

May 5, 2023

MEETING NOTICE

WATER STORAGE EXPLORATORY COMMITTEE

Board Members of the Water Storage Exploratory Committee

Director Rebecca Eisenberg

Director Nai Hsueh (Committee Chair)

Director Richard P. Santos (Committee Vice Chair)

Staff Support of the Water Storage Exploratory Committee

Rick L. Callender, Esq., Chief Executive Officer

Melanie Richardson, Assistant Chief Executive Officer

Christopher Hakes, Acting Assistant Chief Executive Officer

Aaron Baker, Chief Operating Officer, Water Utility

Rachael Gibson, Chief of External Affairs

J. Carlos Orellana, District Counsel

Brian Hopper, Senior Assistant District Counsel

Vincent Gin, Deputy Operating Officer, Water Supply Division

Emmanuel Aryee, Deputy Operating Officer, Water Utility Capital Division

Ryan McCarter, Acting Deputy Operating Officer, Dam Safety & Capital Delivery Division

Gregory Williams, Deputy Operating Officer, Raw Water Division

Marta Lugo, Assistant Officer, Office of the Chief of External Affairs

Kirsten Struve, Assistant Officer, Water Supply Division

Cindy Kao, Imported Water Manager, Imported Water Unit

Julianne O'Brien, Pacheco Project Manager, Pacheco Project Delivery Unit

Metra Richert, Unit Manager, Water Supply Planning & Conservation Unit

Charlene Sun, Treasury and Debt Manager

Andrew Garcia, Senior Water Resources Specialist, Imported Water Unit

Samantha Greene, Senior Water Resources Specialist, Water Supply Planning & Conservation Unit

A regular meeting of the Santa Clara Valley Water District (SCVWD) Water Storage Exploratory Committee is to be held on **Friday, May 12, 2023, at 12:00 p.m. at Headquarters Building Boardroom, 5700 Almaden Expressway, San Jose CA 95118. The Public and non-presenting staff may** [Join Zoom Meeting https://valleywater.zoom.us/j/98246045660](https://valleywater.zoom.us/j/98246045660).

The meeting agenda and corresponding materials can be found on our website for your convenience. <https://www.valleywater.org/how-we-operate/committees/board-committees>

WATER STORAGE EXPLORATORY COMMITTEE MEETING

Public Join Zoom Meeting

<https://valleywater.zoom.us/j/98246045660>

Meeting ID: 982 4604 5660

One tap mobile

+16699009128,,98246045660# US (San Jose)

Dial by your location

+1 669 900 9128 US (San Jose)

Meeting ID: 982 4604 5660



Santa Clara Valley Water District Water Storage Exploratory Committee Meeting

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

REGULAR MEETING AGENDA

**Friday, May 12, 2023
12:00 PM**

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

**WATER STORAGE EXPLORATORY
COMMITTEE**

Director Richard P. Santos, District 3
(Committee Vice Chair)
Director Nai Hsueh, District 5
(Committee Chair)
Director Rebecca Eisenberg, District 7

All public records relating to an 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 for public inspection at the Office of the Clerk of the Board at the Santa Clara Valley Water District Headquarters Building, 5700 Almaden Expressway, San Jose, CA 95118, 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 attend Board of Directors' meeting. Please advise the Clerk of the Board Office of any special needs by calling (408) 265-2600.

Vincent Gin
Christopher Hakes
(Staff Liaisons)

Glenna Brambill (Committee
Liaison)
Management Analyst II
(408) 630-2408,
gbrambill@valleywater.org

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

Santa Clara Valley Water District
Water Storage Exploratory Committee
REGULAR MEETING
AGENDA

Friday, May 12, 2023

12:00 PM

Headquarters Building Boardroom

*****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 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.

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

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

This agenda has been prepared as required by the applicable laws of the State of California, including but not limited to, Government Code Sections 54950 et. seq. and has not been prepared with a view to informing an investment decision in any of Valley Water’s bonds, notes or other obligations. Any projections, plans or other forward-looking statements included in the information in this agenda are subject to a variety of

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

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

Join Zoom Meeting:
<https://valleywater.zoom.us/j/98246045660>

Meeting ID: 982 4604 5660

Join by Phone:

1 (669) 900-9128, 98246045660#

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 two 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 Minutes.

[23-0531](#)

Recommendation: Approve the March 29, 2023, Special Meeting Minutes.

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

Attachments: [Attachment 1: 03292923 WSEC Minutes](#)

Est. Staff Time: 5 Minutes

4. REGULAR AGENDA:

- 4.1. Update on the Pacheco Reservoir Expansion Project. [23-0532](#)
Recommendation: Receive and Discuss Information Regarding the Pacheco Reservoir Expansion Project.
Manager: Ryan McCarter, 408-630-2983
Attachments: [Attachment 1: PowerPoint Presentation](#)
Est. Staff Time: 15 Minutes
- 4.2. Update on Sites Reservoir Project. [23-0533](#)
Recommendation: Receive and Discuss Information Regarding the Sites Reservoir Project.
Manager: Vincent Gin, 408-630-2633
Attachments: [Attachment 1: Sites Participant Table](#)
[Attachment 2: PowerPoint Presentation](#)
Est. Staff Time: 15 Minutes
- 4.3. B. F. Sisk Dam Raise and Reservoir Expansion Project Update. [23-0534](#)
Recommendation: Receive and Discuss Information Regarding the B.F. Sisk Dam Raise and Reservoir Expansion Project.
Manager: Vincent Gin, 408-630-2633
Attachments: [Attachment 1: PowerPoint Presentation](#)
Est. Staff Time: 15 Minutes
- 4.4. Update on Antelope Valley-East Kern Water Agency High Desert Water Bank Phase 2 Project. [23-0538](#)
Recommendation: Receive and Discuss Information Regarding the Antelope Valley-East Kern Water Agency High Desert Water Bank Phase 2 Project.
Manager: Vincent Gin, 408-630-2633
Attachments: [Attachment 1: Ph2 XOI Request+Response](#)
[Attachment 2: PowerPoint Presentation](#)
Est. Staff Time: 15 Minutes

4.5. Standing Items.

[23-0535](#)

Recommendation: A. This agenda item allows the Committee to receive verbal or written updates and discuss the projects listed in the summary. These items are generally informational; however, the Committee may request additional information from staff:

B. This is informational only and no action is required.

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

Est. Staff Time: 10 Minutes

4.6. Review Water Storage Exploratory Committee Work Plan and the Committee's Next Meeting Agenda.

[23-0537](#)

Recommendation: Review the Committee's Work Plan to guide the Committee's discussions regarding policy alternatives and implications for Board deliberation.

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

Attachments: [Attachment 1: 2023 WSEC 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 12:00 p.m., on Friday, June 9, 2023.



Santa Clara Valley Water District

File No.: 23-0531

Agenda Date: 5/12/2023

Item No.: 3.1.

COMMITTEE AGENDA MEMORANDUM Water Storage Exploratory Committee

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

SUBJECT:

Approval of Minutes.

RECOMMENDATION:

Approve the March 29, 2023, Special Meeting Minutes.

SUMMARY:

A summary of Committee discussions, and details of all actions taken by the Committee, during all open and public Committee meetings, is transcribed and submitted for review and approval.

Upon Committee approval, minutes transcripts are finalized and entered into the District's historical records archives and serve as historical records of the Committee's meetings.

ATTACHMENTS:

Attachment 1: 03292023 WSEC Draft Minutes

UNCLASSIFIED MANAGER:

Candice Kwok-Smith, 408-630-3193

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SANTA CLARA VALLEY WATER DISTRICT (VALLEY WATER)
WATER STORAGE EXPLORATORY COMMITTEE

DRAFT MINUTES

WEDNESDAY, MARCH 29, 2023

(Paragraph numbers coincide with agenda item numbers)

A special meeting of the Water Storage Exploratory Committee (Committee) was held on March 29, 2023, at Santa Clara Valley Water District, 5700 Almaden Expressway, San Jose CA 95118.

1. CALL TO ORDER

The Water Storage Exploratory Committee was called to order by Committee Chair Pro Tem Director Richard P. Santos at 11:01 a.m.

1.1 ROLL CALL

Valley Water Board Members in attendance were: Director Nai Hsueh (District 5) and Director Richard P. Santos (District 3), establishing a quorum, and Director Rebecca Eisenberg (District 7-arrived at 11:05 a.m.).

Valley Water Staff in attendance were: Gina Adriano, Antonio Alfaro, Emmanuel Aryee, Aaron Baker, Lisa Bankosh, Glenna Brambill, Rick Callender, Ray Fields, Anthony Fulcher, Bal Ganjoo, Meenakshi Ganjoo, Andrew Garcia, Vincent Gin, Alexander Gordon, Samantha Greene, Andy Gschwind, Christopher Hakes, Robert Harvie, Cindy Kao, Candice Kwok-Smith, Jessica Lovering, Katherine Maher, Michael Martin, Ryan McCarter, Julianne O'Brien, Carlos Orellana, Melanie Richardson, Don Rocha, Ranithri Slayton, Kirsten Struve, Charlene Sun, Darin Taylor, Greg Williams, and Jing Wu.

Guests in attendance were: Melanie Carrido (MWH Constructors), Katja Irvin (Sierra Club-Loma Prieta Chapter), Hon. Steve Jordan (Director, Purissima Hills Water District and BAWSCA), Hon. Yoriko Kishimoto (Midpeninsula Regional Open Space District), (Danielle McPherson and Nicole Sandkulla (BAWSCA), Maureen Martin. (Contra Costa Water District {CCWD}), Dan Peluso (Cal Engineer and Geologic, Inc.), Taryn Ravazzini (Executive Director, LVE Project Joint Powers Authority (JPA), Brian Schmidt (Green Foothills), Gavin Tasker-Barnard Construction), Bill Tuttle (San Jose Water Company-SJWC), and, Hon. John Weed (Alameda County Water District-ACWD).

Public in attendance were: Darren Baune, Jim Bowley, Molly Culton, CR Doug MC, Gavin Downs, Rhoda Fry, Gronczka, Kaho Khong, Kristina Loquist, and Paul Sorci.

Attachment 1
Page 1 of 5

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

Katja Irvin (Sierra Club-Loma Prieta Chapter), noted that this committee is important and suggested beginning meeting every other month to discuss the large projects not included in the CIP.

Committee Chair Pro Tem Director Richard P. Santos moved to Agenda Item 5.1.

5. REGULAR AGENDA ITEMS

5.1 LOS VAQUEROS RESERVOIR EXPANSION PROJECT UPDATE

Michael Martin reviewed the materials as outlined in the agenda item.

Vincent Gin introduced Taryn Ravizzini (Executive Director, LVE Project Joint Powers Authority (JPA), and she gave an overview of the project, partnerships, and funding.

Public Comment:

Hon. Brian Schmidt (Green Foothills) had a question on the service agreement and this looks like a great project.

Vincent Gin was available to answer questions.

The Water Storage Exploratory Committee took no action.

Committee Chair Pro Tem Director Richard P. Santos moved to Agenda Item 3.1.

3. ELECTION OF CHAIR AND VICE CHAIR

3.1 ELECTION OF CHAIR AND VICE CHAIR

Chair Pro Tem Director Richard P. Santos opened the floor to take nominations for Committee Chair.

Director Richard P Santos nominated Director Nai Hsueh as Committee Chair, Director Rebecca Eisenberg seconded, the committee unanimously elected Director Nai Hsueh as Chair.

Committee Chair Director Nai Hsueh opened the floor was opened to take nominations for Committee Vice Chair.

Director Nai Hsueh nominated Director Richard P. Santos as Committee Vice Chair, Director Rebecca Eisenberg seconded, the committee unanimously elected Director Richard P. Santos as Vice Chair.

4. APPROVAL OF MINUTES

4.1 APPROVAL OF MINUTES

It was moved by Director Richard P. Santos, second by Director Nai Hsueh, and by majority vote carried to approve the minutes of the October 13, 2022, meeting of the Water Storage Exploratory Committee as presented. Director Rebecca Eisenberg abstained.

5. REGULAR AGENDA ITEMS

5.2 PERMANENT QUARRY RECONNAISSANCE STUDY

Vincent Gin and Samantha Greene reviewed the materials as outlined in the agenda item.

The Water Storage Exploratory Committee discussed the following: including EIR information on presentations to identify potential environmental impacts (red-legged frogs' impacts), if diverting from Stevens Creek Reservoir (steelhead impacts) critical habitat, other protective species, water quality, the County's Plan-mining impacts and remediation.

Public Comments:

Hon. Brian Schmidt (Green Foothills) noted high level reconnaissance shows this site may not be a viable solution. He gave input on the Impacts to species and diverting surface water may cause some issues with the environmental community. Reported the Quarry submitted a revised 2019 Reclamation Plan, but they suspended it, currently there is no mining or active cement activities, and the environmental agencies would like to see the plant restored.

Rhoda Fry had a question on who suggested the study, why did Valley Water decide to study this site? Rhoda noted some of the Quarry's history (West Material Storage Area scar, Yeager Yard Landslide, past flooding that caused landslide issues), stated that the water quality needs to be protected, suggested enforcing the County's 2012 Reclamation Plan, and concurred with Hon. Brian Schmidt's comments.

Hon. Steve Jordan (Director Purissima Hills Water District and BAWSCA) reported unable to supplement their water source from San Francisco with groundwater, there is no recharge in Los Altos Hills (removed from the groundwater recharge zone), would this be feasible for them in western part of the County? How does the 14,000 acre- feet compare to the capacity of Stevens Creek Reservoir?

Director Nai Hsueh, Aaron Baker, and Vincent Gin were available to answer questions.

The Water Storage Exploratory Committee took no action, however, suggested staff submit a non-agenda item with the presentation slides to inform the Board that this high-level study resulted to be a non-feasible project and discontinue any further resources for the study. Also, the Committee would like to have staff continue monitoring the quarry for any updates/changes.

5.3 UPDATE ON B. F. SISK DAM RAISE AND RESERVOIR EXPANSION PROJECT

Vincent Gin and Cindy Kao reviewed the materials as outlined in the agenda item.

Committee Chair Director Nai Hsueh noted that the Committee is receiving this high-level presentation prior to the Board getting any information.

The Water Storage Exploratory Committee would like an analysis of this project for the next meeting.

Public Comments:

Hon. Brian Schmidt had a question on how this project relates to Pacheco and how much

Attachment 1

Page 3 of 5

water would the dam hold?

Katja Irvin encouraged this item be presented to the full Board.

The Water Storage Exploratory Committee took no action.

5.4 STANDING ITEMS

Committee Chair Director Nai Hsueh reviewed the materials as outlined in the agenda item.

Cindy Kao reported on:

Groundwater Banking diversification (hydrology), one option Valley Water is exploring is Antelope Valley East Kern (AVEK) opportunities

- AVEK Develop 440,000 acre-feet groundwater bank, Valley Water's place holder is 200,000 acre-feet
- Developing Terms and Conditions for participation in the bank along with developing the MOU to incorporate the terms and conditions, expect to execute later this summer, the MOU will detail the terms for participating in the planning phase laying out principles for developing a banking agreement for the operations and construction phases
- Executed a Pilot Banking Agreement in March to test some of the processes and approvals needed to get the bank moving
- Working on water supply reliability efforts

Public Comments:

Katja Irvin followed up about the request Director Jim Beall made at the special Pacheco Board meeting regarding the project schedule, financial timelines, when will the Board will be receiving that? Asked for side-by-side analyses of storage alternatives, looking at costs on an acre-foot basis, with and without the 35% participation, Pacheco EIR, job creation, and San Luis Reservoir project-evaluations criteria so the public could give input.

Check to see if this was a BMR/non-agenda item so staff could formally answer.

Chris Hakes was available to answer questions. Come back on a quarterly basis with a report

Hon. Brian Schmidt commented on Valley Water looking at potable/non-potable water, more recycling water sources with exploring more areas of storage (such as LeHigh, which are not part of the Water Supply Master Plan). Having financial timelines. When will the Board make decisions on projects moving forward or not? Process on committee decisions to the board?

The Water Storage Exploratory Committee took no action.

5.5 REVIEW WATER STORAGE EXPLORATORY COMMITTEE WORK PLAN AND THE COMMITTEE'S NEXT MEETING AGENDA

Committee Chair Director Nai Hsueh reviewed the materials as outlined in the agenda item.

Committee Chair will work on 2023 Work Plan and meeting dates with Staff.

The Water Storage Exploratory Committee took no action.

6. CLERK REVIEW AND CLARIFICATION OF COMMITTEE ACTIONS

Glenna Brambill noted there were no action items for Board consideration.

7. ADJOURNMENT

Committee Chair Director Nai Hsueh adjourned the meeting at 12:57 p.m.

Glenna Brambill
Board Committee Liaison
Office of the Clerk of the Board

Approved:



Santa Clara Valley Water District

File No.: 23-0532

Agenda Date: 5/12/2023

Item No.: 4.1.

COMMITTEE AGENDA MEMORANDUM Water Storage Exploratory Committee

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

SUBJECT:

Update on the Pacheco Reservoir Expansion Project.

RECOMMENDATION:

Receive and Discuss Information Regarding the Pacheco Reservoir Expansion Project.

SUMMARY:

On March 16, 2023, staff presented an update to the Board of Directors on the Pacheco Reservoir Expansion Project (PREP) as part of a Water Supply Master Plan update. In response to discussion during that Board meeting, staff will be providing quarterly updates to the Water Storage Exploratory Committee (Committee), followed by updates to the full Board.

Project Development

The PREP team has been continuing to develop the 60% design package, to include design level plans, specifications, and an updated construction cost estimate. The team is also proceeding with additional field investigations to gather needed information and refine the project design. Permission to Enter documents for the downstream investigations along Pacheco Creek went out in April and are continuing to be finalized. The second phase of geotechnical investigations for proposed site access improvements near Highway 152, the power transmission line alignment to the east, and to gather additional subsurface information related to the dam site is anticipated to resume in mid-May.

Upcoming Milestones

Staff has continued to develop the milestone timeline previously presented in response to direction provided by the Board at the March 16, 2023 meeting. The updated timeline now includes major financial milestones from project inception through the project approval and award of construction contract. The necessary steps in securing partnership agreements have been detailed on the timeline at their anticipated completion dates. Additionally, the points at which Board approval will be required have been identified.

Next Steps

Staff plans to present the updated timeline to the complete Board at a meeting in June. The next PREP update is planned for the Committee meeting in August and will include information on the lost opportunity costs if the project does not move forward as well as other items the Committee would like to discuss.

Additionally, staff is continuing to develop a future storage project cost/benefit comparison to be presented at a future committee meeting as part of a larger Water Supply Master Plan discussion.

ATTACHMENTS:

Attachment 1: PowerPoint Presentation

UNCLASSIFIED MANAGER:

Ryan McCarter, 408-630-2983



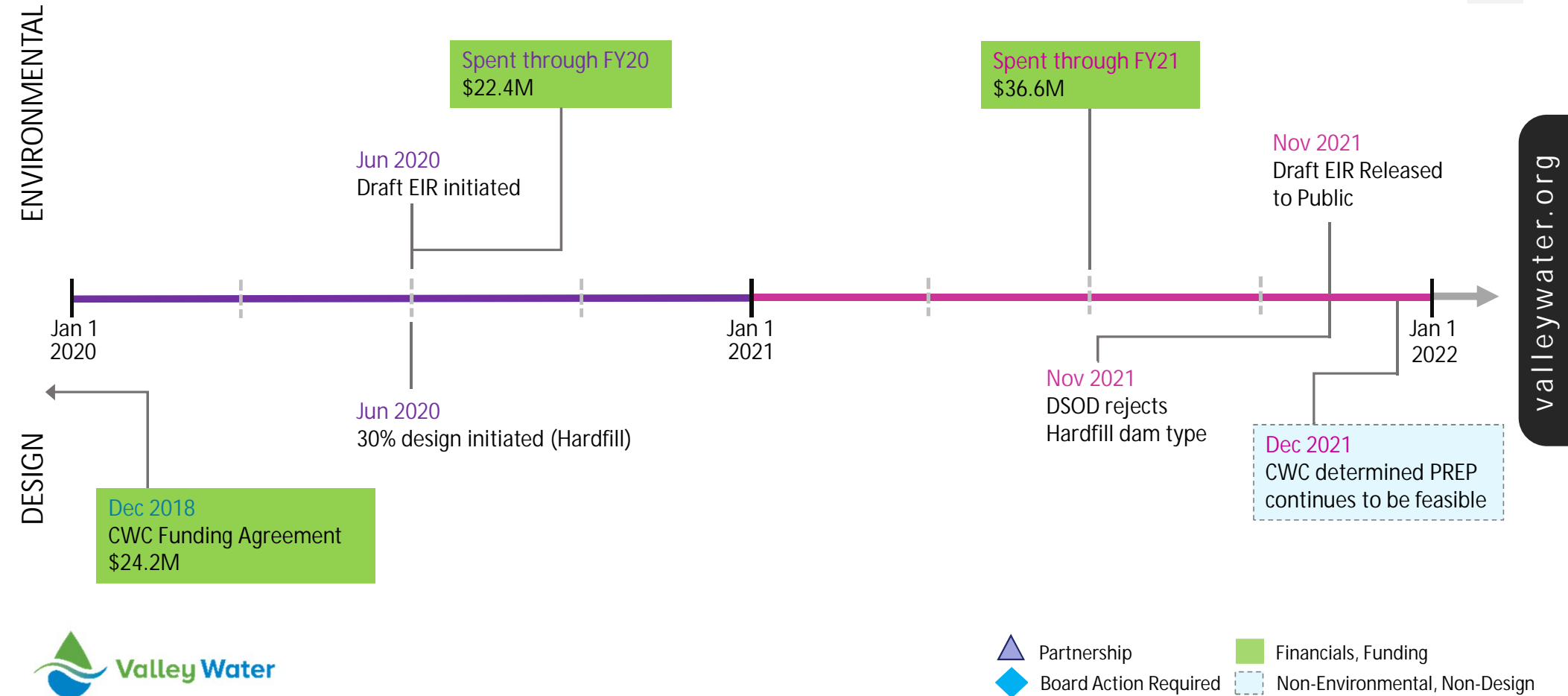
Pacheco Reservoir Expansion Project Update Water Storage Exploratory Committee

May 12, 2023



Environmental and Design Milestone Timeline

2



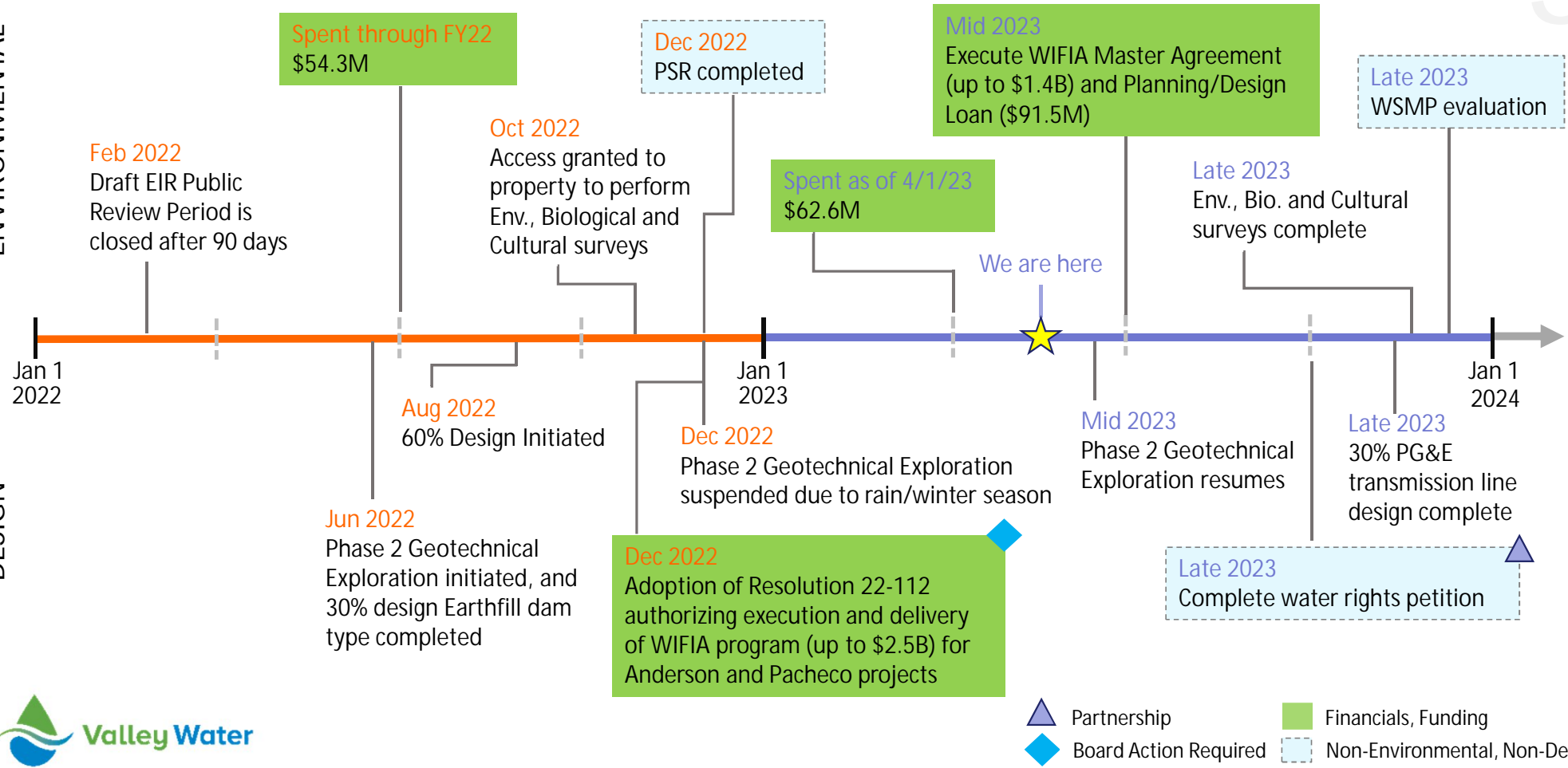
Environmental and Design Milestone Timeline

3

valleywater.org

ENVIRONMENTAL

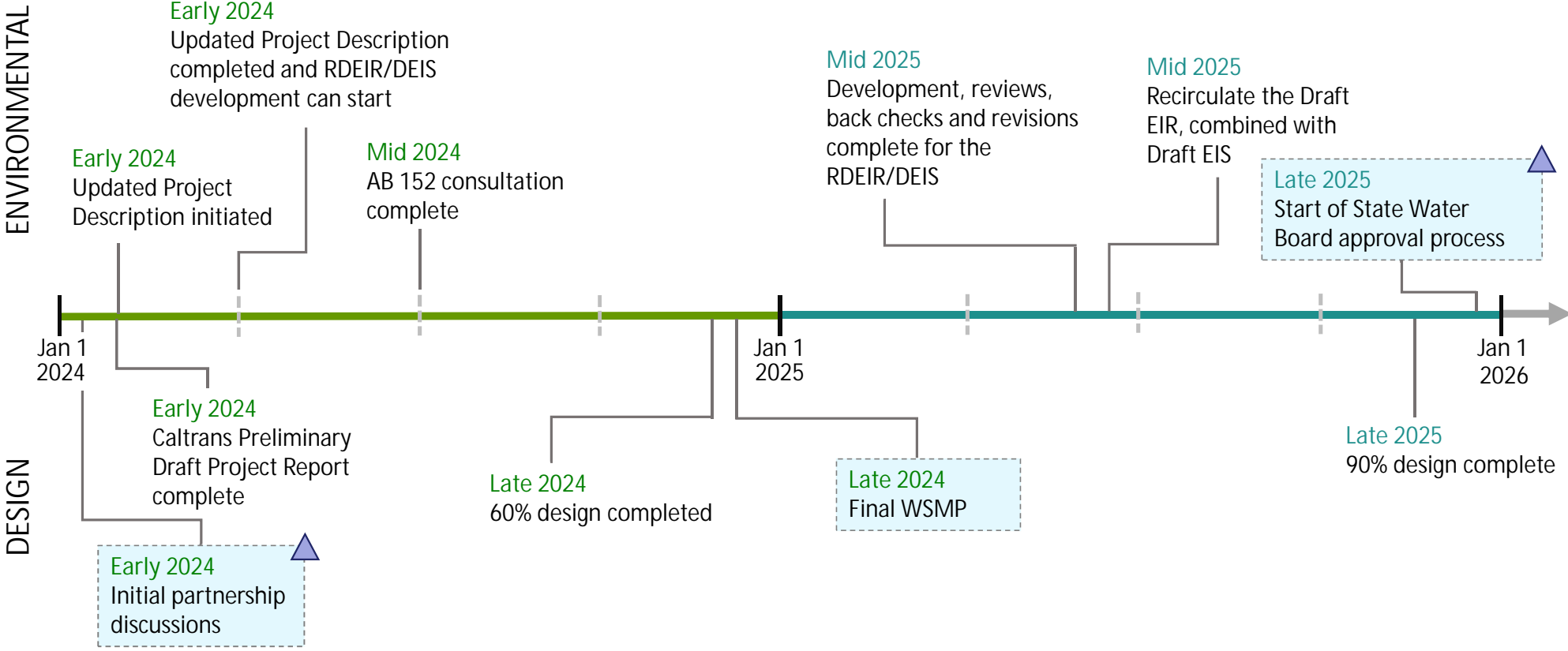
DESIGN



Environmental and Design Milestone Timeline

4

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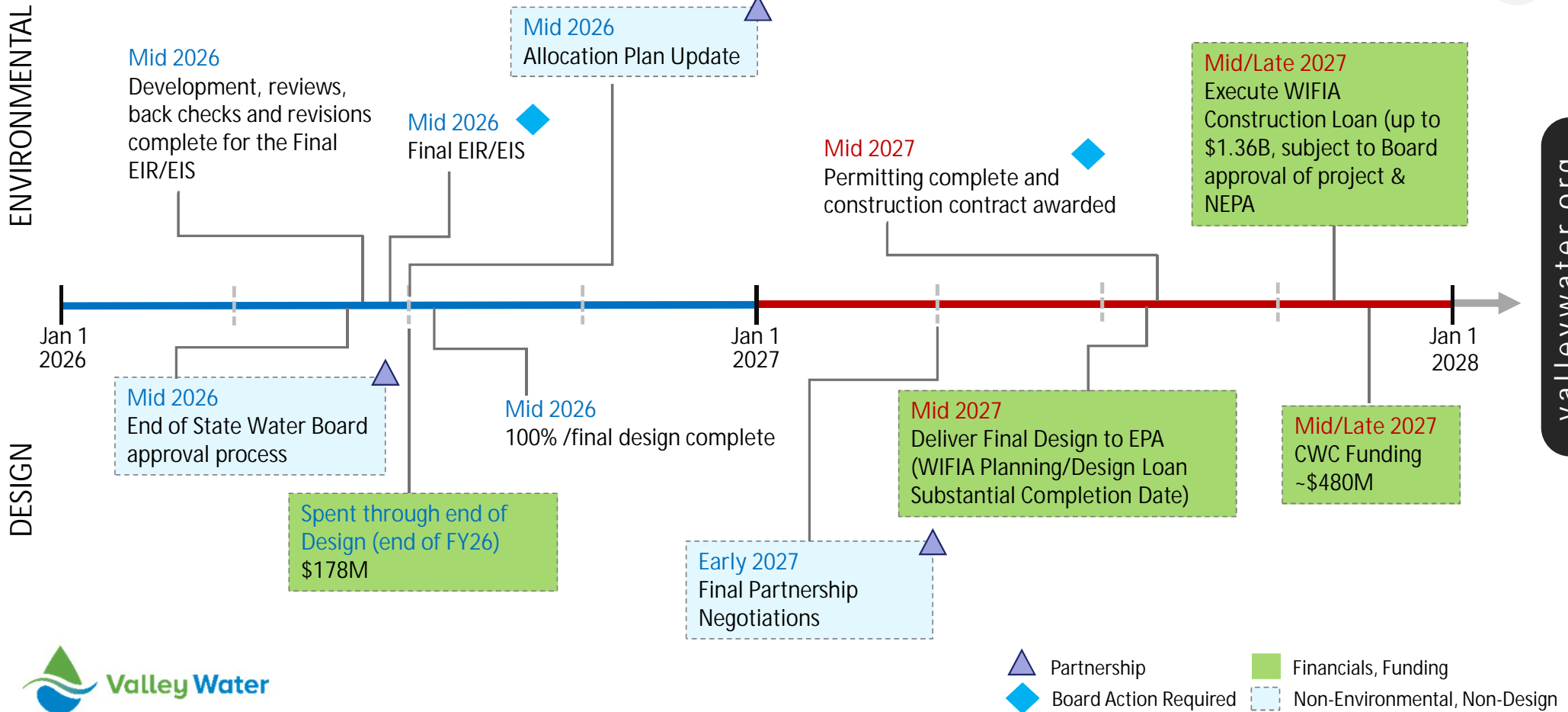


- Partnership
- Board Action Required
- Financials, Funding
- Non-Environmental, Non-Design

Environmental and Design Milestone Timeline

5

valleywater.org



QUESTIONS





Santa Clara Valley Water District

File No.: 23-0533

Agenda Date: 5/12/2023

Item No.: 4.2.

COMMITTEE AGENDA MEMORANDUM Water Storage Exploratory Committee

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

SUBJECT:

Update on Sites Reservoir Project.

RECOMMENDATION:

Receive and Discuss Information Regarding the Sites Reservoir Project.

SUMMARY:

The Sites Reservoir Project (Project) is a proposed 1.41 million acre-foot, off-stream reservoir that would be located north-of-Delta (NOD), approximately 10 miles west of the town of Maxwell in Colusa County. The Project is designed to divert excess flows on the Sacramento River during storms and store it in Sites Reservoir which can then be released to provide water supply during dry years. In addition to providing water supply for Project participants, the Project will provide public benefits including environmental water supply, recreation facilities, and regional flood benefits. Santa Clara Valley Water District's (Valley Water) Water Supply Master Plan (WSMP) has identified the Project as a potential alternative to help ensure water supply reliability. Current members of the Sites Project Authority and Reservoir Committee (Participants), which together oversee the development of and fund the project, include Central Valley Project (CVP) water agencies north of the Delta, as well as State Water Project (SWP) water agencies south of the Delta. There is also strong support from the California Department of Water Resources (DWR), and the U.S. Bureau of Reclamation (Reclamation).

The Sites Project Authority is Joint Powers Authority made up of nine Sacramento Valley agencies. Each of the local agencies holds a seat on the Sites Project Board of Directors, DWR and Reclamation also participate as non-voting members of the Sites Project Board of Directors. The Project governance structure also includes a Reservoir Committee comprised of the 22 agencies that are participating in and funding the Project. Per the Sites 2019 Reservoir Project Agreement and the Sites Bylaws, items which constitute a material change to the Project, including items related to Project costs, require approval of both the Reservoir Committee and the Board of Directors. Work is currently underway to evaluate whether revisions to the Project governance will be required during Project construction and long-term operation of the project.

The Project is currently fully subscribed and has a waitlist of new agencies interested in joining the Project and existing participants interested in increasing their participation level. In addition, Reclamation has also requested to increase its participation level from 7% to 16%. Valley Water currently has a 0.2% participation level in the Project. In June 2022, Valley Water requested to be placed on the waiting list to have the opportunity to consider increasing participation up to a maximum of 2.7% participation level. If space becomes available and Valley Water is offered the opportunity to increase participation, staff will bring this opportunity to the board. Staff intends to evaluate different levels of participation and make a recommendation through the WSMP process. A table showing the participation level of existing participants and the list of agencies on the waiting list is shown in Attachment 1.

The Project submitted its Water Rights Application to the State Water Resources Control Board (SWRCB) in May 2022. The SWRCB requested the Project provide additional supplemental information in August 2022 which the Project has submitted. The SWRCB is currently reviewing the Water Right Application and it's anticipated that the Water Rights Permit would be issued in Fall 2024.

In March 2022, the Project was invited to apply for a \$2.2 billion Water Infrastructure Finance and Innovation Act (WIFIA) loan which would cover up to 49% of the Project costs. The Project submitted the WIFIA loan application in March 2023 and it's anticipated that the WIFIA loan will be awarded in March 2024. The WIFIA loan would provide low interest financing for participating water agencies and could potentially reduce the unit cost of water by as much as 10%.

A Revised Draft EIR/EIS for the Project was completed in November 2021. The Revised Draft EIR/EIS was released following a value planning process that resulted in revisions to the Project that made the Project more affordable and addressed comments received on the 2017 Draft EIR/EIS. The Final EIR/EIS for the Project is expected to be released in August 2023.

The Sites Reservoir Benefits and Obligations Contract (Contract) will define the benefits, costs, risks, and financing obligations for Project participants. Negotiations for the Contract are expected to begin in mid-2023. Guiding Principles and Preliminary Terms for the Contract were adopted by the Project in November 2022. The Guiding Principles and Preliminary Terms does not commit participants to any particular requirements in the final Contract but provides high-level guidance on allocating benefits and costs, collecting payments, and remedying defaults, to inform development of the final Contract.

Project Benefits

The Project is designed to divert excess flows from the Sacramento River during high-flow events and store the water in Sites Reservoir. Water could then be released from Sites Reservoir in dry and critically dry years for environmental use and water supply. The Project would be operated in conjunction with both the State Water Project and Central Valley Project to increase the flexibility, reliability, and resiliency of statewide water supplies in drier years.

The operational flexibility provided by the Project will help preserve the cold-water pool in Lake Shasta later into the summer months to support spawning and rearing of endangered Winter-Run Chinook Salmon in the Sacramento River. The Project will also provide a reliable supply of refuge water to improve Pacific Flyway habitat for migratory birds and other native species as well as provide water dedicated to help improve conditions for Delta Smelt.

The water supply benefits for Valley Water will depend upon Valley Water's final level of participation in the Project. The anticipated water supply provided by Valley Water's current participation level and maximum waitlisted level are shown in Table 1 below. In general, Staff anticipates the Project could provide the following benefits to Valley Water:

- Increase in water supply, including greater amounts in dry years,
- Storage rights in Sites Reservoir proportional to the Valley Water's targeted participation level,
- Priority access to transfer supplies made available from other Project participants,
- Priority access to lease or purchase of storage capacity of other Project Participants,
- Improvement in Shasta Reservoir storage levels and cold-water pool that may provide fishery benefits and help stabilize CVP water supply allocations,

The extent to which these benefits can be realized depends on how the project risks, challenges, and mitigation measures are addressed throughout project development. Key risks to the Project which may affect Valley Water include:

- Limitations to our ability to transport water through the Delta,
- Potential reductions to the projected yield or storage capacity of the Project as negotiations with regulatory agencies progress,
- Potential cost increases in the future due to construction cost uncertainties.

These risks could be reduced by also investing in conveyance improvement projects such as the Delta Conveyance Facility.

Table 1: Anticipated Project Yield, Storage, and Costs by Participation Level

	Existing Participation Level	Maximum Waitlisted Participation Level
VALLEY WATER PARTICIPATION LEVEL		
Share of Total Project Costs	0.2%	2.7%
Requested Annual Yield (AF) ¹	500	6,000
Storage Allocation (AF)	3,117	37,400
ESTIMATED WATER SUPPLY BENEFITS FOR VALLEY WATER		
Average Delivered Yield (AF) ²	380	4,590

Average Dry/Critical Year Delivered Yield (AF) ²	770	9,250
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¹ A Participant's "Participation Request" is a metric used by Sites Project managers to calculate participation levels relative to other participants. Actual annual yield of the project will differ from this requested participation level. ² Delivered yield values are based on Sites Project modeling and may be updated as the project progresses. Delivered yields values assume a 25% carriage water loss.

Project Costs

The latest capital cost estimate for the Sites Reservoir Project is \$3.9 billion in 2021 dollars, not including financing costs. This estimate includes anticipated costs for environmental mitigation and other non-construction costs including permitting, real estate, and engineering. Total annual O&M costs would vary depending on hydrology and operations but are expected to be about \$15 million. An updated cost estimate for capital costs and O&M costs is expected mid-2024.

If Valley Water participates in the Project, its share of costs would depend on its participation level. Cost share for Valley Water current participation level and maximum waitlisted level is shown in Table 2 below. Through May 2023, Valley Water has spent approximately \$2 million towards Project planning and development.

Table 2: Anticipated Project Costs by Participation Level

	0.2% Participation (Existing)	2.7% Participation (Maximum Waitlisted Participation Level)
Share of Total Capital Cost (2021 Dollars) ¹	\$8.8 Million	\$120 Million
Estimated Annual O&M Costs (2021 Dollars) ²	\$44,000	\$583,000

¹ Share of total project capital costs published by the Sites Project which was adjusted for inflation to 2021 dollars, not including financing. ² Annual O&M costs can vary widely based on hydrology and operations.

Project Funding

The Project has been awarded a total of approximately \$1.1 billion in state and federal funding. A breakdown of the funding sources secured to date is shown in Table 3 below. The Sites JPA and Project partners are continuing efforts to procure additional funding including securing the final funding agreement with the California Water Commission and executing operating agreements with state, federal, and local partners.

Table 3. Sources of Project Funding

Funding Source	Funding Amount
Prop 1 WSIP award (State funding)	\$875 Million, including \$40 Million in early funding.

WIIN Act (Federal funding)	\$215 Million
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Water Supply Master Plan Context

Valley Water's internal water supply planning analysis recognizes that Valley Water may need to develop alternative water supply sources, such as Sites Reservoir Project, to meet level of service goals in the future. The Ensure Sustainability strategy in the Water Supply Master Plan includes elements to secure and optimize existing supplies and infrastructure. In addition to providing a new source of dry year supply for Valley Water, Sites Reservoir Project would also provide operational flexibility to the Central Valley Project that could help stabilize Central Valley Project allocations under climate changed conditions. Valley Water is in the process of updating the WSMP and this Project, in addition to other water supply projects, will be evaluated as part of this process.

Next Steps

In March 2022, Project participants executed Amendment 3 to the 2019 Reservoir Project Agreement, which provided approximately \$67 million in funding for planning and design costs through the end of 2024. Valley Water's Amendment 3 funding commitment at our current 0.2% participation level was approximately \$200,000. It is anticipated that the next project funding decision will be the final participation decision and include funding and financing commitments for Project construction and any remaining planning costs. Staff anticipates that a final decision will be requested in late 2024 or early 2025.

ATTACHMENTS:

Attachment 1: Sites Participant Table

Attachment 2: PowerPoint Presentation

UNCLASSIFIED MANAGER:

Vincent Gin, 408-630-2633

Sites Participant Table and List of Waitlisted Agencies

Participant	Requested Annual Yield (AF)	Storage (AF)	% of Available Storage
Antelope Valley-East Kern WA	500	3,117	0.2%
City of American Canyon	4,000	24,936	1.8%
Coachella Valley WD	10,000	62,340	4.4%
Colusa County	10,000	62,340	4.4%
Colusa County WD	9,256	57,702	4.1%
Cortina WD	450	2,805	0.2%
Davis WD	2,000	12,468	0.9%
Desert WA	6,500	40,521	2.9%
Dunnigan WD	2,972	18,527	1.3%
Glenn-Colusa ID	5,000	31,170	2.2%
Irvine Ranch WD	1,000	6,234	0.4%
LaGrande WD	1,000	6,234	0.4%
Metropolitan Water District of SC	50,000	311,700	22.1%
Reclamation District 108	4,000	24,936	1.8%
Rosedale-Rio Bravo WD	500	3,117	0.2%
San Bernardino Valley Municipal WD	21,400	133,408	9.5%
San Geronio Pass WA	14,000	87,276	6.2%
Santa Clara Valley WD	500	3,117	0.2%
Santa Clarita Valley WA	5,000	31,170	2.2%
Westside WD	5,375	33,508	2.4%
Wheeler Ridge - Maricopa WSD	3,050	19,014	1.3%
Zone 7 WA	10,000	62,340	4.4%
State of California - Total	n/a	244,000	17.3%
Reclamation ¹	n/a	128,020	9.1%
Available Storage Total		1,410,000	100.0%

¹ Values reflect a potential increase in Reclamation's participation from its current 7% level to 9.1% based on currently available space in the reservoir. This increase in participation level has not been finalized.

Waitlisted Agencies

California American water
City of Napa
Dudley Ridge Water District
La Cumbra Mutual Water Company
Madera County Groundwater Sustainability Agency
Pacific Resources Mutual Water Company*
Palmdale Water District
Santa Clara Valley Water District**
Westlands Water District
Western Municipal Water District
Woodland Davis Clean Water Agency
Wheeler Ridge Maricopa Water Storage District**
U.S. Bureau of Reclamation**

* former Sites Participant

**existing Sites Participant



Update on Sites Reservoir Project

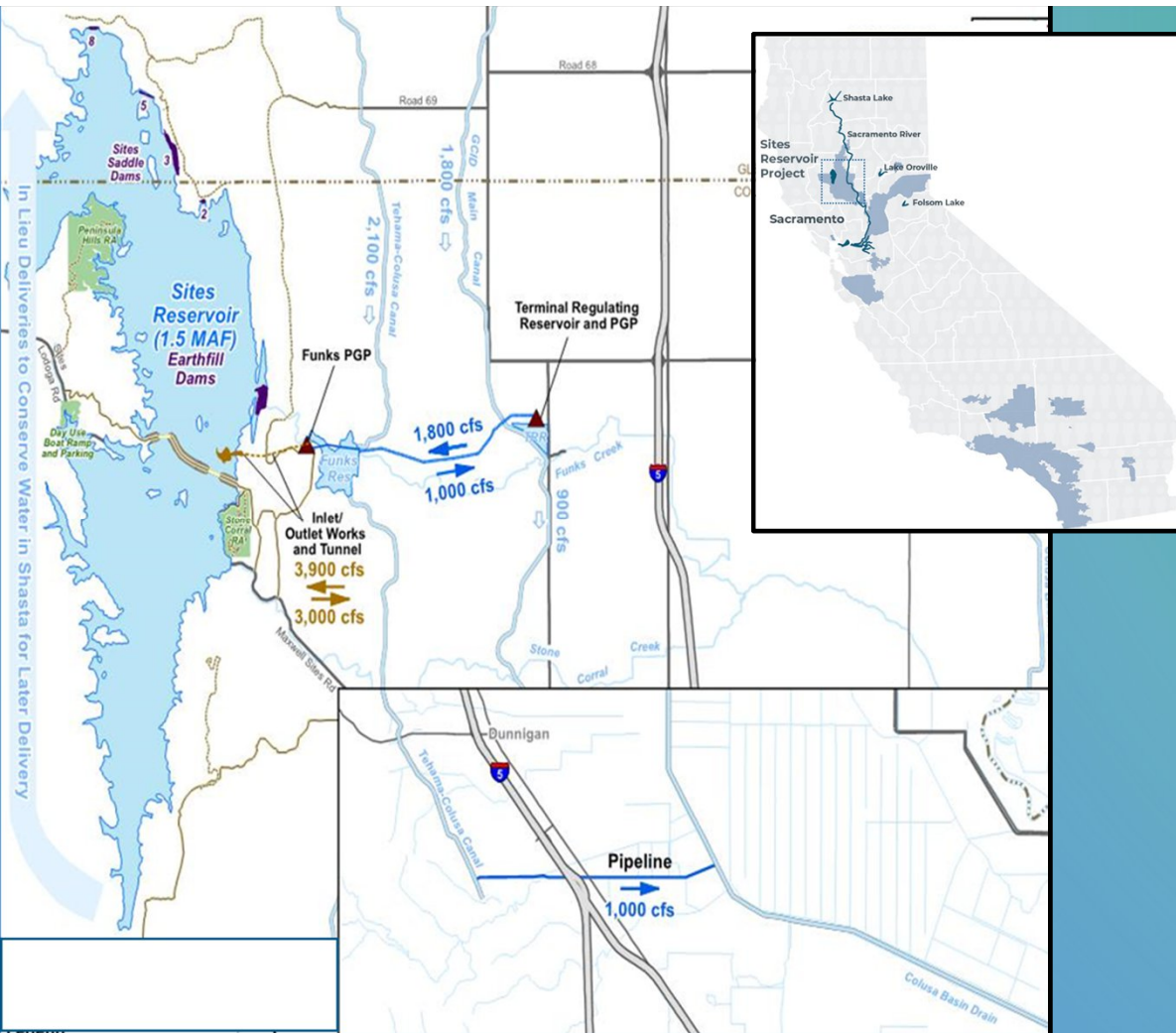
Water Storage Exploratory Committee, May 12, 2023.



Sites Reservoir Project

Location: Colusa and Glenn Counties

- Off-Stream Reservoir
- Size: 1.41 million acre-foot (AF)
- New water supply for environment and M&I/Ag use
- Diverts and stores excess flows from winter storms



Project Overview

4



Off-stream Storage

Does not create a barrier to native fish migration



Federal and State Agencies Manage Environmental Water

Adaptable to current and future conditions and priorities



Local Leadership and Cooperation

Aligns with Sacramento Valley's values and fosters regional and statewide collaboration



Cooperative Operation

Increases effectiveness and efficiency of existing water storage infrastructure



Adaptable to Climate Change

Contributes to system reliability and performance with climate change



Dry Year Water Supply

Reliable dry year water supply for California communities, farms and businesses



Recreational Opportunities

Provides northern Sacramento Valley with additional opportunities for recreation



Environmental Support

Provides environmental water in drier periods for native fish, and habitat for native species and birds

Project Participation

5

- Project is currently fully subscribed:
 - State and Federal Participation
 - 22 Local Agencies
- Waiting List to Join Project or Increase Participation:
 - 11 New Agencies
 - 2 Existing Participants
 - U.S. Bureau of Reclamation
- Valley Water requested to join Waitlist in July 2022

Key Project Milestones

6

- WIFIA Loan Application submitted March 2023
- Water Rights Application submitted May 2022
- Final EIR/EIS anticipated Summer 2023
- Begin drafting Benefits & Obligations Contract in Summer 2023
- WIFIA Loan expected Spring 2024
- Water Rights Permit anticipated Fall 2024
- Final Participation Decision anticipated late 2024/ early 2025

Project Benefits

7

- New water supply
- Priority access to transfers and storage lease
- Adaptable to climate change
- Operational flexibility for CVP/SWP
- Improved Shasta cold water pool to support endangered fisheries
- Environmental water supply for refuges and delta smelt
- Regional flood benefits

Project Benefits

- Valley Water participation level: 0.2%
- On waiting list to potentially increase up to a maximum of 2.7%
 - Waiting list does not commit us to increasing, only allows opportunity if space becomes available

	0.2% Participation (Existing Level)	2.7% Participation (Maximum Waitlisted Level)
Requested Annual Yield	500 AF	6,000 AF
Storage Allocation	3,100 AF	37,400 AF
Dry Year Annual Yield	750 AF	9,250 AF

Project Funding

- Total Estimated Project Costs: \$3.9 Billion (2021 Dollars)
- WSIP Funding: \$875 Million
- Federal Funding: \$214 Million
- Submitted Application for \$2.2 Billion WIFIA Loan

Valley Water Project Costs

10

- Valley Water Estimated Project Costs:

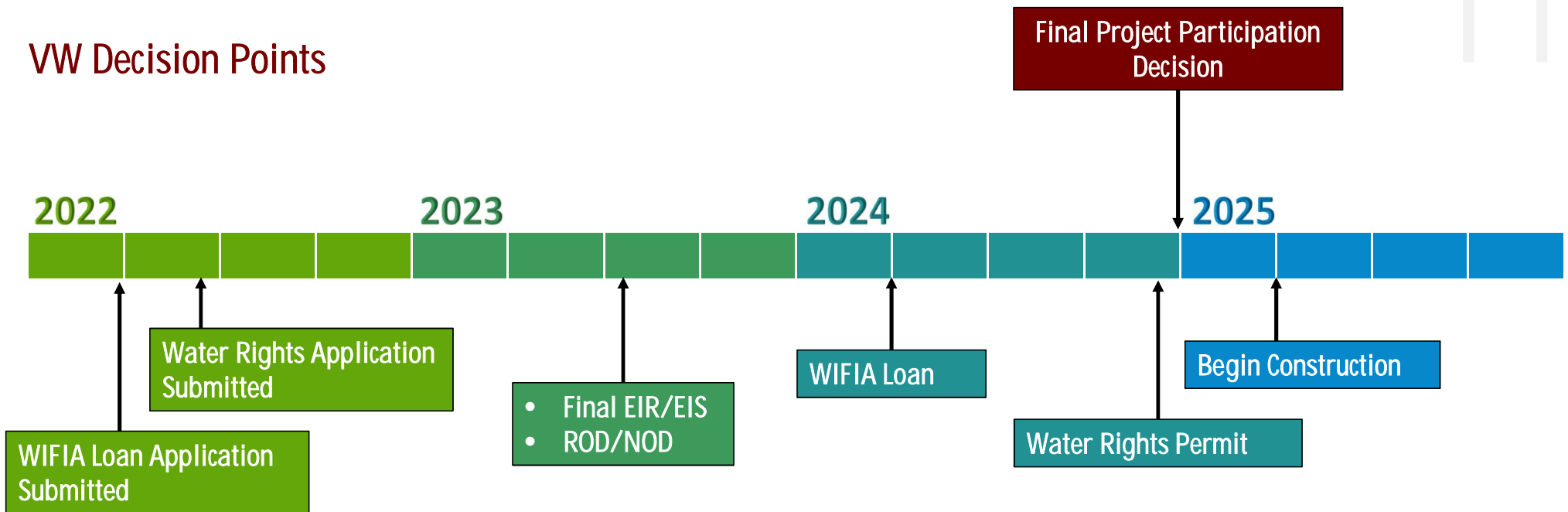
	Existing Participation (0.2% Participation)	Maximum Waitlisted Participation (2.7% Participation)
Capital Costs:	\$8.8 Million	\$120 Million
Estimated Annual O&M Costs:	\$44,000	\$583,000

- Valley Water Funds Spent to Date: \$2 Million
- Additional Valley Water Funds Committed through 2024: \$0.1 Million

Project Schedule

11

VW Decision Points



Project Milestones



QUESTIONS



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Santa Clara Valley Water District

File No.: 23-0534

Agenda Date: 5/12/2023

Item No.: 4.3.

COMMITTEE AGENDA MEMORANDUM Water Storage Exploratory Committee

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

SUBJECT:

B. F. Sisk Dam Raise and Reservoir Expansion Project Update.

RECOMMENDATION:

Receive and Discuss Information Regarding the B.F. Sisk Dam Raise and Reservoir Expansion Project.

SUMMARY:

The U.S. Bureau of Reclamation (Reclamation) and the San Luis & Delta-Mendota Water Authority (SLDMWA) are jointly developing the B.F. Sisk Dam Raise and Reservoir Expansion Project (Project), which would raise B.F. Sisk Dam by 10 feet and increase the storage capacity of San Luis Reservoir by 130,000 acre-feet (AF). This increase is in addition to the 12-foot raise being performed as part of the B.F. Sisk Safety of Dams Modification Project being undertaken by Reclamation and the Department of Water Resources (DWR), which is meant to address seismic concerns of the existing dam but will not increase the storage capacity of the reservoir.

San Luis Reservoir is a key facility shared by the State Water Project (SWP) and Central Valley Project (CVP) and is critical to the delivery of Valley Water's imported water supplies. Water stored in San Luis Reservoir can be directly accessed by Valley Water and delivered through Reclamation's San Felipe Division facilities, which are operated by Valley Water. Valley Water has the opportunity to participate in the Project and is currently supporting project development through its membership in the SLDMWA. Negotiations with Reclamation regarding key components of the project description will likely begin in several months; key project components include how storage may be used and how water supplies produced by the project may be allocated. If negotiations are fruitful, the Project could provide Valley Water with reliable new storage capacity, diversifying its storage portfolio consistent with a key Water Supply Master Plan (WSMP) strategy. The Project could also generate new surplus water supplies that could help offset future reductions in Valley Water's baseline imported water supplies due to climate change and regulatory criteria.

Although Participants do not have certainty on key items defining Project benefits, Valley Water staff

is in the process of evaluating anticipated benefits based on information currently available, which is presented in this memo. As negotiations progress and as part of WSMP update currently underway, staff will be able to evaluate the Project further, and ultimately develop a recommendation regarding Project participation for consideration by the Water Supply Exploratory Committee and full Board.

Benefits Analysis

For Participants, the Project is anticipated to provide benefits that can be grouped into two main categories; 1) dedicated storage, and 2) wet year water supply. Storage capacity is expected to be dedicated to each Participant in proportion to the amount of funding provided. Participation percentages are yet to be determined and will be negotiated among Participants, and later with Reclamation.

Staff anticipates that the Participants would have control of their non-CVP water supplies stored in their share of the enlarged San Luis Reservoir, either choosing to hold that water in storage for future use or convey the water to new or existing groundwater storage facilities for recovery during dry years. It is expected that these non-CVP supplies stored in the Participant's respective share of the reservoir would be protected from spill during times when the existing San Luis Reservoir fills. In the past 20 years, Valley Water has averaged approximately 35,000 AF of water stored in San Luis Reservoir from year to year. While Valley Water operates to minimize spill risk in San Luis, a total of 77,800 AF was spilled over the past 20 years. These spills occurred over four years, with an average spill volume of approximately 20,000 AF per year. Having a storage facility such as the Sisk Dam Raise could have secured some of this water for future use by Valley Water.

The Sisk Dam Raise may also allow Reclamation to divert surplus supplies from the Delta under its existing water rights for the CVP, referred to as Section 215 water. Additionally, Valley Water may also be able to store Delta surplus generated by the SWP, known as Article 21 water. Section 215 and Article 21 water is made available to CVP and SWP contractors, respectively, during high flow events, typically after San Luis Reservoir fills, and must be directly delivered or diverted to a non-project storage facility immediately as it becomes available. Valley Water has rarely been able to take advantage of these opportunities because local supplies are typically abundant at times when Section 215 and Article 21 is available, and because of its lack of alternative storage capabilities for imported water.

The degree to which each participant benefits from the Project will depend on how they choose to operate their respective share of storage capacity. To provide a potential range of benefits for Valley Water, staff performed a modeling analysis with two operational bookends, as described below. Note that this analysis does not consider Valley Water's ability to use these supplies in County or store them out of the County for later use and therefore should be considered preliminary. The performance of the Sisk Dam Raise Project in relation to the portfolio of projects contemplated in Valley Water's Water Supply Master Plan (WSMP) will be evaluated as part of the WSMP process and will be brought to the Water Storage Exploratory Committee and full Board at a later date.

In the first scenario Valley Water would operate the project to maximize the generation of Delta surplus water by using its stored water frequently ("cycling"). In this case we assume that Valley

Water would capture its maximum allocated Delta surplus when available and immediately draw down its storage to capture additional Delta surplus in subsequent years.

The water supply benefits shown in Table 1 include Valley Water's potential share of Delta surplus from both the CVP and SWP only. Although Reclamation's share of new storage capacity could be used to increase allocations for south of Delta CVP contractors, Valley Water is unlikely to see significant improvements to its CVP allocation due to the urban preference already afforded Valley Water from Reclamation's CVP Municipal and Industrial (M&I) Water Shortage Policy. The analysis indicates that the cycling scenario could result in significant "new" water supply available to Valley Water.

Table 1. Valley Water's Modeled Water Supply Benefits in Cycling Scenario

Storage Participation (TAF)	Water Year Type					Long-Term Average (TAF)
	Wet (TAF)	Above Normal (TAF)	Below Normal (TAF)	Dry (TAF)	Critical (TAF)	
5.5	4	3	2	0	0	2
15	11	6	5	1	1	6
30	21	13	9	2	2	11
45	31	19	12	2	3	16
65	41	26	14	2	5	21

If Valley Water chose to operate its share capacity according to this cycling method, it would likely need to pair it with a new or existing groundwater bank or other storage facility for longer-term storage. Surplus water could be captured and temporarily stored in the Project before being moved to a groundwater bank for long-term storage. Water could then be withdrawn from the groundwater bank to provide water supply during dry years. Valley Water's ability to take delivery of this water in County may be limited depending on the availability of local supplies, which are typically abundant when Delta surplus is available, and due to above average imported water allocations at these times. The degree to which Valley Water can take advantage of these supplies with additional future investments will be modeled as part of the update to the WSMP.

This current analysis does not include any Delta surplus that may be available to Valley Water if it participates in the Delta Conveyance Project (DCP). A significant portion of the water supply benefits of the DCP are expected to be provided as Article 21 supplies. Current modeling indicates that DCP would make Article 21 water available two to three times more often. If the DCP is ultimately built and Valley Water participates, it will be critical for Valley Water to make investments in storage projects such as the Sisk Dam Raise to fully realize these benefits.

In the second scenario Valley Water would operate its share of new storage capacity to maximize dry year supply ("dry year supply"). This would be accomplished by storing water in the Project for longer periods of time and only drawing on these supplies in dry and critically dry years when the CVP M&I allocation is less than 50 percent and the SWP allocation is less than 30 percent. Staff anticipates that Valley Water would be able to store other water types, including its allocated SWP supplies, transfer supplies, and water recovered from groundwater banks in its share of capacity. However, to estimate the exclusive benefits of the Sisk Dam Raise, the dry year supply scenario assumes that only Valley Water's share of Delta surplus is stored in its share of capacity.

Table 2. Valley Water's Modeled Water Supply Benefits in Dry Year Supply Scenario

Storage Participation (TAF)	Dry Years (TAF)	Critical Dry Years (TAF)
5.5	2	3
15	5	5
30	9	11
45	14	16
65	20	23

As expected, the dry year supply scenario significantly increases the direct delivery of surplus water supply to Valley Water in the drier years when compared to the cycling scenario. However, much less water is generated overall due to the lack of available storage space in the below normal, above normal, and wet years.

Project Costs

The capital cost estimate was recently updated to \$888 million, not including financing costs. This estimate includes a 15 percent design contingency and 20 percent construction contingency. Total annual O&M costs are anticipated to be approximately \$2.1M.

Cost savings are anticipated to be achieved because the Project involves the modification of an existing facility rather than construction of an entire new facility, and because it would occur concurrently with the B.F. Sisk Safety of Dam Modification Project. However, the Project would also require significant upgrades to State Route 152 to bring the road up to current safety standards, which adds significant costs. The breakdown of costs by major project element is shown in Table 1 below.

Table 1: Sisk Dam Raise Capital Costs

Project Feature	Capital Cost (\$2022)
Dam Raise	\$412M
State Route 152 Improvement	\$406M
Design, Permitting, Project Management	\$70M

Total Capital	\$888M
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If Valley Water participates in the Project, its share of costs would depend on the amount of storage it ultimately elects to purchase. Participants would be responsible for paying for their share of the Project construction costs, possibly through the SLDMWA or individually, although details have not yet been discussed. Table 2 indicates Valley Water's anticipated capital cost obligation under a range of participation scenarios, assuming that Participants are allocated 65,000 AF of new storage capacity.

Table 2: Range of Potential Costs for Valley Water

Storage Participation (AF)	Participation Level	Capital Cost (\$2022)	Annualized O&M Cost
5,525	8.5%	\$38M	\$0.2M
15,000	23%	\$103M	\$0.5M
30,000	46%	\$205M	\$1.0M
45,000	69%	\$308M	\$1.4M
65,000	100%	\$444M	\$2.1M

Key Items to be Negotiated

Reclamation is currently pursuing a Basis of Negotiation, which is an internal administrative procedure that will allow it to begin negotiating with the prospective Participants and ultimately determine how the benefits and costs of the Sisk Dam Raise will be allocated. The items listed below represent several key project elements that will be confirmed or negotiated.

1. Cost Allocation - Valley Water staff anticipates that construction funding would be allocated in direct proportion to each Participants' respective share of capacity. It is still unclear whether any portion of Reclamation's share of capacity would be reimbursed by CVP contractors.
2. Water Allocation - Additional CVP water supplies generated by the Project may be used to improve south of Delta CVP allocations and be provided to Participants as Section 215 water.
3. Storage Security - Storage of non-CVP water is anticipated to be very secure, while the rules pertaining to storage of allocated CVP water and Section 215 water have not been determined. Valley Water is also evaluating the ability to store its SWP water.
4. Participant/Reclamation Storage Split - For planning purposes the new storage has been split 50/50 between Reclamation and Participants.

Water Supply Master Plan Context

Valley Water's internal water supply planning analysis recognizes that Valley Water may be overly dependent on the Semitropic Groundwater Storage Bank in Kern County to meet its storage needs,

and that greater diversification of storage investments may be required to meet level of service goals in the future. As described in the WSMP, Valley Water's existing supplies exceed our needs in some years, and additional facilities would increase flexibility and the ability to store these excess supplies for use in dry years. The WSMP Ensure Sustainability strategy includes elements to secure and optimize existing supplies and infrastructure. The Sisk Dam Raise could provide storage diversification and may also generate new surplus water supplies that could help offset future reductions in Valley Water's baseline imported supplies due to climate change and regulatory criteria. Valley Water is in the process of updating the WSMP and this Project, in addition to other storage projects, will be evaluated as part of this process.

Upcoming Funding Decision:

The initial planning for the Sisk Dam Raise was performed through a \$2.4 million consulting contract approved by the SLDMWA Board of Directors, the costs for which were shared among all SLDMWA members. In early 2022 a subset of SLDMWA members, including Valley Water, elected to continue the development of the Project through an activity agreement, rather than as an obligation of the entire membership. Valley Water has committed approximately \$235,000 to this effort to date.

Reclamation estimates that a total of \$20 million in planning funding will be required collectively from Project participants. An initial request of \$2.5 Million will be needed from participants in June of 2023 to sustain Project planning through September of 2023. It is anticipated that an additional \$7.5 million, to be provided jointly by Participants, will be required through July 2024, but the timing and size of future funding requests has not yet been decided. Options being considered include quarterly funding requests of \$2.5 million each, or a larger request to cover a longer timeframe if negotiations with Reclamation result in meaningful progress.

Staff plans to bring the funding decision to the Water Storage Exploratory Committee in early June to seek its recommendation to go to the full Board in late June for continued participation in the planning phase of the Project.

Negotiations with Reclamation to define Project benefits and costs will likely conclude several months after the initial funding decision is made, and Valley Water will likely have the opportunity to adjust its participation level through subsequent funding requests.

ATTACHMENTS:

Attachment 1: PowerPoint Presentation

UNCLASSIFIED MANAGER:

Vincent Gin, 408-630-2633



B.F. Sisk Dam Raise and Reservoir Expansion Project

Water Storage Exploratory Committee Meeting, May 12, 2023

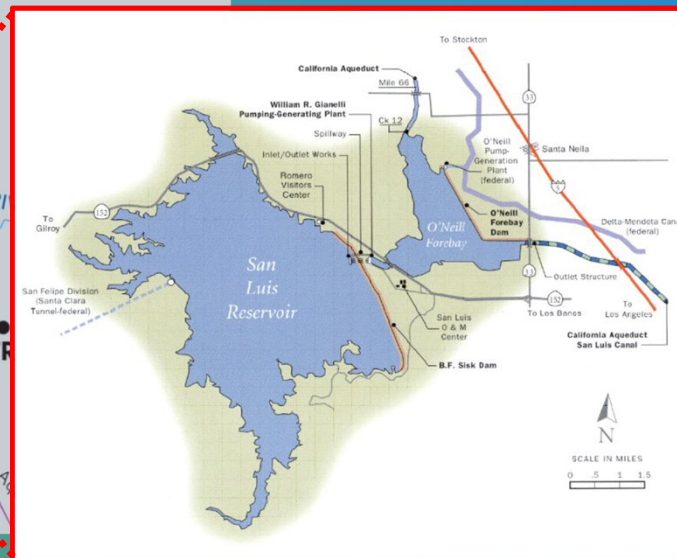


Project Location



Location: San Luis Reservoir
Merced County

Existing Facility: Integrated Operations
Direct Access



Concurrent Projects

Safety of Dams Project:

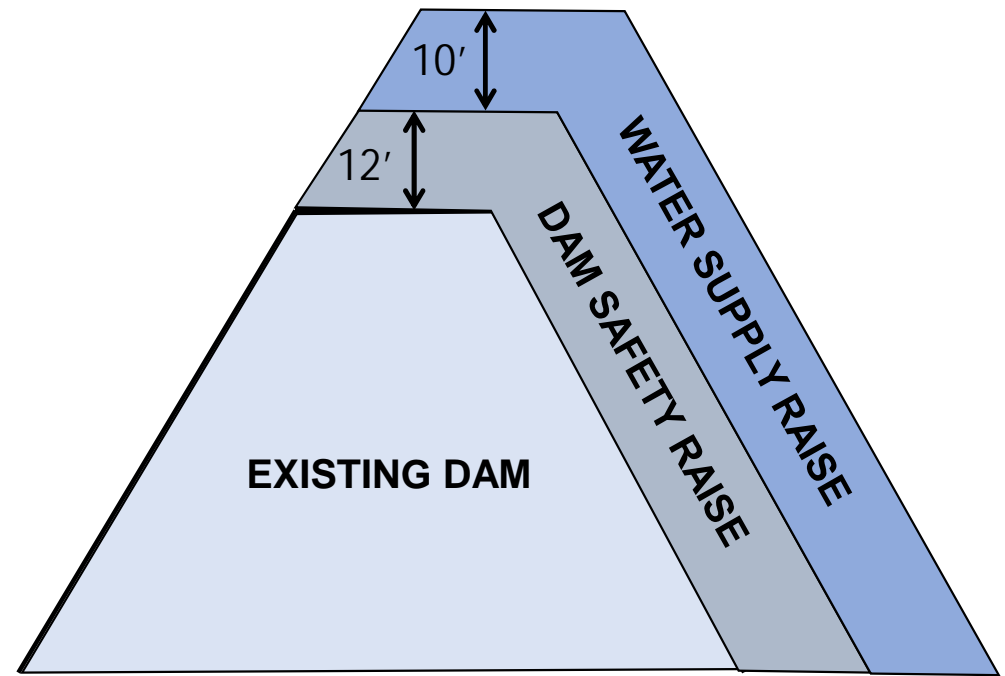
- Seismic repairs
- No additional storage

B.F. Sisk Dam Raise Project:

- 130,000 acre-feet (AF) new storage

Combined Projects:

- Cost and schedule savings
- Reduced environmental impact

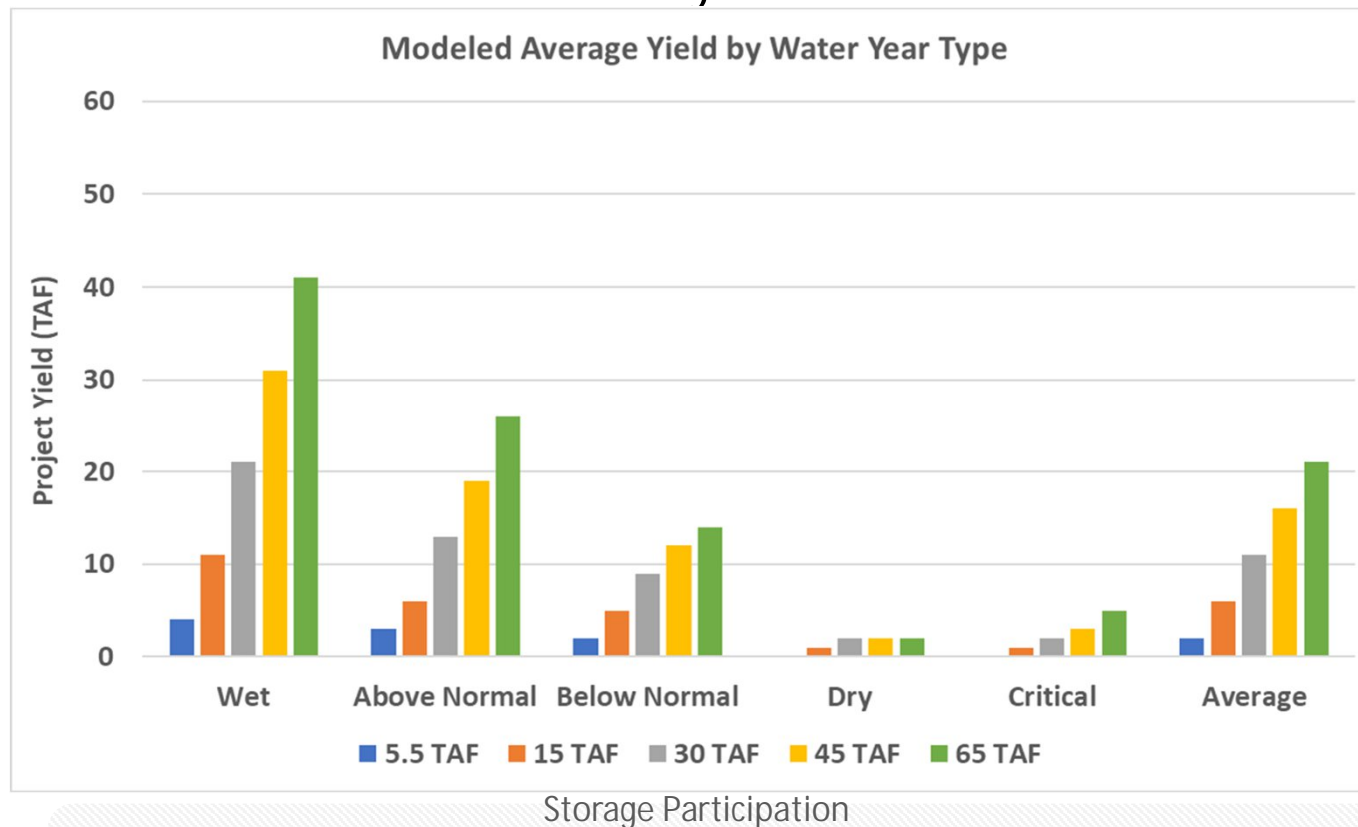


Project Benefits

- Anticipated project benefits – subject to future negotiation
 - Dedicated storage capacity for existing water supplies
 - Protection of stored water from spill
 - Capture of new surplus water
 - Improved reliability of CVP allocation

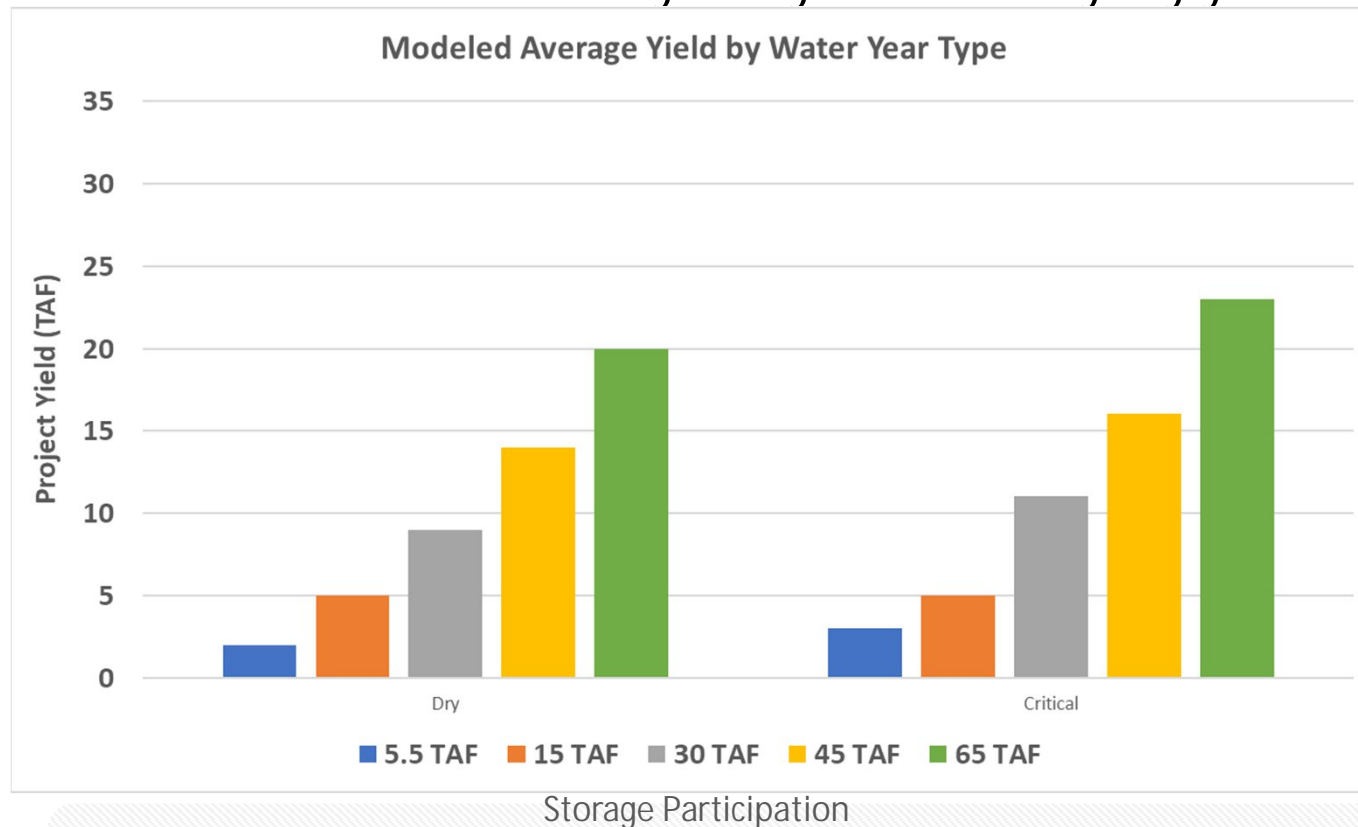
Potential Water Supply Benefits

- “Cycling” Scenario captures a significant amount of Delta surplus
 - Assumes full withdrawal each year



Potential Water Supply Benefits

- “Dry Year Supply” scenario stores Delta surplus for later use
 - Assumes withdrawal only in dry and critically dry years



Project Costs

- Total annual O&M cost estimate: \$3.9 million

Project Feature	Capital Cost (\$2022)
Dam Raise	\$412M
State Route 152 Improvement	\$406M
Design, Permitting, Project Management	\$70M
Total Capital Cost	\$888M

- Contingencies: 15% design, 20% construction

Range of Participation and Costs

- Valley Water's potential share of 130,000 AF of new storage capacity
 - Assumes 65,000 AF is dedicated to project partners

Storage Participation (TAF)	Investor Participation Level	Capital Cost (\$2022)	Annualized O&M Cost
5,525	8.5%	\$38M	\$0.2M
15,000	23%	\$103M	\$0.5M
30,000	46%	\$205M	\$1.0M
45,000	69%	\$308M	\$1.4M
65,000	100%	\$444M	\$2.1M

Planning Costs and Milestones

- Participants' Planning Cost Estimate: \$20M
 - VW Share of Planning Costs: \$1.7M - \$20M
 - VW Funds Committed to Date: \$235,000

Project Milestones & Funding Schedule



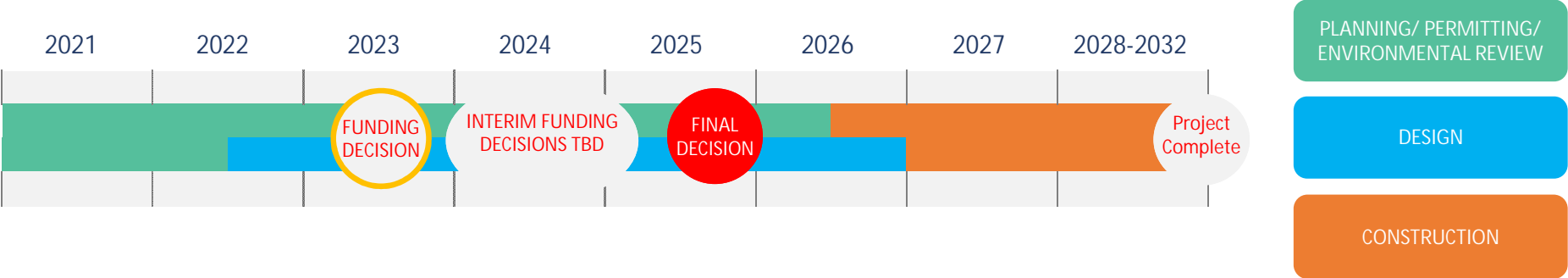
Board Decision Schedule

Participant planning costs:
(Valley Water share TBD)

\$2.5M - July 2023
\$7.5M - September 2023-July 2024
\$10M - October 2024

Construction funding:

\$497 Million - October 2025





Santa Clara Valley Water District

File No.: 23-0538

Agenda Date: 5/12/2023

Item No.: 4.4.

COMMITTEE AGENDA MEMORANDUM Water Storage Exploratory Committee

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

SUBJECT:

Update on Antelope Valley-East Kern Water Agency High Desert Water Bank Phase 2 Project.

RECOMMENDATION:

Receive and Discuss Information Regarding the Antelope Valley-East Kern Water Agency High Desert Water Bank Phase 2 Project.

SUMMARY:

Background

AVEK is a State Water Project (SWP) contractor that provides water to the Antelope Valley and provides a new groundwater storage opportunity. Its service area is in eastern Kern County, northern Los Angeles County, and a portion of Ventura County. AVEK has the third largest Table A contract amount of the 29 SWP contractors with an amount of 144,484 AF. Served by the East Branch of the California Aqueduct, AVEK delivers both treated and untreated water to its customers. This location is ideal given the possibility to connect the Water Bank facilities to the East and West Branch of the California Aqueduct.

Description of the Potential Water Bank

AVEK is developing a new groundwater banking program within its services area. The proposed groundwater banking program would consist of a Phase 2 expansion of AVEK's High Desert Water Bank, for which Phase 1 is currently under construction.

Phase 1 of the High Desert Water Bank, developed by Metropolitan Water District (MWD) and AVEK, is on schedule to be operational by the end of 2025. Phase 1 is currently estimated to have a total capital cost of \$210 million and will have approximately 280,000 AF of total storage capacity and annual recharge and recovery capacities of 70,000 AF per year. AVEK proposes to build an adjacent

facility located near the bifurcation of the West and East Branch of the California for Phase 2. With the on-going construction of Phase 1, information sharing and lessons learned by AVEK can facilitate project development for Phase 2.

Phase 2 of the High Desert Water Bank (Phase 2, Water Bank) is expected to feature the development of new recharge, storage, and direct recovery infrastructure. AVEK would own the facilities and Valley Water would have first priority to use of the facilities, including return capabilities. Valley Water would recover stored supplies by exchange with AVEK's allocated Table A supplies or by exchange with SWP supplies upon direct recovery and pump-in into the California Aqueduct. A key benefit of partnering with AVEK, an SWP contractor, is they can maintain water in San Luis Reservoir to ensure reliability of returns during critically dry years. Valley Water and AVEK will also explore the ability to store Central Valley Project (CVP) supplies in the Water Bank.

Project Status

In summer 2022, AVEK's Board of Directors held a workshop to consider commencing a detailed assessment of developing Phase 2 in partnership with potential participants. As a next step, AVEK provided a letter to potential partners requesting a non-binding expression of interest (XOI) in Phase 2. Valley Water's XOI letter, submitted in September 2022, identifies preliminary participation capacities for AVEK's planning purposes and does not commit Valley Water to project participation or funding. Copies of both AVEK's request letter and Valley Water's submitted XOI are included as Attachment 1. Valley Water's requested share of the project in the XOI is 200,000 AF of total storage capacity and 50,000 acre-feet of maximum annual recharge and recovery, or a 45% share of the project. These amounts can be changed after completion of an upcoming feasibility evaluation and future negotiations. Based on the feedback from interested parties, AVEK has put forward a proposed project with a design groundwater storage capacity of 440,000 acre-feet (AF) and annual recharge and recovery capacities of 110,000 AF per year.

In February 2023, Valley Water and AVEK entered into a Pilot Water Banking Storage Agreement (Pilot Agreement), which will serve as a pilot program allowing AVEK and Valley Water to determine the administrative requirements and associated costs for the conveyance of water delivered to AVEK and subsequently returned to Valley Water. This Pilot Agreement will also demonstrate a process to coordinate operations of both AVEK's and Valley Water's water supplies, increasing the reliability of both agency's supplies, while also establishing a working relationship to better ensure a reliable partnership leading into a potential long-term commitment in the Water Bank. Under the terms of the Pilot Agreement, Valley Water may deliver up to 15,000 AF of water to AVEK for storage in its existing Westside Water Bank. The Pilot Agreement will be subject to DWR's approval.

Staff and other interested partners had been coordinating with AVEK in drafting an initial term sheet for a Memorandum of Understanding (MOU) to formalize a partnership with AVEK. However, AVEK is currently transitioning to a new General Manager who, given the interest in and scale of Phase 2, would like to closely coordinate with the Board of Directors and confirm feasible project capacities prior to moving forward. The General Manager expressed to us that AVEK would like to put Phase 2 on hold for the next 6 months or so as they update the Board of Directors.

Project Costs

Using Phase 1 to estimate capital construction costs for Phase 2, staff estimates development of the Water Bank to cost approximately \$330 million in 2022 dollars, not including financing costs. Preliminary estimates are expected to be developed during conceptual design and completion of a feasibility analysis.

Water Supply Master Plan Context

Valley Water's internal water supply planning analysis recognizes that Valley Water may be overly dependent on the Semitropic Groundwater Storage Bank in Kern County to meet its storage needs, and that greater diversification of storage investments may be required to meet level of service goals in the future. As described in the WSMP, Valley Water's existing supplies exceed our needs in some years, and additional facilities would increase flexibility and the ability to store these excess supplies for use in dry years. The Ensure Sustainability strategy described in the WSMP includes elements to secure and optimize existing supplies and infrastructure. The Water Bank could provide storage diversification and optimize existing infrastructure by providing additional dedicated storage and leveraging supplies available through Valley Water's existing imported water contracts. It could also increase Valley Water's ability to fully realize the benefits of other water supply projects that may produce water supplies in wetter years, which are best paired with new south-of-Delta storage. Valley Water is in the process of updating the WSMP and this Project, in addition to other storage projects, will be evaluated as part of this process.

Next Steps

Valley Water and AVEK will coordinate on implementation of the Pilot project to explore storing CVP and SWP supplies in the AVEK basin this year. Valley Water will continue discussions with AVEK regarding development of Phase 2 including supporting AVEK in conversations with DWR and the Bureau of Reclamation during this initial planning period.

Staff will return to the Water Storage Exploratory Committee with more information once AVEK has coordinated further with its Board of Directors regarding Phase 2 development and partnership parameters, likely this fall.

ATTACHMENTS:

Attachment 1: AVEK High Desert Water Bank Phase 2 and Request for Non-Binding Expression of Interest Letter

Attachment 2: PowerPoint Presentation

UNCLASSIFIED MANAGER:

Vincent Gin, 408-630-2633

OFFICERS

DWAYNE CHISAM, P.E.
General Manager
and Chief Engineer

MATTHEW KNUDSON
Assistant General Manager

HOLLY H. HUGHES
Secretary-Treasurer



BOARD OF DIRECTORS

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Division 6

GARY VAN DAM
Division 7

July 15, 2022

Cindy Kao
Imported Water Manager
Santa Clara Valley Water District
5750 Almaden Expy
San Jose, CA 95118

Re: AVEK High Desert Water Bank Phase 2 and Request for Non-Binding Expression of Interest

Dear Ms. Kao,

I am writing to follow up on our prior discussions regarding the development of a new groundwater banking program within the service area of Antelope Valley-East Kern Water Agency (AVEK, Agency) and to provide an update on opportunities for Santa Clara Valley Water District's (Valley Water) future participation in this program.

The proposed groundwater banking program would consist of a Phase 2 expansion of AVEK's existing High Desert Water Bank. Phase 2 is expected to feature:

- Development of new recharge, storage, and direct recovery infrastructure;
- Access to 1st priority rights to the expanded program's capacities;
- Return of stored water through direct recovery and pump-back operations;
- A reliable location south of the State Water Project's Edmonston Pumping Plant and near the California Aqueduct's East and West Branches; and

On June 7, 2022, AVEK's Board of Directors held a workshop to consider commencing a more detailed assessment of developing Phase 2 in partnership with prospective program participants. AVEK's Board continues to support the evaluation of the program, and as an initial next step, would like to confirm Valley Water's interest in jointly furthering Phase 2's feasibility assessment. The anticipated feasibility analyses are intended to develop refined technical program specifications and costs reflective of specific partner needs and local site conditions.

AVEK would like to extend the opportunity to Valley Water to express interest in participation in Phase 2 of the water bank. AVEK requests that Valley Water respond to this letter in the form of a non-binding Expression of Interest (XOI) by providing the following information:

6500 WEST AVENUE N • PALMDALE, CALIFORNIA 93551
(661) 943-3201 • www.avek.org • info@avek.org

Attachment 1
Page 1 of 4

- Confirmation that Valley Water is interested in partnering with AVEK to conduct refined feasibility analyses to support further development of Phase 2;
- Estimated maximum volumes of annual recharge, annual recovery, and total storage capacity in in Phase 2 desired by Valley Water;
- Estimated minimum and maximum duration in years of Valley Water's desired participation in the Phase 2 once constructed and operational; and
- Key contact person with Valley Water for coordinating future communication and efforts.

AVEK kindly requests that the described XOI be delivered no later than 5:00 p.m. on August 10, 2022 via email to Assistant General Manager Matthew Knudson at mknudson@avek.org. Following its receipt and review of the XOI, AVEK will reach out to the key contact person identified by Valley Water to discuss any questions or clarifications. AVEK would then a draft Memorandum of Understanding (MOU) based on the information provided in the XOI for respective review and potential action by both AVEK and Valley Water to formalize their partnership. Among other things, the MOU would describe preliminary terms of the water banking partnership, including (among other provisions) capacity access rights, sharing of development costs, the development timeline, development milestones, and ability to opt-in/opt-out of program's development and operational phases.

Thank you for your consideration of this opportunity and potential partnership with AVEK in expanding water supply reliability to meet the needs of current and future generations. Should you have any questions regarding this letter and its contents, please do not hesitate to contact Matthew Knudson at mknudson@avek.org or 661-349-7310.

Sincerely,



For Dwayne Chisam
General Manager

Cc: Andrew Garcia

6500 WEST AVENUE N • PALMDALE, CALIFORNIA 93551
(661) 943-3201 • www.avek.org • info@avek.org

The mission of AVEK is to deliver reliable, sustainable and high quality supplemental water to the region in a cost-effective and efficient manner.



September 20, 2022

Mr. Dwayne Chisam
General Manager
Antelope Valley – East Kern Water Agency
6500 West Avenue N
Palmdale, CA 93551
Email: dchisam@avek.org

Subject: Non-Binding Expression of Interest for AVEK High Desert Water Bank Phase 2

Dear Mr. Chisam,

Valley Water is writing in response to your letter dated July 15, 2022, by providing you with this non-binding Expression of Interest (XOI) regarding participation in Phase 2 of the High Desert Water Bank (HDWB). Valley Water appreciates the communication and coordination between our agencies as we have discussed and considered this project.

This XOI is not intended to be or to evidence any legally binding agreement or obligation on the part of Valley Water. After submittal of this XOI, Valley Water understands that AVEK will coordinate with Valley Water staff in drafting a Memorandum of Understanding (MOU) to formalize a partnership with AVEK to conduct a refined feasibility analysis to support further development of Phase 2. Among other things, the MOU will describe preliminary terms of the water banking partnership, including (among other provisions) capacity access rights, sharing of development costs, the development timeline, development milestones, and the ability to opt-in and opt-out of project development and operational phases. No agreement shall be binding unless and until each party has executed the MOU.

Based on our initial understanding of the HDWB Phase 1 project characteristics and preliminary cost estimates and discussions with AVEK regarding utilization of AVEK State Water Project Table A supplies in San Luis Reservoir, Valley Water is interested in the following:

- Partnering with AVEK to conduct refined feasibility analyses to support further development of Phase 2;
- 50,000 acre-feet maximum annual recharge, 50,000 acre-feet maximum annual recovery, and 200,000 acre-feet maximum total storage capacity;
- 35-year Participation Minimum Duration, Perpetual Participation Maximum Duration.

Please coordinate upcoming communications and efforts related to HDWB Phase 2 with Andrew Garcia, Senior Engineer in the Imported Water Unit, at andrewgarcia@valleywater.org or 408-630-2817. Valley Water appreciates the opportunity to submit this XOI and we look forward to the potential partnership.

Sincerely,

Subject: Non-Binding Expression of Interest for AVEK High Desert Water Bank Phase 2

DocuSigned by:
Rick Callender
494EFB72AD8C4F9...

Rick Callender, Esq.
Chief Executive Officer
Valley Water



Antelope Valley-East Kern Water Bank

Water Storage Exploratory Committee Meeting, May 12, 2023



Valley Water relies on Semitropic Water Bank as sole out-of-county groundwater storage

VW's Semitropic Contract:

350,000 AF Storage

~252,000 AF currently in storage

31,675 AF Annual Recharge

31,500-75,050 AF Annual Recovery
SWP Allocation Dependent

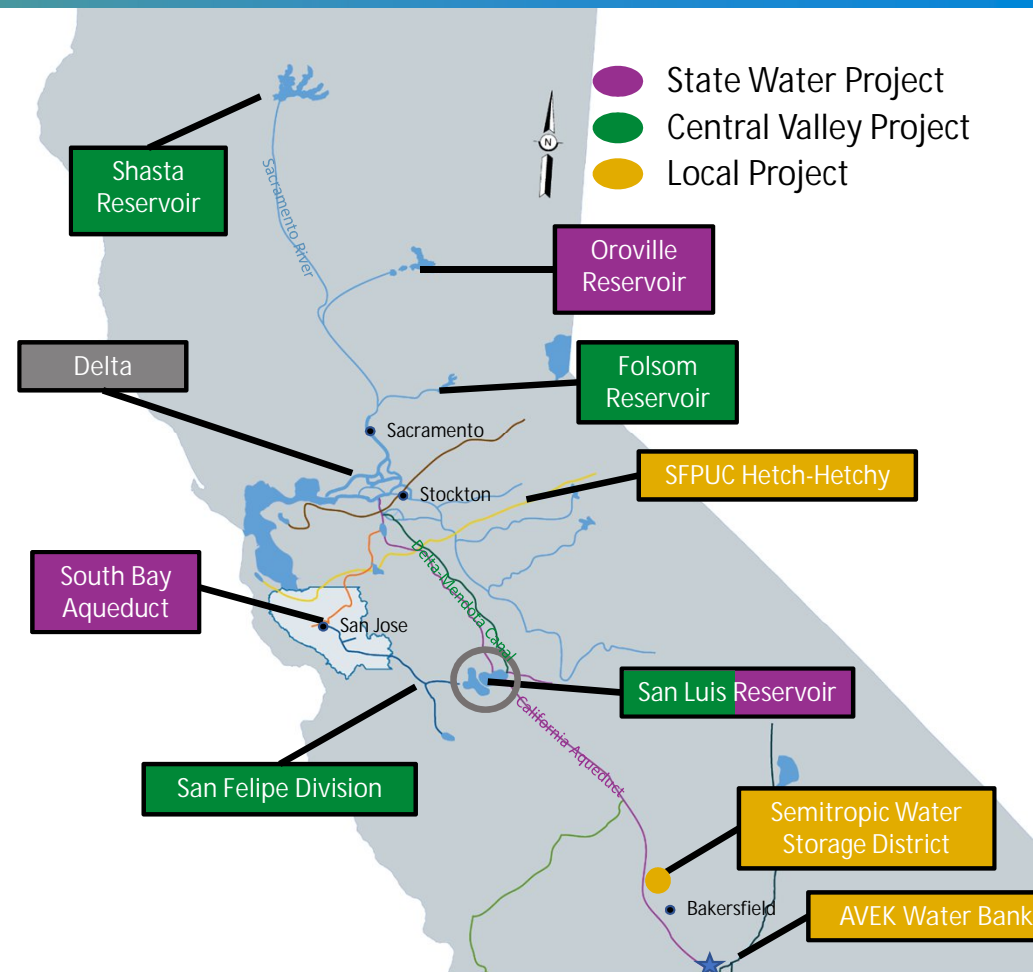
Agreement Term: 1997-2035

Historically outperformed:

Up to 80 TAF Recharge

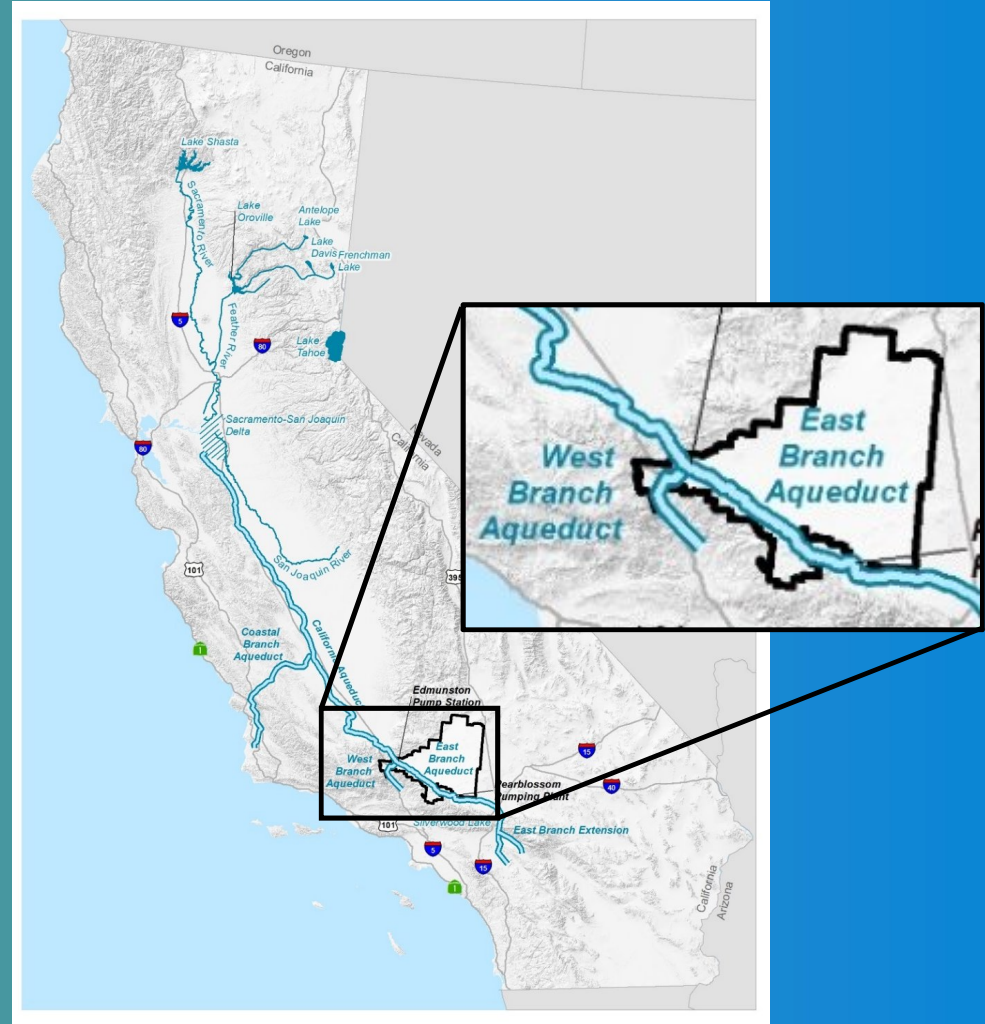
Up to 45 TAF Recovery

RELIABLE RECOVERY IN BOTH PRIOR
DROUGHT PERIODS



AVEK Overview

- East Branch of CA Aqueduct
- Service Area: 2,400 square miles in Los Angeles, Kern, and Ventura counties
- Water Supplies:
 - 144,844 AF SWP Table A
 - Local groundwater rights awarded in 2015 Antelope Valley Adjudication



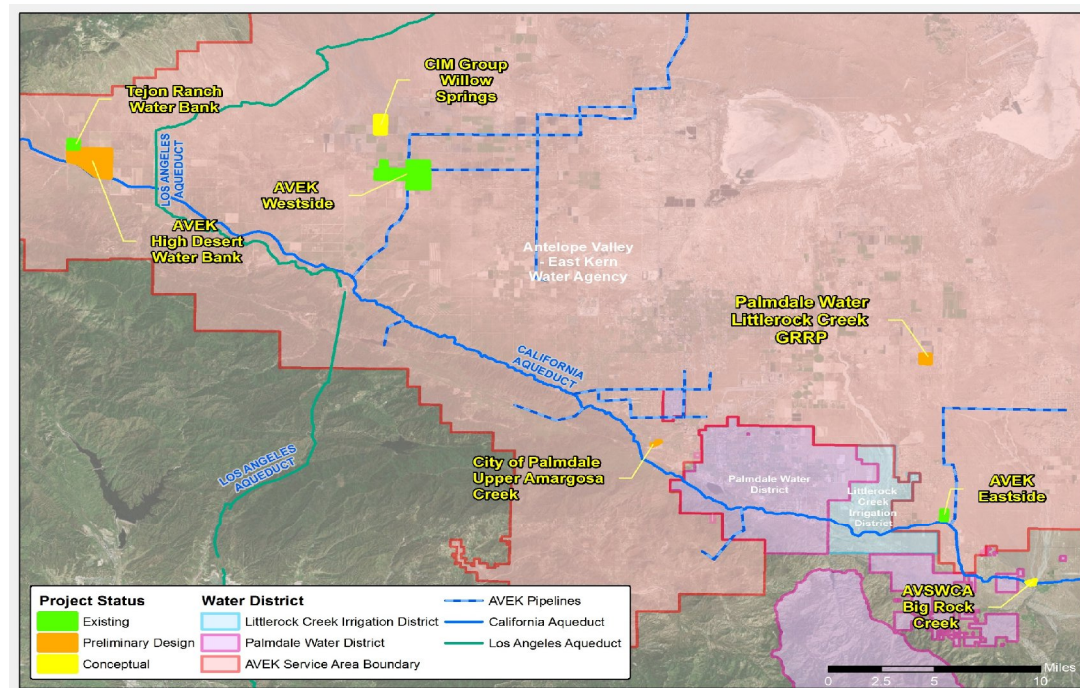
Experienced Water Bank Operator

- AVEK developed, Owns, and Operates
 - Westside Water Bank (2010)
 - Total storage: 150 TAF
 - Recharge: 40 – 70 TAFY
 - Recovery: 20 – 25 TAFY
 - Eastside Water Bank (2016)
 - Total storage: 5.7 TAF
 - Recharge/Recovery: 2.2 TAFY
- VW-AVEK Pilot Agreement (2023)
 - Uses Westside Water Bank
 - Up to 15 TAF total storage



In Construction: High Desert Water Bank Phase 1

- Phase I Currently Under Construction
 - Metropolitan WD funded as sole partner
 - Capital Cost: \$210M
 - Total Storage: 280,000 AF
 - Recharge capacity: 70,000 AFY
 - Recovery capacity: 70,000 AFY
- Scheduled Operation
 - 2023 Recharge / 2025 Recovery



About Proposed High Desert Water Bank Phase 2

- Phase 2 Initial Interest – Based on Non-Binding Project Sizing Needs Submitted by Potential Partners:
 - Total Storage: 440,000 AF
 - Recharge/Recovery Capacity: 110,000 AFY
- VW Initial Interest
 - Storage: 200,000 AF
 - Recharge/Recovery: 70,000 AFY
- Development of new recharge, recovery, and storage infrastructure
- Stored Water Return
 - SWP Exchange
 - AVEK's Table A from San Luis Reservoir

Where We Are Today

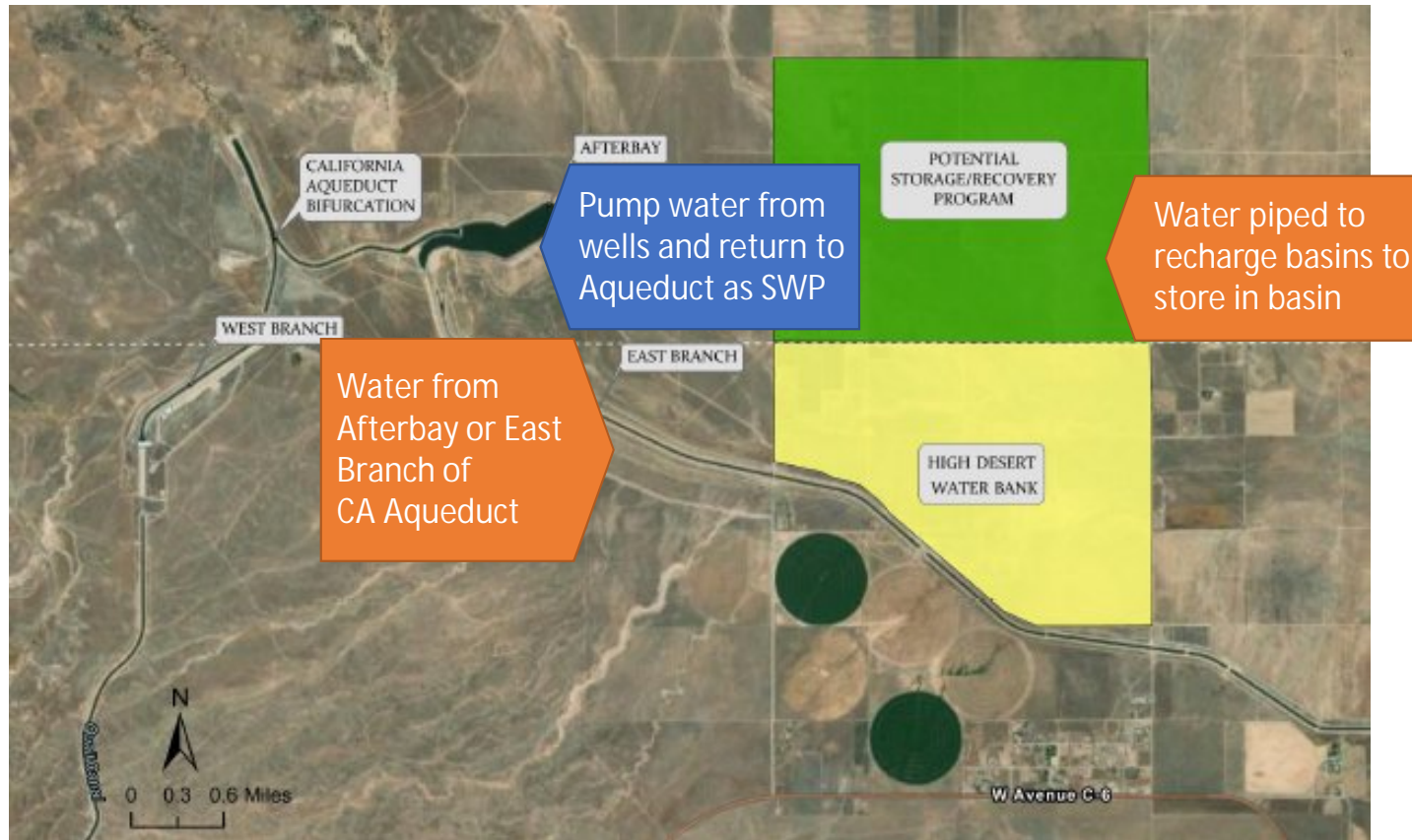
- Submitted Expression of Interest in Summer 2022
- Site Tour Fall 2022
- Tracking of Phase 1 HDWB construction
- Single Year Transfers and Pilot Banking

Estimated Phase 2 Costs

Initial Project Estimate	Cost (\$2023)
Total Capital Cost	\$330M

- Initial estimate based off Phase 1 cost; Phase 2 TBD through planning process
- Approximate construction cost of \$760/AF of storage capacity

How the Water Bank Works



Anticipated Project Benefits

- Dedicated storage capacity for existing water supplies
- Improved water supply reliability during dry years
- Provides greater operational flexibility
- Strengthens partnership with key State Water Contractor
- Diversification of banked water

Next Steps

- Continue to meet with AVEK and coordinate on drafting of MOU
- Implement Pilot project
- Provide updates to WSEC and Board on progress
- Scope, budget, and work plans provided prior to partner decisions

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Santa Clara Valley Water District

File No.: 23-0535

Agenda Date: 5/12/2023

Item No.: 4.5.

COMMITTEE AGENDA MEMORANDUM Water Storage Exploratory Committee

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

SUBJECT:

Standing Items.

RECOMMENDATION:

- A. This agenda item allows the Committee to receive verbal or written updates and discuss the projects listed in the summary. These items are generally informational; however, the Committee may request additional information from staff:
- B. This is informational only and no action is required.

SUMMARY:

Standing Items will allow regular reports from staff on subjects that may be of interest to the committee members.

Staff may provide a verbal update at the 5-12-2023, meeting if there is reportable/updated information.

1. Update on Los Vaqueros Reservoir Expansion Project (LVE) Transfer Bethany Pipeline (TBP) and Update on Management of South Bay Aqueduct (SBA) Facilities
(No Update)
2. Del Puerto (No Update)
3. Water Banking Opportunities including but not limited to Pleasant Valley Water District
(see agenda item 4.4 -AVEK)
4. Pacheco/San Luis Reservoir Low Point (see agenda item 4.1)
5. Semitropic (No Update)
6. Sites (see agenda item 4.2)
7. B.F. Sisk Dam Raise Project (see agenda item 4.3)
8. Shasta (No Update)

File No.: 23-0535

Agenda Date: 5/12/2023
Item No.: 4.5.

ATTACHMENTS:

None.

UNCLASSIFIED MANAGER:

Candice Kwok-Smith, 408-630-3193



Santa Clara Valley Water District

File No.: 23-0537

Agenda Date: 5/12/2023

Item No.: 4.6.

COMMITTEE AGENDA MEMORANDUM Water Storage Exploratory Committee

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

SUBJECT:

Review Water Storage Exploratory Committee Work Plan and the Committee's Next Meeting Agenda.

RECOMMENDATION:

Review the Committee's Work Plan to guide the Committee's discussions regarding policy alternatives and implications for Board deliberation.

SUMMARY:

The Committee's Work Plan outlines the Board-approved topics for discussion to be able to prepare policy alternatives and implications for Board deliberation. The work plan is agendaized at each meeting as accomplishments are updated and to review any work plan assignments by the Board.

BACKGROUND:

Governance Process Policy-8:

The District Act provides for the creation of advisory boards, committees, or committees by resolution to serve at the pleasure of the Board.

Accordingly, the Board has established Advisory Committees, which bring respective expertise and community interest, to advise the Board, when requested, in a capacity as defined: prepare Board policy alternatives and provide comment on activities in the implementation of the District's mission for Board consideration. In keeping with the Board's broader focus, Advisory Committees will not direct the implementation of District programs and projects, other than to receive information and provide comment.

Further, in accordance with Governance Process Policy-3, when requested by the Board, the Advisory Committees may help the Board produce the link between the District and the public through information sharing to the communities they represent.

ATTACHMENTS:

Attachment 1: 2023 WSEC Work Plan

UNCLASSIFIED MANAGER:

Candice Kwok-Smith, 408-630-3193

WSEC 2023 WORKPLAN - DRAFT (2023-4-10)

Task	Agenda Item	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
		Q1			Q2			Q3			Q4			Q1		
Los Vaqueros																
1	Project Update			X					X		X	X				
2	Multi-party agreement recommendation					X								X		
3	Service agreement recommendation															
Sites Reservoir																
1	Project Update					X			X		X					
2	Affirmation of project participation level						X									
B.F. Sisk Dam Raise																
1	Project Update			X		X			X		X					
2	Planning funding recommendation						X					X				
Pacheco Reservoir Expansion																
1	Project Update			Board		X	Board		X	Board		X	Board		X	Board
Groundwater Bank Opportunities																
1	Project Update					X										
2	AVEK update					X			X			X				
3	AVEK MOU recommendation						X									
Semitropic Groundwater Bank																
1	Project Update						X		X			X			X	

Board & Committees Dark

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