March 7, 2022

MEETING NOTICE

SANTA CLARA VALLEY WATER DISTRICT
CAPITAL IMPROVEMENT PROGRAM COMMITTEE

Members of the Capital Improvement Program Committee:
  Director Nai Hsueh, Chairperson
  Director Linda LeZotte, Vice Chairperson
  Director Tony Estremera, Committee Member

Staff Support of the Capital Improvement Program Committee:
  Rick Callender, Chief Executive Officer
  Melanie Richardson, Asst. Chief Officer – Integrated Water Management
  Leslie Orta, Senior Assistant District Counsel
  Rachael Gibson, Chief of External Affairs
  Tina Yoke, Interim Chief Administrative Officer
  Darin Taylor, Chief Financial Officer
  Aaron Baker, Chief Operating Officer – Water Utility
  Rechelle Blank, Chief Operating Officer – Watersheds
  Emmanuel Aryee, Assistant Officer
  Lisa Bankosh, Assistant Officer
  Sam Bogale, Assistant Officer
  Don Rocha, Deputy Administrative Officer
  Michael Cook, Deputy Administrative Officer
  Christopher Hakes, Deputy Operating Officer
  Bhavani Yerrapotu, Deputy Operating Officer
  John Bourgeois, Deputy Operating Officer
  Jennifer Codianne, Deputy Operating Officer
  Heath McMahon, Deputy Operating Officer
  Vincent Gin, Deputy Operating Officer
  Gregory Williams, Deputy Operating Officer
  Bryant Welch, Labor Relations Officer
  David Montenegro, Principal Construction Contracts Administrator
  Charlene Sun, Treasure & Debt Manager
  Jessica Collins, Business Planning and Analysis Unit Manager
  Conception Gayotin, Purchasing & Contracts Manager
  Linh Hoang, Communications Manager
  Jill Bernhard, Acting System Development & Support Manager

A special meeting of the Santa Clara Valley Water District Capital Improvement Program Committee has been scheduled to occur at **1:00 p.m., on Monday, March 14, 2022.**

Join Zoom Meeting at: [https://valleywater.zoom.us/j/94158013374](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](https://www.valleywater.org/how-we-operate/committees/board-committees).
Santa Clara Valley Water District
Capital Improvement Program Committee Meeting

Teleconference meeting

SPECIAL MEETING
AGENDA

Monday, March 14, 2022
1:00 PM

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.

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

Pursuant to California Government Code section 54953(e), this meeting will be held by teleconference only. No physical location will be available for this meeting; however, members of the public will be able to participate in the meeting as noted below.

In accordance with the requirements of Gov. Code Section 54954.3(a), members of the public wishing to address the Board/Committee at a video conferenced meeting, during public comment or on any item listed on the agenda, should use the “Raise Hand” tool located in the Zoom meeting link listed on the agenda, 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.

Santa Clara Valley Water District (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 Committee meetings to please contact the Clerk of the Board’s office at (408) 630-2711, at least 3 business days before the scheduled meeting to ensure that Valley Water may assist you.

This agenda has been prepared as required by the applicable laws of the State of California, including but not limited to, Government Code Sections 54950 et. seq. and has not been prepared with a view to informing an investment decision in any of Valley Water’s bonds, notes or other obligations. Any projections, plans or other forward-looking statements included in the information in this agenda are subject to a variety of uncertainties that could cause any actual plans or results to differ materially from any such statement. The information herein is not intended to be used by investors or potential investors in considering the purchase or sale of Valley Water’s bonds, notes or other obligations and investors and potential investors should rely only on information filed by Valley Water on the Municipal Securities Rulemaking Board’s Electronic Municipal Market Access System for municipal securities disclosures and Valley Water’s Investor Relations website, maintained on the World Wide Web at https://emma.msrb.org/ and https://www.valleywater.org/how-we-operate/financebudget/investor-relations, respectively.
Under the Brown Act, members of the public are not required to provide identifying information in order to attend public meetings. Through the link below, the Zoom webinar program requests entry of a name and email address, and Valley Water is unable to modify this requirement. Members of the public not wishing to provide such identifying information are encouraged to enter “Anonymous” or some other reference under name and to enter a fictional email address (e.g., attendee@valleywater.org) in lieu of their actual address. Inputting such values will not impact your ability to access the meeting through Zoom.

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

**Meeting ID:** 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 Committee on any item not listed on the agenda should access the "Raise Hand" tool located in Zoom meeting link listed on the agenda. Speakers will be acknowledged by the Committee Chair in order requests are received and granted speaking access to address the Committee. Speakers comments should be limited to three minutes or as set by the Chair. The law does not permit Committee action on, or extended discussion of, any item not on the agenda except under special circumstances. If 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 Committee may take action on any item of business appearing on the posted agenda.

3. **APPROVAL OF MINUTES:**
   3.1. Approval of February 14, 2022 Capital Improvement Program Committee Minutes.
   **Recommendation:** Approve the minutes.
   **Manager:** Candice Kwok-Smith, 408-630-3193
   **Attachments:** Attachment 1: 02/14/22 CIP Committee Minutes
   **Est. Staff Time:** 5 Minutes

4. **ACTION ITEMS:**
4.1. Receive Update on Consultant Support for the Public-Private Partnership (P3) Purified Water Project.  
**Recommendation:** Receive update on consultant support for the Public-Private Partnership (P3) Purified Water Project.  
**Manager:** Vincent Gin, 408-630-2633  
**Est. Staff Time:** 10 Minutes

**Recommendation:** Receive information on upcoming consultant agreement amendments for capital projects.  
**Manager:** Bhavani Yerrapotu, 408-630-2735  
Heath McMahon, 408-630-3126  
Vincent Gin, 408-630-2633  
**Est. Staff Time:** 10 Minutes

**Recommendation:** Receive and discuss information regarding the status of capital projects in the construction phase.  
**Manager:** Bhavani Yerrapotu, 408-630-2735  
Heath McMahon, 408-630-3126  
Christopher Hakes, 408-630-3796  
Mike Cook, 408-630-2424  
**Attachments:**  
Attachment 1: Capital Project Monitoring - Construction  
**Est. Staff Time:** 15 Minutes

4.4. Receive, Review and Discuss information on the Dam Safety Program.  
**Recommendation:** Receive, review and discuss information on the Dam Safety Program.  
**Manager:** Chris Hakes, 408-630-3796  
**Attachments:**  
Attachment 1: Dam Safety Program Description  
Attachment 2: Description and Condition Framework for Dams  
Attachment 3: PowerPoint  
**Est. Staff Time:** 30 Minutes
4.5. 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.  
Manager: Christopher Hakes, 408-630-3796  
Attachments: Attachment 1: Construction Contract Change Orders Status  
Est. Staff Time: 5 minutes

Recommendation: Review the 2022 Capital Improvement Program Committee Work Plan and make adjustments as necessary.  
Manager: Candice Kwok-Smith, 408-630-3193  
Attachments: Attachment 1: 2022 CIP Committee Work Plan  
Est. Staff Time: 5 Minutes

6. 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.

7. ADJOURN:

7.1. Adjourn to Regular Meeting at 11:00 a.m., on April 18, 2022.
COMMITTEE AGENDA MEMORANDUM

Capital Improvement Program Committee

SUBJECT:
Approval of February 14, 2022 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.

ATTACHMENTS:
Attachment 1: 02/14/22 CIP Committee Minutes

UNCLASSIFIED MANAGER:
Candice Kwok-Smith, 408-630-3193
1. CALL TO ORDER:

A special meeting of the Santa Clara Valley Water District (Valley Water) Capital Improvement Program Committee (Committee) was called to order via Zoom video teleconference at 11:00 a.m.

1.1 Roll Call.

Committee members in attendance by Zoom teleconference were District 4 Director Linda LeZotte, District 6 Director Tony Estremera and District 5 Director Nai Hsueh, Chairperson presiding, constituting a quorum of the Committee.

Staff members in attendance by Zoom teleconference were District Counsel Carlos Orellana, Joseph Aranda, Emmanuel Aryee, Aaron Baker, Sarah Berning, Rechelle Blank, Jessica Collins, Meenakshi Ganjoo, Alex Gordon, Chris Hakes, Odilia Leonardo, Jennifer Martin, Heath McMahon, David Montenegro, Carmen Narayanan, Karl Neuman, Alec Nicholas, Leslie Orta, Melanie Richardson, Don Rocha, Kirsten Struve, Tina Yoke, Bryant Welch, and Bhavani Yerrapotu.

District 2 Director J. Varela observed, without participating in the meeting.

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 present who wished to speak.

3. ELECTION OF OFFICERS:

3.1. Election of 2022 Capital Improvement Program Committee Officers.

Recommendation: Nominate and elect the 2022 Capital Improvement Program Committee Chairperson and Vice Chairperson.
It was moved by Director Estremera, seconded by Director LeZotte, and 
umanimously carried, to nominate and elect Director Hsueh as 2022 Chairperson, 
and Director LeZotte as 2022 Vice Chairperson.

4. **APPROVAL OF MINUTES**

4.1. Approval of January 18, 2022 Capital Improvement Program Committee Minutes.

Recommendation: Approve the minutes.

In regard to Director LeZotte’s request for INFOR update, the update will be 
included in the May 2022 CIP meeting, on the subject, “ERP System 
Implementation Overview and Updates.”

The Committee considered the attached minutes of the January 18, 2022, 
Capital Improvement Program Committee meeting. It was moved by Director 
Estremera, seconded by Chairperson LeZotte, and unanimously carried by roll 
call vote to approve the minutes as presented.

5. **ACTION ITEMS**


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

Mr. Christopher Hakes, Deputy Operating Officer, reviewed the information on 
this item per the attached Committee agenda memo and the information 
contained in Attachment 1 were reviewed by staff as follows: Mr. Hakes reviewed 
Items 1, 3, and 4; Ms. Bhavani Yerrapotu, Deputy Operating Officer, reviewed 
Item 2; Mr. Heath McMahon, Deputy Operating Officer reviewed Items 5 through 
17; and Ms. Bhavani Yerrapotu, Deputy Operating Officer, reviewed Items 18 
through 28.

The committee received the information without formal action, and noted the 
following:

- On Line Item 6, Ms. Melanie Richardson, Assistant Chief Executive Officer, 
  shared that the National Marine Fisheries Services (NMFS) would like the 
  biological assessments to go beyond the repair and inspection work and 
  instead encompass long-term pipeline operations and creek fisheries, which 
  would set a precedent. As the pipeline owner and liaison with NMFS, USBR 
  is opposing this because it isn’t just going to affect this project. This is going 
  to affect every similar project that USBR does.

- On Line Item 7, staff clarified that the end phase of the 10-year Snell Pipeline 
  Inspection & Design would be February 2022, and actual construction would 
  begin in 2023.
• On Line Item 17, Water Utility Small Capital Projects, Mr. McMahon, informed the committee that sole source items on the Pacheco Pumping Station Electrical System & Hydraulic Valves upgrades will be sent to the full Board. Ms. Leslie Orta, Senior District Counsel, clarified that there would not be a February 22, 2022 Special Closed Session to discuss the said sole source items and instead the Board would receive live links to technical memorandum outside public domain.

• On Line Item 20, staff added that the Sunnyvale East & West Channels design would be final depending on the changes from permits to be submitted; that Google had obtained permits from VW to construct their portion of the project on the upstream and downstream section; and that VW final design should conform with their channel enhancement work.

5.2. Receive and Discuss Project Update for the Construction of Lower Calera Creek, part of the Lower Berryessa Creek (Phase 2) Flood Protection Project.

Recommendation: Receive and Discuss Project Update for the Construction of Lower Calera Creek, part of the Lower Berryessa Creek (Phase 2) Flood Protection Project.

Mr. Karl Neuman, Capital Engineering Manager, reviewed the information on this item, per the attached Board Agenda Memo, and per the information contained in Attachment 1.

The committee received the information without formal action, and noted that staff would continue negotiations with contractor for a change order on the redesign of the footing of the wall, and determine if necessary to request from the Board a 5% additional contingency fund; that the structural engineer and staff had coordination issue when the plan was approved; and that if a rebid would be necessary, the committee would be informed how and why negotiations failed; and whether a rebid would be required.

5.3. 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.

The committee considered the item, without a staff presentation


Mr. Hakes reviewed the information on this item per the attached Committee Agenda Memo.
The committee received the information, without formal action, and noted that Stantec Consulting Services would perform Water Infrastructure Finance and Innovation Act (WIFIA) application funding support specific to the Pacheco Reservoir Expansion Project, not to any other Valley Water WIFIA applications.

5.5. Review 2022 Capital Improvement Program Committee Work Plan.

Recommendation: Review the 2022 Capital Improvement Program Committee Work Plan and make adjustments as necessary.

Ms. Jessica Collins, Watersheds Business Planning & Analysis Manager, reviewed the information on this item per the attached Committee Agenda Memo and the information contained in Attachment 1.

The committee received the information without formal action, and noted the addition of the Purified Water Project CIP agenda item for the March 2022 CIP meeting.

6. INFORMATION ITEMS.

None.

7. CLERK’S REVIEW AND CLARIFICATION OF COMMITTEE REQUESTS AND RECOMMENDATIONS:

None.

8. ADJOURN

7.1. Adjourn to Regular Meeting at 11:00 a.m., on March 21, 2022.

Chairperson Hsueh adjourned the meeting at 12:00 p.m., to the Special meeting scheduled to occur at 1:00 p.m. on Monday, March 14, 2022.

Eva M. Sans
Assistant Deputy Clerk

Approved:
SUBJECT: Receive Update on Consultant Support for the Public-Private Partnership (P3) Purified Water Project.

RECOMMENDATION: Receive update on consultant support for the Public-Private Partnership (P3) Purified Water Project.

SUMMARY:

Background
The first major project derived from the Countywide Water Reuse Master Plan is the Purified Water Project (Project). The Project will produce and convey up to 11,200 acre-feet per year (AFY) of purified water suitable for indirect potable reuse.

A Partnership Agreement (Agreement) to Advance Resilient Water Reuse Programs in Santa Clara County between Valley Water and the Cities of Palo Alto and Mountain View was executed at the end of 2019 which included an effluent transfer option to Valley Water for a regional purification facility. To support Valley Water’s water supply reliability goals, on June 16, 2020, the Valley Water Board of Directors directed staff to proceed with an indirect potable reuse Project (IPR Project) as soon as possible. On September 8, 2020, the Board of Directors specified that the IPR Project would use a fixed-price Design-Build-Finance-Operate-Maintain (DBFOM) delivery method, a type of Public-Private Partnership (P3). On December 14, 2021, the Board directed staff to finalize agreements with the City of Palo Alto to locate the IPR project in Palo Alto. The proposed IPR Project would include the construction of a new advanced water purification facility (AWPF), water conveyance pipelines to the existing Los Gatos Recharge System (LGRS) complex located in the City of Campbell, lateral pipelines, and associated facilities.

Tertiary treated wastewater from the Regional Water Quality Control Plant in the City of Palo Alto will be sourced and treated at the new AWPF and conveyed approximately 20 miles south to the LGRS to replenish the groundwater.

The Project will be developed using the P3 and DBFOM delivery method. In April 2021, Valley Water
released the P3 DBFOM procurement Request for Qualification (RFQ) for the Project.

Major components of the Purified Water Project will include following:

- Advanced Water Purification Facility (10 million gallons per day)
- Reverse osmosis concentrate pump station and pipeline (3 miles)
- Tertiary effluent pump station and pipeline (3 miles)
- Purified water pump station and pipeline (20 miles)
- Discharge facilities at Los Gatos Recharge Facilities
- Monitoring well to comply with indirect potable reuse regulations

Since 2015, pursuant to Agreement A3901G, HDR Engineering has provided project management services for the development of the Purified Water Program as it has evolved from a design-build project delivery process to a P3 procurement process.

**Update on Current Consultant Support for the Project**

Valley Water first executed an agreement with HDR in 2015 to provide project management services for the Purified Water Program (formerly known as the Expedited Purified Water Program), which, at the time, was a design-build delivery project to expand Valley Water's existing purification center in San José. Due to the need for additional and specialized resources and experience, Valley Water began procuring additional program management resources in late 2021. Given the complexity of this large project, the need for specialized expertise, and addressing significant risks, additional program management resources will assist staff through the entire procurement, design, and construction of the Purified Water Project.

Valley Water is therefore reducing the scope of Agreement A3901G with HDR Engineering, procuring through competitive process a Project Management Consultant (PMC), and maintaining services of two technical P3 Owner Advisors pursuant to Valley Water's sole-source process.

**HDR Agreement Amendment Update**

Staff is currently preparing Amendment No.4 to Agreement A3901G for Project Management Services with HDR Engineering. The Agreement Amendment will document Consultant’s modified Project role and scope of services; change the expiration date of the Agreement from December 31, 2024, to December 31, 2023; and incorporate other administrative changes. HDR will focus on completing ongoing tasks and will provide support to the PMC as needed. There is no change in the current Not to Exceed (NTE) amount. Amendment No. 4 will be recommended for approval by the Chief Executive Officer.

**Consultant Selection Process and Scope of Services for Project Management Consultant (PMC)**

The Request for Qualifications for the PMC was issued on November 4, 2021. A total of three statements of qualifications were received and based on final scores, the Evaluation Committee invited two firms to participate in oral interviews.

The PMC’s services will augment the current consultant team and provide project management
resources, as well as technical, regulatory, and P3 expertise. The PMC scope of services includes:
(1) Fast Start Activities to promptly get familiar with the Project and current activities including the
ongoing preparation of the P3 Request for Proposals (RFP); (2) Project Management and Delivery;
(3) Technical Advisory Services; (4) Owner’s Engineer Representative; and (5) Supplemental
Services for the P3 procurement and design-build phases of the Project.

The cost of this agreement will not be funded through the DBFOM P3, but through Valley Water’s
Water Utility Enterprise Fund. Staff anticipates recommending Board approval of the new Agreement
in the fourth quarter of FY 2022.

Upon approval, the increase in Project cost related to the PMC agreement will be incorporated into
the Final FY 2023-27 CIP, which will result in a total Project cost (TPC) increase. Based on staff
analysis, this TPC increase will not impact the FY 2022-23 projected water rates. The Final FY 2023-
27 CIP is scheduled to be reviewed and approved by Board resolution in May 2022.

**Technical P3 Advisors Update**

Staff is currently preparing the scope of services for two new agreements with firms currently working
as subconsultants to HDR Engineering, Liquisti and Illuminati Advisory. They will continue in their
roles as Owner Advisors to Valley Water for the Purified Water Project, services they are now
providing through HDR. The agreements will be procured pursuant to Valley Water’s sole-source
process after contractual release by HDR through Amendment No.4. The principals of both
companies have worked on the Project extensively since its early inception in 2015 and therefore
have detailed historical and current knowledge of the Project.

**ATTACHMENTS:**
None.

**UNCLASSIFIED MANAGER:**
Vincent Gin, 408-630-2633
COMMITTEE AGENDA MEMORANDUM

Capital Improvement Program Committee

SUBJECT:

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 five consultant agreement amendments for capital projects presented here for the Committee’s information:

1. Amendment No. 8 to Agreement A3345A between the Santa Clara Valley Water District and Mott MacDonald Group, Inc. for Design Services for Permanente Creek Flood Protection Project No. 26244001. (Time Extension) (B. Yerrapotu).

   Staff will recommend Deputy Administrative Officer approval of Amendment No. 8 to Agreement A3345A with Mott MacDonald Group, Inc., for Design Services for the Rancho San Antonio Detention Basin, which is part of the larger Permanente Creek Flood Protection Project No. 26244001, to extend the expiration date of the Agreement from March 31, 2022, to March 31, 2023.

   The Rancho San Antonio Detention Basin Project was delayed during construction due to the unexpected discovery of sensitive environmental resources in 2017. Construction of the Project was completed in spring of 2021 and Project closeout is expected at the end of 2024. This time extension will allow the Consultant to continue to provide engineering support during plant establishment and closeout of the Permanente Creek Flood Protection - Rancho San Antonio Detention Basin Project No. 26244001.

2. Amendment No. 5 to Agreement A3932A between the Santa Clara Valley Water District and Harris & Associates, Inc. for Construction Management Services for Permanente...
Creek Flood Protection Project No. 26244001. (Time Extension) (B. Yerrapotu).

Staff will recommend Deputy Administrative Officer approval of Amendment No. 5 to Agreement A3932A with Harris & Associates, Inc. for Construction Management Services for the Rancho San Antonio Detention Basin, which is part of the larger Permanente Creek Flood Protection Project No. 26244001, to extend the expiration date of the Agreement from March 31, 2022, to March 31, 2023.

The Rancho San Antonio Detention Basin Project was delayed during construction due to the unexpected discovery of sensitive environmental resources in 2017. Construction of the Project was completed in spring of 2021 and Project closeout is expected at the end of 2024. This time extension will allow the Consultant to continue to provide construction management services support during plant establishment and closeout of the Permanente Creek Flood Protection - Rancho San Antonio Detention Basin Project No. 26244001.

3. Amendment No. 3 to Agreement A4107G between the Santa Clara Valley Water District and Mr. Andrew Galvan, Most Likely Descendant for Native American Consulting Services for Permanente Creek Flood Protection Project No. 26244001 (Time Extension) (B. Yerrapotu).

Staff will recommend Deputy Administrative Officer approval of Amendment No. 3 to Agreement A4017G for Native American Consulting Services at the Rancho San Antonio Detention Basin, which is part of the larger Permanente Creek Flood Protection Project, to extend the expiration date of the Agreement from March 31, 2022, to March 31, 2023.

In May 2017, the discovery of sensitive environmental resources was made during the contractor’s excavation activities at Rancho San Antonio. State laws require appointment of a Most Likely descendant (MLD) of the relevant tribe to oversee the treatment of the finds at the Project area. The California State Native American Heritage Commission appointed Mr. Andrew Galvan as the MLD.

The final report of the discovery of sensitive environmental resources is expected before the end of 2022. This time extension will allow the Consultant to finalize the report and continue to provide support during plant establishment and closeout of the Permanente Creek Flood Protection - Rancho San Antonio Detention Basin Project No. 26244001.

4. Amendment No. 2 to Agreement A4247A between the Santa Clara Valley Water District and Hazen and Sawyer, for Planning and Preliminary Design Engineering Services for the Vasona Pump Station Upgrade Project No. 92264001. (Time Extension) (H. McMahon).

Staff will recommend Deputy Administrative Officer approval of Amendment No. 2 to Agreement A4247A for planning and preliminary design engineering services for the Vasona Pump Station Upgrade Project No. 92264001 to extend the expiration date of the Agreement from March 31, 2022 to March 31, 2023.

The project schedule is being extended due to staff reassignment that occurred in mid-2021, and a project team has now been restored. This time extension will allow the Consultant to
continue to provide planning and preliminary design engineering services for the Vasona Pump Station Upgrade Project No. 92264001.

5. **Amendment No. 4 to Agreement A3901G between the Santa Clara Valley Water District and HDR, Inc., Project Management Services for the Purified Water Project No. 91304001. (Scope Reduction, Time Reduction) (V. Gin).**

Staff will recommend Chief Executive Officer approval of Amendment No. 4 to Agreement A3901G for project management services for the Purified Water Project No. 91304001 to document consultant’s modified project role and scope of services; revise the expiration date of the Agreement from December 31, 2024 to December 31, 2023; and incorporate administrative changes.

Since 2015, pursuant to Agreement A3901G, HDR Engineering, Inc. has provided project management services for the development of the Purified Water Program (formerly known as the Expedited Purified Water Program), as it has evolved from a design-build project delivery process to a public-private-partnership (P3) procurement process.

Due to the complexity of this large project, the need for specialized expertise, and addressing significant risks, additional program management resources and P3 expertise are being procured through a Request for Qualifications process for the Purified Water Project. Valley Water is therefore reducing the scope of Agreement A3901G with HDR, Inc.

**ATTACHMENTS:**
None.

**UNCLASSIFIED MANAGER:**
Bhavani Yerrapotu, 408-630-2735
Heath McMahon, 408-630-3126
Vincent Gin, 408-630-2633
SUBJECT:

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

SUMMARY:
The 2022 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; 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 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.

ATTACHMENTS:
Attachment 1: Capital Project Monitoring - Construction

UNCLASSIFIED MANAGER:
Bhavani Yerrapotu, 408-630-2735
Heath McMahon, 408-630-3126
Christopher Hakes, 408-630-3796
Mike Cook, 408-630-2424
## Capital Project Monitoring Report - March 2022

### Construction Phase

<table>
<thead>
<tr>
<th>Row</th>
<th>Project No.</th>
<th>Project Name</th>
<th>Notes, Upcoming Board Actions or potential issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>91864005</td>
<td>C1: Anderson Dam Seismic Retrofit Project</td>
<td>The Anderson Dam Tunnel Project (ADTP) construction contract was awarded by the Board of Directors on April 27, 2021 to Flatiron Construction Company. After the pre-construction meeting on May 19th, the Notice to Proceed for Phase 1 &amp; 2A (partial) was issued on May 28, with the 1st Chargeable Day on June 28, 2021. The groundbreaking ceremony was held on July 7, 2021. NTP for Phase 2A and Phase 2B work issued on September 29, 2021. NTP for Phase 3 was issued on December 15, 2021. NTP for all remaining work is awaiting regulatory approval. Contractor mobilized to the site and temporary office trailers have been set up at staging area; Best Management Practices and Stormwater Pollution Prevention Plan measures were established around the site; clearing and grubbing activities performed. Excavation and grading of hillside for Diversion Portal has reached an elevation of 460 ft. Contractor has installed various geotechnical instrumentation at the Portal. Portal 2:1 slope has been excavated down to an elevation of 448 ft. Portal soil nail Row A installation is complete. Proof testing of Row A soil nails is in progress. Installation of soil nails in Row B are in progress.</td>
</tr>
<tr>
<td>2</td>
<td>91864005</td>
<td>Cross Valley Pipeline Extension Project</td>
<td>The Cross Valley Pipeline Extension Project (CVPEP) construction contract was awarded by the Board on November 9, 2021 to Garney Pacific, Inc. The Notice to Proceed was issued on December 9, 2021, with the 1st Chargeable Day on December 20. Construction is underway with mobilization starting in February 2022. CVP shutdown is scheduled for March 2 to March 30, 2022. CVP will be dewatered from Peet Road Line Valve to Bailey Avenue Line Valve. Construction completion is anticipated for the fall of 2022.</td>
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<tr>
<td>3</td>
<td>91094009</td>
<td>South County Recycled Water Pipeline Project</td>
<td>Construction contract was awarded by the Board of Directors on December 14, 2021 and the Notice to Proceed (NTP) was issued on January 13, 2022. Staff is reviewing immediate and long lead item submittals. Contractor's baseline schedule indicates pipeline installation commencing in April 2022.</td>
</tr>
<tr>
<td>4</td>
<td>93764004</td>
<td>Penitencia WTP Flocculation/Sedimentation Basin Rehabilitation Project</td>
<td>Construction contract was awarded on March 23, 2021. Construction is underway to replace the flocculation and sedimentation equipment in Basins #1 and #2. Construction completion is anticipated for the summer of 2022.</td>
</tr>
<tr>
<td>5</td>
<td>93294057</td>
<td>Rinconada WTP Reliability Improvement</td>
<td>The construction contract for the Interim Site Restoration Project, consisting of mostly paving and minor mechanical work, was awarded by the Board on June 22, 2021. Site work is complete and contract closeout is underway.</td>
</tr>
<tr>
<td>6</td>
<td>93294058</td>
<td>Rinconada WTP Residuals Remediation Project</td>
<td>Construction contract was awarded by the Board of Directors on July 13, 2021. Construction is underway with demolition work for the existing wastewater recovery basin and belt press improvements in progress. Retrofitting of the existing gravity thickener #2 is ongoing. A 7-day full plant shutdown was completed in February 2022, which included tie-ins to existing sludge lines and the installation of a temporary sludge feed bypass. Construction completion is anticipated for the spring of 2023.</td>
</tr>
<tr>
<td>7</td>
<td>91214010</td>
<td>Pacheco Pumping Plant Priority 1 Fire Alarm &amp; Suppression System Improvement</td>
<td>Construction contract was awarded in September 2020 and is near completion. During final acceptance testing, it was determined that modifications to the Clean Agent pipe and Very Early Smoke Detection Apparatus (VESDA) were required, which were completed December 2021. After final inspection in January 2022, the system is in its final 30-day test period. Pending successful completion of this test, construction is scheduled to complete in March 2022.</td>
</tr>
<tr>
<td>8</td>
<td>93764004</td>
<td>Santa Teresa Water Treatment Plant Air Wash Pipeline Replacement Project</td>
<td>Construction contract was awarded in October 2020. The first half of plant shutdown required to accommodate work for the east side of the plant was completed early April 2021. The second half of plant shutdown required to accommodate work for the west side was completed in December 2021. Site work is complete and contract closeout is underway.</td>
</tr>
</tbody>
</table>
## Capital Project Monitoring Report - March 2022

### Construction Phase

<table>
<thead>
<tr>
<th>Row</th>
<th>Project No.</th>
<th>Project Name</th>
<th>Notes, Upcoming Board Actions or potential issues</th>
<th>In house</th>
<th>External</th>
<th>Combination</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>95084002</td>
<td>10-Year Pipeline Inspection and Rehabilitation Project (Central and Parallel East Pipelines)</td>
<td>Construction contract was awarded in October 2020. Central Pipeline was out of service to accommodate rehabilitation work from January 3, 2021 to April 2, 2021 and is currently back in service. All work for Parallel East Pipeline has been completed. All work for Central Pipeline has been completed except for two sites located on Valley Water property at the Kirk Ditch Turnout and Vault #906 at Vasona. The manufacture and delivery of custom valves needed to complete the work has been delayed due to the unavailability of labor and various materials related to the COVID pandemic. Encroachment permits with the various agencies have been closed out and the construction contractor has demobilized. Outstanding valves are currently projected to be delivered in June 2022, at which time Contractor will remobilize to complete the work.</td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Flood Protection

<table>
<thead>
<tr>
<th>Row</th>
<th>Project No.</th>
<th>Project Name</th>
<th>Notes, Upcoming Board Actions or potential issues</th>
<th>In house</th>
<th>External</th>
<th>Combination</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>26154002</td>
<td>E8: Upper Guadalupe River Reach 6</td>
<td>This is a gravel augmentation project to improve fish habitat in Reach 6. Construction was completed in November 2021. The Board of Directors accepted the work as completed on January 11, 2022; the gravel movement will be monitored for a period of five years.</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>26244001</td>
<td>Other 2012 SCW: Permanente Creek, SF Bay to Foothill Expressway</td>
<td>Construction of channel work was completed in January, 2019; Construction at McKelvey Park was completed in June 2020; Construction of Rancho San Antonio Park Flood Detention Basin was completed in June 2021 and the three-year plant establishment phase is underway. Floodwall retrofit for the segment downstream of HWY 101 is anticipated for construction award in July 2022. Staff is currently working on FEMA Letter of Map Revision (LOMR) package which will be submitted in April 2022.</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>26174051, 26174052</td>
<td>E6: Upper Llagas Creek Flood Protection Project, Phase I and Phase 2A</td>
<td>Phase I in-channel improvements are complete as of October 2021. Remaining Phase I work includes completing fence and gates installation, maintenance roads, and asphalt repairs at Marcella Ave, and planting. Notice of completion for civil work on Phase I will go to the Board of Directors for acceptance in the late spring of 2022. This will precede a three-year plant establishment phase. Construction contract for Phase 2A was awarded on April 13, 2021 and construction is underway, with completion anticipated in May of 2024.</td>
<td>Phase 1</td>
<td>Phase 2A</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>40174005</td>
<td>Other 2012 SCW: Berryessa Creek, Lower Penitencia Creek to Calaveras Blvd, Phase 2</td>
<td>Flood protection improvements and mitigation planting for the Lower Berryessa Creek Phase 2 project were completed in July 2020. Construction for the Lower Calera Creek started in June 2021 and is currently underway. The work upstream of Arizona Avenue was completed in October 2021. The work between Arizona Avenue and N. Milpitas Blvd. was delayed due to differing site conditions with fence conflict into the planned floodwall foundations. Valley Water staff is currently negotiating with the contractor a change order to accommodate this site condition. The U-frame channel construction downstream of N. Milpitas Blvd. is scheduled to be completed by January 2024.</td>
<td>Lower Calera Creek</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>14</td>
<td>40334005</td>
<td>Lower Penitencia Creek Improvements, Berryessa to Coyote Creeks</td>
<td>Construction contract for Lower Penitencia Creek Project began in July 2021. In-channel work was completed during the 2021 construction season. Work outside of the channel is underway. Pandemic-related material and labor shortages caused a temporary delay in sheet pile installation. Those issues seemed to be resolved and work should be picking up pace.</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>00044026</td>
<td>San Francisco Bay Shoreline, EIA 11 - Alviso Slough to Coyote Creek Bypass (E7: 26444001, 26444002, 26444004)</td>
<td>Construction for levees in the first three reaches, Reaches 1-3, are now underway. Reaches 1-3 are located between the Alviso Marina and USFWS Don Edwards Environmental Education Center. USACE awarded the construction contract in August 2021 to Maloney-Odin Joint Venture. Construction began on December 6, 2021, and is anticipated to be completed by January 2024.</td>
<td>N/A</td>
<td>USACE construction</td>
<td></td>
</tr>
</tbody>
</table>
## Construction Phase

### Watershed Asset Rehabilitation Program

- Construction contract for Piedmont Creek Interim Concrete Repair Project from Roswell to Dempsey Road was completed in December 2021. This summer staff is anticipating to go to construction with the Calabazas Creek Rehabilitation Project, which consists of 10 bank erosion sites between Miller Avenue to Bollinger Road. The project will take two construction seasons and end in November 2023.

### ERP System Implementation

- System is currently live with Accounts Payable, Accounts Receivable, General Ledger, Procurement, Warehouse, Travel, Credit Card and Reimbursement modules. System is performing as designed, with several upgrades and enhancements being implemented based off of user feedback, experiences and challenges. Training is currently being streamlined into a long term repository for ongoing support of the system. Currently continuing development of e-learning and instructor-led trainings (ILT) for remaining modules and completing training and data conversions with projected Go-Live scheduled for this month.

### Information Technology Disaster Recovery

- Valley Water, in partnership with Ankura Consulting Group LLC, completed a comprehensive evaluation of the Information Technology Disaster Recovery capabilities of both the Business and Operational (SCADA) infrastructures in alignment with project goals. The project team has since finalized a strategy for the next phase of the project for both the SCADA and Business environments, which will include several number of projects, including implanting resiliency and security changes to existing data centers, leveraging a cloud services provider as a backup data center and modernizing the off-site back up strategy using removable drives. These projects are likely to require a two-to-three year timeline for implementation. IT Disaster Recovery is currently in the process of purchasing infrastructure for two projects, SCADA DR and selecting a cloud service provider to serve as our active disaster recovery data center.

### Data Consolidation

- Build out for Lands Management is currently in final stages of going live. A consultant is wrapping up reviewing/redesigning processes for the Community Projects Review Unit prior to Hyland Implementation. In the process of procuring additional licenses and implementation services for the Human Resources Division.

### Telephone System Voice Over IP

- System has been ready for go live since February 9, 2022. Outgoing telephone provider currently has migration date locked in with the Federal Communications Commission (FCC) on March 16, 2022. Project team is extremely excited to bring 36 years of telecommunications systems updates to Valley Water including: One number to give out that can reach you on any device anywhere, call, text or fax; Control over where your phone rings, for how long, on what devices; A Desktop/Laptop client that can perform 100% of functions, even when teleworking. No more looking up or sharing cell numbers.
SUBJECT:
Receive, Review and Discuss information on the Dam Safety Program.

RECOMMENDATION:
Receive, review and discuss information on the Dam Safety Program.

SUMMARY:
**Dam Safety Program Background**
Valley Water owns and operates fourteen dams and ten reservoirs in Santa Clara County. Valley Water’s dams and reservoirs were funded and constructed for water supply purposes, but also provide incidental flood management, recreation, and environmental benefits. Dam safety regulatory requirements, Board policies, and obligations due to dam ownership set direction for the Dam Safety Program (Program).

Drivers for the Program include the following Board’s Ends Policies:

- E-1 - The mission of Valley Water is to provide Silicon Valley safe, clean water for a healthy life, environment, and economy.
- E-2 - Valley Water provides a reliable, safe, and affordable water supply for current and future generations in all communities served.
  - E-2.3.1 - Plan for infrastructure maintenance and replacement to reduce risk of failure.

As a responsible dam owner, Valley Water operates a comprehensive Dam Safety Program to ensure public safety and operational availability of its reservoirs. This report describes components of the Program and updates the Capital Improvement Program (CIP) Committee on its status.

A detailed description of the Dam Safety Program is included as Attachment 1. The attachment describes the following four operational elements of the program:

1) Surveillance and monitoring;
2) Inspection and maintenance;
3) Emergency preparedness and response; and
4) Special engineering studies.

Attachment 1 provides information on the status of seismic stability evaluations of Valley Water dams, and the retrofit projects resulting from these studies. The water level operating restrictions imposed on the reservoirs based on these evaluations are also provided in Attachment 1.

Seismic stability evaluations have been completed for all dams identified by the Division of Safety of Dams (DSOD) as needing re-evaluation, except for Coyote, Chesbro, and Uvas dams. Staff is pacing evaluation of these dams in accordance with discussions with DSOD to prioritize work on the Anderson Dam Seismic Retrofit Project and the Pacheco Reservoir Expansion Project.

Attachment 2 is a description of the various physical components of Valley Water’s dams, and a brief description of their current condition.

**Spillway Condition Assessments**

In February 2017, major incidents at Oroville Dam, in Oroville, California, led to significant damage and erosion of its spillways. As a result, then Governor Brown ordered detailed evaluations of large spillway structures at all high-hazard dams, including nine of Valley Water’s dams’ spillways.

The spillway condition assessments have been completed at Anderson, Almaden, Calero, Guadalupe, Lenihan, and Stevens Creek Dams. Spillway assessments at Coyote, Chesbro, and Uvas dams are ongoing. The scope of the spillway condition assessments included identifying potential geologic hazards and characterizing foundation and concrete material susceptible to erosion. The assessments also included evaluation of the spillway condition, adequacy of the existing design features, and a critical review of Valley Water’s maintenance records and practices. The findings, and staff’s plans to address the findings, are presented as follows.

**Anderson Dam Spillway Condition Assessment.** Valley Water’s consultant performed a spillway condition assessment of the Anderson Dam spillway in August 2017. The findings indicate that the existing spillway was in an acceptable, serviceable condition at this time. However, the spillway does not meet current design standards, and the potential for an Oroville-like failure developing in the future could not be ruled out. To minimize the possibility of such an occurrence, a significant retrofit or reconstruction of the chute slab and drainage system will be necessary. Valley Water has therefore decided to include replacement of the spillway during construction of the Anderson Dam Seismic Retrofit Project.

**Almaden Dam Spillway Condition Assessment.** Valley Water’s consultant completed the initial phase condition assessment of the Almaden Dam spillway in September 2017. The draft report, dated October 2017, indicates that the spillway, built in 1936, does not meet current hydraulic capacity or design standards and may be susceptible to an Oroville-like failure in the future during large flows. Staff believes it would be prudent and cost-effective to replace the spillway as part of the Almaden Dam Improvements Project.

**Calero Dam Spillway Condition Assessment.** Valley Water’s consultant completed a condition
assessment of the Calero Dam spillway in August 2017. The final condition assessment report, dated January 2018, indicates that the spillway, built in 1935, does not meet current design standards and may be susceptible to an Oroville-like failure in the future during large flows, including the Probable Maximum Flood (PMF). Staff believes it would be prudent and cost-effective to replace the spillway as part of the Calero Dam Seismic Retrofit Project.

**Guadalupe Dam Spillway Condition Assessment.** Valley Water’s consultant completed a condition assessment of the Guadalupe Dam spillway in August 2017. The final condition assessment report, dated January 2018, indicates that the spillway, also built in 1935, does not meet current design standards and may be susceptible to an Oroville-like failure in the future during large flows, including the PMF. As with the other dam spillways assessed to date, staff believes it would be prudent and cost-effective to replace the spillway as part of the Guadalupe Dam Seismic Retrofit Project.

**Lenihan Dam Spillway Condition Assessment.** Valley Water’s consultant completed a condition assessment of the Lenihan Dam spillway in November 2019. The final condition assessment report, dated June 2020, indicates that the spillway, originally built in 1952, does not meet current design standards and may be susceptible to an Oroville-like failure in the future during large flows, including the PMF. Valley Water should begin long-term planning for Lenihan Dam spillway improvements, possibly including full replacement or significant repair.

**Stevens Creek Dam Spillway Condition Assessment.** Valley Water’s consultant completed a condition assessment of the Stevens Creek Dam spillway in November 2019. The final condition assessment report, dated June 2020, indicates that the spillway, originally built in 1935, does not meet current capacity or design standards and may be susceptible to an Oroville-like failure in the future during large flows, including the PMF. Valley Water should begin long-term planning for the full replacement of Stevens Creek Dam spillway.

**Coyote Dam Spillway Condition Assessment.** Valley Water’s consultant completed an initial two-phase condition assessment of Coyote Dam spillway in November 2020 and presented a draft report in February 2022. The preliminary recommendations are to conduct additional field investigation and perform structural analyses of the spillway. While Coyote Dam spillway meets existing hydraulic capacity standards, it does not meet updated hydraulic capacity standards and must be modified so that it is consistent with our new design for Anderson Dam.

**Chesbro and Uvas Dams Spillway Condition Assessments.** Valley Water’s consultant completed an initial two-phase condition assessment of Chesbro and Uvas Dams’ spillways in November 2020. The consultant is currently working on the draft spillway condition assessment reports.

**Interim Dam Spillway Maintenance Program.** Valley Water continues to maintain our spillways through regular inspections with our regulatory partners. This includes filling of significant cracks and joints in all Valley Water spillways with sealant and repairing spalled areas with concrete mix. Staff will continue the annual inspections and maintenance work on all Valley Water spillways until the spillway replacement projects are completed.
ATTACHMENTS:
Attachment 1: Dam Safety Program Description
Attachment 2: Description and Condition Assessment Framework for Dams
Attachment 3: PowerPoint

UNCLASSIFIED MANAGER:
Chris Hakes, 408-630-3796
Santa Clara Valley Water District  
Dam Safety Program

Valley Water owns and operates 14 regulated dam structures under licenses granted by the State of California Department of Water Resources, Division of Safety of Dams (DSOD). The regulated structures include 10 major reservoir dams, Coyote Percolation Pond Flashboard Dam, Rinconada Water Treatment Plant Reservoir, Fellows Dike, and Calero Auxiliary Dam. The sizes of Valley Water’s reservoirs vary from 495 Acre-Feet (AF) to 90,323 AF. The combined storage capacity of Valley Water’s 10 major reservoirs is 169,009 AF. Anderson Dam, because of its power generating capability, is also under the Federal Energy Regulatory Commission (FERC). As part of these license requirements, Valley Water must provide assurances that its dams and other water retention facilities are inspected for safety on a regular basis, and that the reservoirs are operated safely. The Dam Safety Program directly supports this goal. The major operational elements of the Program are:

1. Dam safety surveillance and monitoring;
2. Dam inspections and maintenance;
3. Emergency preparedness and response; and
4. Special engineering studies such as seismic evaluations.

The following is a description and update of these elements.

1. Dam Safety Surveillance and Monitoring:

   **Background:**
   Valley Water performs dam safety surveillance and monitoring to ensure that the condition of dam assets is adequately monitored, analyzed for safety, and documented. Valley Water monitors the movement of the dams and the flow (and pressure) of the water moving through the dams. This is achieved by regularly monitoring an array of instruments consisting of piezometers, inclinometers and survey monuments installed within the dam. The instrument data from the dams is reviewed monthly or immediately after a significant event such as an earthquake. The Dam Safety Program also prepares and submits annual surveillance reports for each of our dams to the California Division of Safety of Dams (DSOD) (and the Federal Energy Regulatory Commission, or FERC, in the case of Anderson Dam) as required by these regulators. These reports present our interpretations of surveillance data (i.e. geotechnical monitoring instruments, seepage weirs, survey monuments, etc) gathered for the period of the report, to evaluate the performance of the dam.

   **Current Status:**
   The data collected from the instruments at each dam is analyzed and evaluated at least once a month. Additionally, the staff performs informal inspections of each dam bi-annually during maintenance, and formally annually with DSOD and FERC. Staff’s review of the surveillance data and periodic safety inspections indicate that the dams and appurtenant structures show response to their environment, aging process, and external events as intended. Based on their review of Valley Water’s surveillance and monitoring data and annual inspection, DSOD and FERC have concurred with staff’s determinations.

2. Dam Inspections and Maintenance

   **Background:**
   Dams are Valley Water’s oldest assets. Dam appurtenances, such as intake structures, control valves, and outlet pipes, are reaching the end of their useful life and require regular
preventive and/or corrective maintenance. The condition assessment and plans to address marginal conditions of these appurtenant structures are presented in Attachment 2. Additionally, as responsible dam owners, Valley Water is required by DSOD and FERC to regularly maintain their dams to ensure public safety. Regular maintenance activities at the dams include servicing mechanical equipment such as valves, burrowing animal control, vegetation management, erosion control, and cleaning weep holes in the spillways. The hydraulic systems for the intake gates in the reservoirs are also maintained under this program to prevent hydraulic fluid leaks in the reservoir. Besides the regular preventative maintenance, corrective maintenance tasks are also performed on the systems to replace worn-out parts. Valley Water’s FY 2022 budget includes funds for the scheduled planned and preventive maintenance tasks.

Current Status:
Valley Water inspects the dams annually with FERC and DSOD to ensure that the dams are in safe condition. Valley Water staff inspected all of its dams with DSOD in 2021. The inspections indicate the dams are performing as intended. Dam maintenance was executed as planned in staff’s 2021 annual maintenance work plan.

3. Emergency Preparedness and Response

Background:
Emergency Action Plans (EAPs) have been prepared for all Valley Water’s dams. The EAPs are reviewed and updated annually for contact information. The EAPs for each dam contain a summary of emergency conditions that may develop, a plan for addressing them, and an inundation map. Valley Water works with various agencies on emergency action planning and training exercises each year. Copies of the EAPs for all the dams were submitted to DSOD; to the California’s Office of Emergency Services (Cal OES); to Valley Water’s OES; and to all downstream Emergency Management Agencies. A copy of the EAP for Anderson Dam was also submitted to FERC.

Valley Water’s emergency response and preparedness also includes the Post-Earthquake Dam Evaluation Program (PEDAP) team. After significant earthquakes, trained Valley Water personnel self-deploy and immediately inspect the dams for any signs of damage or potential failure so that appropriate actions may be taken in a timely fashion.

Current Status:
The inundation maps in the EAPs estimate what areas could flood in the highly unlikely event of a dam failure. The inundation maps for all of Valley Water’s dams were updated between 2014 and 2020.

As required by FERC, Valley Water performs table-top and functional exercises for Anderson Dam once every five years. The last table-top and functional exercises for Anderson Dam were performed by Valley Water in September 2021.

4. Special Engineering Studies - Seismic Stability Evaluation of Dams

Background:
As part of its seismic re-evaluation program in the early 2000’s, the DSOD performed independent, preliminary seismic stability evaluations of Almaden, Calero, Guadalupe, Lenihan, Stevens Creek, Chesbro and Uvas dams. Based on the results, DSOD notified Valley Water of its concerns regarding seismic stability of these dams and directed Valley Water to update the seismic stability analyses for each one. In 2003, FERC reviewed a
required safety inspection report for Anderson Dam (GEI, 2001). Based on its review, FERC also concluded that a seismic stability evaluation of Anderson Dam was required.

In 2012, during the planning study of the Anderson Dam Seismic Retrofit Project, it was determined that the Anderson Dam spillway and the Coyote Dam spillway (Coyote Dam is located upstream of Anderson Reservoir), do not meet the current Probable Maximum Flood (PMF) standards. In May 2013, DSOD requested Valley Water to perform a comprehensive evaluation of the Coyote Dam spillway. At that time, DSOD and Valley Water agreed that the Anderson Dam spillway would be modified to meet the PMF standards as part of the Anderson Dam Seismic Retrofit Project.

Current Status:
As of February 2022, Valley Water has completed seismic evaluations for Anderson, Almaden, Calero, Guadalupe, Lenihan, and Stevens Creek dams. The seismic evaluations for Chesbro, Uvas and Coyote dams are ongoing. The status and determinations of seismic stability evaluations are summarized in Table 1.

Table 1. Current Status of Seismic Stability Evaluations and Subsequent Capital Projects for Valley Water’s Dams

<table>
<thead>
<tr>
<th>Dam</th>
<th>Evaluation</th>
<th>Determination</th>
<th>Planning</th>
<th>Design</th>
<th>Construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lenihan</td>
<td>Completed in December 2012.</td>
<td>No seismic retrofit required. Spillway evaluations ongoing; future replacement or significant repairs recommended.</td>
<td>To be determined (TBD)</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>Stevens Creek</td>
<td>Completed in December 2012.</td>
<td>No seismic retrofit required. Spillway evaluations ongoing; future replacement recommended.</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>Coyote Uvas</td>
<td>Underway; planned completion in December 2023.</td>
<td>To be determined (TBD) Coyote spillway retrofit needed for updated hydraulic capacity standards (HMR 58).</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
</tr>
</tbody>
</table>
Based on the seismic evaluation results, Almaden, Lenihan, and Stevens Creek dams do not require seismic retrofit work; Anderson, Calero, and Guadalupe dams were found to be seismically deficient, and capital projects are underway to retrofit these dams. Even though seismic studies indicated adequate seismic stability for the Almaden Dam embankment, its intake structure (which may fail during a large earthquake) and spillway (which does not meet current standards) have to be retrofitted.

Until the capital projects at Almaden, Anderson, Calero, and Guadalupe dams are completed, Valley Water, with the concurrence of its dam regulatory agencies, has voluntarily restricted the reservoir levels at these dams. Coyote Dam has had a reservoir operating restriction since 1992 due to concerns with the active Calaveras Fault beneath the dam. Valley Water’s reservoir sizes, capacities, and current operating restrictions are summarized in Table 2.

### Table 2. District Reservoir Sizes, Capacities, and Restrictions

<table>
<thead>
<tr>
<th>Reservoir</th>
<th>Year Built</th>
<th>Dam Height (feet)</th>
<th>Use</th>
<th>Surface Area (Acres)</th>
<th>Reservoir Capacity (AF)</th>
<th>Restricted Capacity (AF)</th>
<th>February * 2022 Stored Volume (AF)</th>
<th>Reason for Restriction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Almaden</td>
<td>1935</td>
<td>105</td>
<td>Recharge &amp; treated water</td>
<td>59</td>
<td>1,586</td>
<td>1,472</td>
<td>1,001</td>
<td>Seismic stability concerns</td>
</tr>
<tr>
<td>Anderson</td>
<td>1950</td>
<td>240</td>
<td>Recharge &amp; treated water</td>
<td>1,245</td>
<td>90,373</td>
<td>2,881</td>
<td>3,418</td>
<td>Seismic stability concerns</td>
</tr>
<tr>
<td>Calero</td>
<td>1935</td>
<td>98</td>
<td>Recharge &amp; treated water</td>
<td>347</td>
<td>9,934</td>
<td>4,585</td>
<td>3,937</td>
<td>Seismic stability concerns</td>
</tr>
<tr>
<td>Chesbro</td>
<td>1955</td>
<td>95</td>
<td>Recharge</td>
<td>265</td>
<td>7,945</td>
<td>7,945</td>
<td>4,718</td>
<td>N/A</td>
</tr>
<tr>
<td>Coyote</td>
<td>1936</td>
<td>138</td>
<td>Recharge &amp; treated water</td>
<td>648</td>
<td>23,244</td>
<td>12,382</td>
<td>8,076</td>
<td>Active fault under the dam</td>
</tr>
<tr>
<td>Guadalupe</td>
<td>1935</td>
<td>129</td>
<td>Recharge</td>
<td>79</td>
<td>3,415</td>
<td>2,218</td>
<td>1,442</td>
<td>Seismic stability concerns</td>
</tr>
<tr>
<td>Lexington</td>
<td>1952</td>
<td>195</td>
<td>Recharge</td>
<td>475</td>
<td>19,044</td>
<td>19,044</td>
<td>10,055</td>
<td>N/A</td>
</tr>
<tr>
<td>Stevens Creek</td>
<td>1935</td>
<td>120</td>
<td>Recharge</td>
<td>91</td>
<td>3,138</td>
<td>3,138</td>
<td>1,441</td>
<td>N/A</td>
</tr>
<tr>
<td>Uvas</td>
<td>1957</td>
<td>118</td>
<td>Recharge</td>
<td>286</td>
<td>9,835</td>
<td>9,835</td>
<td>9,460</td>
<td>N/A</td>
</tr>
<tr>
<td>Vasona</td>
<td>1935</td>
<td>30</td>
<td>Recharge</td>
<td>57</td>
<td>495</td>
<td>495</td>
<td>274</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>169,009</strong></td>
<td><strong>63,995</strong></td>
<td><strong>43,822</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

AF = acre-feet

* Reservoir levels on February 3, 2022.
This document describes the major components of Valley Water’s dams and provides a generalized assessment of their condition.

**Dam Components**

Each dam has three major components: embankment, outlet, and spillway. The embankment is the physical barrier across a stream or river that impounds water behind it to create the reservoir. The embankment is composed of compacted earth or rock and is the structural component of the dam. The outlet is the pipeline that runs either under or around the dam and is used to control the withdrawal of water for beneficial use. The outlet includes an intake structure in the reservoir with shutoff valves or gates, and control valves on the downstream end. The spillway is a concrete channel used to safely route excess runoff around the dam to prevent overtopping and a catastrophic failure of the dam. If the runoff were allowed to flow over the dam, it would erode the dam and cause a failure.

**Standards Related to Each Component**

This section describes standards or other issues for each dam component that could require some type of retrofit. It is not intended to be comprehensive on all standards for the dams. It will describe the standard, its purpose, and the condition of the dams in relation to the standard. Table 1 summarizes the condition of Valley Water’s dams in relation to the standards.

1. **Dam Embankment**

   The most significant issue for the embankment is its performance during the Maximum Credible Earthquake (MCE). The MCE is the largest possible earthquake that could reasonably be expected to occur in a given area on a given fault. The MCE is based on historic quakes, location of faults in the vicinity, and the general tectonic framework of the region. Valley Water is currently required to complete seismic stability studies for nine dams. Six are complete (Anderson, Almaden, Calero, Guadalupe, Lenihan, and Stevens Creek), and three (Coyote, Chesbro, and Uvas) were initiated in FY15. The results to date have determined that Anderson, Calero, and Guadalupe dams must be remediated. Stevens Creek, Almaden and Lenihan dams will experience only minor deformation during MCE and do not require a retrofit.

   Fault rupture is movement of an active fault in the foundation of the dam that could cause the dam embankment to rupture. Coyote Dam, which was constructed with the knowledge that the Calaveras Fault runs under it, and Anderson Dam, which crosses the Coyote Creek-Range Front fault zone, are the only Valley Water dams where fault rupture is a concern.

2. **Outlet Works and Hydraulic Systems**

   There are several issues regarding the outlets – potential fault rupture, withdrawal capacity, structural or potential damage to the intake structures due to deformation of the embankment during the MCE, and valve and hydraulic line replacement due to aging. The seismic stability evaluations include potential fault rupture and its impact on the outlet pipe. Based on the seismic evaluation study, the Anderson Dam outlet is known to have this issue. The California Division of Safety of Dams (DSOD) has general standards regarding the withdrawal capacity of the outlet. For reservoirs that impound 5,000 acre-feet of water or less, the outlet system should be capable of draining half of the reservoir capacity in 7 days. For reservoir volumes greater than 5,000 acre-feet, the outlet...
system should be capable of lowering the maximum storage depth by 10 percent within 10 days. The outlets should also be able to draw down the reservoir to dead-pool in 90-120 days. Any new or modified outlet must meet these DSOD requirements. Currently, the outlet at Anderson Dam is the only outlet that cannot meet the requirements.

The intake structure for Almaden Dam has been extended several times due to siltation in the reservoir, but additional structural components for seismic shaking were not included in these extensions. This must be corrected. Also, movement of the embankment during an earthquake can affect the outlet if it is in the path of movement. Currently, the Guadalupe Dam outlet is the only outlet at risk of such an event. For structural purposes, a berm was constructed on the upstream slope of Guadalupe Dam in the 1970’s and the original intake for the outlet was not moved laterally but extended vertically through the berm. Movement of the berm during the MCE could fail and clog the outlet, potentially rendering it unusable. Finally, the gates and valves on an intake structure, and their hydraulic controls, are reaching the end of their useful life for many of the dams and must be replaced. Since it is difficult to replace them under water, staff is first completing the seismic studies before developing a replacement schedule for them.

3. Spillway

The spillway for each dam must be capable of passing the Probable Maximum Flood (PMF) without overtopping the dam. The PMF is defined as the flood that may be expected from the most severe combination of critical meteorological and hydrologic conditions that are reasonably possible in a particular drainage area. It is based on the Probable Maximum Precipitation (PMP) which is the greatest depth (amount) of precipitation, for a given storm duration, that is theoretically possible for a particular area and geographic location. The National Weather Service of the National Oceanic and Atmospheric Association (NOAA) is responsible for establishing PMP standards through Hydro Meteorological Reports (HMRs). The PMP for California is defined in HMR 58 which was released in 1998. HMR 58 replaced HMR 36 for all dams and for new or modified spillway construction, or where analysis shows that the spillway does not meet HMR 36 standards. The Almaden Dam spillway does not meet HMR 36 nor HMR 58 and must be modified. PMF analysis for Anderson Dam during planning of the Anderson Dam Seismic Retrofit Project determined that its spillway does not meet the HMR 58 standards and must be retrofitted. The same analysis also determined that even though Coyote Dam spillway meets HMR 36 standards, it does not meet the new HMR 58 standards and must be modified. PMP/PMF studies for Calero and Guadalupe dams indicate that their spillways do not meet the HMR 58 standards and must be modified.

Approach to Capital Project Identification

Most of Valley Water’s dams’ components will require some form of remediation over the next decade due to their age and changes in design standards. As the seismic stability evaluations and condition assessment of other dam components are completed for each dam, staff, in concert with DSOD, will develop capital projects to address the necessary remediation work. The status of Valley Water’s dam condition assessments is summarized in Table 1.
<table>
<thead>
<tr>
<th>Reservoir</th>
<th>Dam Embankment</th>
<th>Spillway</th>
<th>Outlet Works</th>
<th>Planned Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Seismic Stability</td>
<td></td>
<td>Hydraulic System</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fault Rupture</td>
<td></td>
<td>Outlet pipe, Structure &amp; Intake</td>
<td></td>
</tr>
<tr>
<td>Almaden</td>
<td>Evaluation complete: no retrofit required.</td>
<td>Spillway must be replaced to meet current hydraulic capacity standards.</td>
<td>To be replaced as part of the dam improvements project.</td>
<td>June 2031</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>To be replaced as part of the dam improvements project.</td>
<td></td>
</tr>
<tr>
<td>Anderson</td>
<td>Evaluation complete: embankment retrofit required.</td>
<td>Fault rupture hazard at site.</td>
<td>Spillway must be replaced to meet current standards.</td>
<td>December 2031</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>To be replaced as part of the retrofit project.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Outlet works replaced in 1992. No modification required.</td>
<td></td>
</tr>
<tr>
<td>Coyote</td>
<td>Safety evaluation underway.</td>
<td>Fault rupture hazard at site.</td>
<td>Spillway will need to be retrofitted or replaced to meet HMR 58 standards.</td>
<td>December 2023 / To be determined.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Hyrdraulic system replaced in 1992. No modification required.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Hydraulic system at Chesbro replaced in 2014.</td>
<td></td>
</tr>
<tr>
<td>Lenihan</td>
<td>Safety evaluation underway.</td>
<td>Fault rupture hazard at site.</td>
<td>Spillway assessments ongoing; Future repairs or full replacement recommended to meet current standards.</td>
<td>To be determined.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Hydraulic system replaced in 2010. No modification required.</td>
<td></td>
</tr>
<tr>
<td>Stevens Creek</td>
<td>Safety evaluation to be initiated after 2024.</td>
<td>Fault rupture hazard at the site.</td>
<td>Study to be initiated after 2024.</td>
<td>To be determined.</td>
</tr>
<tr>
<td>Vasona</td>
<td>Safety evaluation to be initiated after 2024.</td>
<td>No spillway.</td>
<td>Study to be initiated after 2024.</td>
<td></td>
</tr>
</tbody>
</table>
Capital Improvement Program (CIP) Committee

Dam Safety Program Update

Presented by
Steven Wu, P.E. Senior Engineer and
Hemang Desai, P.E. Engineering Unit Manager
Presentation Outline

- Valley Water’s dams and reservoirs
- Dam Safety Program
- Spillway condition assessments
<table>
<thead>
<tr>
<th>Reservoir</th>
<th>Year Built</th>
<th>Reservoir Capacity</th>
<th>Restricted Capacity*</th>
<th>Use</th>
<th>Dam Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>Almaden</td>
<td>1935</td>
<td>1,586 AF</td>
<td>1,472 AF</td>
<td>Recharge &amp; treated</td>
<td>105 ft.</td>
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<tr>
<td>Anderson**</td>
<td>1950</td>
<td>90,373 AF</td>
<td>2,881 AF</td>
<td>Recharge &amp; treated</td>
<td>240 ft.</td>
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<tr>
<td>Calero</td>
<td>1935</td>
<td>9,934 AF</td>
<td>4,585 AF</td>
<td>Recharge &amp; treated</td>
<td>98 ft.</td>
</tr>
<tr>
<td>Chesbro</td>
<td>1955</td>
<td>7,945 AF</td>
<td>7,945 AF</td>
<td>Recharge</td>
<td>95 ft.</td>
</tr>
<tr>
<td>Coyote</td>
<td>1936</td>
<td>23,244 AF</td>
<td>12,382 AF</td>
<td>Recharge &amp; treated</td>
<td>138 ft.</td>
</tr>
<tr>
<td>Guadalupe</td>
<td>1935</td>
<td>3,415 AF</td>
<td>2,218 AF</td>
<td>Recharge</td>
<td>129 ft.</td>
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<tr>
<td>Lexington</td>
<td>1952</td>
<td>19,044 AF</td>
<td>19,044 AF</td>
<td>Recharge</td>
<td>195 ft.</td>
</tr>
<tr>
<td>Stevens Ck</td>
<td>1935</td>
<td>3,138 AF</td>
<td>3,138 AF</td>
<td>Recharge</td>
<td>120 ft.</td>
</tr>
<tr>
<td>Uvas</td>
<td>1957</td>
<td>9,835 AF</td>
<td>9,835 AF</td>
<td>Recharge</td>
<td>118 ft.</td>
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<tr>
<td>Vasona</td>
<td>1935</td>
<td>495 AF</td>
<td>495 AF</td>
<td>Recharge</td>
<td>30 ft.</td>
</tr>
<tr>
<td>**Total</td>
<td>**</td>
<td>**169,009 AF</td>
<td>**63,995 AF</td>
<td>**</td>
<td>**</td>
</tr>
</tbody>
</table>

* Red font indicates reservoir capacities restricted by Division of Safety of Dams (DSOD)
** Federal Energy Regulatory Commission (FERC) ordered a revised interim reservoir restriction for Anderson Dam in February 2020.
Dam Safety Program Elements

1. Surveillance & Monitoring
2. Inspections & Maintenance
3. Emergency Preparedness
4. Special Engineering Studies
   - Safety reviews
   - Stability evaluations
   - Spillway condition assessments
   - Spillway capacity analysis
   - Dam instrumentation
Status of Seismic Stability Evaluations

- Completed seismic stability evaluations for six of nine dams.

- Four active capital projects to address deficiencies (Anderson, Almaden, Calero, and Guadalupe dams).

- Lenihan and Stevens Creek dams do not require seismic retrofit of embankment.

- Coyote, Chesbro, and Uvas dams’ seismic stability evaluations underway with estimated completion in 2023.
Spillway Condition Assessments

April 2017:

► Then Governor Brown orders detailed spillway evaluations at all high-hazard dams in California (post-Oroville 2017 incident).

► Division of Safety of Dams (DSOD) identifies nine Valley Water dam spillways for assessment.
Scope for Spillway Condition Assessments

- Identify potential geologic hazards;

- Characterize foundation and concrete material susceptible to erosion;

- Evaluate spillway condition and adequacy of design features; and

- Review maintenance records and practices.
2017 Spillway Condition Assessments

- Anderson Spillway – August 2017
- Almaden Spillway – September 2017
2017 Spillway Condition Assessments

- Calero and Guadalupe spillways – August 2017
2019 Spillway Condition Assessments

- Lenihan and Stevens Creek spillways – Nov. 2019
Key Findings

- Spillway conditions in reasonable shape for their age.

- Existing spillways do not meet current standards:
  - Only a single layer of reinforcement.
  - No waterstops.
  - No slab anchors at Almaden, Calero, Guadalupe, Lenihan, and Stevens Creek.
  - No underdrains at Almaden, Calero, Guadalupe, Lenihan, and Stevens Creek.
Continue Spillway Maintenance Practices

- Remove vegetation.
- Seal cracks and joints.
- Repair spalls at joints and main slab.
- Grind down vertical offsets at joints.
Typical Spillway Maintenance

Calero Dam
Sealing of cracks and joints

Before

After
### Status of Evaluations

<table>
<thead>
<tr>
<th>Reservoir</th>
<th>Embankment</th>
<th>Spillway</th>
<th>Outlet works</th>
</tr>
</thead>
<tbody>
<tr>
<td>Almaden</td>
<td>No retrofit needed.</td>
<td>Replace as part of capital project.</td>
<td>Replace as part of capital project.</td>
</tr>
<tr>
<td></td>
<td>Schedule: June 2031</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anderson</td>
<td>Retrofit underway.</td>
<td>Replace as part of capital project.</td>
<td>Replace as part of capital project.</td>
</tr>
<tr>
<td></td>
<td>Schedule: Dec. 2031</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calero</td>
<td>Retrofit underway.</td>
<td>Replace as part of capital project.</td>
<td>Replace as part of capital project.</td>
</tr>
<tr>
<td></td>
<td>Schedule: June 2034</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guadalupe</td>
<td>Retrofit underway.</td>
<td>Replace as part of capital project.</td>
<td>Replace as part of capital project.</td>
</tr>
<tr>
<td></td>
<td>Schedule: Oct. 2027</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Status of Evaluations

<table>
<thead>
<tr>
<th>Reservoir</th>
<th>Embankment</th>
<th>Spillway</th>
<th>Outlet works</th>
</tr>
</thead>
</table>
# Status of Evaluations

<table>
<thead>
<tr>
<th>Reservoir</th>
<th>Embankment</th>
<th>Spillway</th>
<th>Outlet works</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lexington</td>
<td>No retrofit needed.</td>
<td>Evaluation ongoing/ Future replacement or significant repairs recommended. Schedule: TBD</td>
<td>Replaced in 2010 – no modification planned.</td>
</tr>
<tr>
<td>Vasona</td>
<td>Seismic stability eval. to be initiated after 2024.</td>
<td>No spillway.</td>
<td>To be evaluated after 2024.</td>
</tr>
</tbody>
</table>
Spillway Replacements

- Staff has incorporated full spillway replacement into four active retrofit projects.

<table>
<thead>
<tr>
<th>Dam Retrofit or Improvement Project</th>
<th>Anticipated Completion Date</th>
<th>Current CIP Project Cost ($ millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anderson</td>
<td>Dec. 2031</td>
<td>$1,236</td>
</tr>
<tr>
<td>Almaden</td>
<td>June 2031</td>
<td>$65</td>
</tr>
<tr>
<td>Calero</td>
<td>June 2034</td>
<td>$159</td>
</tr>
<tr>
<td>Guadalupe</td>
<td>Oct. 2027</td>
<td>$82</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>$1,542</strong></td>
</tr>
</tbody>
</table>
QUESTIONS
COMMITTEE AGENDA MEMORANDUM

Capital Improvement Program Committee

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 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 Anderson Dam Tunnel Project (ADTP).

On April 27, 2021, Valley Water's Board of Directors awarded the construction contract for the Anderson Dam Tunnel Project (ADTP) to the top ranked best value proposer, Flatiron West, Inc., 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 Anderson Dam Tunnel Project 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
Construction Contract Change Orders Status

There is one pending change order, which is currently being analyzed and reviewed by staff, related to design changes that were made following award of contract. These design changes affect the dimensions of the high-level outlet shaft and are needed in response to comments from the California Department of Water Resources' Division of Safety of Dams (DSOD) and FERC. Based on discussion with the CIP Committee in January 2022, the full details of this change order will be presented to the CIP Committee before being presented to the Board of Directors for approval should the anticipated cost be in excess of the amount delegated to the Chief Executive Officer.

ATTACHMENTS:
Attachment 1: Construction Contract Change Orders Status

UNCLASSIFIED MANAGER:
Christopher Hakes, 408-630-3796
## Anderson Dam Tunnel Project
### Construction Contract Change Order Status

<table>
<thead>
<tr>
<th>Change Order Number</th>
<th>Date</th>
<th>Description</th>
<th>Amount</th>
<th>Contingency Amount</th>
<th>Approval Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>4/27/2021</td>
<td>Original Contract</td>
<td>$161,140,321</td>
<td>$40,000,000</td>
<td>Board</td>
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<tr>
<td>1</td>
<td>12/16/2021</td>
<td>Additional Tree Removal, Protection and Relocation</td>
<td>$460,250.41</td>
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<td>DOO</td>
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</table>

**Remaining Contingency** $39,539,750

<table>
<thead>
<tr>
<th>Pending Change Order</th>
<th>Description</th>
<th>Approximate Claim Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Outlet Works Vertical Shaft Re-sizing</td>
<td>&lt; $5 million</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of Change Orders Approved Previously</th>
<th>Number Of Change Orders Approved Current Month</th>
<th>Total Number Of Change Orders Executed To Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>1</td>
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</tbody>
</table>
COMMITTEE AGENDA MEMORANDUM

Capital Improvement Program Committee

SUBJECT:
Review 2022 Capital Improvement Committee Work Plan.

RECOMMENDATION:
Review the 2022 Capital Improvement Program Committee 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.

The CIP Work Plan contained in Attachment 1 is presented for the Committee’s review to determine topics for discussion in 2022.

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.

ATTACHMENTS:
Attachment 1: 2022 CIP Committee Work Plan

UNCLASSIFIED MANAGER:
Candice Kwok-Smith, 408-630-3193
# CIP Committee 2022 Workplan

## Capital Project Monitoring

<table>
<thead>
<tr>
<th>Project</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
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</thead>
<tbody>
<tr>
<td>Feasibility/Planning</td>
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<td>X</td>
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<td>Design/Permitting</td>
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## CIP Implementation

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<tr>
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<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
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<td>10-Year Pipeline Program Overview and Updates</td>
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<td>Dam Safety Program Overview and Updates</td>
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<td>ERP System Implementation Overview and Updates</td>
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<td>Consultant Agreement Compliance Process</td>
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## CIP Development

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## Standing Items

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