840	\$5,661	\$13,055
<b>Total</b>	\$6,081	\$11,524	\$13,478	\$31,084

## Project D2

### Revitalize Stream, Upland & Wetland Habitat

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

### Benefits

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

### Key Performance Indicators (15-Year Program)

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

### Geographic Area of Benefit

Countywide

### Implementation

#### FY14-18 Summary

#### **KPI #1: Revitalize acres**

The project met and exceeded the FY14-18 target by removing more than 14 acres of non-native and invasive plants, and promoting native plant revegetation. Successful native habitat revitalization is being evaluated and can take more than a year or 2. Additional control of non-native, invasive vegetation may be necessary at these locations. Valley Water developed prioritization criteria to determine the revitalization areas until the Stream Corridor Priority Plans (Project D3) are completed. Project D2 is well on its way to revitalizing at least 21 acres.

**KPI #2: Community partnerships**

The project exceeded the FY14-18 target of identifying potential community partnerships. Valley Water established 3 partnerships; California State Coastal Conservancy, Midpeninsula Regional Open Space District (MROSD) and the City of San José. Part of the more than 14 acres revitalized in FY14-18 noted for KPI #1, were 6 acres estimated to be revitalized by the MROSD. They are working to remove more acres beyond the 6 estimated mid-year, so the MROSD acres revitalized will be greater at the end of FY18. Valley Water is also working cooperatively with at least 10 partners on the Santa Clara County Wildlife Corridors Working Group.

**KPI #3: Develop plant palettes**

This project met and exceeded the FY14-18 target to develop at least 2 plant palettes for use on revegetation projects to support birds and other wildlife. Valley Water developed 5 native plant palettes that are available on the Project D2 website.

**FY19-23 Targets**

1. Revitalize at least 15 acres (including areas listed above), guided by Stream Corridor Priority Plan(s) when possible, through native plant revegetation, and removal of invasive exotic species.
2. Provide funding to revitalize at least 5 more acres and continue efforts needed to promote native habitat at the 6 acres noted above through community partnerships.
3. KPI #3 completed.

**How will this be measured?**

1. Number of acres revitalized.
2. Dollars provided for community partnerships.
3. Not applicable.

**Completion Category**

Performance-based

**Funding**

<b>Project D2: Revitalize Stream, Upland &amp; Wetland Habitat (\$ Thousands)</b>				
	<b>FY14-18 Actuals</b>	<b>FY19-23 Projected</b>	<b>FY24-28 Projected</b>	<b>Current 15-Year Forecast</b>
Safe, Clean Water Fund	\$1,793	\$8,085	\$9,272	\$19,150
<b>Total</b>	\$1,793	\$8,085	\$9,272	\$19,150

## Project D3

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

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

#### Benefits

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

#### Key Performance Indicators (15-Year Program)

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

#### Geographic Area of Benefit

Countywide

#### Implementation

##### FY14-18 Summary

##### **KPI #1: Stream Corridor Priority Plans (SCPPs)**

The project did not meet its FY14-18 target to develop 2 SCPPs. Work is being simultaneously conducted on Stevens Creek in the Lower Peninsula watershed, and on Upper Penitencia Creek in the Coyote Creek watershed to develop the first 2 SCPPs in collaboration with the Integrated Water Resources Master Plan (One Water). This follows a prioritization effort to select streams in each watershed on which to focus this effort. Current expectations are that the first 2 SCPPs will be completed in FY19.

**KPI #2: Grants and partnerships**

The project met and exceeded the FY14-18 target of developing grant criteria and providing 3 grant cycles. Valley Water provided 4 grant cycles (FY14, FY15, FY16, and FY18) and 2 partnerships (FY15). Nearly \$4.5 million was awarded in grants and partnerships.

**FY19-23 Targets**

1. Develop 4 Stream Corridor Priority Plans to prioritize stream restoration activities.
2. Provide 3 grant cycles and additional partnerships that follow pre-established criteria related to the creation or restoration of wetlands, riparian habitat and favorable stream conditions for fisheries and wildlife and providing new public access to trails.

**How will this be measured?**

1. Number of Stream Corridor Priority Plans developed.
2. Number of grant cycles and partnerships executed.

**Completion Category**

Performance-based and fiscal-based

**Funding**

<b>Project D3: Grants and Partnerships to Restore Wildlife Habitat and Provide Access to Trails (\$ Thousands)</b>				
	<b>FY14-18 Actuals</b>	<b>FY19-23 Projected</b>	<b>FY24-28 Projected</b>	<b>Current 15-Year Forecast</b>
Safe, Clean Water Fund	\$5,544	\$11,314	\$7,362	\$24,219
<b>Total</b>	\$5,544	\$11,314	\$7,362	\$24,219

## Project D4

### Fish Habitat and Passage Improvement

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

#### Benefits

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

#### Key Performance Indicators (15-Year Program)

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

#### Geographic Area of Benefit

Countywide

#### Implementation

##### FY14-18 Summary

##### **KPI #1: Planning and design for 2 creek/lake separations**

###### *Creek/Lake Separation Site 1: Almaden Lake*

In FY14-18, Valley Water worked on planning of the project, which is on target to be completed by February 2018. Valley Water is working with an environmental consultant to prepare the draft Environmental Impact Report (EIR), which is expected to be released in FY18 for public review. In FY19-23, Valley Water expects to complete design and submit permits to prepare for construction.

### *Creek/Lake Separation Site 2: Ogier Ponds*

In FY14-18, Valley Water and Santa Clara County Parks (SCC Parks) executed an agreement to work together, and in FY18, the agencies completed the Ogier Ponds Feasibility Project. As the land owner and manager, SCC Parks is a key project partner and decision maker regarding any changes to the physical and hydrologic conditions at the site. Valley Water's Board of Directors and the County Board of Supervisors will determine if the project will move into the planning phase.

#### **KPI #2: Construct 1 creek/lake separation project**

The Board has not yet selected which of the 2 projects identified in KPI #1 will receive construction funding from the Safe, Clean Water Program.

#### **KPI #3: Fish passage improvements**

In FY14-18, the project completed the Evelyn Road Fish Passage Improvement Project for \$1.4 million. Valley Water substantially completed design for the Bolsa Road Fish Passage Project on Uvas Creek and the City of San José continues work on the Coyote Creek Singleton Road Fish Passage Project (\$1 million Valley Water partnership with the City of San José for the fish barrier portion of the work) and continues to work with partner agencies on the environmental documents.

#### **KPI #4: Conduct study of steelhead streams**

The program is studying steelhead streams in Santa Clara County in 2 phases to determine appropriate locations to place gravel and large-woody debris for maximum habitat benefit. In FY14-18, Phase 1 was initiated with the study of 8 steelhead creeks (Alamitos, Guadalupe, Los Gatos, Uvas, Upper Penitencia, Coyote and Stevens) and is expected to be completed in FY18. Phase 2 will commence upon the completion of the Phase 1 and will include the remaining steelhead creeks.

#### **KPI #5: Install large woody debris and/or gravel**

In FY14-18, 1 large woody debris placement project in Stevens Creek at Clearcreek Court was completed in FY16.

In FY17, the Board approved a schedule adjustment that extends the completion date for KPIs #3-5 to FY28. This is to allow sufficient time to complete the studies and implement the recommended improvements from the studies.

### **FY19-23 Targets**

1. Complete planning and design for 2 creek/lake separations.
2. Construct 1 creek/lake separation project in partnership with local agencies.
3. Use \$1.4 million for fish passage improvements.
4. Complete Phase 2 study of remaining steelhead streams in the county to identify priority locations for installation of large woody debris and gravel as appropriate.
5. Install large woody debris and/or gravel at a minimum of 2 sites.

#### **How will this be measured?**

1. Completion of planning and design for 2 creek/lake separations.

2. Award construction contract for creek/lake separation.
3. Dollars provided for fish passage improvements.
4. Number of studies completed.
5. Numbers of sites with large wood debris and/or gravel installed.

**Completion Category**

Performance-based

Fiscal-based for KPI #3

**Funding**

<b>Project D4: Fish Habitat and Passage Improvement (\$ Thousands)</b>				
	<b>FY14-18 Actuals</b>	<b>FY19-23 Projected</b>	<b>FY24-28 Projected</b>	<b>Current 15-Year Forecast</b>
Safe, Clean Water Fund	\$6,277	\$34,980	\$1,219	\$42,476
<b>Total</b>	\$6,277	\$34,980	\$1,219	\$42,476

## Project D5

### Ecological Data Collection and Analysis

This project creates a comprehensive watershed database that tracks stream ecosystem conditions to help Valley Water, other County agencies and organizations make informed watershed and asset management decisions. This new information would integrate and enhance Valley Water's stewardship actions through a standardized, repeatable and defensible approach that guides, organizes and integrates information on stream conditions.

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

### Benefits

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

### Key Performance Indicators (15-Year Program)

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

### Geographic Area of Benefit

Countywide

### Implementation

#### FY14-18 Summary

This project met the FY14-18 targets by completing 5 watershed assessments (Coyote Creek, Guadalupe, Pajaro (Uvas/Llagas), Lower Peninsula, and West Valley) with the San Francisco Estuary Institute (SFEI). Ecological Service Index (ESI) scores were generated for each of the 5 watersheds as well as selected streams, including Upper Penitencia, Pacheco, San Francisquito, Adobe, and Stevens-Permanente creeks.

### **FY19-23 Targets**

1. Establish new or track existing ecological levels of service for streams in 5 watersheds.
2. Reassess streams in at least 2 of the watersheds.

#### **How will this be measured?**

1. Number of watersheds with ecological levels of service established.
2. Number of watersheds reassessed for ecological levels of service.

#### **Completion Category**

Performance-based

## **Funding**

<b>Project D5: Ecological Data Collection and Analysis (\$ Thousands)</b>				
	<b>FY14-18 Actuals</b>	<b>FY19-23 Projected</b>	<b>FY24-28 Projected</b>	<b>Current 15-Year Forecast</b>
Safe, Clean Water Fund	\$2,088	\$4,468	\$2,586	\$9,142
Watershed Stream Stewardship (Fund 12)	\$1,048	\$2,201	\$1,274	\$4,522
<b>Total</b>	\$3,136	\$6,668	\$3,860	\$13,664

## Project D6

### Los Gatos Creek Restoration and Flood Protection Project

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

#### Benefits

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

#### Key Performance Indicator (15-Year Program)

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

#### Geographic Area of Benefit

Countywide

#### Implementation

##### ***FY14-18 Summary***

This project met the FY14-18 target by beginning 1 project, the Hale Creek Enhancement Pilot Project. The project's 60% design plans have been developed and are under review, and the project's California Environmental Quality Act (CEQA) process has begun. In coordination with the San Francisco Bay Regional Water Quality Control Board, a 650-foot section of currently concrete-lined channel on Hale Creek between Marilyn Drive and North Sunshine Drive is to be restored to provide enhanced geomorphic function. This pilot study will also test the viability of such restoration in confined residential locations.

In FY18, 2 other sites will be recommended for geomorphic restoration.<sup>1</sup>

##### ***FY19-23 Targets***

1. Complete planning for at minimum 2 sites for geomorphic restoration.
2. Complete design and CEQA process for 1 project.

<sup>1</sup>In FY19, the Board approved for two sites, namely the Bolsa Road Bridge Fish Passage Project and the Los Gatos Creek Restoration and Flood Protection Project. These sites constitute the remaining two geomorphic designed projects required to meet the KPI.

**How will this be measured?**

- 1. Complete planning for 2 sites for geomorphic restoration.
- 2. Complete 100% design/CEQA process for 1 project.

**Completion Category**

Performance-based

**Funding**

<b>Project D6: Creek Restoration and Stabilization (\$ Thousands)</b>				
	<b>FY14-18 Actuals</b>	<b>FY19-23 Projected</b>	<b>FY24-28 Projected</b>	<b>Current 15-Year Forecast</b>
Safe, Clean Water Fund	\$1,015	\$15,703	\$0	\$16,719
<b>Total</b>	\$1,015	\$15,703	\$0	\$16,719

## Project D7

### Partnerships for the Conservation of Habitat Lands

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

#### Benefits

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

#### Key Performance Indicator (15-Year Program)

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

#### Geographic Area of Benefit

Countywide

#### Implementation

##### FY14-18 Summary

In FY14-18, the project worked with partner agencies to establish criteria to identify partnerships; during this period no project funds were expended.

The Habitat Plan is a 50-year regional plan intended to protect endangered species and natural resources. It was adopted in 2013, by local participating agencies, including Valley Water, and 50-year permits were issued to those agencies by the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife.

The first few years of Habitat Plan implementation (FY13-16) focused on establishment of the Valley Habitat Agency (VHA) including financial and governance structures needed to set up the fee structure and land management foundation. During that period, more than 40 Valley Water projects, including dam, pipeline and recharge facility maintenance activities, were permitted. The streamlined incidental take authorization enabled these projects to be undertaken.

To fulfill the permit requirements, the VHA has been evaluating lands for acquisition as preserve areas and seeking partners. To assist in the evaluation of potential partnerships for land acquisition, at its December 2015 review, the Independent Monitoring Committee asked Valley Water to develop a decision-making process to that would ensure that the funding is linked to the Project D7 benefits.

The Draft Criteria for Allocation of Partnership Funding for the Conservation of Habitat Lands for Project D7 was presented to the Board of Directors on July 11, 2017. The Board authorized the Chief Executive Officer to negotiate a partnership agreement with the Valley Habitat Agency (VHA) to support the acquisition and management of preserve lands to support water supply strategies of Valley Water’s 2017 Water Supply Master Plan. In FY18, the completion of the agreements is expected and the first allocation of funding is anticipated.

**FY19-23 Targets**

1. Provide up to \$5 million for the acquisition of property for the conservation of habitat lands.

**How will this be measured?**

1. Dollars provided for the acquisition of property for the conservation of habitat lands.

**Completion Category**

Fiscal-based

**Funding**

<b>Project D7: Partnerships for the Conservation of Habitat Lands (\$ Thousands)</b>				
	<b>FY14-18 Actuals</b>	<b>FY19-23 Projected</b>	<b>FY24-28 Projected</b>	<b>Current 15-Year Forecast</b>
Safe, Clean Water Fund	\$0	\$5,000	\$3,000	\$8,000
Water Utility Enterprise (Fund 61)	\$12,175	\$20,067	\$23,622	\$55,864
<b>Total</b>	\$12,175	\$25,067	\$26,622	\$63,864

## Project D8

### South Bay Salt Ponds Restoration Partnership

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

#### Benefits

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

#### Key Performance Indicators (15-Year Program)

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

#### Geographic Area of Benefit

Countywide

#### Implementation

##### FY14-18 Summary

##### **KPI #1: Establish agreement with U.S. Fish and Wildlife Service (FWS)**

This project met and completed this KPI in FY14 by establishing an agreement between Valley Water and FWS to reuse sediment at the Alviso Complex to improve the success of Salt Pond restoration activities.

##### **KPI #2: Construct site improvements**

No site improvements were needed to transport and place sediment to Pond A8 at the Alviso Complex in FY14-18. Nevertheless, Valley Water deposited approximately 168,000 cubic yards (CY) from FY15 to FY17 on the Pond A8 levee to assist with constructing a gentle slope that will be a good substrate for marsh vegetation to grow on. In FY15, Valley Water assisted with repair work on the interior side of Pond A10 and A11 levee based on a request from the FWS.

In FY17, the Board approved a schedule adjustment to extend the project from FY17 to FY28, the duration of the Safe, Clean Water Program, to address the long-term need for sediment placement.

### **FY19-23 Targets**

1. KPI #1 completed.
2. Construct site improvements up to \$4 million to allow for transportation and placement of future sediment, as improvement opportunities are identified.

#### **How will this be measured?**

1. Not applicable.
2. Dollars provided for construction of site improvements.

#### **Completion Category**

Fiscal-based

### **Funding**

<b>Project D8: South Bay Salt Ponds Restoration Partnership (\$ Thousands)</b>				
	<b>FY14-18 Actuals</b>	<b>FY19-23 Projected</b>	<b>FY24-28 Projected</b>	<b>Current 15-Year Forecast</b>
Safe, Clean Water Fund	\$270	\$278	\$3,867	\$4,414
<b>Total</b>	\$270	\$278	\$3,867	\$4,414



**Priority E:**

Provide flood protection to homes, businesses, schools and highways

**Safe, Clean Water  
and Natural Flood Protection**

# Priority E

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

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

Flood protection capital projects are prioritized to protect the largest number of people, homes and businesses, as well as safeguard the highways, streets, public transportation and business centers that people depend on for their livelihoods. At every opportunity, Valley Water takes a multi-benefit approach to flood protection projects, which includes incorporating water quality, water supply, environmental stewardship, and recreational enhancement benefits.

All the construction projects under Priority E are undertaken in partnership with the federal government, and will require federal funding in addition to local funding to complete the preferred scope. Should federal funding become scarce, a reduced scope would be implemented, as described in the individual project summaries.

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

**Project E1**

Vegetation Control and Sediment Removal for Flood Protection

**Project E2**

Emergency Response Planning

**Project E3**

Flood Risk Reduction Studies

**Project E4**

Upper Penitencia Creek Flood Protection

**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

### Vegetation Control and Sediment Removal for Flood Protection

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

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

E1.1 Vegetation Control for Capacity

E1.2 Sediment Removal for Capacity

E1.3 Maintenance of Newly Improved Creeks

E1.4 Vegetation Management for Access

### Benefits

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

### Key Performance Indicators (15-Year Program)

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

### Geographic Area of Benefit

Countywide

## Implementation

### FY14-18 Summary

#### **KPI #1: Maintain improved channels at design capacity**

This project met the FY14-18 target of maintaining 90% of improved channels at design capacity. Improved channels are those channels where Valley Water has fee or easement land rights and which have been modified for flood protection purposes. This percentage is based upon identification of sediment and vegetation that compromise the flow conveyance capacity of channels. This identification occurs through routine maintenance inspections, following operations and maintenance manuals, and review of as-built plans and specifications. Maintaining improved channels at design capacity is defined as maintaining creeks such that when identified levels of service or triggers are reached, maintenance is performed. To comply with the 90% KPI, Valley Water strives to ensure that 90% of modified channels are maintained to levels below identified levels of service or triggers.

##### *E1.1 Vegetation Control for Capacity*

From FY14-17, this project completed 1,394 acres of in-stream vegetation management to reduce flood risk on streams throughout the county.

##### *E1.2 Sediment Removal for Capacity*

From FY14-17, this project removed 135,618 cubic yards (CY) of sediment to maintain design capacity.

##### *E1.3 Maintenance of Newly Improved Creeks*

As Safe, Clean Water flood protection capital improvement projects are completed and become “newly improved creeks,” these projects move into the maintenance phase. From FY14-18, no “newly improved creeks” were identified. The funds for this project remain as a placeholder for when the flood protection capital improvement projects are completed.

#### **KPI #2: Provide vegetation management along levee and maintenance roads**

##### *E1.4 Vegetation Management for Access*

This project is on track to meet the FY14-18 5-year target of providing vegetation management on a minimum of 2,040 acres along levee and maintenance roads. From FY14-17, Valley Water managed 1,786 acres, exceeding the 4-year target of 1,632 acres.

### FY19-23 Targets

1. Maintain 90% of improved channels at design capacity.
2. Provide vegetation management on a minimum of 2,040 acres along levee and maintenance roads.

#### **How will this be measured?**

1. Percent of improved channels maintained at design capacity each year.
2. Number of acres of vegetation management completed each year.

#### **Completion Category**

Performance-based

## Funding

<b>Project E1: Vegetation Control and Sediment Removal for Flood Protection (\$ Thousands)</b>				
	<b>FY14-18 Actuals</b>	<b>FY19-23 Projected</b>	<b>FY24-28 Projected</b>	<b>Current 15-Year Forecast</b>
Safe, Clean Water Fund	\$9,754	\$24,401	\$33,721	\$67,876
Watershed Stream Stewardship (Fund 12)	\$25,407	\$43,243	\$49,070	\$117,720
<b>Total</b>	\$35,162	\$67,644	\$82,791	\$185,596

## Project E2

### Emergency Response Planning

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

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

E2.1 Coordination with Local Municipalities on Flood Communication

E2.2 Flood-Fighting Action Plans

### Benefits

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

### Key Performance Indicators (15-Year Program)

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

### Geographic Area of Benefit

Countywide

### Implementation

#### FY14-18 Summary

This project met and exceeded the FY14-18 targets of coordinating with at least 1 agency to incorporate Valley Water-endorsed flood emergency procedures into its Emergency Operations Center plans, and completing at least 1 flood-fighting action plan.

#### **KPI #1: Coordinate with agencies**

In FY14-18, this project coordinated with multiple agencies. Valley Water hosted annual Winter Preparedness workshops for partner agencies to discuss emergency action responses for local creeks, and annual Community Rating Service meetings with local municipalities. Additionally, Valley Water

continued coordination with the Emergency Managers Association (EMA), and Operational Area Council, as well as participation at the Operational Area Signatories meetings and the San Francisquito Creek Joint Powers Authority emergency management committee and city manager’s meetings.

**KPI #2: Complete flood-fighting action plans**

In FY14-18, 2 flood-fighting action plans (Flood Emergency Action Plans) were completed for San Francisquito Creek (Lower Peninsula Watershed) and Coyote Creek (Guadalupe Watershed), and 1 plan was initiated for Canoas Creek (Guadalupe Watershed). Following the February 2017 storm event, the Canoas Creek plan was placed on hold to focus on the urgency of the Coyote Creek response. In collaboration with the City of San José (City), Valley Water helped draft and complete a Joint Emergency Action Plan that is owned by the City.

**FY19-23 Targets**

1. Coordinate with at least 1 municipality to develop flood-response procedures to increase awareness of Valley Water’s roles and responsibilities.
2. Complete at least 2 flood response procedures or action plans.

**How will this be measured?**

1. Number of municipalities with whom Valley Water coordinates the development of flood-response procedures.
2. Number of flood response procedures or action plans completed.

**Completion Category**

Performance-based

**Funding**

<b>Project E2: Emergency Response Planning (\$ Thousands)</b>				
	<b>FY14-18 Actuals</b>	<b>FY19-23 Projected</b>	<b>FY24-28 Projected</b>	<b>Current 15-Year Forecast</b>
Safe, Clean Water Fund	\$894	\$1,459	\$853	\$3,207
<b>Total</b>	\$894	\$1,459	\$853	\$3,207

## **Project E3**

### **Flood Risk Reduction Studies**

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

Studies will focus on the following reaches:

- Alamitos Creek upstream of Almaden Lake in San José
- Rock Springs neighborhood along Coyote Creek in San José
- Calera Creek near Milpitas High School to Interstate 680 in Milpitas
- Tributaries to Lower Silver Creek (Ruby, Norwood, Quimby and Fowler creeks) in San José
- Ross Creek in San Jose, from Guadalupe River to Blossom Hill Road
- Adobe and Barron Creeks in Palo Alto, between Highway 101 and Middlefield Rd.

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

### **Benefits**

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

### **Key Performance Indicators (15-Year Program)**

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

### **Geographic Area of Benefit**

Countywide

## Implementation

### FY14-18 Summary

Valley Water met and exceeded the FY14-18 targets to complete engineering studies on 2 creek reaches and to update floodplain maps on 1 creek reach to comply with updated Federal Emergency Management Agency (FEMA) standards.

#### **KPI #1: Complete engineering studies**

In FY14-18, Valley Water completed 3 engineering studies on Coyote Creek (Bay to Anderson Dam, including Rock Springs Neighborhood); Adobe and Barron Creeks tidal flood protection (Highway 101 to Middlefield Road); and Alamos Creek (upstream of Almaden Lake). Valley Water plans to complete the studies for the remaining 5 creek reaches by FY22.

#### **KPI #2: Update floodplain maps**

In FY14-18, Valley Water updated the floodplain map for 1 creek reach. As part of the Alamos Creek study in KPI #1, FEMA mapping procedures were applied to the floodplain modeling to update the floodplain map for Alamos Creek downstream of McKean Road in FY16.

### FY19-23 Targets

1. Complete engineering studies on at least 4 creek reaches to address 1% flood risk (Calera Creek from Milpitas High School to I-680, 2 or more tributaries of Lower Silver Creek, and Ross Creek from Guadalupe River to Blossom Hill Road).
2. Develop updated floodplain maps on 1 creek reach in accordance with new FEMA standards, if applicable (Calera Creek from Milpitas High School to I-680).

#### **How will this be measured?**

1. Number of flood risk engineering studies completed.
2. Number of updated floodplain maps created in accordance with new FEMA standards (if applicable).

#### **Completion Category**

Performance-based

## Funding

<b>Project E3: Flood Risk Reduction Studies (\$ Thousands)</b>				
	<b>FY14-18 Actuals</b>	<b>FY19-23 Projected</b>	<b>FY24-28 Projected</b>	<b>Current 15-Year Forecast</b>
Safe, Clean Water Fund	\$3,420	\$4,264	\$0	\$7,684
<b>Total</b>	\$3,420	\$4,264	\$0	\$7,684

## 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 Berryessa station near King Road, which would otherwise be subject to flooding.

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

The \$41.9 million (\$48.9 million in inflated dollars) in local funding from Safe, Clean Water allows Valley Water to move ahead with the planning, design and construction of the project.

## Benefits

- Preferred project provides 1% flood protection to approximately 5,000 homes, schools and businesses. Locally funded-only project provides 1% flood protection to the proposed rapid transit station and areas downstream from King Road
- Reduces sedimentation and maintenance requirements
- Improves water quality in Coyote Creek
- Provides opportunities for recreation improvements consistent with the City of San José and Santa Clara County Park master plans

## Key Performance Indicators (15-Year Program)

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

## Geographic Area of Benefit

San José and Milpitas

## Implementation

## **FY14-18 Summary**

In FY14-18, Valley Water aggressively pursued federal funding for the project. The U.S. Army Corps of Engineers (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 a local funding only project aimed at meeting multiple beneficial goals including water quality and providing opportunities for recreation improvements and habitat restoration.

In FY17, Valley Water partnered with the San Francisco Estuary Institute (SFEI) to conduct a landscape concept workshop to develop alternatives in line with the Integrated Water Resources planning effort (One Water). Valley Water continued to work on a full Vision Report with SFEI and streamline the planning process to finish the conceptual alternative phase in FY19.

In FY18, the Capital Improvement Program (CIP) committee recommended to modify the Upper Penitencia Creek project to the planning phase only and reallocate the remaining funds to allow Valley Water to complete flood risk reduction along 9 miles of Coyote Creek from Montague Expressway to Tully Road. However, the Board decided to take “no action” on the proposed modification to the Upper Penitencia Creek project and decided to reevaluate both projects after the planning study report for each project is completed or substantially advanced, which is expected in FY19.

## **FY19-23 Targets**

1. Complete the planning phase.
2. Complete the design phase.
3. Complete the CEQA process and obtain necessary permits.

### **How will this be measured?**

1. Completion of planning study report.
2. Completion of 100% plans, specifications and estimates.
3. Completion of EIR and signed permits.

### **Completion Category**

Performance-based

## Funding

<b>Project E4: Upper Penitencia Creek Flood Protection (\$ Thousands)</b>				
	<b>FY14-18 Actuals</b>	<b>FY19-23 Projected</b>	<b>FY24-28 Projected</b>	<b>Current 15-Year Forecast</b>
Safe, Clean Water Fund	\$0	\$46,387	\$1,229	\$47,616
Watershed Stream Stewardship (Fund 12)	\$2,919	\$526	\$0	\$3,445
<b>Total</b>	\$2,919	\$46,913	\$1,229	\$51,061

## Project E5

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

The 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). The project builds on the planning and design tasks initiated as part of the Clean, Safe Creeks plan.

#### Preferred project: A federal-state-local partnership

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

The work upstream of Highway 101 will remedy channel constrictions and modify bridges at Newell Road and Pope/Chaucer Street, and include; a combination of: modified bridges at University Avenue and Middlefield Road; upstream detention; under-ground bypass channels; and floodwalls.

#### Local-state-funding-only project:

The local-state-funding-only project will be the same as the preferred project downstream of Highway 101; but upstream of Highway 101, the project will remedy channel constrictions and modify bridges at Newell Road and Pope/Chaucer Street to allow the channel to contain flood waters equal to the channel's capacity of 7,000 cubic feet per second, approximately a 30-year event. Allowing this level of water to flow through the channel will protect approximately 3,000 parcels in Palo Alto from a flood event close to the February 1998 flood, the largest on record. Currently the channel can only convey a 1.5-year flood event.

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

## Benefits

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

## Key Performance Indicators (15-Year Program)

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

## Geographic Area of Benefit

Palo Alto

## Implementation

### ***FY14-18 Summary***

In FY14, the project was modified through the Change Control Process to align the level of flood protection for the local-state-funding only project to match the flood event close to the February 1998 flood, the largest on record. The Board approved a schedule adjustment through the Change Control Process in FY18.

### **San Francisco Bay to Highway 101 Project**

*Preferred project and local-state-funding only project*

In FY14-18, this project completed design, acquired all the necessary permits, and began construction in FY16. The project is on target to be completed in FY19.

### **Upstream of Highway 101 Project**

*Preferred project (federal-state-local funding project)*

This project continues to pursue federal partnership opportunities and work with the USACE in conjunction with the SFCJPA and its member agencies. In FY14-18, the USACE completed the economic analysis of the pre-project conditions, hydraulic modeling of alternatives and obtained an environmental consultant to prepare an Environmental Impact Statement (EIS) for the National Environmental Policy Act (NEPA) documentation. The USACE is preparing the Tentatively Selected Plan that is scheduled to be completed in FY18. Upon completion of the Tentatively Selected Plan, the SFCJPA will determine if the project will move forward with a federal partner.

### *Local-state-funding only project*

This project is in the planning and design phase. The SFCJPA obtained an environmental consultant to prepare the Environmental Impact Report (EIR) and the draft EIR is scheduled to be released in FY18.

- Channel constrictions: In FY14-18, the design document for channel constrictions upstream of Highway 101 was initiated and is being coordinated with the SFCJPA with expected completion in FY18.
- Newell Road Bridge: The City of Palo Alto is in the planning and design phases for the Newell Street bridge replacement project and expects to complete design in FY19.
- Pope/Chaucer Street Bridge: Valley Water continues work on the design document for the replacement of the Pope/Chaucer Street Bridge. The design document is expected to be completed in FY19.

### **FY19-23 Targets**

1. Provide 100-year flood protection from San Francisco Bay to Highway 101 with local funding.
2. Provide improved flood capacity between Pope/Chaucer Street and Highway 101 with local funding.

#### **How will this be measured?**

1. Completion of 100-year flood protection work from San Francisco Bay to Highway 101.
2. Completion of improved flood capacity between Pope/Chaucer Street and Highway 101.

#### **Completion Category**

Performance-based

### **Funding**

<b>Project E5: San Francisquito Creek Flood Protection (\$ Thousands)</b>				
	<b>FY14-18 Actuals</b>	<b>FY19-23 Projected</b>	<b>FY24-28 Projected</b>	<b>Current 15-Year Forecast</b>
Safe, Clean Water Fund	\$44,684	\$12,800	\$0	\$57,485
<b>Total</b>	\$44,684	\$12,800	\$0	\$57,485

## Project E6

### Upper Llagas Creek Flood Protection

### Buena Vista Avenue to Wright Avenue—Morgan Hill, San Martin, Gilroy

Preferred project: A federal-state-local partnership

This project continues a Clean, Safe Creeks project in partnership with the U.S. Army Corps of Engineers (USACE) and the state to plan, design, and construct improvements along 13.9 miles of channel. The project extends from Buena Vista Avenue to Wright Avenue, including West Little Llagas Creek in downtown Morgan Hill. The federally authorized preferred project protects the urban area of Morgan Hill from a 1% (or 100-year) flood, and reduces the frequency of flooding in surrounding areas. Construction includes channel modifications and replacement of road crossings. Valley Water continues to work with Congress to aggressively pursue federal funds to bring this project to full fruition. In 2012, project limits were extended 2,700 feet upstream to Llagas Road to address public concerns.

### Benefits

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

### Key Performance Indicators (15-Year Program)

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

### Geographic Area of Benefit

Morgan Hill, San Martin and Gilroy

## Implementation

### FY14-18 Summary

This project is being implemented in 2 phases. Phase 1 includes reaches 4, 5 (portion), and 7A (Buena Vista Avenue to Highway 101 in San Martin and from Monterey Road to Watsonville Road in Morgan Hill). Phase 1 also includes the construction of the project's compensatory mitigation component, the Lake Silveira wetlands. Phase 2 includes reaches 5 (portion), 6, 7B, 8 and 14 (Highway 101 to Monterey Road in San Martin, from Watsonville Road to Llagas Road in Morgan Hill, and from Sycamore Avenue to approximately Highway 101 in San Martin).

In FY14-18, this project completed the planning and is in the final design phase. The Board approved the Final Environmental Impact Report in June 2014. Phase 1 design work was completed and the final is pending receipt of permits. Phase 2 design work is 90% completed. The Federal Emergency Management Agency (FEMA) accepted the Conditional Letter of Map Revision in October 2016.

The project requires an estimated 146 property acquisitions to move forward with construction. Phase 1 requires 44 parcels, of which 42 parcels have been acquired with 2 parcels remaining. Phase 2 may require 102 parcels (which includes up to 33 temporary construction easements), of which 57 parcels have been acquired and 12 permanent acquisitions remain.

The project submitted and received permits from the California Department of Fish and Wildlife and the Regional Water Quality Control Board for Phase 1 and Phase 2. Valley Water submitted a 404(b) (1) permit application to USACE in June 2014. USACE Regulatory is in consultation with U.S. Fish and Wildlife Service, Environmental Protection Agency, and National Marine Fisheries Service. Valley Water is awaiting issuance of a final Environmental Impact Statement, followed by a USACE permit. Upon receipt, Valley Water will begin construction on Phase 1.

In FY16 and FY17, the Board approved schedule adjustments to this project through the Change Control Process.

### FY19-23 Targets

1. Continue to pursue federal and other funding sources.
2. Complete Phase 1 construction (Reach 4 and 7A) with 100-year protection for Reach 7A with local funding. Purchase all required Project Rights of Way. If State subvention reimbursements are received, a portion of Phase 2 may be constructed.

#### **How will this be measured?**

1. Amount of funding from federal and other sources received.
2. Completion of Phase 1 construction.

#### **Completion Category**

Performance-based

## Funding

<b>Project E6: Upper Llagas Creek Flood Protection (\$ Thousands)</b>				
	<b>FY14-18 Actuals</b>	<b>FY19-23 Projected</b>	<b>FY24-28 Projected</b>	<b>Current 15-Year Forecast</b>
Safe, Clean Water Fund	\$44,429	\$79,662	\$926	\$125,017
<b>Total</b>	\$44,429	\$79,662	\$926	\$125,017

## 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. Initial construction for flood protection is planned for Economic Impact Area (EIA) 11, which is the urban area of North San José and the community of Alviso.

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

### Benefits

- Protects more than 1,000 residential structures and 100 non-residential structures (EIA 11)
- Provides planning and design to protect nearly 4,700 acres and more than 5,000 structures, including roads, highways, parks, airports and sewage treatment plants in all of Santa Clara County
- Allows for the restoration of 2,900 acres of tidal marsh and related habitats (EIA 11)
- Provides educational, recreational and public access opportunities

### Key Performance Indicators (15-Year Program)

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

### Geographic Area of Benefit

Milpitas, Mountain View, Palo Alto, San José, Santa Clara and Sunnyvale

### Implementation

#### FY14-18 Summary

#### **KPI #1: Provide portion of the local share of funding for EIAs 1-10 (San Francisquito Creek to Guadalupe River)**

In FY14-18, Valley Water conducted and completed a preliminary feasibility study for EIAs 1-10 in March 2017 through a Department of Water Resources Grant. Valley Water is working with the South Bay Salt

Pond Project on planning efforts for EIAs 4, 5 and 10. The City of Sunnyvale requested Valley Water begin working with them on the planning efforts of EIAs 7, 8 and 9. Valley Water is waiting for federal funding from the USACE to examine if a next phase feasibility study effort can begin. Additionally, Valley Water continues to coordinate with other ongoing study efforts in the area, such as the South Bay Salt Pond Restoration Project, the SAFER Bay Project, and with the local cities.

**KPI #2: Provide portion of the local share of funding for EIA 11  
(Urban area of North San José/Alviso/San Jose-Santa Clara Regional Wastewater Facility)**

In FY14-18, Valley Water provided the local support of EIA 11 and this will be ongoing. The Chief's Report for EIA 11 was completed in December 2015. The design efforts for EIA 11 began in July 2016. Due to transitioning out of the USACE project manager, USACE did not procure design consultant until late 2016. Throughout calendar year 2017, the study partners engaged with the San Francisco Bay Regional Water Quality Control Board (RWQCB) and the Bay Conservation and Development Commission (BCDC) to secure project construction permits. In December 2017, the project received the Water Quality certification from the RWQCB and completed 90% design of Reach 1, the area from the Alviso Marina to the Union Pacific Railroad. In January 2018, the project received the Consistency Determination from BCDC. Reach 1 construction is anticipated to begin in June 2018 pending Federal new start construction and funding.

In FY17, the Board approved a schedule adjustment for the project through the Change Control Process.

**FY19-23 Targets**

1. Begin planning phase of other EIAs.
2. a. Continue providing local support of the design phase for EIA 11.  
b. Begin the construction phase for EIA 11.  
c. Pursue federal and other funding sources to complete construction of EIA 11.

**How will this be measured?**

1. Completion of the Corps' Chief's Report for other EIAs.
2. a. Completion of the design and contract documents for EIA 11.  
b. Awarding construction contract of EIA 11.  
c. Amount of funding from federal and other sources received.

**Completion Category**

Fiscal-based\*

\* Funding and in-kind labor is identified in the partnership agreement.

## Funding

<b>Project E7: San Francisco Bay Shoreline Protection (\$ Thousands)</b>				
	<b>FY14-18 Actuals</b>	<b>FY19-23 Projected</b>	<b>FY24-28 Projected</b>	<b>Current 15-Year Forecast</b>
Safe, Clean Water Fund	\$4,489	\$20,463	\$0	\$24,952
<b>Total</b>	\$4,489	\$20,463	\$0	\$24,952

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

### Benefits

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

### Key Performance Indicators (15-Year Program)

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

### Geographic Area of Benefit

San José

## **Implementation:**

### **FY14-18 Summary**

This project met and exceeded its FY14-18 targets of acquiring rights-of-way and relocating utilities for all reaches, and constructing flood protection improvements for Reach 10B, 12 and Reach 6. Reach 12 construction was completed in November 2015 and mitigation planting work will be completed by April 2018 by USACE. Reach 6 channel construction and the erosion repair for Island #10 was completed in September 2016 and Valley Water expects to complete the gravel augmentation project by FY20. Mitigation planting work for Reach 10B will be completed by April 2018 by the USACE.

For Reaches 7 and 8, the USACE completed 65% design documentation and is expected to finalize the 100% design by December 2019 with construction to begin in May 2020, pending availability of funds. Valley Water is on track to acquire rights-of-way for the project in accordance with USACE construction schedule.

Since USACE is currently focusing on completing design of Reaches 7 and 8, no design work was completed on Reaches 9, 10A, 10C, and 11. Valley Water is on track to acquire rights-of-way for Reach 9 in accordance with the USACE construction schedule.

In FY16, the Board approved a schedule adjustment for the project through the Change Control Process.

### **FY19-23 Targets**

1. Continue acquiring rights of way and relocating utilities for all reaches.
2. Construct Reaches 7 and 8 bypass channel, 2 vehicular bridges (Alma Ave. and Willow Street), and 2 rail road bridges.
3. Monitor and complete the establishment period for the mitigation planting in Reach 10B and 12.
4. Complete project design for Reaches 9, 10A, 10C, and 11.

#### **How will this be measured?**

1. All the required right-of-way will be acquired for Reaches 7 and 8 in accordance with the USACE construction schedule.
2. Completion of flood protection improvements in Reaches 7 and 8.
3. Completion of the establishment period for the mitigation planting in Reach 10B and 12.
4. Completion of project design for Reaches 9, 10A, 10C and 11.

#### **Completion Category**

Performance-based

## Funding

<b>Project E8: Upper Guadalupe River Flood Protection (\$ Thousands)</b>				
	<b>FY14-18 Actuals</b>	<b>FY19-23 Projected</b>	<b>FY24-28 Projected</b>	<b>Current 15-Year Forecast</b>
Safe, Clean Water Fund	\$34,491	\$59,677	\$0	\$94,168
<b>Total</b>	\$34,491	\$59,677	\$0	\$94,168

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

The Safe, Clean Water Program replaced the Clean, Safe Creeks Plan on July 1, 2013, as approved by the voters in November 2012.

In FY14-18, all Clean, Safe Creeks Plan projects that were carried forward were fully transitioned into the Safe, Clean Water Program. The transition included carrying forward reserves from the Clean, Safe Creeks Plan, allocations from the first 3 years of revenue under the Safe, Clean Water Program and a portion of the Safe, Clean Water debt proceeds, as described in Section 4. These allocations were incorporated into the Clean, Safe Creeks capital projects, which otherwise would have received local Clean, Safe Creeks Plan funding up until its sunset in 2016.

Tax payments collected for use by Valley Water under Clean, Safe Creeks are used to achieve similar or expanded programs under the Safe, Clean Water Program. Funds collected for capital projects under the Clean, Safe Creeks Plan are used under the Safe, Clean Water Program to meet the commitments of the Clean, Safe Creeks Plan. All other projects identified in the Clean, Safe Creeks Plan were replaced by comparable projects with similar or expanded obligations.

### **Permanente Creek Flood Protection**

San Francisco Bay to Foothill Expressway – Mountain View

### **Sunnyvale East and Sunnyvale West Channels Flood Protection**

San Francisco Bay to Inverness Way and Almanor Avenue – Sunnyvale

### **Berryessa Creek Flood Protection**

Calaveras Boulevard to Interstate 680 – Milpitas and San José

### **Coyote Creek Flood Protection**

Montague Expressway to Tully Road – San José

### **Calabazas Creek Flood Protection**

Miller Avenue to Wardell Road – Sunnyvale

### **Clean, Safe Creeks Grants Projects**

# Permanente Creek Flood Protection

This project will provide flood protection for thousands of homes and businesses in Mountain View and Los Altos, create recreational opportunities and enhance the environment. The project spans 10.6 miles of Permanente Creek, from San Francisco Bay’s southwest shoreline through Mountain View to Foothill Expressway in Los Altos. The project uses a natural flood protection approach to prevent potential flooding damages in excess of \$48 million (1999 value). The project includes multiple elements: channel improvements; flood detention area and recreational improvements at City of Mountain View’s McKelvey Park; and flood detention areas, recreational improvements and enhanced habitat at County of Santa Clara’s Rancho San Antonio Park.

## Benefits

- Provide flood protection to a minimum of 1,664 parcels (1,378 homes, 160 businesses and 4 schools/institutions) downstream of El Camino Real from a 1% (or 100-year) flood
- Prevent flooding of Middlefield Road and Central Expressway
- Minimize the future cost for maintenance
- Provide opportunities for environmental enhancements and trail extension

## Key Performance Indicator (15-Year Program)

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

## Geographic Area of Benefit

Mountain View and Los Altos

## Implementation

### FY14-18 Summary

In FY14-18, the project was delayed due to the acquisitions of permits from the regulatory agencies. Valley Water received the permits from the U.S. Army Corps of Engineers, U.S. Fish & Wildlife, California Department of Fish & Wildlife and the San Francisco Bay Regional Water Quality Control Board in FY17. The project completed final designs for all three major project elements and began construction of the project elements. All project elements are anticipated to be complete by 2019.

In FY16, the Board approved a schedule adjustment through the Change Control Process.

### FY19-23 Targets

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

**How will this be measured?**

- 1. Number of parcels protected from 1% flooding.

**Completion Category**

Performance-based

**Funding**

<b>Permanente Creek Flood Protection (\$ Thousands)</b>				
	<b>FY14-18 Actuals</b>	<b>FY19-23 Projected</b>	<b>FY24-28 Projected</b>	<b>Current 15-Year Forecast</b>
Safe, Clean Water Fund	\$66,457	\$4,841	\$0	\$71,297
<b>Total</b>	\$66,457	\$4,841	\$0	\$71,297

# Sunnyvale East and Sunnyvale West Channel Flood Protection

## San Francisco Bay to Inverness Way and Almanor Avenue—Sunnyvale

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

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

### Benefits

- Provides 1% flood capacity for approximately 6.5 miles of channel along Sunnyvale East and approximately 3 miles of channel along Sunnyvale West within the City of Sunnyvale, protecting 1,618 properties (Sunnyvale East) and 47 acres (11 properties) of industrial land (Sunnyvale West)
- Improves stream water quality, by providing erosion control measures to decrease sediment and turbidity
- Identifies opportunities to integrate recreation improvements with the City of Sunnyvale and others as appropriate

### Key Performance Indicator (15-Year Program)

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

### Geographic Area of Benefit

Sunnyvale

### Implementation

#### FY14-18 Summary

Valley Water submitted all the required permit applications in June 2017 to the various state and federal regulatory agencies and is currently in negotiations with these agencies to acquire the necessary permits. The project team 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 fall 2018, which would allow project construction to begin in 2019 and be complete in 2020.

Additionally, Valley Water is currently pursuing a partnership MOU agreement with Google, LLC for a design change along an approximately 1,100 linear feet of the Sunnyvale West Channel as part of their proposed site development for Google to construct a wider channel with in-channel mitigation opportunities by constructing larger setback levees without floodwalls, to enhance public access, and to possibly accelerate receipt of regulatory permits, while maintaining the Project objectives.

The project has been delayed due to the additional time needed to incorporate a potential design changes as a result of the potential Google partnership and continuing negotiations with the various regulatory agencies. The Board approved schedule adjustments for this project through the Change Control Process in FY16 and FY18.

***FY19-23 Targets***

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

**How will this be measured?**

1. Number of parcels protected from 1% flooding.

**Completion Category**

Performance-based

**Funding**

<b>Sunnyvale East and Sunnyvale West Channel Flood Protection (\$ Thousands)</b>				
	<b>FY14-18 Actuals</b>	<b>FY19-23 Projected</b>	<b>FY24-28 Projected</b>	<b>Current 15-Year Forecast</b>
Safe, Clean Water Fund	\$7,299	\$52,853	\$0	\$60,152
<b>Total</b>	\$7,299	\$52,853	\$0	\$60,152

# Berryessa Creek Flood Protection

## Calaveras Boulevard to Interstate 680—Milpitas and San José

This project is a partnership with the U.S. Army Corps of Engineers (USACE) to plan, design and construct flood improvements to protect homes in Milpitas and San José, as well as Silicon Valley’s commercial district, from a 1% (100-year) flood flow. The Bay Area Rapid Transit (BART) 10-mile extension project spans from Warm Springs Station in Fremont to the North San José Berryessa area. The new Milpitas Station is underground and is located in the Berryessa Creek floodplain. The Berryessa Creek project’s completion is critical to the BART extension’s planned operations.

### Benefits

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

### Key Performance Indicators (15-Year Program)

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

### Geographic Area of Benefit

Milpitas and San José

### Implementation

#### FY14-18 Summary

In FY14-18, USACE finalized the channel design and completed channel construction activities in 2017; Valley Water (as the local sponsor) acquired all required real estate and completed the necessary utility relocations; and the Santa Clara Valley Transportation Authority (VTA) began construction on the Montague Expressway Bridge Replacement, which is expected to be completed by December 2018. During channel construction, Native American human remains were discovered and the burial relocation was completed in 2017 under the supervision of the Most Likely Descendant (MLD) representative. The Board approved a schedule adjustment through the Change Control Process in FY16.

#### FY19-23 Targets

1. Complete the Montague Expressway Bridge Replacement.
2. Resolve or implement the additional 3 acres of mitigation planting required by the San Francisco Bay Regional Water Quality Control Board.
3. Relocate an underground electrical utility that PG&E was not able to relocate during construction.

**How will this be measured?**

- 1. Completion of the Montague Expressway Bridge Replacement.
- 2. Completion of mitigation planting.
- 3. Completion of PG&E electrical utility relocation.

**Completion Category**

Performance-based

**Funding**

<b>Berryessa Creek Flood Protection (\$ Thousands)</b>				
	<b>FY14-18 Actuals</b>	<b>FY19-23 Projected</b>	<b>FY24-28 Projected</b>	<b>Current 15-Year Forecast</b>
Safe, Clean Water Fund	\$31,346	\$15,776	\$0	\$47,122
<b>Total</b>	\$31,346	\$15,776	\$0	\$47,122

# Coyote Creek Flood Protection

## Montague Expressway to Tully Road—San José

The project is located in the central portion of the Coyote Watershed and extends approximately 9 miles between Montague Expressway and Tully Road in San José.

Preferred project: A federal-state-local partnership

The primary project objective is to reduce the risk of flooding to homes, schools, businesses, and highways in the Coyote Creek floodplain for floods up to the level of flooding that occurred on February 21, 2017, approximately a 20 to 25 year flood event, and includes planning, design, and project construction. Alternative funding sources, including federal funding, state grants, and additional local funding sources, are being explored and will need to be secured for full construction of the project.

Local funding only project:

The local funding only option includes identifying short-term flood relief solutions that are permissible and do not exacerbate flooding elsewhere, with implementation to begin prior to the 2017-2018 winter season. In addition, under the local funding only option, Valley Water will complete the planning and design phases of the preferred project, and identify prioritized elements of the project for construction with the remaining local funds.

### Benefits

- Implements short-term flood relief solutions
- Provides flood risk reduction for approximately 1,000 parcels from the level of flooding that occurred on February 21, 2017, approximately a 20 to 25 year flood event, when the entire project from Montague Expressway to Tully Road is constructed
- Improves water quality, enhances stream habitat and provides for recreational opportunities
- Incorporates revegetation and aesthetic elements of the Coyote Creek park chain in the project

### Key Performance Indicators (15-Year Program)

1. Preferred project with federal, state, and local funding: Secure alternative funding sources to construct a flood protection project that provides flood risk reduction from floods up to the level of flooding that occurred on February 21, 2017, approximately a 20 to 25 year flood event, between Montague Expressway and Tully Road.
2. With local funding only: (a) Identify short-term flood relief solutions and begin implementation prior to the 2017-2018 winter season; (b) Complete the planning and design phases of the preferred project; and (c) With any remaining funds, identify and construct prioritized elements of the preferred project.

### Geographic Area of Benefit

San José

## Implementation

### FY14-18 Summary

The project was put on hold in FY14-18 because the potentially feasible project alternatives to provide the 1% level of flood protection had projected costs ranging between \$500 million to \$1 billion and would depend significantly on additional funding. Additionally, Valley Water’s ability to provide the 1% level of protection depends on the outcome of various currently ongoing Valley Water projects, that can impact the flows into Coyote Creek.

Due to uncertainties about the results of these projects and their impacts to Coyote Creek Project design and associated permit acquisitions, and due to the lack of additional funding sources to construct the 1% project, the Board voted to modify the preferred project’s target protection to a level equivalent to the flooding that occurred on February 21, 2017, the worst event since Anderson Dam was constructed in 1950. The planning phase is now expected to be completed in 2022, the design phase is expected to be completed in 2024, and the construction phase is expected to be completed in 2026.

### FY19-23 Targets

1. Complete construction of flood protection project elements in the mid reach of Coyote Creek.

#### How will this be measured?

2. Completion of construction.

#### Completion Category

Performance-based

## Funding

<b>Coyote Creek Flood Protection (\$ Thousands)</b>				
	<b>FY14-18 Actuals</b>	<b>FY19-23 Projected</b>	<b>FY24-28 Projected</b>	<b>Current 15-Year Forecast</b>
Safe, Clean Water Fund	\$2,104	\$3,529	\$28,919	\$34,552
<b>Total</b>	\$2,104	\$3,529	\$28,919	\$34,552

# Calabazas Creek Flood Protection

## Miller Avenue to Wardell Road

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

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

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

### Benefits

- Provide flood protection on Calabazas Creek from Miller Avenue to Wardell Road
- Protect 2,483 parcels from 1% flooding
- Provide erosion protection measures to improve stream quality
- Identify environmental restoration and enhancement and recreational enhancements, where opportunities exist

### Key Performance Indicator (15-Year Program)

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

### Geographic Area of Benefit

Saratoga, San José and Cupertino

### Implementation

#### FY14-18 Summary

Project was completed in FY14.

## Funding

<b>Calabazas Creek Flood Protection (\$ Thousands)</b>				
	<b>FY14-18 Actuals</b>	<b>FY19-23 Projected</b>	<b>FY24-28 Projected</b>	<b>Current 15-Year Forecast</b>
Safe, Clean Water Fund	\$66	\$0	\$0	\$66
<b>Total</b>	\$66	\$0	\$0	\$66

# Clean, Safe Creeks Grants

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

## Benefits

These grant agreements address:

CSC Outcome 2.1: Pollution prevention

CSC Outcome 3.2: Healthy creek and bay ecosystems are protected, enhanced or restored as determined appropriate by the Board

CSC Outcome 4.1: There are additional open spaces, trails and parks along creeks and in the watersheds when reasonable and appropriate

## Key Performance Indicators (15-Year Program)

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

## Geographic Area of Benefit

Countywide

## Implementation

### **FY14-18 Summary**

In FY14-17, 15 of 22 grant projects were completed and closed. Of the remaining 7 projects, 2 projects were canceled, 3 projects are on schedule for completion by the end of 2017, and 2 projects were extended until the end of the calendar year for 2018. The Board approved a schedule adjustment through the Change Control Process in FY18.

### **FY19-23 Targets**

1. Complete and close all the grant projects.

#### **How will this be measured?**

1. Completion of the grant projects.

#### **Completion Category**

Performance-based

## Funding

<b>Clean, Safe Creeks Grants (\$ Thousands)</b>				
	<b>FY14-18 Actuals</b>	<b>FY19-23 Projected</b>	<b>FY24-28 Projected</b>	<b>Current 15-Year Forecast</b>
Safe, Clean Water Fund	\$3,554	(\$7,141)	\$0	\$3,547
<b>Total</b>	\$3,554	(\$7,141)	\$0	\$3,547

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# Appendices

## **Appendix A**

Program Summary: 15-Year Key Performance Indicators (KPIs), 5 Year Targets, and Funding Summaries

## **Appendix B**

Estimated Program Schedule

## **Appendix C**

Special Tax Rate Structure

## **Appendix D**

Election Resolution and Documents

## **Appendix E**

Preliminary Debt Amortization Schedule

## **Appendix F**

Countywide Map of Safe, Clean Water Projects

## **Appendix G**

Projects by Organization Structure

## **Appendix H**

Projects by Valley Water Mission Area

## **Appendix I**

Glossary

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# Appendix A: Program Summary

## (15-Year KPIs, 5-Year Targets & Funding Summaries in Inflated Dollars)

Project	Key Performance Indicators (KPI)	FY19-23 Targets	Safe, Clean Water Funding (\$ Thousands)				
			FY14-18 Actuals	FY19-23 Projected	FY24-28 Projected	Current 15-Year Forecast	
<b>Priority A: Ensure a Safe, Reliable Water Supply</b>							
<b>A1</b>	<b>Main Avenue and Madrone Pipelines Restoration</b>	<ol style="list-style-type: none"> <li>Restore transmission pipeline to full operating capacity of 37 cfs from Anderson Reservoir.</li> <li>Restore ability to deliver 20 cfs to Madrone Channel.</li> </ol>	<ol style="list-style-type: none"> <li>Restore transmission pipelines to full operating capacity of 37 cubic feet per second from Anderson Reservoir by end of FY19.</li> <li>Restore ability to deliver 20 cubic feet per second to Madrone Channel by end of FY19.</li> </ol>	\$16,305	\$1,398	\$0	\$17,703 <sup>1</sup>
<b>A2</b>	<b>Safe, Clean Water Partnerships and Grants</b>	<ol style="list-style-type: none"> <li>Award up to \$1 million to test new conservation activities.</li> <li>Increase number of schools in Santa Clara County in compliance with SB 1413 and the Healthy Hunger-Free Kids Act, regarding access to drinking water by awarding 100% of eligible grant requests for the installation of hydration stations; a maximum of 250 grants up to \$254,000.</li> <li>Reduce number of private well water users exposed to nitrate above drinking water standards by awarding 100% of eligible rebate requests for the installation of nitrate removal systems; up to \$30,000 for all rebates.</li> </ol>	<ol style="list-style-type: none"> <li>Carry out at least 3 grant cycles to test new conservation activities.</li> <li>KPI #2 completed.</li> <li>Award up to 100% of eligible rebate requests subject to annual program budget for the installation of nitrate treatment systems.</li> </ol>	\$1,174	\$549	\$37	\$1,759
<b>A3</b>	<b>Pipeline Reliability Project</b>	<ol style="list-style-type: none"> <li>Install 4 new line valves on treated water distribution pipelines.</li> </ol>	<ol style="list-style-type: none"> <li>Complete planning and design for the installation of 4 new line valves on treated water distribution pipelines. Line valve construction to be scheduled and coordinated to coincide with planned pipeline maintenance and rehabilitation work to minimize operational impacts.</li> </ol>	\$0	\$11,589	\$0	\$11,589

<sup>1</sup> The original Safe, Clean Water Program funding level for Project A1 was set at \$5.4 million (2012 dollars). With the project scheduled for completion in FY19, the inflated amount of funding is \$6.3 million. The current 15-year forecast projects a total cost of \$17.7 million. The increase is a result of the addition of the design and construction of the connection to the Anderson Dam and other minor design changes. The Water Utility Enterprise Fund will cover the \$11.4 million remainder of the costs not covered by the Safe, Clean Water Program.

Project	Key Performance Indicators (KPI)	FY19-23 Targets	Safe, Clean Water Funding (\$ Thousands)				
			FY14-18 Actuals	FY19-23 Projected	FY24-28 Projected	Current 15-Year Forecast	
<b>Priority B: Reduce Toxins, Hazards and Contaminants in our Waterways</b>							
<b>B1</b>	<b>Impaired Water Bodies Improvement</b>	<ol style="list-style-type: none"> <li>Operate and maintain existing treatment systems in 4 reservoirs to remediate regulated contaminants, including mercury.</li> <li>Prepare plan for the prioritization of pollution prevention and reduction activities.</li> <li>Implement priority pollution prevention and reduction activities identified in the plan in 10 creeks.</li> </ol>	<ol style="list-style-type: none"> <li>Operate and maintain treatment systems in 4 reservoirs (Almaden, Calero, Guadalupe, and Stevens Creek) to remediate regulated contaminants, including mercury.</li> <li>Update the plan for prioritization of and implementation of pollution prevention and reduction activities in 10 creeks identified as impaired water bodies in Santa Clara County as needed.</li> <li>Continue ongoing pollution prevention activities and implement at least 2 additional pollution prevention and reduction activities in 2 additional creeks.</li> </ol>	\$6,531	\$8,612	\$10,138	\$25,281
<b>B2</b>	<b>Interagency Urban Runoff Program</b>	<ol style="list-style-type: none"> <li>Install at least 2 and operate 4 trash capture devices at stormwater outfalls in Santa Clara County.</li> <li>Maintain partnerships with cities and County to address surface water quality improvements.</li> <li>Support 5 pollution prevention activities to improve surface water quality in Santa Clara County, either independently or collaboratively with South County organizations.</li> </ol>	<ol style="list-style-type: none"> <li>Operate 4 trash capture devices at storm water outfalls in Santa Clara County.</li> <li>Maintain at least 2 partnerships with cities and County to address surface water quality improvements.</li> <li>Complete 2 pollution prevention activities, including education and outreach, to improve surface water quality in Santa Clara County either independently or collaboratively with South County organizations.</li> </ol>	\$3,257	\$3,873	\$4,633	\$11,762
<b>B3</b>	<b>Pollution Prevention Partnerships and Grants</b>	<ol style="list-style-type: none"> <li>Provide 7 grant cycles and 5 partnerships that follow pre-established competitive criteria related to preventing or removing pollution.</li> </ol>	<ol style="list-style-type: none"> <li>Provide 3 grant cycles and 2 partnerships that follow pre-established criteria related to pollution prevention.</li> </ol>	\$2,175	\$3,388	\$2,349	\$7,912
<b>B4</b>	<b>Good Neighbor Program: Encampment Cleanup</b>	<ol style="list-style-type: none"> <li>Perform 52 annual cleanups for the duration of the Safe, Clean Water Program to reduce the amount of trash and pollutants entering the streams.</li> </ol>	<ol style="list-style-type: none"> <li>Conduct 260 cleanups.<sup>1</sup></li> </ol>	\$5,608	\$349 <sup>2</sup>	\$0 <sup>3</sup>	\$5,957
<b>B5</b>	<b>Hazardous Materials Management and Response</b>	<ol style="list-style-type: none"> <li>Respond to 100% of hazardous materials reports requiring urgent on-site inspection in 2 hours or less.</li> </ol>	<ol style="list-style-type: none"> <li>100% of hazardous materials reports requiring urgent on-site inspection responded to in 2 hours or less.</li> </ol>	\$131	\$170	\$213	\$514
<b>B6</b>	<b>Good Neighbor Program: Remove Graffiti and Litter</b>	<ol style="list-style-type: none"> <li>Conduct 60 cleanup events (4 per year).</li> <li>Respond to requests on litter or graffiti cleanup within 5 working days.</li> </ol>	<ol style="list-style-type: none"> <li>Conduct 20 cleanup events (4 per year).</li> <li>Respond to requests on litter or graffiti cleanup within 5 working days.</li> </ol>	\$2,399	\$3,196	\$3,730	\$9,325

<sup>1</sup> An encampment consists of 1 or more structures occupied by an individual or family that is located illegally on Valley Water or other public property. An area where there are no structures, but where personal property is stored is also considered an encampment. A cleanup consists of the removal of trash and debris resulting from encampments by Valley Water or by Valley Water in coordination with other agencies.

<sup>2</sup> In FY19, the Homeless Encampment Ad Hoc Committee recommended and the Board approved a one-year operational approach and funding strategy pilot. In FY20, staff will report back to the committee and Board and receive direction on the long-term operational approach and funding plan for the project.

Project	Key Performance Indicators (KPI)	FY19-23 Targets	Safe, Clean Water Funding (\$ Thousands)				
			FY14-18 Actuals	FY19-23 Projected	FY24-28 Projected	Current 15-Year Forecast	
<b>B7</b>	<b>Support Volunteer Cleanup Efforts and Education</b>	<ol style="list-style-type: none"> <li>Provide 7 grant cycles and 3 partnerships that follow pre-established competitive criteria related to cleanups, education and outreach, and stewardship activities.</li> <li>Fund Valley Water support of annual National River Cleanup Day, California Coastal Cleanup Day, the Great American Pick Up; and fund the Adopt-A-Creek Program.</li> </ol>	<ol style="list-style-type: none"> <li>Provide at least 2 grant cycles and 1 partnership.</li> <li>Fund 4 annual creek cleanup volunteer programs.</li> </ol>	\$929	\$978	\$737	\$2,643
<b>Priority C: Protect our Water Supply from Earthquakes and Natural Disasters</b>							
<b>C1</b>	<b>Anderson Dam Seismic Retrofit</b>	<ol style="list-style-type: none"> <li>Provide portion of funds, up to \$45 million, to help restore full operating reservoir capacity of 90,373 acre-feet.</li> </ol>	Not applicable. The final fund transfer is scheduled for FY28.	\$14,000	\$0	\$52,053	\$66,053 <sup>1</sup>
<b>C2</b>	<b>Emergency Response Upgrades</b>	<ol style="list-style-type: none"> <li>Map, install, and maintain gauging stations and computer software on 7 flood-prone reaches to generate and disseminate flood warnings.</li> </ol>	<ol style="list-style-type: none"> <li>Map, install, and maintain gauging stations and computer software on 7 flood-prone reaches to generate and disseminate flood warnings.</li> </ol>	\$1,538	\$1,668	\$190	\$3,396
<b>Priority D: Restore Wildlife Habitat and Provide Open Space</b>							
<b>D1</b>	<b>Management of Revegetation Projects</b>	<ol style="list-style-type: none"> <li>Maintain a minimum of 300 acres of revegetation projects annually to meet regulatory requirements and conditions.</li> </ol>	<ol style="list-style-type: none"> <li>Maintain a minimum of 300 acres of revegetation projects annually to meet regulatory requirements and conditions.</li> </ol>	\$3,528	\$6,684	\$7,817	\$18,029
<b>D2</b>	<b>Revitalize Stream, Upland and Wetland Habitat</b>	<ol style="list-style-type: none"> <li>Revitalize at least 21 acres, guided by the 5 Stream Corridor Priority Plans, through native plant revegetation and removal of invasive exotic species.</li> <li>Provide funding for revitalization of at least 7 of 21 acres through community partnerships.</li> <li>Develop at least 2 plant palettes for use on revegetation projects to support birds and other wildlife.</li> </ol>	<ol style="list-style-type: none"> <li>Revitalize at least 15 acres (including areas listed above), guided by Stream Corridor Priority Plan(s) when possible, through native plant revegetation, and removal of invasive exotic species.</li> <li>Provide funding to revitalize at least 5 more acres and continue efforts needed to promote native habitat at the 6 acres noted above through community partnerships.</li> <li>KPI #3 completed.</li> </ol> <p><i>See full description on page 75.</i></p>	\$1,793	\$8,085	\$9,272	\$19,150
<b>D3</b>	<b>Grants and Partnerships to Restore Wildlife Habitat and Provide Access to Trails</b>	<ol style="list-style-type: none"> <li>Develop 5 Stream Corridor Priority Plans to prioritize stream restoration activities.</li> <li>Provide 7 grant cycles and additional partnerships for \$21 million that follow pre-established criteria related to the creation or restoration of wetlands, riparian habitat and favorable stream conditions for fisheries and wildlife, and providing new public access to trails.</li> </ol>	<ol style="list-style-type: none"> <li>Develop 4 Stream Corridor Priority Plans to prioritize stream restoration activities.</li> <li>Provide 3 grant cycles and additional partnerships that follow pre-established criteria related to the creation or restoration of wetlands, riparian habitat and favorable stream conditions for fisheries and wildlife and providing new public access to trails.</li> </ol>	\$5,544	\$11,314	\$7,362	\$24,219

<sup>1</sup> The total Safe, Clean Water Program funding level for this project was presented in 2012 dollars at \$45 million; however, this amount is subject to inflation and the current projection is shown.

Project	Key Performance Indicators (KPI)	FY19-23 Targets	Safe, Clean Water Funding (\$ Thousands)				
			FY14-18 Actuals	FY19-23 Projected	FY24-28 Projected	Current 15-Year Forecast	
D4	<b>Fish Habitat and Passage Improvement</b>	<ol style="list-style-type: none"> <li>1. Complete planning and design for 2 creek/lake separations.</li> <li>2. Construct 1 creek/lake separation project in partnership with local agencies.</li> <li>3. Use \$6 million for fish passage improvements.</li> <li>4. Conduct study of all major steelhead streams in the county to identify priority locations for installation of large woody debris and gravel as appropriate.</li> <li>5. Install large woody debris and/or gravel at a minimum of 5 sites (1 per each of 5 major watersheds).</li> </ol>	<ol style="list-style-type: none"> <li>1. Complete planning and design for 2 creek/lake separations.</li> <li>2. Construct 1 creek/lake separation project in partnership with local agencies.</li> <li>3. Use \$1.4 million for fish passage improvements.</li> <li>4. Complete Phase 2 study of remaining steelhead streams in the county to identify priority locations for installation of large woody debris and gravel as appropriate.</li> <li>5. Install large woody debris and/or gravel at a minimum of 2 sites.</li> </ol>	\$6,277	\$34,980	\$1,219	\$42,476
D5	<b>Ecological Data Collection and Analysis</b>	<ol style="list-style-type: none"> <li>1. Establish new or track existing ecological levels of service for streams in 5 watersheds.</li> <li>2. Reassess streams in 5 watersheds to determine if ecological levels of service are maintained or improved.</li> </ol>	<ol style="list-style-type: none"> <li>1. Establish new or track existing ecological levels of service for streams in 5 watersheds.</li> <li>2. Reassess streams in at least 2 of the watersheds.</li> </ol>	\$2,088	\$4,468	\$2,586	\$9,142
D6	<b>Creek Restoration and Stabilization</b>	<ol style="list-style-type: none"> <li>1. Construct 3 geomorphic designed projects to restore stability and stream function by preventing incision and promoting sediment balance throughout the watershed.</li> </ol>	<ol style="list-style-type: none"> <li>1. Complete planning for at minimum 2 sites for geomorphic restoration.</li> <li>2. Complete design and CEQA process for 1 project.</li> </ol>	\$1,015	\$15,703	\$0	\$16,719
D7	<b>Partnership for the Conservation of Habitat Lands</b>	<ol style="list-style-type: none"> <li>1. Provide up to \$8 million for the acquisition of property for the conservation of habitat lands.</li> </ol>	<ol style="list-style-type: none"> <li>1. Provide up to \$5 million for the acquisition of property for the conservation of habitat lands.</li> </ol>	\$0	\$5,000	\$3,000	\$8,000
D8	<b>South Bay Salt Pond Restoration Partnership</b>	<ol style="list-style-type: none"> <li>1. Establish agreement with FWS to reuse sediment at locations to improve the success of Salt Pond restoration activities.</li> <li>2. Construct site improvements up to \$4 million to allow for transportation and placement of future sediment.</li> </ol>	<ol style="list-style-type: none"> <li>1. KPI #1 completed.</li> <li>2. Construct site improvements up to \$4 million to allow for transportation and placement of future sediment.</li> </ol>	\$270	\$278	\$3,867	\$4,414
<b>Priority E: Provide Flood Protection to Homes, Businesses, Schools and Highways</b>							
E1	<b>Vegetation Control and Sediment Removal for Flood Protection</b>	<ol style="list-style-type: none"> <li>1. Maintain 90% of improved channels at design capacity.</li> <li>2. Provide vegetation management for 6,120 acres along levee and maintenance roads.</li> </ol>	<ol style="list-style-type: none"> <li>1. Maintain 90% of improved channels at design capacity.</li> <li>2. Provide vegetation management on a minimum of 2,040 acres along levee and maintenance roads.</li> </ol>	\$9,754	\$24,401	\$33,721	\$67,876

Project		Key Performance Indicators (KPI)	FY19-23 Targets	Safe, Clean Water Funding (\$ Thousands)			
				FY14-18 Actuals	FY19-23 Projected	FY24-28 Projected	Current 15-Year Forecast
E2	<b>Emergency Response Planning</b>	<ol style="list-style-type: none"> <li>Coordinate with agencies to incorporate Valley Water-endorsed flood emergency procedures into their Emergency Operations Center plans.</li> <li>Complete 5 flood-fighting action plans (1 per major watershed).</li> </ol>	<ol style="list-style-type: none"> <li>Coordinate with at least 1 municipality to develop flood-response procedures to increase awareness of Valley Water's roles and responsibilities.</li> <li>Complete at least 2 flood response procedures or action plans.</li> </ol>	\$894	\$1,459	\$853	\$3,207
E3	<b>Flood Risk Reduction Studies</b>	<ol style="list-style-type: none"> <li>Complete engineering studies on 7 creek reaches to address 1% flood risk.</li> <li>Update floodplain maps on a minimum of 2 creek reaches in accordance with new FEMA standards.</li> </ol>	<ol style="list-style-type: none"> <li>Complete engineering studies on at least 4 creek reaches to address 1% flood risk (Calera Creek from Milpitas High School to I-680, 2 or more tributaries of Lower Silver Creek, and Ross Creek from Guadalupe Slough to Blossom Hill Road).</li> <li>Develop updated floodplain maps on 1 creek reach in accordance with new FEMA standards, if applicable (Calera Creek from Milpitas High School to I-680).</li> </ol>	\$3,420	\$4,264	\$0	\$7,684
E4	<b>Upper Penitencia Creek Flood Protection</b>	<ol style="list-style-type: none"> <li>Preferred project with federal and local funding: Construct a flood protection project to provide 1% flood protection to 5,000 homes, businesses and public buildings.</li> <li>With local funding only: Acquire all necessary rights-of-way and construct a 1% flood protection project from Coyote Creek confluence to King Road.</li> </ol>	<ol style="list-style-type: none"> <li>Complete the planning phase.</li> <li>Complete the design phase.</li> <li>Complete the CEQA process and obtain necessary permits.</li> </ol>	\$0	\$46,387	\$1,229	\$47,616
E5	<b>San Francisquito Creek Flood Protection</b>	<ol style="list-style-type: none"> <li>Preferred project with federal, state and local funding: Protect more than 3,000 parcels by providing 1% flood protection.</li> <li>With state and local funding only: Protect approximately 3,000 parcels from flooding (100-year protection downstream of Highway 101, and approximately 30-year protection upstream of Highway 101).</li> </ol>	<ol style="list-style-type: none"> <li>Provide 100-year flood protection from San Francisco Bay to Highway 101 with local funding.</li> <li>Provide improved flood capacity between Pope/Chaucer Street and Highway 101 with local funding.</li> </ol>	\$44,684	\$12,800	\$0	\$57,485
E6	<b>Upper Llagas Creek Flood Protection</b>	<ol style="list-style-type: none"> <li>Preferred project with federal and local funding: Provide flood protection to 1,100 homes, 500 businesses, and 1,300 agricultural acres, while improving stream habitat.</li> <li>With local funding only: Provide 100-year flood protection for Reach 7 only (up to W. Dunne Avenue in Morgan Hill). A limited number of homes and businesses will be protected.</li> </ol>	<ol style="list-style-type: none"> <li>Continue to pursue federal and other funding sources.</li> <li>Complete Phase 1 construction (Reach 4 and 7A) with 100-year protection for Reach 7A with local funding. Purchase all required Project Rights of Way. If State subvention reimbursements are received, a portion of Phase 2 may be constructed.</li> </ol>	\$44,429	\$79,662	\$926	\$125,017
E7	<b>San Francisco Bay Shoreline Protection</b>	<ol style="list-style-type: none"> <li>Provide portion of the local share of funding for planning and design phases for the former salt production ponds and Santa Clara County shoreline area.</li> <li>Provide portion of the local share of funding toward estimated cost of initial project phase (EIA 11).</li> </ol>	<ol style="list-style-type: none"> <li>Begin planning phase of other EIAs.</li> <li> <ol style="list-style-type: none"> <li>Continue providing local support of the design phase for EIA 11.</li> <li>Begin the construction phase for EIA 11.</li> <li>Pursue federal and other funding sources to complete construction of EIA 11.</li> </ol> </li> </ol>	\$4,489	\$20,463	\$0	\$24,952

Project	Key Performance Indicators (KPI)	FY19-23 Targets	Safe, Clean Water Funding (\$ Thousands)			
			FY14-18 Actuals	FY19-23 Projected	FY24-28 Projected	Current 15-Year Forecast
<b>E8</b> <b>Upper Guadalupe River Flood Protection</b>	<ol style="list-style-type: none"> <li>Preferred project with federal and local funding: Construct a flood protection project to provide 1% flood protection to 6,280 homes, 320 businesses and 10 schools and institutions.</li> <li>With local funding only: Construct flood protection improvements along 4,100 feet of Guadalupe River between Southern Pacific Railroad (SPRR) crossing, downstream of Willow Street, to Union Pacific Railroad (UPRR) crossing, downstream of Padres Drive. Flood damage will be reduced; however, protection from the 1% flood is not provided until completion of the entire Upper Guadalupe River Project.</li> </ol>	<ol style="list-style-type: none"> <li>Continue acquiring rights-of-way and relocating utilities for all reaches.</li> <li>Construct Reaches 7 and 8 bypass channel, 2 vehicular bridges (Alma Ave. and Willow Street), and 2 rail road bridges.</li> <li>Monitor and complete the establishment period for the mitigation planting in Reach 10B and 12.</li> <li>Complete project design for Reaches 9, 10A, 10C, and 11.</li> </ol>	\$34,491	\$59,677	\$0	\$94,168
<b>Other Capital Flood Protection Projects and Clean, Safe Creeks Grants Projects</b>						
<b>Permanente Creek Flood Protection</b>	<ol style="list-style-type: none"> <li>Provide flood protection to 1,664 parcels downstream of El Camino Real, including Middlefield Road and Central Expressway.</li> </ol>	<ol style="list-style-type: none"> <li>Provide flood protection to 1,664 parcels downstream of El Camino Real, including Middlefield Road and Central Expressway.</li> </ol>	\$66,457	\$4,841	\$0	\$71,297
<b>Sunnyvale East and Sunnyvale West Channels Flood Protection</b>	<ol style="list-style-type: none"> <li>Provide riverine flood protection for 1,618 properties and 47 acres (11 parcels) of industrial land, while improving stream water quality and providing for recreational opportunities.</li> </ol>	<ol style="list-style-type: none"> <li>Provide riverine flood protection for 1,618 properties and 47 acres (11 parcels) of industrial land, while improving stream water quality and providing for recreational opportunities.</li> </ol>	\$7,299	\$52,853	\$0	\$60,152
<b>Berryessa Creek Flood Protection</b>	<ol style="list-style-type: none"> <li>Local and federal funding flood damage reduction for 1,662 parcels, including 1,420 homes, 170 businesses, and 5 schools/institutions.</li> <li>Using local funds only a reduced project would extend from the confluence with Lower Penitencia upstream to Montague Expressway, modifying 2 miles of channel and protecting approximately 100 parcels.</li> </ol>	<ol style="list-style-type: none"> <li>Complete the Montague Expressway Bridge Replacement.</li> <li>Resolve or implement the additional 3 acres of mitigation planting required by the San Francisco Bay Regional Water Quality Control Board.</li> <li>Relocate an underground electrical utility that PG&amp;E was not able to relocate during construction.</li> </ol>	\$31,346	\$15,776	\$0	\$47,122
<b>Coyote Creek Flood Protection</b>	<ol style="list-style-type: none"> <li>Preferred project with federal, state, and local funding: Secure alternative funding sources to construct a flood protection project that provides flood risk reduction from floods up to the level of flooding that occurred on February 21, 2017, approximately a 20 to 25 year flood event, between Montague Expressway and Tully Road.</li> <li>With local funding only: (a) Identify short-term flood relief solutions and begin implementation prior to the 2017-2018 winter season; (b) Complete the planning and design phases of the preferred project; and (c) With any remaining funds, identify and construct prioritized elements of the preferred project.</li> </ol>	<ol style="list-style-type: none"> <li>Complete construction of flood protection project elements in the mid reach of Coyote Creek.</li> </ol>	\$2,104	\$3,529	\$28,919	\$34,552

Project	Key Performance Indicators (KPI)	FY19-23 Targets	Safe, Clean Water Funding (\$ Thousands)			
			FY14-18 Actuals	FY19-23 Projected	FY24-28 Projected	Current 15-Year Forecast
<b>Calabazas Creek Flood Protection</b>	1. Flood damage reduction for 2,483 parcels that include: 2,270 homes, 90 businesses, and 7 schools/institutions.	1. Project was completed in FY14.	\$66	\$0	\$0	\$66
<b>Clean, Safe Creeks Grants Projects</b>	1. CSC 2.1: Reduce urban runoff pollutants in south county cities. 2. CSC 3.2: Creation of additional wetlands, riparian habitat and favorable stream conditions for fisheries and wildlife. (Equivalent of 100 acres of tidal or riparian habitat created or restored). 3. CSC 4.1: Community partnership to identify and provide public access to 70 miles of open space or trails along creeks.	1. Complete and close all the grant projects.	\$3,554	(\$7,141)	\$0	\$3,547

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# Appendix B: Program Schedule

## Project Comparison Between Baseline & Current

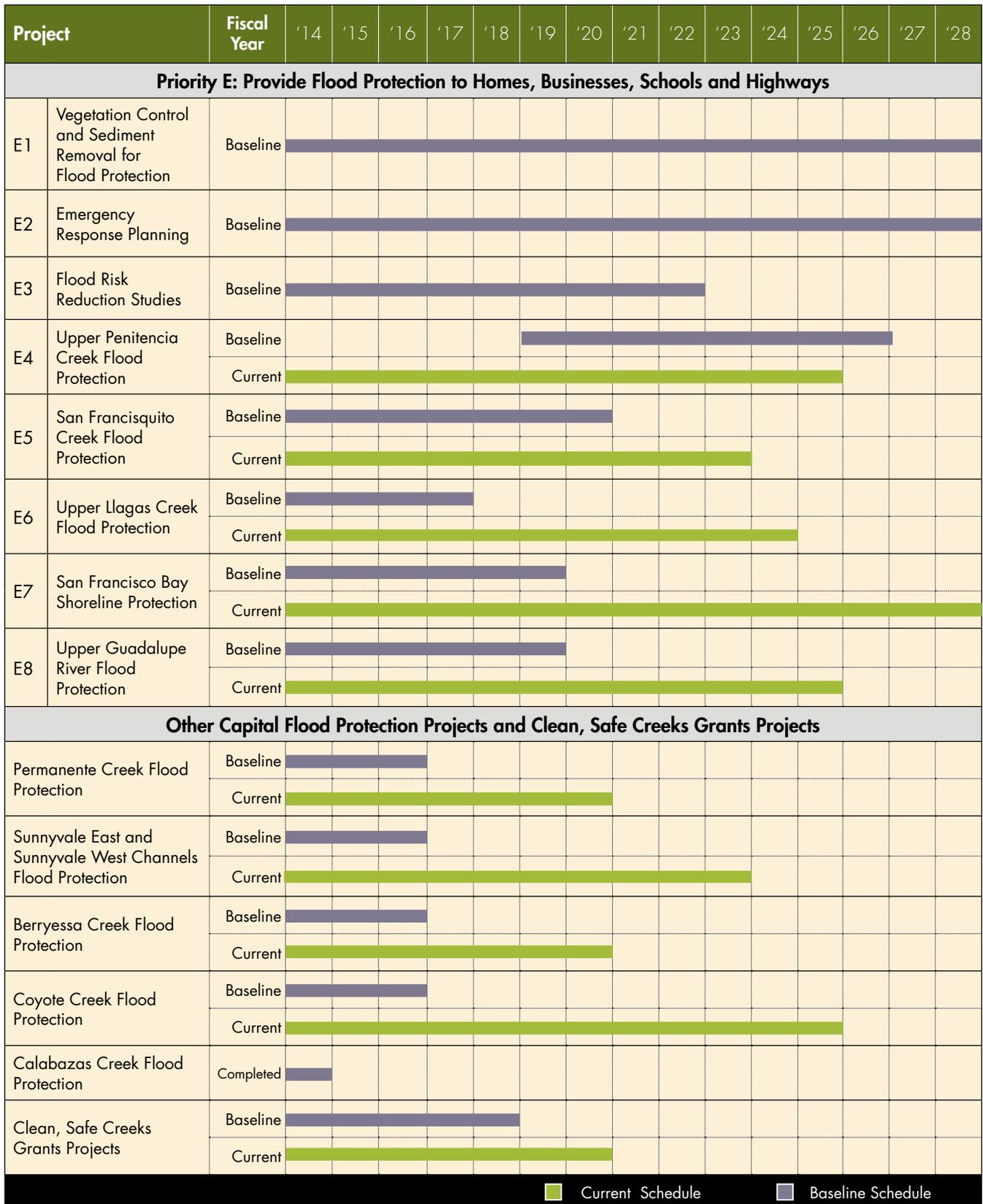
Any adjustments to the project schedules were approved through the Change Control Process.

Project		Fiscal Year	'14	'15	'16	'17	'18	'19	'20	'21	'22	'23	'24	'25	'26	'27	'28
<b>Priority A: Ensure a Safe, Reliable Water Supply</b>																	
A1	Main Avenue and Madrone Pipelines Restoration	Baseline															
		Current															
A2	Safe, Clean Water Partnerships and Grants	Baseline															
		Current															
A3	Pipeline Reliability Project	Baseline															
		Current															
<b>Priority B: Reduce Toxins, Hazards and Contaminants in our Waterways</b>																	
B1	Impaired Water Bodies Improvement	Baseline															
B2	Interagency Urban Runoff Program	Baseline															
B3	Pollution Prevention Partnerships and Grants	Baseline															
B4	Good Neighbor Program: Encampment Cleanup	Baseline															
B5	Hazardous Materials Management and Response	Baseline															
B6	Good Neighbor Program: Remove Graffiti and Litter	Baseline															
B7	Support Volunteer Cleanup Efforts and Education	Baseline															
<b>Priority C: Protect our Water Supply from Earthquakes and Natural Disasters</b>																	
C1	Anderson Dam Seismic Retrofit	Baseline															
		Current															
C2	Emergency Response Upgrades	Baseline															

■ Current Schedule
 ■ Baseline Schedule

Project		Fiscal Year	'14	'15	'16	'17	'18	'19	'20	'21	'22	'23	'24	'25	'26	'27	'28
<b>Priority D: Restore Wildlife Habitat and Provide Open Space</b>																	
D1	Management of Revegetation Projects	Baseline	[Baseline Schedule]														
D2	Revitalize Stream, Upland and Wetland Habitat	Baseline	[Baseline Schedule]														
D3	Grants and Partnerships to Restore Wildlife Habitat and Provide Access to Trails	Baseline	[Baseline Schedule]														
D4	KPI #1: Creek/Lake Separations (Site 1: Almaden Lake)	Baseline	[Baseline Schedule]														
		Current	[Current Schedule]														
	KPI #1: Creek/Lake Separations (Site 2: Ogier Ponds)	Baseline	[Baseline Schedule]														
		Current	[Current Schedule]														
	KPI #2: Construct Creek/Lake Separation Project	Baseline	[Baseline Schedule]														
		Current	TBD														
KPI #3-5: Fish Habitat and Passage Improvement	Baseline	[Baseline Schedule]															
	Current	[Current Schedule]															
D5	Ecological Data Collection and Analysis	Baseline	[Baseline Schedule]														
D6	Creek Restoration and Stabilization (Site 1: Hale Creek Enhancement Project)	Baseline	[Baseline Schedule]														
		Current	[Current Schedule]														
	Creek Restoration and Stabilization (Site 2: Bolsa Road Bridge Project)	Baseline	[Baseline Schedule]														
		Current	[Current Schedule]														
	Creek Restoration and Stabilization (Site 3: Los Gatos Creek Restoration and Flood Protection Project)	Baseline	[Baseline Schedule]														
		Current	[Current Schedule]														
D7	Partnership for the Conservation of Habitat Lands	Baseline	[Baseline Schedule]														
D8	South Bay Salt Pond Restoration Partnership	Baseline	[Baseline Schedule]														
		Current	[Current Schedule]														

■ Current Schedule     
 ■ Baseline Schedule



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## Appendix C

# Special Tax Rate Structure

### How the special tax is calculated

The rate structure for calculating the proposed special tax is identical to the Clean, Safe Creeks and Natural Flood Protection structure that it will replace. It is intended to be an equitable basis for the rate structure and is applied consistently throughout the county. Rates are based on the land use (which is directly related to an assigned storm water runoff factor or can be thought of as the estimated percent of hard-scape area on a parcel) and size of each land parcel. The six land use categories, their estimated stormwater runoff factors, and the special tax calculation formula are described in detail below. For 2014 parcel tax rates by land use category, please turn to Table 5-1 on page 5.2.

### Land use categories and estimated stormwater runoff factors

The following six land use categories and estimated stormwater runoff factors will be used to determine the proposed special tax:

#### **Category A: commercial and industrial parcels**

1. Land used for industrial and commercial purposes. This land use is assigned an estimated stormwater runoff factor of 0.8.
2. The minimum tax for this category is applied to parcels of 1/4 acre or less.

#### **Category B: high-density residential parcels, schools, churches, and institutions**

1. Land used for apartment complexes, mobile home parks, condominiums, townhouses, or institutional purposes such as schools and churches. This land use is assigned an estimated stormwater runoff factor of 0.6.
2. With the exception of condominiums and townhouses, the minimum tax for this category is applied to parcels of 1/4 acre or less.
3. For condominiums and townhouses, an average lot size of 0.08 acre for each condominium or townhouse will be used to calculate the annual special tax rate.

#### **Category C: single-family residences and multiple-family units up to 4 units**

1. Land used for single-family residences and multiple-family units up to four units. This land use is assigned an estimated storm water runoff factor of 0.4.
2. The minimum tax for this category is applied to parcels of 1/4 acre or less. Incremental residential land in excess of 1/4 acre is assessed at the Category D rate.

### **Category D: agricultural parcels**

1. Disturbed agricultural land, including irrigated land, orchards, dairies, field crops, golf courses, and similar uses. This land use is assigned an estimated stormwater runoff factor of 0.005.
2. The minimum tax for this category is applied to parcels of 10 acres or less.
3. The per acre rate for this category shall be used for any portion of land in Category C that is in excess of 1/4 acre of a parcel used for single-family residential purposes.

### **Category E: non-utilized agricultural parcels**

1. Urban: Non-utilized agricultural lands, grazing land, salt ponds, undisturbed vacant lands, and parcels used exclusively as well sites for commercial purposes that are located in urban areas.
2. Rural: Non-utilized agricultural land, grazing land, undisturbed vacant land, and parcels used exclusively as well sites for commercial purposes that are located in rural areas.
3. This land use is assigned an estimated storm water runoff factor of 0.0015. The minimum tax for this category is applied to parcels of 10 acres or less. The minimum tax is the same for E-Urban and E-Rural categories. However, for the E-Rural category, incremental lands in excess of 10 acres will be assessed at 1/8 the E-Urban rate.

The 1/8 factor was used because most rangelands in rural areas are either under the Williamson Act contracts, which limit their development potential, or they are located upstream of a District reservoir and impose less potential for flooding downstream. Additionally, the County Assessor's Office had advised that taxes on rangelands are on the average 1/8 of what they would be without Williamson Act provisions.

### **Category F: well parcels for residential uses**

Parcels used exclusively as well sites for residential uses are exempt from the special tax.

*Land use codes assigned to parcels by the County Assessor's Office will be grouped into the above six land use categories for determining the annual special tax for each parcel.*

## **Special tax calculation formula**

The special tax for each land use category will continue at the annually adjusted rate as established under the Clean, Safe Creeks and Natural Flood Protection measure, using the ratio of the runoff factor of each land use category to the runoff factor of Category C.

### **Example Calculation**

If the minimum special tax (for parcels less than 1/4 acre) was set at \$55.84/year for Category C, Single-Family Residences, the special tax (for a one-acre parcel) in Category A, Commercial and Industrial Parcels, can be calculated using the stormwater runoff factors for Category C, Residential, and Category A, Commercial/Industrial, as follows:

$$\$55.84 \text{ /year per } 1/4 \text{ acre} \times (0.8 / 0.4) = \$446.72 \text{ /year per acre}$$

## Appendix D

# Election resolution and documents\*

### RESOLUTION NO. 12-62

PROVIDING FOR THE CONTINUATION AND LEVY OF A SPECIAL TAX TO PAY THE COST OF A SAFE, CLEAN WATER AND NATURAL FLOOD PROTECTION PROGRAM IN THE COMBINED FLOOD CONTROL ZONE OF THE SANTA CLARA VALLEY WATER DISTRICT SUBJECT, NEVERTHELESS, TO SPECIFIED LIMITS AND CONDITIONS

WHEREAS, Santa Clara Valley Water District (District policy is to ensure current and future water supplies and provide healthy, clean and reliable water in Santa Clara County; and

WHEREAS, District policy is to ensure reliable, clean water supplies for Santa Clara County and to protect Santa Clara County creeks, reservoirs, Monterey Bay, and San Francisco Bay from contaminants; and

WHEREAS, District policy is to provide for flood water and storm water flood protection to residents, businesses, visitors, public highways, and the watercourses flowing within the District; and

WHEREAS, District policy is to protect our water supply, pipelines and local dams from earthquakes and natural disasters; and

WHEREAS, the District maintains a flood protection system of levees, channels, drains, debris basins and other improvements upon which the lives and property of District residents depend, which said improvements must be kept in a safe and effective condition; and

WHEREAS, the District policy is to protect, enhance and restore healthy Santa Clara County creeks, watersheds and baylands ecosystems; and

WHEREAS, the need for protection of Santa Clara County water supplies, creeks, watersheds and baylands has increased since the voters passed the Clean, Safe Creeks and Natural Flood Protection Plan in 2000; and

WHEREAS, the District policy is to engage in partnerships with the community to provide open spaces, trails and parks along Santa Clara County creeks and watersheds; and

WHEREAS, the California State Legislature has authorized the District to levy a special tax on each parcel of property within the District or any zone or zones thereof upon receiving the approving vote of a two-thirds majority of the electorate of the District or zones therein; and

WHEREAS, the purpose of the special tax is to supplement other available but limited revenues to keep said improvements in a safe and effective condition; to enable the District to respond to emergencies; to perform maintenance and repair; to acquire, restore and preserve habitat; to provide recreation; to conduct environmental education; to protect and improve water quality; and, to construct and operate flood protection and storm drainage facilities; including in each case the cost of financing such activities; and

\* The election resolution and associated documents are included as a reproduction of the actual election documents and are not an exact copy.



WHEREAS, State California Environmental Quality Act (CEQA) Guidelines section 15378(b)(4), states that government funding mechanisms are not projects subject to the requirements of CEQA.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of Santa Clara Valley Water District as follows:

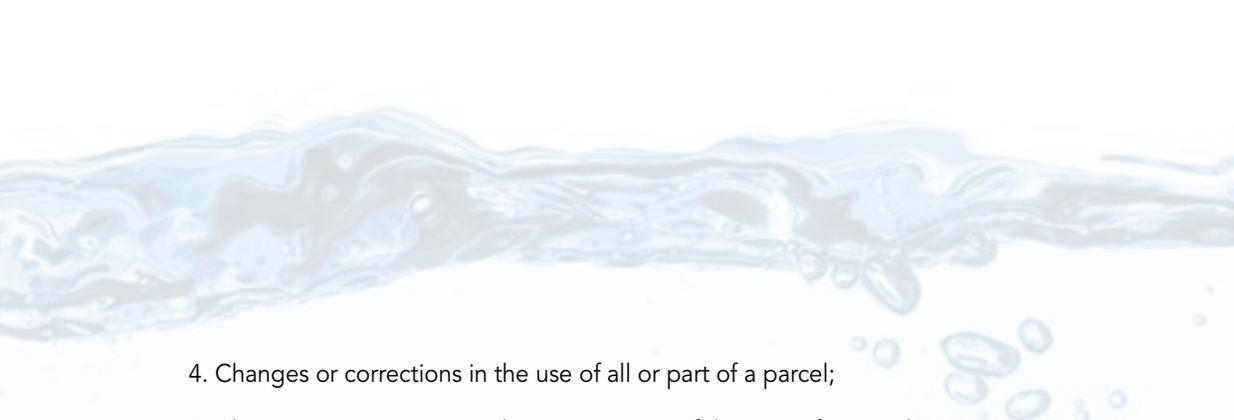
FIRST: The Board hereby finds that since (a) the management of creeks, watersheds and baylands to ensure safe, clean water and to protect, enhance and restore healthy ecosystems; and the construction and management of flood protection services, are made necessary by stormwater runoff, and (b) the lands from which runoff derives are benefitted by provision of means of disposition which alleviates or ends the damage to other lands affected thereby, by direct protection of loss of property, and other indirect means which include improved aesthetics and quality of life, the basis on which to levy the special tax is at fixed and uniform rates per area and county or city designated land use of each parcel, taxed as such parcel is shown on the latest tax rolls.

SECOND: Pursuant to the authority of Section 3 of the District Act, a Combined Zone consisting of the aggregate metes and bounds descriptions of Zones One, Two, Three, Four and Five is presently existing.

THIRD: A special District Election will be called within said District, on the proposition of levy of a special tax.

FOURTH: Subject to approval by two-thirds of the electors of the District voting at such election and pursuant to the authority vested in the Board, there is hereby established a special tax as authorized by this resolution, the proceeds of which shall be used solely for the purpose of supporting the priorities of the Safe, Clean Water and Natural Flood Protection program. The priorities are summarized in Table 1. The Safe, Clean Water and Natural Flood Protection Program Report (hereafter "Report") generally describes the priorities. This tax shall be instituted with the following provisions:

- A. The Chief Executive Officer (CEO) or designee of the District is directed to cause a written Report to be prepared for each fiscal year for which a special tax is to be levied and to file and record the same, all as required by governing law. Said Report shall include the proposed special tax rates for the upcoming fiscal year at any rate up to the maximum rate approved by the voters. A special fund shall be established into which proceeds from the tax shall be deposited. Proceeds from the tax may used only for the Safe, Clean Water and Natural Flood Protection Program.
- B. The CEO, or designee of the District may cause the special tax to be corrected in the same manner as assessor's or assessee's errors may be corrected but based only upon any or all of the following:
  - 1. Changes or corrections in ownership of a parcel;
  - 2. Changes or corrections of address of an owner of a parcel;
  - 3. Subdivision of an existing parcel;

- 
4. Changes or corrections in the use of all or part of a parcel;
  5. Changes or corrections in the computation of the area of a parcel;
  6. As to railroad, gas, water, telephone, cable television, electric utility right of way, electric line right of way or other utility right of way properties.

Changes and corrections are not valid unless and until approved by the Board.

- C. The Clerk of the Board shall immediately file certified copies of the final determination of special taxes and confirming resolution with the Auditor-Controller of the County of Santa Clara and shall immediately record with the County Recorder of said County a certified copy of the resolution confirming the special tax.
- D. The special tax for each parcel set forth in the final determination by the Board shall appear as a separate item on the tax bill and shall be levied and collected at the same time and in the same manner as the general tax levy for county purposes. Upon recording of the resolution confirming the special tax such special tax shall be a lien upon the real property affected thereby.
- E. Failure to meet the time limits set forth in this resolution for whatever reason shall not invalidate any special tax levied hereunder.
- F. No special tax for the Safe, Clean Water and Natural Flood Protection Program shall be imposed upon a federal or state or local governmental agency. With said exception, a Safe, Clean Water and Natural Flood Protection Program special tax is levied on each parcel of real property in the five Flood Control Zones of the District subject to this resolution for the purposes stated in the Report and in this Resolution. Except for the minimum special tax as hereinafter indicated, the special tax for each parcel of real property in each such zone is computed by determining its area (in acres or fractions thereof) and land use category (as hereinafter defined) and then multiplying the area by the special tax rate applicable to land in such land use category. A minimum special tax may be levied on each parcel of real property having a land area up to 0.25 acre for Groups A, B, and C, up to 10 acres for Groups D and E Urban and, for Group E Rural, the minimum special tax shall be that as calculated for the E Urban category.
- G. Land use categories for each parcel of land in the District are defined and established as follows:
  - Group A: Land used for commercial or industrial purposes.
  - Group B: Land used for institutional purposes such as churches and schools or multiple dwellings in excess of four units, including apartment complexes, mobile home parks, recreational vehicle parks, condominiums, and townhouses.
  - Group C: (1) Land used for single family residences and multiple family units up to four units. (2) The first 0.25 acre of a parcel of land used for single family residential purposes.

- 
- Group D: (1) Disturbed agricultural land, including irrigated land, orchards, dairies, field crops, golf courses and similar uses. (2) The portion of the land, if any, in excess of 0.25 acre of a parcel used for single family residential purposes.
- Group E: Vacant undisturbed land (1) in urban areas and (2) in rural areas including dry farmed land, grazing and pasture land, forest and brush land, salt ponds and small parcels used exclusively as well sites for commercial purposes.
- Group F: Parcels used exclusively as well sites for residential uses are exempt from the special tax.
- H. The special tax amounts applicable to parcels in the various land uses shall be as prescribed by the Board of Directors in each fiscal year (July 1 through June 30) beginning with fiscal year 2013-2014 all as stated above, in the Report and as required by law; provided, that the annual basic special tax unit (single family residential parcel) shall not exceed a maximum limit of \$56, as adjusted by the compounded percentage increases of the San Francisco-Oakland-San Jose Consumer Price Index (CPI-U) for all Urban Consumers (or an equivalent index published by a government agency) in the year or years since April 30, 2013; provided, however that appropriate amounts may be increased in any year by up to the larger of the percentage increase of the San Francisco-Oakland-San Jose Consumer Price Index for all Urban Consumers in the preceding year or three percent (3%); and provided, further, however that in any period, not exceeding three years, immediately following a year in which the Governor of the State of California or the President of the United States has declared an area of said zones to be a disaster area by reason of flooding or other natural disaster, then to the extent of the cost of repair of District facilities damaged by such flooding or other natural disaster, the maximum tax rate shall be the percentage increase in CPI-U plus 4.5 percent and provided, that special taxes for the Safe, Clean Water and Natural Flood Protection Program shall be levied for a total of 15 years and, therefore, shall not be levied beyond June 30, 2028.
- I. Pursuant to the State California Environmental Quality Act (CEQA) Guidelines section 15378(b)(4), adoption of this resolution for continuation of the parcel tax and as a government funding mechanism, is not a project subject to the requirements of CEQA. Prior to commencement of any project included in the Safe, Clean Water and Natural Flood Protection Program, any necessary environmental review required by CEQA shall be completed.
- J. The Board of Directors may direct that proposed projects in the Safe, Clean Water and Natural Flood Protection Program be modified or not implemented depending upon a number of factors, including federal and state funding limitations and the analysis and results of CEQA environmental review. The Board of Directors must hold a formal, public hearing on the matter, which will be noticed by publication and notification to interested parties, before adoption of any such decision to modify or not implement a project.



K. In the event that the county or city designated land use for a parcel is different than the actual land use, the CEO of the District may, pursuant to written policies and procedures, cause the special tax to be adjusted based upon any or all of the following:

1. The parcel owner shall provide the District a claim letter stating that the present actual land use is different than the county or city designated land use, including an estimate of the portion of the parcel that is different than the designated land use. Such claim is subject to investigation by the District as to the accuracy of the claim. Parcel owner shall furnish information deemed necessary by the District to confirm the actual uses and areas in question which may include, but not be limited to, a survey by a licensed surveyor.
2. The parcel owner shall request the District to inspect the parcel and reevaluate the parcel tax.
3. The parcel owner shall notify the District after a substantial change in the actual land use occurs, including a new estimate of the portion of the parcel that is different than the designated land use.
4. The District may inspect and verify the actual land use for these parcels on a regular basis and will notify the appropriate parcel owners when it is determined that the actual land use has matched a county or city designated land use. The District shall then correct the special tax rates for these parcels accordingly.

L. Pursuant to state law, the District may provide an exemption from the special tax for low income owner-occupied residential properties for taxpayer-owners who are 65 years of age or older, the following shall apply:

Residential parcels where the total annual household income does not exceed 75 percent of the latest available figure for state median income at the time the annual tax is set, and such parcel is owned and occupied by at least one person who is aged 65 years or older is qualified to apply for an exemption from the applicable special tax.

M. An external, independent monitoring committee shall be appointed by the District Board of Directors to conduct an annual audit and provide an annual Report to the Board of Directors regarding implementation of the intended results of the Safe, Clean Water and Natural Flood Protection Program; at the fifth and tenth anniversaries of the Safe, Clean Water and Natural Flood Protection Program, the committee will identify to the District Board of Directors such modifications as may be reasonably necessary to meet the priorities of the Safe, Clean Water and Natural Flood Protection Program.

N. During the Safe, Clean Water and Natural Flood Protection Program period, the Board of Directors shall conduct at least two professional audits of the Program to provide for accountability and transparency.

- O. Upon entering into effect, the Safe, Clean Water and Natural Flood Protection Program parcel tax authorized by this resolution and placed on the ballot by RESOLUTION NO. 12-63 will repeal and replace the Clean, Safe Creeks and Natural Flood Protection Plan parcel tax approved by the voters in 2000. On the date that the parcel tax authorized by this resolution and RESOLUTION NO. 12-63 goes into effect, the Safe, Clean Water and Natural Flood Protection Program will replace in its entirety the Clean, Safe Creeks and Natural Flood Protection Plan; any tax payments already made by voters and collected for use by the Water District for the Clean, Safe Creeks and Natural Flood Protection Plan will be used to achieve priorities identified in the Safe, Clean Water and Natural Flood Protection Program. Funding for capital projects currently identified in the Clean, Safe Creeks and Natural Flood Protection Plan, will continue under the Safe, Clean Water and Natural Flood Protection Program to meet previous commitments. All other projects and programs identified in the Clean, Safe Creeks and Natural Flood Protection Plan will be replaced by comparable projects or programs with similar or expanded obligations under the Safe, Clean Water and Natural Flood Protection Program.

PASSED AND ADOPTED by the Board of Directors of Santa Clara Valley Water District by the following vote on July 24, 2012:

AYES: Directors T. Estremera, P. Kwok, D. Gage, J. Judge,  
R. Santos, B. Schmidt, L. LeZotte

NOES: Directors None

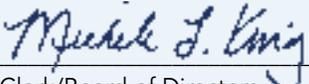
ABSENT: Directors None

ABSTAIN: Directors None

SANTA CLARA VALLEY WATER DISTRICT

By:   
LINDA J. LEZOTTE  
Chair/Board of Directors

ATTEST: MICHELE L. KING, CMC

  
Clerk/Board of Directors

**TABLE - 1 RESOLUTION NO. 2012 - 62**

Providing for the continuation and levy of a special tax to pay the cost of a Safe, Clean Water and Natural Flood Protection Program in the combined flood control zone of the Santa Clara Valley Water District subject, nevertheless, to specified limits and conditions

**Summary of Key Performance Indicators  
for the 15-Year Program**

Project	Key Performance Indicator
<b>Priority A: Ensure a Safe, Reliable Water Supply</b>	
A1 Main and Madrone Avenue Pipelines Restoration	<ol style="list-style-type: none"> <li>1. Restore transmission pipelines to full operating capacity of 37 cubic feet per second from Anderson Reservoir.</li> <li>2. Restore ability to deliver 20 cubic feet per second to Madrone Channel.</li> </ol>
A2 Safe, Reliable Water Grants and Partnerships	<ol style="list-style-type: none"> <li>1. Award up to \$1 million to test new conservation activities.</li> <li>2. Increase number of schools in Santa Clara County in compliance with SB 1413 and the Healthy Hunger-Free Kids Act, regarding access to drinking water by awarding 100% of eligible grant requests for the installation of hydration stations; a maximum of 250 grants up to \$254k.</li> <li>3. Reduce number of private well water users exposed to nitrate above drinking water standards by awarding 100% of eligible rebate requests for the installation of nitrate removal systems; a maximum of 1000 rebates up to \$702k.</li> </ol>
A3 Pipeline Reliability Project	<ol style="list-style-type: none"> <li>1. Install 4 new line valves on treated water distribution pipelines.</li> </ol>

Project	Key Performance Indicator
<b>Priority B: Reduce Toxins, Hazards, and Contaminants in our Waterways</b>	
B1 Impaired Water Bodies Improvement	<ol style="list-style-type: none"> <li>1. Operate and maintain existing treatment systems in 4 reservoirs to remediate regulated contaminants, including mercury.</li> <li>2. Prepare plan for the prioritization of pollution prevention and reduction activities.</li> <li>3. Implement priority pollution prevention and reduction activities identified in the plan in 10 creeks.</li> </ol>
B2 Inter-Agency Urban Runoff Program (includes Santa Clara Valley Urban Runoff Pollution Prevention and South County programs)	<ol style="list-style-type: none"> <li>1. Install at least 2 and operate 4 trash capture devices at stormwater outfalls in Santa Clara County.</li> <li>2. Maintain partnerships with cities and County to address surface water quality improvements.</li> <li>3. Support 5 pollution prevention activities to improve surface water quality in Santa Clara County either independently or collaboratively with south county organizations.</li> </ol>
B3 Pollution Prevention Partnerships and Grants	<ol style="list-style-type: none"> <li>1. Provide 7 grant cycles and 5 partnerships that follow pre-established competitive criteria related to preventing or removing pollution.</li> </ol>
B4 Good Neighbor Program: Illegal Encampment Cleanup	<ol style="list-style-type: none"> <li>1. Perform 52 annual clean-ups for the duration of the Safe, Clean Water program to reduce the amount of trash and pollutants entering the streams.</li> </ol>
B5 Hazardous Materials Management and Response	<ol style="list-style-type: none"> <li>1. Respond to 100% of hazardous materials reports requiring urgent on-site inspection in two hours or less.</li> </ol>
B6 Good Neighbor Program: Remove graffiti and litter	<ol style="list-style-type: none"> <li>1. Conduct 60 clean-up events (4 per year).</li> <li>2. Respond to requests on litter or graffiti cleanup within 5 working days.</li> </ol>
B7 Support Volunteer Cleanup Efforts and Education	<ol style="list-style-type: none"> <li>1. Provide 7 grant cycles and 3 partnerships that follow pre-established competitive criteria related to cleanups, education and outreach, and stewardship activities.</li> <li>2. Fund District support of annual National River Clean Up day, California Coastal Clean Up Day, the Great American Pick Up, and fund the Adopt-A-Creek Program.</li> </ol>

Project	Key Performance Indicator
<b>Priority C: Protect Our Water Supply and Dams From Earthquakes and Other Natural Disasters</b>	
C1 Anderson Dam Seismic Retrofit	<ol style="list-style-type: none"> <li>1. Provide portion of funds, up to \$45 million, to help restore full operating reservoir capacity of 90, 373 acre-feet.</li> </ol>
C2 Emergency Response Upgrades	<ol style="list-style-type: none"> <li>1. Map, install, and maintain gauging stations and computer software on seven flood-prone reaches to generate and disseminate flood warnings.</li> </ol>

Project	Key Performance Indicator
<b>Priority D: Restore Wildlife Habitat and Provide Open Space Access</b>	
D1 Management of Revegetation Projects	1. Maintain a minimum of 300 acres of revegetation projects annually to meet regulatory requirements and conditions.
D2 Revitalize Riparian, Upland and Wetland Habitat	1. Revitalize at least 21 acres, guided by the 5 Stream Corridor Priority Plans, through native plant revegetation and removal of invasive exotic species. 2. Provide funding for revitalization of at least 7 of 21 acres through community partnerships. 3. Develop at least 2 plant palettes for use on revegetation projects to support birds and other wildlife.
D3 Partnerships and Grants to Restore Wildlife Habitat and Provide Access to Trails	1. Develop 5 Stream Corridor Priority Plans to prioritize stream restoration activities. 2. Provide 7 grant cycles and additional partnerships for \$21 million that follow pre-established criteria related to the creation or restoration of wetlands, riparian habitat and favorable stream conditions for fisheries and wildlife, and providing new public access to trails.
D4 Fish Habitat and Passage Improvements	1. Complete planning and design for two creek/lake separations. 2. Construct one creek/lake separation project in partnership with local agencies. 3. Use \$6 million for fish passage improvements. 4. Conduct study of all major steelhead streams in the County to identify priority locations for installation of large woody debris and gravel as appropriate. 5. Install large woody debris and/or gravel at a minimum of 5 sites (1 per each of 5 major watersheds).
D5 Ecological Data Collection and Analysis	1. Establish new or track existing ecological levels of service for streams in 5 watersheds. 2. Re-assess streams in 5 watersheds to determine if ecological levels of service are maintained or improved.
D6 Creek Restoration and Stabilization	1. Construct 3 geomorphic designed projects to restore stability and stream function by preventing incision and promoting sediment balance throughout the watershed.
D7 Partnerships for the Conservation of Habitat Lands	1. Provide up to \$8 million for the acquisition of property for the conservation of habitat lands.
D8 South Bay Salt Ponds Restoration Partnership	1. Establish agreement with the US Fish and Wildlife Service to reuse sediment at locations to improve the success of Salt Pond restoration activities. 2. Construct site improvements up to \$4 million to allow for transportation and placement of future sediment.

Project	Key Performance Indicator
<b>Priority E: Provide Flood Protection to Homes, Businesses, Schools, Streets and Highways</b>	
E1.1 Vegetation Control for Capacity	1. Maintain 90% of improved channels at design capacity.
E1.2 Sediment Removal for Capacity	
E1.3 Maintenance of Newly Improved Creeks	
E1.4 Vegetation Management for Access	1. Provide vegetation management for 6,120 acres along levee & maintenance roads.
E2.1 Coordination with Local Municipalities on Flood Communication	1. Coordinate with agencies to incorporate District-endorsed flood emergency procedures into their Emergency Operations Center plans.
E2.2 Flood-Fighting Action Plans	1. Complete 5 flood-fighting action plans (one per major watershed).
E3 Flood Risk Reduction Studies	1. Complete engineering studies on 7 creek reaches to address 1% flood risk. 2. Update floodplain maps on a minimum of 2 creek reaches in accordance with new FEMA standards.
E4 Upper Penitencia Creek	1. With federal and local funding, construct a flood protection project to provide 1 percent flood protection to 5,000 homes, businesses and public buildings. 2. With local funding only, acquire all necessary right-of-ways and construct a 1 percent flood protection project from Coyote Creek confluence to King Road.
E5 San Francisquito Creek	1. With federal and local funding, protect more than 3,000 parcels by providing 1 percent flood protection. 2. With local funding only, protect approximately 3,000 parcels from flooding (100-year protection downstream of HWY 101, 50-year protection upstream of HWY 101).
E6 Upper Llagas Creek	1. With federal and local funding, provide flood protection to 1,100 homes, 500 businesses, and 1,300 agricultural acres, while improving stream habitat. 2. With local funding only, provide 100-year flood protection for Reach 7 only (up to W. Dunne Avenue in Morgan Hill). A limited number of homes and businesses will be protected.
E7 San Francisco Bay Shoreline Study	1. Provide portion of the local share of funding for planning and design phases for the former salt production ponds and Santa Clara County shoreline area. 2. Provide portion of the local share of funding toward estimated cost of initial project phase (Economic Impact Area 11).
E8 Upper Guadalupe River	1. With federal and local funding, construct a flood protection project to provide 1 percent flood protection to 6,280 homes, 320 businesses and 10 schools and institutions. 2. With local funding only, construct flood protection improvements along 4,100 feet of Guadalupe River between SPRR crossing, downstream of Willow Street, to UPRR crossing, downstream of Padres Drive. Flood damage will be reduced; however, protection from the 1-percent flood is not provided until completion of the entire Upper Guadalupe River Project.



AMENDED  
RESOLUTION NO. 12-63

CALLING A SPECIAL ELECTION TO BE HELD  
IN THE  
SANTA CLARA VALLEY WATER DISTRICT ON NOVEMBER 6, 2012  
REQUESTING SERVICES OF REGISTRAR OF VOTERS,  
REQUESTING CONSOLIDATION OF ELECTIONS, AND SPECIFYING  
CERTAIN PROCEDURES FOR THE CONSOLIDATION ELECTION

WHEREAS, Santa Clara Valley Water District (District) RESOLVED, by the Board of Directors of Santa Clara Valley Water District (District), as follows:

FIRST: A special election is hereby called within said District, which election is to be consolidated with the general election to be held on November 6, 2012, to submit to the qualified electors of the District the following question:

Safe, Clean Water Program

To:

- Ensure safe, reliable water supply;
- Reduce toxins, hazards and contaminants in waterways;
- Protect water supply and dams from earthquakes and natural disasters;
- Restore wildlife habitat and provide open space;
- Provide flood protection to homes, schools and businesses;
- Provide safe, clean water in creeks and bays,

Shall Santa Clara Valley Water District renew an existing, expiring parcel tax without increasing rates, and issue bonds, described in Resolution 12-62, with independent citizen oversight and annual audits?

SECOND: The Registrar of Voters is requested to give notice of said election in accordance with law and to perform all other acts which are required for the holding and conducting of said election.

THIRD: The Board of Supervisors of the County of Santa Clara is hereby requested to order the consolidation of the special District election with the other elections to be held on November 6, 2012, and to provide the election precincts, polling places, and voting booths which shall in every case be the same, and that there shall be only one set of election officers in each of said precincts; and to further provide that the question set forth above shall be set forth in each form of ballot to be used at said election. Said Board of Supervisors is further requested to order the Registrar of Voters (a) to set forth on all sample ballots relating to said consolidation elections, to be mailed to the qualified electors of the District, the question set forth above and (b) to provide absentee voter ballots for said consolidation election for use by qualified electors of said District who are entitled thereto, in the manner provided by law.

FOURTH: The Registrar of Voters is hereby authorized and requested to canvass, or cause to be canvassed, as provided by law, the returns of said special district election with respect to the total votes cast for and against said question and to certify such canvass of the votes cast to the Board of Directors of Santa Clara Valley Water District.

FIFTH: The Clerk of this Board is hereby authorized and directed to certify to the due adoption of this resolution and to transmit a copy hereof so certified with the Registrar of Voters of the County.

SIXTH: Resolution No. 12-62 and attached Table 1 will comprise the full text of this ballot measure.

SEVENTH: The District recognizes that the County will incur additional costs because of the consolidation of the election on this measure with the November 6, 2012 election and agrees to reimburse the County for those relevant, additional costs. The Chief Executive Officer is hereby authorized and directed to expend the necessary funds to pay for the District's cost of placing the measure on the election ballot.

PASSED AND ADOPTED by the Board of Directors of Santa Clara Valley Water District by the following vote on August 8, 2012:

AYES: Directors T. Estremera, P. Kwok, D. Gage, J. Judge,  
R. Santos, B. Schmidt, L. LeZotte

NOES: Directors None

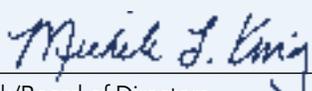
ABSENT: Directors None

ABSTAIN: Directors None

SANTA CLARA VALLEY WATER DISTRICT

By:   
LINDA J. LEZOTTE  
Chair/Board of Directors

ATTEST: MICHELE L. KING, CMC

  
Clerk/Board of Directors

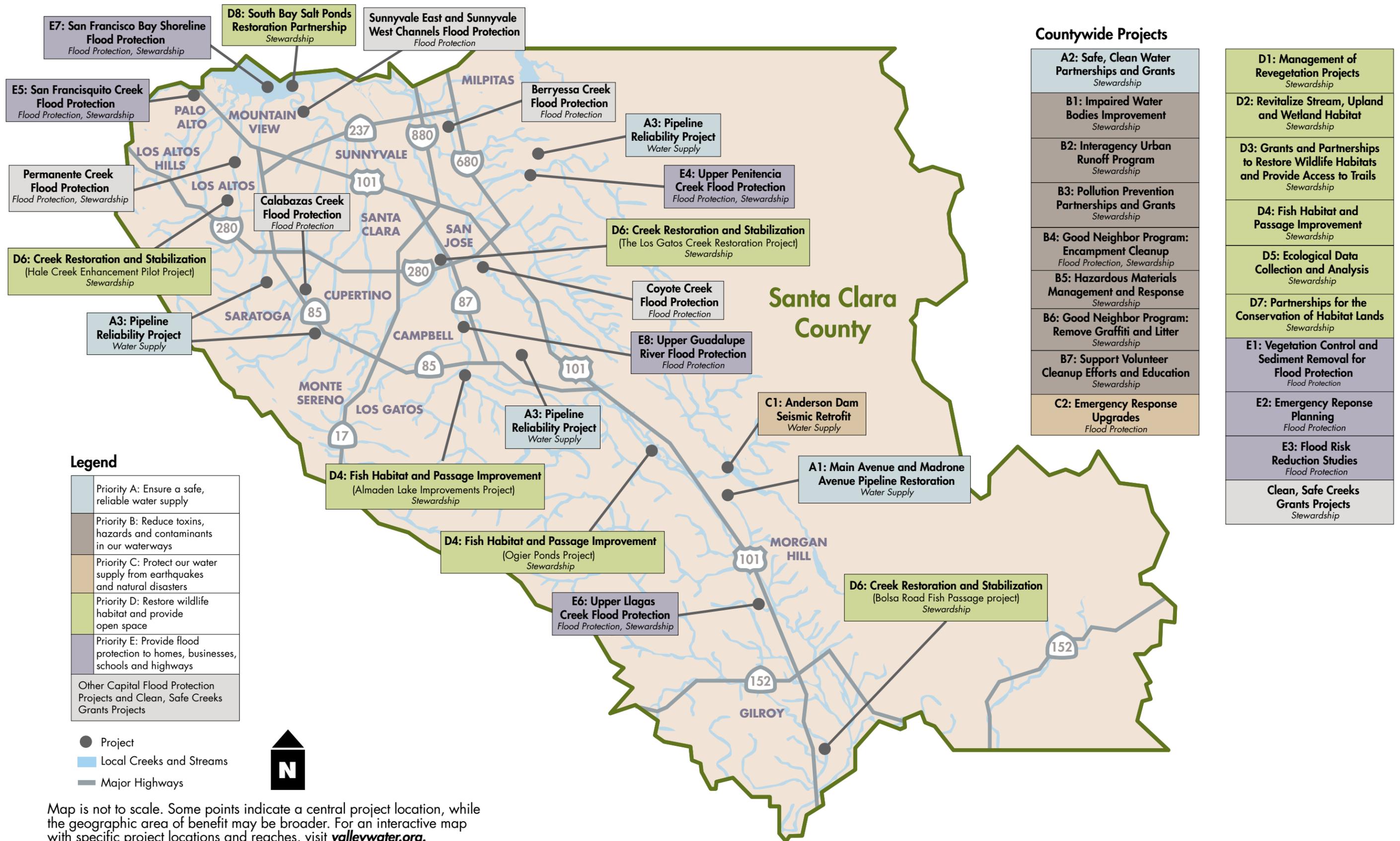
# Appendix E

Preliminary Debt Amortization Schedule* (thousands)					
Loan amount	90,000				
Interest rate (annual %)	FY19	3.42%			
	FY20	4.20%			
	FY 21-23	5.00%			
Term (years)	10				
Year	Beginning Balance	Principal	Interest	Debt Service	End Balance
Funding Sources					
FY15	0	-	-	-	-
FY16	-	-	4	4	-
FY17	-	-	29	29	-
FY18	30,000	-	68	68	30,000
FY19	30,000	-	1,129	1,129	60,000
FY20	-	-	2,562	2,562	60,000
FY21	30,000	-	3,169	3,169	90,000
FY22	-	-	4,566	4,566	90,000
FY23	-	-	4,566	4,566	90,000
FY24	-	-	4,579	4,579	90,000
FY25	-	20,000	4,231	24,231	70,000
FY26	-	30,000	3,048	33,048	40,000
FY27	-	25,000	1,612	26,612	15,000
FY28	-	15,000	514	15,514	0
<b>Total</b>		90,000	30,077	120,077	

\*Assumptions are subject to change due to constantly changing capital market dynamics

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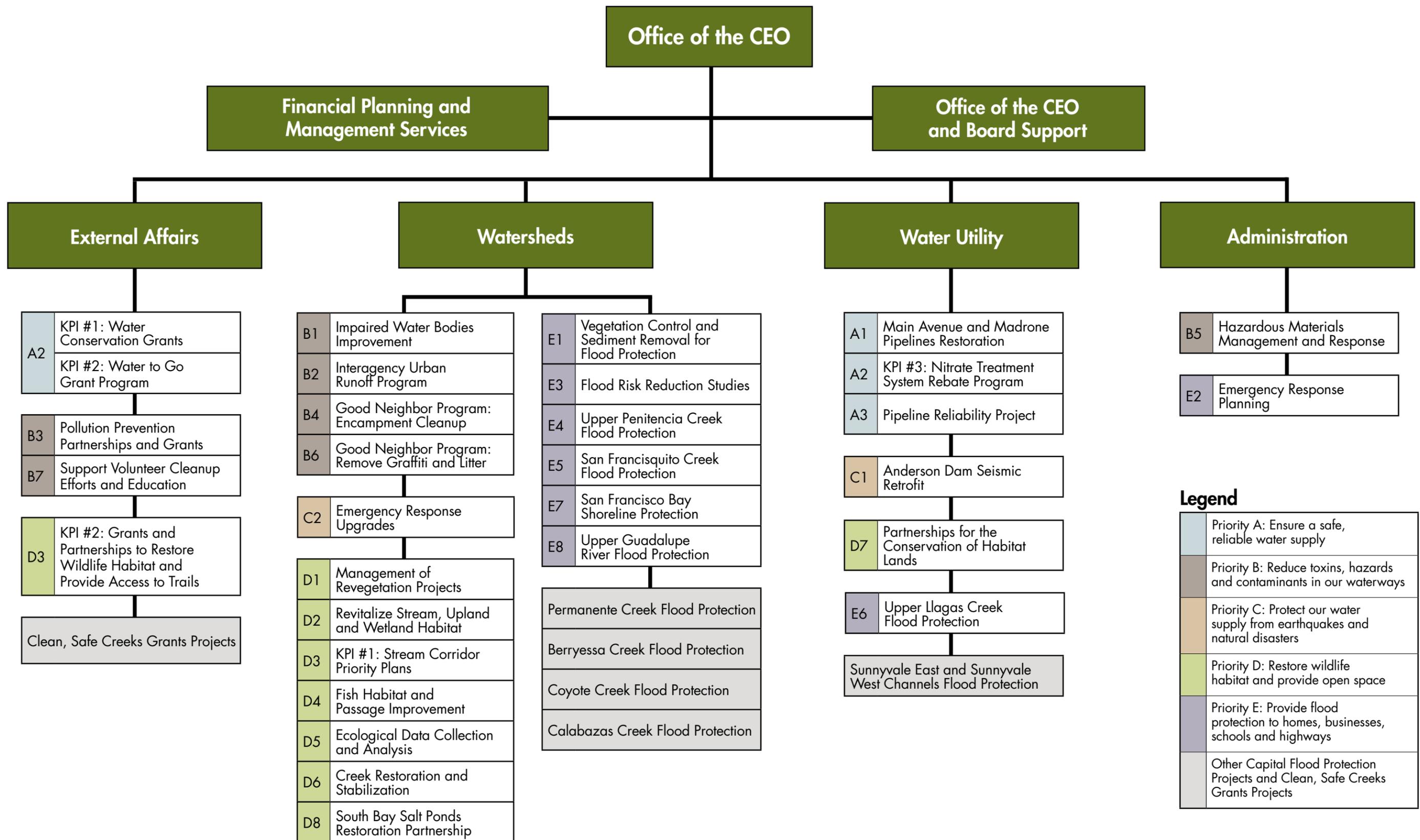
# Appendix F: Countywide Map of Safe, Clean Water Projects



Map is not to scale. Some points indicate a central project location, while the geographic area of benefit may be broader. For an interactive map with specific project locations and reaches, visit [valleywater.org](http://valleywater.org).

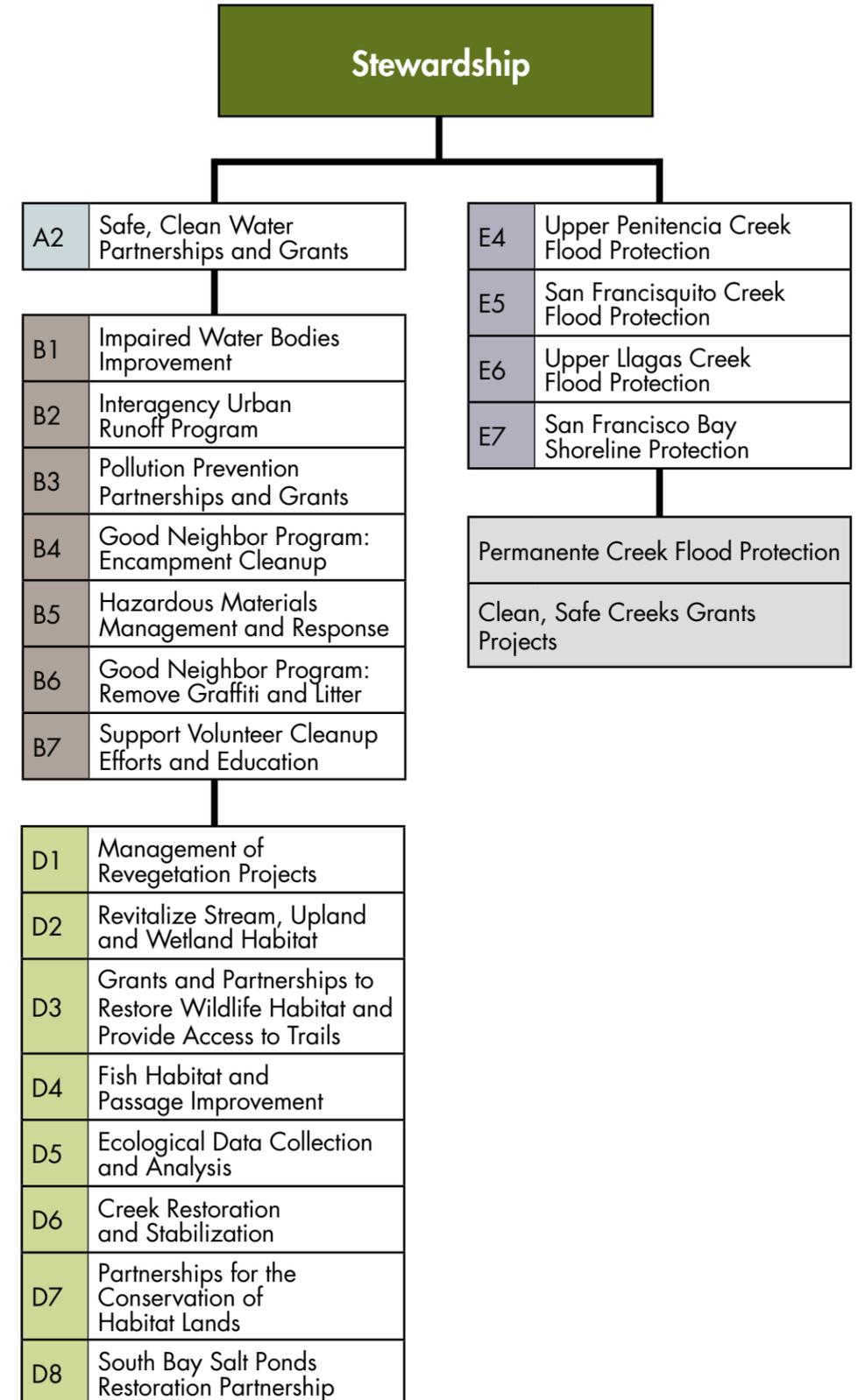
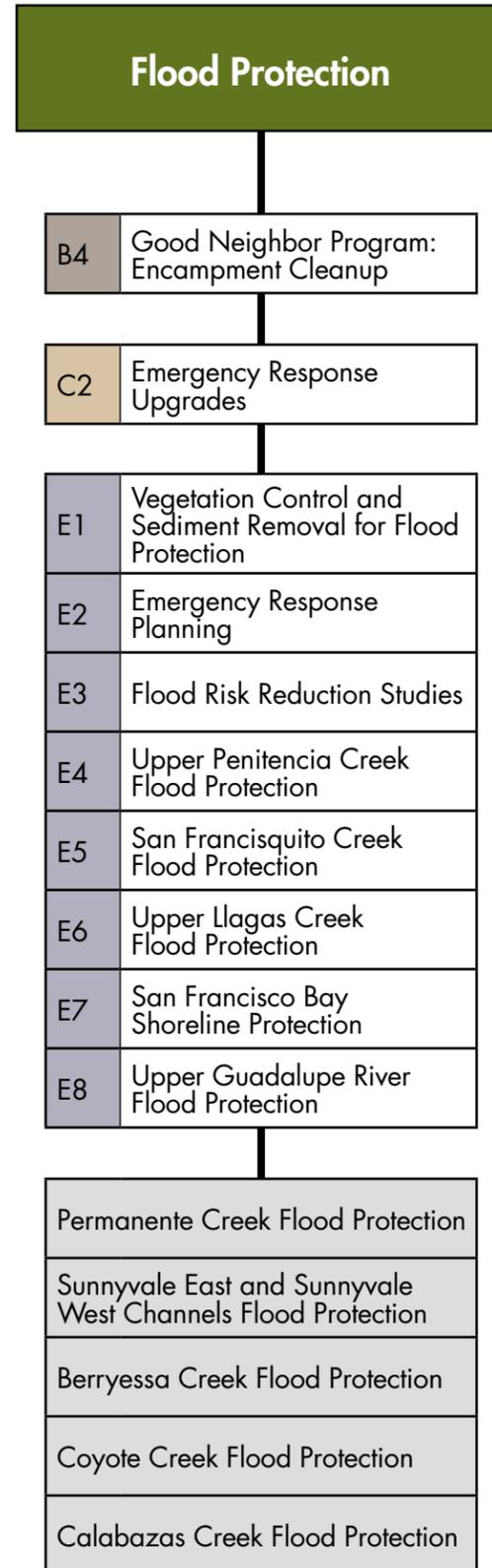
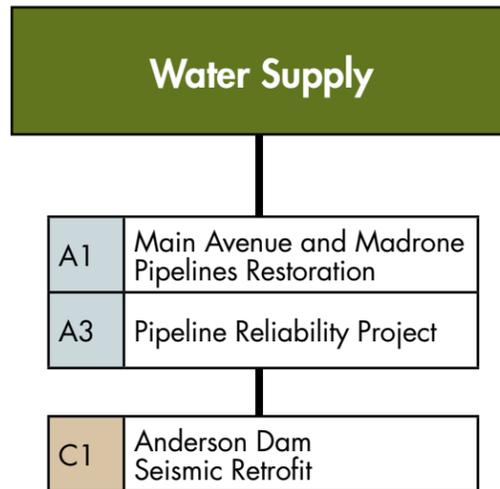
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# Appendix G: Projects by Organization Structure



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# Appendix H: Projects by Valley Water Mission Area



## Legend

	Priority A: Ensure a safe, reliable water supply
	Priority B: Reduce toxins, hazards and contaminants in our waterways
	Priority C: Protect our water supply from earthquakes and natural disasters
	Priority D: Restore wildlife habitat and provide open space
	Priority E: Provide flood protection to homes, businesses, schools and highways
	Other Capital Flood Protection Projects and Clean, Safe Creeks Grants Projects

Please note that some projects have multiple benefits; therefore they are listed under more than one mission area.

# 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.

## **Advanced Quantitative Precipitation Information (AQPI)**

A regional project awarded to the NOAA which consists of improved mapping and weather data for estimating precipitation, as well as a series of updated forecasting systems for more accurate weather prediction.

## **Anaerobic**

Defines an absence of oxygen or an organism which does not require oxygen to live.

## **Atmospheric river (AR)**

Long, narrow regions in the atmosphere which transport most of the water vapor outside the tropic regions. When atmospheric rivers face landfall, they deposit most of their vapors in the form of rain or snow.

## **Aquifer**

An underground geologic formation of rock, soil, or sediment that is saturated with water; an aquifer stores groundwater.

## **Bypass channel**

A channel built to carry excess water from a stream, or to divert water from the main channel.

## **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.

## **Cleanup**

The removal of trash and debris resulting from encampments; by Valley Water or by the Valley Water in coordination with other agencies.

## **Diameter at breast height (DBH)**

Measuring the diameter of a tree is most often measured at 4.5 feet (1.7m). This specified height is often where data-points such as growth, volume, and yield tables.

# Glossary



## **Ecosystem**

An ecological community of plants, animals, and microorganisms in their environment, functioning together as a unit.

## **Ecological service index (ESI)**

Index used to measure ecosystem services within multifunctional landscapes, typically defined as a synergistic approach to bridge the gap between ecological services and the needs of a particular landscape.

## **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 (homeless)**

1 or more structures occupied by an individual or family that is located illegally on Valley Water or other public property. An area where there are no structures, but where personal property is stored is also considered an encampment.

## **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.

## **Epilimnion**

The upper, wind-mixed layer of a lake which has been thermally stratified.

## **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.

## **Fisheries**

An area with an associated fish or aquatic population.

## **Fisheries and Aquatic Habitat and Collaborative Effort (FAHCE)**

Seeks to improve aquatic spawning and rearing habitat and fish passage for migration to and from the watersheds of Coyote and Stevens creeks as well as Guadalupe River. Improvements include

# Glossary



modifications to reservoir operations to provide instream flows, restoration measures to improve habitat conditions and fish passage, as well as monitoring and adaptive management techniques.

## **Fish passage**

A generic term for several methods incorporated into flood protection 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.

## **Geotechnical**

A field of study which explicitly deals with soil and rock behavior from an engineering perspective. Geotechnical engineers must assess risks such as landslides, slope stability, falling rocks, and avalanches.

## **Groundwater**

Water that is found beneath the surface in small pores and cracks in the rock and substrate.

## **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.

## **High Resolution Rapid Refresh (HRRR)**

Real-time 3-km resolution, hourly updated, cloud-resolving, convection-allowing atmospheric model, initialized by 3km grids with 3km radar assimilation. Such systems as the HRRR improve the efficacy of weather updating systems and weather pattern data.

## **Hydraulics**

# Glossary



The properties and behaviors of fluids, such as water.

## **Hydrology**

The behavior (properties, distribution, and circulation) of water in the atmosphere, on land, and in the soil.

## **Hypolimnion**

Dense, bottom layer of water in a thermally stratified lake. In the summer, lakes separate into layers: epilimnion (top of the lake) and the hypolimnion (bottom), with a thermocline layer in the middle.

Typically, the hypolimnion is the coldest layer of a lake in summer and is isolated from surface wind-mixing. During stratification, oxygen can be depleted in the hypolimnion.

## **Hypolimnion Oxygenation Systems**

Commonly used to increase dissolved oxygen concentrations in the hypolimnia of lakes and reservoirs. Benefits include maintenance of an oxygenated source to cool water, decrease in nutrient loading, inhibiting the release of harmful sediments, as well as maintaining a summer habitat for cold-water organisms.

## **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.

## **Methylation**

The complex process by which inorganic mercury in surface water is converted to toxic methylmercury, the only form of mercury that accumulates appreciably in fish.

## **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 mandated mitigation to avoid, minimize, rectify or reduce adverse environmental impacts, or compensate for the impact(s) by replacing or providing substitute resources or environments.

# Glossary



## **Mitigated negative declaration (MND)**

A negative declaration that incorporates revisions (mitigation measures) in the proposed in the project to ensure that no significant impacts on the environment can or will occur.

## **Modified floodplain**

A flood protection technique where land adjacent to a creek is lowered, allowing floodwaters to spread out over a wider area while containing the flow, and reducing the risk of damaging floods. A modified floodplain is often planted with native riparian species.

## **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.

## **Oxygenation treatment systems**

Treatment systems which 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 Game. Each permit gives the permitting agency an opportunity to attach specific measures to the project to reduce impact on the environment.

## **Plant palette**

A master list of appropriate plants that can be drawn from to create a specific assemblage of plants well-matched to a particular area or project's physical, hydrological and ecological conditions.

## **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.

## **Recharge**

The addition of new water to an aquifer or to the zone of saturation. See groundwater.

## **Respond**

For hazardous materials response (project B5) "Responded to" means that responder arrives at site within 2 hours. For litter and graffiti removal (project B6) "Responded to" means that a request for Valley Water action is acknowledged either verbally, in writing, or by email within 5 working days.

# Glossary



## **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.

## **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.

## **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 which 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

# Glossary



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.

## **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 rulemaking 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.

## **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.

## **Stream Corridor Priority Plan (SCPP)**

A document which identifies priorities for stream restoration and which can be a source of information to guide restoration actions by all parties.

## **Stream maintenance program (SMP)**

Removal of sediment, management of vegetation, clearing trash, stabilization of eroded riverbanks of a portion of 278 waterbodies in Santa Clara County.

## **Stratification**

Layering that occurs in most sedimentary rocks and in igneous rocks which have been formed at the Earth's surface from lava flows and fragmental deposits. Layers range from several millimeters to several meters in thickness and vary in shape greatly.

## **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.

## **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.

# Glossary



## **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 in order to preserve a vibrant, healthy ecosystem, and provide recreational opportunities when appropriate.

## **WebEx**

A system for holding meetings over the web which allows anyone with an internet connection to participate in real time with 2-way communication.

## **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.

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