

September 11, 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, Assistant Officer, Office of  
Communications & Civic Engagement  
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 meeting has been scheduled to occur at 11:00 a.m. on Monday, September 18, 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, September 18, 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](mailto:davidleon@valleywater.org)  
[www.valleywater.org](http://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.**

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

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Monday, September 18, 2023

11:00 AM

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

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

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**\*\*\*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=ToJpYCxXm0>

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://emmas.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: 941 5801 3374**

**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. APPROVAL OF MINUTES:**

- 3.1. Approval of August 21, 2023 Capital Improvement Program Committee Minutes. [23-0483](#)

Recommendation: Approve the minutes.

Manager: Candice Kwok-Smith, 408-630-3193

Attachments: [Attachment 1: 08/21/23 CIP Committee Meeting Minutes](#)

Est. Staff Time: 5 Minutes

**4. REGULAR AGENDA:**

- 4.1. Review and Discuss the Capital Project Monitoring - Construction Report. [23-0791](#)

Recommendation: Receive and discuss information regarding the status of capital projects in the construction phase.

Manager: Emmanuel Aryee, 408-630-3074  
Ryan McCarter, 408-630-2983  
Bhavani Yerrapotu, 408-630-2735  
Alexander Gordon, 408-630-2637

Attachments: [Attachment 1: Capital Project Monitoring Report - September 2023](#)  
[Attachment 2: Construction Contract Contingency Amounts](#)

Est. Staff Time: 15 Minutes

- 4.2. Receive Information Regarding Santa Clara Valley Water District's Construction Contract Pre-Award and Post-Award Administrative Consultant Agreement Administrative Processes and Improvements. [23-0297](#)  
Recommendation: Receive information regarding Santa Clara Valley Water District's construction contract pre-award and post-award consultant agreement administrative processes and improvements.  
Manager: Tony Ndah, 408-630-2208  
Attachments: [Attachment 1: PowerPoint](#)  
Est. Staff Time: 15 Minutes
- 4.3. Receive and Discuss 2023 Capital Improvement Program Process Performance Audit Report with Management's Response. [23-0886](#)  
Recommendation: Receive and discuss 2023 Capital Improvement Program (CIP) Process Performance Audit Report with Management's response.  
Manager: Luz Penilla, 408-630-2228  
Attachments: [Attachment 1: PowerPoint](#)  
[Attachment 2: 2023 CIP Performance Audit Final Report](#)  
Est. Staff Time: 15 Minutes
- 4.4. Water Supply Capital Workshop to Review the Capital Validation and Evaluation Processes, Review the Funding Filters for Prioritization, Introduce New Capital Funding Categories, and Provide an Overview of Capital Projects Included in the Capital Improvement Program (CIP) Fiscal Years (FY) 2024-28 Five-Year Plan Funded by the Water Utility Enterprise Fund (Fund 61). [23-0892](#)  
Recommendation: Receive information and provide feedback, as necessary.  
Manager: Luz Penilla, 408-630-2228  
Attachments: [Attachment 1: PowerPoint](#)  
Est. Staff Time: 20 minutes
- 4.5. Receive Information on Change Orders to Anderson Dam Tunnel Project Construction Contract. [23-0884](#)  
Recommendation: Receive Information on Change Orders to Anderson Dam Tunnel Project Construction Contract.  
Manager: Ryan McCarter, 408-630-2983  
Attachments: [Attachment A: Government Code § 84308](#)  
[Attachment 1: Construction Contract Change Orders Status](#)  
[Attachment 2: Construction Contract Financial Status](#)  
Est. Staff Time: 10 Minutes

- 4.6. Receive Information on Upcoming Consultant Agreement Amendments for Capital Projects. [23-0739](#)  
Recommendation: Receive information on upcoming consultant agreement amendments for capital projects.  
Manager: John Bourgeois, 408-630-2990  
Bhavani Yerrapotu, 408-630-2735  
Luz Penilla, 408-630-2228  
Emmanuel Aryee, 408-630-3074  
Ryan McCarter, 408-630-2983  
Attachments: [Attachment A: Gov. Code § 84308](#)  
Est. Staff Time: 5 Minutes
- 4.7. Review 2023 Capital Improvement Program Committee Work Plan. [23-0888](#)  
Recommendation: Review the 2023 Capital Improvement Program Committee Draft Work Plan and make adjustments, as necessary.  
Manager: Candice Kwok-Smith, 408-630-3193  
Attachments: [Attachment 1: 2023 CIP Committee Work Plan](#)  
Est. Staff Time: 5 Minutes
5. **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.*
6. **ADJOURN:**
- 6.1. Adjourn to Regular Meeting at 11:00 a.m. on October 16, 2023.

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# Santa Clara Valley Water District

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**File No.:** 23-0483

**Agenda Date:** 9/18/2023

**Item No.:** 3.1.

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## **COMMITTEE AGENDA MEMORANDUM** **Capital Improvement Program Committee**

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

### **SUBJECT:**

Approval of August 21, 2023 Capital Improvement Program Committee Minutes.

### **RECOMMENDATION:**

Approve the minutes.

### **SUMMARY:**

In accordance with the Ralph M. Brown Act, a summary of Committee discussions, and details of all actions taken by the Capital Improvement Program Committee, during all open and public Committee meetings, is transcribed and submitted to the Committee for review and approval.

Upon Committee approval, minutes transcripts are finalized and entered into the Committee's historical record archives and serve as the official historical record of the Committee's meeting.

### **ENVIRONMENTAL JUSTICE IMPACT:**

There are no Environmental Justice Impacts associated with this item.

### **ATTACHMENTS:**

Attachment 1: 08/21/23 CIP Committee Meeting Minutes

### **UNCLASSIFIED MANAGER:**

Candice Kwok-Smith, 408-630-3193

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CAPITAL IMPROVEMENT COMMITTEE MEETING

# DRAFT MINUTES

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**REGULAR MEETING**  
**MONDAY, August 21, 2023**  
**11:00 AM**

(Paragraph numbers coincide with agenda item numbers)

## **1. CALL TO ORDER:**

A regular meeting of the Santa Clara Valley Water District (Valley Water) Capital Improvement Committee (Committee) was called to order in the Valley Water Headquarters Building Boardroom at 5700 Almaden Expressway, San Jose, California, and by Zoom teleconference, at 11:00 a.m.

### **1.1 Roll Call.**

Committee members in attendance were District 4 Director Jim Beall, District 6 Vice Chairperson Tony Estremera and District 5 Director Nai Hsueh, Chairperson presiding, constituting a quorum of the Committee.

Staff members in attendance were: Huggen Angeles, Emmanuel Aryee, Hossein Ashktorab, Aaron Baker, Erin Baker, Lisa Bankosh, Audrey Beaman, Sarah Berning, James Bohan, Rick Callender, Barton Ching, Theresa Chinte, Jessica Collins, Jiana Escobar, Meenakshi Ganjoo, Vincent Gin, Walter Gonzalez, Alexander Gordon, Jaeho Hahn, Chris Hakes, Helen Hoang, Katrina Holden, Candice Kwok-Smith, Emelia Lamas, Dave Leon, Jennifer Martin, Ryan McCarter, Patrice McElroy, Nicole Merritt, Dave Montenegro, Katie Muller, Carmen Narayanan, Tony Ndah, Karl Neuman, Julianne O'Brien, Carlos Orellana, Luz Penilla, Alison Phagan, Brandon Ponce, Mike Potter, Melanie Richardson, Metra Richert, Don Rocha, Michelle San Miguel, Diahann Soleno, Kirsten Struve, Darin Taylor, Odilia Teixeira, Bryant Welch, Bhavani Yerrapotu, and Tina Yoke.

Public in attendance were: XXX-XXX-6626, Alicia, Katja Irvin (Sierra Club – Loma Prieta Chapter), My, ADR, Rick, Jiana, and SJ.

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

Chairperson Hsueh declared time open for public comment on any item not on the agenda. There was no one who wished to speak.

**3. APPROVAL OF MINUTES:**

- 3.1. Approval of May 15, 2023 and June 30, 2023 Capital Improvement Program Committee Meeting Minutes.

Recommendation: Approve the minutes.

The Committee considered the attached minutes of the May 15, 2023 and June 30, 2023 Committee meetings.

Public Comments: None.

It was moved by Vice Chairperson Estremera and seconded by Director Beall, and unanimously carried that the minutes be approved.

**Regular Agenda:**

- 4.1. Receive and Discuss Information Regarding the Status of Capital Projects in the Feasibility and Planning Phase.

Recommendation: Receive and discuss information regarding the status of capital projects in the feasibility and planning phase.

Ryan McCarter, Christopher Hakes, Kirsten Struve, Luz Penilla, Emmanuel Aryee, Karl Neuman, Tony Ndah, and Lisa Bankosh reviewed the information on this item, per the attached Committee Agenda Memo, and the corresponding presentation materials contained in Attachment 1.

Ryan McCarter, Christopher Hakes, Erin Baker, Melanie Richardson, Kirsten Struve, Luz Penilla, Emmanuel Aryee, Karl Neuman, Lisa Bankosh, and Tony Ndah were available to answer questions.

Public Comments: None.

The Committee received the information, took no formal action, and noted the following:

• **FAHCE Implementation:** The Committee requested that staff report to the Committee with a briefing relating to the prioritization of the fish passage barrier removals including at Los Gatos Creek and the overall FAHCE implementation at a global level as discussed by the Stream Planning and Operations Committee (SPOC) per Director Beall's request at a previous Board meeting.

4.2. Receive and Discuss Information Regarding the Status of Capital Projects in the Design and Permitting Phase.

Recommendation: Receive and discuss information regarding the status of capital projects in the design and permitting phase.

Emmanuel Aryee, Ryan McCarter, and Karl Neuman reviewed the information on this item, per the attached Committee Agenda Memo, and the corresponding presentation materials contained in Attachment 1 were reviewed by staff per the row and Deputy's initials as follows: Emmanuel Aryee reviewed rows marked EA, Ryan McCarter reviewed rows marked RM, and Karl Neuman reviewed rows marked KN.

Emmanuel Aryee, Lisa Bankosh, Ryan McCarter, Karl Neuman, Bhavani Yerrapotu, and Christopher Hakes were available to answer questions.

Public Comments: None.

The Committee received the information, and noted the following:

- **Watershed Asset Rehabilitation Program (WARP):** The Committee gave direction to staff to look for ways to engage nearby schools to encourage involvement with local projects and incorporate stream stewardship measures for the U-frame replacements on Permanente Creek and Hale Creek.
- **San Francisquito Creek Project:** The Committee requested that staff follow up with a report of all the related Caltrans funding.
- **Upper Penitencia Ck, Coyote Ck:** The Committee requested that staff follow up with a briefing regarding a separate hydraulic analysis of the impact of the Anderson Tunnel project.

- 4.3. Receive Update on Staff Recommended Alternative for Project No. 30154019, Guadalupe River - Tasman Drive to Interstate 880.

Recommendation: Receive update on staff recommended alternative for Project No. 30154019, Guadalupe River - Tasman Drive to Interstate 880.

Erin Baker reviewed the information on this item, per the attached Committee Agenda Memo, and the corresponding presentation materials contained in Attachment 1 were reviewed by Katie Muller.

Erin Baker, Katie Muller, Christopher Hakes, and Melanie Richardson were available to answer questions.

Public Comments: None.

The Committee received the information, took no formal action, and noted their support for staff's strategy moving forward.

- 4.4. Receive Information on Change Orders to Anderson Dam Tunnel Project Construction Contract.

Recommendation: Receive Information on Change Orders to Anderson Dam Tunnel Project Construction Contract.

Ryan McCarter reviewed the information on this item, per the attached Committee Agenda Memo, and the corresponding presentation materials contained in Attachments 1 and 2, and was available to answer questions.

Public Comments: None.

The Committee received the information and took no formal action.

- 4.5. Review 2023 Capital Improvement Program Committee Work Plan.

Recommendation: Review the 2023 Capital Improvement Program Committee Draft Work Plan and make adjustments, as necessary.

The Committee considered this Item without a staff presentation.

Public Comments: None.

The Committee received the information and noted the following:

The Committee requested that staff add an item to the Work Plan relating to the Water Treatment Plant Master Plan Implementation to be scheduled in the future and requested that the Chief Audit Executive to be present for the September 18, 2023 meeting to address any questions regarding the 2023 CIP Process Performance Audit Report.

**5. 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.*

The Committee confirmed with Dave Leon their request for staff to follow up on the previously noted briefings.

**6. Adjourn:**

6.1. Adjourn to Regular Meeting at 11:00 a.m. on September 18, 2023.

Chairperson Hsueh adjourned the meeting at 1:07 p.m. to the regular meeting at 11:00 a.m. on September 18, 2023.

Dave Leon  
Assistant Deputy Clerk II

Date Approved:

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# Santa Clara Valley Water District

**File No.:** 23-0791

**Agenda Date:** 9/18/2023

**Item No.:** 4.1.

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## **COMMITTEE AGENDA MEMORANDUM** **Capital Improvement Program Committee**

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

### **SUBJECT:**

Review and Discuss the Capital Project Monitoring - Construction Report.

### **RECOMMENDATION:**

Receive and discuss information regarding the status of capital projects in the construction phase.

### **SUMMARY:**

The 2023 Work Plan for the Board Capital Improvement Program Committee (Committee) includes monitoring of capital projects during all phases of development. Staff will present a list of active projects at each Committee meeting and provide detailed information on those where potential and/or significant issues have been identified. The projects presented for discussion will be organized by phases: planning/feasibility; design/permitting; and construction. Staff will present projects to the Committee for review one phase at a time. Projects currently in the construction phase are being presented at this Committee meeting. Other attachments may be included to provide more detail on other items associated with these projects.

Attachment 1 Capital Project Monitoring Report September 2023 is a list of projects in the construction phase. A verbal report will be provided at the meeting with more detailed information about recent developments on the projects listed in Attachment 1.

Attachment 2 Construction Contract Contingency Amounts is being included as a one-time update to address the request made by the CIP Committee during its June 30, 2023 meeting for information regarding project contingency expenditures. Attachment 2 provides information on the total amounts expended from contingency fund encumbrances on Santa Clara Valley Water District construction projects. The table has been updated to remove Anderson Dam Tunnel Project and to add five construction contracts awarded since the table was presented at the June CIP Committee meeting.

Project contingency expenditures for the Anderson Dam Tunnel Project were not included in Attachment 2 as those numbers are separately reported as a regular CIP Committee agenda item and the project is currently in the construction phase, so the final amounts are not yet known.

**ENVIRONMENTAL JUSTICE IMPACT:**

There are no Environmental Justice impacts associated with this item.

**ATTACHMENTS:**

Attachment 1: Capital Project Monitoring Report - September 2023

Attachment 2: Construction Contract Contingency Amounts

**UNCLASSIFIED MANAGER:**

Emmanuel Aryee, 408-630-3074

Ryan McCarter, 408-630-2983

Bhavani Yerrapotu, 408-630-2735

Alexander Gordon, 408-630-2637



Capital Project Monitoring Report - September 2023

Construction Phase					CM Services			
Row	Project No.	Project Name	Notes, Upcoming Board Actions or potential issues	Deputy's Initials	In house	External	Combination	
Water Supply								
1	91214010	Small Capital Improvements, San Felipe, Reach 1: Pacheco Pumping Plant Electrical Current Limiting Fuse and Hydraulic Valve Operating System (HVOS) Upgrades	All contract work and testing was completed in April 2023. The Board accepted the Work as Complete on June 27, 2023 and directed the Clerk to file the Notice of Completion for recording with the County of Santa Clara.	EA	X			
2	95084002	10-Year Pipeline Inspection and Rehabilitation Project (Santa Clara Conduit - Phase 1)	All shutdown required work has been completed and the pipeline has been returned to service. The contractor continues non-shutdown required work, including the vault appurtenances. Construction completion is anticipated by the end of September 2023.	EA	X			
3	95084002	10-Year Pipeline Inspection and Rehabilitation Project (Almaden Valley Pipeline)	All contract work and testing was completed in July 2023. Staff plans to recommend the Board accept the Work as Complete on September 12, 2023 and direct the Clerk to file the Notice of Completion for recording with the County of Santa Clara.	EA	X			
4	95084002	10-Year Pipeline Inspection and Rehabilitation Project (Santa Clara Conduit - Phase 2)	Construction contract awarded by the Board of Directors on August 8, 2023. Staff is preparing to issue the Notice to Proceed after all the necessary documentation (bonds, insurance, etc.) has been received from the contractor. Construction completion is currently estimated for August 2024.	EA	X			
5	95084002	10-Year Pipeline Inspection and Rehabilitation Project (Snell)	Construction contract awarded by the Board of Directors on August 8, 2023. Staff is preparing to issue the Notice to Proceed after all the necessary documentation (bonds, insurance, etc.) has been received from the contractor. Construction completion is currently estimated for December 2024.	EA	X			
6	93294058	Rinconada WTP Residuals Remediation Project	Construction of the new solids handling facilities, including sludge storage tanks, centrifuge feed pump station, centrate wet well B, centrifuges and polymer chemical system at centrifuge building B, is substantially complete. Equipment testing and startup is in progress. Construction completion is anticipated for fall 2023.	EA	X			
7	93764004	Small Capital Improvements, Water Treatment: Penitencia WTP Flocculation/Sedimentation Basin Rehabilitation Project	Contractor continues to address equipment deficiencies identified during project startup and commissioning. Stuffing box replacements are now complete. Gearbox and handwheel replacements was scheduled to be completed in August 2023. If successful, contract closeout will follow thereafter.	EA	X			
8	93284013	Santa Teresa Water Treatment Plant Filter Media Replacement	Installation of sand and granular activated carbon has been completed in Filters 2W and 5W, and these filters have been returned to the plant. The Contractor is starting to work on Filters 1W, 3W, and 1E. Construction completion is anticipated for spring 2024.	EA	X			
9	91094009	South County Recycled Water Pipeline Project	100% of the contract pipeline work has been installed and is currently undergoing pressure testing. All jack and bore and microtunneling operations have been completed. Paving operations commenced in August 2023. Staff is currently evaluating rights-of-way for the remaining supplemental piping work.	EA	X			
10	92394057	Rinconada WTP Reliability Improvement Project Phases 3-6	The Board awarded the construction contract to Kiewit Corporation on August 8, 2023. Staff is preparing to issue the Notice to Proceed after all the necessary documentation (bonds, insurance, etc.) has been received from the contractor. Construction completion is currently estimated for fall 2029.	EA			X	
11	91864006	Anderson Dam Tunnel Project (FOCP)	This project falls under the Anderson Dam Federal Energy Regulatory Commission (FERC) Compliance Order Project (FOCP). Tunnel excavation continues in the 24-foot diameter Low Level Outlet Tunnel (LLOT) reach. As of August 21, 2023, about 770 feet of the tunnel has been excavated with about 630 feet remaining in the LLOT reach. Once the LLOT reach is completed, the launch chamber for the 8-foot diameter Micro-Tunnel Boring Machine (MTBM) will be constructed at the end of the tunnel. Dredging and excavation work in the reservoir is taking place to prepare for the MTBM portal and intake structure. The Diversion Outlet Structure (DOS) foundation construction is ongoing with several concrete sections in place. Work in the north channel of Coyote Creek is underway to connect the realigned Anderson Force Main.	RM			X	
12	91864010	Cross Valley Pipeline Extension Project (FOCP)	The contractor continues working on the outfall apron, correcting a seal on BFV vault 1, and anticipates completing the second PG&E electrical service connection by the end of the month. Construction completion is now estimated for October 2023 once the pavement restoration work is completed.	RM	X			

Capital Project Monitoring Report - September 2023

Construction Phase				CM Services			
Row	Project No.	Project Name	Notes, Upcoming Board Actions or potential issues	Deputy's Initials	In house	External	Combination
13	91864008	Coyote Creek Chillers Plant Project (FOCP)	The project team is wrapping up review of submittals for the pre-procured equipment for the Chillers Plant. Staff plans to recommend the Board of Directors Award the Construction Contract in the amount of \$5.3M, at the September 12, 2023 Board meeting.	RM	X		
14	91864007	Coyote Creek Flood Management Measures Project (FOCP)	Construction contract was awarded on May 16, 2023 by the Board of Directors. Two pre-construction public meetings were held on June 6 and June 14, 2023, respectively. Contractor started mobilization and is preparing the staging areas in anticipation of start of floodwall construction in September 2023. Notice to Proceed for the first phase was issued on June 13, 2023 and the first chargeable day was June 23, 2023. Construction is scheduled for completion in October 2024.	BY		X	
15	91864009	Coyote Percolation Dam Replacement Project (FOCP)	The construction contract was awarded on March 28, 2023. The Notice to Proceed was issued on April 14, 2023 and the first chargeable day was Monday, April 24, 2023. The project permits allow in-creek construction work to occur from June 15, 2023 through October 15, 2023. The contractor will be working on the new rubber dam installation this summer and is scheduled to be completed by October 15. The next elements of the construction work will be utility work and completing the control building for operation of the rubber dam is scheduled for completion by June 2024.	BY	X		
Flood Protection							
16	10244001	Permanente Creek, SF Bay to Foothill Expressway - Lower Peninsula Fund	The Board of Directors awarded the construction contract on November 22, 2022. Construction for the floodwall retrofit has been completed. On August 8, 2023, the Board of Directors accepted the Work as Complete and directed the Clerk of Board to file the Notice of Completion for recording with the County of Santa Clara.	BY	X		
17	40174005	Berryessa Creek, Lower Penitencia Creek to Calaveras Blvd (E3), Phase 2	Construction for the Lower Calera Creek Project started in June 2021 and is currently underway. All in-channel floodwall work has been completed. A waterline that passes beneath a floodwall owned by Milpitas leaked and a Valley Water team is working with Milpitas and the contractor on the repair. Once the waterline leak is repaired, the contractor has some minor work remaining, such as finishing grading for maintenance roads, fencing, and paving. On June 13, 2023 the Board of Directors approved a Budget Adjustment and an Increase to Construction Contract Contingency Sum for the Lower Calera Creek Flood Protection Project and on June 27, 2023 the Board accepted the Work as Complete on the Lower Calera Creek Flood Protection Project (Stage #1).	BY	X		
18	40334005	Lower Penitencia Creek Improvements, Coyote Creek to Berryessa Creek	Construction for Lower Penitencia Creek Project started in July 2021. All civil work in the contract was completed in July 2023. The three-year plant establishment and maintenance period has begun. A ribbon cutting event took place on June 20, 2023. A channel lining fix due to erosion damage caused by a Baker Tank overflow will be conducted in summer 2023.	BY	X		
19	26044004	D6.2: Bolsa Road Fish Passage Improvements	The Board of Directors approved an agreement with Cal Engineering & Geology, Inc. for construction management services in March 2022. The Board of Directors awarded the construction contract to Teichert, Inc. on July 12, 2022. Notice to Proceed for construction was issued on July 26, 2022; however, the construction contract was awarded too late for the contractor to begin work during the permit work window. Staff secured a waiver for the construction grading permit in March 2023 and obtained the drainage permit on May 24, 2023 from the County of Santa Clara. Construction of in-channel work began June 15, 2023 and will be completed by October 15, 2023 to adhere to permit conditions. Construction is scheduled to be completed by March 2024. A three-year plant establishment and maintenance period will follow the completion of the civil construction work.	BY		X	

Capital Project Monitoring Report - September 2023

Construction Phase				CM Services			
Row	Project No.	Project Name	Notes, Upcoming Board Actions or potential issues	Deputy's Initials	In house	External	Combination
20	26164001	D6: Restoration of Natural Creek Functions: Hale Creek Enhancement Pilot Project	The construction contract was awarded to McGuire and Hester on May 10, 2022. Construction began on June 1, 2022, and was completed in April 2023. In-channel construction (Milestone #1) was completed on November 18, 2022, and top-of-bank construction (Milestone #2) was completed in January 2023 and then the deficiency-list work was completed in April 2023. On August 8, 2023 the Board of Directors accepted the work as complete for Stage 1, comprised of Milestones #1 and #2, and directed the Clerk of the Board to submit the Notice of Completion for recording with the County of Santa Clara. The three-year plant establishment maintenance and monitoring (Milestone #3) period began on December 23, 2022, and is expected to last until December 2025.	BY			X
21			Phase 1 construction was completed and accepted by the Board of Directors on May 24, 2022. This precedes a three-year plant establishment phase, which is currently underway and will be completed in March 2025. Beginning on September 18, 2023, work will begin on erosion repairs caused during the 2022-2023 high flow storm events. Primarily, repairs will occur on the shute and pools fish passage structure immediately downstream of Lake Silveira to re-establish functionality. Repairs are anticipated to take about 2 weeks to complete.				
	26174051						
	26174052 26174055	E6: Upper Llagas Creek Flood Protection Project, Phase I and Phase 2A	Construction contract for Phase 2A was awarded in summer 2021 and is currently in progress. Significant utility relocations have been completed as of February 2023, and the underground twin reinforced concrete box culverts along Del Monte Avenue and Ciolino Avenue were completed as of December 2022. Drilling of the 2,300 foot underground bypass tunnel was completed in January 2023 and the tunnel concrete lining was completed on May 30, 2023. The tunnel subcontractor, DrillTech, demobilized on June 16, 2023. On May 1, 2023, Hale Avenue was closed so the underground twin reinforced concrete box culverts along Hale Avenue could be constructed before schools reopen on August 16, 2023. Hale Avenue was reopened to public traffic on August 7, 2023, four days ahead of schedule. Phase 2A contract completion date is expected May of 2024, but the project is currently a couple of months ahead of schedule.	BY	Phase 1	Phase 2A	
22	00044026	San Francisco Bay Shoreline, EIA 11 - Alviso Slough to Coyote Creek Bypass	Construction of levees in the first three reaches, Reaches 1-3, is ongoing. Reaches 1-3 are located between the Alviso Marina and U.S. Fish and Wildlife Service Don Edwards San Francisco Bay National Wildlife Refuge Environmental Education Center. The United States Army Corps of Engineers awarded the construction contract in August 2021 to Maloney-Odin Joint Venture (MOJV). Construction began on December 6, 2021 and is anticipated to be completed in summer 2025. MOJV completed a milestone of construction of stage 1 for Reach 1 - meaning the levee has been constructed to an elevation of 12' and the levee settlement period has started. MOJV has also begun degrading/removing the existing levee at Reaches 2-3.	BY	N/A	USACE construction	

Capital Project Monitoring Report - September 2023

Construction Phase				CM Services			
Row	Project No.	Project Name	Notes, Upcoming Board Actions or potential issues	Deputy's Initials	In house	External	Combination
23	62084001	Watershed Asset Rehabilitation Program (WARP)	The Board of Directors awarded the construction contract for the Calabazas Creek Rehabilitation Project (Bollinger Rd. to Miller Ave.) to Granite Construction on May 24, 2022. This two-season project consists of repair for 10 erosion sites between Miller Ave. and Bollinger Rd. Year one construction of six sites was completed in summer 2022. Year two construction start was delayed due to acquisition of regulatory permit amendments. The contractor’s means and methods for crane deployment and implementation included temporary impacts that were not known until construction began and therefore not included in the approved regulatory permits. Year two construction started on July 24, 2023, instead of April 15, 2023 and will include Giken Silent Sheet piles installation at four sites and estimated for completion by summer 2024. Because the contractor needed to work longer hours and add more crews to accelerate the schedule, this will result in a contract change order and staff is working with the contractor on the costs of the change order, which could potentially exceed the approved contingency.	BY	X		
			The Board awarded the contract for the Coyote Creek Animal Damage Levee Restoration Project from Tasman to SR 237 on June 13, 2023. The Project's construction is expected to be completed by October 15, 2023, with an additional three-year plant establishment maintenance period until 2026.				
			Two erosion repair locations on Guadalupe River at Malone Road and at Blossom Hill Road were approved to Advertise for Bids by the Board of Directors at the May 16, 2023 meeting. Bid opening was held on June 14, 2023, and staff recommended rejection of all bids at the August 22, 2023 Board Meeting. Tentative contract re-advertisement planned for spring 2024 and expected for completion by October 15, 2024, with additional three-year plant establishment maintenance period until 2027.				
Buildings & IT							
24	73274012	Telephone System Voice Over IP	System is currently live for all staff/all locations, and the project is being closed out.	AG	N/A	N/A	N/A
25	73274009	Data Consolidation	The Human Resources Division (HR) implemented Hyland's OnBase enterprise information platform and scanned their paper archives. This effort digitized over 80 document types into a new paperless system. HR went live with the system in June 2023. The project team is currently in the process of scoping implementation for the Community Projects Review Unit in alignment with the desired outcomes of their recent audit and modernization project.	AG	N/A	N/A	N/A
26	73274001	Information Technology Disaster Recovery	In partnership with VMware and Amazon Web Services, Valley Water is progressing on building a redundant virtual data center in the cloud. This project will allow Valley Water servers to run side-by-side in on-site and cloud data centers to create an "always ready" redundant server environment.	AG	N/A	N/A	N/A
27	73274002	ERP System Implementation	Project team continues to work with Infor to address implementation functionality gaps in areas of timekeeping, payroll and procurement.	AG	N/A	N/A	N/A

# June 30, 2023 CIP Committee Discussion

## Construction Contract Contingency Amounts

**Question:** How much money in FY24 and beyond could be saved by reducing future construction contract contingency amounts from 15% to 10%?

**Answer:** The construction contract contingency data reviewed for the period of 12/17/17 - 05/01/2023 for completed construction projects does not show a strong correlation between the initial contingency amount set and a higher contingency utilization rate.

### Factors Having a Significant Impact On Contingency Utilized

- Project design suitability, subsurface soil conditions, permit restrictions, and contractor performance.

Construction Contract Contingency Data

Capital Construction	Contingency Approved (Average)	Contingency Spent (Average)
Completed (22 Projects)	9%	3%
Nearing Completion*/ Plant Establishment (13 Projects)	15%	7%
Active Construction (8 Projects)**	13%	TBD
All Construction Projects (48 Projects)	12%	TBD

\*Construction nearing completion within the calendar year.

\*\*Excludes Anderson Dam Tunnel Project and includes five recently awarded projects

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# Santa Clara Valley Water District

File No.: 23-0297

Agenda Date: 9/18/2023

Item No.: 4.2.

## COMMITTEE AGENDA MEMORANDUM Capital Improvement Program Committee

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

### SUBJECT:

Receive Information Regarding Santa Clara Valley Water District's Construction Contract Pre-Award and Post-Award Administrative Consultant Agreement Administrative Processes and Improvements.

### RECOMMENDATION:

Receive information regarding Santa Clara Valley Water District's construction contract pre-award and post-award consultant agreement administrative processes and improvements.

### SUMMARY:

#### **Background:**

Pre-award and post-award contract administration are crucial components of any contracting process. They encompass activities and considerations that help facilitate the successful management of contracts. Proper pre-award and post-award contract administration ensures transparency, fairness, and accountability in contracting, promotes successful project outcomes, and minimizes risks. It requires diligent attention to detail, effective communication, and adherence to established policies, regulations, and best practices.

#### **Construction Contract Prequalification Process**

Pre-award contract administration encompasses the activities undertaken before a contract is advertised for bids and a construction contract awarded. One example of a pre-award process is deciding to implement the contractor prequalification process. This process involves a comprehensive evaluation of contractors' qualifications, including their past performance, relevant experience, technical capabilities, and financial/bonding capacity. Only contractors meeting the prequalification criteria will be eligible to participate in the bidding process for the specific project.

To help facilitate the selection of capable and qualified contractors for specific projects, staff will evaluate the benefits of using a prequalification process when any of the following situations apply:

- 
- A. **Project Risk and Complexity:** Santa Clara Valley Water District (Valley Water) deems the project to be complex due to technical requirements, safety considerations, site constraints, or other factors that pose significant challenges or potential risks.
  - B. **Specialized Project Components:** if the project involves a significant amount of specialized work that requires specific expertise, unique skills, or specialized equipment, contractors will be prequalified based on their demonstrated experience and capabilities in executing similar projects.
  - C. **Project Construction Cost Exceeds \$100 Million:** contractors will undergo prequalification if the estimated project construction cost exceeds \$100 million. This criteria helps support Valley Water in selecting contractors with the necessary financial resources, experience, and track record of successfully managing large-scale projects.
  - D. **As Directed by the Board:** staff may also conduct the contractor prequalification process for certain projects.

The purpose of implementing these prequalification guidelines to consider in choosing to proceed with a prequalification process is to mitigate risks; select contractors demonstrating they possess the requisite skills and necessary resources; and promote the successful execution of projects. By proceeding to prequalify contractors based on factors such as project complexity, specialized project components, project cost, or as directed by the Board, Valley Water aims to enhance project delivery, minimize potential setbacks, and create a competitive and capable pool of contractors to submit competitive bids for contract award.

### ***Post-Award Contract Administration Processes***

Post-award contract administration encompasses the activities Valley Water performs after the contract is awarded to help facilitate successful execution of and compliance with contractual obligations. This phase involves diligent monitoring, oversight, and management of the contractual relationship. Key elements of the post-award process and proposed improvements include:

#### ***1. Consultant Agreement Invoice Review***

Staff currently use a Consultant Invoice Review Guide which provides instructions on how to review consultant invoices for work performed on capital projects. The guide was updated to include an additional review criterion to verify that the personnel assigned to the project align with the key personnel listed in the agreement. In addition, the guide requires verification of administrative approval of changes to the consultant and subconsultant key staff, to ensure Consultants are not replacing staff on the projects with less qualified personnel after contract award.

#### ***2. Design Consultant Submittals***

Staff is in the process of developing quality assurance and quality control (QA/QC) standard language that will incorporate a Design Consultant Submittal Assurance requirement in agreements with consultants. This clause will require consultants to provide Valley Water with written assurance for each submittal, affirming that their work was prepared in accordance with applicable codes,



regulations, industry standards, and best practices. The contract language will emphasize that Valley Water's acceptance of the consultant's submittal does not relieve the consultant of its ongoing responsibilities and obligations, and the firm remains accountable for the accuracy, completeness, and quality of their work throughout the duration of the agreement.

Incorporating this clause in future agreements and requiring written quality assurance will reinforce accountability and support the delivery of high-quality projects.

### **3. *Errors and Omission Process***

An Errors and Omissions (E&O) Discovery and Resolution process will be implemented to reinforce design accountability and allocate additional project costs. The process aims to mitigate risks and provide a transparent process for resolving E&O issues and includes the following:

1. **Establish Insurance Coverage Requirements:** The risk manager reviews the scope of work and determines the required insurance coverage for professional/errors and omissions liability.
2. **Potential E&O Discovery During Design Phase:** The project manager notifies the design consultant as soon as potential E&O or design issues are discovered, allowing early involvement to minimize costly delays and identify solutions.
3. **E&O Discovery During Construction:** The construction manager logs contractor-submitted change requests and notifies the project manager so an evaluation can be done and options to resolve the matter with the design consultant considered.
4. **Evaluation and Notification of Design Consultant:** The project manager reviews change order requests with the construction manager; involves the design consultant in proposing solutions if design-related; maintains communication records and documents all discussions.
5. **Research and Findings:** The project manager considers potential E&O issues, with assistance from the construction managers; identifies additional costs, if any; involves the design consultant in corrective actions; and documents the findings.
6. **Internal Administrative Process:** If the design consultant disagrees with a financial responsibility finding by the project manager, a meeting can be scheduled with the Deputy Administrative Officer (DAO) of General Services to discuss the findings and recommendation for recoverable costs. The DAO may modify the terms of the resolution or refer the matter back to the project manager. Following the completion of the internal administrative process, Valley Water may request the design consultant pay construction-related costs resulting from E&O items and may refer the item to District Counsel if the dispute remains unresolved.
7. **Alternate Dispute Resolution:** If disputes remain unresolved, Valley Water and the design consultant will proceed with alternate dispute resolution per the terms of the executed agreement between the parties.

### **4. *Vendor Performance Evaluation***

---

A Vendor Performance Evaluation (VPE) Program is being implemented to assess and document vendors' performance on awarded agreements for services or projects. The program provides an evaluative record for a vendor's strengths and areas of opportunity for improvement. The evaluation process aims to encourage vendor improvement and will be consistently applied across all divisions.

Evaluations will be conducted by project managers or staff points of contact involved with vendor oversight and management. The frequency of evaluations depends on the agreement duration and will include periodic evaluations during the project and final evaluations at the conclusion of the project. Evaluations will utilize a scoring system where vendors are rated based on their ability to meet contractual requirements.

In cases where the vendor performance falls short of the standards of care in the contract, the project manager will take appropriate actions according to the terms and conditions outlined in the agreement. Procurement staff will contact vendors to obtain their comments and countersignature for completed evaluations, allowing vendors an opportunity to address any areas of concern and take corrective action. Objections will be submitted in writing with supporting evidence where applicable.

Overall, the VPE Program will ensure consistent evaluation and documentation of vendor performance, promote accountability, and provide opportunities for vendors to address concerns and improve their performance.

**ENVIRONMENTAL JUSTICE IMPACT:**

There are no Environmental Justice impacts associated with this item.

**ATTACHMENTS:**

Attachment 1: PowerPoint

**UNCLASSIFIED MANAGER:**

Tony Ndah, 408-630-2208

# Construction Contract Pre-award and Consultant Agreement Post-Award Administrative Processes and Improvements

alleywater.org

Presenter: Tony Ndah, Deputy Administrative Officer

Capital Improvement Program Committee  
September 18, 2023

# AGENDA

1. BACKGROUND
2. CONSTRUCTION CONTRACT PRE-AWARD ADMINISTRATIVE PROCESSES AND IMPROVEMENTS
  - A. Construction Contract Prequalification Process
3. CONSULTANT AGREEMENT POST-AWARD ADMINISTRATIVE PROCESSES AND IMPROVEMENTS
  - A. Consultant Agreement Invoice Review
  - B. Design Consultant Submittals
  - C. Errors and Omission Process
  - D. Vendor Performance Evaluation

# BACKGROUND

1. Pre-award and post-award contract administration are crucial components of any contracting process.
2. Requires diligent attention to detail, effective communication, and adherence to established policies, regulations, and best practices.
3. Ensures transparency, fairness, and accountability in contracting
4. Promotes successful project outcomes, and minimizes risks

# CONSTRUCTION CONTRACT PREQUALIFICATION PROCESS

1. Comprehensive evaluation of contractors' qualifications
2. Staff will evaluate the benefits of using a prequalification process when any of the following situations apply:
  - A. project risk and complexity
  - B. specialized project components
  - C. project cost exceed \$100 million
  - D. as directed by the Board
3. Benefits of prequalification guidelines include:
  - A. mitigates risks
  - B. select contractors demonstrating they possess the requisite skills and necessary resources
  - C. promotes the successful execution of projects
  - D. create a competitive and capable short list of contractors to submit competitive bids for contract award



# CONSULTANT AGREEMENT INVOICE REVIEW

1. Consultant Invoice Review Guide has been established
2. Provides instructions to Valley Water's unit managers, project managers, and project team members on how to review consultant invoices for capital projects.
3. Guide was updated to include additional review criterion:
  - A. verify that the personnel assigned to the project align with the key personnel listed in the agreement.
  - B. Verification of administrative approval of changes to consultant and subconsultant key staff.
  - C. Ensures consultants are not replacing staff on projects with less qualified personnel after agreement award.

# DESIGN CONSULTANT SUBMITTALS

1. Staff in process of developing QA/QC standard language for agreements.
2. Requires consultants to provide written assurance for each submittal.
  - A. Enhances quality assurance and minimizes errors and omissions.
  - B. Reinforces accountability and supports the delivery of high-quality projects.

*Note: Valley Water's acceptance of design consultant submittals does not relieve consultant of ongoing responsibilities and obligations that all work be prepared consistent with the standard of care requirements.*



# ERRORS AND OMISSION PROCESS

1. Introduction of an Errors and Omission (E&O) process to reinforce design accountability and allocation of additional project costs.
2. Aims to mitigate risks and provide a transparent process for resolving E&O issues.

# ERRORS AND OMISSION PROCESS

- 1. Establish Insurance Coverage Requirements:**

Review scope of work and determine required insurance coverage for E&O liability.

- 2. Potential E&O Discovery During Design Phase:**

Notify design consultant of potential E&O or design issues and seek early involvement to minimize costly delays and identify solutions.

- 3. E&O Discovery During Construction Phase:**

Assign a potential change order number and notify project manager for evaluation and resolution with design consultant.

- 4. Evaluation and Notification of Design Consultant:**

Review change order request, involve design consultant in proposing solutions if design related, and maintain communication records and documentation.

# ERRORS AND OMISSION PROCESS

## **5. Research and Findings:**

Consider E&O issues, identify additional costs, involve design consultant in corrective actions, and document the findings.

## **6. Internal Administrative Process:**

- A. Schedule a review with DAO if there is disagreement with financial responsibility, DAO may modify resolution terms or refer back to project manager.
- B. Collection of construction-related costs from consultant resulting from E&O items or refer the item to District Counsel if the dispute remains unresolved.

## **7. Alternate Dispute Resolution :**

Proceed with alternate dispute resolution per the terms of the executed agreement between the parties.

# VENDOR PERFORMANCE EVALUATION (VPE)

1. Implementation of a Vendor Performance Evaluation (VPE) program to assess and document vendor performance on awarded Valley Water services or projects.
2. Evaluations conducted by Project Managers or staff involved in vendor oversight and management.
3. Evaluations conducted at specified intervals, including interim and final evaluations.
4. Utilize a scoring system to rate vendors based on meeting contractual requirements.
5. Vendor comments and countersignature obtained for completed evaluations, providing an opportunity for vendors to address concerns and take corrective action.

# VENDOR PERFORMANCE EVALUATION (VPE)

## Evaluation Frequency

The frequency of evaluations will be based on the duration of the agreement.

Agreement Duration	Frequency of Evaluations
Less than 1 year	A final evaluation at the end of the agreement or project
Multi-year	<ol style="list-style-type: none"><li>1. At the end of each deliverable or major milestone as defined in the agreement;</li><li>2. At the annual anniversary of the agreement; and</li><li>3. A final evaluation at the end of agreement.</li></ol>

# VENDOR PERFORMANCE EVALUATION

## Scoring

1. Performance evaluations shall conform to the requirements of the agreement.
2. Each question rates the vendor on whether they met or did not meet the terms of the agreement.
  - A. 1 point is awarded where the vendor met the contractual requirements and accomplished the scope of services.
  - B. 0 points are awarded when the vendor did not meet contractual requirements, and recovery is not likely in a timely manner.
    1. Also includes situations where the vendor's corrective actions appear inadequate or ineffective.
3. Where there is insufficient information to rate a vendor's performance on any question, the question will be marked as "N/A."
  - A. Question will not be scored as part of the evaluation of the vendor's performance.

# VENDOR PERFORMANCE EVALUATION

## Follow-up with Vendor and Objections

1. Address vendor performance not meeting contract standards per agreement terms and conditions.
2. Procurement representative will reach out and obtain vendor comments and countersignature for all completed evaluations.
3. If a vendor does not agree with the evaluation score, they must submit objections in writing, with supporting evidence, within ten business days following receipt of the report.
4. It is at Valley Water's sole discretion to decide whether the score should be amended and/or a replacement evaluation should be issued.

# QUESTIONS







# Valley Water

Clean Water • Healthy Environment • Flood Protection

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# Santa Clara Valley Water District

**File No.:** 23-0886

**Agenda Date:** 9/18/2023

**Item No.:** 4.3.

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## **COMMITTEE AGENDA MEMORANDUM** **Capital Improvement Program Committee**

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

### **SUBJECT:**

Receive and Discuss 2023 Capital Improvement Program Process Performance Audit Report with Management's Response.

### **RECOMMENDATION:**

Receive and discuss 2023 Capital Improvement Program (CIP) Process Performance Audit Report with Management's response.

### **SUMMARY:**

On January 11, 2022, the proposed 2022-2024 Annual Audit Work Plan was approved by the full Board. Shortly thereafter, at its January 19th meeting, the Board Audit Committee (BAC) identified three areas of interest to be audited in 2022. The first audit selected was Santa Clara Valley Water District's (Valley Water) CIP Process, which was the top-ranked audit topic, ID #1, in the 2022-2024 Annual Audit Work Plan.

At the April 20, 2022, BAC meeting, the Chief Audit Executive (CAE) Sjoberg Evashenk Consulting, Inc., reviewed the audit scoping document for the CIP Process Audit. On May 24, 2022, the full Board approved initiating the CIP Process Audit and approved Sjoberg Evashenk Consulting, Inc. as the auditor to conduct the audit. The CIP Process Audit was approved with an estimated cost of \$117,325.

The objective of the CIP Process Audit is to evaluate the capital project planning process employed by Valley Water to determine the extent to which the process is consistent with relevant requirements, policies, and best practices. Consistent with this objective, the 2022-2024 Annual Audit Work Plan identified seven key questions related to the CIP process, including:

1. Are there opportunities to improve the capital improvement project planning process (project initiation to CIP plan approval)?
2. To what extent can early participation of Valley Water support units (environmental planning, permitting, purchasing, warehousing) on large capital projects, prevent project delays, and

reduce cost overruns?

3. Can the Capital Improvement Plan be better right sized that considers the Agency's funding and staffing levels?
4. Are there areas of Valley Water's capital project budgeting practices that can benefit from adopting best practices?
5. Have completed capital projects met their intended goals?
6. To what extent does Valley Water include performance measures to measure success and monitor financial management?
7. Are there lessons learned that can be adopted in future capital project plans to ensure goal accomplishments as well as implementation of alternative strategies to facilitate early communication to the Board of Directors of potential and actual problems, and to predict success such as performing cost vs. benefit analysis?

At the May 15<sup>th</sup>, 2023, BAC meeting the CAE presented a summary of the draft CIP audit report (Attachment 1) to facilitate a discussion on the results of the performance audit. On May 31<sup>st</sup>, 2023, staff received a copy of the draft report for Management's Response, initiating the 15-business day response time. On June 21<sup>st</sup>, 2023, staff provided Management's Response for analysis by the CAE, and inclusion in the "final" report.

At the August 16, 2023, BAC meeting, the BAC received the Final CIP Process Performance Audit Report with Management's Response (Attachment 2) and recommended that staff present the information to the CIP Committee and full Board at a future date.

#### **ENVIRONMENTAL JUSTICE IMPACT:**

There are no Environmental Justice impacts associated with this item. Audits are a tool utilized by the BAC to monitor possible risks to the organization, and inform any guidance provided to staff to achieve the Board's priorities. There are no environmental impacts that result from this audit.

#### **ATTACHMENTS:**

Attachment 1: PowerPoint

Attachment 2: 2023 CIP Performance Audit Final Report

#### **UNCLASSIFIED MANAGER:**

Luz Penilla, 408-630-2228



# PERFORMANCE AUDIT OF VALLEY WATER'S CAPITAL IMPROVEMENT PROGRAM (CIP)

BY SJOBERG EVASHENK CONSULTING, INC.

CAPITAL IMPROVEMENT COMMITTEE  
SEPTEMBER 18, 2023

## OBJECTIVE:

**DETERMINE WHETHER VALLEY WATER'S CAPITAL PROJECT PLANNING PROCESS IS CONSISTENT WITH ESTABLISHED POLICIES AND BEST PRACTICES.**

### **Policies**

Reviewed and  
Evaluated CIP-  
Related Policies

### **CIP Cycle**

Documented  
the CIP planning  
process  
workflow and  
compared  
against existing  
policies

### **Benchmarking**

Reviewed  
leading  
practices and  
practices of  
peer water  
districts

### **Data**

Reviewed  
underlying  
support for data  
presented in the  
CIP

# FIVE KEY OBSERVATIONS

## VALLEY WATER IMPLEMENTED MANY LEADING PRACTICES AND CONTINUOUS IMPROVEMENT REMAINS IN PROGRESS

1

CIP Contains Most Required Information

Valley Water Practices Consistent with Most Recommended CIP Policies

Substantial progress in the CIP has been observed since 2019, and continuous improvement is ongoing

Capital projects routinely lagged expenditure and schedule milestones

Outdated cost estimates, increased project costs, and limited capacity likely contributes to missed milestones

Additional Performance Metrics Would Enhance Ongoing Reporting and Evaluation of Program Outcomes

2

## OPPORTUNITIES EXIST TO BETTER ENSURE VALLEY WATER DELIVERS CAPITAL PROJECTS AS PROGRAMMED



# FIVE KEY OBSERVATIONS

## WHILE VALLEY WATER IMPLEMENTED MANY LEADING PRACTICES, OPPORTUNITIES FOR IMPROVEMENT EXIST

3

Enhancements Include:

Project Prioritization

Formalizing & Centralizing CIP  
Policies & Procedures

Enhanced Reporting of Anticipated  
Operations & Maintenance Costs

Identifying and  
Reporting Lessons Learned

Capital Budget Amounts Were Not  
Consistently Reported in the CIP 5-Year  
Plan, and Did Not Always Align with  
Valley Water's Financial System

Change Management Memos Often Did  
Not Always Provide Sufficient &  
Consistent Justification for Cost  
Increases & Schedule Delays

4

TRANSPARENCY AND CONSISTENCY OF  
INFORMATION REPORTED CAN BE  
IMPROVED



# KEY OBSERVATIONS

## REVENUE FORECASTS WERE REASONABLE AND CONSISTENT WITH PEERS

5

Revenue Forecasts Were Reasonably  
Close to Actuals

Revenue Forecasting Methodology  
Aligned with Industry Leading Practices

Valley Water Debt Management  
Practices are Board-Vetted and  
Generally Align with Peers

# KEY RECOMMENDATIONS



Improve CIP planning processes by ensuring projects are selected and prioritized using a defined criteria, and that key goals and milestones in the CIP plan are achievable given agency resources.



Enhance the CIP 5-Year Plan by continuing ongoing efforts to implement leading practices as identified in this report.



Improve transparency and consistency of information reported in the CIP by implementing enhanced quality assurance procedures and ensuring compliance with Change Management Procedures.



GEORGE SKILES, PARTNER

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# **Santa Clara Valley Water District Independent Board Auditor**

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## **Performance Audit of Valley Water's Capital Improvement Program**

**August 2023**



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## RESULTS

The Santa Clara Valley Water District (Valley Water) has, since 2019, been focused on enhancing its Capital Improvement Program (CIP). During this time, it has implemented many practices that are in-line with both industry and leading practices, including establishing cross-department training, increasing the consistency with which Change Management Memos document changes in project scope and cost, implementing a new project management system (ProjectMates), and requiring the use of an independent cost estimates on all capital projects. These will have a continued positive impact on the success of future capital project delivery. This audit also found that revenue forecasts were reasonable and reliable, and debt financing and revenue forecasting practices aligned with peer and leading industry practices. However, opportunities for continued improvement exist throughout the CIP planning and delivery process. Doing so will better ensure planned milestones and targets related to total project costs and schedules are realistic and information reported is accurate and transparent.

## BACKGROUND AND PURPOSE

Valley Water is Santa Clara County's water resource management agency responsible for providing safe, clean water, flood protection, and stewardship of streams through its management of water treatment and distribution systems, construction and maintenance of flood control channels, and oversight of rate setting and conservation efforts. Valley Water uses a 5-year rolling CIP plan to plan, manage, and deliver capital improvements in compliance with various statutes, regulations, and Board policies and goals. The result of Valley Water's CIP planning process is the Board's annual adoption of the updated CIP 5-Year Plan.

In May 2022, the Board of Directors requested Sjoberg Evashenk Consulting to conduct an audit of Valley Water's CIP planning process. The objective of this audit was to determine the extent to which Valley Water activities associated with planning, developing, executing, and monitoring its CIP 5-Year Plan are consistent with relevant requirements, policies, and best practices.

## KEY FINDINGS

- Valley Water implemented many leading practices in developing its CIP 5-Year Plan, including practices recommended by the California Society of Municipal Finance Officers, Government Finance Officers Association, and California's largest public works agencies.
- Over the past five years, capital projects have not progressed in a manner envisioned by the CIP 5-Year Plan, resulting in cost increases and schedule delays. Actual capital spending was consistently and significantly less than planned despite having adequate financial resources to deliver the projects.
- While Change Management Memos reveal external factors that impacted project schedules (such as multi-government permitting processes), this audit revealed that outdated cost estimates and increased project costs affect Valley Water's ability to hit CIP targets, and that internal and external staffing resources may not be sufficient to meet project demands. Ensuring the CIP 5-Year Plan is achievable is important because an overly-ambitious plan may lead to program expenditures that are substantially lower than planned, and rate increases or bond issuances being implemented sooner than necessary.
- To better align the CIP planning process with industry leading practices, Valley Water should implement additional process improvements. This includes establishing more robust project prioritization processes, performance metrics to evaluate program success, and comprehensive capital planning policies and procedures, among others.
- Opportunities exist to strengthen the reliability of data used in developing the CIP 5-Year Plan. Annual capital budget amounts were not always consistently reported and did not always align with Valley Water's Financial System, and Change Management Memos did not always reflect sufficient information regarding the reasoning for cost increases and schedule delays.

## KEY RECOMMENDATIONS

1. Improve CIP planning processes by ensuring key goals and milestones in the CIP plan are achievable. This should include:
  - a. Ensuring cost estimates are up-to-date and reflect reasonable rates of inflation.
  - b. Identifying specific staff and contract resources required to complete projects, including the type of resource, quantity of resource, and timing of the need for the resource.
2. Enhance the CIP 5-Year Plan by continuing ongoing efforts to implement leading practices as identified in this report.
3. Improve transparency and consistency of information reported in the CIP by implementing enhanced quality assurance procedures and ensuring compliance with Change Management Procedures.

## Introduction and Background

The Santa Clara Valley Water District (Valley Water) is Santa Clara County's water resource management agency responsible for providing safe, clean water, flood protection, and stewardship of streams through its management of water treatment and distribution systems, construction and maintaining flood control channels, and overseeing water rate setting and conservation efforts. Valley Water is led by a seven-member Board of Directors (Board), with each Board director representing one of seven equally-divided districts in the Silicon Valley. The mission of Valley Water is to provide safe, clean water for a healthy life, environment, and economy.

In pursuit of this mission, Valley Water has established an annual Capital Improvement Program (CIP) planning process to plan, manage, and carry out capital improvements in compliance with laws and regulations, Board policies, and objectives and goals established by the Board. The result of this planning process is the updating and adoption of the rolling CIP 5-Year Plan, and includes updating the status of existing projects, identifying new projects to be added to the plan, and projecting capital expenditures, funding, and schedules associated with each project. The most recent iteration is the CIP 5-Year Plan for Fiscal Years (FY) 2022-23 through 2026-27. The CIP 5-Year Plan serves as a budget and project guide that implements the Valley Water Board's policies and directives, identifies funding sources for planned capital projects, and aligns with local land use jurisdiction's General Plans.

A leading practice in the capital planning lifecycle is to conduct an entity-wide capital needs assessment and call for projects, which includes determining the current state of capital assets and identifying both current and future capital needs. After a universe of potential projects is identified, an organization can develop a long-range CIP strategic plan that aligns the agency's capital plan with its long-term goals and objectives. Generally, the long-range CIP plan includes a combination of funded and unfunded projects. Once the long-range CIP plan is developed, an agency begins to identify funding sources to meet its capital needs and develops a short-range CIP plan.

In developing the short-range CIP, a leading practice is to develop an organization-wide prioritization process that ties quantitative and qualitative metrics to agency goals and objectives and helps to ensure the right mix of projects is programmed to best meet an agency's short- and long-term objectives. This plan includes projects that are planned to begin over the next five to six years and includes detailed project information, such as project scope of work, anticipated project costs by year and phase, funding sources, and project schedules and key milestones.





The short-range CIP provides a foundation to develop the annual capital budget, which generally includes planned capital expenses over the next one- to two-year period. After the annual capital budget is adopted, programmed projects are implemented and the capital planning life-cycle starts over again.

Valley Water maintains a CIP 5-Year Plan, updating it annually.

## CIP Policies & Governance

Valley Water develops its CIP 5-Year Plan in accordance with California Government Code Section 65403, California Public Contract Code, and guidelines established by the Government Finance Officers Association (GFOA). To guide capital planning efforts and manage its assets Valley Water has a variety of program plans, master plans and asset management plans based on business areas, that define three primary goals:

- 1) To achieve a reliable water supply,
- 2) Improved flood protection, and
- 3) Healthy and resilient ecosystems.

In line with these plans, Valley Water's capital improvements are intended to comply with the Board established Ends Policies that describe the outcomes or results to be achieved by Valley Water staff and Executive Limitations that were established to balance the Ends Policies and set limits on staff activities in fulfilling them. Additionally, Valley Water follows Executive Limitations 4.3.1 and 4.4.1 that require an annual rolling CIP 5-Year Plan with the first year serving as the adopted capital budget and the remaining years in place as a projected capital funding plan and requires Valley Water to demonstrate to the Board how projects included in the CIP 5-Year Plan align with the Board's capital priorities.

Valley Water's CIP 5-Year Plan is developed with projects selected based on their alignment with the following Ends Policies established by its Board:

- ✓ **Ends Policy E-2:** Valley Water provides a reliable, safe, and affordable water supply for current and future generations in all communities served.
- ✓ **Ends Policy E-3:** Natural flood protection is provided to reduce risk and improve health and safety for residents, businesses, and visitors, now and into the future.
- ✓ **Ends Policy E-3.1:** Maintain flood protection facilities to design levels of protection.
- ✓ **Ends Policy E-3.2:** Assist people, businesses, schools, and communities to prepare for, respond to, and recover from flooding through equitable and effective engage.
- ✓ **Ends Policy E-4:** Water resources stewardship protects and enhances ecosystem health.

According to Valley Water, program plans, master plans and asset management plans are developed to achieve the results established by the Ends Policies and to further define the goals and objectives of each Ends Policy. In Exhibit 1 is an illustration of how Valley Water's CIP process aligns with Ends Policies and the various plans used by Valley Water to program capital projects.

## EXHIBIT 1. VALLEY WATER CIP PROCESS ALIGNMENT WITH ENDS POLICIES



Source: Valley Water CIP 5-Year Plan FY 2022-26

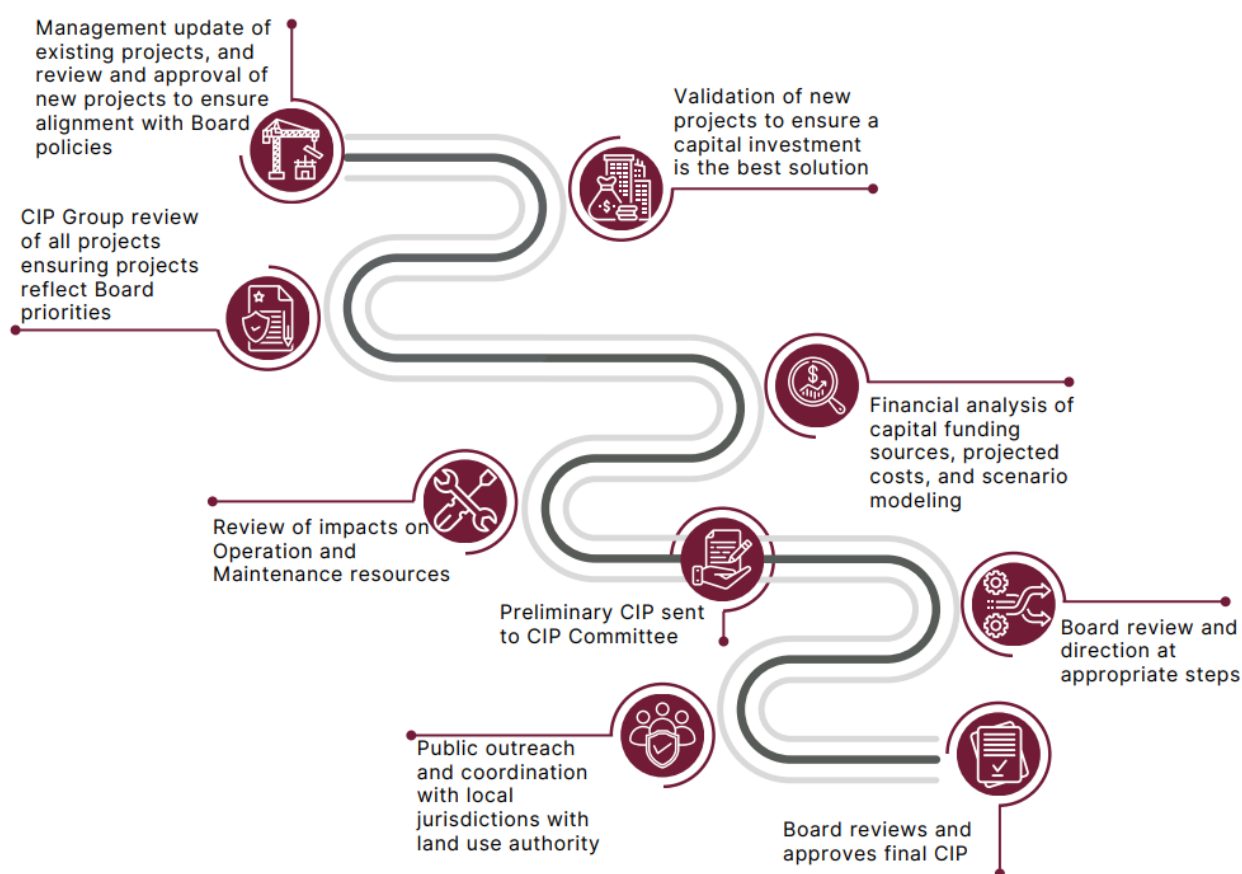
Note: The Ends Policies were updated after the CIP 5-Year Plan was published and therefore do not reflect the updated Ends Policies presented above.

Consistent with these policies, Valley Water has established various formal and informal procedures to guide both capital planning and capital project delivery activities. For instance, Valley Water established procedures detailing the roles of its internal capital planning committee, project change management memo process, and capital project delivery process. These and other organizational procedures are stored in a repository referred to as Quality and Environmental Management System (QEMS). This includes, standard forms, such as project proposal templates, project calculation cover sheets, and individual project plan guideline templates—all of which promotes consistency and standardization in CIP planning processes.

## Valley Water Annual CIP 5-Year Plan Update Process

As shown in Exhibit 2, Valley Water established an annual process to update its CIP 5-Year Plan. This process begins in April each year and is completed in the last quarter of the fiscal year with the Board's approval of the final CIP 5-Year Plan.

### EXHIBIT 2. ANNUAL CIP 5-YEAR PLAN UPDATE PROCESS



Source: Auditor Generated from Valley Water CIP 5-Year Plan FY 2022-26 and Valley Water CIP training materials.

Specifically, beginning in April of each year, the CIP Coordinator, initiates a call for potential capital projects for the coming fiscal year cycle. As part of the call for projects, Valley Water staff develop project proposals, referred to as business cases, for new projects that they would like to be considered for inclusion in the CIP. The project proposals provide analyses that compare the business case for alternative solutions for a

given problem or failure using life-cycle cost analysis. These business cases were designed with the intent to reduce long-term costs, provide justification for project expenditures, better define the proposed project scope of work, and provide greater fiscal responsibility and public transparency. As part of the validation process, the CIP Group (also referred to as the CIP Evaluation Team), which is comprised of Valley Water capital division deputies, chiefs, Assistant Chief Executive Officer (ACEO), and Chief Executive Officer (CEO), is responsible for initiating and implementing capital projects, reviews and approves or rejects proposed projects, and ensures proposed projects align with Board policies and approved program plans.

In addition, Valley Water staff in the Business Planning and Analysis Unit's Capital Improvement Program meets with individual project managers and program management in August and September each year to review existing projects and discuss updates to the project scope of work, schedule, and budget. Project budgets, schedules, and/or scope of work may be modified for a variety of reasons, such as changes in market conditions, inflation, unforeseen conditions, additions and deletions to the project scope of work, and project delays. If changes are needed to the scope, schedule, or budget, then the Business Planning and Analysis Unit staff work with the project manager to develop a Change Management Memo (CMM) that formally documents the requested change and provides justification for the change. The CMM must be reviewed and approved by the associated project deputy.

Once all new project requests have been reviewed and existing projects updated, the CIP Group reviews all projects for alignment with Board priorities and conducts financial analysis to assess Valley Water's ability to fund projects based on known funding sources. Between November and December of each year, the CIP Group reviews financial modeling prepared by the Financial Planning and Revenue Collection Unit with assistance from the Treasury-Debt Management Unit and, in doing so, assesses the impact completed projects will have on Operations and Maintenance resources. The Board's CIP Committee also reviews management's project recommendations and Preliminary CIP 5-Year Plan and, in the following January, management presents the Preliminary CIP 5-Year Plan to the Board.

Feedback and direction provided by the CIP Committee and Board is incorporated into a draft CIP 5-Year Plan that is presented to the Board in February and used for public outreach and coordination with other land-use jurisdictions in March. A public hearing is held in April for community feedback and comments. The final CIP 5-Year Plan is submitted to the Board in May and reviewed and approved by the Board in June.

## **CIP Programs**

The CIP is divided into five programs based on types of improvements: Water Supply Improvements, Flood Protection, Water Resources Stewardship, Building and Grounds, and Information Technology, as shown in Exhibit 3. The first three program improvement areas are directly aligned with the three primary goals set forth in Valley Water's various program plans, master plans and asset management plans—specifically Valley Water's goals to achieve a reliable water supply, improved flood protection, and healthy and resilient ecosystems. These programs further support the Board's Ends Policies, which describe the outcomes or results to be achieved by Valley Water staff. The final two types of improvement program areas—Building and Grounds and Information Technology—support the overall infrastructure of management for Valley

Water. Valley Water's CIP 5-Year Plan FY 2022-26 includes 68 projects within these five programs totaling nearly \$8.0 billion, of which \$2.6 billion is planned for the next five years.

### EXHIBIT 3. CAPITAL IMPROVEMENT PROGRAM MAJOR PROGRAMS



Source: Valley Water CIP 5-Year Plan FY 2022-26

These capital improvement programs are described below.

- ✓ **Water Supply Program.** Providing clean and safe drinking water to the community is a foundational purpose of Valley Water and is a top priority in its CIP. The Water Supply Program is responsible for the planning, design, and construction of capital infrastructure related to water storage, treatment, and transmission. A large focus for the Water Supply Program moving forward will be maintaining and upgrading the infrastructure that is currently in place, including: storage facilities, including 10 surface reservoirs, 393 acres of recharge ponds, 76 miles of in-stream recharge, and Ground water basins; transmission facilities, including 142 miles of pipelines and three pump stations; three treatment facilities; and two recycled water facilities. Much of this infrastructure is approaching 50-60 years in age.
- ✓ **Flood Protection Program.** Safeguarding the local area against flooding through management of watersheds is also a top priority in the CIP, as Flood Protection is critical for community safety. Valley Water has jurisdiction over and manages approximately 275 miles of creeks in Santa Clara County which span across five separate watersheds: Lower Peninsula, West Valley, Guadalupe, Coyote, San Francisco Bay Shoreline, and Uvas/Llagas. Another key component of this program is maintaining and rehabilitating flood protection infrastructure.
- ✓ **Water Resource Stewardship Program.** Striving towards environmental enhancement has been a priority since 1999 and has served to bolster other program areas with its focus on healthy eco systems, clean and safe drinking water, and improved open space quality of life. Valley Water's environmental stewardship has yielded key results for the community including 92 projects that



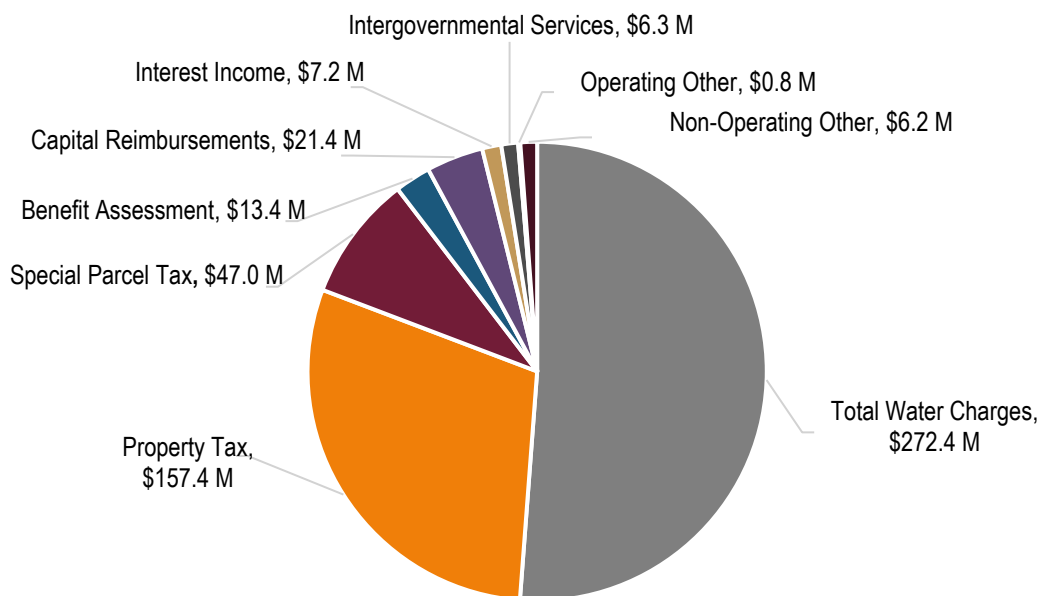
resulted in 71 miles of public access, removing 15,000 lbs. of mercury from the creeks, and the removal of 20 fish passage impediments.

- ✓ **Building and Grounds Program.** This program is focused on the maintenance and upkeep of Valley Water’s campus in San Jose, including facility management, small capital improvements, and updates to the Headquarters Operations Building.
- ✓ **Information Technology Program.** The Information Technology Program serves the technical support and management needs of Valley Water, with projects focused on data consolidation, information technology disaster recovery, and software upgrades. These technology improvements serve to achieve Valley Water’s goals of managing their core responsibilities which are Water Supply, Flood Protection, and Water Resources Stewardship.

## Funding Sources

In FY 2021-22, Valley Water received \$532 million in revenue for its CIP—90 percent of the revenue received was from three revenue sources, as show in Exhibit 4. The largest revenue source consists of water rates charged to customers, which accounted for half of the total CIP revenue, and is dependent on both annual water rates set by the Valley Water Board and water consumption. The second largest revenue source is the ad valorem property tax which was nearly a third of the total CIP funding. This is a 1 percent property tax that is dependent on annual property values. The third largest revenue source, accounting for 9 percent of total CIP revenue, is a special parcel tax, referred to as Measure S, that is based on fixed parcels of land. These revenues can only be used for the Safe, Clean Water and Natural Flood Protection Program. The remaining 10 percent of CIP funding comes from a mix of benefit assessments, interest income, capital reimbursements, such as grants, and other revenue sources.

**EXHIBIT 4. VALLEY WATER REVENUE SOURCES, FY 2021-22 ACTUALS**

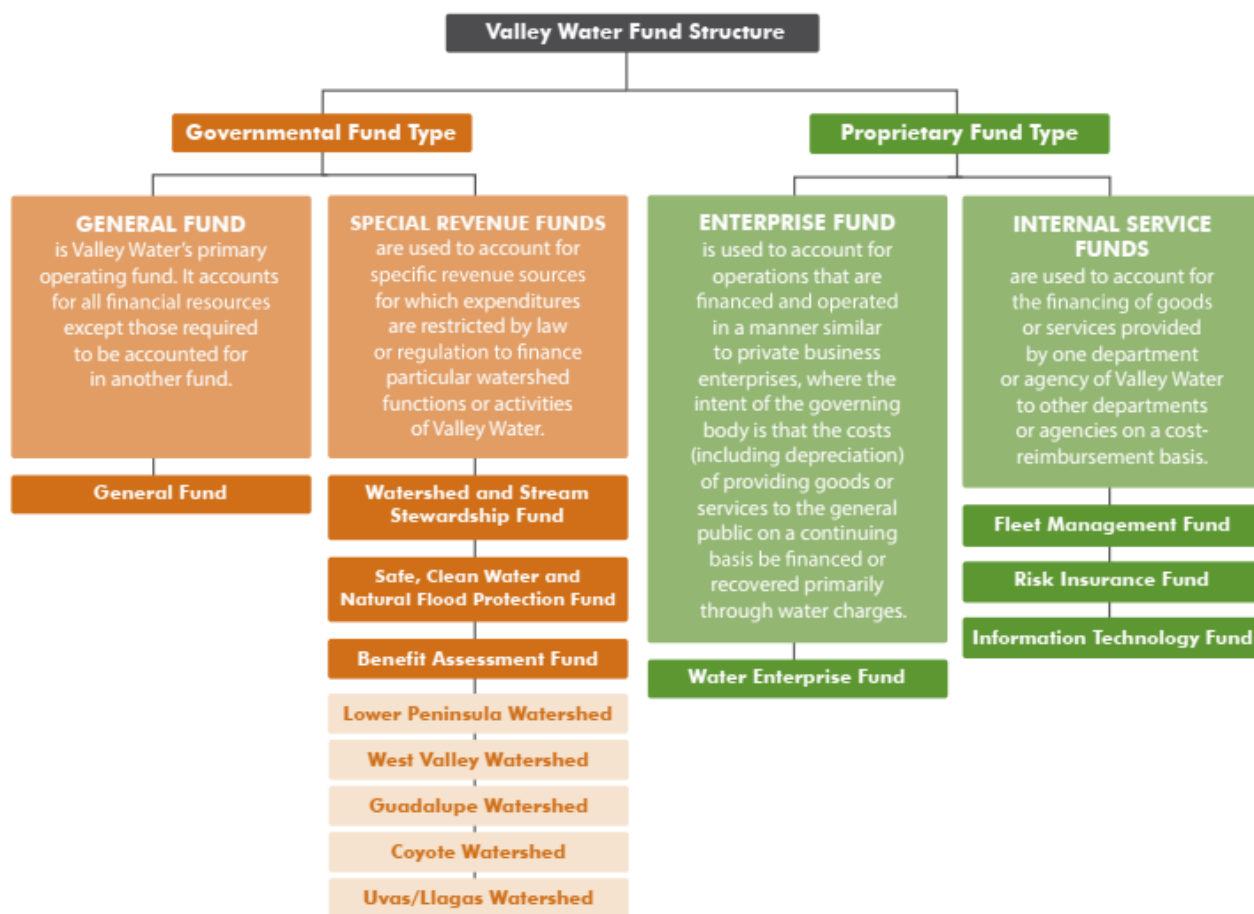


Source: Auditor generated based on data provided by the Chief Financial Officer for revenue actuals from FY 2021-22

Note: Total Water Charges reflect combined amounts for groundwater production, treated water, and surface recycled water charges.

Valley Water utilizes a combination of government funds and proprietary funds for its CIP.<sup>1</sup> Within these two fund types Valley Water has established a total of eight funds, as shown in Exhibit 5 below. Each fund has specific revenue sources according to their intended purposes, and each fund is an independent accounting entity with a self-balancing set of accounts comprised of its assets, liabilities, fund equity, revenue, and expenditures or expenses, as appropriate. Further, each of these funds can only finance specific types of projects.

**EXHIBIT 5. VALLEY WATER FUND STRUCTURE**



Source: Valley Water CIP 5-Year Plan FY 2022-26

Of these eight funds, four funds are primarily used to track and manage the six primary revenue sources that fund capital projects, including water charges, property tax, special parcel tax, benefit assessments, capital reimbursements, and interest.<sup>2</sup> Exhibit 6 shows which fund each revenue source is organized into, and what type of improvements can be pursued by those funds for the three largest programs in the CIP.

<sup>1</sup> A governmental fund is generally used to account for tax-supported government activities. A proprietary fund is used to account for business-type activities often supported by fees or charges.

<sup>2</sup> Grant revenue receipts are categorized as capital reimbursements.

## EXHIBIT 6. KEY CAPITAL PROGRAMS AND FUNDING SOURCES

	Key Revenue Sources	Fund	Capital Program		
			Water Supply	Flood Protection	Water Resources Stewardship
1	<b>Water Charges</b>	Water Utility Enterprise Fund	✓		✓
2	<b>Property Tax</b> (Ad Valorem)	Watershed and Stream Stewardship Fund	✓	✓	✓
3	<b>Special Parcel Tax</b> (Measure S)	Safe, Clean Water and Natural Flood Protection Fund	✓	✓	✓
4	<b>Benefits Assessments</b>	Benefit Assessment Fund <sup>A</sup>		✓	
5	<b>Capital Reimbursements</b>	Multiple Funds <sup>B</sup>	✓	✓	✓
6	<b>Interest</b>	Multiple Funds <sup>B</sup>	✓	✓	✓

Source: Auditor generated based on Valley Water CIP 5-Year Plan FY 2022-26

Notes:

A: According to the Chief Financial Officer, this pays for debt service associated with past debt issuances for flood protection projects.

B: Capital reimbursements do not have a separate stand-alone fund. Individual projects from different improvement type areas can receive capital reimbursements and monies would return to the specific funds that the project is funded by. Similarly, earnings from interest are reallocated proportionally back into the funds driving the interest earned.

## Results of 2021 Risk Assessment

In 2021, the independent Board auditor issued an agency-wide risk assessment that identified several factors that, in the view of the auditor, presented challenges to the CIP planning process. This included three primary concerns:

- The CIP is not right-sized given Valley Water's resources and the availability of key personnel, including sufficient project staff and outsourced service providers as well as various support units (e.g., General Services and Real Estate Services), leading to the potential overcommitment of staff and predictable project delays.
- Potential projects are sometimes included in the CIP even when it is expected that the projects would not start within the established schedule, consuming limited staff resources for financial analysis and project planning.
- CIP projects lack performance indicators that effectively measure program or project success, or enable management and the Board to evaluate whether intended goals have been met.

Based on these concerns, the CIP planning process was included in the 2022-2024 Annual Audit Work Plan with the intent that it would identify opportunities to improve the CIP planning process (project initiation to CIP plan approval), evaluate potential steps that can be taken to right-size the CIP in a manner that considers the Agency's staffing resources, identify potential performance measures to measure success and monitor financial management, and identify best practices and lessons learned that can be adopted in future CIP 5-Year Plans.



## Scope and Methodology

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On January 11, 2022, the proposed 2022-2024 Annual Audit Work Plan was approved by the Valley Water Board. Based on this work plan, the Board Audit Committee recommended that the Board initiate a performance audit of Valley Water's CIP Process, which was the top-ranked audit topic in the 2022-2024 Annual Audit Work Plan. On May 24, 2022, the Board approved the initiation of this audit and selected Sjoberg Evashenk Consulting as the auditor to conduct the audit. The objective of this audit was to determine the extent to which Valley Water activities associated with planning, developing, executing, and monitoring its CIP 5-Year Plan are consistent with relevant requirements, policies, and best practices. To meet the audit's objectives, SEC performed the following audit steps:

- Interviewed key CIP, project management, and Finance staff, as well as representatives of Valley Water management and the Board; reviewed all relevant policies, procedures, and staff guidance; and selected a sample of project files for review.
- Evaluated the processes employed by Valley Water to identify and prioritize projects for inclusion on the CIP 5-Year Plan; identify and secure funding sources to implement the CIP, including grant funding and administration, rate setting, debt financing; develop, monitor, and update the plan; and assess project outcomes and overall performance.
- Mapped out the CIP cycle, identifying key parties involved and business processes; identified potential gaps, inefficiencies, or opportunities for improvement.
- Determined whether CIP practices were in-line with the Board's policies and goals for the CIP.
- Evaluated historic trends relating to the CIP, including target start and completion dates, project budgets, and project goals, and compared to actual results; evaluated metrics established to define and evaluate project success or measure program performance.
- Conducted benchmarking research to identify leading practices in CIP planning and monitoring, and compared results with practices observed at Valley Water and, based on the results, identified potential opportunities for improvement.

Audit fieldwork was performed between August 2022 and March 2023. On April 28, 2023, a draft of this report was provided to management for review and discussion, and an exit conference was held with management on May 2, 2023. Valley Water management generally agreed with the conclusions presented in this report, and responses and feedback provided by management were considered and incorporated where applicable in the final report. Management's response to the audit recommendations is presented in **Appendix B** of this report.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

## Audit Findings

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An effective CIP facilitates the planning, prioritization, and reporting related to long-term investments in capital infrastructure and technology. This requires reliable methods for identifying current and future needs, assessing costs and funding sources, prioritizing projects based on need and resource availability, developing timelines for project completion, evaluating performance based on the CIP plan, identifying lessons learned, and incorporating improvements based on lessons learned in CIP plan updates. By prioritizing investments and providing a roadmap for future expenditures, a CIP helps ensure that resources are used in the most effective and efficient manner to meet the needs of the community and organization.

This audit assessed Valley Water's processes for identifying needs, assessing costs and funding sources, prioritizing projects, developing project timelines, and evaluating project performance against the CIP 5-Year Plan. We found that Valley Water's CIP planning process incorporated many sound business practices, as detailed in the first finding of this report.

However, we also found that, for each of these critical steps in the CIP planning and delivery process, opportunities for improvement exist. For example, despite continuous improvement in CIP planning processes, opportunities continue to exist to better ensure Valley Water delivers capital projects as programmed. Achieving planned milestones or targets in the CIP 5-Year Plan proved challenging primarily because cost estimates were outdated; actual staffing resources required to hit CIP targets and milestones were not fully identified and available; established schedules did not always sufficiently account for external factors, such as permitting and California Environmental Quality Act (CEQA) requirements, and coordination with external agencies; and management's overall performance in meeting CIP goals and capital project delivery was not sufficiently monitored. Beyond, this however, this audit notes that while Valley Water had implemented numerous best and leading practices, opportunities for improvement include implementing protocols to more formally prioritize capital project investments, quantifying and measuring performance, incorporating additional information regarding ongoing operations and maintenance costs associated with capital improvements, and implementing quality control measures to ensure accuracy and consistency in data reported throughout the CIP 5-Year Plan. These findings are addressed in the remainder of this report.

### Valley Water Implemented Many Leading CIP Planning Practices and Continuous Improvement Efforts Remain Ongoing

Valley Water implemented many leading practices related to the development and reporting of its CIP 5-Year Plan. Our review found that many of the practices and policies established by Valley Water align with leading practices identified by the California Society of Municipal Finance Officers (CSMFO),<sup>3</sup> GFOA,<sup>4</sup>

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<sup>3</sup> CSMFO criteria to achieve the Meritorious and Excellence Award for Capital Budgets as cited in [The CSMFO Budget Awards Program Overview & Explanation of Criteria](#)

<sup>4</sup> [GFOA Capital Planning Policy](#)

California Multi-Agency Statewide CIP Benchmarking Study,<sup>5</sup> and practices implemented by peer agencies reviewed. Valley Water’s capital planning practices generally aligned with leading practices and peers.

For example, Valley Water’s CIP 5-Year Plan FY 2022-26 met most of the applicable criteria established by CSMFO. In some cases, the criteria set forth by CSMFO are relatively basic and focused on aesthetics—such as including a summary schedule of capital revenues by source, the identification of specific projects, the use of graphics and maps to clearly present relevant information, and ensuring readability and accessibility. Valley Water generally followed these recommended practices. More importantly, however, the CSMFO also sets forth criteria designed to establish a sound basis for planning capital projects in a transparent manner. This includes tying planned projects to specific revenue sources, reflecting estimated expenditures for the budget year and future years, including total project costs for multi-year projects, ensuring budget numbers are accurate and consistent throughout the document, connecting capital projects to agency-wide goals, reasonable estimates of future annual operating and maintenance costs of the infrastructure once delivered, and reliable revenue forecasts, among others. In most cases, we found Valley Water’s CIP 5-Year Plan to be consistent with the criteria set forth by the CSMFO. We provide a table summarizing Valley Water’s implementation of key components for capital budgets as identified by CSMFO in Appendix A of this report.



**Valley Water Implementation of CSMFO  
Leading Practices:**

- ✓ Clear summary schedules of capital revenue and expenditures by both project type and major type of improvement.
- ✓ Project details include clear narratives discussing the project status, details and timeline for project completion.
- ✓ For multi-year projects a total cost for the project is identifiable.
- ✓ The document demonstrates good use of graphics, artwork, maps, and charts and is readable and clear.

In addition to the leading practices set forth by the CSMFO, Valley Water reports in its CIP 5-Year Plan FY 2022-26 that it follows GFOA standards in the development and reporting of its plan. The GFOA generally requires agencies to establish CIP governance policies that address how the organization will approach CIP planning, address stakeholder input, define roles and responsibilities, and monitor the CIP program. Our review found that processes and practices implemented generally aligned with the leading practices identified in the GFOA Capital Planning Policy, as shown in Exhibit 7. For instance, in the CIP 5-Year Plan FY 2022-26, Valley Water provided a clear definition of what constituted as a capital improvement project and included an overview of its capital planning process.

<sup>5</sup> [California Multi-Agency Statewide CIP Benchmarking Study Annual Report](#) – Update 2022

## EXHIBIT 7. VALLEY WATER'S IMPLEMENTATION OF GFOA CAPITAL PLANNING LEADING PRACTICES

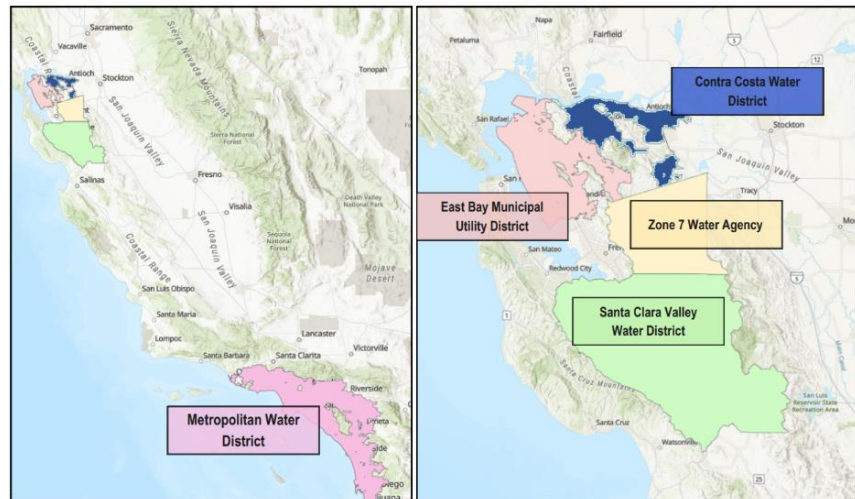
	A description of how an organization will approach capital planning, including how stakeholder departments will collaborate to prepare a plan that best meets the operational and financial needs of the organization.	✓
	A clear definition of what constitutes a capital improvement project.	✓
	Establishment of a capital improvement program review committee and identification of members	✓
	A description of the role of the public and other external stakeholders in the process. (The level and type of public participation should be consistent with community expectations and past experiences.)	✓
	Identification of how decisions will be made in the capital planning process including a structured process for prioritizing need and allocating limited resources	P
	A requirement that the planning process includes an assessment of the government's fiscal capacity so that the final capital plan is based on what can realistically be funded by the government rather than being simply a wish list of unfunded needs.	✓
	A procedure for accumulating necessary capital reserves for both new and replacement purchases.	✓
	A policy for linking funding strategies with useful life of the asset including identifying when debt can be issued and any restrictions on the length of debt	✓
	A requirement that a multi-year capital improvement plan be developed and that it include long term financing considerations and strategies.	✓
	A process for funding to ensure that capital project funding is consistent with legal requirements regarding full funding, multi-year funding, or phased approaches to funding.	✓
	A requirement that the plan include significant capital maintenance projects.	✓
	Provisions for monitoring and oversight of the CIP program, including reporting requirements and how to handle changes and amendments to the plan.	✓

Source: Auditor Generated from GFOA Capital Planning Policies and Valley Water CIP 5-Year Plan FY 2022-26  
Key: ✓ = Criterion Met and P = Criterion Partially Met

In addition to evaluating the extent to which Valley Water's CIP planning process aligns with CSMFO and GFOA, we interviewed and researched the CIP practices of four similarly situated peer water agencies: Contra Costa Water District, East Bay Municipal Utilities District (EBMUD), Zone 7 Water Agency, and Metropolitan Water District.



Our review of these four agencies revealed Valley Water’s capital planning practices to be generally consistent with its peers. For example, peer agencies’ CIP plans ranged in duration from two years to 10 years—the Valley Water CIP plan covers a 5-year period. In addition, as discussed later in this report, Valley Water’s approach to debt financing and revenue forecasting, funding sources and methods, as well as challenges obtaining permits resulting in delays generally aligned with peers. In addition, although Valley Water’s CIP budget was the largest amongst peers, Valley Water utilized similar staffing resources to develop its CIP 5-Year Plan although it updated its CIP annually; whereas, peers updated their short-range CIP biennially.



### Recent Process Improvements Have Been Implemented, But Time is Needed to Measure Benefits

According to staff, the overall CIP planning process had generally remained consistent between FY 2006-07, when the Capital Program Planning and Analysis Unit developed Valley Water’s first CIP, and about FY 2018-19. Over the last four years, a number of changes have been implemented to the CIP planning process as a result of direction from the Board of Directors, executive team, and initiatives led by new units established from organization restructuring prior audit recommendations. Specifically, starting in 2019, Valley Water’s new Business Planning and Analysis Unit took on the CIP planning process duties. Exhibit 8 shows a summary of recent process improvements impacting the CIP planning process that have been adopted since 2019.

## EXHIBIT 8. RECENT CHANGES IMPACTING THE CIP PROCESS



Source: Auditor generated based on interviews with Valley Water staff, review of presentations and reports to the Board, and example documents provided by staff.

These changes are consistent with leading practices and are fully expected to strengthen various aspects of the CIP planning process. For instance, establishing a Grants Management Team dedicates efforts to secure external funding to bolster available CIP funding. Holding Annual CIP Trainings and Individual Project Team Meetings should improve coordination across project teams and divisions in preparation for the annual CIP, reduce miscommunication, and clarify roles and expectations of involved parties. Implementing new tools like ProjectMates and Vemo could advance Valley Water's ability to manage underlying CIP project data and needs related to budgeting, change management, and staffing.

Yet, at the time of this audit, the changes shown in Exhibit 8 had only recently been implemented in the last four years. With capital projects often spanning several years from initial planning to design to construction, it will take many years before the effects of these efforts will become fully evident in CIP and project documentation. While it is too early to determine their full impact, it is evident that Valley Water has demonstrated positive effort toward improving the annual CIP process. As Valley Water continues to roll out these new initiatives, it should determine a timeline and plan for how it will assess whether these efforts produced intended results and improved the existing process.

## **Opportunities Exist to Better Ensure Valley Water Delivers Capital Projects as Programmed**

As noted previously, an effective CIP facilitates the planning, prioritization, and reporting related to long-term investments in capital infrastructure and technology. The CIP 5-Year Plan is a plan for such investments, and an organization's measurable progress in meeting established targets and milestones is an indicator of, in the case of a CIP, the organization's performance in delivering programmed capital projects or of the achievability of the plan itself. This audit found, as noted above, that Valley Water's CIP planning process employs many of the policies and practices recommended by professional associations and observed in leading practices. Yet, our review of capital expenditures and project schedules over the past five fiscal years found that projects have not progressed in a manner envisioned by the CIP 5-Year Plan, and that actual capital spending was consistently and significantly less than planned despite having adequate financial resources to deliver the projects. This could suggest that:

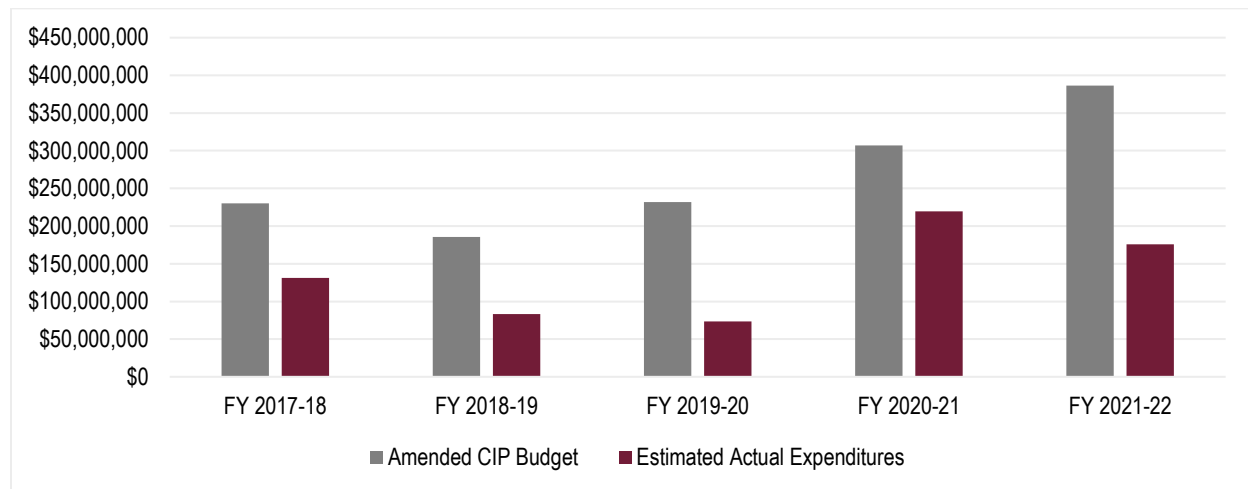
- a) Projects are not progressing as planned for reasons within and outside of Valley Water's control,
- b) Budget data developed and provided for the annual capital budget is imprecise,
- c) Annual capital budget requests are inflated, or
- d) Internal and external staffing resources may be insufficient to meet project demands.

In this finding, we provide some detail demonstrating that projects are not progressing as planned. We also describe several factors that appear to contribute to this trend.

### **Annual Capital Expenditures Were Consistently and Significantly Less Than Planned**

Best practices suggest that budget data should be carefully developed and tied to project phasing and timing, with on-going tracking and monitoring by an independent division of agency-wide capital project delivery. Over the past five fiscal years, FY 2017-18 through FY 2021-22, Valley Water consistently spent less in capital expenditures than budgeted, as shown in Exhibit 9. For example, although \$386.3 million was budgeted for capital expenditures in FY 2021-22, only \$175.8 million was expended—\$210.5 million or nearly 54.5 percent less than budgeted.

#### EXHIBIT 9. ANNUAL CAPITAL BUDGET VERSUS ACTUAL EXPENDITURES, FY 2017-18 – FY 2021-22



Source: Valley Water CIP 5-Year Plans FY 2018-22 through FY2023-27 and Estimated Actuals provided by the Chief Financial Officer

Between FY 2017-18 and FY 2021-22, two programs, Water Supply Program and Flood Protection Capital Improvement Program, accounted for approximately 95 percent of the total capital budget—averaging \$253.7 million of the average total capital budget of \$268.1 million. Actual capital expenditures for both programs each year have been significantly less than planned, with an average of 43 percent of the budget spent by the Water Supply Program and 59 percent of the budget spent by the Flood Protection Capital Improvement Program over this five-year period. These two programs accounted for more than 90 percent of the unspent capital budget each fiscal year.

Within these two programs, several projects significantly contributed to the annual variances noted, as shown in Exhibit 10. For example, although the FY 2021-22 adjusted budget for the Anderson Dam project was \$127.4 million in the CIP, actual expenditures during the fiscal year were only \$42.7 million, a difference of \$84.7 million, or 66 percent. In another example, although the FY 2019-20 and FY 2020-21 adjusted project budgets for the San Francisco Bay Project were reported as \$33.4 million and \$48.3 million respectively in the CIPs, there were no project expenditures during either fiscal year. According to Valley Water, although actual expenditures were less than planned, if actual expenditures are combined with amounts encumbered for contracts issued during the fiscal year, total amounts are closer to the annual budget amount. However, despite awarding contracts and encumbering funds for the fiscal year, little was actually spent against the encumbrances during the fiscal year, resulting in significant budget and encumbrance carry forwards to the next fiscal year.



**EXHIBIT 10. ANNUAL ADJUSTED CIP PROJECT BUDGET COMPARED TO ANNUAL ESTIMATED ACTUAL EXPENDITURES, FY 2017-18 THROUGH FY 2021-22 (\$ IN MILLIONS)**

	FY 2017-18		FY 2018-19		FY 2019-20		FY 2020-21		FY 2021-22	
Program/ Project	CIP Adjusted Budget	Est. Actual Expend.	CIP Adjusted Budget	Est. Actual Expend.	CIP Adjusted Budget	Est. Actual Expend.	CIP Adjusted Budget	Est. Actual Expend.	CIP Adjusted Budget	Est. Actual Expend.
<b>Water Supply Program</b>	<b>\$140.2</b>	<b>\$66.7</b>	<b>\$103.8</b>	<b>\$37.2</b>	<b>\$121.3</b>	<b>\$11.5</b>	<b>\$155.5</b>	<b>\$122.1</b>	<b>\$217.4</b>	<b>\$96.5</b>
Anderson Dam (91864005)	\$7.9	\$4.3	\$10.6	\$5.8	\$12.9	\$6.4	\$36.1	\$44.4	\$127.4	\$42.7
Pacheco (91954002)	-	-	\$17.3	\$4.3	\$35.1	0	\$27.9	\$3.6	(\$8.5)	\$5.7
South County Recycled Water Pipeline (91094009)	\$0	\$0.7	\$0	\$0.3	\$0	\$0.1	\$0.2	\$0.7	\$15.3	\$7.2
<b>Flood Protection</b>	<b>\$75.3</b>	<b>\$58.0</b>	<b>\$69.0</b>	<b>\$41.3</b>	<b>\$101.7</b>	<b>\$53.2</b>	<b>\$142.2</b>	<b>\$82.0</b>	<b>\$141.9</b>	<b>\$68.2</b>
San Francisquito Creek (26284002)	\$7.3	\$2.2	\$5.1	\$5	\$2.8	\$1.0	\$0.4	\$1.0	\$12.8	\$1.2
Berryessa Creek (40174005)	\$0	\$2.8	\$17.5	\$2.9	\$0	\$1.9	\$10.7	\$2.8	\$12.8	\$15.5
Llagas Creek (26174052)	\$0	\$1.1	\$0	\$2.1	\$10.2	\$23.0	\$47.5	\$45.7	\$58.3	\$29.5
San Francisco Bay Shoreline (00044026)	\$2.7	\$0	\$0	\$0	\$33.4	\$0	\$48.3	\$0	\$0	\$0
Watersheds Assets Rehab Program (62084001)	\$11.0	\$4.2	\$9.9	\$7.3	\$11.5	\$2.6	\$3.5	\$5.2	\$10.9	\$3.2

Source: Valley Water CIP 5-Year Plans FY 2019-23 through FY 2023-27 and expenditure reports provided by the Chief Financial Officer.

While the Capital Budget Division is responsible for gathering information from its project managers to develop the annual capital budget, it historically has not been tasked with capturing related expenditure data to compare or track amounts to related budget items or project delivery milestones. Valley Water recognized a need for actual annual capital expenditures to closely align with planned capital expenditures and in FY 2022-23 implemented a target to spend and encumber 80 percent of budgeted capital dollars each year. To help ensure this target is met, Valley Water included the reporting of this target as part of its Quarterly Capital Project Monitoring Reports, which are reviewed by the capital deputies and executive

leadership, on a quarterly basis, which includes review of actual project expenditures to assess progress towards meeting this goal. This newly established target is generally in-line with industry leading practices and practices implemented by peers; however, peers did not include encumbrances when measuring progress towards spending goals. Specifically, a leading practice is to establish goals or targets for annual capital expenditures to closely align with planned amounts. For instance, EBMUD established a formal target to spend between 90 to 110 percent of the capital budget each year. Similarly, although a formal policy has not been established, Metropolitan Water District targets for actual annual capital expenditures to closely align with budgeted amounts and reported that actual capital expenses are generally 90 percent or more of budgeted amounts.

While the benefits from this new process cannot yet be assessed, establishing budgets and schedules that closely align with available resources and actual project progression and closely monitoring progress at both the project and program level, will help to better ensure projects are delivered as programmed, enable management to assess the effectiveness of both individual project delivery and overall CIP delivery, help build a culture where it is the expectation that projects are delivered on schedule and within budget, and better ensure capital expenditures align with cash flow as well as cash projections for short- and long-term needs.

### **Capital Projects Consistently Experienced Total Project Cost Increases and Schedule Delays**

Although total planned capital spending is overstated year to year, our review of 48 projects included in both the CIP 5-Year Plans FY 2018-22 and FY 2023-27, found that the total project costs (TPC) were often underestimated, requiring either additional funding or modifications to planned scope of work to complete projects, and most projects experienced schedule delays.

Specifically, TPC was increased for 36 of the 48 projects reviewed, or 75 percent, with TPC increases ranging from \$23,000 up to nearly \$791.6 million. However, Valley Water did not track project baseline budget-to-actuals and did not provide documentation necessary to assess the frequency and magnitude of capital project budget increases in total over the full life of the projects. There are a number of valid reasons why project costs could increase, such as changes to the scope of work and unforeseen conditions. However, routine and persistent project budget increases could be indicative of poor project planning and cost estimating.

Valley Water recognized the need for better project cost estimates and recently procured independent cost estimate services to validate project cost estimates. This change is in line with a leading practice identified in the 2022 California Multi-Agency Statewide CIP Benchmarking Study, which recommends agencies establish criteria for obtaining independent cost estimates which take in consideration both project characteristics and volatility of the market. Having to re-design and re-bid a project on which bids come in over budget can significantly impact project delivery cost. Accurate estimates at the end of each design phase, performed by unbiased, independent, qualified professionals with an understanding of local market conditions will reduce the potential for receiving unexpected bids.

Additionally, while it is common for jurisdictions to make changes to programmed projects and adjust project timelines as priorities and resources change, our review of 48 projects found that Valley Water experienced a significant backlog in delivering projects within the schedules programmed. Specifically, we

found that of the 42 projects<sup>6</sup> with schedules, 40 projects, or 95 percent, experienced delays in project delivery and only two projects, or 5 percent, of the projects were expected to be delivered on-time or early according to the CIP 5-Year Plan 2023-27. Again, this could be indicative of inaccurate and poor project planning, where established project timelines are not aligned with available resources and scheduling assumptions do not align with the current environment, whether it be permitting timelines, required regulatory reviews, procurement and contracting timelines, etc.

As discussed later in this report, during our review of CMMs for eight projects, we identified schedule delays that were the result of both factors within and outside of Valley Water's control. For instance, some project delays were due to Valley Water contracting and procurement activities taken longer than anticipated and internal staffing attrition, whereas others were related to delays in permitting, coordination with external agencies, and unanticipated CEQA requirements. While it is impossible to mitigate all risks with a project, a leading practice for agencies to help mitigate some risks is to document lessons learned and use this information to help make future project management and delivery more efficient and cost effective. For example, if a project experiences delays obtaining permits, as was a common factor for delays cited in the CMMs reviewed, this should be noted in a lessons learned document, and additional time for permitting factored into timelines when developing project schedules for future similar projects. In the past, Valley Water's Technical Review Committee has been responsible for collecting lessons learned and conducting workshops/presentations to address them. More recently, Valley Water recognized the need for a more consistent approach to documenting and tracking lessons learned and, as discussed previously, implemented a new project management system (ProjectMates) that incorporates a more robust method for tracking factors impacting project changes, process improvements, and lessons learned.

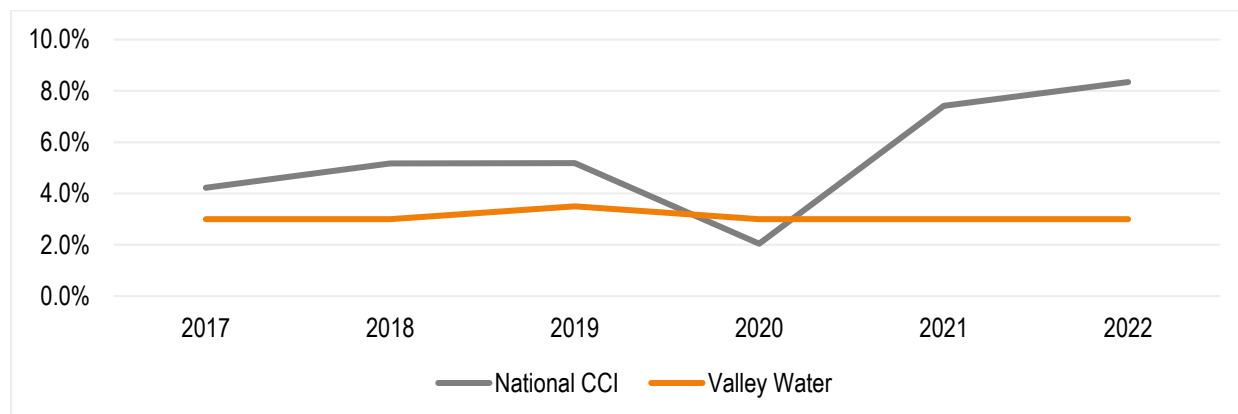
### **Outdated Cost Estimates and Increased Project Costs Affect Valley Water's Ability to Hit CIP Targets**

The estimates used to initially project TPC may become stale and outdated as market conditions change. In FY 2021-22, an analysis conducted by Valley Water found that construction costs were significantly increasing and recommended escalating construction costs by 12 percent in FY 2024-25, then returning to an annual escalation factor of 3 percent for future years beginning in FY 2025-26 through FY 2033-34. Historically since 2010, Valley Water has recommended annual escalation factors ranging from 2 percent to 3.5 percent. In Exhibit 11, we compared the construction cost index recommend by Valley Water to the National Construction Cost Index reported in the Rider Levett Buckhall: North America Quarterly Construction Cost Report. This revealed that the escalation rates recommended by Valley Water each year were generally lower than the national average. This could imply that costs escalations applied by Valley Water were not keeping pace with the market and would result in project cost estimates that were lower than they should be, which may explain some of the project cost increases noted earlier.

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<sup>6</sup> Six of the 48 projects did not include project delivery schedules.

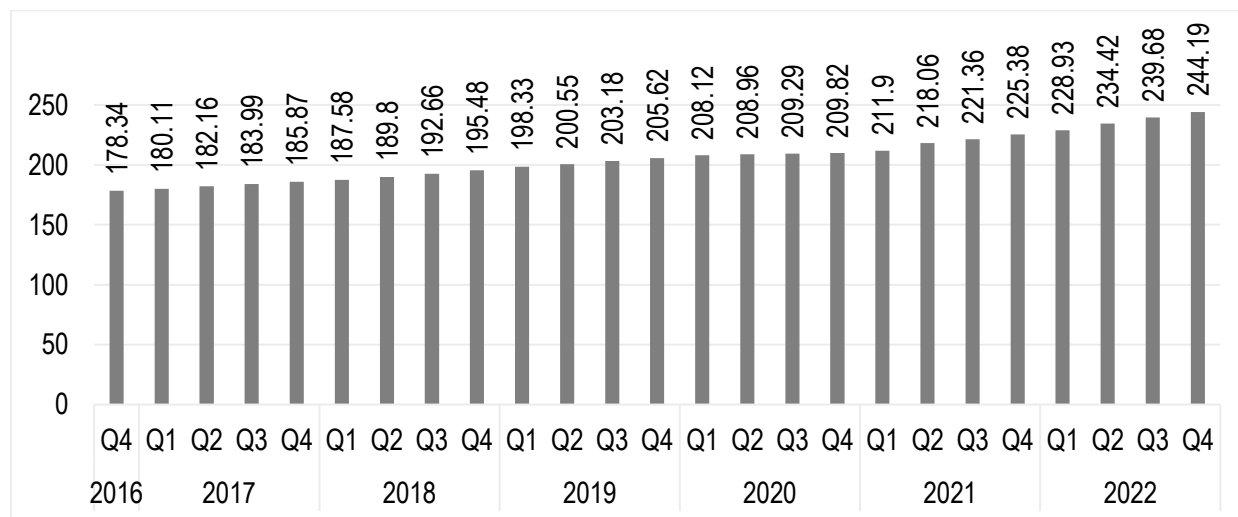
# EXHIBIT 11. VALLEY WATER RECOMMENDED COST VS NATIONAL CONSTRUCTION COST ESCALATION RATE



Source: Rider Levett Buckhall: Fourth Quarter North America Quarterly Construction Cost Report 2021 and 2022 and Valley Water CIP 5-Year Plan FY 2024-33 Recommendation for Construction Cost Escalation Factors.

Between the fourth quarter of 2016 and the fourth quarter of 2022, the national construction cost index increased from 178.34 to 244.19, an increase of nearly 37 percent, with annual increases between 2 and 8.3 percent.

# EXHIBIT 12. NATIONAL CONSTRUCTION COST INDEX



Source: Rider Levett Buckhall: Fourth Quarter North America Quarterly Construction Cost Report.

Key: Q = Quarter

As a result, allocated funds may not be sufficient to cover the scope of work initially envisioned in the CIP 5-Year Plan. In addition to cost escalations, delays in project delivery could impact the applicability of studies conducted in earlier stages of projects, such as environmental impact and air quality studies; such studies may become outdated over time and may need to be re-evaluated, further increasing project cost and ultimately impacting Valley Water's ability to deliver all programmed projects as promised.

In FY 2021-22, Valley Water utilized an on-call contract with an Independent Cost Estimator (ICE) to validate its construction cost escalation factor analysis. It further made the business decision that, moving forward, it will employ a consultant to determine construction cost escalation factors to ensure that Valley

Water is keeping pace with the market and to better ensure accuracy and reliability in future TPC estimates.

### **Internal and External Staffing Resources Do Not Appear Sufficient to Meet Project Demands**

According to the 2022 California Multi-Agency CIP Benchmarking Survey, a leading practice in CIP planning is to “resource load” all CIP projects for design and construction. This allows the agency to identify the resources required to deliver projects according to the CIP schedule, including staffing resources within the project teams and support units, and it helps ensure a common understanding among all parties with a role to play in the delivery of a project of resources required to deliver the CIP on schedule. As noted previously, the 2021 Risk Assessment raised concerns regarding whether the CIP was right-sized given Valley Water’s resources and the availability of key personnel, including sufficient project staff and outsourced service providers as well as various support units (e.g., General Services and Real Estate Services), and that overcommitting limited resources was resulting in project delays. We found this concern to be valid. This audit revealed, however, that while staff indicated that the underlying support for budgets developed in the CIP include staff hours, project managers have historically needed to coordinate with supporting units to verify the availability of resources, and often experienced delays due to the lack of resources.

The trends described above related to actual expenditures on programmed capital projects suggest at least in part that while Valley Water has the fiscal capacity to deliver planned capital projects, it lacks other required resources—specifically, project staff and outsourced service providers. During interviews with the CIP Team and project personnel, staff and management described being spread thin among too many projects, and that this indicates the CIP is over-committing existing Valley Water staff on projects in the hopes that, if additional staff or contractors are needed, Valley Water would have the funding to hire them. While the scope of this audit did not include a staffing analysis, nor did it evaluate staffing resources or project delivery methods on capital project teams, anecdotal evidence lends credibility to the concerns raised by staff during this audit. Not only has Valley Water struggled to deliver projects as programmed, we have observed similar challenges among public works agencies within California—a shortage of professional engineers and project staff both in-house and through professional service firms. This shortage has been persistent since before the pandemic and has reportedly only gotten worse since. As discussed earlier, Valley Water recognized the need for enhanced internal staffing resource management, and in FY 2022-23 implemented a new tool, Vemo, to improve its resource planning.

### **Impacts of Delayed Project Delivery Could Be Substantial**

The CIP 5-Year Plan, including the funding needs identified in the plan, impacts Board decisions relating to water rates. An overly-ambitious plan that contributes to program expenditures that are substantially lower than planned, year after year, could result in rate increases or bond issuances being implemented sooner than necessary. Commitments to deliver, persistent delays in project progress, increasing project costs, and the implementation of rate increases, could lead to the public perception that public investment in necessary infrastructure is not producing the promised outcomes. This could impact ratepayer and stakeholder confidence in Valley Water’s ability to deliver projects as promised. This could impact public support for rate increases and future voter-approved measures.

Beyond this, there are a number of organizational implications when management information for capital projects is not shared and assessed across the organization.

- ✓ **Opportunity Cost:** Valley Water exposes itself to opportunity cost and runs the risk of programming and funding projects that cannot be delivered as planned over projects that may better meet Valley Water's goals and objectives and are ready to begin.
- ✓ **Risk of Loss of Funding:** Some funding sources may be tied to project timelines. If projects experience significant delays, Valley Water may be at risk of losing funding. This risk becomes increasingly important as Valley Water expands its efforts to obtain additional grant funding for its capital projects. Some grants may be tied to project delivery timelines. As a result, Valley Water would need to identify alternative funding sources. Further, if capital oversight is deemed inadequate, Valley Water could be at risk of losing current and future funding.
- ✓ **Stale Projects:** Depending on how long projects have been delayed, previously programmed projects may not be in line with Valley Water's current goals and priorities, or may require re-evaluation to ensure project information and potential impacts remain current.

### **Additional Performance Metrics Would Enhance Ongoing Reporting and Evaluation of Program Outcomes**

In addition to establishing objective criteria for prioritizing projects, establishing a performance measurement system facilitates program monitoring, oversight, and reporting—and therefore improves the effectiveness of both capital project delivery and the CIP. As noted previously, the GFOA recommends establishing protocols for monitoring and oversight of the CIP program, including substantive reporting processes. Building on this recommended leading practice, the GFOA notes that sound monitoring, oversight, and reporting protocols provides a basis for accountability and credibility in decision-making. According to the Federal Highway Administration, performance measurement systems offer four key benefits:

- Provide transparency to public and accountability to public officials
- Understand where problems are
- Direct the best mix of investments
- Evaluate how well past investments worked

While Valley Water has established robust reporting of project status to both management and its Board, including certain performance measures and reporting for the "Safe, Clean Water Program," Valley Water has not developed a comprehensive system to report both project delivery and overall CIP performance. Our review of information provided to Valley Water management and its Board related to the CIP, found that while detailed information was reported on the status of each project, reports and presentations lacked a comprehensive discussion of how each projects status impacted the delivery of the program and did not answer questions on the effectiveness of Valley Water's capital planning. For instance, based on reports provided and information presented, management and the Board could not easily assess the effectiveness

of capital project delivery and the overall CIP. Particularly, the following two key performance questions are left unanswered:

- Do capital planning and budgeting practices result in realistic project delivery schedules and cost projections?
- Are capital projects delivered on-time and within budget?

While the newly implemented 80 percent target for annual capital spending is a step in the right direction, there are other metrics that Valley Water should consider tracking to assess project and program performance. In Exhibit 13, we provide additional leading industry metrics that Valley Water should consider tracking and reporting at the project level, program level (e.g., Water Supply Program, Flood Protection Program, etc.), and in-total for all capital projects.

**EXHIBIT 13. EXAMPLES OF OTHER INDUSTRY PERFORMANCE INDICATORS FOR CAPITAL CONSTRUCTION PROJECTS**

KPI Category	Indicator
<b>Cost</b>	Percent that a project is over or under budget
	Estimated design cost vs. actual design cost
	Initial Budget estimate vs. actual project cost
	Revised estimate vs. actual project cost
	Engineer's estimated contract amount vs. contract award
	Construction cost: revised estimate vs. actual cost
	For a program, percent of all projects that are "on-budget" upon substantial completion
	Number and/or value of change orders compared to initial and revised contract totals
<b>Schedule</b>	Number of weeks from planned substantial completion to actual substantial completion
	Number of adjustments made to the schedule
	Numbers of RFIs and the average duration to review and respond to RFIs
	Planned design time vs. actual design time
	Planned bid opening date vs. actual bid opening date
	Planned notice to proceed date vs. actual notice to proceed date
	Revised estimated construction completion vs. actual construction (Consider incentive/disincentive bidding)
	Planned project start date vs actual start date
	Planned project completion date vs. actual completion date
<b>Safety</b>	Incident rate <sup>(A)</sup>
	Lost hours
<b>Quality Control</b>	Rework cost
	Number and percent of non-compliance records compared to inspections conducted
	Hours spent to fix defects
<b>Stakeholder Satisfaction</b>	Number of non-emergencies and/or construction-related complaints

Source: Vancouver Regional Construction Association; Project Management Institute (PMI) - Construction Extension, 29<sup>th</sup> World Congress International Project Management Association; Project Management Software; and Journal of Construction Engineering and Management



These metrics should be tracked at the project level and then aggregated to provide performance of Valley Water's execution of the overall capital improvement program. Such information can be a valuable tool for management and the Board to assess the overall effectiveness of capital planning practices and the performance of the CIP from one year to the next. It can also help to identify trends and help identify areas where practices can be enhanced to produce more accurate budgets and schedules. In Exhibit 14 we provide some examples of information that could help management measure and track the execution of the CIP.

#### EXHIBIT 14. EXAMPLES OF CIP PERFORMANCE MONITORING AND REPORTING

Cost Performance	
<ul style="list-style-type: none"> <li>Number of Projects Completed Within Initial Budgeted Amounts <ul style="list-style-type: none"> <li>Total Baseline Budget</li> <li>Total Actual Cost</li> <li>Variance between Baseline Budget and Actual</li> <li>Percent of Projects Completed Within Initial Budgeted Amounts</li> </ul> </li> </ul>	
<ul style="list-style-type: none"> <li>Number of Projects Completed Within Revised Budgeted Amounts <ul style="list-style-type: none"> <li>Total Baseline Budget</li> <li>Total Actual Cost</li> <li>Variance between Baseline Budget and Actual</li> <li>Percent of Projects Completed Within Initial Budgeted Amounts</li> </ul> </li> </ul>	
<ul style="list-style-type: none"> <li>Number of Projects with Design Costs Completed Within Baseline Budgeted Amounts <ul style="list-style-type: none"> <li>Total Baseline Budgeted for Design</li> <li>Total Actual Design Cost</li> <li>Variance Between Budgeted and Actual</li> <li>Percent of Projects with Design Costs Under Budget</li> </ul> </li> </ul>	
<ul style="list-style-type: none"> <li>Number of Projects Where Independent Cost Estimate was within X% of Contract Award <ul style="list-style-type: none"> <li>Total Cost Estimate</li> <li>Total Contract Award</li> <li>Variance between Cost Estimates and Award</li> <li>Percent of Projects Where Independent Cost Estimate was within X% of Contract Award</li> </ul> </li> </ul>	
Schedule Performance	
<ul style="list-style-type: none"> <li>Overall Schedule Adherence <ul style="list-style-type: none"> <li>Number of Projects Completed Within Baseline Schedule <ul style="list-style-type: none"> <li>Percent of Projects Completed Within Baseline Schedule</li> </ul> </li> <li>Average # of Days Ahead</li> <li>Number of Projects Ahead or On Schedule</li> <li>Number of Projects Behind Schedule</li> <li>Average # of Days Behind</li> <li>Percentage of Projects Ahead of or On Schedule</li> <li>Number of Projects Started Within Baseline Schedule <ul style="list-style-type: none"> <li>Percent of Projects Started Within Baseline Schedule</li> </ul> </li> </ul> </li> </ul>	



<ul style="list-style-type: none"> <li>• Design Schedule Performance: <ul style="list-style-type: none"> <li>○ Average # of Days Ahead</li> <li>○ Number of Projects Ahead or On Schedule</li> <li>○ Number of Projects Behind Schedule</li> <li>○ Average # of Days Behind</li> <li>○ Percentage of Projects Ahead of or On Schedule</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Construction Schedule Performance: <ul style="list-style-type: none"> <li>○ Number of Projects Ahead or On Schedule</li> <li>○ Number of Projects Behind Schedule</li> <li>○ Average # of Days Ahead</li> <li>○ Average # of Days Behind</li> <li>○ Percentage of Projects Ahead of or On Schedule</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Bid Opening Date Performance: <ul style="list-style-type: none"> <li>○ Number of Projects Ahead or On Schedule</li> <li>○ Number of Projects Behind Schedule</li> <li>○ Average # of Days Ahead</li> <li>○ Average # of Days Behind</li> <li>○ Percentage of Projects Ahead of or On Schedule</li> </ul> </li> </ul>

Source: Auditor generated from industry experience and resources from the PMI and City of San Luis Obispo Capital Improvement Program Process Assessment

In addition to metrics described above, other agencies, such as EBMUD, establish key performance indicators to track progress towards specific agency goals, including goals related to its capital planning and delivery. For example, EBMUD set a goal for the number of water system pipeline breaks per 100 miles of pipe to be less than or equal to 20. Its actual performance over three fiscal years was reported in its Biennial Budget. As discussed later in this report, Valley Water should consider setting tangible targets to measure how well its capital improvement program is helping the agency progress towards its established goals. Lastly, performance measures serve to not only provide a report that can be reviewed for oversight purposes, but also serves as a communication tool to the public of the goals Valley Water is meeting and the challenges that occur.

## While Valley Water's CIP Planning Process Adheres to Many Leading Practices, Additional Opportunities for Improvement Exist

In addition to ensuring key CIP targets are reasonable and aligned with available staffing resources, this audit found that opportunities exist to better align the CIP planning process with industry leading and peer practices. This includes establishing more robust project prioritization processes, performance metrics to evaluate program success, and comprehensive capital planning policies and procedures, among others. In the following sections we provide a discussion of several ways Valley Water's CIP planning process could be more closely aligned with leading practices or its peer water agencies.

## Leading Practices Provide a Guide for Enhanced Project Prioritization Processes

Establishing a process to prioritize capital projects based on agency goals and capital needs, regulatory requirements, and ensure the best use of limited resources is a leading practice that is recognized by the CSMFO, GFOA, California Multi-Agency Statewide CIP Benchmarking Study, and peers. For instance, GFOA recommends the use of an objective and quantifiable rating system to facilitate decision-making and recommends that, when evaluating capital requests, governments should first prioritize based on:

- Health and Safety – Priority should be given to high-risk safety issues that require a capital project to correct;
- Asset Preservation – Capital assets that require renewal or replacement based on capital asset life cycle; and
- Service/Asset Expansion/Addition – Infrastructure improvements needed to support government's policies, plans, and studies.

Although Valley Water conducts annual calls for projects and requires project proposers to provide a detailed project justification form, Valley Water does not establish formal criteria for selecting and prioritizing projects and does not tie project prioritization to measurable targets and outcomes. Instead, Valley Water indicated that its internal CIP Group, which is comprised of management and representatives from different program areas, meet to discuss proposed projects, review the project justification forms submitted for alignment with Board priorities, and to assess Valley Water's ability to fund projects based on known funding sources. From these discussions, Valley Water develops a proposed CIP 5-Year Plan for the Board's review and approval. However, Valley Water did not provide documentation detailing the discussions held, factors considered, and justification for decisions made to prioritize one project over another. In the fall of 2022, Valley Water incorporated an additional process to provide "funding filters for prioritization" to its Board. While Valley Water provided its Board with a matrix of projects that detailed whether the projects met the following criteria, it did not provide a justification for the selection or advancement of one project over another. These filters included:

- Replace/Repair Existing Infrastructure
- Public Health and Safety
- Shovel Ready (Permits and Lands Rights Secured)
- Multi-benefit Project
- Multi-benefit Project: Environmental Justice Project
- Partially Externally Funded (Grants and Partnerships)
- Description of the project

According to Valley Water management, it had a process to prioritize and rank projects in the past, but the process was found to be unclear and the preference of both management and the Board was to shift away from this approach. Valley Water's current process ensures consensus building—a critical component of the planning process; however, objective criteria for prioritization is also relevant. While eliminating a

process that provided a confusing output is reasonable, it in itself does not eliminate the need for a project prioritization process that provides comprehensible justification for project selection and decisions made. A leading practice identified by the GFOA includes the use of a rating system to facilitate decision-making.

Other government entities have developed and incorporated robust project prioritization processes that help to provide linkage between projects selected and agency goals and priorities. For instance, the Contra Costa Water District assigns each CIP project a priority level according to its prioritization methodology. Their methodology ranks or rates the importance of a project based on various criteria such as protection of health and safety, legal requirements, and rate of return on their investment. The priority levels provide a basis for determining which projects should be done in any given year and how projects should be scheduled over their 10-year CIP span. Contra Costa Water District only includes projects with a priority level 1 or 2 ranking in its Ten-Year Financial Plan and Rate Model. Additionally, Contra Costa Water District conducts studies within its sub-programs, such as Treated Water Facilities Program, to identify and prioritize projects. For instance, in 2018 a study was conducted to identify and prioritize pipelines renewal and replacement projects for the treated water system.

In another example, the City of San Diego adopted a formal CIP prioritization policy “to establish an objective process for ranking CIP projects to allow decision-makers to have a basis for choosing the most compelling projects for funding.” The policy includes the following four criteria for ranking and comparing projects:

- Projects within restricted funding categories will compete only with projects within the same funding category.
- Projects will compete only with projects within the same asset type (project type).
- Projects will compete only with projects within the same level of completion or project development phase (planning, design and construction).
- Projects scores will be updated as the condition of the project changes or other information becomes available.

Further, similar to the categories in Valley Water’s “Funding Filter for Prioritization”, the policy established weights for specific factors, such as health and safety effects, for both non-transportation and transportation projects that it considers and uses to prioritize projects, as shown in Exhibit 15.

## EXHIBIT 15. PROJECT PRIORITIZATION FACTORS CONSIDERED BY CITY OF SAN DIEGO

Non-Transportation Projects	Weight	Transportation Projects	Weight
Health and Safety Effects	25%	Health and Safety Effects	25%
Regulatory or Mandated Requirements	25%	Capacity and Service (Mobility)	20%
Implication of Deferring the Project	15%	Project Cost and Grant Funding Opportunity	20%
Annual Recurring Cost or Increased Longevity of the Capital Asset	10%	Revitalization, Community Support and Community Plan Compliance	15%
Community Investment	10%	Multiple Category Benefit	10%
Implementation	5%	Annual Recurring Cost or Increased Longevity of the Capital Asset	5%
Project Cost and Grant Funding Opportunity	5%	Project Readiness	5%
Project Readiness	5%		
Total	100%	Total	100%

Source: City of San Diego Capital Improvements Program Project Prioritization Policy

### Valley Water Should Consider Whether a Performance-Based Prioritizing Process Would Be Feasible and Appropriate

If Valley Water chooses to implement a performance-based prioritization process, it would first need to identify qualitative measures for Valley Water's overarching goals, such as the goals identified by its Board. Then it would need to establish targets and quantifiable performance metrics to measure progress towards meeting established goals. Once the goals and performance metrics are identified, Valley Water can establish a prioritization process that links resource allocation and project funding based on projects that will have the greatest impact, or highest performance outcome, to achieve established goals and targets. Factors to be considered when planning projects should also include sources of funding, availability of staff resources, such as project teams and procurement and contracting staff, and time required to achieve necessary permits—all of which impact a projects ability to meet project delivery and spending schedules. As projects are completed, Valley Water would assess actual outcomes against expected results.



We also recommend that Valley Water consider additional financial techniques for evaluating potential projects including comparing estimated total project life cycle costs versus the benefits of the project, calculating payback period on debt to be incurred, and determining projected availability of cash flow over the project period, as appropriate. Funding source also impacts the ability to prioritize projects.

### Leading Practices Suggest the Need for More Formal CIP Planning Policies and Procedures

While Valley Water's capital planning processes and practices generally aligned with the leading practices stated in the GFOA Capital Planning Policy, Valley Water has not established a formal capital planning

policy that is comprehensive of the entire capital planning process and inclusive of the key policy elements identified by the GFOA. Instead, as shown in Exhibit 16, our review found that information was disjointed and located in multiple documents, such as the Board policies and directives, staff presentations to the Board, the CIP 5-Year Plan, and internal policies and procedures. The lack of a comprehensive capital planning policy increases the risk of inconsistency processes being applied from one year to the next, and could result in incongruencies between documents when one document is updated without reviewing other related documents.

#### EXHIBIT 16. KEY PLANNING POLICIES ARE LOCATED IN MULTIPLE LOCATIONS

GFOA Planning Policies	Valley Water Policy Source
<ul style="list-style-type: none"> <li>A description of how an organization will approach capital planning, including how stakeholder departments will collaborate.</li> <li>A clear definition of what constitutes a capital improvement project.</li> </ul>	FY 2022-26 CIP
<ul style="list-style-type: none"> <li>Establishment of a capital improvement program review committee and identification of members as well as responsibilities of the committee and its members.</li> <li>Provisions for monitoring and oversight of the CIP program, including reporting requirements and how to handle changes and amendments to the plan.</li> </ul>	QEMS Policy
<ul style="list-style-type: none"> <li>A description of the role of the public and other external stakeholders in the process.</li> <li>A requirement that the planning process includes an assessment of the government's fiscal capacity.</li> </ul>	Executive Limitations/ FY 2022-26 CIP
<ul style="list-style-type: none"> <li>Identification of how decisions will be made in the capital planning process including a structured process for prioritizing need and allocating limited resources</li> </ul>	Asset Management Plan / FY 2022-26 CIP / Funding Filter
<ul style="list-style-type: none"> <li>A procedure for accumulating necessary capital reserves for both new and replacement purchases.</li> <li>A requirement that a multi-year capital improvement plan be developed and that it includes long term financing considerations and strategies.</li> <li>A process for funding to ensure that capital project funding is consistent with legal requirements regarding full funding, multi-year funding, or phased approaches to funding.</li> </ul>	Executive Limitations
<ul style="list-style-type: none"> <li>A policy for linking funding strategies with useful life of the asset including identifying when debt can be issued and any restrictions on the length of debt.</li> </ul>	Debt Management Policy
<ul style="list-style-type: none"> <li>A requirement that the plan include significant capital maintenance projects.</li> </ul>	Ends Policies

Source: Auditor generated from GFOA Capital Planning Policy and review of Valley Water documents.

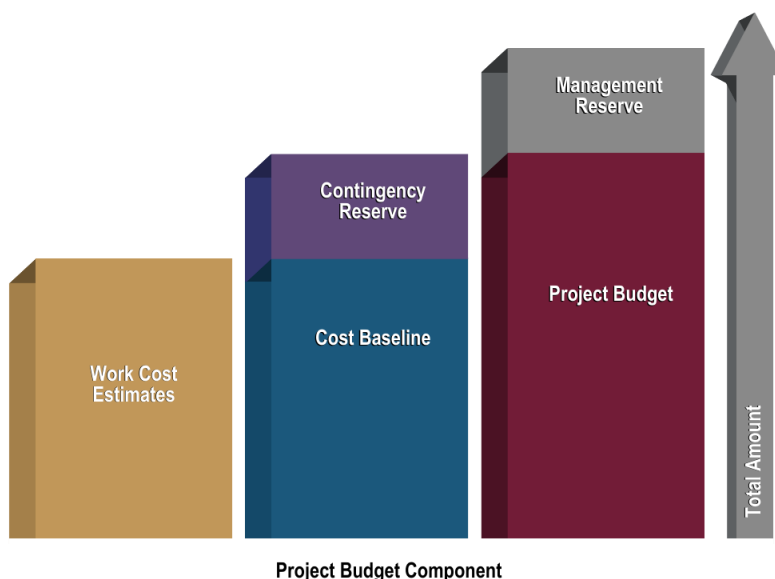
According to the GFOA Capital Planning Policy, government agencies should develop and adopt capital planning policies that take into account their unique organizational characteristics including the services they provide, how they are structured, and their external environment. The GFOA notes that capital planning policies not only provide an essential framework for managing these tasks and for assuring that capital plans are consistent with overall organizational goals, but also help to assure the sustainability of its infrastructure by establishing a process for addressing maintenance, replacement, and proper fixed asset

accounting over the full life of capital assets. In addition, capital planning policies can strengthen a government's borrowing position by demonstrating sound fiscal management and showing the jurisdiction's commitment to maximizing benefit to the public within its resource constraints. To better ensure the consistency of its capital planning, Valley Water should consider establishing a formal, written Capital Planning Policy that incorporates the key elements identified by the GFOA Capital Planning Policy.

### **Formal CIP Planning Policies and Procedures Should Include Guidance Regarding Contingencies and Reserves**

There are generally two types of contingency reserves, a project level contingency and management contingency. According to the Project Management Body of Knowledge (PMBOK) 7<sup>th</sup> Edition, the "project budget should include contingency reserve funds to allow for uncertainty." In addition, "Management reserves are set aside for unexpected activities related to in-scope work. Depending on the organization's policies and organization structure, management reserves may be managed by the project, the sponsor, product owner, or the PMO [Project Management Office] at the program or portfolio level." At Valley Water, construction contingency reserves are included in the project budget and management reserves are tracked separately from project budgets at the fund level.

**EXHIBIT 17. CONTINGENCY / RESERVE BEST PRACTICE**



Source: Project Management Institute PMBOK 7<sup>th</sup> Edition

The 2018 Construction Management Association of America (CMAA) Cost Management Guidelines states that in absence of a formally established risk management program, a 10 percent contingency fund is typically used. However, organizations ideally should perform risk analyses of projects to calculate the probability of the risk occurring with consideration of the costs and rough order of magnitude as the basis for establishing contingency. In short, there should be a defensible procedure for how project and program contingency is established. This can include having an organization-wide baseline contingency with allowability for variation from this baseline if certain conditions are met and approvals are obtained by decision-makers. Factors such as unique risk or project delivery method should be considered for why a

specified contingency amount is decided upon. Moreover, after contingencies are developed, rules for authorized use should be clearly defined.

Valley Water has a Cost Estimating Manual and Construction Manual that provides some guidance regarding the application of contingencies on capital projects, and this provides guidance for developing, recommending, and using risk-based contingency reserve amounts. However, contingencies are not sufficiently addressed in the various formal CIP policies established by Valley Water, including those noted in Exhibit 16, which require Board input and approval.

In developing a CIP policy, as described above, Valley Water should incorporate a policy that identifies the types of contingency reserves utilized by Valley Water, the purpose of reserves, and how contingency amounts should be determined, including a process to formally memorialize the assumptions and rationale behind project contingency amounts.

Review of the existing contingency guidelines and rules for authorized use have been added to the 2023 CIP Committee Work Plan for discussion, and management noted that the CIP Committee will consider whether any policy level recommendations should be brought to the Board for consideration.

### **Most Peer Entities Reviewed Update Their CIP Plan Biennially**

One of the more distinguishable differences between Valley Water and the peers sampled is that Valley Water updates its CIP 5-Year Plan annually, whereas all four peers reviewed update their short-range CIP biennially. Both peers and Valley Water staff interviewed indicated that the process to update the CIP was labor intensive and required significant coordination amongst multiple program areas within the organization, public and stakeholder outreach, and time to prepare for and present changes to executive management and oversight bodies. The level of primary staffing dedicated to CIP development appeared to be similar across the peers sampled, with most peers reporting three to four fully dedicated staff and assistance from programs responsible for delivering capital projects as well as fiscal staff. Yet, Valley Water had the largest short-term CIP budget, although the number of capital projects included in Valley Water's CIP 5-Year Plan was similar to peers, and updated its plan more frequently. For example, the Metropolitan Water District reported that three full-time staff were primarily responsible for updating their short-range CIP.

While there is no formal industry standard on how frequently an agency should update its short-range CIP, implementing a biennial renewal process would provide additional time for staff to compile the necessary information to update the CIP, could reduce the risks of reporting errors resulting from compressed timelines, allow more time to analyze project changes and prioritize projects, and provide additional time for project teams to focus on project delivery. Switching to a biennial update, would not negate the need for regular capital project updates to be presented to both executive management and the board. In fact, similar to Valley Water, peer agencies also provided periodic capital project updates, such as quarterly and annual updates, to both board Capital Planning Committees and the full Board throughout the fiscal year.

Valley Water indicated that in developing its CIP 5-Year Plan it follows Government Code § 65403, which requires government agencies following the provision to develop a 5-year plan that is updated annually. However, the implementation of this provision is at the discretion of Valley Water's Board and our review of



the Ends Policy and Executive Limitations Policies did not find any reference requiring Valley Water follow Government Code § 65403. Rather, Executive Limitation Policy 4 sections 4.4.1 stated that Valley Water must “Produce an annual Rolling Five-Year Capital Improvement Plan with the first year serving as the adopted capital budget and the remaining years in place as a projected capital funding plan.” If Valley Water’s Board determines that Valley Water should move from annual to biennial updates, Executive Limitation Policy 4 would need to be revised.

### **Enhanced Detail in Anticipated Operations and Maintenance Costs Is Warranted**

According to leading practices described by the CSMFO, CIPs should include operating budget impacts and/or contain future estimates of annual operating and maintenance costs. Valley Water does include an operational costs impact section for each project in the same fashion as its peers. However, the extent to which Valley Water provides context for their projections is lacking, specifically on projects where Valley Water has determined that there will be an estimated operational impact, but does not provide context or projected details for the consideration of the Board or public. For example, the Calero and Guadalupe Dam Seismic Retrofit explains that there are anticipated to be impacts on future operating costs, but no further details are described in terms of why there will be increased operations costs nor any estimates for what that impact will be, and further states that it will be determined during the design phase. Future operational cost impacts are an integral part of the Board’s decision-making process and without context the Board cannot make an informed decision on the long-term impacts of undertaking these projects.

### **Opportunities Exist to Implement Agency Wide Lessons Learned to Enhance Future Development of Project Schedules and Budgets**

Several CMMs attributed permitting delays, scope increases, issues with design, and time required to work with external government agencies as reasons for increases to TPC and schedule delays for capital projects. These stated reasons echo what Valley Water staff attested to be delivery challenges for CIP projects to auditors during interviews and align with some risks flagged in the 2021 Risk Assessment conducted by the Board appointed independent auditor.

For instance, at least three reviewed projects mentioned permitting challenges that led to scope changes, cost increases, and/or schedule delays. A change memo from February 27, 2020, for Lower Penitencia Creek Improvements, Berryessa to Coyote Creeks noted that there was a two-month delay in the environmental phase due to delays in obtaining resource agency permits, as well as a three-month delay in design due to a need to acquire an encroachment permit and right-of-way from the City of Milpitas. The subsequent change memo dated September 25, 2020, cited further delays—nearly one year for the start of construction, attributed to negotiations with the same government bodies. The Almaden Lake project also had delays attributed to permit negotiations—indicating in a September 25, 2020, memo that the start of construction would be delayed a year as a result. Finally, the Almaden Dam project cited a one-year delay in design in its March 5, 2015, change memo due to CA Fish & Wildlife permits that were predicted to be difficult to obtain.

Anecdotally, Valley Water staff stated that on a project or division basis staff are conducting analyses to track historical data of delays and cost increases to estimate future planning and apply lessons learned against some of these known causes to delivery challenges. Additionally, staff stated that the technical



review committee also has presented lessons learned. Yet, there is no evidence that this occurs comprehensively and consistently organization-wide with knowledge shared across project teams and divisions. The 2022 California Multi-Agency Statewide Benchmarking Survey states that as a best practice, agencies should develop formal post project reviews and identify lessons learned. These documents should be made available to staff on projects of a similar scope and nature to make future project management and delivery more efficient and cost effective.

Management noted that it is developing a lessons-learned database as part of ProjectMates in response to a recommendation from the 2019 Contract Change Order Audit. This database could be used as a tool to comprehensively memorialize, share, and track planning and delivery lessons learned rather than rely on ad hoc lessons learned, shared and presented by staff or knowledge siloed within certain teams. Valley Water should begin formally memorializing underlying causal trends for CIP cost increases and schedule delays and share the results of those analyses agency-wide in this new database to strengthen future CIP planning to avoid delivery obstacles where historical data may exist to forecast patterns.

## **Opportunities Exist to Improve Transparency and Consistency of Information Reported**

As a public agency, Valley Water has the inherent obligation to maintain and report clear and accurate information both internally for operational use among staff and externally to the public. This includes ensuring the CIP reports information in a clear and consistent manner, and that data reported is supported by underlying systems, project files, and financial systems. Our review of information detailed in annual CIPs, CMMs, and underlying financial and project planning data showed that there were variances in reported data, differing levels of sufficient justification for cost increases and delays, and inconsistencies between corresponding documents. Overall, we found that opportunities exist to strengthen the reliability and consistency of data used in and by the CIP 5-Year Plan to ensure that Valley Water is more transparent and accountable to the public.

### **Annual Capital Budget Amounts Were Not Always Consistently Reported in the CIP and Did Not Always Align with Valley Water’s Financial System**

The first two years of each of Valley Water’s annual CIP becomes the capital budget for the current year and plan for the following year. For instance, in the adopted CIP 5-Year Plan FY 2023-27, the capital budgets reported for FY 2022-23 will become the adopted capital budget for that year and the amounts reported for FY 2023-24 will become the plan for that year in Valley Water’s rolling biennial budget. To assess the accuracy of annual capital budget information reported in the CIP 5-Year Plan, we assessed the mathematical accuracy and consistency of amounts reported in the plan and compared initial and amended capital budgets reported in the CIP 5-Year Plan to annual capital budgets and expenditures recorded in Valley Water’s financial system over a five-year period—FY 2017-18 through FY 2021-22. During our review, we found:

- Information was not always consistently reported in the CIP 5-Year Plan;
- Inconsistencies in the presentation of budget amounts and other minor discrepancies in the CIP 5-Year Plan; and

- Inconsistencies between approved annual budget amounts in the CIP 5-Year Plan and Valley Water's financial system.

While it does not appear that the discrepancies identified were intentional and a variety of factors contributed to the variances noted, these inconsistencies make it challenging to determine the accurate annual project budget and TPC, hindered transparency of information reported, and may cause stakeholders to question the reliability of information reported in the CIP 5-Year Plan.

- ✓ **Information Is Not Always Consistently Reported in the CIP:** Our review of annual capital budget information reported for five fiscal years in six CIP 5-Year Plans,<sup>7</sup> identified inconsistencies with TPC and annual budget information reported on individual capital project summary pages and/or program summary pages for most of the years reviewed. These inconsistencies included variances in information reported from one plan to another and inconsistent TPC and annual budget amounts reflected in different tables and graphs. For example, for one project, the Hale Creek Enhancement Pilot Study, the baseline project start date was reported as May 2015 in the CIP 5-Year Plan FY 2018-22, but was changed to July 2014, approximately a year earlier, in the CIP 5-Year Plan FY 2023-27.

In another example, in the CIP 5-Year Plan FY 2018-22, for a different project (Berryessa Creek, Calaveras Boulevard to Interstate 680), different amounts were reported for the TPC in the schedule and status graph (\$57.3 million), expenditure schedule (\$57.6 million), and funding schedule (\$60.2 million), as shown in Exhibit 18. For other projects, we generally found that the total amount reflected in the schedule and status graph aligned with the total uninflated project costs reflected in the expenditure schedule. This was consistent with how information was reflected for the same project in the CIP 5-Year Plan FY 2023-27. However, we noted some cases where the total in the funding schedule aligned with the total inflated costs in the expenditure schedule and other cases it did not when the allocated funding exceeds planned expenditures—as was the case for the Berryessa Creek, Lower Penitencia Creek to Calaveras Boulevard project \$209.4 million versus \$212.6 million. Valley Water appropriately included a note to explain the variance for this project. Nevertheless, it is recommended practice to consistently report information from one project to the next and throughout related graphs and tables.

<sup>7</sup> CIP 5-Year Plans FY 2018-22 through FY 2023-27

# EXHIBIT 18. BERRYESSA CREEK, CALAVERAS BOULEVARD TO INTERSTATE 680 PROJECT PAGE INCONSISTENCIES

CIP 5-Year Plan, FY 2018-22

SCHEDULE & STATUS

January 2000 to June 2020

Phase	Cost	FY 17	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27
Plan	8,232											
Design	560											
Design	10,438											
Construct	38,063											
Closeout	50											
	57,343											

EXPENDITURE SCHEDULE

(in thousands \$)

	Actuals Thru	Planned Expenditures								Total
Project	FY16	FY17	FY18	FY19	FY20	FY21	FY22	Future		
26174041-Berryessa Creek, Corps Coordination	22,016	12,997	2,832	200	200	0	0	0		38,245
with inflation	22,016	12,997	2,832	215	225	0	0	0		38,285
26174042-Berryessa Creek, LERRDs	19,325	0	0	0	0	0	0	0		19,325
with inflation	19,325	0	0	0	0	0	0	0		19,325
<b>TOTAL</b>	<b>41,341</b>	<b>12,997</b>	<b>2,832</b>	<b>200</b>	<b>200</b>	<b>0</b>	<b>0</b>	<b>0</b>		<b>57,570</b>
with inflation	41,341	12,997	2,832	215	225	0	0	0		57,610

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands \$)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY16	FY17	FY18	FY19	FY20	FY21	FY22	Future		
26174041-Berryessa Creek, Corps Coordination	24,729	14,747	4,463	0	0	0	0	0		39,476
26174042-Berryessa Creek, LERRDs	20,674	0	1,349	0	0	0	0	0		20,674
<b>TOTAL</b>	<b>45,403</b>	<b>14,747</b>	<b>5,812</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		<b>60,150</b>

Adjusted Budget includes adopted budget plus approved budget adjustments. Allocated funding exceeds planned expenditures by approximately \$2,540,000. Excess funds will be returned to Fund Reserves at the end of the project.

CIP 5-Year Plan, FY 2023-27

SCHEDULE & STATUS

January 2000 to June 2024

Phase	Cost	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30	FY 31	FY 32
Plan	8,333											
Permits	1,831											
Design	11,961											
Construct	27,022											
Closeout	253											
	53,274											

Total project cost may include expenditures not yet allocated to a specific phase.

EXPENDITURE SCHEDULE

(in thousands \$)

	Actuals Thru	Planned Expenditures								Total
Project	FY21	FY22	FY23	FY24	FY25	FY26	FY27	Future		
26174041-Berryessa Creek, USACE Coordination	23,393	531	398	11,286	0	0	0	0		35,608
with inflation	23,393	531	398	12,041	0	0	0	0		36,363
26174042-Berryessa Creek, LERRDs	17,666	0	0	0	0	0	0	0		17,666
with inflation	17,666	0	0	0	0	0	0	0		17,666
<b>TOTAL</b>	<b>41,059</b>	<b>531</b>	<b>398</b>	<b>11,286</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		<b>53,274</b>
with inflation	41,059	531	398	12,041	0	0	0	0		54,029

Actuals include project expenditures, and encumbrances.

FUNDING SCHEDULE

(in thousands \$)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY21	FY22	FY23	FY24	FY25	FY26	FY27	Future		
26174041-Berryessa Creek, USACE Coordination	35,594	0	11,670	0	769	0	0	0		36,363
26174042-Berryessa Creek, LERRDs	17,666	0	0	0	0	0	0	0		17,666
<b>TOTAL</b>	<b>53,260</b>	<b>0</b>	<b>11,670</b>	<b>0</b>	<b>769</b>	<b>0</b>	<b>0</b>	<b>0</b>		<b>54,029</b>

Adjusted Budget includes adopted budget plus approved budget adjustments.

Source: Valley Water CIP 5-Year Plans FY 2018-22 and FY 2023-27

Lastly, we identified instances where the total project budget in individual project pages did not align with the budget reported for the same project in the program summary. While some of the inconsistencies noted were immaterial and likely due to rounding, others were not. For example, we found that the FY 2020-21 adjusted budget for the Llagas Creek–Upper, Buena Vista Avenue to Llagas Road project was inconsistently reported between the project page and program summary page in the FY 2022-26 CIP, as shown in Exhibit 19. Specifically, in the Flood Protection summary page, the budget was reflected as \$47.5 million; however, the project page reflected a budget of \$53.7 million—\$6.2 million more than the project budget in the summary page. Additionally, the “Budget Thru” FY 2019-20 reported on the project page was \$142.8 million; whereas the summary page indicated it was \$125.3, a difference of \$17.5 million. The variances noted appear to be related to one sub-project, 50C40335, that is included in the project page, but excluded in the summary page.

In another example, although the FY 2020-21 adjusted budget for the Calero and Guadalupe Dams Seismic Retrofits was reported as \$2.9 million in the Water Supply summary page, the project page reflected a budget of \$2.0 million—\$900,000 less than the summary page. According to Valley Water, some of the differences noted were the result of fund transfers that were included in the amounts shown on project page, but were not included in the program summary page. To ensure information reported throughout the CIP aligns, Valley Water should ensure a consistent approach is used when reporting budget transfers.

# EXHIBIT 19. EXAMPLE OF BUDGET INCONSISTENCIES BETWEEN PROGRAM SUMMARY PAGE AND PROJECT PAGE

Flood Protection Capital Improvements Summary Page					Llagas Creek—Upper, Buena Vista Avenue to Llagas Road (26174051s) Project Page			
Project Number	PROJECT NAME	Through FY20	FY21	FY21 Unspent	FUNDING SCHEDULE (in thousands \$)			
<b>LOWER PENINSULA WATERSHED</b>						Budget Thru	Adj. Budget	Est. Unspent
10394001	Palo Alto Flood Basin Tide Gate Structure Improvements	4,392	83	552	<b>Project</b>	<b>FY20</b>	<b>FY21</b>	
10244001s	Permanente Creek, SF Bay to Foothill Expressway	108,572	7,645	178	26174051-Llagas Ck—Upper, LERRDs	45,040	0	82
10284007s	San Francisquito Creek, SF Bay thru Searsville Dam (E5)	62,751	370	1	26174052-Llagas Ck—Upper, USACE Coordination	50,636	47,476	0
<b>WEST VALEY WATERSHED</b>					26174053-Llagas Ck—Upper, Technical Studies	1,446	0	0
26074002	Sunnyvale East and West Channels (E2)	35,438	2,033	17,302	26174054-Llagas Ck—Upper, Design	28,193	0	4,473
<b>GUADALUPE WATERSHED</b>					50C40335-Llagas Ck—Upper, Construction Rch 5, 6, & 7b	17,510	6,180	0
30154019	Guadalupe River Tasman Dr - I-880	1,080	1,838	(1)	<b>TOTAL</b>	<b>142,825</b>	<b>53,656</b>	<b>4,555</b>
26154001s	Guadalupe River—Upper, I-280 to Blossom Hill Road (E8)	134,642	-	23,964	Adjusted Budget includes adopted budget plus approved budget adjustments.			
26154001	Guadalupe Rv—Upper, Fish Passage Mods	2,651	-	-				
<b>COYOTE WATERSHED</b>								
26174041	Berryessa Ck, Calaveras-I-680 - Corps	35,566	29	-				
40174004	Berryessa Ck, Lower Penitencia Ck to Calaveras Blvd Phs 1	50,191	-	3,339				
26174043	Coyote Creek, Montague Expressway to Tully Road (E1)	15,036	2,199	2,528				
40264011	Cunningham Flood Detention Certification	11,806	4	3				
40334005	Lower Penitencia Ck Improvements, Berryessa to Coyote Cks.	11,287	7,745	7,503				
40264007s	Lower Silver Creek, I-680 to Cunningham (Reach 4-6)	102,288	167	784				
40324003s	Upper Penitencia Creek, Coyote Creek to Dorel Drive	19,016	3,898	5,038				
<b>UVAS LLAGAS WATERSHED</b>								
50284010	Llagas Creek—Lower, Capacity Restoration, Buena Vista Road to Pajaro River	6,947	-	2,763				
26174051s	Llagas Creek—Upper, Buena Vista Avenue to Llagas Road (E6)	125,315	47,476	4,555				
<b>MULTIPLE WATERSHEDS</b>								
00044026s	San Francisco Bay Shoreline (E7)	71,469	48,316	1				
62084001	Watersheds Asset Rehabilitation Program	35,831	3,531	7,809				
<b>TOTAL</b>		<b>912,689</b>	<b>136,052</b>	<b>76,319</b>				

Source: Valley Water CIP 5-Year Plan FY 2022-26

- ✓ **Inconsistencies Existed Between Summary and Detailed Capital Project Budget Pages:** Our review of summary pages for the five capital programs, identified nine instances where the total annual project budgets for all projects was inconsistently reported. For example, in the CIP 5-Year Plan FY 2021-25, the total FY 2019-20 adjusted budget for the Flood Protection Program was reported as \$84.2 million; however, the sum of all the individual project budgets listed in the summary page totaled \$101.7 million, a difference of \$17.5 million. In another example, in the CIP 5-Year Plan FY 2020-24 the Water Supply program total adjusted budget for FY 2018-19 was reported as \$104.7 million; however, the sum of individual project budgets was \$103.8 million, a difference of \$900,000. In some cases, such discrepancies may have been intentional (e.g., when future budget adjustments were planned but not yet incorporated into the CIP), but the CIP plan document lacked explanatory footnotes or other information clearing up the discrepancies.

- ✓ **Inconsistencies Between Annual Capital Project Budget Amounts Reported in the CIP and Valley Water's Financial System:** Our comparison of the annual adjusted capital project budgets reported in the CIP to the annual capital project budgets recorded in Valley Water's financial system identified between 19 and 57 variances between the two each year for the five fiscal years reviewed, FY 2017-18 through FY 2021-22. In some cases, the budget reflected in the financial system aligned with the initial project budget and in other instances it did not align with either the initial or adjusted annual project budget. For example, the FY 2020-21 adjusted project budget for one project, Permanente Ck, Bay to Foothill Expwy – Clean, Safe Creeks Fund, was reported as \$7.6 million in the CIP 5-Year Plan FY 2021-25 and \$3.9 million in the financial system, a difference of \$3.7 million. According to Valley Water, the difference is due to a planned budget adjustment that was included in the CIP 5-Year Plan; however, the plan indicated that the amount reported was the approved budget and approved budget adjustments. In another example, for the Calero Dam Seismic Retrofit-Design and Construct project, the FY 2020-21 initial and adjusted project budget was \$0 in both the CIP 5-year Plans FY 2021-25 and FY 2022-26; however, the financial system reflected a budget \$865,000. According to Valley Water, the difference is due to a combination of carry forward project reserves and a mid-year budget adjustment that is reflected in the financial system, but not in the CIP 5-Year Plan. In a third example, for another project, Coyote Warehouse, the CIP 5-Year Plan FY 2022-26 reflected a FY 2020-21 adjusted budget of \$284,000; however, the budget recorded in the financial system for this project was \$285,000. According to Valley Water, the \$1,000 difference was due to rounding.

Based on analysis conducted by Valley Water, the following factors caused the variances identified, including:

- Timing differences, such as budget adjustments from mid-year CMMs that are reflected in the financial system, but were not reflected in the CIP 5-Year Plan;
- Rounding differences between systems;
- Prior year budget carry forwards and project reserves reflected in the budget posted in the financial system;
- Planned budget adjustments reflected in some adjusted budgets in the CIP 5-year plan; and
- Budgets for small capital improvement projects “do not have capital offset applied to correct the over-request being updated” and indicated these differences are corrected in the following CIP cycle.

The explanations provided by Valley Water appear reasonable. However, to ensure information reflected in the CIP is clear and transparent, when Valley Water includes planned budget adjustments in the adjusted budget, it should include a footnote to the table describing that the amount reported includes the approved budget, approved budget adjustments, and the amount of the planned budget adjustment.

## Not All CMMs Had Sufficient and Consistent Justification for Cost Increases and Schedule Delays

Consistent with leading practices, Valley Water created procedures requiring CMMs to ensure that all project changes are fully vetted by deputies and serve as one depository record for all substantive changes, such as schedule changes or budget increases. As is described in Exhibit 8 of this report, CMMs had been in use within the agency prior to 2019. However, in November 2019, management implemented an agency-wide CMM process to formally document and approve all capital project changes related to scope of work, cost, and schedule—effectively requiring CMMs to be used for all capital projects undertaken by Valley Water. This process was memorialized in a formal, written procedure in September 2020. Generally, this policy required project managers to complete a CMM form that details the proposed change(s) and provides justification for the change(s); such changes require management approval. In June 2022, management indicated that it updated its procedure and related forms to expand the amount and type of information required to be included in CMMs, including memorializing budget adjustments to projects that do not require management approval.

To identify the reasons for project cost increases and delays identified, we selected a sample of eight projects from the 48 projects discussed earlier to review documentation maintained by Valley Water to determine the causes for the schedule and budget changes identified. Because the CMM process, more than most within the CIP, has evolved substantially since 2019, this analysis provides a snapshot illustrating how CMMs were used during the five-year period included in the scope of this audit and recognizes that the results of changes made to the CMM process in June 2022 will not be evident in this analysis. Nevertheless, past practice illustrates opportunities for improvement and the need to reinforce consistent recordkeeping on projects.

This analysis revealed that each of the eight projects reviewed had at least one CMM and all experienced delays and cost increases over the five-year period reviewed, with schedule delays ranging from 11 months to eight years and cost increases ranging from \$593,000 to \$52.9 million. In Exhibit 20, we show the changes to the schedule and total project budget from the CIP 5-Year Plans FY 2018-22 to FY 2023-27.

### EXHIBIT 20. CHANGES TO PROJECT SCHEDULE AND BUDGET FOR SAMPLED PROJECTS (\$ IN THOUSANDS)

	Project Name & Number	Program Area	CIP 5-Year Plan FY 2018-22		CIP 5-Year Plan FY 2023-27		Schedule Change	Budget Change
			Project Start & End Date	Budget	Project Start & End Date	Budget		
1	Almaden Dam Improvements - 91854001	Water Supply	Start: Jul. 1995 End: Jun. 2024	\$53,021	Start: Jul. 1995 End: Jun. 2031	\$53,615	+7 years	+\$594
2	Coyote Pumping Plant ASD Replacement - 91234002	Water Supply	Start: Jul. 2017 End: Jun. 2021	\$14,730	Start: Jul. 2017 End: Nov. 2025	\$26,432	+4 years	+\$11,702
3	Permanente Creek, SF Bay to Foothill Expressway - 10244001s	Flood Protection	Start: Jul. 2001 End: Jun. 2019	\$92,352	Start: Jul. 2001 End: Jun. 2024	\$113,084	+5 years	+20,732



			CIP 5-Year Plan FY 2018-22		CIP 5-Year Plan FY 2023-27		Schedule Change	Budget Change
	Project Name & Number	Program Area	Project Start & End Date	Budget	Project Start & End Date	Budget		
4	Lower Penitencia Ck Improvements, Berryessa to Coyote Creeks - 40334005	Flood Protection	Start: Oct. 2010 End: Jan.2025	\$27,081	Start: Oct. 2010 End: Dec. 2025	\$35,093	+11 months	+\$8,012
5	Cunningham Flood Detention Certification - 40264011	Flood Protection	Start: Aug. 1999 End: Jun. 2020	\$10,654	Start: Aug. 1999 End: Jun. 2022	\$11,840	+2 years	+\$1,186
6	Hale Creek Enhancement Pilot Study (D6) - 26164001	Water Resources	Start: May 2015 End: Jun. 2019	\$4,753	Start: Jul. 2014 End: Jun. 2026	\$8,959	+7 years	+\$4,206
7	Almaden Lake Improvements (D4.1a) - 26044001	Water Resources	Start: Jul. 2011 End: Jun. 2019	\$4,636	Start: Jul. 2011 End: Dec. 2027	\$57,528	+8 years	+\$52,892
8	ERP System Implementation - 73274002	IT	Start: Jul. 2013 End: Jun. 2019	\$18,227	Start: Jul. 2013 End: Mar. 2023	\$18,820	+4 years	+\$593

Source: Valley Water CIP 5-Year Plans FY 2018-22 and FY 2023-27

Our review of CMMs for eight projects identified three areas where additional oversight and improvement are necessary. Specifically, we found that changes in memos did not always have sufficient detail to determine why the change occurred; were not always completed for all project changes to budget, scope of work, and schedule, as required; and we noted some common trends across projects where Valley Water could benefit from lessons learned and use information to better develop schedules and costs for future projects.

- ✓ **CMMs Did Not Always Include Sufficient Detail:** While some of the CMMs reviewed included sufficient detail to determine why the change had occurred, our review found that for four of the eight projects, one or more of the CMMs did not have adequate explanations of why cost or schedule increases occurred as shown in Exhibit 21.

**EXHIBIT 21. SAMPLE PROJECTS WITH CMMs LACKING SUFFICIENT EXPLANATIONS**

Project (Project Number)	CMM Date	Change	Explanation Provided
Hale Creek Enhancement Pilot Study (26164001)	September 29, 2022	Cost increase of \$3.4 million	Contract award amount being higher than the Engineer's Estimate
Lower Penitencia Creek Improvements, Berryessa to Coyote Creeks (40334005)	October 7, 2021	Cost increase of \$7 million	Increase in design and construction cost
Cunningham Flood Detention Certification (40264011)	December 23, 2019	Cost increase of \$320,000	Increase in construction phase
Almaden Dam Improvements (91854001)	October 18, 2021	Schedule delay of 2 years	To progress environmental review

Source: Project CMMs provided by Valley Water.

While these sample memos flagged a cost increase or schedule delay, they did not sufficiently explain why such changes occurred. In some other change memos, staff did provide fuller explanations. For instance, change memo dated July 9, 2020, for Permanente Creek, San Francisco to Foothill Expressway, noted that there was a cost increase of \$3.2 million and a two-year schedule delay for that project. This memo attributed the changes to an unexpected discovery of archaeological resources during excavation of the detention basin at Rancho San Antonio which required more resources and time. The following change memo for that project dated October 30, 2020 increased the project an additional \$6.2 million because of challenges with soil acceptance at the quarry related to this excavation. The details provided in these memos allows for anyone reviewing the memo to understand why changes occurred, whereas the examples in Exhibit 21 lack adequate detail to justify delays and budget changes.

The Change Management Procedure W-751-125 provides examples of the level of detail that staff should include when completing a memo, as shown in Exhibit 22. While the examples are good, staff have not consistently followed that level of sufficient detail for all memos.

**EXHIBIT 22. INSTRUCTIONS FOR SAMPLE LANGUAGE TO DOCUMENT CHANGES**

For Project Cost: Changes to the planned expenditure were made per the CMM signed on March 14, 2020 (Attachment #), to increase the total project cost by \$375,000, due to refined cost estimates for design.

For Project Cost and Schedule: Changes to the planned expenditure and schedule were made per the CMM signed on March 14, 2020 (Attachment #), to 1) increase the total project cost by \$150,000; and 2) extend the project completion date by 3 months, due to unexpected delays in obtaining right of way. Delays were caused by additional review time required by property owners and request by owner for additional time.

For Project Cost, Schedule and Cost: Changes to planned expenditure, schedule, and scope were made per the CMM signed on March 14, 2020 (Attachment #), to add the stairwell upgrade to project scope, resulting in 1) increase to the total project cost by \$75,000; and 2) extension of the schedule by 4 months.

Source: CMM Procedure W-751-125

To ensure that reasons for changes are justified and transparently communicated, Valley Water should provide specificity to each CMM detailing the underlying cause for any such change as



whether the reason was unforeseen or what the basis for the specific dollar amount increase or schedule delay time length was.

✓ **Staff Did Not Document All Changes in CMMs, Including Administrative Adjustments:**

Through CMM procedure W-751-125, Valley Water recognized the importance of documenting and securing formal approval for changes to the scope of work, cost, and schedule for capital projects, as it helps to memorialize the rationale and justification behind key project decisions and provides evidentiary support of management approvals. According to the CMM procedure, CMMs help to “ensure that project staff analyze and clearly communicate project changes and implications of the changes, as such changes become public record in the CIP.” A key purpose of the CMM is to document changes to scope, budget, or schedule, and for securing management approval for such changes.

This analysis revealed that not all changes were recorded in CMMs. Some were substantive modifications to the projects’ scope, cost, or schedule, and some were the result of administrative adjustments, such as budget reconciliations and the application of inflation factors. For six of the eight sample projects reviewed, cost and schedule data did not align in sequential CMMs, as shown in Exhibit 23. In part, this is because administrative adjustments to project costs have historically not been reflected or noted in CMMs.

The CMM procedure requires changes to be reflected in CMMs but is silent on administrative updates (such as the application of global inflationary rates and the budget reconciliation and rollover processes). This led to cost and schedule data not aligning in sequential CMMs because changes occurred outside the CMM process that were not reflected. According to Valley Water staff, administrative updates to project costs occur independent of the project management team, and therefore are not reflected in the CMMs. Specifically, inflationary rates are prepared by an independent cost estimator and approved by the ACEO and the budget is approved by the Board. Administrative updates are not documented in CMMs, but according to management are reflected in the capital project pages included in Vena.

**EXHIBIT 23. CMMs WITH UNDOCUMENTED VARIANCES**

Project Name (Project Number)	Number of CMMs Reviewed	Number of Instances Where Change Occurred without a CMM
Almaden Dam Improvements (91854001)	12	5 cost <u>2 schedule</u> <b>7 total</b>
Almaden Lake Improvements (26044001)	3	1 cost <u>1 schedule</u> <b>2 total</b>
Coyote Pumping Plant ASD Replacement (91234002)	3	<b>1 cost</b>

Lower Penitencia Creek Improvements, Berryessa to Coyote Creeks (40334005)	3	1 cost <u>1 schedule</u> <b>2 total</b>
Hale Creek Enhancement Pilot Study (26164001)	3	<b>2 cost</b>
Enterprise Resource Planning System Implementation (73274002)	3	2 cost <u>1 schedule</u> <b>3 total</b>

Source: Auditor generated from project CMMs provided by Valley Water.

Note: Project changes that occurred to non-Water Utility projects before Fall 2019 did not require a CMM, but were instead documented in project plans Change History in Vena (as of 2016) and preceding Vena in the Capital Dashboard system. Following Fall 2019, CMMs were required for all capital project changes to scope, schedule and cost.

In one example, the CMM from December 21, 2020 for Almaden Lake Improvements had a TPC of \$56.2 million. The next subsequent CMM provided by Valley Water was dated September 27, 2022—which reported that the last approved TPC was \$57.5 million, which leaves an unexplained discrepancy of \$1.3 million between the two memos. Valley Water noted that the delta was due to inflation adjustments, an administrative update to the project cost that was not documented or explained in the September 27, 2022, CMM.

Similarly, the Hale Creek Enhancement Pilot Study Project had a CMM from December 20, 2019, with a proposed TPC of \$8.6 million. The subsequent change memo was on October 12, 2021, and reported that the last approved TPC was \$8.8 million—an unexplained variance of approximately \$200,000. Like the Almaden Lake example, no notation was included to justify why there was a cost difference though staff noted that this project underwent inflation changes, budget reconciliation, and budget rollover during this time that could have impacted the difference.

However, review of underlying project data provided by staff from Vena and the CIP 5-Year Plan back up supporting documents showed that non-inflated costs were not listed such that reviewers could tie the values in the change memos to underlying support readily. Moreover, inflated project costs that corresponded to those memos still did not agree with inflated costs in corresponding CIP 5-Year Plans for the same period, as shown in Exhibit 24.

**EXHIBIT 24. SAMPLE INCONSISTENT COST DATA (\$ IN THOUSANDS)**

Project Name	CMM Date	Total Project Costs		Expenditure Schedule		Total Project Costs	
		CMM		CIP Expenditure Schedule		Vena Change History	CIP Page Back Up Change History
		Non-inflated	Inflated	Non-inflated	Inflated	Inflated	Inflated
Almaden Lake Improvements (26044001)	December 21, 2020	\$56,157	-	\$56,467 (CIP 5-Year Plan FY 2022-26)	\$58,198 (CIP 5-Year Plan FY 2022-26)	\$57,958	\$57,958
Hale Creek Enhancement Pilot Study (26164001)	December 20, 2019	\$8,617	-	\$8,717 (CIP 5-Year Plan FY 2021-25)	\$8,992 (CIP 5-Year Plan FY 2021-25)	\$8,991	\$8,991

Source: Auditor generated based on project, CMMs, CIP 5-Year Plans FY 2022-26 and FY 2021-25, and project files provided by staff

Note: Changes reflected on CMMs would be reflected on the CIP with the closest date following the CMM date. For instance, CMM dated December 21, 2020 should be reflected on the CIP 5-Year Plan FY 2022-26 because that plan has data through June 2021, and the prior CIP 5-Year Plan FY 2021-25 would only capture data through June 2020—before the CMM change took place.

The project level examples do not show significant variances, but small variances existing across many capital projects could be material and should be documented or noted.

Ultimately, this shows that while improvements were ongoing during the scope of this audit, gaps and inconsistencies persisted, and it highlights the importance of ensuring all project changes to scope, budget, and schedule comply with established process going forward. As the process, dating back to 2019, is silent on administrative updates, Valley Water needs to ensure that the CMM Procedure is updated to require that CMMs include notations regarding administrative updates, refer the reader to supporting documentation where warranted, and provide explanations where values in sequential CMMs may differ.

## Revenue Forecasts Were Reasonably Close to Revenue Actuals

While Valley Water has several different revenue sources to fund its CIP, the majority of its CIP revenue is impacted by factors outside of Valley Water's full control. Forecasted estimates have not always aligned with actual revenues coming in, but variances were reasonable—approximately within a ten percent margin.

A comparison of Valley Water's revenue forecasting from FY 2017-18 through FY 2021-22 to actual revenue received showed that while revenue forecasts agency-wide (including both CIP and operational revenue) were generally between three to ten percent of actual amounts received, Valley Water generally underestimated revenue receipts in its forecasts—though in FY 2021-22 Valley Water modestly overestimated revenues by 1.4 percent.<sup>8</sup>

<sup>8</sup> Auditors used data from organization-wide budgets to do this revenue forecast analysis because forecasts and actuals for solely the CIP were not readily available. But given that the CIP encompasses so much of the overall organization budget, using the overall budget reasonably represents results for the CIP.

Two key revenue sources, water rate charges and ad valorem property taxes, which account for 80 percent of CIP funding, are impacted by factors outside of Valley Water's direct control and revenues received vary from one year to the next. Revenue from water charges can fluctuate greatly depending on a variety of factors such as the cost of the rate, usage by customers, and external events such as drought, state conservation orders, and emergencies. Water rate charges for this period were generally within that 10 percent variance range, though each year was not consistently under or overestimated.<sup>9</sup> Some of the reasons cited for these fluctuations included unexpected weather conditions such as drought, statewide water usage restrictions, and the Covid-19 pandemic—all of which were outside Valley Water's control. As the largest revenue source of the CIP, these fluctuations present delivery risks for the CIP if needed revenue does not actualize for planned work. Other comparable entities have similar funding sources, with heavy reliance on water rate charges. For example, EBMUD also depends primarily on water rate charges and bond funding to fund its CIP.

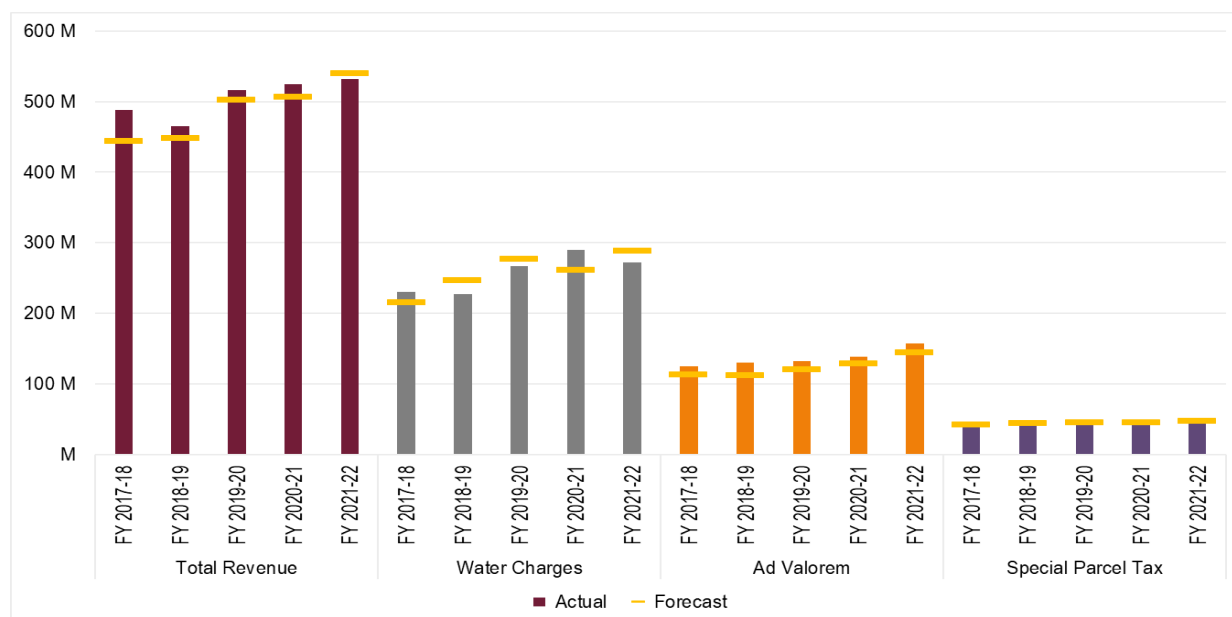
The second largest revenue source, ad valorem property taxes, can also vary depending on the changing values of properties assessed each year based on market conditions—though in recent years property values have generally gone up in value. However, values may decline in the event of a recession or other market changes, which is a consideration that Valley Water monitors. Between FY 2017-18 through FY 2020-21, Valley Water consistently underestimated revenues and received more monies than expected for the property tax, ranging from 8 percent to 16 percent.

Lastly, the third largest revenue source of CIP funding is the special parcel tax, which over the same period had a variance at 1 percent or less annually. Exhibit 25 shows the comparisons of forecasted revenues to actuals for these three key revenue sources as well as total revenue organization-wide each fiscal year from FY 2017-18 through FY 2020-21.

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<sup>9</sup> These fluctuations mirrored water charge revenue results across a 20-year period that showed that from FY 2002-03 to FY 2021-22, there were eight years, or 40 percent of the 20 years, where actual revenue received was higher than expected and twelve years, or 60 percent, where actual revenue received was lower than expected.

## EXHIBIT 25. CIP KEY REVENUE SOURCES, FORECASTED REVENUES VS. ACTUALS, FY 2017-18 TO FY 2021-22



Source: Auditor-generated based on adopted budgets for FY 2017-18 to FY 2021-22

While there is no industry standard of an acceptable variance threshold, any variance from the forecast presents some risk. If Valley Water overestimates its revenue, it will not have enough revenue to fund its planned CIP projects. If Valley Water underestimates how much revenue it will receive, there is a possible opportunity loss of additional capital improvements it could have planned for but otherwise did not.

But Valley Water endeavored to demonstrate its due diligence in trying to forecast using reliable methodologies, as will be described in the subsequent section, and have a plan in place for adverse circumstances. While Valley Water has not established a formal dedicated plan in the event that revenue forecasts significantly vary from actuals, it has reasonable protocols in place for how it would address significant variances between revenue forecasts and actual revenue receipts. If more revenue than anticipated arrives, Valley Water can park funds into its treasury to be invested per its investment policy or moved into reserves.<sup>10</sup> If there is a revenue shortfall or if CIP project expenditures are higher than anticipated, then Valley Water staff work together to transfer funds between projects or use special purpose funds or reserves. Valley Water also is able to borrow debt or make mid-year water charge adjustments when warranted. Finally, Valley Water has recently developed a new Grants Action team in early 2022 that will work to identify additional funds to help supplement regular revenue streams.

### Forecasting Methodologies Align with Industry Leading Practices

Uncertainty and factors outside of Valley Water's control will always exist that may impact outcomes of revenue forecasting. Best practices emphasize that while no forecast will be perfect, entities should strive to have robust forecasting methodologies that evolve as new risks emerge.

<sup>10</sup> Valley Water requires that its reserve balances are maintained at 15 percent of its operating and capital outlays.

A high-level review of Valley Water’s models and forecasting methodologies showed that many best practices were implemented—similar to what peer entities employed. Exhibit 26 shows a list of several best practices in revenue forecasting identified from the GFOA in 2014 and the University of North Carolina School of Government in 2015.

#### EXHIBIT 26. REVENUE FORECASTING BEST PRACTICES

	Best Practice	Valley Water
1	Forecast all major revenues and expenditures	✓
2	Extend several years into the future	✓
3	Forecast, assumptions, and methodology be made available to stakeholders	✓
4	Forecast should be monitored and periodically updated	✓
5	Use expertise inside and outside organization	✓
6	Use historical data and current economic conditions	✓
7	Use of range of possible scenarios	✓
8	Have a transparent process	✓
9	Revenue manual with key information on each revenue source	✓

Source: Best Practices: Financial Forecasting in the Budget Preparation Process, Government Finance Officers Association, 2014 and Revenue Forecasting in Local Government, University of North Carolina School of Government, 2015.

Employing these best practices in its revenue forecasting methodologies strengthen Valley Water’s efforts in more accurately predicting its revenue streams. The impact of these efforts is evident given that forecasted revenues were reasonably close to actuals as discussed in the previous section.

However, current events and environmental conditions in the world in the last few years exemplify the risk of major unforeseen external events. Valley Water is demonstrating its due diligence by applying these forecasting best practices alongside best available historical data—but it needs to stay cognizant and alert to fast-changing conditions, threats, and be prepared to shift strategies in the event of unanticipated forces including but not limited to population change, market volatility, impacts of climate change, and socio-political events that may impact the agency.

As Valley Water moves forward, it should continue its existing practices to monitor on a regular basis outside factors that may impact its revenue forecasts, and stay current to new industry methodologies and practices to prepare against uncertain risks.

#### Debt Management Policy and Board-Vetted CIP Financing Approaches Are in Place to Ensure Funds are Available

To help ensure that there is a plan to pay for CIP expenditures when money is needed, Valley Water has established debt management policies that are vetted and approved by the Board—including reasonable financing mechanisms to smooth the ebb and flow of outlays. These practices generally align with how peer entities approach CIP financing.

Valley Water's debt management policy sets the objectives, parameters, and provides policy guidelines to staff for how it approaches debt management across the organization. It centers on minimizing debt service and issuance costs, achieving high credit ratings, maintaining access to cost-effective borrowing, and making full and timely repayment of debt. The policy allows for Valley Water to utilize designated debt instruments such as bonds, certificates, and more to finance organizational needs.

To finance the CIP, Valley Water's Board and policy-approved strategy has been to finance annual CIP expenditures on a "just-in-time" basis through the issuance of short-term debt, and subsequent sale of more permanent long-term debt to refund the short-term debt. The short-term debt capacity consists of a total of \$320 million, a combination of commercial paper (\$150 million) and a line of credit (\$170 million).<sup>11</sup>

The just-in-time refinancing draws down on short-term debt only when expenses are in hand and are processed like reimbursements. In a January 2022 report to the Board, Valley Water staff explained that they aim to time long-term debt issuance for when capital expenditures reach at least \$100 million for each issuance, which is considered the optimal amount to market bonds to achieve low financing costs and economies of scale for issuance.<sup>12</sup> By this way, interest expenses are not incurred until actual capital expenditures occur. This appears to align with what some other comparable entities do. For instance, Metropolitan Water stated that they also use pay-as-you-go financing and bond issuance for debt financing needs.

While there is no one way to approach capital debt financing, this strategy appears reasonable to ensure CIP expenditures can be paid for while balancing the costs of debt. This approach is vetted and approved by the Board, adding transparency to the process to ensure that leadership is informed of key debt management information.

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<sup>11</sup> In October 2020, Valley Water obtained a revolving \$170 million line of credit to finance capital projects. According to the Treasury Debt Officer, this decision was due to the Board wanting to diversify access to more liquid funds with the uncertainty of the Covid-19 pandemic.

<sup>12</sup> This report focused on Water Utility System and Safe, Clean Water, and Natural Flood Protection capital projects, which comprise the majority of where CIP funding is used.

## Recommendations

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This audit found that Valley Water has established a CIP planning process that was consistent with many leading practices found in the public sector, and that Valley Water management was and is engaged in a continuous improvement process that has led to the implementation of additional leading practices prior to and during the scope of this audit. Building upon this foundation, this audit identified further opportunities to improve the CIP planning process. Therefore, in order to improve the CIP planning process, and build upon already ongoing efforts to implement leading practices as identified in this report, we recommend that Valley Water management:

- 1) Improve CIP goal attainment, including the likelihood that expenditure and schedule targets are met, by:
  - a. Ensuring cost estimates are up-to-date and reflect reasonable rates of inflation.
  - b. Identifying specific staff and contract resources required to complete projects, including the type of resource, quantity of resource, and timing of the need for the resource.
  - c. Conducting and formally memorializing analyses of common cost and schedule delays in the Lessons Learned database in ProjectMates and share results agency-wide.
- 2) Develop a performance measurement system that effectively demonstrates Valley Water's performance in achieving the goals of the CIP and the capital infrastructure goals of its master plans. This includes:
  - a. Monitoring and reporting overall CIP performance and using this information to identify areas where improvements can be made to both capital project delivery and delivery of the capital improvement program.
  - b. Establishing tangible targets to measure the effectiveness of the CIP in meeting established agency goals.
  - c. Incorporating anticipated timelines within which the results of recent process improvements are expected to be evident and measurable in CIP outcomes.
- 3) Formalize objective project prioritization techniques and criteria, and consider whether a performance-based prioritizing process would be feasible and appropriate.
- 4) Formalize and consolidate CIP planning policies and procedures in a manner that reflects best practices recommended by the GFOA, including establishing a formal, written policy for establishing project contingencies.
- 5) Evaluate whether it would benefit Valley Water to modify CIP planning processes to require biennial CIP updates rather than annual updates.
- 6) Incorporate additional detail within the CIP related to anticipated operations and maintenance costs associated with programmed capital projects. Specifically, when operations and maintenance costs associated with programmed capital projects are unknown, include additional detail within the CIP



5-Year Plan regarding why the costs are unknown, what factors may impact the costs, and when they will be determined.

- 7) Implement quality control protocols to ensure data reported within the CIP are reported consistently throughout the document, include a note if planned budget adjustments are included in annual capital budgets, and are supported by underlying project and financial systems and other project documentation.
- 8) Improve compliance with Change Management Procedure W-751-125, and ensure cost and schedule data aligning throughout sequential CMMs, by consistently requiring:
  - a. Descriptions of reasons for changes are sufficiently detailed to point to the exact cause.
  - b. All data in CMMs to accurately reflect underlying project data and corresponding documents with clear notations of any variances including but not limited to inflation adjustments, timing issues, or other justification for why numbers may not tie.
  - c. References or notations exist to specific underlying documents, change orders, or other support where rationale is too voluminous to describe in the memo itself.
  - d. Update the CMM Procedure to require that CMMs include notations regarding administrative updates, refer the reader to supporting documentation where warranted, and provide explanations where values in sequential CMMs may differ.

## Appendix A – Valley Water’s Implementation of CSMFO Leading Practices

It is important to identify industry best practices for capital improvement projects and for Valley Water to decide whether implementation of certain leading practices identified by CSMFO would be appropriate, practical, and cost-effective at Valley Water and whether they would be in-line with their policies, mission, and goals.

**EXHIBIT 27. CSMFO BUDGET AWARDS PROGRAM CRITERIA CHECKLIST**

CRITERIA FOR MERITORIOUS AND EXCELLENCE AWARD FOR CAPITAL BUDGETS	INCLUDED IN VALLEY WATER’S FY 2022-26 CIP 5-YEAR PLAN
Is there a table of contents? Are the budget document’s pages numbered?	✓
Does the transmittal letter and/or budget message highlight major capital project priorities and their funding sources?	✓
Is the basis for key capital revenue estimates described?	✓
Is the jurisdiction’s capital budgeting process explained?	✓
Is there a summary schedule of capital revenue sources, by fund?	✓
Is there a summary schedule of capital expenditures, by fund?	✓
Is there a summary schedule of capital expenditures, by major type of improvement?	✓
Are specific projects identified in the budget document?	✓
Does each project have specific revenue sources identified?	✓
Are prior year appropriations or expenditures shown, where applicable, for each capital project?	✓
Does each capital project reflect appropriations or estimated expenditures for at least the budget year?	✓
Does each capital project reflect appropriations or estimated expenditures in the future through its proposed completion?	✓
For multi-year projects, is total cost for the project identified?	✓
Have overall operating cost impacts been discussed?	PARTIALLY
Does the execution of the document appear consistent with the audience and purpose to which it is directed?	✓
Is the budget clearly enough organized and presented as a document?	✓

CRITERIA FOR MERITORIOUS AND EXCELLENCE AWARD FOR CAPITAL BUDGETS	INCLUDED IN VALLEY WATER'S FY 2022-26 CIP 5-YEAR PLAN
Do the budget numbers and format appear to be accurate and consistent throughout the document?	PARTIALLY
Is there an in-depth description of how capital project scheduling meets jurisdiction's goals and/or financial and budget policies?	✓
Does budget process include a rating or ranking process to prioritize projects?	PARTIALLY
Are individual capital projects appropriately described?	✓
Does each project include a location map, where applicable?	✓
Does each project include a narrative discussing project status and/or timeline for project completion?	✓
Does each project identify the person or department acting as project manager?	✓
Does each project identify, where applicable, operating budget impacts and/or contains estimates of future annual operating & maintenance costs?	PARTIALLY
Are individual project costs/appropriations broken down by major objects or types?	✓
Have alternative funding sources been explored for individual projects?	✓
Are project costs identified based on current year dollars and are future appropriations increased by inflationary index?	✓
Is there a summary of individual projects by funding source?	✓
Is there a summary of individual projects by major type of improvement?	✓
Is debt issuance supporting the capital program clearly identified by project or by summary?	✓
Have additional future years of forecasted revenues and project expenditures been included?	✓
Does the document include a glossary of terms?	✓
Is document generally readable and attractive in format and presentation?	✓
Is there good use of graphics, artwork, maps and charts?	✓
Does the document demonstrate the use of current computer technology in document development and/or production?	✓

Source: Auditor-generated comparing best practices identified by The CSMFO Budget Awards Program Overview & Explanation of Criteria and audit observations of Valley Water's CIP

Key: A check mark means that the Valley Water's 2022-26 CIP 5-Year Plan fully met the criterion. Partially means that the 2022-26 CIP 5-Year Plan partially meet this criterion. No check mark means that the information was not clearly present in the 2022-26 CIP 5-Year Plan. Not Applicable means that it is not a relevant criterion due to the 5-Year Plan being separate from the budget.

## Appendix B – Summary of Recommendations and Corrective Action Plan

Recommendation	Responsible Party	Priority	Management's Corrective Action Plan
<p>1 <b>Problem:</b> Schedule and spending targets established in the CIP 5-Year Plan may not be achievable.</p> <p><b>Recommendation:</b> Improve CIP goal attainment, including the likelihood that expenditure and schedule targets are met, by:</p> <ul style="list-style-type: none"> <li>a. Ensuring cost estimates are up-to-date and reflect reasonable rates of inflation.</li> <li>b. Identifying specific staff and contract resources required to complete projects, including the type of resource, quantity of resource, and timing of the need for the resource.</li> <li>c. Conducting and formally memorializing analyses of common cost and schedule delays in the Lessons Learned database in ProjectMates and share results agency-wide.</li> </ul>	<p>Business Planning and Analysis Unit</p>	<p>High</p>	<p><input checked="" type="checkbox"/> Agree    <input type="checkbox"/> Disagree</p> <p><b>1.a.</b> Management agrees and believes this recommendation has been addressed. Project plans are updated annually to reflect the latest cost information. Placeholder projects and projects listed on the unfunded list will be “re-validated” as indicated in the Capital QEMS Processes and reassessed annually through the CIP Evaluation Team. As of FY23, inflation rates are updated by an Independent Cost Estimator on-call consultant, through development of the Construction Cost Escalation Factors and Market Rate Factors. This is acknowledged on p.23 of the Final Draft Report, “In FY 2021-22, Valley Water utilized an on-call contract with an Independent Cost Estimator (ICE) to validate its construction cost escalation factor analysis. It further made the business decision that, moving forward, it will employ a consultant to determine construction cost escalation factors to ensure that Valley Water is keeping pace with the market and to better ensure accuracy and reliable in future TPC estimates.”</p> <p><b>1.b.</b> Management agrees and believes this recommendation will be addressed through the implementation of our new resource planning/staff forecasting tool VEMO.</p> <p><b>1.c.</b> Management agrees and will implement this recommendation through ProjectMates.</p> <p>Implementation Date:</p> <p>1.a. – Complete as of Q4, FY23.</p> <p>1.b. – Implementation underway. Estimated to be fully implemented by Q4, FY26.</p> <p>1.c. – Implementation underway. Estimated to be fully implemented by Q4, FY26.</p>

2	<b>Problem:</b> Valley Water’s performance in delivering capital projects is obscured by the lack of a robust performance measurement system.	Business Planning and Analysis Unit	Medium	<input checked="" type="checkbox"/> Agree <input type="checkbox"/> Disagree
	<b>Recommendation:</b> Develop a performance measurement system that effectively demonstrates Valley Water’s performance in achieving the goals of the CIP and the capital infrastructure goals of its master plans. This includes:  a. Monitoring and reporting overall CIP performance and using this information to identify areas where improvements can be made to both capital project delivery and delivery of the capital improvement program.  b. Establishing tangible targets to measure the effectiveness of the CIP in meeting established agency goals.  c. Incorporating anticipated timelines within which the results of recent process improvements are expected to be evident and measurable in CIP outcomes.			<b>2.a-b.</b> Management agrees and is in the process of improving current reporting and developing new reporting methods at the project and program level. New PowerBI quarterly reporting tool under development to track project level and program level metrics, with data to be provided via Vena, Infor, ProjectMates, and using CIP historic data.  <b>2.c.</b> Management agrees. Management is proposing a two-year implementation period for ProjectMates, with a follow-up audit to validate success (e.g. follow-up audit to be initiated in FY 26 to allow time for implementation of ProjectMates and Vemo).  Implementation Date:  2.a. – Implementation underway. Estimated to be fully implemented by Q4, FY26. 2.b. – Implementation underway. Estimated to be fully implemented by Q4, FY26. 2.c. – Implementation underway. Estimated to be fully implemented by Q4, FY26.
3	<b>Problem:</b> While Valley Water does employ a deliberative project prioritization process in developing its CIP 5-Year Plan, the process lacks consistent and objective criteria.	Business Planning and Analysis Unit	High	<input checked="" type="checkbox"/> Agree <input type="checkbox"/> Disagree
	<b>Recommendation:</b> Formalize objective project prioritization techniques and criteria, and consider whether a performance-based prioritizing process would be feasible and appropriate.			<b>3.</b> Management agrees and believes that by implementing a Priority Level system, Valley Water can further enhance the Funding Filters for Prioritization, improving the consistency, objectivity, and transparency of the process. The Priority Level system was cited as an example of a successful prioritization system utilized by the Contra Costa Water District in the Draft Audit Report (see p. 30).  After implementation of a Priority Level System, Management will explore whether a performance-based prioritizing process would be feasible and appropriate. The majority of VW projects repair and replace existing infrastructure, which is our obligation and prioritization is then only necessitated by the availability of resources (financial or staff resources). Based on this, a performance-based prioritization process may not make sense, as we are required to maintain our existing infrastructure, requiring the delivery of specific projects. Staff will analyze this approach further and report back.  Implementation Date:  Implementation underway. Estimated to be fully implemented by Q4, FY24.

4	<b>Problem:</b> Policies and procedures are generally consistent with leading practices, but are disbursed among a variety of authoritative sources and informal guidance.	Business Planning and Analysis Unit	Medium	<input checked="" type="checkbox"/> Agree <input type="checkbox"/> Disagree
	<b>Recommendation:</b> Formalize and consolidate CIP planning practices and procedures in a manner that reflects best practices recommended by the GFOA, including establishing a formal, written process for establishing project contingencies.			<p>4. Management agrees and will create an over-arching CIP Development Manual to serve as an umbrella for capital QEMS procedures to document all existing CIP procedures and practices in compliance with GFOA.</p> <p>Management's approach to establishing project contingencies is currently documented in the Cost Engineering Guidelines. These guidelines will be included in the over-arching CIP Development Manual (referenced above). The existing procedure requires a Risk-Analysis-Based Process for Contingency Estimation. Staff believes this process is consistent with the Best Practices identified in the CIP Performance Audit Draft Report. The procedure will be updated to clarify the types of Contingency Reserves utilized, as Valley Water uses both Project Level Contingency, which is included at the Project Budget level, and a Management Contingency, which is at the Fund Reserve level. Additionally, management has identified a staff level process improvement, which will update the Capital Project Delivery Process to include reassessment of risk at time of Board's Acceptance of Work as Complete to determine whether remaining contingency funds could be released to project or fund reserves.</p> <p>Implementation Date: Implementation underway. Estimated to be fully implemented by Q4, FY24.</p>
5	<b>Problem:</b> One of the more distinguishable differences between Valley Water and the peers sampled is that Valley Water updates its CIP 5-Year Plan annually, whereas all four peers reviewed update their short-range CIP biennially.	Business Planning and Analysis Unit	High	<input checked="" type="checkbox"/> Agree <input type="checkbox"/> Disagree
	<b>Recommendation:</b> Evaluate whether it would benefit Valley Water to modify CIP planning processes to require biennial CIP updates rather than annual updates.			<p>5. Management agrees to evaluate whether updating the CIP 5-Year Plan on a biennial basis would be feasible and beneficial to Valley Water.</p> <p>Implementation Date: Evaluation is underway and estimated to be fully implemented by Q4, FY24.</p>

6	<b>Problem:</b> While the CIP 5-Year Plan includes information regarding anticipated operations and maintenance (O&M) costs, additional information regarding the factors contributing to potential O&M costs, particularly when costs have not yet been fully determined, is essential.	Business Planning and Analysis Unit	High	<input checked="" type="checkbox"/> Agree <input type="checkbox"/> Disagree
	<b>Recommendation:</b> When operations and maintenance costs associated with programmed capital projects are unknown, include additional detail within the CIP 5-Year Plan regarding why the costs are unknown, what factors may impact the costs, and when they will be determined.			6. Management agrees and will incorporate additional detail for projects with unknown O&M costs, including why they are unknown, what factors may impact them, and when staff anticipates they will be determined. The O&M costs are reflected in the CIP 5-Year Plan when information is available and included both on the project pages and in the Financial Planning and Summary Chapter. The information is then utilized by O&M managers and forecasted in the related operating projects through the Long-Term Forecast.
				Implementation Date: Evaluation is in progress. Estimated to be fully completed by Q4, FY24.
7	<b>Problem:</b> Financial information contained in the CIP was not always consistent or aligned with Valley Water's financial system.	Business Planning and Analysis Unit	Medium	<input checked="" type="checkbox"/> Agree <input type="checkbox"/> Disagree
	<b>Recommendation:</b> Implement quality control protocols to ensure data reported within the CIP are reported consistently throughout the document, include a note if planned budget adjustments are included in annual capital budgets, and are supported by underlying project and financial systems and other project documentation.			7. Management agrees. This recommendation has been addressed with the finalization of the FY 2024-28 Five-Year Plan through inclusion of footnotes indicating planned budget adjustments that differ from the adopted budget. Also, QA/QC protocols have been enhanced to ensure consistency in reporting.
				Implementation Date: Implementation complete as of Q4, FY23.

8	<b>Problem:</b> Change Management Memos did not always include sufficient information describing cost increases and schedule delays.	Business Planning and Analysis Unit	Medium	<input checked="" type="checkbox"/> Agree <input type="checkbox"/> Disagree
	<b>Recommendation:</b> Improve compliance with Change Management Procedure W-751-125, and ensure cost and schedule data aligning throughout sequential CMMs, by consistently requiring:			<p><b>8.a.</b> Management agrees and will assign CIP team to work with project managers to include sufficient details regarding the cause of the documented changes.</p> <p><b>8.b-d.</b> Management agrees and believes this recommendation has been addressed. The CMM work instruction and template were updated on 05/23/23. In addition, staff is seeking to further enhance reporting on schedule and cost impacts (as referenced in Recommendation 1.c. and will be making further updates to align with the process improvements).</p>
	<p>a. Descriptions of reasons for changes are sufficiently detailed to point to the exact cause.</p> <p>b. All data in CMMs to accurately reflect underlying project data and corresponding documents with clear notations of any variances including but not limited to inflation adjustments, timing issues, or other justification for why numbers may not tie.</p> <p>c. References or notations exist to specific underlying documents, change orders, or other support where rationale is too voluminous to describe in the memo itself.</p> <p>d. Update the CMM Procedure to require that CMMs include notations regarding administrative updates, refer the reader to supporting documentation where warranted, and provide explanations where values in sequential CMMs may differ.</p>			<p>Implementation Date:</p> <p>8.a. Implementation underway. Estimated to be fully implemented by Q4, FY24.</p> <p>8.b. Implementation complete as of Q4, FY23.</p> <p>8.c. Implementation complete as of Q4, FY23.</p> <p>8.d. Implementation complete as of Q4, FY23.</p>

**Urgent:** The recommendation pertains to a high priority conclusion or finding. Due to the seriousness or significance of the matter, immediate management attention and appropriate corrective action is warranted.

**High Priority:** The recommendation pertains to a high priority conclusion or finding. While the matter is not urgent and does not require immediate corrective action, the seriousness of the matter warrants timely management attention and appropriate corrective action is warranted within six months.

**Medium Priority:** The recommendation pertains to a moderately significant conclusion or observation. Reasonably prompt corrective action should be taken by management to address the matter. Recommendation should be implemented no later than one year.

**Low Priority:** The recommendation pertains to a conclusion or observation of relatively minor significance or concern. The timing of any corrective action is left to management's discretion.





# Santa Clara Valley Water District

File No.: 23-0892

Agenda Date: 9/18/2023

Item No.: 4.4.

## COMMITTEE AGENDA MEMORANDUM Capital Improvement Program Committee

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

### SUBJECT:

Water Supply Capital Workshop to Review the Capital Validation and Evaluation Processes, Review the Funding Filters for Prioritization, Introduce New Capital Funding Categories, and Provide an Overview of Capital Projects Included in the Capital Improvement Program (CIP) Fiscal Years (FY) 2024-28 Five-Year Plan Funded by the Water Utility Enterprise Fund (Fund 61).

### RECOMMENDATION:

Receive information and provide feedback, as necessary.

### SUMMARY:

On May 16, 2023, upon adoption of the Capital Improvement Program (CIP) Fiscal Year (FY) 2024-28 Five-Year Plan, Valley Water's Board of Directors requested a workshop for all projects in the CIP. The majority of Valley Water's capital projects are funded primarily by three funds: the Watershed Stream Stewardship Fund (Fund 12); the Safe, Clean Water and Natural Flood Protection Program Fund (Fund 26); and the Water Utility Enterprise Fund (Fund 61). Today's Water Supply Workshop focuses on projects funded by Fund 61. The Fund 12 and Fund 26 Workshop will be conducted in January in alignment with the Board's review of the CIP Preliminary FY 2025-29 Five-Year Plan.

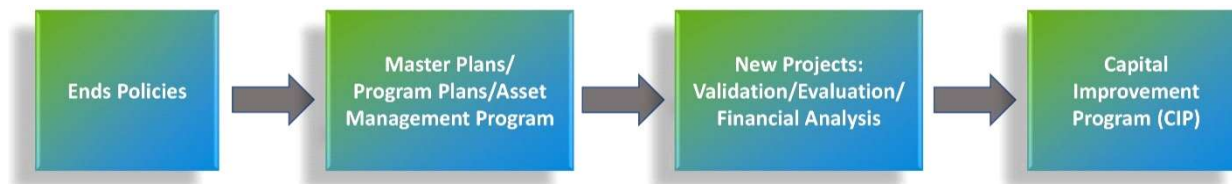
The majority of revenue for Fund 61 is generated by water charges. Valley Water's District Act provides that water charges may be levied to further the protection and augmentation of the water supplies as well as produce groundwater for beneficial use; may be collected from all those within a zone who own or operate water producing wells whether currently active or not; and that water charge revenue may be used to pay for: water supply, water quality, and infrastructure. CIP Water Supply Projects are funded primarily through water charges and are categorized into the following types of improvements: Storage Facilities, Transmission Facilities, Treatment Facilities, and Recycled Water Facilities.

### ***Capital Project Validation and Evaluation Processes***

The annual update of the CIP's Five-Year Plan includes a Validation Process to review and evaluate

potential new projects for inclusion into the CIP. Many of these new projects are identified through Master Plans, such as the Water Supply Mater Plan (WSMP), Program Plans, or through the Asset Management Plan (AMP). Additionally, new projects can be created by direction of the Board or requested by a Chief based on business needs or to improve Valley Water services.

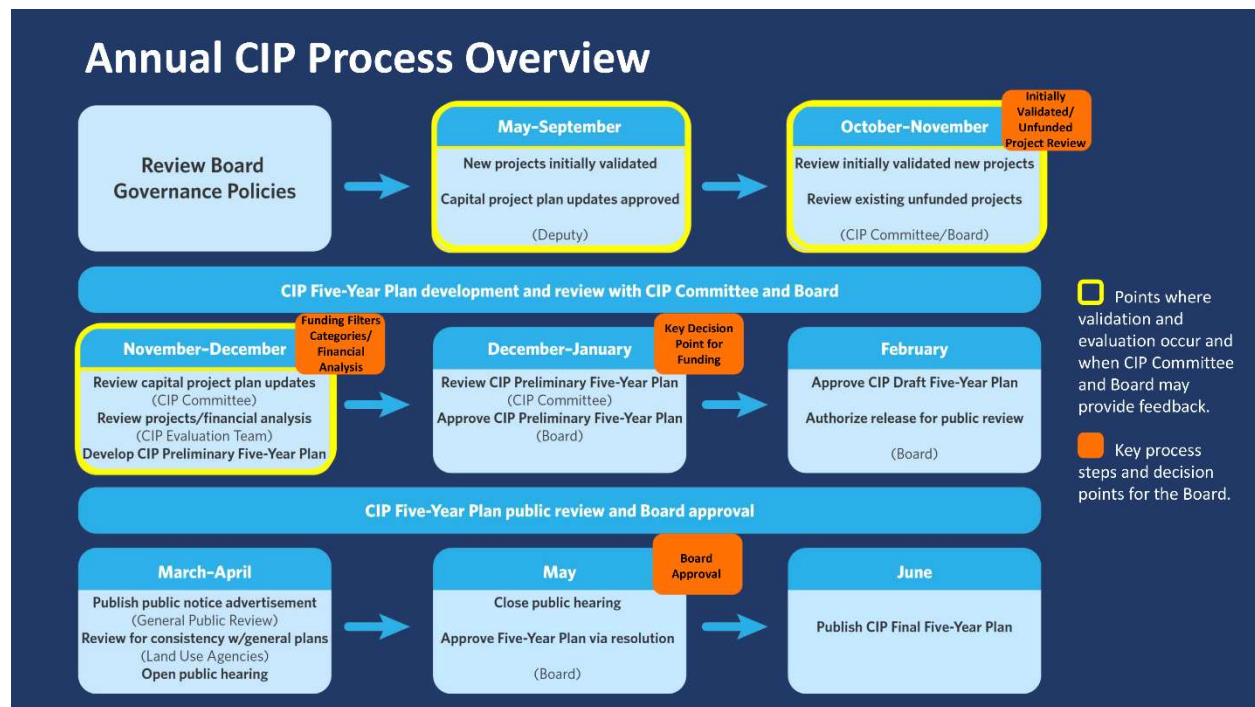
Below is a diagram illustrating the Validation Process:



For each potential new project, staff develops a business case to compare capital, non-capital, and non-asset alternative solutions; evaluate the lifecycle costs of these solutions; and identify a recommended solution that minimizes lifecycle cost while balancing service levels and risk. Staff then submits the business case for review by their respective Deputy Officer. Once approved, Initially Validated Projects are presented to both the CIP Board Committee (Committee) and the Board of Directors for feedback.

As illustrated in the Annual CIP Process graphic, capital project managers simultaneously perform an annual review of their projects to identify any changes to scope, schedule and/or cost and provide project plan updates, which are included in Valley Water's financial models for Funds 12, 26, and 61. Initially Validated Projects are assessed along with the impact the capital project plan updates have had on the financial health of each respective fund.

Each November, the CIP Evaluation Team, comprised of executive management and CIP staff, meets to consider Board feedback and review the fund models to prepare the CIP Preliminary Five-Year Plan for the CIP Committee review in December and for the Board to provide feedback and direction in January. The Board's review and approval of the Preliminary Five-Year Plan is considered a key decision point in the annual cycle for the development of the CIP Five-Year Plan.



## Capital Project Prioritization

Although all capital projects are important to fulfilling Valley Water’s mission, funding constraints require the prioritization of projects to ensure the fiscal health of funds. While in 2019, Valley Water’s Board of Directors deemed the Validation Process as robust and sufficient for prioritizing projects for inclusion in the CIP, in 2022, the Board approved the Funding Filters for Prioritization and ranked them by the order of their priority as follows:

### Funding Filters for Prioritization

1. Repair/Replace Existing Infrastructure Projects
2. Public Health and Safety Projects
3. Shovel-Ready (Permits and Land Rights Secured) Projects
4. Multi-Benefit Projects
  - A. Environmental Justice Benefit Projects
5. Partially Externally-Funded (Grants and Partnerships) Projects

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. These categories will enhance the Funding Filters tool to improve transparency, ensure objectivity, and provide clarity to both the Board and the public.

To further prioritize projects, each Funding Filter has been assigned maximum points based upon the order of their priority as follows:

---

**Funding Filters Point Scale**

- |   |          |
|---|----------|
| 1. Repair/Replace Existing Infrastructure Projects                | 5 points |
| 2. Public Health and Safety Projects                              | 4 points |
| 3. Shovel Ready (Permits and Land Rights Secured) Projects        | 3 points |
| 4. Multi-Benefit Projects   | 2 points |
| A. Environmental Justice Benefit Projects                         | ½ point  |
| 5. Partially Externally-Funded (Grants and Partnerships) Projects | 1 point  |

The Board determined its top priority is to repair and/or replace existing infrastructure. Since the majority of capital projects have this objective, additional points will be assigned based on the existing asset's risk score, as determined in the AMP, to further prioritize these projects.

Valley Water's AMP measures risk as Business Risk Exposure (BRE), which is a risk score derived from the multiplication of two factors: Probability of Failure (POF) and Consequence of Failure (COF). The calculation also includes a redundancy factor, which is applied to the POF. The POF score ranges from 1 to 5, with 1 being like new and 5 being failed. Valley Water's COF score ranges from 0 to 30, with 30 being the greatest consequence of failure. The Business Risk Exposure (BRE) scores for Valley Water assets can, therefore, range from 1 to 150 (POF = 5 x COF = 30), with 150 being the highest risk score for an asset.

**Business Risk Exposure Adjustment Factor**

1. Risk  $\geq$  88 = Add 10 points
2. Risk 76-87 = Add 4 points
3. Risk  $\leq$  75 = Add 0 points

Categories 1 and 2 focus on further prioritizing those projects based upon their risk of failure. Category 3 applies to projects that have a lower risk of failure and new infrastructure projects. Further details of the three Categories are as follows:

1. **Category 1:  $\geq$  19 points**  
Category 1 Projects meet our obligation to repair/replace our existing infrastructure, targeting the inclusion of projects with an AMP BRE score that is  $\geq$  88 and are required for public health and safety. In addition, projects that are under construction or 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 our obligation to repair/replace our existing infrastructure, targeting projects with an AMP BRE score that is between 76-87 and are required for public health and safety.
3. **Category 3:  $\leq$  12.5**  
Category 3 applies to projects that have a lower risk of failure,  $\leq$  75 for our 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. Small capital projects cost less than \$5 million (unless otherwise approved by the Board), can be completed within two fiscal years, and do not require right-of-way acquisition. Placeholder projects are projects that are anticipated to be needed, but may not yet have defined scopes, schedules, or funding sources.

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, the Board may approve the funding of projects in any category.

The Funding Filters for Prioritization have been applied to all capital projects and in preparation for the Water Supply Capital Workshop, staff has also assessed the BRE scores for our existing infrastructure Water Supply Capital Projects. Based upon the points applied to each project, the Water Supply Capital Projects have been divided into the three Funding Categories outlined in this memo. These projects will be reviewed by Category during the presentation (Attachment 1).

During the Board's review of the CIP Preliminary FY 2025-29 Five-Year Plan, if funding constraints require prioritization, staff will bring forward recommendations for funding based upon the associated risk score for our existing infrastructure as established by Valley Water's AMP, and for new infrastructure, in alignment with our Master Plans and Program Plans.

Capital projects that the Board has deemed a lower priority may be postponed or moved to the CIP's Unfunded List. The Unfunded List is reviewed by the CIP Evaluation Team, CIP Committee and the Board on an annual basis and is considered for potential funding and inclusion in the annual CIP Five-Year Plan.

#### **ENVIRONMENTAL JUSTICE IMPACT:**

There are no Environmental Justice impacts associated with this item.

#### **ATTACHMENTS:**

Attachment 1: PowerPoint

#### **UNCLASSIFIED MANAGER:**

Luz Penilla, 408-630-2228

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CAPITAL IMPROVEMENT PROGRAM

# Water Supply Workshop

Presented by  
Jessica Collins, Business Planning and Analysis Unit Manager  
Office of Integrated Water Management

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Capital Improvement Program Committee  
September 18, 2023



**Valley Water**

Attachment 1  
1 of 34



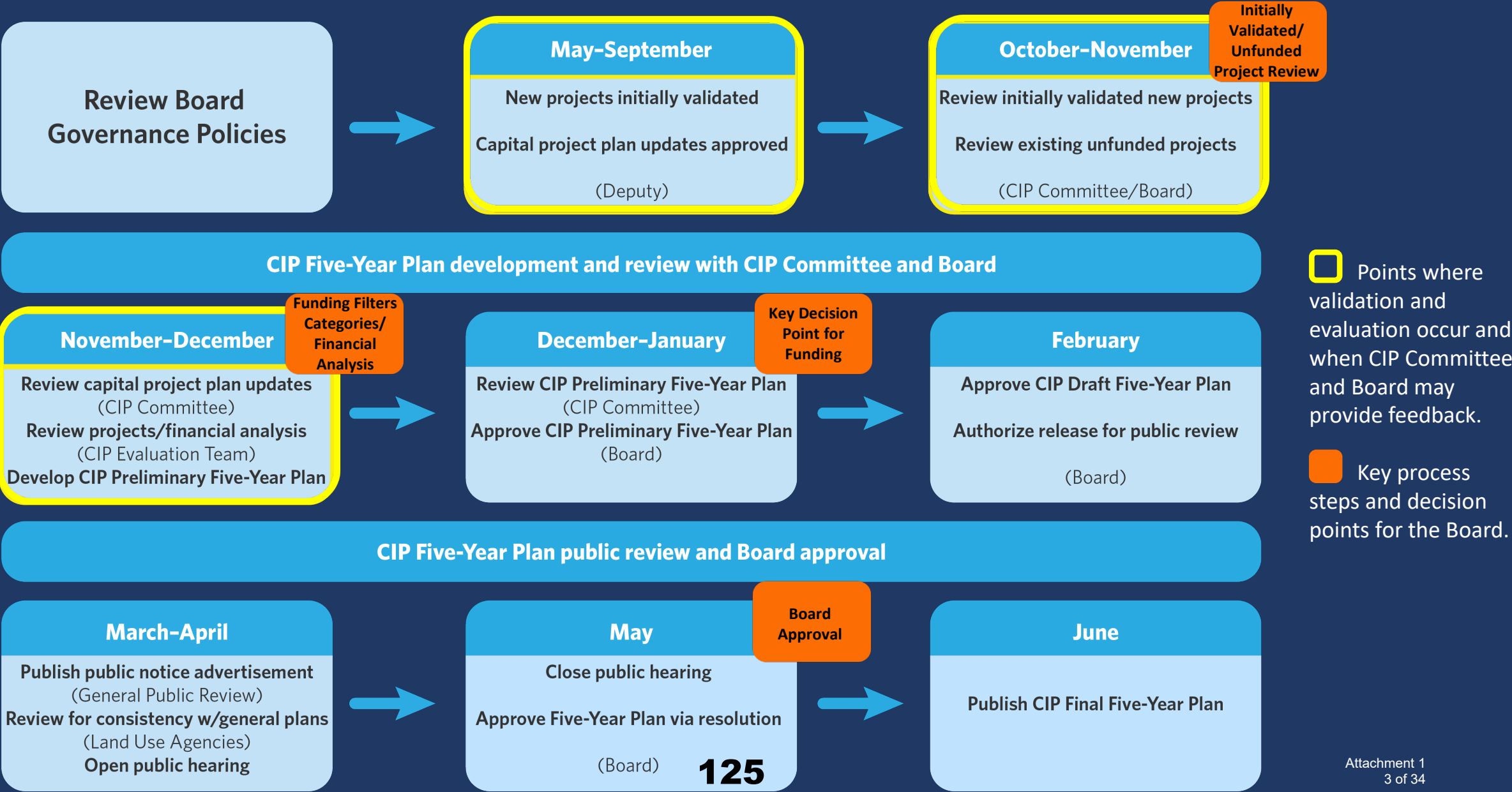
# Presentation Outline

1. Annual CIP Process
2. Project Validation and Evaluation
3. Funding Filters for Prioritization
  - A. Funding Categories
4. Water Supply Capital Projects
  - A. Projects At-A-Glance
5. Next Steps/Questions/Discussion





# Annual CIP Process Overview

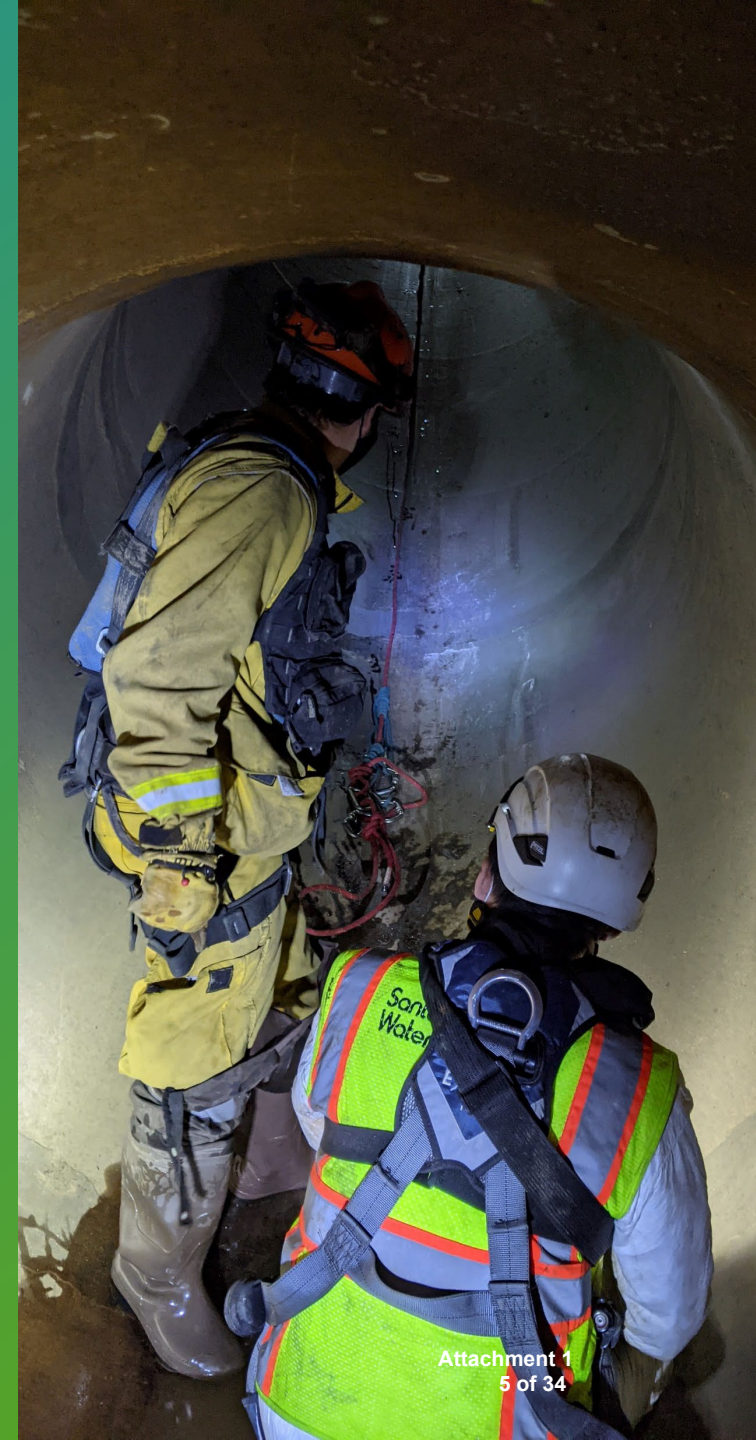


# Drivers for New Capital Projects



# Funding Filters for Prioritization

1. Repair/Replace Existing Infrastructure Projects
2. Public Health and Safety Projects
3. Shovel Ready (Permits/Land Rights Secured) Projects
4. Multi-Benefit Projects
  - A. Environmental Justice Benefit Projects
5. Partially External-Funded (Grants/Partnerships) Projects





# CIP Performance Audit

## Recommendation (summarized):

1. Enhance Funding Filters  
Tool to:
  - A. Improve transparency
  - B. Ensure objectivity
  - C. Provide clarity

## Solution:

1. Apply points to Funding Filters
2. Add adjustment factor for Business Risk Exposure (BRE)
  - A. BRE established by Asset Management Program
  - B. Used to further prioritize repair/replacement of existing infrastructure projects
3. Identify Project Categories
  - A. Tool to aid Board in decision making when faced with funding constraints

# Funding Filters Point Application

- |   |                 |
|---|-----------------|
| 1. Repair/Replace Existing Infrastructure Projects          | <b>5 points</b> |
| 2. Public Health and Safety Projects                        | <b>4 points</b> |
| 3. Shovel Ready (Permits/Land Rights Secured) Projects      | <b>3 points</b> |
| 4. Multi-Benefit Projects                                   | <b>2 points</b> |
| A. Environmental Justice Benefit Projects                   | <b>½ point</b>  |
| 5. Partially External-Funded (Grants/Partnerships) Projects | <b>1 point</b>  |





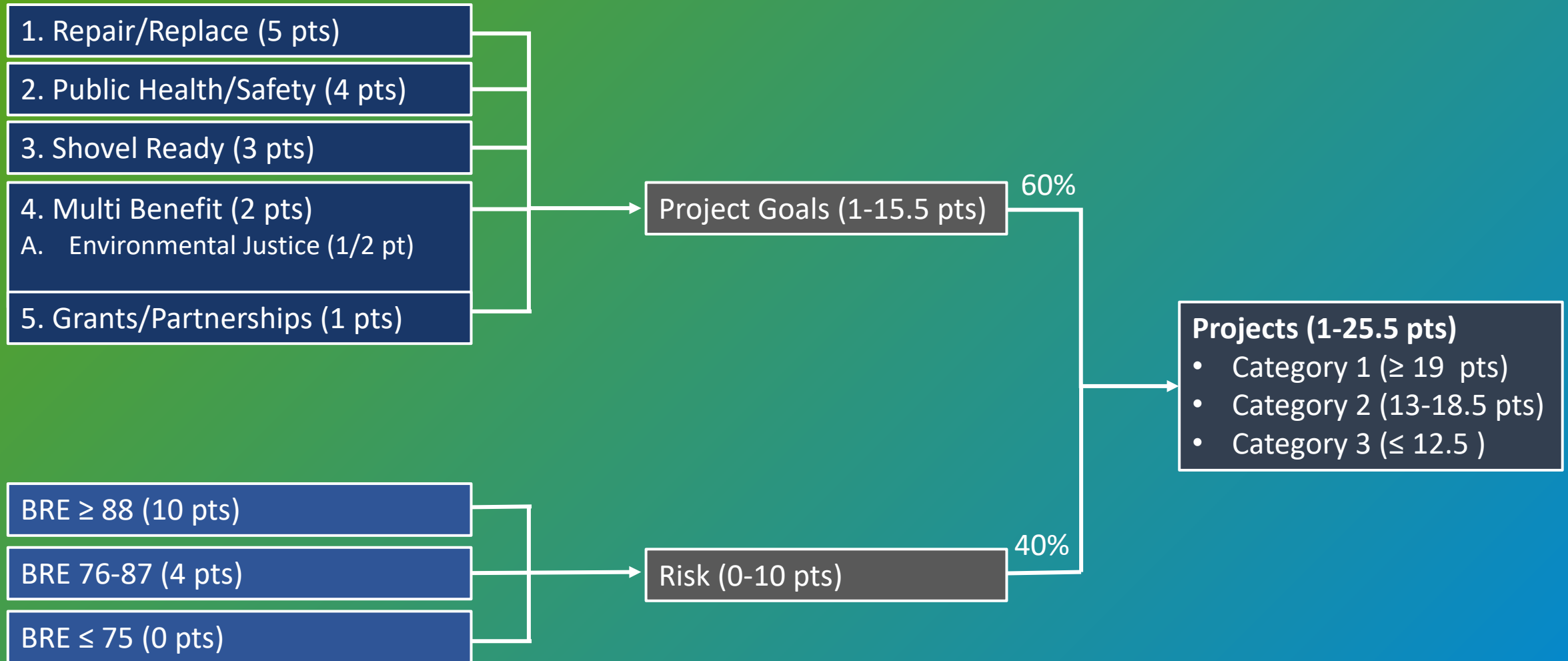
# Business Risk Exposure (BRE) Adjustment Factor:

- 1. BRE ≥ 88 = Add 10 points
- 2. BRE 76-87 = Add 4 points
- 3. BRE ≤ 75 = Add 0 points

Business Impact Evaluation <i>(each criteria scored in detail on a 0-to-5 scale)</i>		Condition Assessment <i>(scored on a 1-to-5 scale)</i>	
Social	Service Delivery	1 = New or Recently Rehabilitated	
	Community Impacts	2 = Good Condition, Only Minor Defects	
	Workplace Safety	3 = Defects Requiring Monitoring, But Fully Functional	
Environmental	Environmental Impacts	4 = Requires Corrective Action, Functionality Threatened	
Economic	Financial Impacts	5 = Failed, Unable to Satisfy LOS, Requires Immediate Action	
	Impact to Reputation		
Consequence of Failure (0 - 30)		x	Probability of Failure (1 - 5) = BRE (0 - 150)



# CIP Project Funding Categories





# CIP Project Funding Categories

## Category 1: $\geq 19$ points

- A. Repair/replace existing infrastructure
- B. Risk of failure score is  $\geq 88$
- C. Required for public health and safety
- D. Projects under construction or mandated (required by law, regulation, federal order, lawsuit, etc...) are automatically included in Category 1.**





# CIP Project Funding Categories

## Category 2: 13-18.5 points

- A. Repair/replace existing infrastructure
- B. Risk of failure score is between **76-87**
- C. Required for public health and safety.



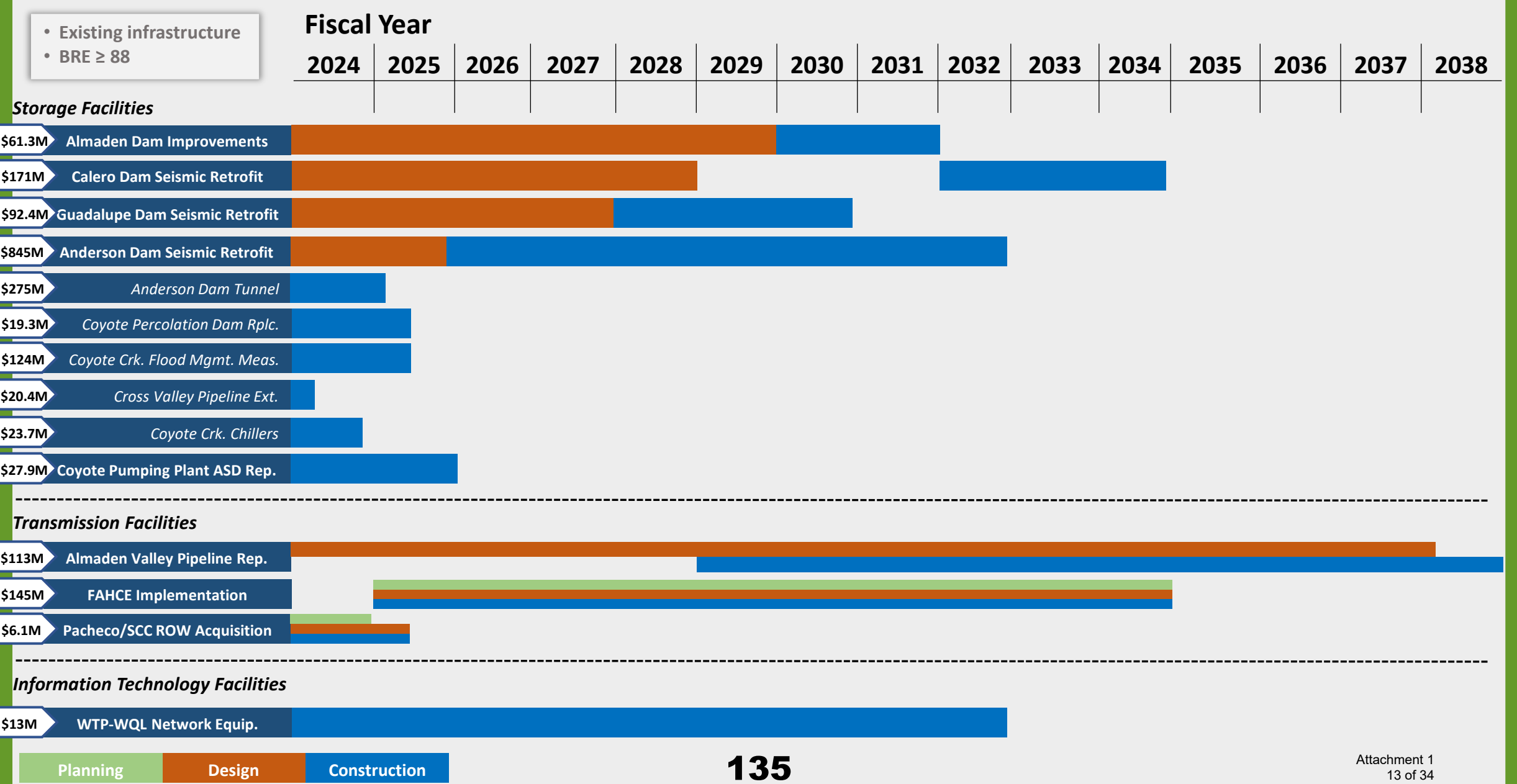
# CIP Project Funding Categories

## Category 3: $\leq 12.5$ points

- A. Projects that have a lower risk of failure,  $\leq 75$
- B. New infrastructure projects identified/prioritized in the Water Supply Master Plan and One Water Plan**
- C. Small capital improvement projects and placeholder projects are automatically included in Category 3.**
  - 1) Placeholder projects are projects that meet Valley Water's mission and are anticipated to be needed, but may not yet have defined scopes, schedules, or funding sources.**

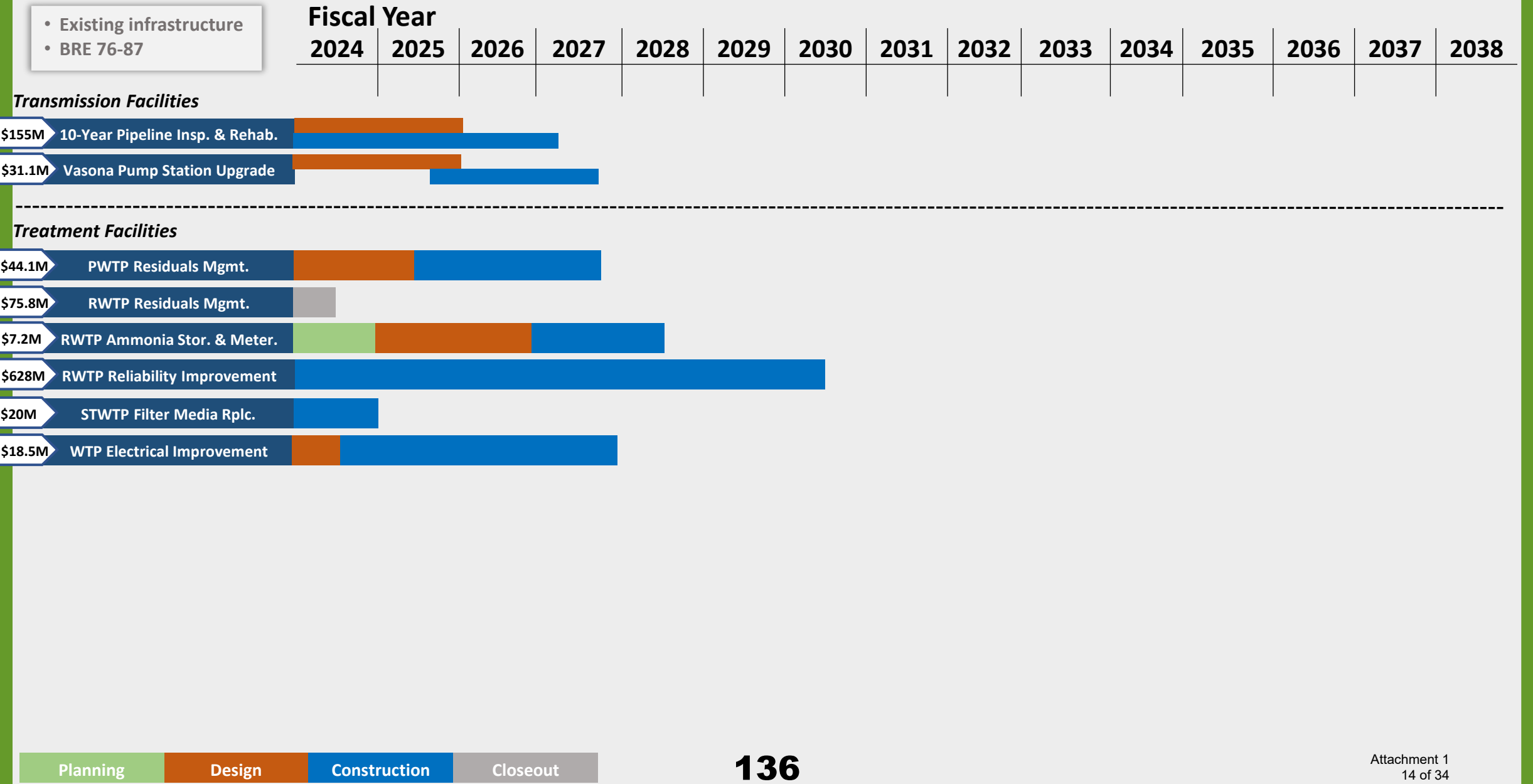


# Category 1 Projects





# Category 2 Projects



# Category 3 Projects

- Existing infrastructure w/  
BRE ≤ 75
- NEW Infrastructure

## Fiscal Year

2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
------	------	------	------	------	------	------	------	------	------	------	------	------	------	------

### Storage Facilities



### Transmission Facilities



### Treatment Facilities



### Recycled Water Facilities



Planning

Design

Construction



WSMP Potential Scenario Project

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# Category 3 Projects Continued

- Small Capital Imp. Proj.
- Placeholder Proj.

## Fiscal Year

2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038

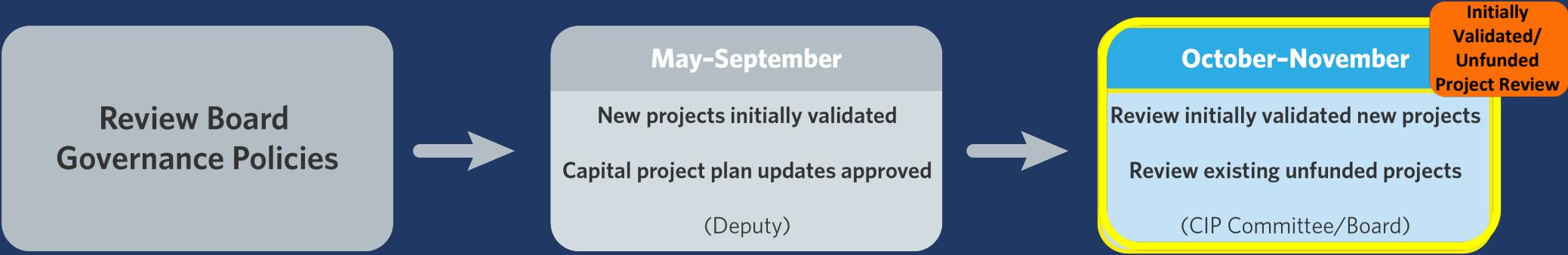
### Small Capital Improvement Projects

\$81.1M	San Felipe Reaches 1-3
\$15.5M	Raw Water
\$1.36M	Treated Water Transmission
\$46.6M	Water Treatment

### Placeholder Projects

\$66.7M	WS Habitat Enhancements
---------	-------------------------

# Next Steps in CIP Process



## CIP Five-Year Plan development and review with CIP Committee and Board



Points where validation and evaluation occur and when CIP Committee and Board may provide feedback.

Key process steps and decision points for the Board.

## CIP Five-Year Plan public review and Board approval





# QUESTIONS



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# Valley Water

Clean Water • Healthy Environment • Flood Protection

# BACK-UP SLIDES



# Water Supply Projects At-A-Glance

## WITH KEY PROJECT OVERVIEWS BY CATEGORY

### Category 1 Project Plan Updates

- Anderson Dam Seismic Retrofit Project
- Coyote Pumping Plant ASD

### Category 2 Project Plan Updates

- Rinconada Water Treatment Plant Reliability Improvement Project

### Category 3 Project Plan Updates

- Purified Water Project







# Anderson Dam Seismic Retrofit

Presented by  
Ryan McCarter, Acting Deputy Operating Officer of Dam Safety & Capital Delivery

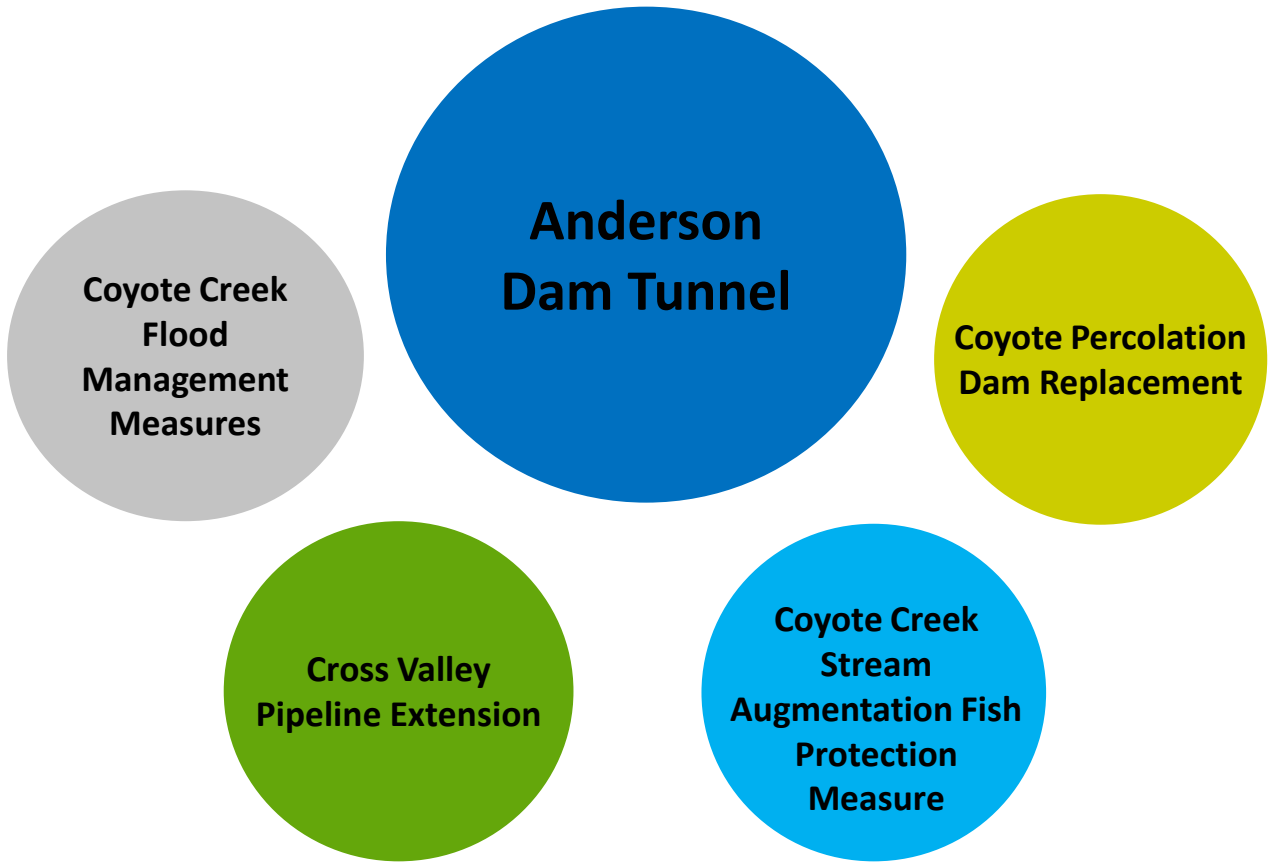
**144**



Attachment 1  
22 of 34



# Anderson Dam Federal Energy Regulatory Commission Order Compliance Projects (FOCP)



## ADSRP

- Seismic retrofit of dam embankment
- Construction of new higher capacity outlet tunnel and outlet works
- Replacement of concrete spillway and raising wall height 9-feet to safely discharge large storm flows
- Increase dam crest height 7-feet

# Cost Increase by Project

24

	Increase (inflated)
<b>Anderson Dam Seismic Retrofit Project (ADSRP)</b>	
Increase to project cost due to inflation increase.	\$52.201M
<b>Anderson Dam Tunnel Project (ADTP)</b>	
Increase to project cost comprised of right-of-way, construction, and close-out costs. Increase to construction cost primarily due to consultant amendments and construction contract costs not included in current plan.	\$37.835M
<b>Coyote Creek Flood Management Measures Project (CCFMMP)</b>	
Increase to project cost comprised primarily of right-of-way (including encampment abatement) and construction costs. Construction increase a result of several factors including inadequate planning cost estimates, COVID related work conditions, supply chain issues, and tight schedule.	\$86.982M
<b>Coyote Creek Stream Augmentation Fish Project Measure – Chillers Plant Project (Chillers)</b>	
Increase to project cost primarily in construction phase, and a result of result of bids exceeding Engineer's Estimate when project initially advertised for construction.	\$2.987M
<b>Coyote Percolation Dam Replacement Project (CPDRP)</b>	
Increase to project cost due to higher than anticipated labor costs for in-house design and construction management staff.	\$2.808M
<b>Cross Valley Pipeline Extension Project (CVPEP)</b>	
Increase to project cost due to right-of-way, design costs related to delay of procurement of long lead items, and costs for construction management services.	\$318K
<b>Total</b>	<b>\$183.131M</b>



# Coyote Pumping Plant Adjustable Speed Drives Replacement Project

## Design-Build Agreement and Project Update

Presented by  
Emmanuel Aryee, Deputy Operating Officer of Water Utility Capital Division



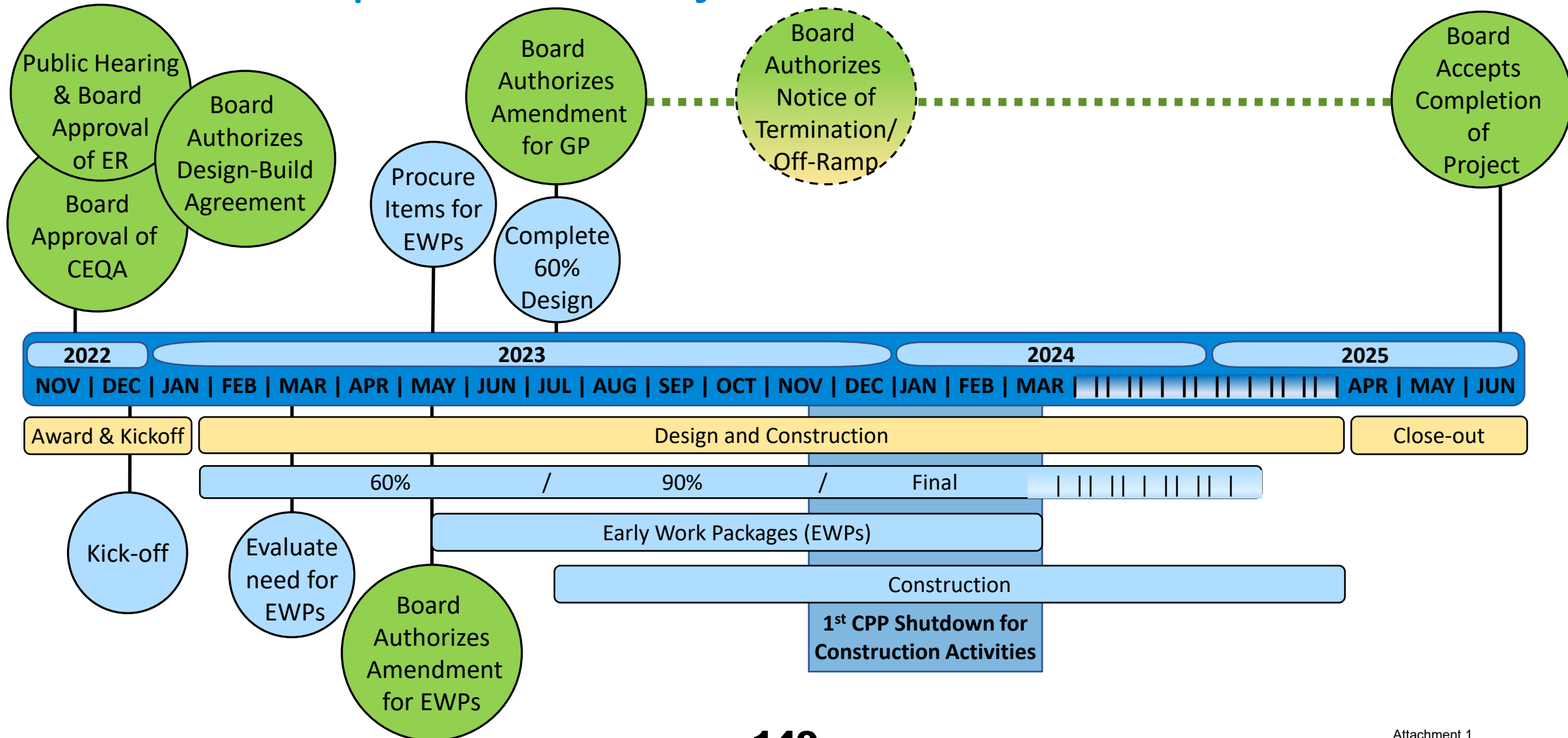


# Project Overview

- Replacement of Major Equipment at the Coyote Pumping Plant
- ~90% of the work is electrical
- No change to system capacity
- All work occurs within the existing building or fenced in switchyard



# CPP ASDs Replacement Project Timeline







# RWTP Reliability Improvement Project

Presented by  
Emmanuel Aryee, Deputy Operating Officer of Water Utility Capital

**150**



## **Original Project comprised of Phase 1-6**

### **Objectives**

- Increase plant reliability to meet peak summer demands, update technology and infrastructure, and implement process improvements

### **Construction contract awarded on May 26, 2015**

- Delays in construction led to bifurcation of the project into two packages (Board Approved Construction Contract Amendment March 10, 2020 – Package 1 (Phases 1-2)

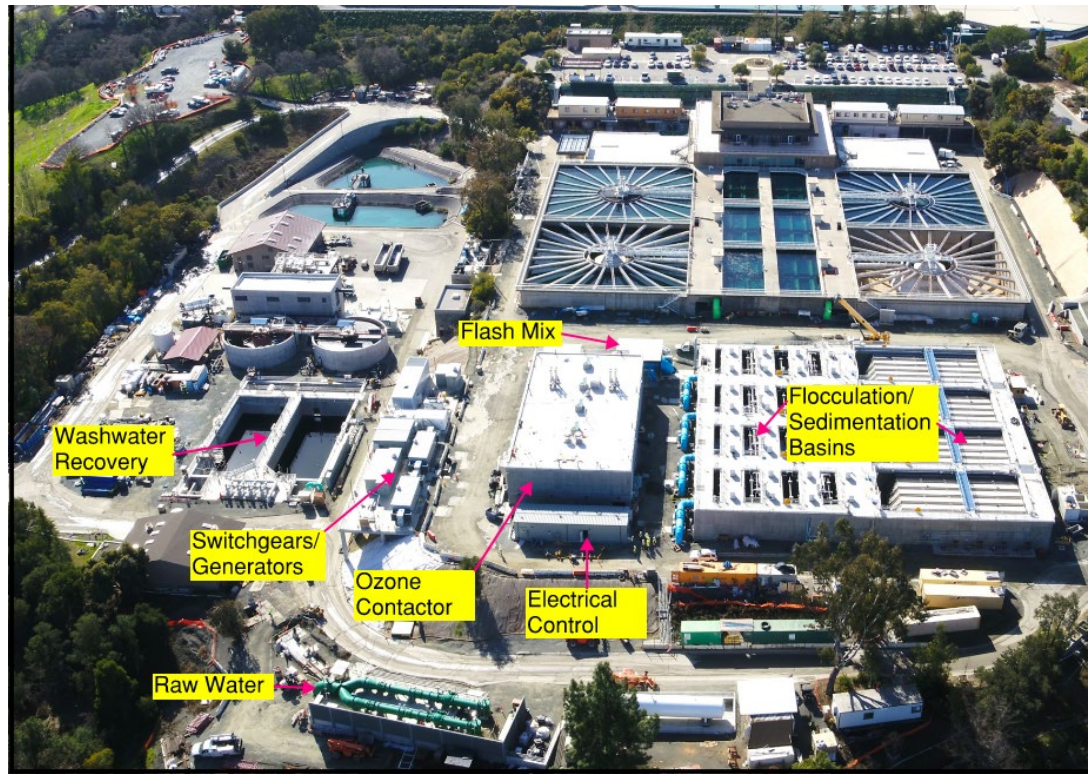
### **Package 1: (Phases 1 – 2) Completed January 12, 2021**

- Raw Water, Ozone Contactor Basins, Flash Mix Facility, Flocculation/Sedimentation Basins, Washwater Recovery Facilities, Electrical Control Building, Underground Piping, Guard Houses

### **Package 2: (Phases 3 – 6 Future)**

- Liquid Oxygen Building, Ozone Generation Building, Filters, Chemical Facilities, Demolition of Existing Clarifiers and Filters, Chlorine Contact Basins

# Phases 1 and 2 (Completed)



# Phases 3 thru 6 (Future)





- Total Project Cost increased from \$461.7M (FY 2023-27 CIP), by \$166.1M to \$627.8M (inflated)
- Factors include Design and Operational Changes, Shutdowns from Active Plant Operations, Inflation, Materials, Labor, Soft Costs (insurance, bonding, contractor overhead)
- Competitive bidding climate, multiple large water/wastewater projects underway in Bay Area



# Purified Water Project

Presented by  
Kirsten Struve, Assistant Operating Officer of Water Supply

**154**

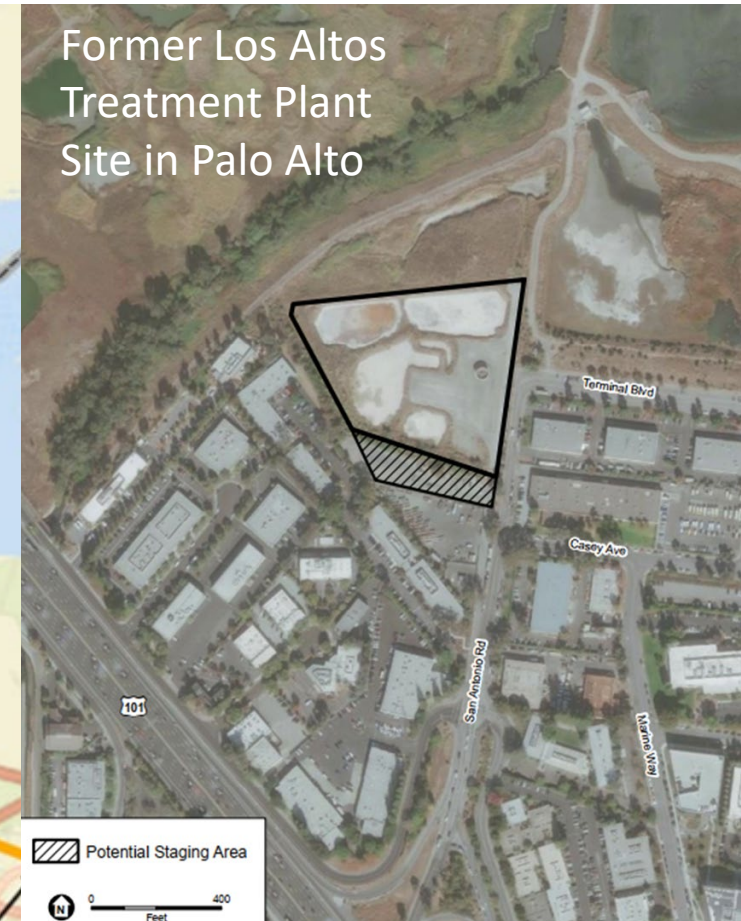


# Purified Water Project

**TOTAL PROJECT COST INCREASED BY \$465.778M (INFLATED)**

## Primary contributing factors:

- **Scope:** Additional project components required for the design and construction and addressing regulatory feedback.
- **Schedule:** Design starting in 2024 (1.5 yrs.) with overlapping Construction in 2025 through mid-2028 (3.5 yrs.)
- **Cost:** Maximize purified water production to 12 MGD, storage tank material, market volatility, updated contingency costs, BABA requirements, increased material costs, increased design and engineering services, CM costs, and addition of independent engineer for P3 entity.



# Purified Water Project

## SCOPE UPDATES

Description of Capital Costs (inflated)	Mark Up %	Cost (\$M)
AWPF, incl. Pump Stations Construction Cost <sup>1</sup>		\$ 404.162
Pipelines Construction Cost <sup>2</sup>		\$ 404.961
Total Construction Cost (Sep 2022 Dollars)		\$ 809.123
Owner's Reserve for Change Orders	15%	\$ 121.000
Design Cost	8%	\$ 65.000
Engineering Services During Construction Cost	5%	\$ 40.000
Construction Management	10%	\$ 81.000
Independent Engineer (Allowance)		\$ 10.000
Valley Water Staff / Consultant Costs (includes prior years \$27.7M)		\$ 92.206
Total Capital Cost Estimate		\$ 1,218.329



# Santa Clara Valley Water District

**File No.:** 23-0884

**Agenda Date:** 9/18/2023

**Item No.:** 4.5.

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## **COMMITTEE AGENDA MEMORANDUM** **Capital Improvement Program Committee**

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

### **SUBJECT:**

Receive Information on Change Orders to Anderson Dam Tunnel Project Construction Contract.

### **RECOMMENDATION:**

Receive Information on Change Orders to Anderson Dam Tunnel Project Construction Contract.

### **SUMMARY:**

During the May 17, 2021, Capital Improvement Program (CIP) Committee meeting, staff provided an update on the Anderson Dam Tunnel Project (ADTP) No. 91864005. The Committee requested staff provide monthly change order status updates after construction of the ADTP commences on July 7, 2021.

### **Project Background**

Santa Clara Valley Water District (Valley Water) is undertaking the Anderson Dam Federal Energy Regulatory Commission Order Compliance Project (FOCP) as a result of the February 20, 2020, directive from the Federal Energy Regulatory Commission (FERC) to implement interim risk reduction measures at Anderson Dam. One of those measures is the ADTP.

On April 27, 2021, Valley Water's Board of Directors awarded the construction contract for the ADTP to the top ranked best value proposer, Flatiron West, Inc. (Flatiron), in the sum of \$161,140,321 and approved a contingency amount of \$40,000,000 (25% of the contract price). The Board directed staff to discuss delegating authority for contingency expenditures with the CIP Committee.

By unanimous roll call vote at its May 17, 2021, meeting, the Committee approved recommending to the full Board that it consider delegating authority to staff to approve change orders for the ADTP at the amounts stated below and that the CIP Committee receive regular monthly reports with information regarding approved change orders, pending change orders, and the cumulative amounts. Valley Water's Board of Directors accepted the CIP Committee recommendations at its regular meeting on May 25, 2021.

### ***Delegated Approval Authority***

Unit Manager: Up to \$100,000  
Assistant Operating Officer: Up to \$250,000  
Deputy Operating Officer: Up to \$500,000  
Assistant Chief Executive Officer: Up to \$2.5 million  
Chief Executive Officer: Up to \$5 million  
Board of Directors: \$5 million and above

### ***Construction Contract Change Orders Status***

There is one new Contract Change Order (CCO #24) to present to the CIP Committee. The net value of the Contract Change Order is \$790,000.00. Also included for reference are two attachments providing information on construction contract change orders (Attachment 1) and construction contract financials (Attachment 2).

### **Contract Change Order #24**

- 1. North Channel Tree Removal.** Due to the changes made in Contract Design Clarification (CDC) 007.3 North Channel improvement work, 121 additional trees have been identified in the vicinity of the North Channel for removal and 13 additional trees that need to be trimmed to complete the north channel improvements work. This portion of the change order is estimated to be valued at \$320,000.00.
- 2. Allowance Increase for Additional Environmental Compliance for Water Quality Monitoring and Soil Testing.** Valley Water issued CDC 005 in September 2021 which included environmental compliance permits obtained by Valley Water. The permits included additional requirements for water quality monitoring and soil testing. CCO #7 was previously executed with an established initial allowance, which is nearly exhausted. This item includes cost for approximately an additional 15 months of work to continue the necessary water quality monitoring and soil testing. This portion of the change order will provide an additional allowance of \$350,000.00.
- 3. Access Hatch for High Level Outlet Works (HLOW) Shaft.** Valley Water issued CDC 017 which included a new, 3-foot diameter and 20-foot-long steel pipe accessway into the HLOW Shaft steel pipe to facilitate inspections by Valley Water staff. The accessway features a secure T-bolt closure mechanism located at the top of the accessway. This portion of the change order is estimated to be valued at \$120,000.00.



**ENVIRONMENTAL JUSTICE IMPACT:**

There are no Environmental Justice impacts associated with this item.

**ATTACHMENTS:**

Attachment A: Government Code §84308

Attachment 1: Construction Contract Change Orders Status

Attachment 2: Construction Contract Financial Status

**UNCLASSIFIED MANAGER:**

Ryan McCarter, 408-630-2983

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Attachment A – Gov. Code § 84308

Receive Information on Change Orders to Anderson Dam Tunnel Project Construction Contract.

List of Parties and Their Agents/Representatives Known to Staff

<b><u>Organization Name</u></b>	<b><u>Name</u></b>	<b><u>Role</u></b>	<b><u>Location</u></b>
Flatiron West, Inc.	Shawn Golden	Vice President	2100 Goodyear Rd. Benicia, CA 94510

List of Participants and Their Agents/Representatives Known to Staff

<b><u>Organization Name</u></b>	<b><u>Name</u></b>	<b><u>Role</u></b>	<b><u>Location</u></b>

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**Anderson Dam Tunnel Project  
Construction Contract Change (CO) Order Status**

CCO #	CIP Committee Date	Approval Date	Description	Amount	Contingency Amount	Approval Level	Status
		<b>4/27/2021</b>	<b>Original Contract</b>	<b>\$161,140,321.00</b>	<b>\$40,000,000.00</b>	<b>Board</b>	
1	1/18/2022	12/16/2021	Additional Tree Removal, Protection and Relocation	\$460,250.41	\$39,539,749.59	DOO	Approved
2	2/14/2022	4/26/2022	Outlet Works Vertical Shaft Re-sizing	\$3,783,119.15	\$35,756,630.44	CEO	Approved
3	5/16/2022	5/17/2022	Water Quality Monitoring Equipment, Miscellaneous demolition, TCEAP VHF/UHF Radios	\$131,603.28	\$35,625,027.16	AOO	Approved
4	6/13/2022	6/30/2022	Tunnel and Miscellaneous Items from CDC-001/001.1, Remove Taber Drilling from Scope	\$386,801.98	\$35,238,225.18	DOO	Approved
5	6/13/2022	6/30/2022	Upsizing Soil Nail Rows D&E from #18 to #20	\$228,562.00	\$35,009,663.18	DOO	Approved
6	7/18/2022	8/6/2022	Increased Quantity of Diversion Portal Excavation, Assistance with Geological Investigations, Internet access to Trailer # 2, and Change of Infill material for High Level Outlet Works (HLOW) Shaft	\$63,063.32	\$34,946,599.86	UM	Approved
7	9/26/2022	10/31/2022	Disposal Area Parking Lot Remediation, DOS Foundation Excavation - Revised Soil Nail Wall, and Additional Environmental Compliance for Water Quality Monitoring and Soil Testing	\$1,526,724.84	\$33,419,875.02	ACEO	Approved
8	10/18/2022	10/26/2022	Disposal of Regulated and Organic Material	\$80,000.00	\$33,339,875.02	UM	Approved
9	11/14/2022	11/18/2022	3-D Modeling of HLOW Shaft	\$101,101.00	\$33,238,774.02	AOO	Approved
10	12/12/2022	12/19/2022	Monitoring of Additional Piezometer, Supplementary Support for the Transition Zone, DOS Portal Conditions, Partnering	\$1,971,946.48	\$31,266,827.54	ACEO	Approved
11	2/13/2023	12/19/2022	Time Related Overhead Time Impact Analysis 002	\$2,515,330.18	\$28,751,497.36	CEO	Approved
12	2/13/2023	1/19/2023	Increased Quantity of Diversion Tunnel Excavation Class 5	\$1,800,000.00	\$26,951,497.36	ACEO	Approved
13	2/13/2023	2/24/2023	Diversion Outlet Structure (DOS) Energy Dissipation Chamber Grated Access Opening	\$26,000.00	\$26,925,497.36	UM	Approved
14	3/20/2023	4/03/2023	Increased Quantity for 18.5 Foot Diameter Tunnel Excavation Class 5, Increased Quantity for Bid Item No. 2h, 2i, 2j, 2k. Decreased Quantity for Bid Item No. 5a and 5b.	\$156,000.00	\$26,769,497.36	AOO	Approved
15	3/20/2023	4/18/2023	Diversion Outlet Structure CLSM Saturday Premium Time, Diversion Portal Soil Nail Wall Condition	\$436,753.65	\$26,332,743.71	DOO	Approved



**Anderson Dam Tunnel Project  
Construction Contract Change (CO) Order Status**

CCO #	CIP Committee Date	Approval Date	Description	Amount	Contingency Amount	Approval Level	Status
16	4/10/2023	5/12/2023	Surge Protection Device for Main Switchgear, CDC 015 Water Quality Instrumentation, Tree Trimming for Pacific Gas & Electric Pole Relocation	\$84,200.00	\$26,248,543.71	AOO	Approved
17	4/10/2023	5/12/2023	Increased Bid Item No. 11A Allowance - Other Wildlife and Fish Species, Specification Section 19.09	\$145,080.00	\$26,103,463.71	AOO	Approved
18	5/15/2023	5/30/2023	Traffic Support for Press Event	\$2,023.00	\$26,101,440.71	AOO	Approved
19	6/30/2023	5/25/2023	Increase Bid Item No. 5x Tunnel Excavation in Transition Zone Class 5	\$994,500.00	\$25,106,940.71	ACEO	Approved
20	6/30/2023	8/10/2023	18" Hydro Return Line Decommissioning, Low Level Outlet Tunnel Steel Sets Enlargement, DPP8 Boring Survey Assistance, Air Vent Pipe Procurement, CDC 007.3 North Channel FWI Scope 2023, CDC 007.3 North Channel DTDS Scope 2023.	\$1,175,413.01	\$23,931,527.70	ACEO	Approved
21	6/30/2023	7/26/2023	Time Related Overhead Time Impact Analysis 003	\$884,042.66	\$23,047,485.04	ACEO	Approved
22	8/21/2023	7/31/2023	Additional Shotcrete in the Transition Zone, Increase in Bid Item No. 5g – Transition Zone Rock Bolts	\$424,016.00	\$22,623,469.04	DOO	Approved
23	8/21/2023	TBD	Anderson Force Main Galvanic Cathodic Protection, Air Vent Pipe Installation	\$653,000.00	\$21,970,469.04	ACEO	Pending
DCO #	CIP Committee Date	Approval Date	Description	Amount	Contingency Amount	Approval Level	Status
1	09/26/22	10/05/22	Milestone 7, 9, and 10 Completion Revisions	\$0.00	\$21,970,469.04	UM	Approved

**New CCO's for CIP Committee**

Pending CCO #	CIP Committee Date	Approval Date	Description	Amount	Contingency Amount	Approval Level	Status
24	9/18/2023	TBD	North Channel Tree Removal, Allowance Increase for Additional Environmental Compliance for Water Quality Monitoring and Soil Testing, Access Hatch for HLOW Shaft.	\$790,000.00	\$21,180,469.04	ACEO	Pending

<b>Total Approved</b>	<b>23</b>	<b>Total</b>	<b>\$17,376,530.96</b>	<b>\$22,623,469.04</b>			
<b>Total Pending</b>	<b>2</b>	<b>Total</b>	<b>\$1,443,000.00</b>	<b>\$21,180,469.04</b>			

Total Number of COs (Approved & Pending)	Total Amount of COs (Approved & Pending)
25	\$18,819,530.96

**Anderson Dam Tunnel Project - Construction Contract Financials**

Bid Item No.	Description	Amount	Balance Remaining	Billing Through August 2023*	
				Percent (%)	Amount
1	MOBILIZATION AND DEMOBILIZATION	\$ 16,150,000.00	\$ 2,666,575.00	83%	\$ 13,483,425.00
2	SITE PREPARATION	\$ 5,713,000.00	\$ 1,175,607.78	79%	\$ 4,537,392.22
3	DIVERSION PORTAL	\$ 6,173,496.00	\$ 261,886.40	96%	\$ 5,911,609.60
4	LAKE-TAP PORTAL	\$ 4,215,000.00	\$ 2,700,000.00	36%	\$ 1,515,000.00
5	TUNNEL EXCAVATION AND LINING	\$ 47,438,325.00	\$ 35,623,625.00	25%	\$ 11,814,700.00
6	SHAFT EXCAVATION AND LINING	\$ 10,100,000.00	\$ 4,336,360.00	57%	\$ 5,763,640.00
7	MICROTUNNEL	\$ 9,982,000.00	\$ 9,052,000.00	9%	\$ 930,000.00
8	DIVERSION OUTLET STRUCTURE	\$ 48,678,550.00	\$ 36,681,227.93	25%	\$ 11,997,322.07
9	COYOTE CREEK MODIFICATIONS	\$ 6,421,550.00	\$ 4,274,577.00	33%	\$ 2,146,973.00
10	SUPPLEMENTAL WORK ITEMS	\$ 5,668,400.00	\$ 5,668,400.00	0%	\$ -
11	ALLOWANCES	\$ 600,000.00	\$ 300,612.69	50%	\$ 299,387.31
		<b>Total Original Contract Amount</b>	<b>Total Balance Remaining</b>	<b>Percent (%) Billed</b>	<b>Total Billed To Original Contract Amount</b>
		<b>\$ 161,140,321.00</b>	<b>\$ 102,740,871.80</b>	<b>36%</b>	<b>\$ 58,399,449.20</b>

CCOs	Description	Amount	Balance Remaining	Billing Through August 2023*	
				Percent (%)	Amount
CCO 1-22	CONTRACT CHANGE ORDERS (CCO)	\$ 17,376,530.97	\$ 3,697,077.56	79%	\$ 13,679,453.41
		<b>Total Contract Amount Including CCOs</b>	<b>Total Balance Remaining Including CCOs</b>	<b>Total Percent (%) Billed Including CCOs</b>	<b>Total Billed Including CCOs</b>
		<b>\$ 178,516,851.97</b>	<b>\$ 106,437,949.36</b>	<b>40%</b>	<b>\$ 72,078,902.61</b>

\*Includes estimated August 2023 billing, currently under review.

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# Santa Clara Valley Water District

File No.: 23-0739

Agenda Date: 9/18/2023

Item No.: 4.6.

## COMMITTEE AGENDA MEMORANDUM Capital Improvement Program Committee

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

### SUBJECT:

Receive Information on Upcoming Consultant Agreement Amendments for Capital Projects.

### RECOMMENDATION:

Receive information on upcoming consultant agreement amendments for capital projects.

### SUMMARY:

At the March 28, 2017 meeting, the Board of Directors approved revising the Capital Improvement Program (CIP) Committee's purpose to include monitoring implementation progress of key projects in the CIP. At their June 29, 2020 meeting, the CIP Committee requested this topic be added as a standing item on all future CIP Committee meeting agendas, and that staff provide updates on consultant agreement amendments for capital projects which may include modifications to scope, schedule, and/or budget.

There are seven consultant agreement amendments for capital projects presented here for the Committee's information:

**1. Amendment No. 1 to Agreement A4306A with GEI Consultants, Inc. for On-Call Planning and Design Service for Water Resources and Stewardship Support Services (Time Extension) (J. Bourgeois, B. Yerrapotu)**

Santa Clara Valley Water District's (Valley Water) Purchasing and Consultant Contracts Services Unit Supervising Program Administrator executed Amendment No. 1 to Agreement A4306A with GEI Consultants, Inc. (Consultant) for On-Call Planning and Design Services for Water Resources and Stewardship Support Services, on August 11, 2023, to extend the term of the Agreement by one year from November 11, 2023, through November 11, 2024.

Pursuant to Agreement A4306A, Consultant performs work including development of long-range plans; conduct planning studies; provide services to complete the planning phase of water supply, flood protection or restoration projects; and provide services to build community support for plans and projects.

Extending the expiration date of Agreement A4306A pursuant to Amendment No. 1, will allow the Consultant to continue to provide much needed planning and design services in support of Valley Water's capital projects.

Government Code § 84308 Applies: Yes ☐ No ☒

**2. Amendment No. 1 to Agreement A4307A with Environmental Science Associates for On-Call Planning and Design Service for Water Resources and Stewardship Support Services (Time Extension) (J. Bourgeois, B. Yerrapotu)**

Valley Water's Purchasing and Consultant Contracts Services Unit Supervising Program Administrator executed Amendment No. 1 to Agreement A4307A with Environmental Science Associates (Consultant) for On-Call Planning and Design Services for Water Resources and Stewardship Support Services, on August 11, 2023, to extend the term of the Agreement by one year from November 11, 2023, through November 11, 2024.

Pursuant to Agreement A4307A, Consultant performs work including development of long-range plans; conducting planning studies; providing services to complete the planning phase of water supply, flood protection or restoration projects; and providing services to build community support for plans and projects.

Extending the expiration date of Agreement A4307A pursuant to Amendment No. 1, will allow the Consultant to continue to provide much needed planning and design services in support of Valley Water's capital projects.

Government Code § 84308 Applies: Yes ☐ No ☒

**3. Amendment No. 1 to Agreement A4556A with Systemates, Inc. for Software-As-A-Service and Implementation Services for the Capital Project Management Information System Project No. 00074040 (Time Extension) (L. Penilla)**

Staff will recommend Purchasing and Consultant Contracts Services Unit Supervising Program Administrator approve Amendment No. 1 to Agreement A4556A with Systemates, Inc. (Consultant) for Software-As-A-Service and Implementation Services Agreement for the Capital Project Management Information System (PMIS) Project No. 00074040, to extend the term of the Agreement by one year from October 26, 2023, through October 26, 2024.

Pursuant to Agreement A4556A, the Consultant is performing work, including implementing and integrating Projectmates PMIS with Valley Water information technology systems, conducting staff, contractor, and consultant training, and providing extended post-implementation technical support of the Projectmates system.

Extending the expiration date of Agreement A4556A pursuant to Amendment No. 1 will allow the Consultant to continue to provide much needed post-implementation support for the Projectmates PMIS.

Government Code § 84308 Applies: Yes ☐ No ☒

**4. Amendment No. 2 to Agreement A4344A with PMA Consultants LLC and Amendment No. 3 to Agreement A4343A with Consor PMCM, Inc. for On-Call Construction Scheduling Services (Time Extension) (E. Aryee)**

Staff will recommend Purchasing and Consultant Contracts Services Unit Supervising Program Administrator approval of Amendment No. 2 to Agreement A4344A with PMA Consultants LLC and Amendment No. 3 to Agreement A4343A with Consor PMCM Inc. (Consultants) for On-Call Construction Scheduling Services to extend the expiration date of both Agreements by seven months, from December 30, 2023, to July 31, 2024.

Pursuant to Agreements A4343A and A4344A, Consultants perform independent review and assessment of project schedules such as baseline and progress schedules, recovery schedules, look-ahead schedules, and Contractor submittals; assist Valley Water in analyzing causation and responsibility for construction schedule and performance delays; and provide an independent review and assessment of claims and disputes regarding construction.

Extending the expiration dates of Agreement A4343A and Agreement A4344A, pursuant to Amendment No. 3 and Amendment No. 2, respectively, will allow the Consultants to be available to provide much needed on-call construction scheduling and claims analysis services for Valley Water capital projects while staff issues a Request for Proposals for new construction scheduling and claims analysis services.

Government Code § 84308 Applies: Yes ☐ No ☒

**5. Amendment No. 4 to Agreement A3778A with URS Corporation for Dam Seismic Safety Evaluations Project No. 91084019 (Time Extension) (R. McCarter)**

Staff will recommend Purchasing and Consultant Contracts Services Unit Supervising Program Administrator approve Amendment No. 4 to Agreement A3778A with URS Corporation. (Consultant) for Dam Seismic Safety Evaluations Project No. 91084019, to extend the term of the Agreement by two years from December 31, 2023, through December 31, 2025, and incorporate administrative changes.

Pursuant to Agreement A3778A, Consultant is performing dam safety evaluations for Coyote, Chesbro, and Uvas dams to identify potential failure modes and perform seismic stability evaluations. The purpose of this effort is to evaluate the seismic stability of each dam, assess the condition of each dam's outlet works; evaluate and prioritize potential dam failure modes; install instruments for long-term monitoring of the dams; update probable maximum flood studies for all three dams; and perform comprehensive spillway assessments. Based on preliminary findings from the studies, Consultant will complete a Problem Definition Report and provide a Conceptual Alternatives Evaluation.

Extending the expiration date of Agreement A3778A pursuant to Amendment No. 4 will provide



the necessary time extension to allow the Consultant to continue to provide comprehensive dam seismic safety evaluations at Coyote, Chesbro, and Uvas dams in support of the Dam Seismic Stability Evaluation Project.

Government Code § 84308 Applies: Yes ☐ No ☒

**6. Amendment No. 2 to Agreement A4224A with R.E.Y. Engineers, Inc. for On-Call Land Surveying and Mapping Services (Time Extension and NTE increase) (B. Yerrapotu)**

Staff will recommend Board approval of Amendment No. 2 to Agreement A4224A with R.E.Y. Engineers, Inc. for On-Call Land Surveying and Mapping Services to extend the expiration date of the Agreement by six months, from January 8, 2024, to June 30, 2024 and increase the not-to-exceed (NTE) amount by \$500,000 for a new NTE of \$2,000,000.

Pursuant to Agreement A4224A, the Consultant is performing land surveying and mapping services and augmenting the in-house staff, as needed for Watersheds and Water Utility capital projects. To date, Valley Water has issued a total of thirty-three task orders under the on-call land surveying and mapping services agreement for various capital projects in planning, design, and construction phases and 97% of the approved not to exceed fee of \$1,500,000 is expended. The expended not-to-exceed fee is higher than expected due to the higher than anticipated demand for land surveying and mapping services from projects in Valley Water's Capital Improvement Program.

Amendment No. 2 to Agreement A4224A will allow the Consultant to continue providing necessary surveying and mapping services for on-going capital projects, thereby keeping them on schedule.

Government Code § 84308 Applies: Yes ☒ No ☐

NOTE: As of August 2023, Valley Water's Deputy Administrative Officer delegated authority for approving no-cost consultant agreement amendments to Valley Water's Purchasing and Consultant Contracts Services Unit Supervising Program Administrator. Transactions 1 through 5 in this Committee Agenda Memorandum have been approved or recommended for approval by the Supervising Program Administrator.

**ENVIRONMENTAL JUSTICE IMPACT:**

There are no Environmental Justice impacts associated with this item.

**ATTACHMENTS:**

Attachment A: Gov. Code § 84308

**UNCLASSIFIED MANAGER:**

John Bourgeois, 408-630-2990

Bhavani Yerrapotu, 408-630-2735

Luz Penilla, 408-630-2228

Emmanuel Aryee, 408-630-3074

Ryan McCarter, 408-630-2983

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Attachment A: Gov. Code § 84308

Receive Information on Upcoming Consultant Agreement Amendments for Capital Projects.

List of Parties and Their Agents/Representatives Known to Staff:

<b><u>Organization Name</u></b>	<b><u>Name</u></b>	<b><u>Role</u></b>	<b><u>Location</u></b>
R.E.Y. Engineers, Inc.	James Brainard, PLS	Consultant Principal Officer	905 Sutter Street, Suite 200 Folsom, CA 95630

List of Participants and Their Agents/Representatives Known to Staff:

<b><u>Organization Name</u></b>	<b><u>Name</u></b>	<b><u>Role</u></b>	<b><u>Location</u></b>
N/A	N/A	N/A	N/A

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# Santa Clara Valley Water District

**File No.:** 23-0888

**Agenda Date:** 9/18/2023

**Item No.:** 4.7.

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## **COMMITTEE AGENDA MEMORANDUM** **Capital Improvement Program Committee**

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

### **SUBJECT:**

Review 2023 Capital Improvement Program Committee Work Plan.

### **RECOMMENDATION:**

Review the 2023 Capital Improvement Program Committee Draft Work Plan and make adjustments, as necessary.

### **SUMMARY:**

Work Plans are created and implemented by all Board Committees to increase Committee efficiency, provide increased public notice of intended Committee discussions, and enable improved follow-up by staff. Work Plans are dynamic documents managed by Committee Chairs and are subject to change. Committee Work Plans also serve to assist to prepare an Annual Committee Accomplishments Reports.

Discussion of topics as stated in the Plan have been described based on information from the following sources:

- Items referred to the Committee by the Board;
- Items requested by the Committee to be brought back by staff;
- Items scheduled for presentation to the full Board of Directors; and
- Items identified by staff.

Regular monthly meetings are scheduled to occur at 11:00 a.m., on the third Monday of each month or at the call of the Committee Chair.

Establishing a work plan and meeting schedule are necessary to provide staff a basis for meeting planning and logistics coordination and agenda item preparation. Attachment 1 is the 2023 CIP committee work plan for review and comments by the CIP committee.



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**ENVIRONMENTAL JUSTICE IMPACT:**

There are no Environmental Justice impacts associated with this item.

**ATTACHMENTS:**

Attachment 1: 2023 CIP Committee Work Plan

**UNCLASSIFIED MANAGER:**

Candice Kwok-Smith, 408-630-3193

# CIP Committee 2023 Work Plan

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>Capital Project Monitoring</b>												
Feasibility/Planning		X		X				X		X		
Design/Permitting		X			X			X			X	
Construction			X			X			X			X
Projects in Mitigation/Plant Establishment						X						
<b>CIP Implementation</b>												
Water Treatment Plant Master Plan Implementation		X										
Pond A4 Resilient Habitat Restoration			X									
Design-Build Projects Update						X						
Construction Contract Contingency and Change Order Management						X						
Guadalupe River – Tasman to 880 Alternatives								X				
Pre- and Post-Award Contract Administration									X			
Headquarters Operations Building Planning										X		
Master Plan/Implementation Projects												
<b>CIP Development</b>												
Final CIP Performance Audit									X			
Water Supply Capital Workshop									X			
CIP Planning Process												
• Annual CIP Process and Integrated Financial Planning Schedule and Review of Initially Validated and Unfunded Projects										X		
• Review Significant Project Plan Updates											X	
Preliminary CIP Review												X
<b>Standing Items</b>												
Anderson Dam Tunnel Project Contingency and Change Order Monitoring		X	X	X	X	X		X	X	X	X	X
Upcoming Consultant Agreement Amendments		X	X	X	X	X		X	X	X	X	X
Workplan		X	X	X	X	X		X	X	X	X	X
Minutes		X	X	X	X	X		X	X	X	X	X
Annual Election of Committee Officer		X										

Canceled

Recess

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