

October 27, 2023

MEETING NOTICE**SANTA CLARA VALLEY WATER DISTRICT
CAPITAL IMPROVEMENT PROGRAM COMMITTEE**

Members of the Capital Improvement Program Committee:

Director Nai Hsueh, Chairperson
Director Tony Estremera, Vice-Chairperson
Director Jim Beall, Committee Member

Staff Support of the Capital Improvement Program Committee:

Rick L. Callender, Esq., Chief Executive Officer
Melanie Richardson, Asst. Chief Executive Officer
Bhavani Yerrapotu, Deputy Operating Officer of
Watersheds, Design and Construction Unit
Darin Taylor, Chief Financial Officer
Aaron Baker, Chief Operating Officer –Water Utility
Chris Hakes, Chief Operating Officer -Watersheds
Rachael Gibson, Chief of External Affairs
Tina Yoke, Chief Administrative Officer
Leslie Orta, Senior Assistant District Counsel
Audrey Beaman, Assistant District Counsel
Sam Bogale, Deputy Operating Officer
Tony Ndah, Deputy Administrative Officer
Don Rocha, Deputy Administrative Officer
John Bourgeois, Deputy Operating Officer
Jennifer Codianne, Deputy Operating Officer
Emmanuel Aryee, Deputy Operating Officer
Vincent Gin, Deputy Operating Officer
Gregory Williams, Deputy Operating Officer
Patrice McElroy, Deputy Administrative Officer
Alex Gordon, Acting Deputy Administrative Officer
Lisa Bankosh, Assistant Officer
Kirsten Struve, Assistant Officer
Bryant Welch, Labor Relations Officer

David Montenegro, Principal Construction
Contracts Administrator
Erin Baker, Asset Management Manager
Charlene Sun, Treasure & Debt Manager
Jessica Collins, Business Planning &
Analysis Unit Manager
Enrique De Anda, Budget Manager
Jennifer Martin, Program Administrator
Conception Gayotin, Purchasing & Contracts
Manager
Linh Hoang, Communications Manager
Jill Bernhard, Acting System Development &
Support Manager
Sarah Berning, Program Administrator
Phyllis Chen, Senior Management Analyst
Alison Phagan, Senior Management Analyst
Stacy Klopfer, Senior Management Analyst
Agnes Lee, Senior Management Analyst
Chenlei Yao, Senior Management Analyst
Feliser Lee, Senior Management Analyst
Timothy Chan, Management Analyst II
Kristie Resendez, Management Analyst II

A Santa Clara Valley Water District regular Capital Improvement Program Committee special meeting has been scheduled to occur at 11:00 a.m. on Monday, October 30, 2023 at the Headquarters Building Boardroom located at the Santa Clara Valley Water District, 5700 Almaden, San Jose, CA.

Members of the public may join at: <https://valleywater.zoom.us/j/94158013374>.

The meeting agenda and corresponding materials are located on the Committee's website at: <https://www.valleywater.org/how-we-operate/committees/board-committees>.

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Santa Clara Valley Water District Capital Improvement Program Committee Meeting

Headquarters Building Boardroom
5700 Almaden Expressway, San Jose, CA 95118

Join Zoom Meeting
<https://valleywater.zoom.us/j/94158013374>

REGULAR MEETING AGENDA

**Monday, October 30, 2023
11:00 AM**

District Mission: Provide Silicon Valley safe, clean water for a healthy life, environment and economy.

BOARD COMMITTEE MEMBERS:

Committee Chair:
Director Nai Hsueh, District 5

Committee Vice Chair:
Director Tony Estremera, District 6

Committee Member:
Director Jim Beall, District 4

During the COVID-19 restrictions, all public records relating to an open session item on this agenda, which are not exempt from disclosure pursuant to the California Public Records Act, that are distributed to a majority of the legislative body, will be available to the public through the legislative body agenda web page at the same time that the public records are distributed or made available to the legislative body. Santa Clara Valley Water District will make reasonable efforts to accommodate persons with disabilities wishing to participate in the legislative body's meeting. Please advise the Clerk of the Board Office of any special needs by calling (408) 265-2600.

COMMITTEE LIAISON:
Jessica Collins

COMMITTEE CLERK: Dave Leon
(COB Liaison)
Assistant Deputy Clerk II
408-630-2006
davidleon@valleywater.org
www.valleywater.org

Note: The finalized Board Agenda, exception items and supplemental items will be posted prior to the meeting in accordance with the Brown Act.

Santa Clara Valley Water District
Capital Improvement Program Committee
REGULAR MEETING
AGENDA

Monday, October 30, 2023

11:00 AM

Headquarters Building Boardroom
5700 Almaden Expressway, San Jose, CA 95118

Join Zoom Meeting:
<https://valleywater.zoom.us/j/94158013374>

*****IMPORTANT NOTICES AND PARTICIPATION INSTRUCTIONS*****

Santa Clara Valley Water District (Valley Water) Board of Directors/Board Committee meetings are held as a “hybrid” meetings, conducted in-person as well as by telecommunication, and is compliant with the provisions of the Ralph M. Brown Act.

To maximize public safety while still maintaining transparency and public access, members of the public have an option to participate by teleconference/video conference or attend in-person. To observe and participate in the meeting by teleconference/video conference, please see the meeting link located at the top of the agenda. If attending in-person, you are required to comply with Ordinance 22-03 - AN ORDINANCE OF THE SANTA CLARA VALLEY WATER DISTRICT SPECIFYING RULES OF DECORUM FOR PARTICIPATION IN BOARD AND COMMITTEE MEETINGS located at <https://s3.us-west-2.amazonaws.com/valleywater.org.if-us-west-2/f2-live/s3fs-public/Ord.pdf>

In accordance with the requirements of Gov. Code Section 54954.3(a), members of the public wishing to address the Board/Committee during public comment or on any item listed on the agenda, may do so by filling out a Speaker Card and submitting it to the Clerk or using the “Raise Hand” tool located in the Zoom meeting application to identify yourself in order to speak, at the time the item is called. Speakers will be acknowledged by the Board Chair in the order requests are received and granted speaking access to address the Board.

- Members of the Public may test their connection to Zoom Meetings at: <https://zoom.us/test>
- Members of the Public are encouraged to review our overview on joining Valley Water Board Meetings at: <https://www.youtube.com/watch?v=TojJpYCxXm0>

Valley Water, in complying with the Americans with Disabilities Act (ADA), requests individuals who require special accommodations to access and/or participate in Valley Water Board of Directors/Board Committee meetings to please contact the Clerk of the Board’s office at (408) 630-2711, at least 3 business days before the scheduled meeting to ensure that Valley Water may assist you.

This agenda has been prepared as required by the applicable laws of the State of California, including but not limited to, Government Code Sections 54950 et. seq. and has

not been prepared with a view to informing an investment decision in any of Valley Water's bonds, notes or other obligations. Any projections, plans or other forward-looking statements included in the information in this agenda are subject to a variety of uncertainties that could cause any actual plans or results to differ materially from any such statement. The information herein is not intended to be used by investors or potential investors in considering the purchase or sale of Valley Water's bonds, notes or other obligations and investors and potential investors should rely only on information filed by Valley Water on the Municipal Securities Rulemaking Board's Electronic Municipal Market Access System for municipal securities disclosures and Valley Water's Investor Relations website, maintained on the World Wide Web at <https://emma.msrb.org/> and <https://www.valleywater.org/how-we-operate/financebudget/investor-relations>, respectively.

Under the Brown Act, members of the public are not required to provide identifying information in order to attend public meetings. Through the link below, the Zoom webinar program requests entry of a name and email address, and Valley Water is unable to modify this requirement. Members of the public not wishing to provide such identifying information are encouraged to enter "Anonymous" or some other reference under name and to enter a fictional email address (e.g., attendee@valleywater.org) in lieu of their actual address. Inputting such values will not impact your ability to access the meeting through Zoom.

Join Zoom Meeting:

<https://valleywater.zoom.us/j/94158013374>

Meeting ID:883 1450 0886

Join by Phone:

1 (669) 900-9128, 94158013374#

1. CALL TO ORDER:

1.1. Roll Call.

2. TIME OPEN FOR PUBLIC COMMENT ON ANY ITEM NOT ON THE AGENDA.

Notice to the public: Members of the public who wish to address the Board/Committee on any item not listed on the agenda may do so by filling out a Speaker Card and submitting it to the Clerk or using the "Raise Hand" tool located in the Zoom meeting application to identify yourself to speak. Speakers will be acknowledged by the Board/Committee Chair in the order requests are received and granted speaking access to address the Board/Committee. Speakers' comments should be limited to three minutes or as set by the Chair. The law does not permit Board/Committee action on, or extended discussion of, any item not on the agenda except under special circumstances. If Board/Committee action is requested, the matter may be placed on a future agenda. All comments that require a response will be referred to staff for a reply in writing. The Board/Committee may take action on any item of business appearing on the posted agenda.

3. REGULAR AGENDA:

3.1. Overview of the Annual Capital Improvement Program Process and Review of the Currently Unfunded Projects.

[23-1142](#)

Recommendation: A. Receive overview of the Annual Capital Improvement Program Process;
 B. Review list of Currently Unfunded Capital Projects; and
 C. Provide feedback as necessary.

Manager: Luz Penilla, 408-630-2228

Attachments: [Attachment 1: PowerPoint](#)
 [Attachment 2: Initially Validated/Unfunded Projects](#)

4. CLERK REVIEW AND CLARIFICATION OF COMMITTEE REQUESTS.

This is an opportunity for the Clerk to review and obtain clarification on any formally moved, seconded, and approved requests and recommendations made by the Committee during the meeting.

5. ADJOURN:

5.1. Adjourn to Regular Meeting at 11:00 a.m. on November 13, 2023.



Santa Clara Valley Water District

File No.: 23-1142

Agenda Date: 10/30/2023

Item No.: 3.1.

COMMITTEE AGENDA MEMORANDUM Capital Improvement Program Committee

Government Code § 84308 Applies: Yes ☐ No ☒
(If "YES" Complete Attachment A - Gov. Code § 84308)

SUBJECT:

Overview of the Annual Capital Improvement Program Process and Review of the Currently Unfunded Projects.

RECOMMENDATION:

- A. Receive overview of the Annual Capital Improvement Program Process;
- B. Review list of Currently Unfunded Capital Projects; and
- C. Provide feedback as necessary.

SUMMARY:

The annual update of the Capital Improvement Program (CIP) Five-Year Plan includes project plan updates for all existing capital projects and a Validation Process to review and evaluate potential new capital projects for inclusion in the CIP, along with review points for the CIP Committee and decision points for the Board. A presentation that shows the steps in detail, along with an integrated financial planning schedule, is included in the Annual CIP Process PowerPoint (Attachment 1).

Annual CIP Process Overview

Each year, Santa Clara Valley Water District (Valley Water) staff can submit new projects to be considered for inclusion in Valley Water's CIP. For each potential new project, staff develops a business case to compare capital, non-capital, and non-asset alternative solutions; evaluates the lifecycle costs of these solutions; and identifies a recommended solution that minimizes lifecycle cost while balancing service levels and risk.

In May through September, staff submits the business case for review by their respective Deputy Operating Officer (DOO) or Deputy Administrative Officer (DAO). If staff's respective DOO/DAO approves the project, it is submitted to the CIP coordinator. Simultaneously, project managers update their existing capital projects to reflect changes to scope, schedule, and project cost/planned

expenditures, which must also be approved by the respective DOO/DAO.

Between October and November each year these newly-proposed, initially validated projects will be presented to the CIP Committee and Board, along with a list of currently unfunded projects, which have been validated during prior years, for review and comment. Committee and Board feedback will be considered when preparing the funding scenarios for the CIP Preliminary Five-Year Plan.

Newly Implemented Funding Categories

As funding constraints due to rising capital costs continue to be addressed, and in response to recent recommendations from the CIP Performance Audit, staff has developed Funding Categories to enhance the Funding Filters tool.

Categories 1 and 2 focus on further prioritizing existing infrastructure projects based on their Business Risk Exposure (BRE) scores as assigned in the Asset Management Plan. Category 3 applies to existing infrastructure projects that have a lower risk of failure, and new infrastructure projects.

Further details of the three Categories are as follows:

1. Category 1: ≥ 19 points

Category 1 Projects meet Valley Water's objectives to repair/replace its existing infrastructure within certain timeframes, targeting the inclusion of projects with an AMP BRE score that is ≥ 88 and have public health and safety benefits. In addition, projects that are currently in the construction phase or externally mandated (required by law, regulation, federal order, lawsuit, etc.) are automatically included in Category 1.

2. Category 2: 13-18.5 points

Category 2 Projects meet Valley Water's objectives to repair/replace its existing infrastructure within certain timeframes, targeting the inclusion of projects with an AMP BRE score that is between 76-87 and have public health and safety benefits.

3. Category 3: ≤ 12.5

Category 3 Projects have a lower risk of failure and an AMP BRE score of ≤ 75 , which includes existing infrastructure projects and new infrastructure projects, as identified/prioritized in Valley Water's Master Plans and Program Plans. In addition, small capital improvement projects and placeholder projects are automatically included in Category 3.

Valley Water's CIP Five-Year Plan includes projects that meet the criteria for all three Categories, all of which are critical to meeting Valley Water's mission. In alignment with Ends Policies (goals and objectives for accomplishing Valley Water's Mission), the Board may approve the funding of projects in any category.

Each of the Initially Validated/Unfunded existing infrastructure projects have been ranked based on points received according to the funding filters and BRE scores. New infrastructure projects are

automatically placed in Category 3, as referenced above.

Initially Validated Unfunded Projects

There are two currently validated unfunded projects and six newly-proposed, initially validated projects that were submitted. Project descriptions of each of the Initially Validated Unfunded Projects are included in Attachment 2. For a high-level overview of the Initially Validated Unfunded Projects List, see the table below:

Project Name	Estimated Total Project Cost (\$ thousands w/inflation)	Phase	Potential Funding Source	FY 2023-24 Funding Category
FY 2023-24 Initially Validated Projects				
Regnart Creek Rehabilitation*	\$9,000	Design	Funds 12/26	Category 1 – Existing Infrastructure
Permanente & Hale Creek Concrete Replacement*	\$21,000	Design	Funds 12/26	Category 1 – Existing Infrastructure
SCADA** Master Plan Implementation Project (SMPIP) Upgrades Phase 1	\$11,000	Design	Fund 61	Category 2 – Existing Infrastructure
Alamitos Dam Replacement and Automation	\$10,000	Planning	Fund 61	Category 3 – Existing Infrastructure
San Jose Purified Water Project	\$50,000	Planning	Fund 61	Category 3 – NEW Infrastructure
Coyote 10B Freshwater Wetlands	\$9,000	Planning	Fund 12	Category 3 – NEW Infrastructure
Current Unfunded Projects				
South Babb Flood Protection-Long Term	\$23,000	Planning	Fund 12	Category 3 – Existing Infrastructure
Pond A4 – Construction ONLY	\$34,000	Construction	Fund 12	Category 3 – NEW Infrastructure

* Projects identified through planning under the Sustainable Creek Infrastructure Program (Safe, Clean Water - Project F8)

**Supervisory Control and Data Acquisition

Development of the CIP Preliminary Five-Year Plan

In the fall of every year, an overview of the significant project plan updates from the prior year's adopted CIP are presented to the CIP Committee for information and feedback. During this same time, CIP and Finance staff compile the data from existing CIP project plans, collect the operational forecast information, and run the financial models.

The CIP Evaluation Team (Chief Executive Officer (CEO), Assistant CEO, Chiefs and Deputies of the divisions initiating, delivering, implementing, and operating capital projects) meets in November of each year to review the financial models and determine which, if any, unfunded projects should be recommended for inclusion in the CIP. To ensure Valley Water's high priority business needs are met in adherence to Board policy, the CIP Evaluation team reviews the projects based upon:

- Board Priorities
- Asset's remaining lifespan
- Available funding
- Urgency of investment

Based upon the outcome of its review, the CIP Evaluation Team provides recommendations regarding whether the new proposed capital projects should be funded in the CIP upcoming

Preliminary Five-Year Plan or remain on the unfunded list. Funding scenarios that include these recommendations will be presented to the CIP Committee for review and feedback in December, along with the CIP Preliminary FY 2025-29 Five-Year Plan.

Each January, CIP and Finance staff update the funding scenarios to include staff and CIP Committee recommendations, which will be presented to the full Board during a Funding Scenario Workshop, as part of the CIP's Preliminary Five-Year Plan and Groundwater Charges item. Funding decisions will be made by the Board through its approval of CIP Preliminary FY 2025-29 Five-Year Plan.

ENVIRONMENTAL JUSTICE IMPACT:

There are no Environmental Justice impacts associated with this item.

ATTACHMENTS:

Attachment 1: PowerPoint

Attachment 2: Initially Validated/Unfunded Projects

UNCLASSIFIED MANAGER:

Luz Penilla, 408-630-2228



Development of Preliminary FISCAL YEAR 2025-2029 (FY 25-29)

Capital Improvement Program (CIP) Annual Process Overview

Presented by:

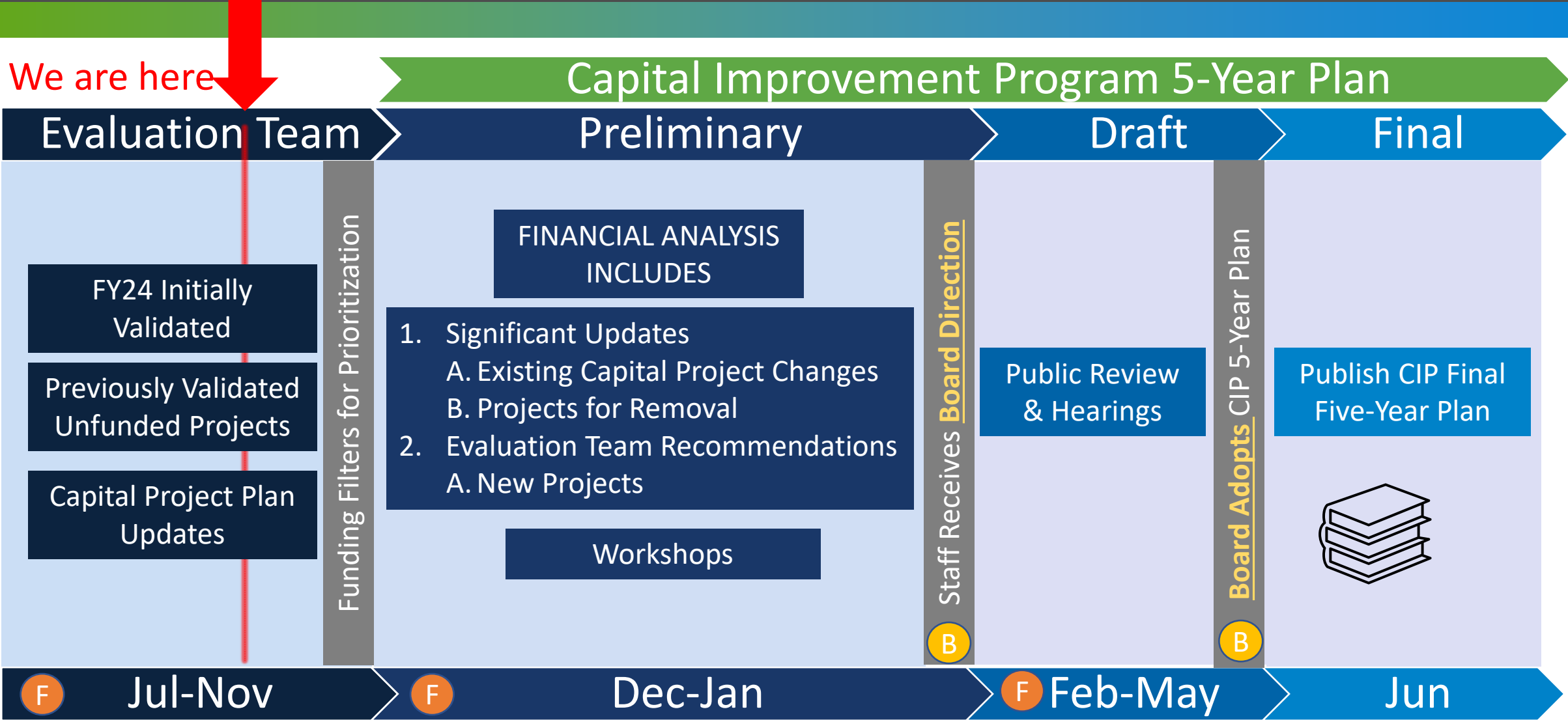
Luz Penilla, Assistant Officer
Office of Integrated Water Management
October 30, 2023

Presentation Outline

1. Annual CIP 5-Year Plan Timeline
2. Integrated Financial Planning Schedule
3. Unfunded Project List
 - A. FY 2023-24 Initially Validated Projects
 - B. Current Unfunded Capital Projects
4. Safe, Clean Water Program Public Hearing
5. Next Steps



FY25 Annual CIP 5-Year Plan Timeline



Integrated Financial Planning Schedule

REF #	MEETING		MILESTONE
	CIP CMTE	BOARD	
1	9/18/23		Water Supply Workshop/Funding Filters for Prioritization Presentation
2		9/19/23	Water Supply Workshop/Funding Filters for Prioritization Presentation
3	10/16/23		Annual CIP Process Overview, Integrated Financial Planning Calendar, New, & Unfunded Projects Presentation
4		11/14/23	Annual CIP Process Overview, Integrated Financial Planning Calendar, New, & Unfunded Projects Presentation
5		11/14/23	Water Rate Planning Overview & Budget Process Planning Overview
6	12/11/23		CIP Preliminary Five-Year Plan Funding Workshop (Financial Modeling & CIP Updates From Adopted FY24-28 Plan)
7		1/9/24	<div> <div> Five-Year WS & WU O&M Plans CIP Preliminary 5-yr Plan Workshop (Financial Modeling & Significant Updates) CIP SCW/WS Preliminary 10-yr Financial Analysis Preliminary Water Rate Analysis & Scenarios </div> <div> } Combined Presentation </div> </div>
8		1/23/24	SCW Public Hearing (If Required) 1 st Pass Budget Update
9		2/13/24	Draft CIP (Authorize to Distribute for Public Review) WU Master Plan Implementation Projects
10		3/12/24	2 nd Pass Budget Update
11		4/9/24	Ground Water Charge Public Hearings Begin CIP Public Hearing Begins (Optional Date 4/23)
12		4/11/24	Ground Water Charge Public Hearing in South County (Gilroy)
13		4/23/24	Ground Water Charge Public Hearings Close
14		4/24/24	Budget Work-study Session
15		5/14/24	Board Adoption of Water Rates, CIP, Budget, Investment and Debt Resolutions (w/Final CIP and Budget Reports Completed by 6/28/24)
16		6/28/24	FY25 Rate Notifications: Website and Mailers (Retailers and All Customers)

LEGEND

CIP

Budget

Water Rates

Safe Clean Water (SCW)

Asset Management (AM)

Initially Validated and Currently Unfunded Projects

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**Supervisory Control and Data Acquisition

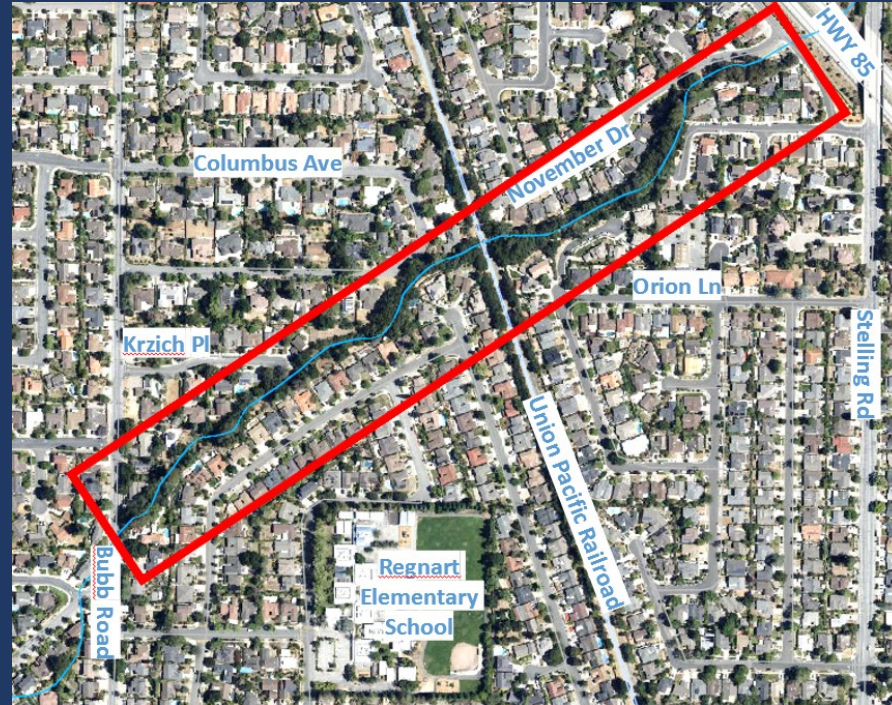
Regnart Creek Rehabilitation Project

TPC: \$9 M

Duration: 2-3 Years

Location: Cupertino, CA

Project Limits: Festival Drive to Bubb Road



Bank Erosion & Creek Obstructions



Objectives:

1. Execute SCW Project F8 work: Sustainable Creek Infrastructure for Continued Public Safety
2. Reduce the risk of bank failures that can impact adjacent properties
3. Apply geomorphic principles to reduce the frequency of erosion recurrence

Attachment 1
Page 6 of 24

Regnart Creek Rehabilitation Project

Background:

1. Severe incision and bank erosion
2. Winter storms in early 2023 caused additional bank failure and downed trees
3. Emergency repair project in October 2023 addressed most urgent localized spots
4. Entire reach still needs stabilization

Benefits:

1. Continue intended level of service
2. Extends and ensures the life of existing infrastructure functions sustainably
3. Achieves SCW F8 KPI

Projected Milestones / Deliverables:

1. Implement Asset Management Plans and/or Planning Studies
2. Design Phase: ~1 Year
3. Construction Phase: ~1 Year

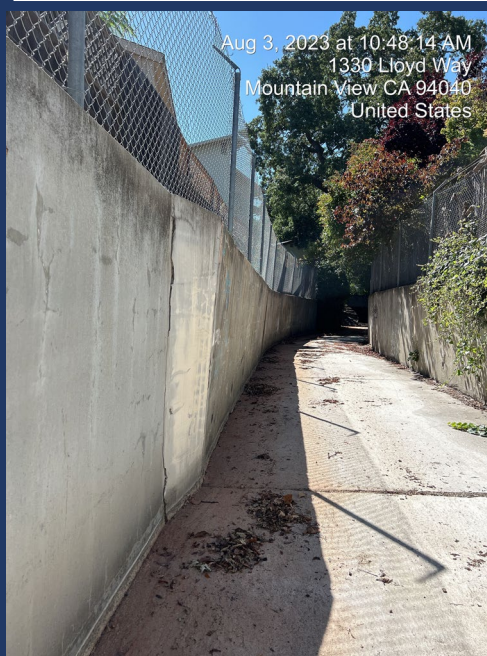
Permanente and Hale Creeks Concrete Replacement Project

TPC: \$21 M

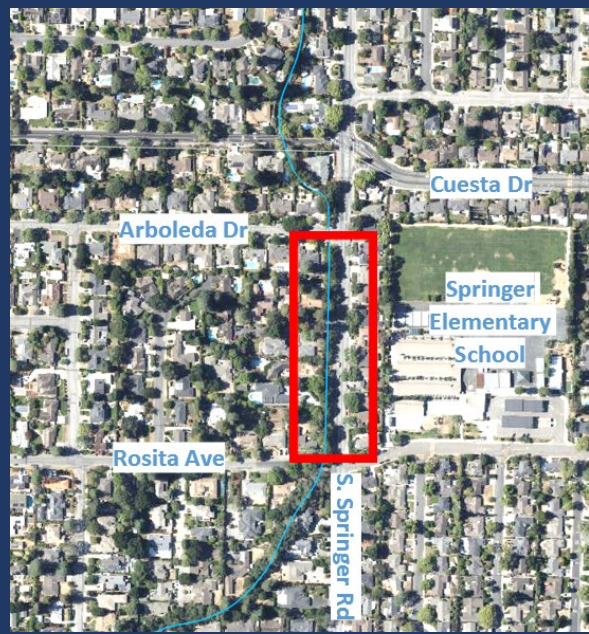
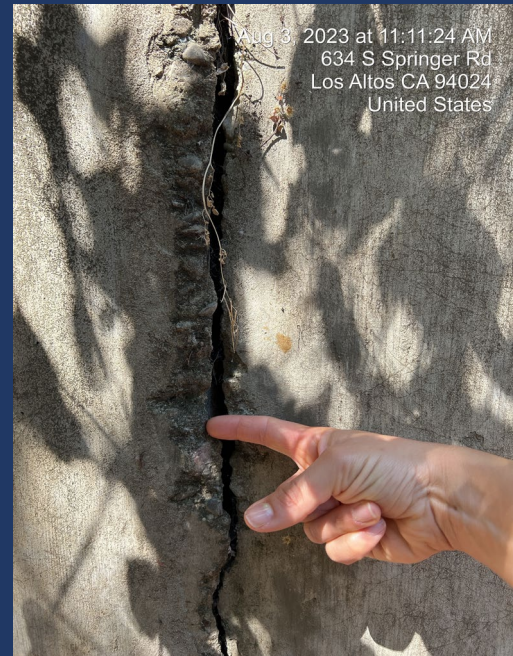
Duration: 2-3 Years

Location: Mountain View, CA and Los Altos, CA

Permanente Creek Project Limits: Park Drive to Mountain View Avenue



Hale Creek Project Limits: Arboleda Drive to Rosita Avenue



Objectives:

1. Replace concrete U-frame channel for both creek reaches
2. Ensure existing infrastructure continues to function sustainably

Permanente and Hale Creeks Concrete Replacement Project

Background:

1. Concrete channel walls are over 60 years old
2. Walls show signs of deterioration (cracking/leaning).
3. Replacement will minimize risk and prevent existing walls from collapsing.

Benefits:

1. Continue intended level of service
2. Extends and ensures the life of existing infrastructure functions sustainably
3. Achieves SCW KPI F8

Projected Milestones / Deliverables:

1. Implement Asset Management Plans and/or Planning Studies
2. Design Phase: ~1 Year
3. Construction Phase: ~1 Year

SMPIP Upgrades Phase 1

Duration: 9 Years

Project Location



Control Center



Protect and Maintain Existing Water Infrastructure

Objectives:

1. Upgrade aging Supervisory Control and Data Acquisition System (SCADA) communications
2. Implement additional backup control center capabilities for SCADA

SMPIP Upgrades Phase 1

Linkage to Adopted CIP:

1. Planning is part of the SCADA Master Plan Implementation Project (SMPIP)
 - A. SMPIP: 15- Year Program of Upgrade Projects – Phase 1 & Phase 2
 - B. Phase 1: Communication and Control Centers
 - C. Phase 2: Water Treatment Plant SCADA Upgrades

Benefits:

1. Improves remote control capabilities of Raw Water Conveyance System
2. Enhances cybersecurity and supports continuous operations
3. Ensures ability to delivery raw water to drinking water treatment plants and groundwater recharge facilities

Projected Milestones / Deliverables:

1. New and/or upgraded SCADA communications systems & control center infrastructure
2. Planning (FY24-FY25); Design ~1-2 Years; Construction ~6 Years

Alamitos Dam Replacement and Automation

TPC: \$10 M

Funding: Fund 61

Duration: 3-4 Years

Location: San Jose, CA

Project Location:

Alamitos Diversion Dam on Guadalupe River



Project Site: Installation of Flashboard Dam



Objectives:

1. Routinely operate the diversion dam to impound water during winter seasons
2. Increase use of local water rights for managed groundwater recharge
3. Reduce dependence on imported water in Alamitos Pond and the four Guadalupe Ponds
4. Eliminate the need for and risk of sending personnel and heavy equipment to creek
5. Expedite flood risk reduction response during unexpected storms

Attachment 1
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Alamitos Dam Replacement and Automation

Background:

1. Existing wooden, flashboard dam is typically installed and removed once a year
2. During the rainy seasons, Valley Water cannot divert local water to ponds for groundwater recharge
3. Cannot fully utilize their annual recharge capacity of 8,100 acre-feet to replenish the groundwater basin

Benefits:

1. Increases operational flexibility of the Alamitos Diversion to improve use of local water rights
2. Financial savings to Water Utility Enterprise and rate payers
3. Benefits the environment by eliminating need to dewater creek prior to sending heavy equipment

Projected Milestones / Deliverables:

Planning ~ 1 Year; Design ~1 Year; Construction ~2 Years

San Jose Purified Water Project

TPC: \$50 M

Funding: Fund 61

Duration: 5-6 Years

Location: San Jose, CA

Proposed Project Site



Future Facility



Objectives:

1. Construct Direct Potable Reuse (DPR) Demonstration Facility
2. Ensure successful implementation of a full-scale DPR Purified Water Project in San José
3. Ensure treatment train protects public health
4. Operator training
5. Public Outreach for Acceptance of DPR as a Reliable and Drought Resilient Water Supply

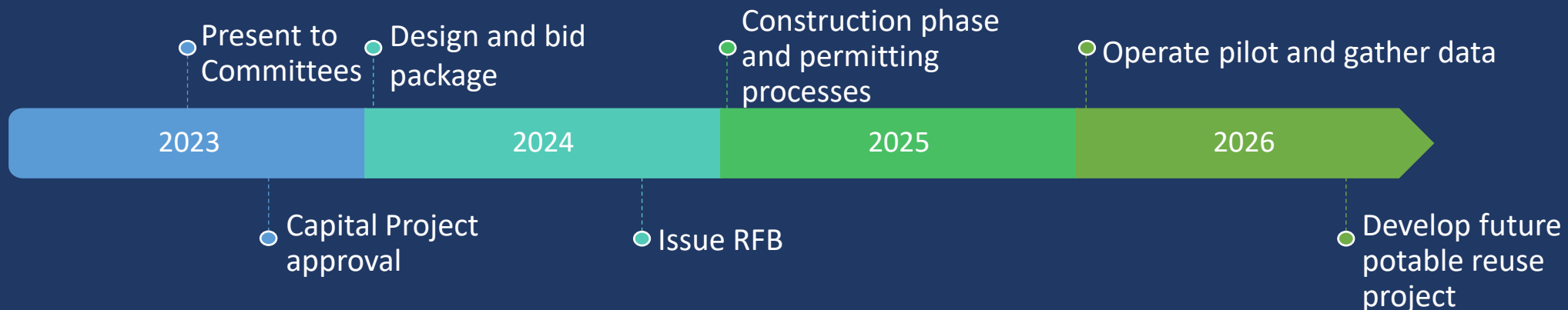
San Jose Purified Water Project

Linkage to Adopted CIP : The project is not linked to an existing CIP project or program

Benefits:

1. Permitting and Meeting Regulatory Requirements
2. Developing Interagency Agreements
3. Testing and Monitoring Alternative DPR Treatment Trains for Full Scale Project
4. Outreach and Public Education
5. Train Specialized Operations Staff

Projected Milestones / Deliverables:



Coyote 10B Freshwater Wetlands

TPC: \$9 M

Funding: Fund 12

Duration: 3-4 Years

Location: South San Jose, CA

Project Location:

Metcalfe Road Area near HWY 101



Project Site: Coyote 10B



Objectives:

1. Meet mitigation requirements for the multi-year Stream Maintenance Program (SMP-3) from 2027-2037 in the Santa Clara Basin.
2. Create 7 acres of freshwater wetland
3. Create 1 acre of upland habitat
4. Create 1.5 acres (1,430 linear feet) of channel with inclusion of fisheries habitat features

Coyote 10B Freshwater Wetlands

Background:

1. Stream Maintenance Program (SMP)
 - A. Guides, conducts, and oversee the routine maintenance of streams, flood control channels, and other facilities within VW's service area.
2. SMP-3 activities may result in unavoidable impacts to the project site
3. Valley Water best management practices avoid and/or minimize impacts
4. Valley Water acquired the site for wetlands creation.

Benefits:

1. Continue to serve watersheds O&M needs and enhance habitat for flora and fauna.
2. Provide mitigation for the SMP-3 (2027-2037) O&M impacts;
3. Enhances fisheries and wildlife habitat functions and values of watershed; and
4. Supports watershed wide restoration
5. Enhances other environmental projects in area
(i.e. Coyote 10A Wetlands, Coyote Percolation Ponds Dam and fish passage (Phase 1 & 2), Ogier Ponds Separation)

Projected Milestones / Deliverables:

1. SMP-3 begins new program/permit cycle-2027
2. Planning ~1 Year; Design ~1 Year; Construction ~1 Year
3. Seven acres of freshwater wetlands and 1-2 acres of upland/riparian;

South Babb Flood Protection

TPC: \$23 M

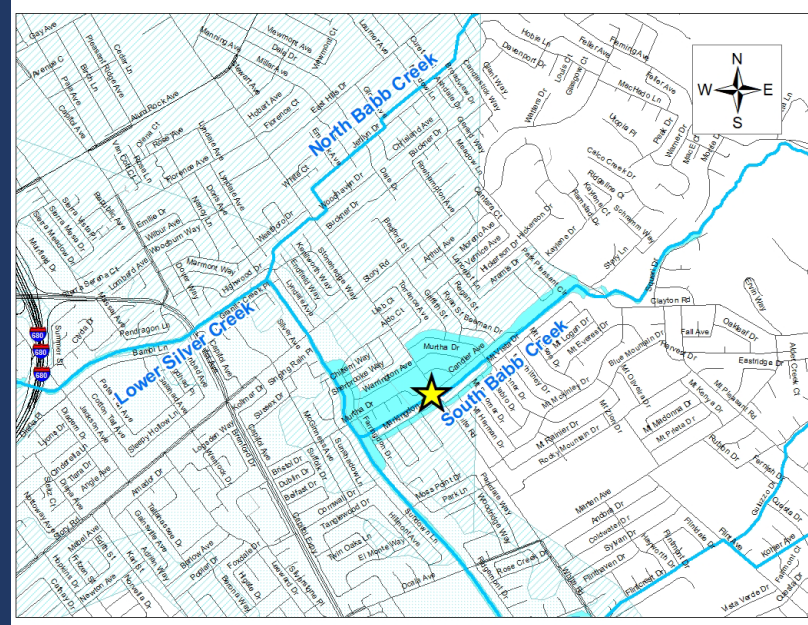
Funding: Funds 12

Duration: 5-6 Years

Location: San Jose, CA

South Babb Creek:

Confluence with Lower Silver Creek to Clayton Road



Farringdon Dr Crossing



Objective:

1. Improve capacity of South Babb Creek to contain most flows during a 100-year flow event
2. Replace three bridges: Farringdon Drive, South White Road, Lochner Drive
3. Remove some areas from the 100-Year FEMA floodplain

South Babb Flood Protection

Background:

1. The 2016 Watershed Asset Management Plan recommended replacing concrete inverts along South Babb
2. No other projects would address flooding risk along South Babb

Benefit:

1. Substantially reduces flooding risk during a 1% Flow event on South Babb Creek
2. May remove some areas from FEMA floodplain.

Projected Milestones / Deliverables:

1. Planning: ~1 Year
2. Design : ~1- 2 Years
3. Construction: ~1 - 3 Years

Pond A4 Phase 2

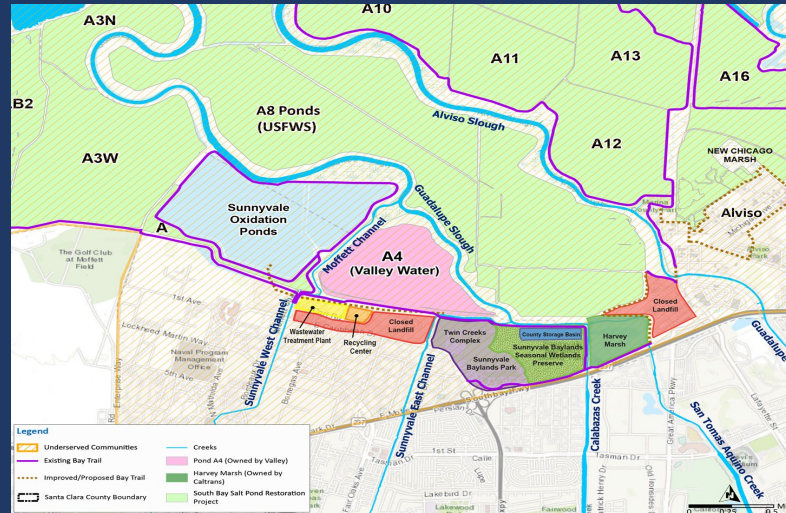
TPC: \$34 M

Funding: Funds 12

Duration: 15 Years

Location: Sunnyvale, CA

Pond A4 Limits:



Project Site



Objective:

1. Restore mudflat habitat that once existed along the Bay's edge.
2. Enhance Pond A4 biodiversity and ecological function.
3. Continue Valley Water's beneficial sediment reuse along Bay shore.

Pond A4 Phase 2

Linkage to Adopted CIP and Background:

1. Pond A4 Phase 1:
 - A. Access improvements for delivering SMP sediment
 - B. Create a shallow water habitat
 - C. Shallow water habitat will also serve as the foundation for the Calabazas/STA Creek-Marsh Connection Project's future ecotone, accelerating construction and reducing costs
2. Without Phase 2, Phase 1 alone won't yield habitat benefits

Benefits:

1. Facilitates SMP sediment reuse to create shallow water habitats for shorebirds and endangered species
2. Establishes a foundation for future ecotone that will promote resilient flood protection in neighboring disadvantaged communities.

Projected Milestones / Deliverables:

1. Restore 45 acres of shallow water habitat by FY 38

Pause for Questions

Safe, Clean Water Program Public Hearing

Background:

1. Construction cost estimates for Almaden Lake Improvement Project nearly tripled
2. Increased project costs and funding constraints triggered Change Control Process
3. Public hearing was held on January 24, 2023.

Board Decisions:

1. The Board decided not to construct the Almaden Lake Improvement Project and instead partially funded the construction of the Ogier Ponds Project.
2. The Board modified the funding allocations for two flood protection projects (FPP):
 - A. Sunnyvale East and West Channels and
 - B. Upper Penitencia Creek.
3. The Board committed to continue seeking funding to construct both FPP.

Next Steps:

1. Close-out the design phase for the Almaden Lake Improvement Project (FY 2024)
2. Recommend the Project be placed on the unfunded list (12/11/2023 & 1/9/2023)
3. Continue seeking internal and external funding for the two FPP identified

Next Steps

1. November 2023 –Board receives Annual CIP Process Overview;
2. December 2023 – CIP Committee reviews CIP Preliminary Five-Year Plan and Significant Project Plan Updates and;
3. January 2024 – Board reviews and provides direction regarding CIP Preliminary Five-Year Plan.



INITIALLY VALIDATED UNFUNDED PROJECTS

1. Regnart Creek Rehabilitation Project – Category 1 Existing Infrastructure

Requestors: Asset Management and Deputy Operating Officer Watersheds Operations and Maintenance. Regnart Creek experiences severe incision and bank erosion that can impact adjacent properties and undercut creek infrastructure throughout the reach from Festival Drive to Bubb Road. The steep banks have been relatively stable over the years, but winter storms in 2023 caused additional bank failure and resulted in downed trees along the creek. Neighboring properties have been observed to likely encroach near or over the creek banks with fences or decks, which have been damaged by bank and tree failure. These potential encroachments may continue to impact to the creek and the residential properties.

In April 2023, a geotechnical consultant performed a bank risk assessment and identified areas of concern where a prioritized response is recommended. In addition, there are many trees on the banks that help stabilize and protect the banks, but also may impact nearby improvements in the event of failure. Some of these trees are well over 12" in diameter at breast height and/or are an invasive species. In the past, arborists have identified and implemented corrective measures to lighten the canopy and reduce the risk of failure. These short-term recommendations may be carried out by the Watersheds O&M Division in the next fiscal year. However, a long-term solution is necessary to reduce further creek incision and to stabilize the bed and bank. A rehabilitation design using geomorphic principles has been proposed in the Regnart Creek Rehabilitation Design Study, conducted by the Asset Management Unit.

The proposed project will ultimately rehabilitate Regnart Creek to an equilibrium steady state to reduce the risk of bank failures that may impact adjacent private and public property. To achieve this objective, a capital project would be pursued to implement the recommended geomorphic-based rehabilitation design and fully repair the banks at localized areas where bank failure occurred in winter 2023 (near Bubb Road and Wallin Court). This would help minimize the risk of bank failure, stabilize the channel, and provide a better sediment-flow balance to minimize future erosion from occurring. Based on the 2017 Regnart Creek AMP, the remaining useful life of the creek in this reach is estimated to be between 5 to 25 years.

This project originated from the Watersheds Operations & Maintenance Engineering Support Unit (Unit 298) due to the many challenges that are beyond the purview of Watersheds O&M resources and environmental permits, and the existing erosion and incision issues documented in the 2017 Asset Management Plan (AMP). Planning for this project was completed under the Sustainable Creek Infrastructure Program (Project F8 under the Safe, Clean Water and Natural Flood Protection Program) with a geomorphic design study. Anticipated challenges include multiple potential encroachments with adjacent property owners, limited access for construction equipment due to lack of maintenance roads, ramps, and dense vegetation and large trees within the channel, and the extent of erosion is approximately 1,000 linear feet (LF) with potential project limits of 2,250 LF, which is beyond the limits of the Stream Maintenance Program. Total project cost estimate = \$9 Million and duration = 2-3 years.

2. **Permanente & Hale Creek Concrete Replacement – Category 1 Existing Infrastructure**

Requestors: Asset Management and Deputy Operating Officer Watersheds Operations and Maintenance Jennifer Codianne. Permanente and Hale Creeks both contain concrete U-frame channels that are near or have passed their design life. The existing concrete U-frames on both channels were constructed in the 1960's. The structural deficiencies of both channels include wall deflection, concrete cracking in walls and slabs, exposed reinforcement, additional load due to tree roots spreading behind the walls, and spillage of backfill and foundation material through weepholes. In March 2023, an assessment was conducted by a structural consultant resulting in a recommendation that the channels at the two project reaches be prioritized for repairs. The deflection and cracking conditions accelerate reinforcement corrosion leading to substantial loss of wall capacity and making the wall susceptible to performing under expectations.

Additionally, an arborist report from 2019 recommended tree removal along these reaches with some trees greater than 12" in diameter at breast height. Tree removal is recommended due to the increased loads superseding the initial design capacity and would need to be removed for the replacement of the existing U-frame channels. A short-term solution to the structural deficiencies will likely be performed under Valley Water's Stream Maintenance Program and implemented through Watersheds Asset Rehabilitation Project (WARP) with a targeted completion in 2024. The short-term solution involves controlling the channel deflection by bracing the walls and providing a temporary fix. The WARP project is currently in the design phase and will employ steel and frame repair method to minimize the cost and extend existing infrastructure lifespan.

A long-term solution is necessary to address performance of the channel walls. This long-term project originated from the Watersheds Operations & Maintenance Engineering Support Unit (Unit 298) due to the many challenges that are beyond the purview of Watersheds O&M resources. Prioritization and risk assessment was completed under the Sustainable Creek Infrastructure Program (Project F8 under the Safe, Clean Water and Natural Flood Protection Program).

The long-term project's objective is to initiate a CIP project for design and construction to replace the existing U-frame channels in kind, identified for both creek reaches on Permanente and Hale Creek, to prevent the channel walls from collapsing and flooding the neighborhood areas.

To achieve this objective, the project team will need to explore the issues concerning potential encroachments, tree impacts, 100-year capacity, HSLA/ESA studies, and right of entry. Furthermore, the solution will require a new CEQA document, public outreach, and regulatory permits. Anticipated challenges include multiple potential encroachments with adjacent property owners, and large trees along the channel. Total project cost estimate = \$21 Million and duration = 2-3 years.

3. SCADA (Supervisory Control and Data Acquisition) Master Plan Implementation Project (SMPIP) Upgrades Phase 1 – Category 2 Existing Infrastructure

Requestors: Asset Management and Deputy Operating Officer Office of Integrated Water Management. Valley Water's SCADA system currently utilizes a combination of communications equipment, much of which was installed during projects dating back to the 1980s. The aging equipment presents operational challenges. Some technologies in use are nearing obsolescence and O&M has experienced significant difficulties in obtaining provider support during previous SCADA communications outages, both lengthening the duration of the outages and putting additional strain on Raw and Treated Water Operations staff. Valley Water's Raw Water System Control Operators rely on an available and functioning SCADA system for real-time command and control of the raw water conveyance system's reservoirs, pumping plants, pipelines, and turnouts, including for sourcing raw water to the drinking water treatment plants.

Failures of SCADA impact Operations' ability to remotely monitor and control the water supply, conveyance, and distribution system infrastructure, could potentially lead to the inability to adequately supply water to the treatment plants or to effectively manage flows of water from the reservoirs during flood events. Total project cost estimate = \$11 Million and duration = 9 years.

4. Alamitos Dam Replacement and Automation – Category 3 Existing Infrastructure

Requestors: Raw Water Operations and Deputy Operating Officer Raw Water. The Alamitos Flashboard Diversion Dam is located on the Guadalupe River. The existing flashboard dam is used by Valley Water to exercise its water rights to impound water into the Alamitos and Guadalupe recharge facilities for percolation into the groundwater basin. Water from the Alamitos Diversion Dam is diverted to the Alamitos and Guadalupe recharge facilities only during the dry season to avoid periods of high creek flow.

Due to a high demand for field crews during the winter period, it is challenging to install and remove the flashboard dam more than once each year. This results in lost opportunity to fully exercise the water rights and increase the use of local water in these ponds. This proposed project is to replace the Alamitos Flashboard Diversion Dam with an Obermeyer Weir. This includes planning, design, and construction of a new Obermeyer Weir and the associated control building and mechanical equipment. Benefits include: improvement of the facility to allow for faster transitions between having the dam up and impounding flows to having the dam down to allow high creek flows to continue downstream and improvement of the facility to allow for the dam to be remotely operated from outside the creek bed, requiring less staff and construction equipment. Total project cost estimate = \$10 Million and duration = 3-4 years.

5. San Jose Purified Water Project – Category 3 NEW Infrastructure

Requestors: Recycled and Purified Water and Assistant Officer Water Supply Kirsten Struve. The construction and implementation of a Direct Potable Reuse (DPR) demonstration facility will serve as the first phase for a full scale DPR partnership adjacent to the Silicon Valley Advanced Water Purification Center (SVAWPC). The primary objective of this facility is to generate operational data, design insights, and other relevant information. These will help expedite

regulatory approvals and design for the potential development of a full-scale advanced water purification facility in the future.

The demonstration facility will provide scientists and engineering staff with the opportunity to test purification processes. The goal is to demonstrate that the purified water produced meets the highest water quality standards, ensuring the protection of human health. By developing a DPR demonstration facility, Valley Water and the Cities of San José and Santa Clara will be well-prepared for the implementation of a future Purified Water Project-Direct Potable Reuse Project in San Jose. This facility will facilitate the approval of innovative purification technology necessary to meet newly proposed, stringent DPR regulatory criteria. Additionally, the project will include an Educational (Learning) Center. This center will serve as a platform for public visits, student engagement, and technical expert interactions. It aims to educate visitors about cutting-edge purification research and ensure public acceptance of potable reuse. Total project cost estimate = \$50 million and duration = 5-6 years.

6. Coyote 10B Freshwater Wetlands Project – Category 3 NEW Infrastructure.

Requestors: Operations and Maintenance Environmental Support and Deputy Operating Officer Watersheds Operations and Maintenance. Coyote 10B is an abandoned gravel pond that could be enhanced to provide seasonal wetland and riparian habitat. In 2005, the abandoned quarry pond, a steep-sided pond, was measured and had an average depth of about 8 to 10 feet and a maximum depth of 13 feet. The conceptual plan has identified the Coyote 10B site as a mitigation site that can provide approximately 7 acres of seasonal wetland, and the potential to also provide riparian habitat, and high water refugia for fish for the SMP mitigation program. Additionally, this project would be one of several mitigation projects occurring along Coyote Creek, including the Ogier Ponds and Coyote Percolation Ponds Dam and fish passage project, thereby supporting watershed wide restoration and enhancement activities. Coyote 10B is located at HWY 101 and Metcalf Road to the east side of Valley Water's Coyote Dam and adjacent to the Coyote Parkway Freshwater Wetland.

The Coyote Parkway Freshwater Wetland, also referred to as Coyote 10A, was a project that was part of the SMP-1 mitigation package that established the current SMP PMA. The site is located just upstream of the interchange of Highways 101 and 85. The site is bounded to the northeast by Highway 101, historical Coyote Creek to the west and south, and Valley Water's percolation pond and the Coyote Parkway Freshwater Wetland to the south and east. Valley Water owns the project site and the adjacent Coyote Percolation Pond. The project site and adjacent quarry pond were acquired from the County of Santa Clara and the acquisition was finalized in May 2005. SMP-3 is scheduled to begin its new program/permit cycle in 2027.

Therefore, the timeline for implementing the Coyote 10B seasonal freshwater wetland creation will have to follow closely with other mitigation projects planned for Coyote Creek as part of the larger Anderson Dam retrofit. Coyote Percolation Dam Phase 1 (installation of inflatable dam), adjacent to the quarry projected construction is summer 2023. The Phase 2 fish passage project is expected to be completed by end of 2026. Total project cost estimate = \$9 Million and duration = 3-4 years.

CURRENTLY UNFUNDED PROJECTS FOR POTENTIAL INCLUSION IN THE CIP FY2025-29 (VALIDATED LAST CIP CYCLE)

1. South Babb Flood Protection (Long-Term) – Category 3 Existing Infrastructure

Requestors: Hydrology, Hydraulics and Geomorphology and Deputy Operating Officer Watershed Stewardship and Planning. Recent modeling indicates that there is significant spilling from culverts along South Babb Creek. These spills contribute to flooding of nearby areas, particularly between South Babb Creek, Lower Silver Creek, and Story Road. The recommended project improves the culverts at Lochner Drive, White Road, and Farrington Drive on South Babb Creek. While this will not eliminate all the spilling from South Babb Creek during the 100-year event, the majority of spills would be eliminated.

In the hydraulic feasibility and preliminary constraints analysis report, a design was proposed where the Lochner Drive, White Road, and Farrington Drive culverts would be converted to voided slab bridges with a trapezoidal concrete channel underneath. A planning study would be required to evaluate other alternatives that would meet the same goal of reducing flooding risk to the area between South Babb Creek, Lower Silver Creek, and Story Road. Total project cost estimate = \$23 Million and duration = 5-6 years.

2. Pond A4 Construction ONLY – Category 3 NEW Infrastructure.

Requestors: Watershed Stewardship and Planning and Deputy Operating Officer Watershed Stewardship and Planning. The Pond A4 Project will be constructed in two phases. Phase 1 includes planning, design, and permitting for the full project; improving the existing maintenance road; and reusing SMP sediment to construct a staging area. Phase 1 is currently in the funded CIP FY2024-28 Five-Year Plan. Phase 2 (Construction) will include sediment delivery and reuse to create the ecotone, restoring nearly 50 acres of marsh, mud flat, transitional, and upland habitat. Total project cost estimate = \$34 Million and duration = 12-13 years.

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