

October 17, 2019

MEETING NOTICE

WATER STORAGE EXPLORATORY COMMITTEE

Board Members of the Water Storage Exploratory Committee

Director Gary Kremen, Committee Chair
Director Richard P. Santos
Director John L. Varela

Staff Support of the Water Storage Exploratory Committee

Norma J. Camacho, Chief Executive Officer
Nina Hawk, Chief Operating Officer, Water Utility
Rick Callender, Chief of External Affairs
Stanly Yamamoto, District Counsel
Brian Hopper, Senior Assistant District Counsel
Anthony Fulcher, Senior Assistant District Counsel
Garth Hall, Deputy Operating Officer, Water Supply Division
Tim Bramer, Interim Deputy Operating Officer, Water Utility Capital Division
Christopher Hakes, Deputy Operating Officer, Dam Safety & Capital Delivery Division
Rechelle Blank, Temporary Assistant Officer, Dam Safety and Capital Delivery Division
Jerry De La Piedra, Assistant Officer, Water Supply Division Deputy's Office
Cindy Kao, Imported Water Manager, Imported Water Unit
Ryan McCarter, Pacheco Project Manager, Pacheco Project Delivery Unit
Charlene Sun, Treasury and Debt Manager
Medi Sinaki, Senior Engineer – Water Quality
Metra Richert, Unit Manager, Water Supply Planning & Conservation Unit

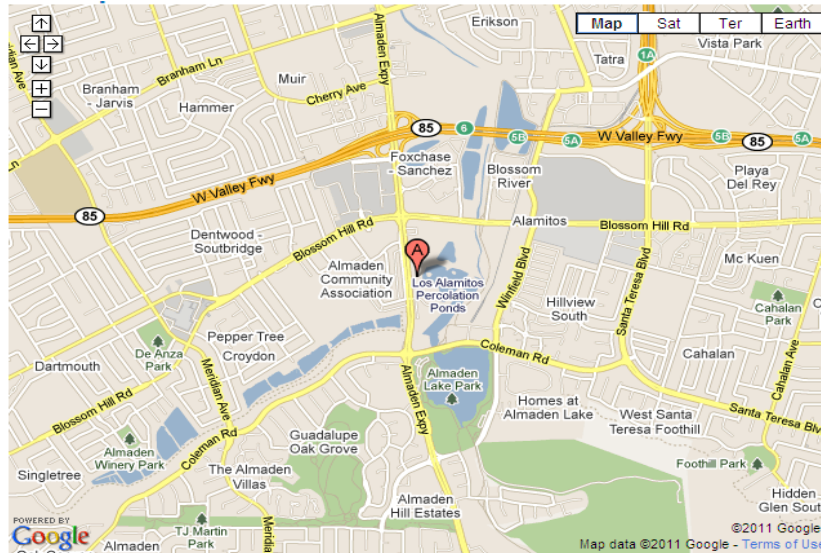
A regular meeting of the Santa Clara Valley Water District (SCVWD) Water Storage Exploratory Committee is to be held on **Friday, October 25, 2019, at 9:30 a.m.** in the Headquarters Building Boardroom located at the Santa Clara Valley Water District, 5700 Almaden Expressway, San Jose, California. Refreshments will be served.

Enclosed are the meeting agenda and corresponding materials. Please bring this packet with you to the meeting.

Enclosures



**Santa Clara Valley Water District - Headquarters Building,
5700 Almaden Expressway, San Jose, CA 95118**



From Oakland:

- Take 880 South to 85 South
- Take 85 South to Almaden Expressway exit
- Turn left on Almaden Plaza Way
- Turn right (south) on Almaden Expressway
- At Via Monte (third traffic light), make a U-turn
- Proceed north on Almaden Expressway approximately 1,000 feet
- Turn right (east) into the campus entrance

From Morgan Hill/Gilroy:

- Take 101 North to 85 North
- Take 85 North to Almaden Expressway exit
- Turn left on Almaden Expressway
- Cross Blossom Hill Road
- At Via Monte (third traffic light), make a U-turn
- Proceed north on Almaden Expressway approximately 1,000 feet
- Turn right (east) into the campus entrance

From Sunnyvale:

- Take Highway 87 South to 85 North
- Take Highway 85 North to Almaden Expressway exit
- Turn left on Almaden Expressway
- At Via Monte (third traffic light), make a U-turn
- Proceed north on Almaden Expressway approximately 1,000 feet
- Turn right (east) into the campus entrance

From San Francisco:

- Take 280 South to Highway 85 South
- Take Highway 85 South to Almaden Expressway exit
- Turn left on Almaden Plaza Way
- Turn right (south) on Almaden Expressway
- At Via Monte (third traffic light), make a U-turn
- Proceed north on Almaden Expressway approximately 1,000 feet
- Turn right (east) into the campus entrance

From Downtown San Jose:

- Take Highway 87 - Guadalupe Expressway South
- Exit on Santa Teresa Blvd.
- Turn right on Blossom Hill Road
- Turn left at Almaden Expressway
- At Via Monte (first traffic light), make a U-turn
- Proceed north on Almaden Expressway approximately 1,000 feet
- Turn right (east) into the campus entrance

From Walnut Creek, Concord and East Bay areas:

- Take 680 South to 280 North
- Exit Highway 87-Guadalupe Expressway South
- Exit on Santa Teresa Blvd.
- Turn right on Blossom Hill Road
- Turn left at Almaden Expressway
- At Via Monte (third traffic light), make a U-turn
- Proceed north on Almaden Expressway approximately 1,000 feet
- Turn right (east) into the campus entrance



Santa Clara Valley Water District Water Storage Exploratory Committee Meeting

HQ Boardroom
5700 Almaden Expressway
San Jose CA 95118

REGULAR MEETING AGENDA

Friday, October 25, 2019
9:30 AM

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

WATER STORAGE EXPLORATORY
COMMITTEE

Gary Kremen, Chair, District 7
Richard P. Santos, District 3
John Varela, District 1

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 the committee meeting. Please advise the Clerk of the Board Office of any special needs by calling (408) 265-2600.

CHRISTOPHER HAKES
Committee Liaison

GLENNA BRAMBILL
Management Analyst II
Office/Clerk of the Board
(408) 630-2408
gbrambill@valleywater.org
www.valleywater.org

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

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

Friday, October 25, 2019

9:30 AM

HQ Boardroom 5700 Almaden Expressway San
Jose CA 95118

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: This item is reserved for persons desiring to address the Committee on any matter not on this agenda. Members of the public who wish to address the Committee on any item not listed on the agenda should complete a Speaker Form and present it to the Committee Clerk. The Committee Chair will call individuals in turn. 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.

[19-0992](#)

Recommendation: Approve the August 27, 2019, Meeting Minutes.

Manager: Michele King, 408-630-2711

Attachments: [Attachment 1: 082719 WSEC DRAFT Mins](#)

Est. Staff Time: 5 Minutes

3.2. Approval of Minutes.

[19-1030](#)

Recommendation: Approve the October 15, 2019, Special Closed Session Meeting Minutes.

Manager: Michele King, 408-630-2711

Attachments: [Attachment 1: 101519 WSEC DRAFT Mins](#)

Est. Staff Time: 5 Minutes

4. ACTION ITEMS:

- 4.1. Update on Los Vaqueros Reservoir Expansion Project [19-0993](#)
- Recommendation: Receive and discuss information regarding status of the Los Vaqueros Reservoir Expansion Project. This is an information-only item and no action is required.
- Manager: Jerry De La Piedra, 408-630-2257
- Attachments: [Attachment 1: List of LAPs](#)
[Attachment 2: LVE Project Map](#)
[Attachment 3: LAP Workshop List](#)
[Attachment 4: Staff PowerPoint](#)
- Est. Staff Time: 15 Minutes
- 4.2. Semitropic Groundwater Bank Update [19-0994](#)
- Recommendation: Receive and discuss information regarding the status of Semitropic Groundwater Bank and operational uncertainties, particularly in relation to implementation of the Sustainable Groundwater Management Act. This is an information-only item and no action is required.
- Manager: Garth Hall, 408-630-2750
- Attachments: [Attachment 1: SGMA Sustainability Criteria](#)
[Attachment 2: Semitropic Bank Contractual Allocations](#)
- Est. Staff Time: 15 Minutes
- 4.3. Pleasant Valley Water District Groundwater Banking Concept [19-0995](#)
- Recommendation: Receive and discuss information regarding a conceptual Pleasant Valley Water District Groundwater Bank. This is an information-only item and no action is required.
- Manager: Garth Hall, 408-630-2750
- Attachments: [Attachment 1: Map](#)
- Est. Staff Time: 15 Minutes
- 4.4. Update on Conceptual Lake Del Valle Modifications [19-0996](#)
- Recommendation: Receive and discuss information regarding status of conceptual Lake Del Valle modifications. This is an information-only item and no action is required.
- Manager: Garth Hall, 408-630-2750
- Attachments: [Attachment 1: Staff PowerPoint](#)
- Est. Staff Time: 15 Minutes

4.5. Update on Management of South Bay Aqueduct Facilities [19-0997](#)

Recommendation: Receive and discuss information regarding status of South Bay Aqueduct facilities management. This is an information-only item and no action is required.

Manager: Nina Hawk, 408-630-2736

Attachments: [Attachment 1: SBA Facilities Maps](#)
[Attachment 2: Feb 2018 Letter to DWR Director](#)

Est. Staff Time: 10 Minutes

4.6. Review Water Storage Exploratory Committee Work Plan and the Committee's Next Meeting Agenda. [19-0998](#)

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

Manager: Michele King, 408-630-2711

Attachments: [Attachment 1: 2019 WSEC Work Plan](#)
[Attachment 2: WSEC Next Meeting's DRAFT Agenda 2020](#)

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



Santa Clara Valley Water District

File No.: 19-0992

Agenda Date: 10/25/2019

Item No.: 3.1.

COMMITTEE AGENDA MEMORANDUM

Water Storage Exploratory Committee

SUBJECT:

Approval of Minutes.

RECOMMENDATION:

Approve the August 27, 2019, 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: 082719 WSEC Draft Mins

UNCLASSIFIED MANAGER:

Michele King, 408-630-2711



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

DRAFT MINUTES

**TUESDAY, AUGUST 27, 2019
11.00 AM**

(Paragraph numbers coincide with agenda item numbers)

A regular meeting of the Water Storage Exploratory Committee (Committee) was held on August 27, 2019, in the Headquarters Building Boardroom at Valley Water, 5700 Almaden Expressway, San Jose, California.

1. CALL TO ORDER

The Water Storage Exploratory Committee was called to order by Chair Director Gary Kremen at 11:00 a.m.

1.1 ROLL CALL

Board Members in attendance were: Director Gary Kremen-District 7, Director Richard P. Santos-District 3, and Director John L. Varela-District 1.

Staff members in attendance were: Bradly Arnold, Aaron Baker, Glenna Brambill, Jerry De La Piedra, Christopher Hakes, Nina Hawk, Cindy Kao, Bill Magleby, Ryan McCarter, Katherine Oven, Steven Peters, Metra Richert, Jennifer Schmidt, Eli Serrano, Charlene Sun, Stan Yamamoto and Beckie Zisser.

San Benito County Water District Staff Members in attendance were: Jeff Cattaneo and Sara Singleton.

Guests in attendance were: John Galvan, Steve Jordan and Doug Muirhead.

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

There was no one present who wished to speak.

3. APPROVAL OF MINUTES

3.1 APPROVAL OF MINUTES

It was moved by Director Richard P. Santos seconded by Director John L. Varela, and unanimously carried to approve the minutes of the May 20, 2019, meeting of the Water Storage Exploratory Committee as presented.

I was hoping to come away with hard and fast rules for accessing our water in the Semitropic Bank. But it turns out that the rule is "it depends". Sometimes it is seasonal irrigation needs. Sometimes it is SWP allocations. Sometimes it is pre-existing contracts [1993 shafter-wasco] which have priority over banking partners. Sometimes it is what the other Banking Partners are doing which claims operational capacity. Partners, other than Metropolitan [Water District of Southern California, 35%], their percent participation and recent activity are not specified.

Unless there are amendments since 2005, both the DWR Point of Delivery agreement and the arrangement with Semitropic will terminate in 2035.

There are risks. Delivery capacity could be reduced due to hydrologic conditions or cropping patterns. Changes in water quality (e.g. arsenic) can prevent pumpback into the California Aqueduct. In 2012, several local parties were in discussions to resolve a legal dispute over whether bank pumping injured other users. I don't know the outcome of that.

The additional reading is a report from the Public Policy Institute of California titled California's Water Market, By the Numbers: Update 2012 which provides an overview of water marketing and the related practice of groundwater banking and summarizes recent trends in both areas.

Because the report was done in 2012, it does not address the recent state groundwater management legislation. So I don't know if the previous trend for county groundwater ordinances to restrict groundwater exports as well as restrict groundwater banking with non-local parties will still be seen as needed to avoid harm to other legal water users.

Another report theme was that development of the water market has been hindered by the fragmentation of water management, with different types of water rights and contracts subject to different types of approval, tending to limit market activity even when it would be economically and environmentally beneficial. That has tended to replace one-year, or "spot market", transfers and exchanges with multi-year and permanent transfers and exchanges.

Your Water Supply Management Division has a challenging job.
(The Committee asked that these comments be submitted into this meeting's minutes)

Mr. Jeff Cattaneo was available to answer questions.

The Committee took no action.

4.4 UPDATE ON LOS VAQUEROS RESERVOIR EXPANSION PROJECT (LVE PROJECT)

Ms. Metra Richert reviewed the materials as outlined in the agenda item.

The Committee discussed the following: Contra Costa Water District's (CCWD) involvement and contributions/JPA, future projects-Zone 7/Alameda/BAWSCA, SBA section is old/meeting with DWR, short/long term goals for Anderson Dam, Valley Water reaching out to DWR, SBCWD not involved in expansion project, Steve Jordan mentioned BAWSCA's priority and challenges/ACWD pipeline vs. storage.

Mr. Stan Yamamoto and Mr. Jerry De La Piedra were available to answer questions.

The Committee took no action.

Chair Director Gary Kremen moved to Agenda Item 4.1.

4.1 PACHECO RESERVOIR EXPANSION PROJECT – COST ALLOCATION

Ms. Charlene Sun reviewed the materials as outlined in the agenda item.

San Benito County Water District (SBCWD) staff introduced: Mr. Jeff Cattaneo and Ms. Sara Singleton.

The Committee discussed the following: partnerships being listed, Valley Water's share, SBCWD are special partners, grants having minority/disadvantaged qualifications, Valley Water pursuing all avenues for funding, critical timelines and finding partners, critical dry years preserve Valley Water's rights, looking at the benefits of this project, financing and thinking outside the box.

Mr. Christopher Hakes, Ms. Nina Hawk and Ms. Beckie Zisser were available to answer questions.

Mr. Steve Jordan had a question about where do the partners have to come from?

The Committee took the following action:

It was moved by Director Gary Kremen seconded by Director John L. Varela, and unanimously carried to approve that the Board consider the Committee's request to: Authorize the Chief Executive Officer to negotiate with San Benito County Water District (SBCWD) on partnership terms for participation in the Pacheco Reservoir Expansion Project.

The Committee would like to see a list of the potential partners for continued discussion on the project's future costs allocations.

4.2 PACHECO RESERVOIR EXPANSION PROJECT UPDATE

Mr. Christopher Hakes reviewed the materials as outlined in the agenda item.

New staff member Mr. Ryan McCarter was introduced in his new role and his field of expertise.

The Committee discussed the following: EIR

Mr. Doug Muirhead thanked Mr. Chris Hakes for answering questions at the USBR meeting in Gilroy.

The Committee took no action.

Chair Director Gary Kremen moved to Agenda Item 4.5.

4.5. UPDATE ON PROPOSED LAKE DEL VALLE MODIFICATIONS

Ms. Cindy Kao reviewed the materials as outlined in the agenda item.

The Committee discussed the following; providing the consultant report to the Committee, the lease's expiration date, storage higher than yield, agendaize the report for discussion with Zone 7 and ACWD after staff has their discussion.

Ms. Nina Hawk was available to answer questions.

The Committee took no action.

4.6 REVIEW OF 2018 WATER STORAGE EXPLORATORY COMMITTEE WORK PLAN AND THE COMMITTEE'S NEXT MEETING AGENDA

Ms. Glenna Brambill reviewed the materials as outlined in the agenda item.

The Committee would like to place the following items on the agenda: closed session on Pacheco legal issues, discussion on semitropic contracts/reports (GSP, Diversification Plan)/ partnerships, flood prevention pros and cons/disadvantaged communities, runoff and environmental impacts/grants.

5. CLERK REVIEW AND CLARIFICATION OF COMMITTEE ACTIONS

Ms. Glenna Brambill noted there was one action item for Board consideration.

Agenda Item 4.1

The Committee unanimously approved to have the Board consider the Committee's request to:

Authorize the Chief Executive Officer to negotiate with San Benito County Water District (SBCWD) on partnership terms for participation in the Pacheco Reservoir Expansion Project.

6. ADJOURNMENT

Chair Director Gary Kremen adjourned the meeting at 1:16 p.m.

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

Approved:



Santa Clara Valley Water District

File No.: 19-1030

Agenda Date: 10/25/2019

Item No.: 3.2.

COMMITTEE AGENDA MEMORANDUM

Water Storage Exploratory Committee

SUBJECT:

Approval of Minutes.

RECOMMENDATION:

Approve the October 15, 2019, Special Closed Session 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: 101519 WSEC Draft Mins

UNCLASSIFIED MANAGER:

Michele King, 408-630-2711



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

DRAFT MINUTES

**TUESDAY, OCTOBER 15, 2019
12.00 PM**

(Paragraph numbers coincide with agenda item numbers)

A Special Closed Session Meeting of the Santa Clara Valley Water District (Valley Water) Water Storage Exploratory Committee (Committee) was held on October 15, 2019, in the Headquarters Building Board of Directors Conference Room A124 at the Santa Clara Valley Water District, 5700 Almaden Expressway, San Jose, California.

1. CALL TO ORDER

A Special Closed Session Meeting of the Santa Clara Valley Water District (Valley Water) Water Storage Exploratory Committee was called to order in the Santa Clara Valley Water District Headquarters Building Boardroom at 5700 Almaden Expressway, San Jose, California, at 12:32 p.m.

1.1 ROLL CALL

Board Members in attendance were: Director Gary Kremen-District 7, by teleconference, Director Richard P. Santos-District 3, and Director John L. Varela-District 1.

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

There was no one present who wished to speak.

Committee Chair Kremen confirmed that the Committee would adjourn to Closed Session for consideration of Item 3.

3. CLOSED SESSION:

CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION

Significant exposure to litigation Pursuant to Government Code Section 54956.9(d)(2)
One potential case

3.1 DISTRICT COUNSEL'S REPORT:

Mr. Brian Hopper, Senior Assistant District Counsel, reported on Agenda Item 3, that the Committee met in Closed Session with all members present, and direction was given to staff.

4. ADJOURN

Committee Member Director Richard P. Santos adjourned the meeting at 12:56 p.m.

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

Approved:



Santa Clara Valley Water District

File No.: 19-0993

Agenda Date: 10/25/2019

Item No.: 4.1.

COMMITTEE AGENDA MEMORANDUM

Water Storage Exploratory Committee

SUBJECT:

Update on Los Vaqueros Reservoir Expansion Project

RECOMMENDATION:

Receive and discuss information regarding status of the Los Vaqueros Reservoir Expansion Project. This is an information-only item and no action is required.

SUMMARY:

Los Vaqueros Reservoir (Los Vaqueros) is an off-stream reservoir located in the foothills southwest of the Sacramento-San Joaquin River Delta (Delta), constructed by Contra Costa Water District (CCWD) in 1998. Since its construction, Los Vaqueros has been expanded once in 2012 to a current capacity of 160,000 acre-feet. CCWD has proposed a second Los Vaqueros expansion to increase reservoir capacity to 275,000 acre-feet (a 72 percent increase) and construct the Transfer-Bethany Pipeline (Transfer-Bethany) which would connect CCWD's system to the State Water Project (SWP) California Aqueduct at Bethany Reservoir. CCWD has invited Local Agency Partners (LAPs) in the Bay Area to participate in the project leading to LAP storage and conveyance rights in the expanded Los Vaqueros (LVE Project). Santa Clara Valley Water District (Valley Water) is among the LAPs considering participation in the proposed LVE Project for proposed water supply and/or storage benefits. An overview of the other LAPs currently participating in this project is available under Attachment 1, with a LVE Project map provided in Attachment 2.

Project Benefits and Costs

The extent to which LVE Project benefits may be realized depends on several facility development and operational issues, as well as, Valley Water's ultimate level of participation in Los Vaqueros storage and/or Transfer-Bethany. Storage capacity in Los Vaqueros could help Valley Water maintain critical water supplies for dry year recovery; physically located near and upstream of Santa Clara County. In general, the diversion of SWP, Central Valley Project (CVP), and associated 'surplus water' using CCWD's Delta intake system as an alternative (or supplemental) export to typical south-of-Delta SWP/CVP pumping facilities could also help increase Valley Water's imported water supply reliability. Pending further analysis, Valley Water's participation in the LVE Project could provide the following operational benefits:

- Access to additional imported water supplies via SWP/CVP surplus water typically unavailable due to constraints on existing Delta pumping facilities;
- Access to storage south-of-Delta, yet upstream of SBA and Valley Water facilities, meaning physical water recovery rather than via regulated exchanges;

- Access to alternate point of diversion from the Delta to avoid regulatory requirements which typically do not apply to CCWD intakes;
- Access to infrastructure which facilitates transfers and/or exchanges with regional partners and projects (e.g., Bay Area desalination, refinery recycled water exchange, Bay Area Regional Reliability water market).
- Project basis to support Bay Area regional water management and collaboration, which supports future project grant funding (e.g., Integrated Regional Water Management program), and regional independence from regulatory oversight.

Valley Water staff are working with CCWD and other LAPs to evaluate various modeling scenarios and analyze the water supply yield under different scenarios. This includes review of underlying water rights licenses associated with the project, the timing of water delivery, and its relation to the current SWP and CVP operations.

In 2016, Valley Water's Board of Directors (Board) authorized execution of an agreement to participate in and contribute \$100,000 in support of LVE Project planning and development. In 2019, the Board authorized continued participation and the contribution of an additional \$315,000 to continue various planning, permitting, and design efforts. Current total LVE Project costs are expected to be approximately \$864 million (in 2018 constant dollars), of which \$459 million grant funded by the California Water Commission as part of the Proposition 1 Water Storage Investment Program (WSIP).

LAP Considerations

The following are additional LAP considerations currently being discussed and reviewed by LVE Project participants:

- San Francisco Public Utilities Commission (SFPUC) and Bay Area Water Supply & Conservation Agency (BAWSCA) have expressed interest in using the SBA to facilitate recovery of water supplies stored in Los Vaqueros. Valley Water and other participating SWP contractors reliant on the SBA are analyzing future available capacity to evaluate opportunities for SFPUC and BAWSCA. Preliminary analysis indicates there may be capacity in SBA facilities, however, the timing of such availability is likely highly variable with water year type.
- The LAPs are in the process of forming a Joint Powers Authority (JPA) to lead LVE Project planning and development. Once the JPA is in place, responsibilities such as project financing and executing agreements will transition from CCWD to the new JPA. In July 2019, Valley Water staff submitted comments to CCWD on the preliminary working draft term-sheet which will serve as the foundation for the JPA. Staff are continuing follow-up on comments and term-sheet development.

Project Next Steps

Key near-term meetings and decision points on the LVE Project include:

- Regarding LVE Project costs, CCWD released version 3.0 of the Pro-forma financial model. LAPs are working through a third-party review of modeled user fees and cost estimates, expected to be complete by December 2019.

- To assist with development with a JPA agreement, the LAPs are in the process of requesting outside counsel to advise on formation of the JPA. The LVE Legal Work Group is working through review of proposals and the development of recommendations for moving forward with project agreements.
- Valley Water staff is working with the LAPs to review CCWD and East Bay Municipal Utility District usages fees for use of existing facilities which may be involved in LVE Project operations. A draft report of usage fee review is anticipated for December 2019.
- Over late-October through end of 2019, CCWD and the LAPs will hold a series of workshops to address specific LVE Project topics highlighted during review of the draft term-sheet (e.g., JPA formation, facilities sharing, cost allocations). The intent is to address issues and concerns in separate but parallel efforts leading to eventual LVE Project agreement(s). Valley Water staff and executive management will be participating in the workshops listed in Attachment 3.
 - Key workshops will focus on review of proposed and existing facilities and use between CCWD and LAPs, including project governance and management structure(s).

As additional information becomes available, Valley Water staff will continuously assess LVE Project benefits, costs, and risks to existing water supply reliability. Additional consideration will need to be given to participation in Los Vaqueros storage and/or Transfer-Bethany facilities. Staff will provide the Committee with updates, as requested.

ATTACHMENTS:

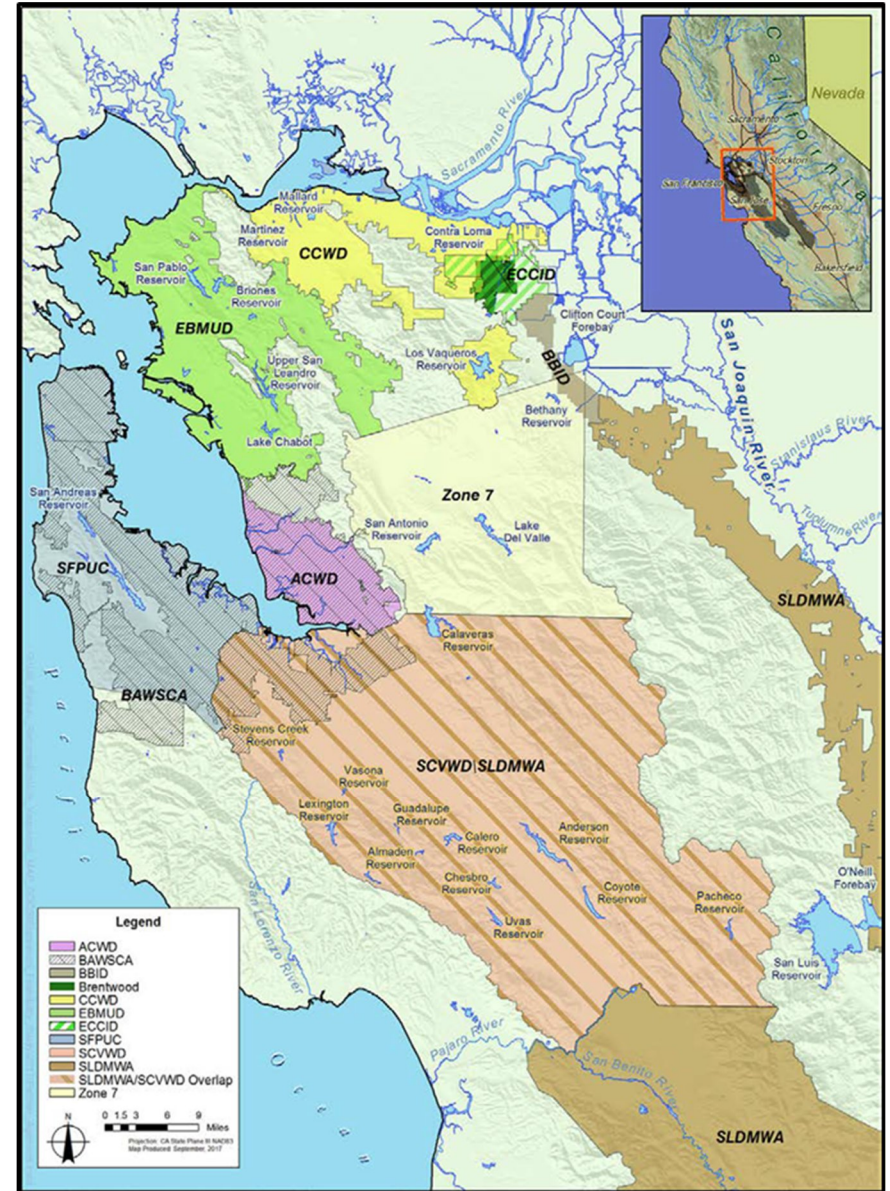
- Attachment 1: List of LAPs
- Attachment 2: Project Map
- Attachment 3: LAP Workshops List
- Attachment 4: Staff PowerPoint

UNCLASSIFIED MANAGER:

Jerry De La Piedra, 408-630-2257

Los Vaqueros Expansion (LVE) Project List of Local Agency Partners (LAPs)

1. Alameda County Water District
2. Bay Area Water Supply & Conservation Agency
3. City of Brentwood
4. East Bay Municipal Utility District
5. Grassland Water District (Refuge)
6. Santa Clara Valley Water District
7. San Francisco Public Utilities Commission
8. Zone 7 Water Agency
9. San Luis & Delta-Mendota Water Authority
 - 9.1. Byron Bethany Irrigation District
 - 9.2. Del Puerto Water District
 - 9.3. San Luis Water District
 - 9.4. Westlands Water District



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2019 Local Agency Partner (LAP) Workshops

The table below lists the LAP workshops anticipated for late-October through end of 2019, focused on LVE Project topics highlighted during review of the draft term-sheet (e.g., JPA formation, facilities sharing, cost allocations). The intent is to address issues and concerns in separate but parallel efforts leading to eventual LVE Project agreement(s).

No.	Topic Area	Overview
1	JPA Formation/ Administration/Off-Ramps	Formation of project and ops committees, discuss roles and responsibilities, project phase 'off-ramps' and decision rights.
2	Facilities	Review of facilities use and classifications, operational discussions (e.g., EBMUD-provided facilities, Transfer-Bethany Pipeline).
3	Cost Allocation among LAPs	Review LAP and CCWD benefits and costs ('beneficiary pays' principle), mechanics and operational constraints around cost allocations.
4	Service Agreements	Discussion of agreement terms and provisions, set special provisions for CCWD and others.
5	State & Federal Agreements	Define role of CCWD, discuss mechanics for public benefits, state (WSIP) and federal (WINN) grant funding requirements, and fund appropriations.
6	Legal & Financial Provisions	Review ownership of facilities, investment(s) of LVE Project funds, default conditions and 'step-up' provisions (i.e., other LAPs fill-in defaulting party's obligations).
7	Water Marketplace/Refilling LV Reservoir	Review SWP/CVP Delta surplus water requirements and contractual rights, setup of water transfer and exchanges, water rights limitations, and cost/market estimations.
8	Emergency Operations	Define roles and responsibilities related to facility operations under emergency conditions.
9	Usage Fees	Discussion of facility usage costs and payment principles.
10	South Bay Aqueduct	Discuss potential use of SBA facilities by SFPUC and BAWSCA to facilitate recovery of stored water supplies in Los Vaqueros.



Los Vaqueros Reservoir Expansion Project

Presented by: Brad J. Arnold, PE
Senior Engineer, Water Supply Planning & Conservation Unit

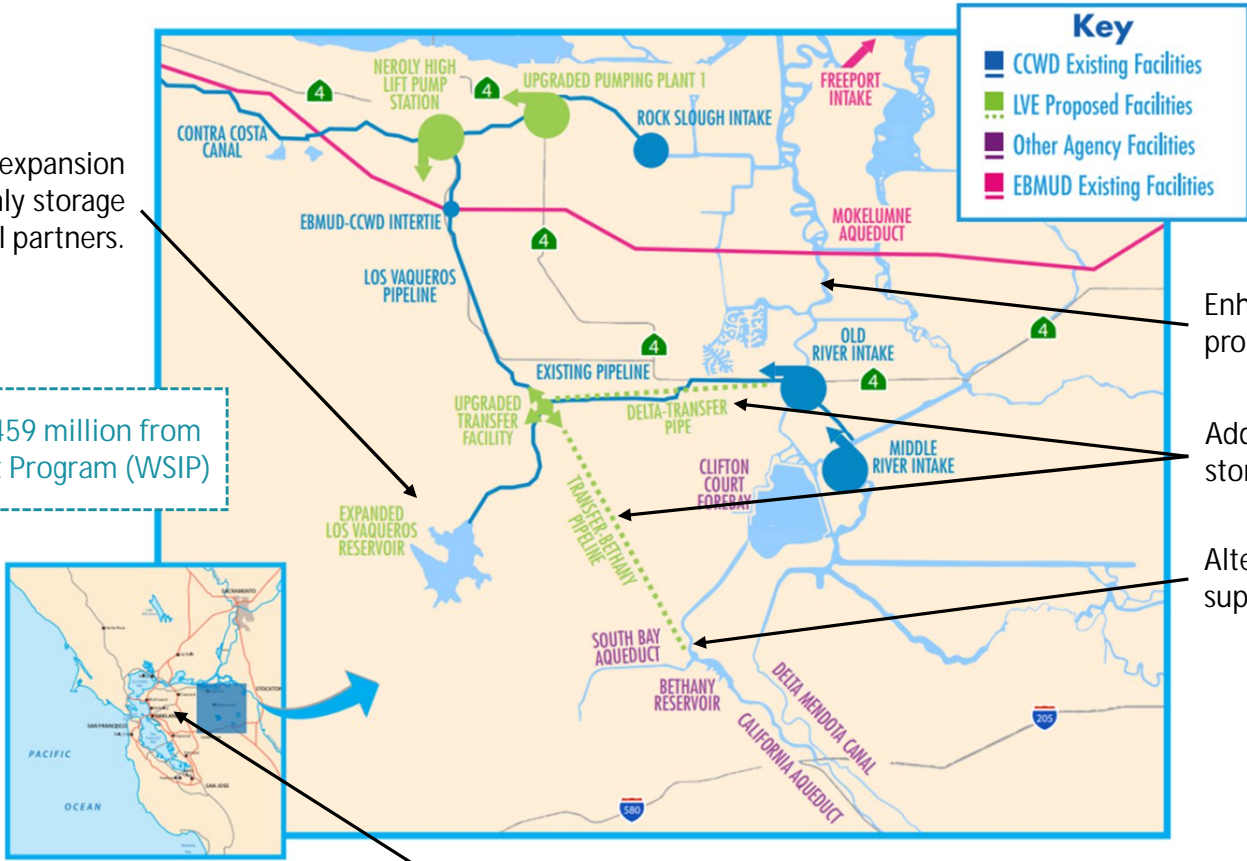


Water Storage Exploratory Committee Meeting
October 25, 2019

Project Description

Second Los Vaqueros expansion from 160 TAF CCWD-only storage to 275 TAF with local partners.

Maximum eligibility of \$459 million from Water Storage Investment Program (WSIP)



Enhance Delta environment, protect fisheries, refuge supplies.

Additional conveyance to support storage/recovery operations.

Alternative export facilities to support SWP/CVP supply reliability.

Bay Area project to improve water supply reliability, facilitate transfers and exchanges (optimization).

valleywater.org



Project Benefits and Costs

Potential Benefits

- **Access** to additional imported water supplies (SWP/CVP surplus water).
- **Access** to south-of-Delta storage. ← **Location facilitates physical recovery, not exchanged.**
- **Access** to alternative Delta (CCWD) intake.
- **Access** to regional transfer/exchange infrastructure. ← **Facilitate Bay Area regional projects.**
- Project basis to support Bay Area collaboration.

Project Costs

- Estimated total project cost: \$864 million (2018 dollars).
- Awarded \$459 million in WSIP Prop. 1, \$2.15 million in WINN Act funding.

Valley Water's Support

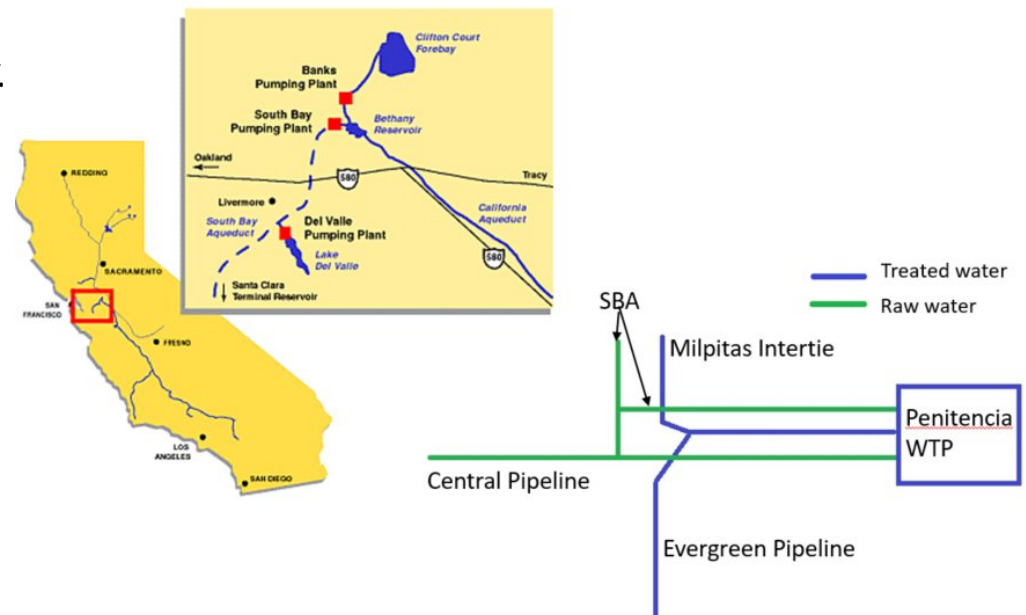
- In 2016: \$100,000 to support CCWD's Prop. 1 WSIP application
- In 2019: \$315k to continue LVE Project participation



LAP Considerations

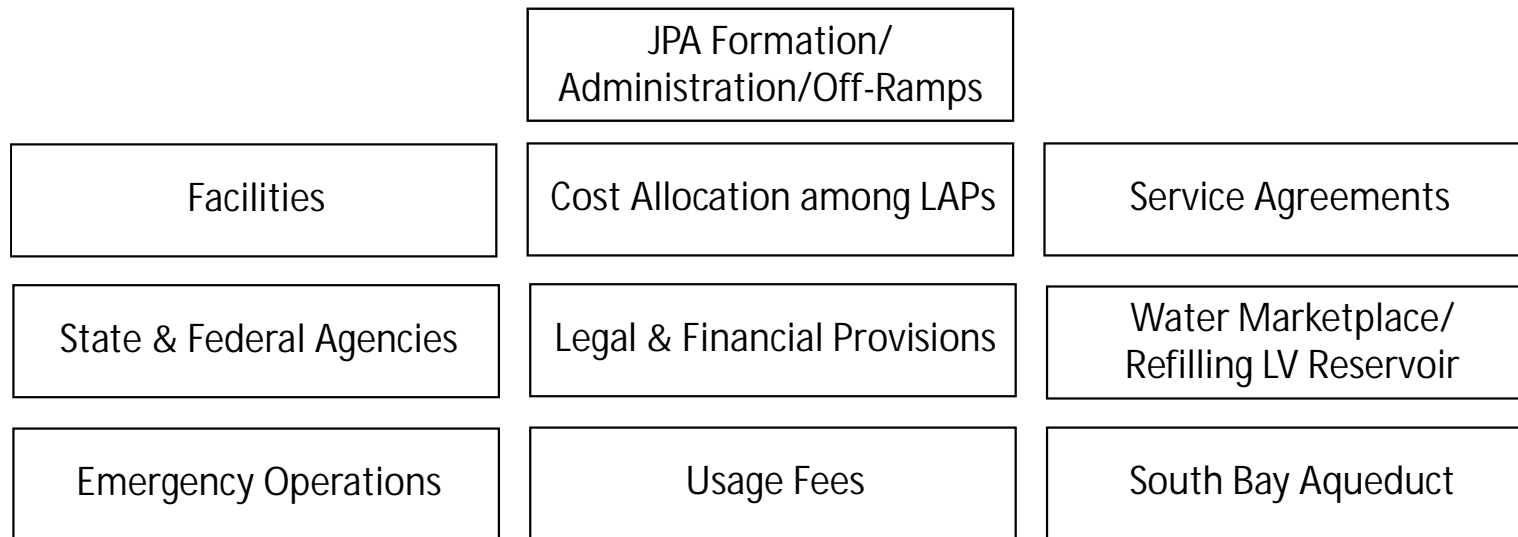
- SFPUC and BAWSCA interest in South Bay Aqueduct.
 - Facilitate recovery of Los Vaqueros water.
 - Preliminary analysis indicates some capacity, highly variable with year type.
- JPA Formation
 - Draft term-sheet on JPA structure.
 - Staff follow-up on comments and concerns.
 - Result: draft and final JPA Agreement
- Responsibilities such as project financing and executing agreements will transition from CCWD to the JPA

Post Financial Closing



Next Steps

- **LVE Costs:** Review of Pro-forma v3.0 financial model (third-party), Dec 2019.
- **User Fee:** Review of CCWD/EBMUD user fees, Dec 2019.
- **Special Legal Counsel:** Advise on formation of JPA.
- **Project Mgmt:** LAP Workshop series, remaining 2019.





Valley Water

Clean Water • Healthy Environment • Flood Protection



Santa Clara Valley Water District

File No.: 19-0994

Agenda Date: 10/25/2019

Item No.: 4.2.

COMMITTEE AGENDA MEMORANDUM

Water Storage Exploratory Committee

SUBJECT:

Semitropic Groundwater Bank Update

RECOMMENDATION:

Receive and discuss information regarding the status of Semitropic Groundwater Bank and operational uncertainties, particularly in relation to implementation of the Sustainable Groundwater Management Act. This is an information-only item and no action is required.

SUMMARY:

Santa Clara Valley Water District (Valley Water) executed the *1997 Agreement Between Santa Clara Valley Water District and Semitropic Water Storage District and Its Improvement Districts for a Santa Clara-Semitropic Water Banking and Exchange Program* ("Agreement") to participate in the Semitropic Groundwater Banking Program (Semitropic Bank) as an "original banking partner". The Agreement provides Valley Water with 350,000 acre-feet of out-of-county storage capacity (a 35 percent share of the total Semitropic Bank capacity). Besides Valley Water, other agencies with similar agreements include the Metropolitan Water District of Southern California, Alameda County Water District, Zone 7 Water Agency, and the San Diego County Water Authority (collectively, the Banking Partners). Valley Water has successfully established the ability to store and recover both State Water Project (SWP) and Central Valley Project (CVP) water supplies.

Since 1997, Valley Water has spent roughly \$112.5 million towards Semitropic Bank storage and recovery operations, storing roughly 588 thousand acre-feet (TAF) and recovering 248 TAF, primarily in wet and dry years, respectively. Approximately \$49 million of Valley Water's payments have counted towards its share of capital costs. Valley Water's remaining capital obligation is \$13.4 million, adjusted each year per the Engineering News Record index. Valley Water has benefited from this involvement in the Semitropic Bank, relying on the program to yield the bulk of our supplemental water supplies during the critically dry years of 2014 and 2015. By the end of 2019, staff expects 350 TAF of SWP and CVP supplies will be held in Valley Water's storage account for withdrawal during future dry years.

Given Valley Water's investment in the Semitropic Bank, it is prudent to identify specific uncertainties regarding future operations, particularly those that may arise in the context of the 2014 Sustainable Groundwater Management Act (SGMA). This agenda item describes the status of staff's investigation into these issues.

Background: Application of the Sustainable Groundwater Management Act

Semitropic lies within the Kern County Groundwater Subbasin B118 No. 5-22.14 (Kern Subbasin), classified by DWR as “high priority” under SGMA. This classification generally indicates subbasins with significant reliance on local groundwater supplies, many of which are among the most vulnerable to overdraft, land subsidence, and other undesirable and adverse impacts to groundwater quality. As such, Semitropic formed the Semitropic Groundwater Sustainability Agency (Semitropic GSA) to manage groundwater within Semitropic’s service area, and to plan for achieving SGMA requirements for long-term groundwater resource sustainability.

A key component of SGMA is the development of ‘sustainable management criteria’ (Sustainability Criteria) by GSAs, which addresses indicators for significant and unreasonable conditions which may lead to undesirable groundwater management results going forward (i.e., conditions which threaten long-term groundwater resource sustainability). Semitropic GSA is tasked with outlining their local hydrogeologic conditions, and developing methods for monitoring, reviewing, and adhering to their Sustainability Criteria. Another component of SGMA is local coordination between stakeholders and GSAs sharing a groundwater subbasin. For the Kern Subbasin, the Kern Groundwater Authority (KGA) will coordinate GSA planning efforts and establish the framework for basin-wide groundwater management. An existing MOU between the Semitropic GSA and KGA indicates Semitropic will ultimately maintain authority over specific management and enforcement actions related to SGMA efforts within their service area, which includes Semitropic Bank facilities. However, the Semitropic GSA will need to coordinate Sustainability Criteria under the overlying KGA framework to consider additional impacts to basin-wide groundwater users. A review of the SGMA-defined Sustainability Criteria indicators and potential impacts to Semitropic are provided as Attachment 1.

The Semitropic GSA recently released a public review draft of their Groundwater Sustainability Plan (GSP), in preparation for GSP submission requirements of SGMA. GSP and SGMA guidance documents are due to DWR by January 2020 for all “high priority” subbasins identified as being critically overdrafted. The draft GSP details Semitropic’s service area within the Kern County Groundwater Subbasin, including hydrogeologic info and the establishment of Sustainability Criteria. References to the Semitropic Bank, or matters involving third-party groundwater banking, are limited; however, the draft GSP highlights Semitropic’s ongoing and planned ‘conjunctive use programs’ (i.e., coordinated surface water and groundwater management efforts) used to minimize groundwater overdraft conditions. These concepts include water banking on behalf of Semitropic Bank partners, which helps stabilize local groundwater levels and supplies, as critical to their groundwater sustainability objectives going forward. Additional information should become available as the Semitropic GSA continues public and stakeholder engagement, and as DWR commences review of the submitted GSP documents. The draft GSP document is available on-line at apps.geiconsultants.com/semitropicgcp. The 90-day public review period for this draft, per SGMA guidelines, will close on November 16, 2019.

Semitropic has assured Valley Water staff that Semitropic Bank operations will not be affected by SGMA. This assertion is based on their claim that groundwater banking operations utilize a confined upper aquifer zone to store surface water on behalf of third-party banking partners. Given hydrogeologic conditions, the upper zone would be separate and distinct from the lower zones relied on by local landowners and which has experienced significant overdraft conditions historically. As such, Semitropic asserts that SGMA regulations and guidelines aimed at native groundwater sustainability and curbing overdraft would not impact Semitropic Bank operations. Given the DWR subbasin classification, required coordination with other agencies sharing the Kern Subbasin, and

DWR's pending review of their GSP, this assertion will need to be verified.

Additional information should become available with the release of SGMA-related documentation, including the anticipated GSP public review draft, and DWR reviews of submitted plans. Valley Water staff will continue to assess Semitropic Bank risks and vulnerabilities, and will provide updates to the Committee, as requested.

Contractual Considerations

While reviewing the Agreement in the context of SGMA, Valley Water staff has summarized for the Committee's information various questions staff is researching:

- How are priorities for unused storage and recovery capabilities identified?
 - *Related fact: Valley Water's capacities are provided in Attachment 2, for reference.*
- To what extent and under which circumstances does Kern County Water Agency (KCWA) have the right to deny Valley Water banking requests given that Semitropic is a Member Unit of KCWA?
- To what extent does Valley Water's reliance on pump-back by local landowners to recover its stored water become an issue under SGMA?
 - *Related fact 1: Recovery is generally performed by exchange of stored water with Semitropic's SWP allocation from KCWA, or by direct pump-back from Semitropic's underlying groundwater to SWP facilities and exchanged for SWP 'project water'.*
 - *Related fact 2: To facilitate Banking Partners' recovery requests via pump-back, Semitropic typically relies on local landowners to pump groundwater into Semitropic's distribution facilities from privately-owned wells. Landowner participants are reimbursed for well energy usage and are compensated for pumped water volumes.*
- To what extent will Valley Water be compensated if Semitropic is unable to perform its Semitropic Bank obligations, including the inability to return Valley Water's stored water?
- To what extent could the Semitropic GSA (or the State Water Resources Control Board) require Semitropic to compromise or breach its Agreement with Valley Water in order to meet objectives of the Groundwater Sustainability Plan?
 - *Related assumption: if the Semitropic GSA does not take effective steps to bring the basin into a sustainable condition, the SWRCB may intervene and identify actions needed to correct undesirable results, which could include adjudication. This action is possible for any California groundwater basin that is not in compliance with SGMA.*

Next Steps

Valley Water staff will provide comments on the Semitropic draft GSA and will continue to review the Agreement and Valley Water's interests in the ongoing viability of the Semitropic Bank.

File No.: 19-0994

Agenda Date: 10/25/2019
Item No.: 4.2.

ATTACHMENTS:

Attachment 1: SGMA Sustainability Criteria Overview
Attachment 2: Semitropic Bank Contractual Allocations

UNCLASSIFIED MANAGER:

Garth Hall, 408-630-2750

SGMA Sustainability Criteria (Semitropic Bank Review)

Sustainability Indicator	Draft GSP Section(s) Addressed ¹	Semitropic GSA Indication (from Draft GSP ¹)	Possible Semitropic Bank Impacts ²
Chronic lowering of groundwater levels indicating a significant and unreasonable depletion of supply (overdraft conditions).	2.3.1 2.3.2 3.2.1 3.3.1 3.4.1 4.3.4	Historically caused by increased reliance on groundwater pumping due to reduction of imported water supplies. Results in groundwater well dewatering and increased pumping lifts, maintenance costs (e.g., well rehab), among other impacts. Undesirable results triggered if majority of wells fall below threshold GW level. Upper zones thresholds (separate) set consistent with adjacent agencies, not showing decline.	Claim is upper zones where Semitropic Bank operates are separate and distinct from chronic lowering in lower zones. Draft GSP not clear how GW level thresholds apply only to lower zones, and if unreasonable depletion in those zones could impact banking recovery (e.g., limit all basin pumping regardless of where occurring). Pump-back recovery relies on local landowner participation from lower zones, who may reduce participation if impacting own GW levels/supplies.
Significant and unreasonable reduction of groundwater storage.	2.3.3 3.2.2 3.3.2 3.4.2 4.3.4	Historically caused by chronic lowering of groundwater levels. Results in depletion of groundwater reserves needed <i>to support a 10-year drought period (similar to 2006-2016)</i> . Metrics follow review of groundwater levels as indicative of groundwater storage, calculated at KGA level of basin mgmt. Will monitor by setting interim milestones.	Tracked by Semitropic Water Banking Project Monitoring Committee regarding GW banking storage. Draft GSP not clear if 'falling below' 10-year drought period reserves triggers limitations to Semitropic Bank during local GW storage recovery. Note basin-wide involvement at KGA level, meaning additional third-party storage monitoring and calculations (other sub-basin agency involvement?)
Significant and unreasonable seawater intrusion.	2.3.4 4.3.5	Not applicable to Kern Sub-Basin.	Not applicable to Kern Sub-Basin.
Significant and unreasonable degradation of groundwater quality.	2.3.5 3.2.3 3.3.4 3.4.4 4.3.6	Groundwater quality seen as historically stable in service area. Results in decrease to usable supply delivered to groundwater users. Metrics follow review of groundwater levels as indicative of groundwater quality; however, historical data does not indicate that water quality naturally declines with groundwater levels.	GW quality is challenged with elevated arsenic concentrations which require treatment in dry years prior to recovery via SWP facilities. To date, costs of this effort has been reasonable, and banking withdrawals have not been constrained due to water quality issues. Additional analyses are needed to assess Semitropic GW quality conditions, and other banking partners have expressed concerns for contaminated water from Semitropic Bank.

¹ References Semitropic GSA Public Draft Groundwater Sustainability Plan document (August 2019), available at <https://apps.geiconsultants.com/semitropicgcp/>.

² Based on Valley Water staff review of draft GSP document and interpretation of Kern Sub-Basin conditions.

SGMA Sustainability Criteria (Semitropic Bank Review)

Sustainability Indicator	Draft GSP Section(s) Addressed¹	Semitropic GSA Indication (from Draft GSP¹)	Possible Semitropic Bank Impacts²
Significant and unreasonable land subsidence that interferes with surface land uses.	2.3.6 3.2.4 3.3.3 3.4.3 4.3.7	Caused by depressurization of aquifers and land surface compaction, due to lowering groundwater levels. DWR rates Kern Sub-Basin as 'high potential' for future subsidence. Results in damage to critical infrastructure, such as surface water conveyance facilities which leads to increased GW reliance. Identified as data gap due to additional cause and effect studies needed. Claim is "maintaining water levels above the previous low water levels limits the risk of future subsidence."	Additional studies are needed in Kern Sub-Basin to investigate cause-and-effect relationship between de-watering of basin and land subsidence.
Depletions of interconnected surface water.	2.3.7 2.3.7 4.3.8	No known natural interconnected surface water systems in Kern Sub-basin.	No natural interconnected systems remain in Kern Sub-Basin.

¹ References Semitropic GSA Public Draft Groundwater Sustainability Plan document (August 2019), available at <https://apps.geiconsultants.com/semitropicgcp/>.

² Based on Valley Water staff review of draft GSP document and interpretation of Kern Sub-Basin conditions.

Valley Water’s Semitropic Bank Storage and Recovery Limits

Information below provides details regarding Valley Water’s share of Semitropic Bank annual storage and recovery capacities, per the “1997 Agreement Between Santa Clara Valley Water District and Semitropic Water Storage District and its Improvement Districts for a Santa Clara-Semitropic Water Banking and Exchange Program.”

Valley Water share of Semitropic Bank annual Storage capacity:

$$[\text{BankParticipation}\%] * 90500 = [\text{PutCapacity}]$$

- Fixed based on bank participation percentage.

Valley Water share of Semitropic Bank annual Recovery capacity:

$$[\text{BankParticipation}\%] * (90000 + (([\text{SWPAllocation}\%] * 155000) - 22000)) = [\text{TakeCapacity}]$$

- Variable based on annual SWP Allocation % to Semitropic making water available for exchange.

Total Valley Water Storage (TAF)	350,000	
BankParticipation%	35%	
	PutCapacity	TakeCapacity
SWPAllocation%	AF/yr	AF/yr
0%	31,675	31,675*
5%	31,675	31,675*
10%	31,675	31,675*
15%	31,675	32,113
20%	31,675	34,825
25%	31,675	37,538
30%	31,675	40,250
35%	31,675	42,963
40%	31,675	45,675
45%	31,675	48,388
50%	31,675	51,100
55%	31,675	53,813
60%	31,675	56,525
65%	31,675	59,238
70%	31,675	61,950
75%	31,675	64,663
80%	31,675	67,375
85%	31,675	70,088
90%	31,675	72,800
95%	31,675	75,513
100%	31,675	78,225

* Defaults to minimum value, equal to put/storage capacity.



Santa Clara Valley Water District

File No.: 19-0995

Agenda Date: 10/25/2019

Item No.: 4.3.

COMMITTEE AGENDA MEMORANDUM

Water Storage Exploratory Committee

SUBJECT:

Pleasant Valley Water District Groundwater Banking Concept

RECOMMENDATION:

Receive and discuss information regarding a conceptual Pleasant Valley Water District Groundwater Bank. This is an information-only item and no action is required.

SUMMARY:

Background

The Pleasant Valley Water District (Pleasant Valley) was formed in 1963 for the purpose of securing a water contract with the State of California and/or the Bureau of Reclamation, but no water contracts have been secured. Pleasant Valley encompasses approximately 35,000 acres in Fresno County along the west side of the San Joaquin Valley, and generally east and southeast of the City of Coalinga (see Attachment 1). In 2018, it gained membership to the Westside-San Joaquin Region of the San Luis & Delta-Mendota Water Authority. Pleasant Valley is currently seeking funding and water supplies to develop groundwater banking facilities.

Water Supply

Pleasant Valley does not have long-term surface water supply contracts with either the State Water Project (SWP) or the Federal Central Valley Project (CVP); however, it is within the CVP place of use and claims that it is eligible to receive federal or State supplemental water supplies. Pleasant Valley also indicates it is pursuing rights to surface water for groundwater recharge from the nearby Los Gatos, Warthan, Jacalitos and Zapato Chino Creeks from the State Water Resources Control Board (SWRCB). According to their 2016 Master Plan, Pleasant Valley received a permit from the SWRCB in 1967 for 13,500 acre-feet per year from these creeks, contingent on their constructing certain facilities by December 1969. Those facilities were not built, and the permit was revoked in 1972.

The Department of Water Resources has classified the Pleasant Valley Groundwater Basin as “low priority” in terms of compliance with the Sustainable Groundwater Management Act. Landowners in the area have relied on groundwater for their irrigation supplies and the basin is currently overdrafted. Based on documents provided by Pleasant Valley, the groundwater level has dropped approximately 170 feet over the past five decades, most of which occurred prior to the late 1980’s when the area

was intensively farmed. In the late 1990's through the early 2000's, there was a reduction in cultivated agriculture and the groundwater decline slowed. However, the groundwater levels in Pleasant Valley Groundwater Basin have continued to decline over the last fifteen years due, at least in part, to the development of 12,000 acres of pistachio orchards within the area.

Conceptual Groundwater Banking

Pleasant Valley is looking to partner with other public agencies for a groundwater banking project. Water would be delivered to Pleasant Valley via the Coalinga Canal off the California Aqueduct but pipelines and other infrastructure would still need to be built. Recharge would occur primarily by surface recharge. Pleasant Valley claims that there is over 1,000,000 acre-feet of storage available in the groundwater basin.

According to Pleasant Valley, the lack of underground lateral outflow in the Pleasant Valley Groundwater Basin is a unique physical feature that makes for an attractive groundwater bank. A groundwater banking project may also support opportunities for recreational activities and habitat protection and improvement initiatives. According to the 2019 San Luis & Delta-Mendota Water Authority Westside-San Joaquin Integrated Regional Water Management Plan, "One hundred twenty acres of wetted area within the infiltration basin complex could create a temporary wetland and riparian habitat; with the basins flooded for up to six months a year (and possibly more in wet years), providing food, water, and habitat diversity for a variety of residential and migratory wildlife."

However, groundwater in much of Pleasant Valley has poor water quality with moderate to high salinity and has high concentrations of sodium and sulfate, which would mix with banked surface water. Based on a report prepared for Pleasant Valley in 2003, the total dissolved solids (TDS) concentration in the groundwater averaged over 1,500 mg/l and in places exceeded 3,000 mg/l. The secondary maximum contaminant level upper level for TDS is 1,000 mg/l and the short-term level is 1,500 mg/l. The poor water quality could raise concerns if recovered water were to be put back into the Coalinga Canal and California Aqueduct.

Furthermore, due to Pleasant Valley's location and having no water supply contracts with either the SWP or CVP, there may be regulatory and contractual challenges for Valley Water to place and recover banked water in this location.

Estimated Costs

Pleasant Valley is seeking to construct stream flow gauges and twelve well water level data loggers. The data would be used to develop the Recharge Feasibility Study report, which is planned to be developed in 2021 to determine the average annual recharge occurring within the basin. This study will also help evaluate the sustainability of the Pleasant Valley Groundwater Basin. Additionally, a hydrologic review will be performed to help with the Recharge Feasibility study. In 2016, these studies were estimated to cost \$215,000 with additional annual costs starting at \$5,500 in 2017 and escalating to \$9,500 in 2025 for hydrologic review and data collection,

In addition to the feasibility and planning studies, a conceptual groundwater banking program would

require the construction of a number of pipelines, wells, and spreading basins in order to deliver and extract water from the bank. The construction costs were estimated to be as high as \$22 million *in 2003 dollars* for those facilities.

Due to the challenges identified above, staff proposes to defer consideration of a groundwater banking program located in Pleasant Valley.

ATTACHMENTS:

Attachment 1: Map

UNCLASSIFIED MANAGER:

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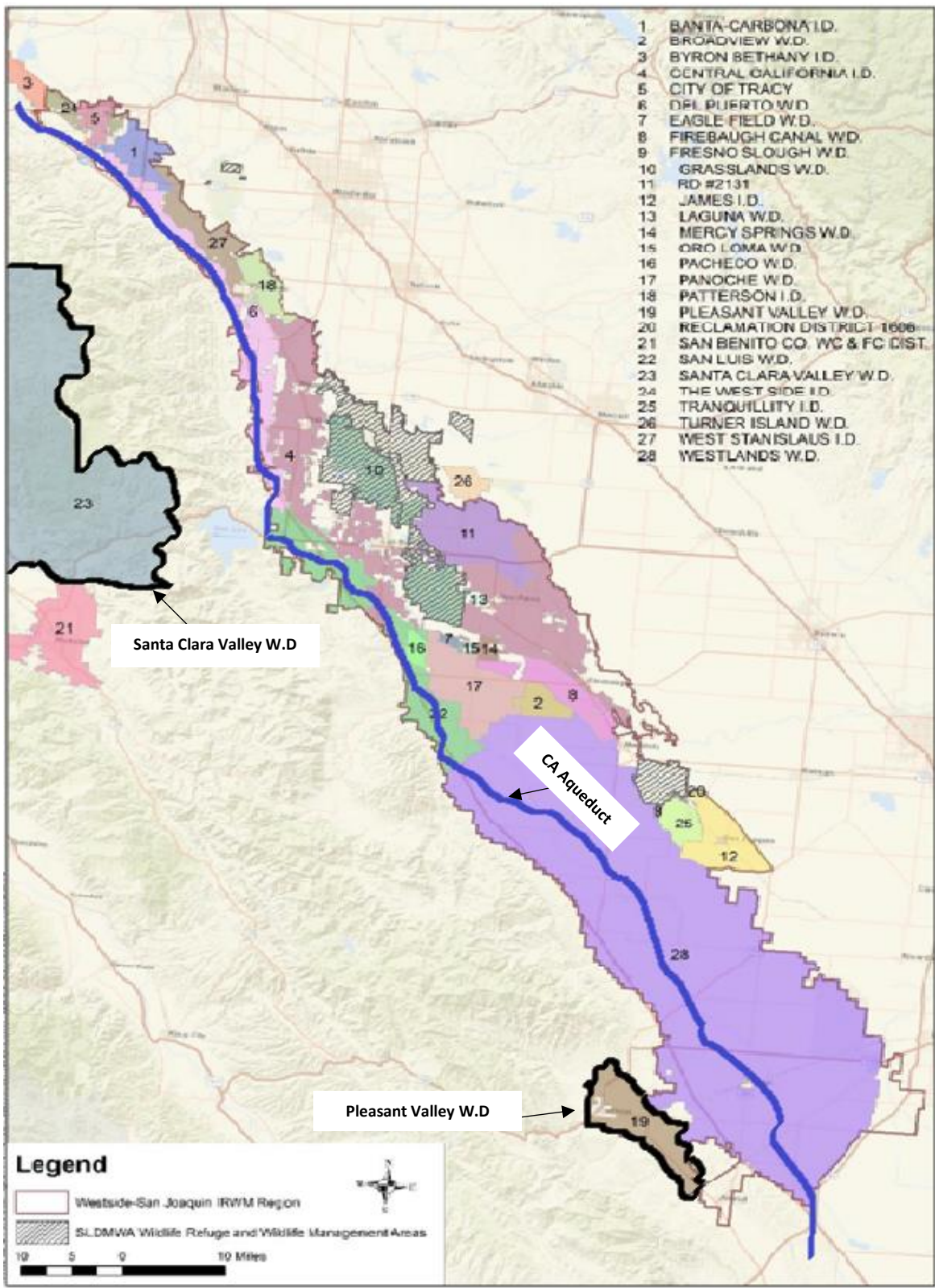


Figure 1: SLDMWA Member Agencies in the Westside-San Joaquin Region



Santa Clara Valley Water District

File No.: 19-0996

Agenda Date: 10/25/2019

Item No.: 4.4.

COMMITTEE AGENDA MEMORANDUM

Water Storage Exploratory Committee

SUBJECT:

Update on Conceptual Lake Del Valle Modifications

RECOMMENDATION:

Receive and discuss information regarding status of conceptual Lake Del Valle modifications. This is an information-only item and no action is required.

SUMMARY:

Recent Study to Expand Del Valle Storage Capacity

Santa Clara Valley Water District (Valley Water), Alameda County Water District (ACWD), and Alameda County Flood Control and Water Conservation District (Zone 7) rely on State Water Project (SWP) water supply deliveries made from South Bay Aqueduct (SBA) facilities. These agencies also indirectly rely on Lake Del Valle, a storage reservoir in Alameda County southeast of Livermore, constructed as part of the SWP to augment water supply and provide for off-line storage of SBA deliveries. In addition, Lake Del Valle has recreation facilities including a boat ramp, campgrounds, and beaches, all operated by East Bay Regional Park District (EBRPD). A map of Lake Del Valle, as part of SBA facilities, is provided with a Valley Water staff PowerPoint in Attachment 1.

Valley Water, ACWD, and Zone 7 (the SBA Agencies), with input from EBRPD, explored opportunities to refine reservoir operations in a manner which could increase water storage in Lake Del Valle, while complying with Lake Del Valle flood management requirements and minimizing impacts to existing recreational facilities. The SBA agencies identified three conceptual methods for increasing water supply availability, as follows:

Re-Operation Methods

- *Forecast-informed reservoir operations (FIRO)*: modeled use of forecasted inflow data to re-allocate Del Valle operational decisions.
- *Permanent re-allocation of flood management capacity to the water conservation pool*: decrease flood management capacity to increase reservoir storage.

Structural Methods

- *Structural changes to increase reservoir capacity*: structural changes, such as a dam and spillway raise, to add physical capacity to the reservoir.

The SBA Agencies examined these alternatives and their potential combinations and found that all had the potential to enhance water storage capacity and meet flood management objectives. However, further evaluation indicated that none of the methods may provide an increase in water supply to Valley Water for the following reasons:

- Potential methods (and combinations) are likely not significant enough to result in a change to annual SWP allocation; therefore, Valley Water's SWP supplies would not increase.
- Valley Water does not hold rights to any local runoff that may be captured by a larger or re-operated reservoir, as rights to this supply are held by ACWD and Zone 7.

Based on historic hydrology, modeled data for these methods indicated a potential increase in local water yield of up to 1,100 AF/year for ACWD and Zone 7, with storage increasing around 5,000 to 14,000 AF/year depending on re-operated or structural methods, respectively. Valley Water staff review concluded that an increase in Lake Del Valle stored water could provide greater flexibility to the California Department of Water Resources for blending to improve the quality of water delivered from the Sacramento-San Joaquin River Delta to Valley Water, primarily in dry years. However, this assessment did not make clear how changes in Lake Del Valle operations, either for water quality or towards the benefit of local water rights holders, would impact the primary purpose of the state-owned reservoir facility (i.e. to benefit the SWP).

Combining FIRO with either of the other methods appeared to result in more frequent inundation of Lake Del Valle recreational facilities. Implementing either re-operation method would likely require changes to U.S. Army Corps of Engineer reservoir water control manuals (WCM) and operations, and implementing the structural changes would require a planning study, a dam design and review by various state/federal agencies, and a WCM update. All potential methods were identified as intensive multi-year project efforts.

Should additional information become available, Valley Water staff will assess risks and potential for increasing SBA water supply availability from the proposed methods, and staff will provide the Committee with updates, as requested.

N3 Ranch

Staff has recently been made aware that a 50,500 acre parcel of land known as the N3 Cattle Company Ranch (N3 Ranch) adjacent to Lake Del Valle has been made available for purchase for a price of \$72 million. The ranch reaches into four counties, including the following:

- Santa Clara County: 19,935 acres
- Alameda County: 16,880 acres
- San Joaquin County: 9,095 acres
- Stanislaus County: 4,590 acres

A portion of the land is within the Lake Del Valle watershed. Alameda County Water District has scheduled a special Board Workshop on October 17, 2019 to discuss the potential merits of acquiring an ownership share in the N3 Ranch property.

File No.: 19-0996

Agenda Date: 10/25/2019
Item No.: 4.4.

ATTACHMENTS:

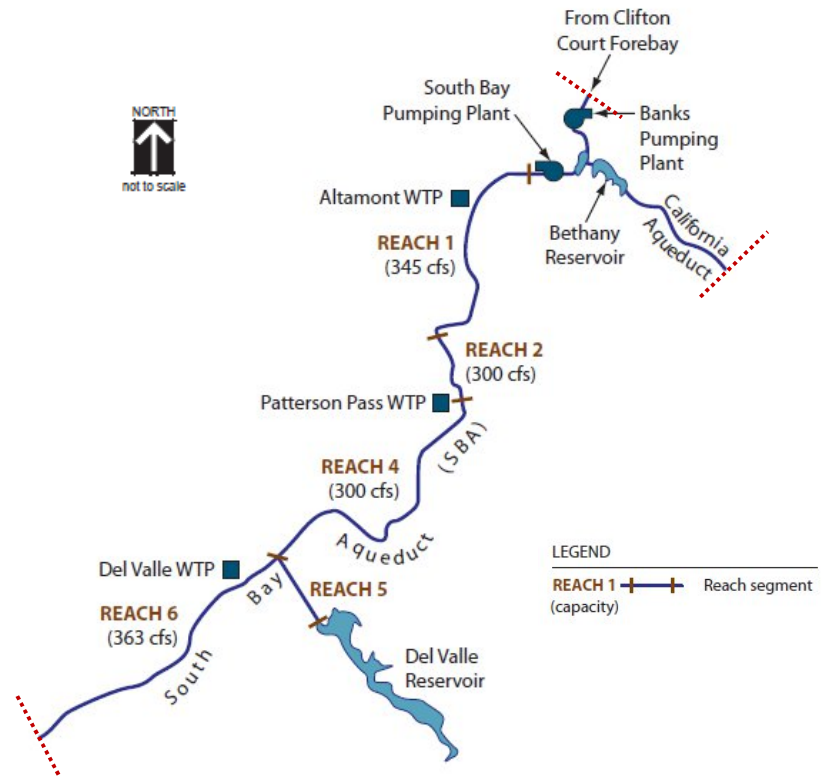
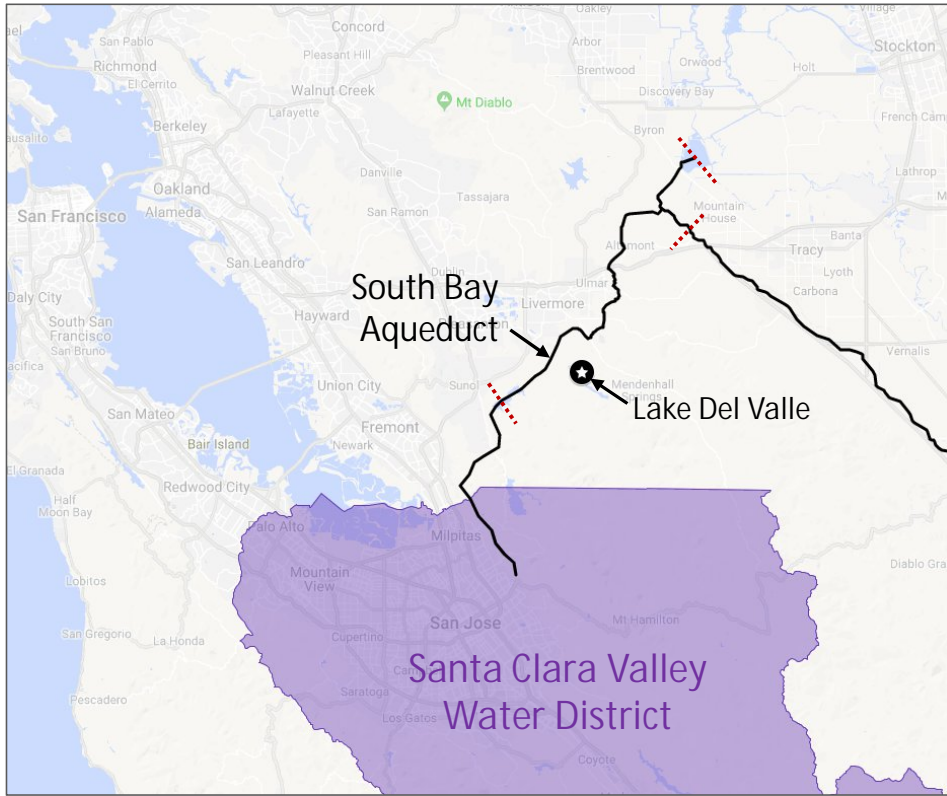
Attachment 1: Staff PowerPoint

UNCLASSIFIED MANAGER:

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Lake Del Valle Location

1



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Methods Reviewed

2

- 'Forecast-Informed Reservoir Operations' (FIRO).
 - Improved forecast inflow data to change ops.
- Re-allocate flood capacity (permanent).
 - Decrease flood capacity to increase storage.
- Reservoir structural changes.
 - Add physical capacity (e.g., dam and spillway raise).
- Combined approaches?

Non-Structural

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Valley Water Staff Conclusions

3

- Potential methods likely not significant enough to result in changes to SWP allocation.
- Valley Water does not hold rights to local runoff captured by larger or re-allocated reservoir.

Methods Analysis

4

Scenario	Avg. Yield Incr (AF/year)*	Avg. Storage Incr (AF/year)*	Effort Needed
FIRO Only	6	103	Minimal: develop model, coordinate w/DWR & Ops
FIRO w/5 TAF Flood capacity Re-allocation	426	4,933	Large: USACE review, coordinate w/DWR & Ops
FIRO w/15 TAF Flood Capacity Re-allocation	1,135	13,692	Large: USACE review, coordinate w/DWR & Ops
FIRO w/Dam & Spillway Raise	425	4,942	Very Large: USACE/DSOD review, EBRPD agreements, coordinate w/DWR & Ops

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*Benefit to local water rights (Zone 7, ACWD)

Considerations

- Storage vs. yield potential.
- State Water Project (SWP) vs. local benefit.
- Inundation of recreational areas (East Bay RPD).
- US Army Corps of Engineers reservoir ops.

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Santa Clara Valley Water District

File No.: 19-0997

Agenda Date: 10/25/2019

Item No.: 4.5.

COMMITTEE AGENDA MEMORANDUM

Water Storage Exploratory Committee

SUBJECT:

Update on Management of South Bay Aqueduct Facilities

RECOMMENDATION:

Receive and discuss information regarding status of South Bay Aqueduct facilities management. This is an information-only item and no action is required.

SUMMARY:

The South Bay Aqueduct (SBA) supplies water to several communities in the Livermore-Amador Valley, East Bay, and Silicon Valley areas. It has delivered roughly 108,000 acre-feet per year, on average, to the Bay Area since its construction was completed in 1965. SBA facilities are owned, operated, and maintained by the California Department of Water Resources (DWR). It is the primary method for conveying State Water Project (SWP) water supplies from the Sacramento-San Joaquin River Delta (Delta) to the Santa Clara Valley Water District (Valley Water) for retailer delivery and groundwater recharge. Other SWP contractors, besides Valley Water, reliant on the SBA for water delivery include Alameda County Water District (ACWD), and Alameda County Flood Control and Water Conservation District (Zone 7) (collectively, the 'SBA Agencies'). A detailed map of SBA facilities is provided in Attachment 1. The SBA is a combination of underground pipeline and open channel over 40 miles from the South Bay Pumping Plant to the terminus near San Jose. Valley Water receives SWP supplies via a metered turnout located on 'Reach 9' of the SBA, the final point of delivery to a SWP contractor along the aqueduct.

The SBA facilities are ageing and have been subject to periodic planned and unplanned shutdowns, resulting in sometimes significant operation impacts to the SBA Agencies. More recently, DWR has limited Valley Water's available capacity by 5 percent on a permanent basis to protect against further outages. These impacts have lead SBA agencies to work with DWR to address the long-term reliability of the SBA. Below is an overview of the status of these efforts related to SBA facilities management.

Condition Assessment

The SBA Agencies have experienced periodic facility outages due to DWR Delta Field Division (Delta Field Division) inspections and repair of facilities limiting their water supply deliveries. For instance, recent SBA flow tests and studies have shown an actual Reach 9 capacity around 174 cubic feet per second (cfs) (around 5 percent reduction from 184 cfs capacity), which directly impacted roughly 5,800 acre-feet of Valley Water's SWP supply in 2018¹. Valley Water has worked with the other SBA Agencies regarding SBA condition assessments and technical work needed to review capacity

impacts and facility limitations. Additional work is likely needed, which may lead to identifying significant repair of the SBA to prevent future issues; however, the scale and scope of this work has not been fully assessed by DWR or the SBA Agencies to date.

The SBA Agencies have been meeting with DWR staff to review facilities outages and maintenance, monitor SBA degradation, and develop a Draft Pipeline Management Plan (Draft Plan) by July 2021. The Draft Plan is intended to assess and analyze SBA information (e.g., hydraulic analysis, risks assessment, repairs needed, additional studies required) needed to maintain use of the SBA facilities.

Defined construction work and associated costs are anticipated following development of the Draft Plan, once SBA repair needs are better understood. The SBA Agencies expect to continue coordination with DWR regarding funding measures for such work and develop plans for predictable and prioritized maintenance of SBA facilities. In the interim, Valley Water staff has been coordinating with Delta Field Division staff regarding scheduled outages and maintenance to assess and plan for potential impacts to SWP water supply deliveries.

SBA Modifications

Since the start of SBA operations, DWR and the SBA Agencies have made numerous improvements, expansions, and repairs to portions of the SBA. Some of these modifications have been permanent, while others have been temporary fixes to address specific SBA issues. Some of the major efforts undertaken are highlighted below.

In 1999, Zone 7 planning documents indicated a rapid increase in their projected SWP water demands and a need for increased capacity on the SBA. Subsequent enlargement of the SBA, from 300 cfs to 430 cfs total capacity, was completed and has been operational since 2015. This provided for increased flow capacity for SWP supplies and increased reliability of the facilities in the upper SBA reaches closer to Bethany Forebay, while also improving operational flexibility to reduce SWP peak power consumption. That SBA enlargement is being repaid by Zone 7. Additional expansion of SBA reach capacities closer to Valley Water's turnout have not been proposed.

DWR provided a separate SBA Reliability Improvements Proposal memo in 2014 (SBA Reliability Project), which outlined some efforts needed to monitor the SBA with short and long-term response actions. The SBA Reliability Project resulted in some physical improvements and strategic actions by DWR, such as stockpiling repair materials and intensifying monitoring of known sections of the SBA prone to failure. However, additional work proposed by the memo, focused on pipeline portions of the SBA, have not yet materialized (e.g., fixes to Santa Clara Pipeline portion of SBA).

The separate Los Vaqueros Reservoir (Los Vaqueros) Expansion Project (LVE Project) has proposed a new Transfer Bethany Pipeline (Pipeline) to convey water from Los Vaqueros to the SBA, connected via Bethany Forebay. That Pipeline could increase reliability and flexibility of Delta water supplies for those SBA Agencies participating in the LVE Project by adding supplemental SBA inflow below the existing Banks Pumping Plant. However, downstream SBA facilities may ultimately need repair or replacement for Valley Water to rely on long-term operations of the proposed Pipeline.

Valley Water staff intends to continue working with the other SBA Agencies and DWR on review of SBA facility issues. Given the importance of SBA facilities to Valley Water's SWP water supplies, Valley Water has made multiple requests to DWR to perform an all-inclusive condition assessment of

all SBA operational components, and has supported the Draft Plan efforts. The latest letter addressed to DWR from the SBA Agencies is provided in Attachment 2. Should additional information become available regarding SBA facilities management or the Draft Plan, staff will provide the Committee with additional updates.

¹Valley Water did not lose this 2018 SWP water supply given contractual protections and other storage options (e.g., San Luis Reservoir carryover). However, re-scheduling did increase risk of loss if SWP conditions had been less favorable, and likely altered raw water system and treatment plant operations.

ATTACHMENTS:

Attachment 1: SBA Facilities Map

Attachment 2: Feb 2018 Letter to DWR Director

UNCLASSIFIED MANAGER:

Nina Hawk, 408-630-2736

SOUTH BAY AQUEDUCT MAP





February 7, 2018

Ms. Karla Nemeth
Director
California Department of Water Resources
P.O. Box 942836, Room 1115
Sacramento, CA 94236-0001

Dear Ms. Nemeth:

Subject: South Bay Aqueduct Condition Assessment

In this letter, we call for a high priority condition assessment of all sections of the South Bay Aqueduct.

We are pleased to learn that DWR, in collaboration with the State Water Contractors (SWC), is embarking on an effort to assess the condition and reliability of the entire State Water Project (SWP). While recognizing the importance of a system-wide SWP condition assessment, which may take several years, the South Bay Aqueduct (SBA) Contractors, namely, Zone 7 Water Agency, the Alameda County Water District, and the Santa Clara Valley Water District (SBA Contractors) request a more urgent condition assessment of the South Bay Aqueduct, including assessment of sediment accumulation and need for dredging Lake Del Valle, Bethany Reservoir, and Clifton Court Forebay, given the lack of redundancy and the minimal storage along this branch.

The South Bay Aqueduct was commissioned over 50 years ago and has become a vital facility to convey imported SWP water to over 2.5 million residents and businesses within the SBA Contractors' service areas. Over the past 50 years of operation, DWR and the SBA Contractors have made numerous improvements, expansions and repairs to portions of the aqueduct. Some of these have been permanent while others are works in progress. DWR's recent work on the SBA *vulnerability study* has led to strategic actions by DWR such as stockpiling repair materials and intensifying monitoring of known sections of the SBA prone to failure. We appreciate the efforts of DWR staff on these tasks and look forward to receiving the completed vulnerability study.

Even with a better understanding of some of the vulnerable areas of the system, much more needs to be done to improve the reliability of the system overall. As you are aware, the SBA incurred four service interruptions in 2017 due to leaks, in addition to a 10-month outage for seismic retrofit repairs on the Santa Clara Pipeline. SBA reliability is becoming more important as aging infrastructure in our local water systems also requires more extensive repairs and maintenance. For example, Santa Clara Valley Water District's largest reservoir, Anderson

February 7, 2018

Reservoir, will be drawn down for three years for seismic repairs beginning in approximately 2020, during which time there will be an increased reliance on water delivered through the SBA.

We want to thank DWR staff for efforts to date and acknowledge that the Delta Field Division and the Maintenance Engineering Branch in Sacramento are developing a plan to review the pipeline portion of the SBA. However, we are concerned about the slow pace at which such plans are typically developed and implemented. Instead, we call for a high priority condition assessment of the pipeline and all sections of the SBA. To that end, we wish to collaborate with DWR to perform an all-inclusive condition assessment of all operational components, including previously identified sections, required to deliver water through the SBA. We are particularly interested in a condition assessment of the useful life of each item and development of a long-term renewal or replacement plan to minimize future disruptions in service.

We would like to schedule a meeting with you involving senior SBA contractor staff to discuss this assessment.

Sincerely,



G. F. Duerig, General Manager
Zone 7 Water Agency



Robert Shaver, General Manager
Alameda County Water District



Norma J. Camacho, Chief Executive Officer
Santa Clara Valley Water District

cc: Joel Ledesma, California Department of Water Resources
Eric Chapman, State Water Contractors



Santa Clara Valley Water District

File No.: 19-0998

Agenda Date: 10/25/2019

Item No.: 4.6.

COMMITTEE AGENDA MEMORANDUM

Water Storage Exploratory Committee

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 additional 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: WSEC 2019 Work Plan

Attachment 2: Next Meeting's Proposed Agenda

File No.: 19-0998

Agenda Date: 10/25/2019
Item No.: 4.6.

UNCLASSIFIED MANAGER:
Michele King, 408-630-2711

2019 Work Plan: Water Storage Exploratory Committee

Update: August 2019

The annual work plan establishes a framework for committee discussion and action during the annual meeting schedule. The committee work plan is a dynamic document, subject to change as external and internal issues impacting the District occur and are recommended for committee discussion. Subsequently, an annual committee accomplishments report is developed based on the work plan and presented to the District Board of Directors.

ITEM	WORK PLAN ITEM	MEETING	INTENDED OUTCOME(S)	ACCOMPLISHMENT DATE AND OUTCOME
1	Pacheco Reservoir Expansion Project Update	2-22-19 5-20-19 8-27-19	Review, discuss, and provide input regarding the status of the Pacheco Reservoir Expansion Project.	<p>Accomplished February 22, 2019: The Committee reviewed, discussed, and provide input regarding the status of the Pacheco Reservoir Expansion Project and took no action.</p> <p>Accomplished May 20, 2019: The Committee reviewed, discussed, and provide input regarding the status of the Pacheco Reservoir Expansion Project and took no action.</p> <p>Accomplished August 27, 2019: The Committee reviewed, discussed, and provide input regarding the status of the Pacheco Reservoir Expansion Project and took no action.</p>
2	Update on the Los Vaqueros Reservoir Expansion Project (LVE Project)	2-22-19 5-20-19 8-27-19 10-25-19	Receive an update on the Los Vaqueros Expansion Project.	<p>Accomplished February 22, 2019: The Committee Receive an update on the Los Vaqueros Expansion Project and took no action.</p> <p>Accomplished May 20, 2019: The Committee Receive an update on the Los Vaqueros Expansion Project and took no action.</p> <p>Accomplished August 27, 2019: The Committee Receive an update on the Los Vaqueros Expansion Project and took no action.</p>

Yellow = Update Since Last Meeting

Blue = Action taken by the Board of Directors

Attachment 1

Page 1 of 4

2019 Work Plan: Water Storage Exploratory Committee

Update: August 2019

ITEM	WORK PLAN ITEM	MEETING	INTENDED OUTCOME(S)	ACCOMPLISHMENT DATE AND OUTCOME
3	Sites Project Authority 2019 Reservoir Project Agreement for Continued District Participation in the Sites Reservoir Project	2-22-19	<ul style="list-style-type: none"> Receive information on the Sites Project Authority 2019 Reservoir Project Agreement for Continued District Participation in the Sites Reservoir Project. 	<p>Accomplished February 22, 2019: The Committee received information on the Sites Project Authority 2019 Reservoir Project Agreement for continued District participation in the Sites Reservoir Project and took the following action: The Committee approved for Board consideration staff's recommendation with a slight modification with 2 members agreeing to \$960,000 and 1 member agreeing to \$720,000. <i>The Board received the Committee's request at its February 26, 2019, meeting and approved staff recommendations, and authorized a 3.2 percent (\$.96 million) participation level.</i></p>
4	Semitropic and other potential groundwater banking programs	2-22-19	<ul style="list-style-type: none"> Receive information on the Semitropic and other potential groundwater banking programs. 	<p>Accomplished February 22, 2019: The Committee received information on the Semitropic and other potential groundwater banking programs and took no action.</p>
5	Review of 2018 Water Storage Exploratory Committee Work Plan	2-22-19 5-20-19 8-27-19	<ul style="list-style-type: none"> Review the Committee's 2019 Work Plan. 	<p>Accomplished February 22, 2019: The Committee reviewed the Committee's 2019 Work Plan and took no action.</p> <p>Accomplished May 20, 2019: The Committee reviewed the Committee's 2019 Work Plan and took no action, but the Committee confirmed adding a discussion on Sargent Ranch (recreational area) in conjunction with the Pajaro River and its potential nexus to the Pacheco Project to the Committee's work plan.</p> <p>Accomplished August 27, 2019: The Committee reviewed the Committee's 2019 Work Plan and took no action.</p>

Yellow = Update Since Last Meeting

Blue = Action taken by the Board of Directors

Attachment 1

Page 2 of 4

2019 Work Plan: Water Storage Exploratory Committee

Update: August 2019

ITEM	WORK PLAN ITEM	MEETING	INTENDED OUTCOME(S)	ACCOMPLISHMENT DATE AND OUTCOME
6	Semitropic and out-of-County Groundwater Banking	5-20-19	<ul style="list-style-type: none"> Discuss Semitropic and out-of-County Groundwater Banking 	<p>Accomplished May 20, 2019: The Committee discussed Semitropic and out-of-County Groundwater Banking and took the following action: The Committee approved for Board consideration to have an in-depth discussion with the full Board regarding: storage, risks and benefits of semitropic and groundwater banking along with reviewing the Groundwater Sustainability Plan (GSP) when released.</p>
7	The Water Supply Benefit of Anderson Reservoir	5-20-19	<ul style="list-style-type: none"> Discuss the Water Supply Benefit of Anderson Reservoir 	<p>Accomplished May 20, 2019: The Committee discussed the Water Supply Benefit of Anderson Reservoir and took no action.</p>
8	B.F. Sisk Dam Raise	5-20-19	<ul style="list-style-type: none"> Receive an update on the B. F. Sisk Dam Raise 	<p>Accomplished May 20, 2019: The Committee received an update on the B. F. Sisk Dam Raise and took no action.</p>
9	Pacheco Reservoir Expansion Project - Cost Allocation	8-27-19	<ul style="list-style-type: none"> Review, discuss, and provide input regarding the status of the Pacheco Reservoir Expansion Project Cost Allocation. 	<p>Accomplished August 27, 2019: The Committee reviewed, discussed, and provided input regarding the status of the Pacheco Reservoir Expansion Project Cost Allocations and took the following action: The Committee unanimously approved to have the Board consider the Committee's request to authorize the Chief Executive Officer to negotiate with San Benito County Water District (SBCWD) on partnership terms for participation in the Pacheco Reservoir Expansion Project.</p> <p>The Board approved the Committee's request at its October 8, 2019, meeting.</p>

Yellow = Update Since Last Meeting

Blue = Action taken by the Board of Directors

Attachment 1

Page 3 of 4

2019 Work Plan: Water Storage Exploratory Committee

Update: August 2019


ITEM	WORK PLAN ITEM	MEETING	INTENDED OUTCOME(S)	ACCOMPLISHMENT DATE AND OUTCOME
10	Semitropic Groundwater Bank Update	8-27-19 10-25-19	<ul style="list-style-type: none"> Receive and update regarding Semitropic Groundwater Bank. 	<p>Accomplished August 27, 2019: The Committee received an update on the Semitropic Groundwater Bank and took no action.</p>
11	Update on Proposed Lake Del Valle Modifications	8-27-19 10-25-19	<ul style="list-style-type: none"> Receive an update on proposed Lake Del Valle modifications 	<p>Accomplished August 27, 2019: The Committee received an update on proposed Lake Del Valle modifications and took no action.</p>
12	Pleasant Valley Water District Groundwater Banking Concept	10-25-19	<ul style="list-style-type: none"> Receive and discuss information regarding a conceptual Pleasant Valley Water District Groundwater Bank. 	
13	Update on Management of South Bay Aqueduct Facilities	10-25-19	<ul style="list-style-type: none"> Receive and discuss information regarding status of South Bay Aqueduct facilities management. 	
14	Update on the Proposed Sites Reservoir Project	TBD	<ul style="list-style-type: none"> Receive an update on the Proposed Sites Reservoir Project. 	
15	Update on San Luis Reservoir Expansion	TBD	<ul style="list-style-type: none"> Receive an overview of the San Luis Reservoir Expansion. 	
16	Update on San Luis Low Point Improvement Project	TBD	<ul style="list-style-type: none"> Receive an update on the San Luis Low Point Improvement Project 	
17	Update on Shasta Reservoir Expansion	TBD	<ul style="list-style-type: none"> Receive an update on Shasta Reservoir Expansion. 	

Yellow = Update Since Last Meeting

Blue = Action taken by the Board of Directors

Attachment 1

Page 4 of 4

	<p align="center"><u>SCVWD Water Storage Exploratory Committee:</u> Director Gary Kremen (Committee Chair) Director Richard P. Santos Director John L. Varela</p>	
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AGENDA

WATER STORAGE EXPLORATORY COMMITTEE

TBD

Time Certain:

	1.	<p><u>Call to Order/Roll Call</u></p>
	2.	<p><u>Time Open for Public Comment on Any Item Not on the Agenda</u> <i>Comments should be limited to two minutes. If the Committee wishes to discuss a subject raised by the speaker, it can request placement on a future agenda.</i></p>
	3.	<p><u>Approval of Minutes</u> 3.1 Approval of Minutes – October 25, 2019, meeting</p>
	4.	<p><u>Action Items:</u> 4.1 Review of 2018 Water Storage Exploratory Committee Work Plan and the Committee’s next meeting agenda (Committee Chair) Recommendation: Review the Committee work plan to guide the Committee’s discussions regarding policy alternatives and implications for Board deliberation.</p>
	5.	<p><u>Clerk Review and Clarification of Committee Actions</u> <i>This is a review of the Committee’s Actions (from Item 4).</i></p>
	6.	<p><u>Adjourn</u></p>

Reasonable efforts to accommodate persons with disabilities wishing to attend committee meetings will be made. please advise the Clerk of the Board Office of any special needs by calling (408) 630-2277.

Meetings of this committee will be conducted in compliance with all Brown Act requirements. 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 for public inspection at the same time that the public records are distributed or made available to the legislative body, at the following location:

Santa Clara Valley Water District, Office of the Clerk of the Board
 5700 Almaden Expressway, San Jose, CA 95118

WATER STORAGE EXPLORATORY COMMITTEE PURPOSE:

The purpose of the Water Storage Exploratory Committee will receive and discuss information on issues related to water storage options. The Committee representatives may assist their respective Board of Directors on policies and actions related to these matters

Handouts

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DIRECTORS

AZIZ AKBARI
JAMES G. GUNTHER
JUDY C. HUANG
PAUL SETHY
JOHN H. WEED

43885 SOUTH GRIMMER BOULEVARD • FREMONT, CALIFORNIA 94538
(510) 668-4200 • FAX (510) 770-1793 • www.acwd.org

MANAGEMENT

ROBERT SHAVER
General Manager
KURT ARENDS
Operations and Maintenance
LAURA J. HIDAS
Water Resources
ED STEVENSON
Engineering and Technology Services
JONATHAN WUNDERLICH
Finance

**NOTICE OF SPECIAL MEETING OF THE
ACWD BOARD OF DIRECTORS**

Date: October 17, 2019
Time: 4:00 P.M.
Location: Board Room

Please Take Notice that the Alameda County Water District Board of Directors hereby calls a special meeting on October 17, 2019 at 4:00 P.M., in the Board Room at 43885 South Grimmer Boulevard, Fremont, at which time and place the Board will convene for the following purposes:

1. Roll Call
2. Salute to the Flag
3. Public Comments on Matters on this Notice of Special Meeting
4. N3 Cattle Ranch Property – Potential Alameda County Water District Interest
5. General Manager’s Reports
6. Director’s Comments and/or Agenda Item Requests
7. Adjournment

This Notice of Date, Time and Location of this special meeting of the Alameda County Water District Board of Directors is given this 11th day of October, 2019.

Date this Notice Posted: October 11, 2019

Andrew Warren, Assistant District Secretary



ALAMEDA COUNTY WATER DISTRICT

43885 So. Grimmer Boulevard
Fremont, CA 94538

SPECIAL BOARD OF DIRECTORS MEETING

A G E N D A

October 17, 2019

4:00 P.M.

ACCESSIBLE PUBLIC MEETINGS: Upon request, ACWD will provide written agenda materials in appropriate alternative formats, or disability-related modification or accommodation, including auxiliary aids or services, to enable individuals with disabilities to participate in public meetings. Please send a written request at least 48 hours before the meeting to the District Secretary, ACWD, 43885 S. Grimmer Blvd., Fremont, CA 94538, or to gina.markou@acwd.com stating your name, mailing address, phone number, and a brief description of the requested materials and preferred alternative format or auxiliary aid or service.

1. ROLL CALL
2. SALUTE TO THE FLAG
3. PUBLIC COMMENTS ON MATTERS ON THIS NOTICE OF SPECIAL MEETING
4. N3 CATTLE RANCH PROPERTY – POTENTIAL ALAMEDA COUNTY WATER DISTRICT INTEREST

The 50,500 acre N3 Cattle Company Ranch, located south of Livermore, is being offered for sale by the property owners for an asking price of \$72 million. Much of the property is located in watersheds that supply water to Alameda County Water District (ACWD's) customers into critical water supply facilities, including Lake Del Valle, Calaveras Reservoir, and Alameda Creek.

Lake Del Valle is both an important water supply for ACWD and a storage reservoir for the State Water Project. Calaveras Reservoir is owned and operated by the San Francisco Public Utilities Commission and is also an important water supply for ACWD. ACWD diverts water from Alameda Creek to recharge the Niles Cone Groundwater Basin in the Tri-City Area, a critical local water resource for ACWD's customers.

This workshop will focus on the potential merits of the District acquiring an ownership share in the N3 Cattle Ranch Property. Topics to be covered could include the District's interests in water supply, water quality, watershed protection, the potential establishment of a mitigation land bank, existing and potential future water resources-related facilities, partnering with other parties, cost, financial implications, water rates, and other related issues.

5. GENERAL MANAGER'S REPORTS
6. DIRECTOR'S COMMENTS AND/OR AGENDA ITEM REQUESTS
7. ADJOURNMENT

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N3 Cattle Ranch Property Livermore, CA

ACWD Special Board Meeting
October 17, 2019

Location



Property Summary

- **Offered at \$72M**
- **50,500 acres** located in 4 counties over 80 sq. mi. area
 - Santa Clara County: 19,935 +/- acres
 - Alameda County: 16,880 +/- acres
 - San Joaquin County: 9,095 +/- acres
 - Stanislaus County: 4,590 +/- acres
- 4 bedroom main residence, 14 hunting camps located throughout with cabins.
- Enrolled in Williamson Act - no conservation easements
- Depending on rainfall, can accommodate “650 cow/calf pairs year-round, 1,500 cow/calf pairs seasonally or 3,200 stockers seasonally”
- “200 miles of maintained roads”

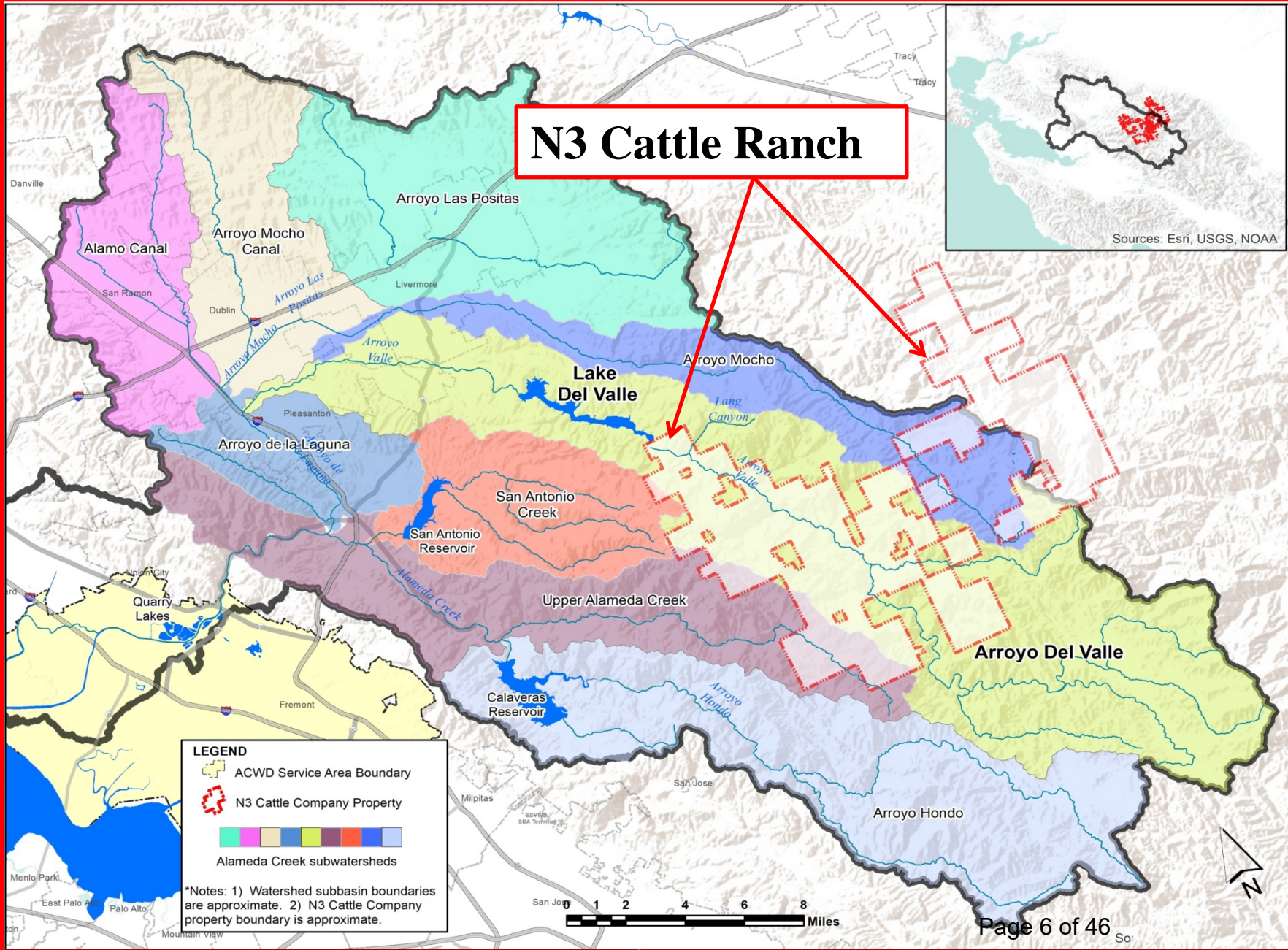
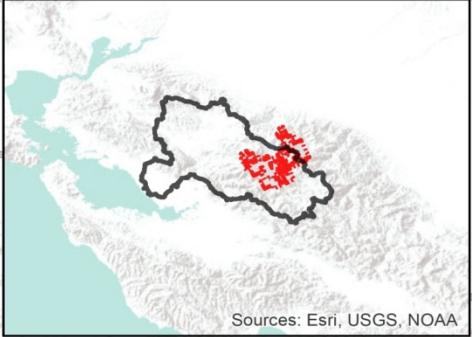
N3 Cattle Ranch



N3 Cattle Ranch



N3 Cattle Ranch

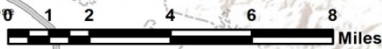


LEGEND

- ACWD Service Area Boundary
- N3 Cattle Company Property

Alameda Creek subwatersheds

*Notes: 1) Watershed subbasin boundaries are approximate. 2) N3 Cattle Company property boundary is approximate.



ACWD Interests/Considerations

- Water Supply / Water Storage
- Water Preservation / Water Quality
- Environmental Mitigation or Protection
- Potential Partners
- Financial Considerations
- Possible Next Steps

ACWD Interests/Considerations

- Water Supply / Water Storage
- Water Preservation / Water Quality
- Environmental Mitigation or Protection
- Potential Partners
- Financial Considerations
- Possible Next Steps

ACWD Interests/Considerations

- Water Supply / Water Storage
 - Property does not have substantial water rights
 - Stockponds likely have very limited water rights. Any change in the points of diversion, places of use or purposes of use of these rights would be subject to the “no injury” rule
 - Any new reservoir upstream of either Del Valle Reservoir or Sunol Valley -- water rights would be junior in priority to ACWD’s and Zone 7’s water rights on Arroyo Valle and ACWD’s water rights on Alameda Creek

ACWD Interests/Considerations

- Water Supply / Water Storage (cont.)
 - ACWD previously evaluated a new dam upstream of current Del Valle Dam* and higher Lake Del Valle operations**
 - New dam
 - Expensive w/limited water supply
 - Many other complicating issues – dropped from further evaluation because of cost relative to other alternatives (e.g., Los Vaqueros Expansion)
 - Higher Lake Del Valle Operations
 - Could inundate small area of N3 Ranch (<100 acres)
 - Requires new flood curves from USACOE
 - Impacts to EBRPD Facilities at Lake Del Valle

* CDM 2009 Study

** Ford 2018 Study

ACWD Interests/Considerations

- Water Supply / Water Storage
- **Water Preservation / Water Quality**
- Environmental Mitigation or Protection
- Financial Considerations
- Potential Partners
- Possible Next Steps

ACWD Interests/Considerations

- Water Preservation / Water Quality
 - Property is located upstream of Lake Del Valle, Calaveras Reservoir, and greater Alameda Creek watershed
 - Rare opportunity to protect watershed
 - Rugged terrain - Future intensive development unlikely
 - Unclear whether future development would impact water quality more than current ranching operations
 - Lake Del Valle current allows powerboats

ACWD Interests/Considerations

- Water Supply / Water Storage
- Water Preservation / Water Quality
- **Environmental Mitigation or Protection**
- Financial Considerations
- Potential Partners
- Possible Next Steps

ACWD Interests/Considerations

- Establishment of a Conservation or Mitigation Land Bank
 - Could offer the sponsoring public agency advance mitigation for large projects or multiple years of operations and maintenance
 - Likely would require long-term maintenance guarantee in addition to purchase price of property
 - Would encumber property
 - Significant additional O&M costs and staffing level increases to maintain property (could be offset by revenue (e.g., grazing leases, but would still require ACWD oversight and management)
 - Property would need to be ecologically evaluated for suitability for this purpose
 - Potentially incompatible with other land uses (e.g., recreation)

ACWD Interests/Considerations

- Water Supply / Water Storage
- Water Preservation / Water Quality
- Environmental Mitigation or Protection
- **Potential Partners**
- Financial Considerations
- Possible Next Steps

ACWD Interests/Considerations

- Potential Partners
 - Coalition being lead by the Nature Conservancy and The Trust for Public Land
 - Could result in similar ACWD benefits at significantly lower cost to ACWD ratepayers
 - ACWD has not yet seriously engaged with potential partners
 - Timing risk?

ACWD Interests/Considerations

- Water Supply / Water Storage
- Water Preservation / Water Quality
- Environmental Mitigation or Protection
- Potential Partners
- **Financial Considerations**
- Possible Next Steps

N3 Ranch – Financial Considerations

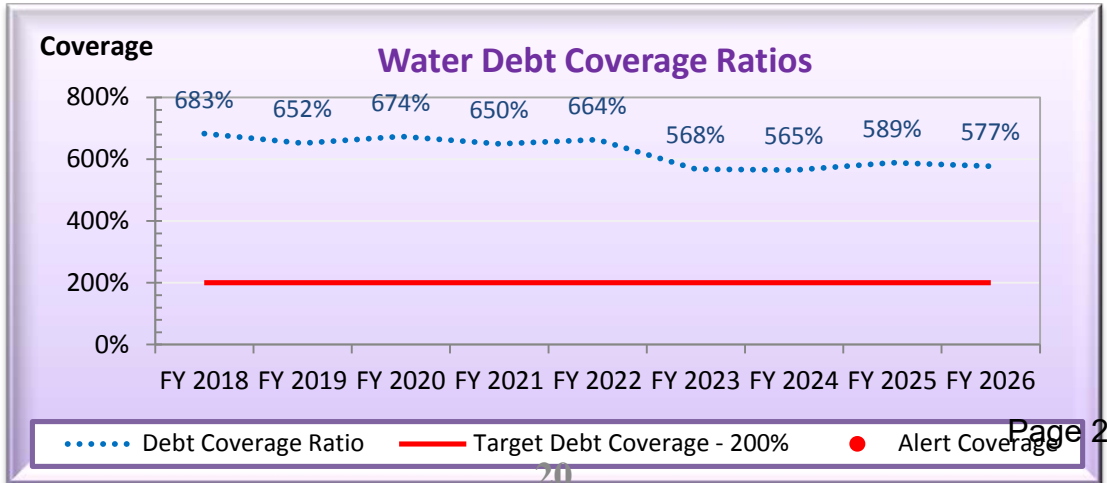
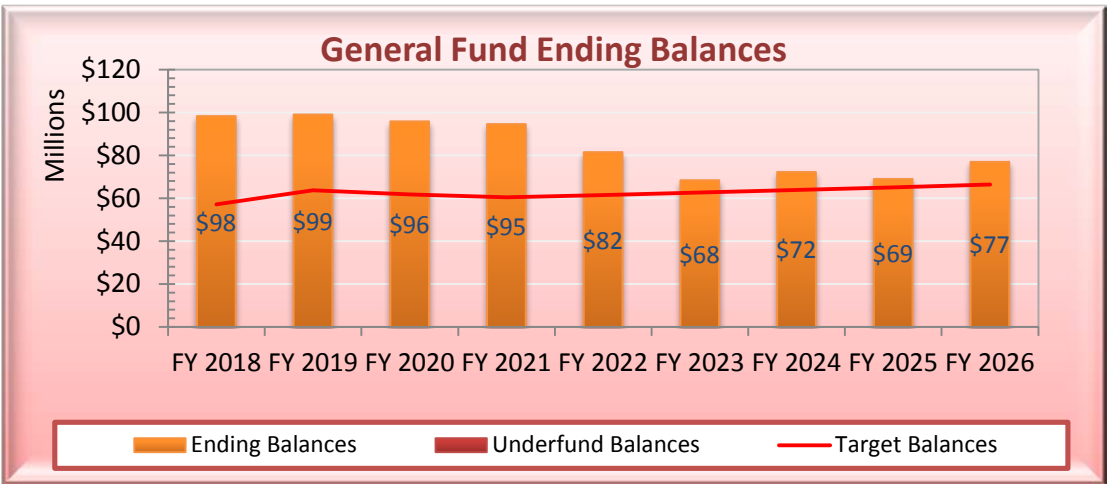
- Financial Assumptions and Metrics at Budget and at the end of Fiscal Year 2018/19
- Current Debt and Future Refinancing Plans
- Potential N3 Ranch Participation Scenarios
- Considerations to Participate with No Rate Impact
- Other Financial Options
- Financial Conclusions

Budget Adoption Assumptions

- \$99.4 million General Fund balance at 6/30/19
- Pay-go Capital Improvement Program (CIP) funding except for a \$14.5 million (50% of project costs) financing for Advanced Metering Infrastructure (AMI)
- Billed demand flat at 34.0 MGD ongoing
- Delta Conveyance, Los Vaqueros Reservoir Expansion, and Purified Water investments
- Rate increase of 4% in 2020 (already adopted) and planned increases of 3% annually thereafter
- CIP costs decline beginning in FY 2025/26
- No change in District staffing level

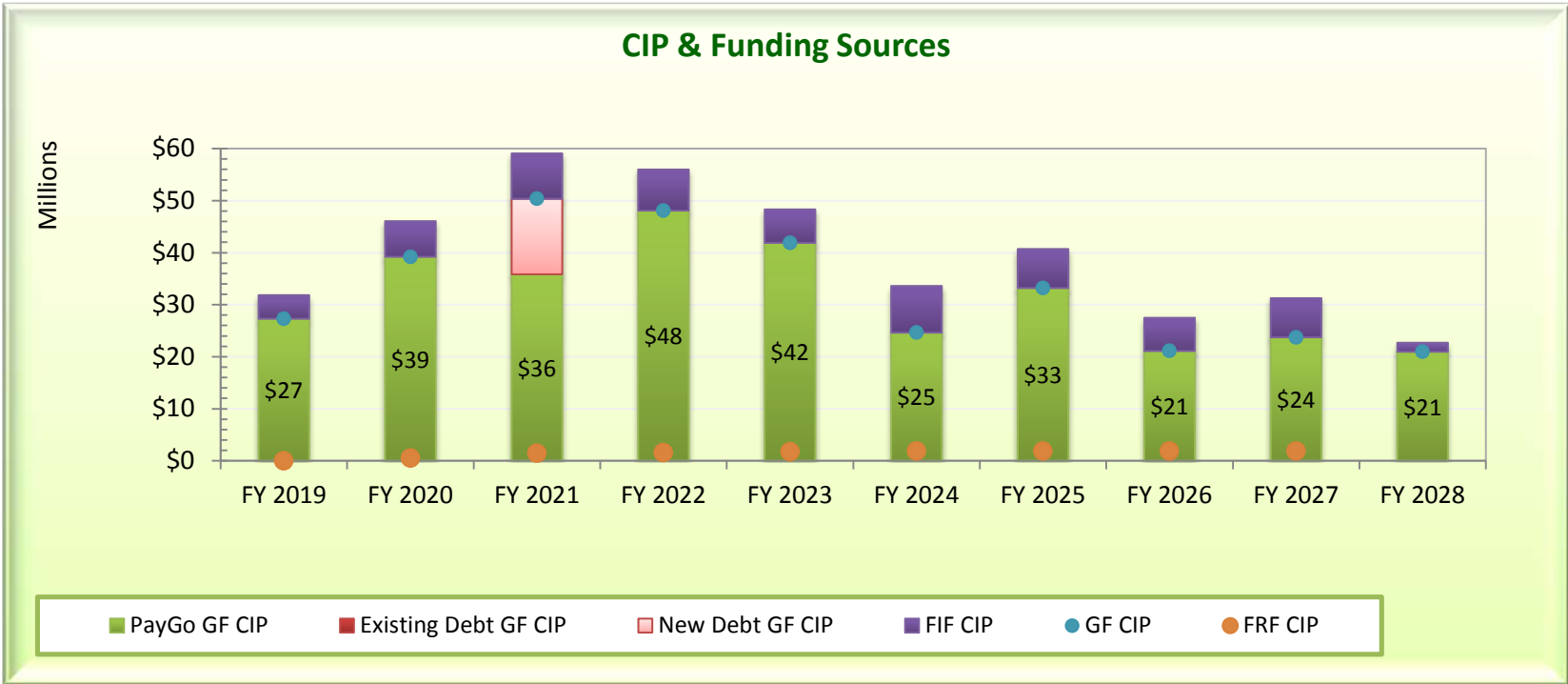
Budget Adoption Metrics

- General Fund balances and debt coverage ratios



Budget Adoption Metrics

- Capital Improvement Program



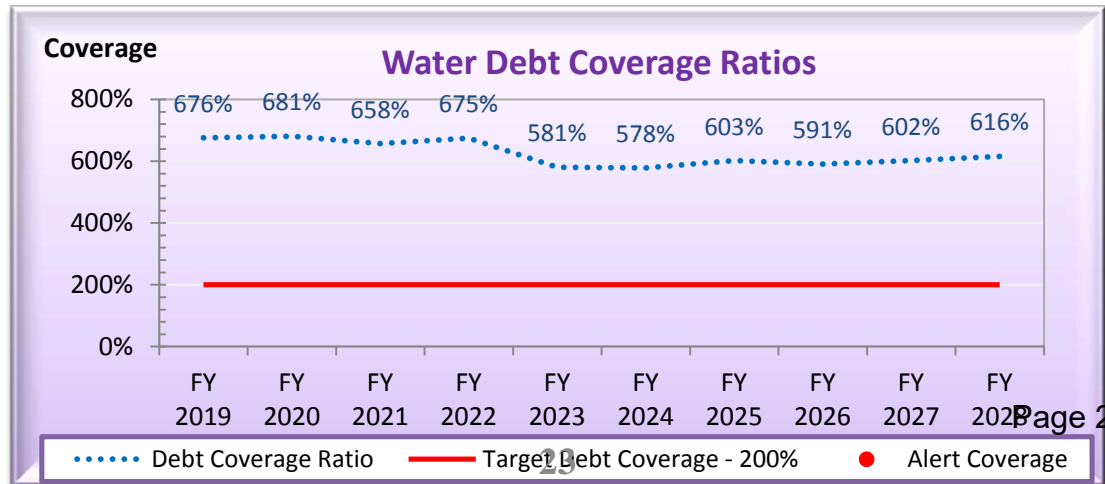
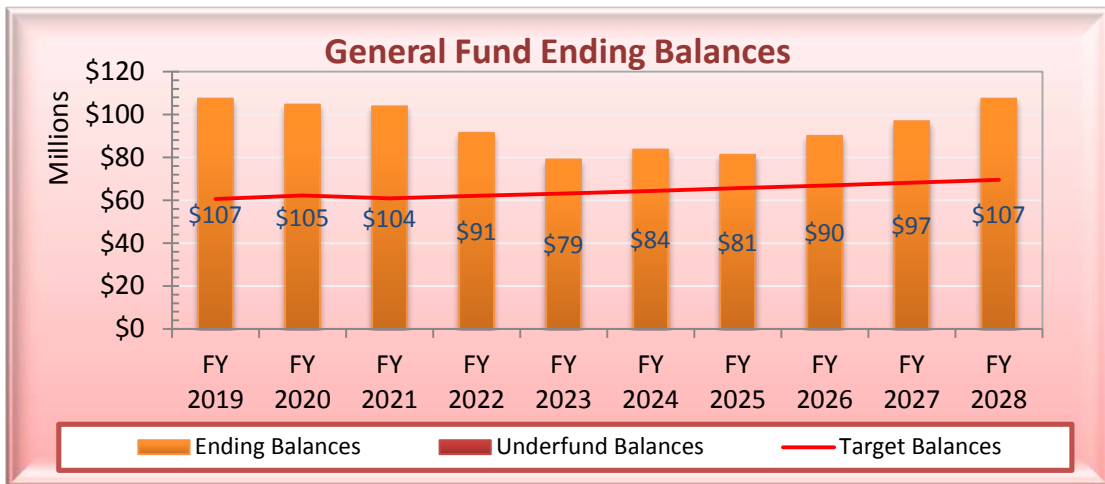
FY 2018/19 Year-end Metrics

Updates Since Budget Adoption

- \$107.4 million General Fund balance at 6/30/19
 - Exceeds budget estimate by \$8 million due to timing of CIP expenses (\$6 million) and operating savings (\$3 million) slightly offset by lower revenue (\$1 million)
- Updated future revenue estimates based on actual meter count at 6/30/19 – adds about \$250k in annual revenue
- Updated investment earning projections based on actual year-end fund balance and investment performance – adds about \$200k in annual revenue

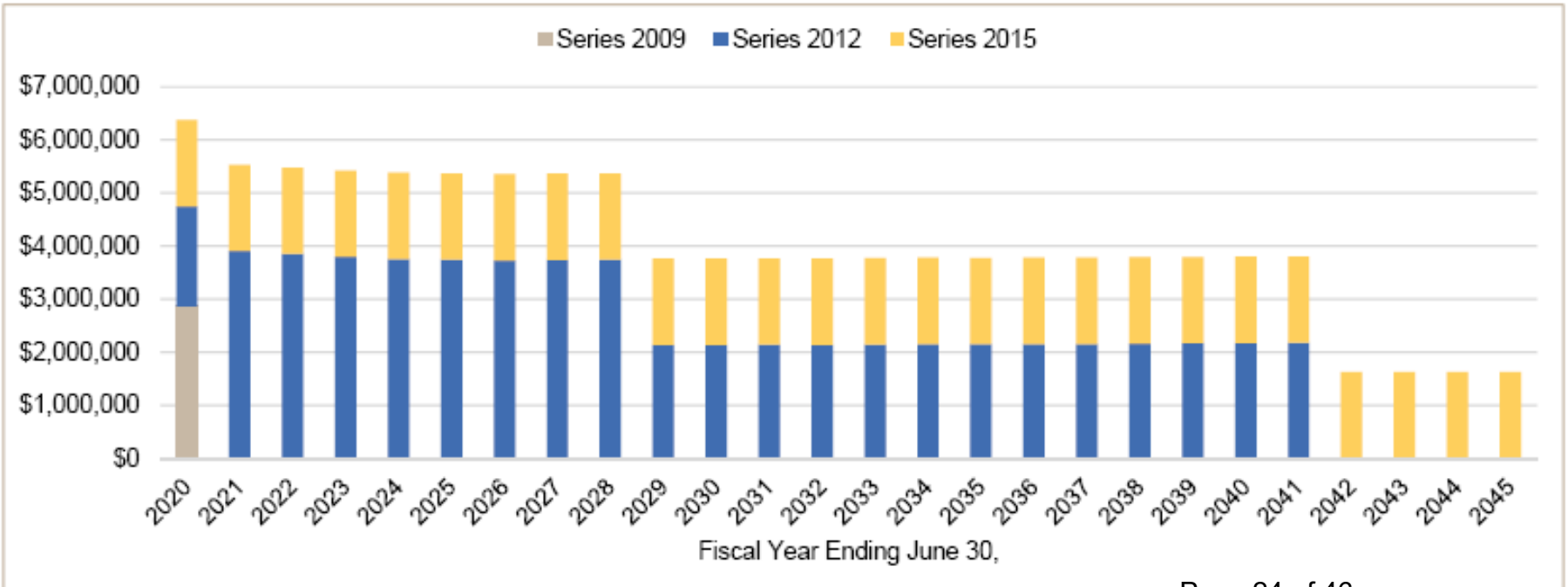
FY 2018/19 Year-end Metrics

- Status Quo – Updated based on FY 2018/19 actuals



Current Debt Profile

Series	Purpose	Issuance Date	Final Maturity	Call Date	Remaining Coupons	Original Par Amount	Outstanding Par
2009	Refund the Series 1998 Bonds	10/14/2009	6/1/2020	N/A	3.125%	\$26,340,000	\$2,780,000
2012	Refund the Series 2003 Bonds & Finance Capital Improvements	2/7/2012	6/1/2041	6/1/2022	3.00%-5.00%	\$45,240,000	\$43,385,000
2015	Finance Capital Improvements	3/17/2015	6/1/2045	6/1/2025	4.00%-5.00%	\$27,810,000	\$25,850,000
Totals						\$99,390,000	\$72,015,000



Current and Planned Debt

- Current Debt includes:
 - 2009 bond series matures June 1, 2020
 - 2012 bond series matures in 2041; can be refinanced on a tax-exempt basis in 2022
 - 2015 bond series matures in 2045; can be refinanced on a tax-exempt basis in 2025
- Planned debt includes \$14.5 million to finance half the AMI project. The financial planning model includes \$850,000 per year in debt service starting in FY 2020/21 for this

Current and Planned Debt

Estimated Savings from Refinancing^{1, 2}

- 2012 bond series: annual savings of \$230k
- 2015 bond series: annual savings of \$207k

No guarantee of State Revolving Fund (SRF) loan. AMI debt could be added to the 2012 bond series refinancing if needed. If that is necessary, higher interest costs for AMI financing would offset most of the anticipated savings from refinancing the 2012 bond series

1. Assumes current market conditions
2. Not included in financial planning model

Potential Debt Scenarios

Debt Financing Assumptions

- All scenarios assume the current asking price of \$72 million will be the purchase price
- Assumed 3.5% interest on District-issued debt per advice from our financial advisor
- Assumed 1.9% interest on SRF loans for AMI – this is the current SRF interest rate
 - Prior costing at 4% interest as SRF loan was not assumed
- All scenarios initially presented with assumed rate increases, as needed, to fund debt service and achieve approximately the same ending General Fund reserve as the status quo

Potential Debt Scenarios

Operating Costs

- Potential operating costs could vary depending on land use:
 - Leased as ranchland
 - Public recreation through partnership with East Bay Regional Park District
 - Managed as a habitat mitigation land bank
- Leasing out some or all of the land for cattle grazing would generate modest income to partially offset operating costs

Potential Debt Scenarios

Operating Costs

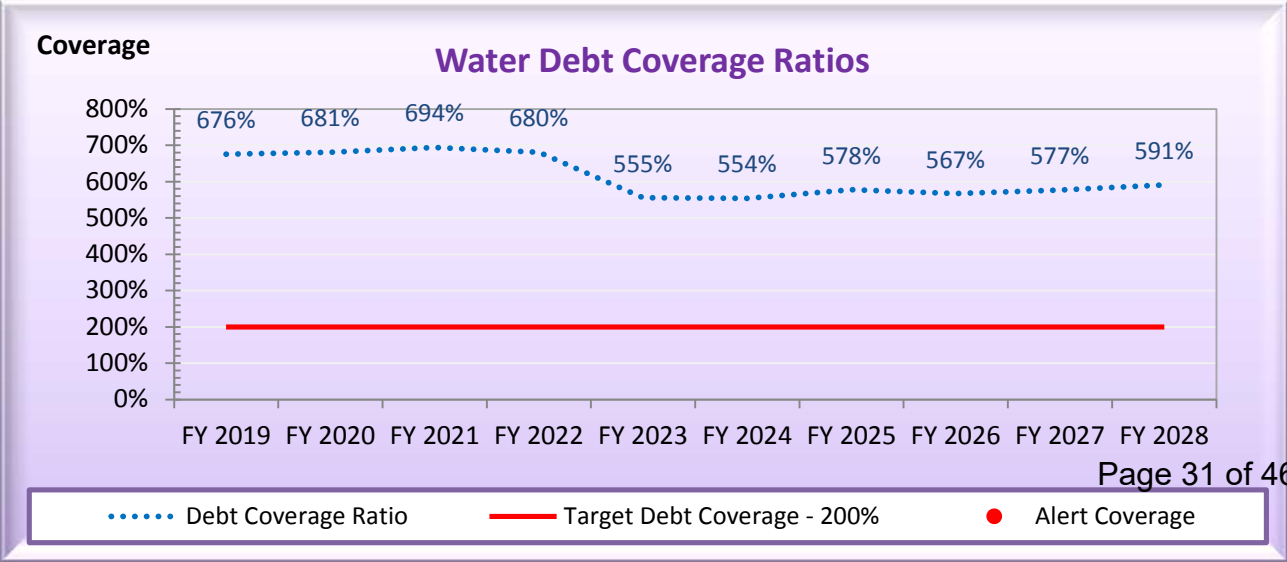
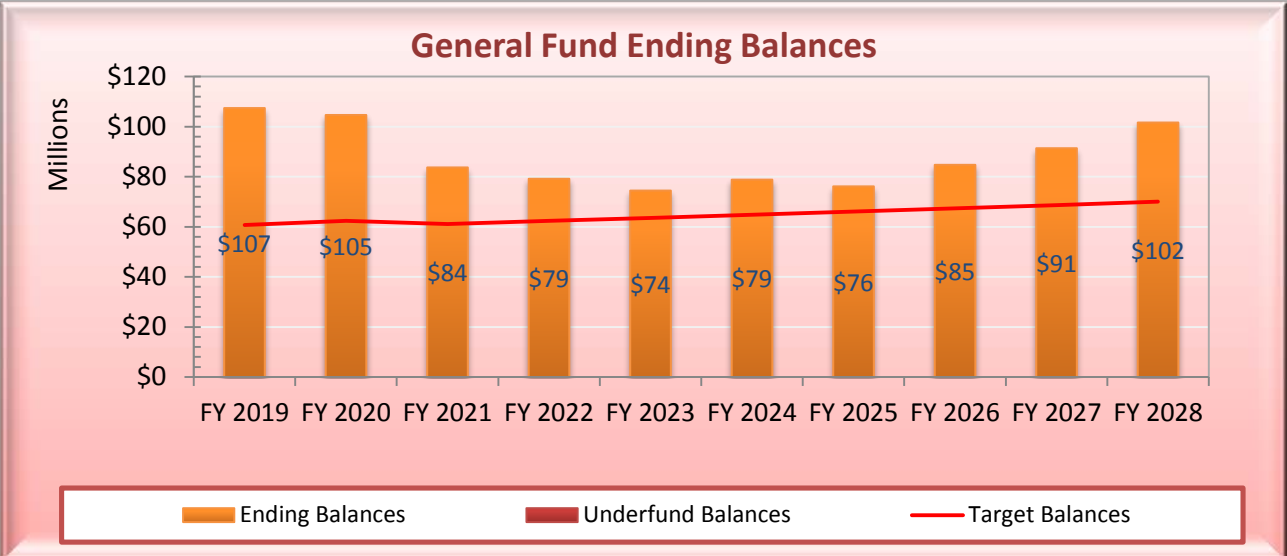
- Potential operating costs could include:
 - Taxes and insurance
 - Staffing to manage the land/oversee potential lessees – estimated need of at least four additional staff
 - Habitat conservation
 - Maintenance of roads, buildings, fences, dams, and bridges
 - Wildland fire mitigation program
 - Property surveys
 - Security
 - Related administrative work
- Costs would vary based on level of effort, which would affect potential wildfire or other risks
- Outright purchase scenarios presented today assume \$4 million in net annual operating costs starting in FY 2020/21. Assume \$1 million share as part of a coalition

Potential Debt Scenarios

Potential Debt Scenarios for N3 Ranch Participation

1. Fully finance AMI. Allocate near-term cash flow improvement to District share of purchase as part of a coalition. Requires additional \$10.7 million loan from SRF
2. Fully finance AMI and issue bonds to make sufficient funds available for outright purchase. Requires additional SRF loan and \$61.3 million bond issuance
3. Fully finance AMI and issue bonds to 1) make sufficient funds available for outright purchase, and 2) have bond funds available for existing CIP projects to smooth impact of new debt service payments. Requires additional SRF loan and \$72 million bond issuance

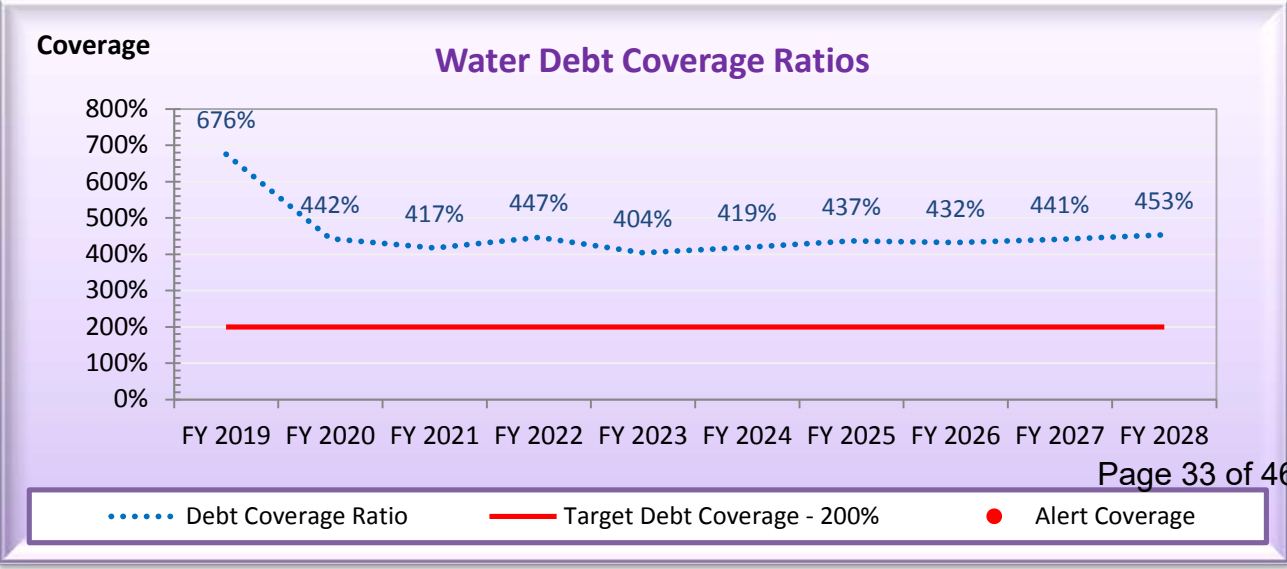
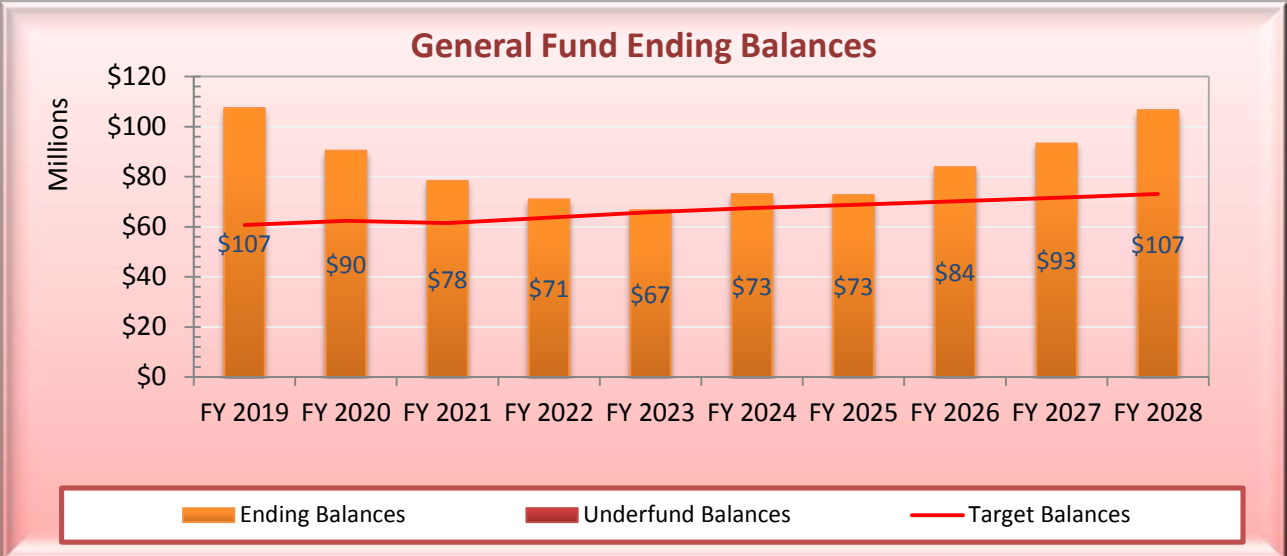
Scenario 1 – Full AMI Loan Participate in N3 Ranch Coalition



Scenario 1 – Full AMI Loan Participate in N3 Ranch Coalition

- Increase SRF loan amount by \$10.7 million and use near-term cash flow improvement to fund participation in N3 Ranch coalition
- Increase in AMI annual debt payment from \$856k to \$1,131k
- Add \$1 million in operating costs
- Rate increases of 4% in 2021, 3% in 2022, and 3% in 2023 – this is 1% more than currently planned
- Debt coverage stays above 500%

Scenario 2 – Ranch Purchase Full AMI Loan and Debt Issuance

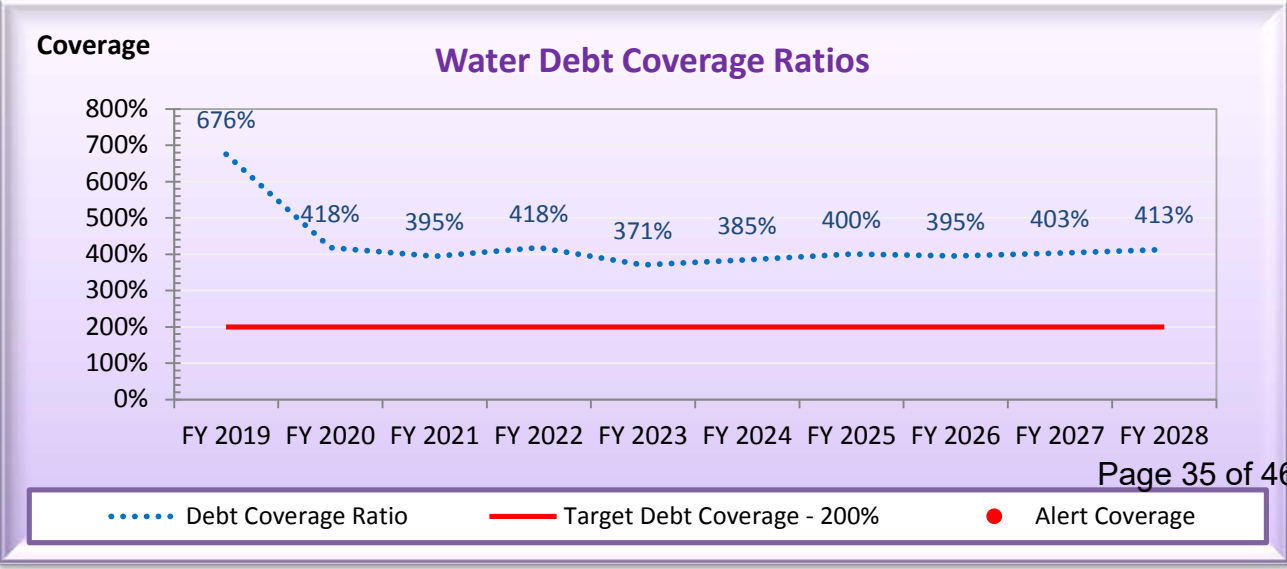
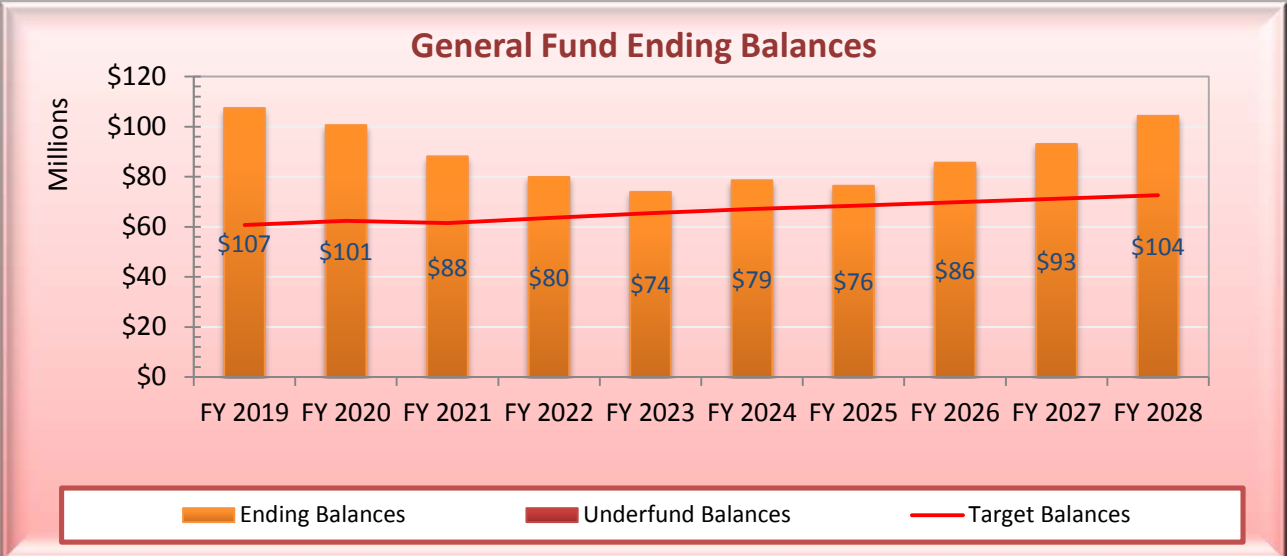


Scenario 2 – Ranch Purchase

Full AMI Loan and Debt Issuance

- Increase SRF loan amount by \$10.7 million and add \$61.3 million to District-bonded debt for outright N3 Ranch purchase
- Increase in annual debt service of \$3.7 million
- Add \$4 million to annual operating costs
- Rate increases of 6% in 2021, 6% in 2022, and 5% in 2023 – this is 8% more than currently planned
- Lowers debt coverage to about 400%
 - 200% required by policy
 - 125% required by bond covenant

Scenario 3 – Ranch Purchase Full AMI Loan and Full Debt Issuance



Scenario 3 – Ranch Purchase

Full AMI Loan and Full Debt Issuance

- Increase SRF loan amount by \$10.7 million and add \$72 million to District-bonded debt for outright N3 Ranch purchase
- Increase in annual debt service of \$4.3 million
- Increase in annual operating costs of \$4 millions
- Rate increases of 6% in 2021, 5% in 2022, and 5% in 2023 – this is 7% more than currently planned
- Lowers debt coverage to just below 400%
 - 200% required by policy
 - 125% required by bond covenant
- Rate increase is slightly less than Scenario 2 because full AMI and Ranch financing provides stronger initial cash flow.
- Evaluate long-term approach to use of debt for CIP

No Rate-impact Considerations

- Potential considerations to fund N3 Ranch debt service without a rate increase and limited impact to financial capacity:
 - Water System Reoperation – sell some SFPUC supply guarantee to reduce purchase costs. Would reduce current water supply and increase the hardness target
 - Reduce CIP spending – current modest main renewal program is the most significant recurring line item. Could increase system maintenance needs
 - Reduce advance funding payments for pension/OPEB liabilities (range from \$4.5 million - \$6.6 million per year through FY 2031/32). Actuary estimates \$45 million reduction in total payments from accelerating 20-year to a 15-year schedule
 - Take a less conservative approach to financial planning
- Each option has meaningful drawbacks and in some cases might be perceived as reversing previous commitments to the community

No Rate-impact Considerations

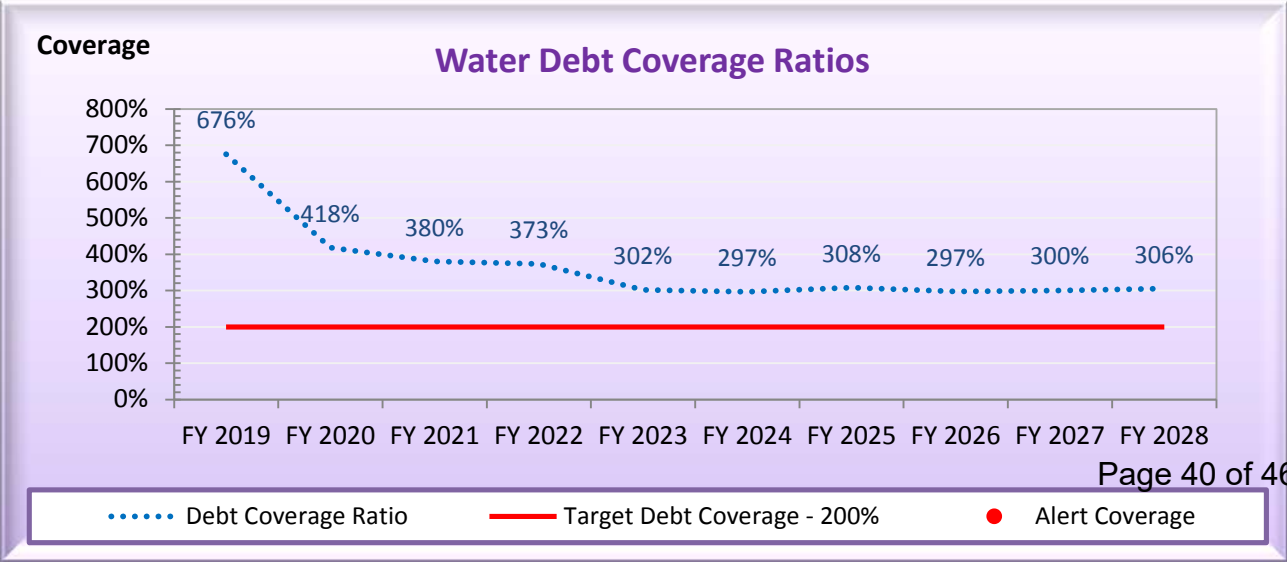
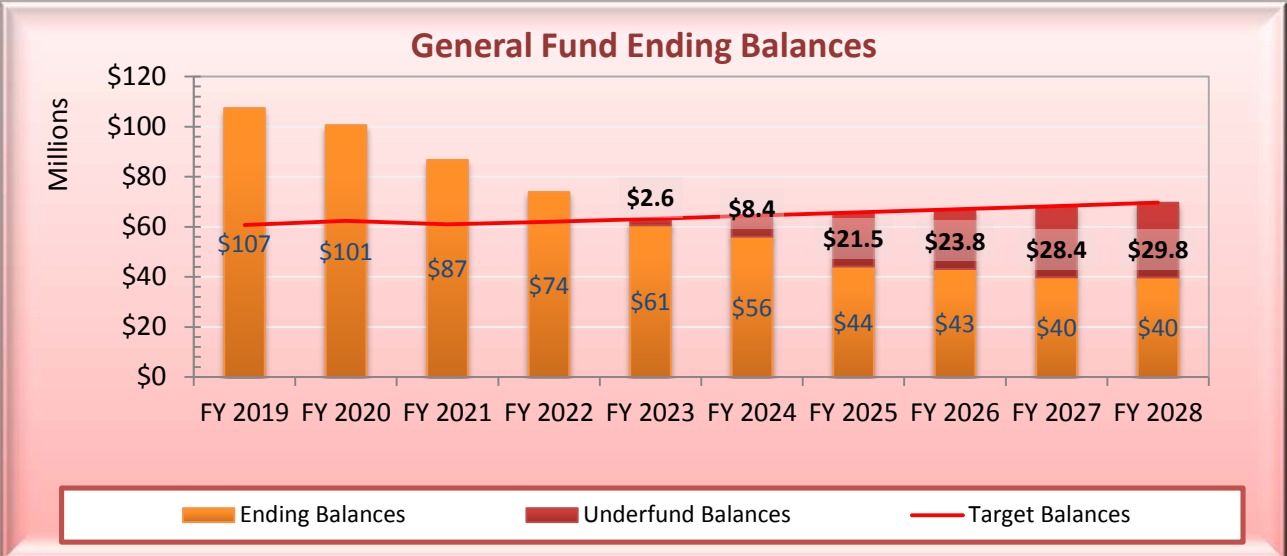
- Financial plan is intentionally conservative:
 - Assumes full O&M and capital spending each year
 - Assumes water demand will stay flat indefinitely (modest increases assumed in water supply planning)
 - Assumes full participation in Delta Conveyance and Los Vaqueros Expansion projects
 - Treats reserve target as a minimum and the District traditionally maintains a reserve balance above the target even in the lowest projected year
- A more aggressive financial plan could 1) increase rate volatility, and/or 2) increase reliance on debt
 - A stated outcome of District Strategic Plan Goal 3 – *Improve the District's Financial Stability and Transparency* – is no unexpected or over-sized rate increases

No Rate-impact Scenarios

- Scenario 3a shows the financial results if the ranch is purchased if no rate adjustment is made and no reductions in other programs are made either
- Scenario 3b achieves the targeted reserve balance by the end of the evaluation period and:
 - Allows interim balances below the target reserve
 - Reduces operating and capital costs for established programs by \$3.5 million

Scenario 3a – Ranch Purchase

Full AMI Loan and Full Debt Issuance

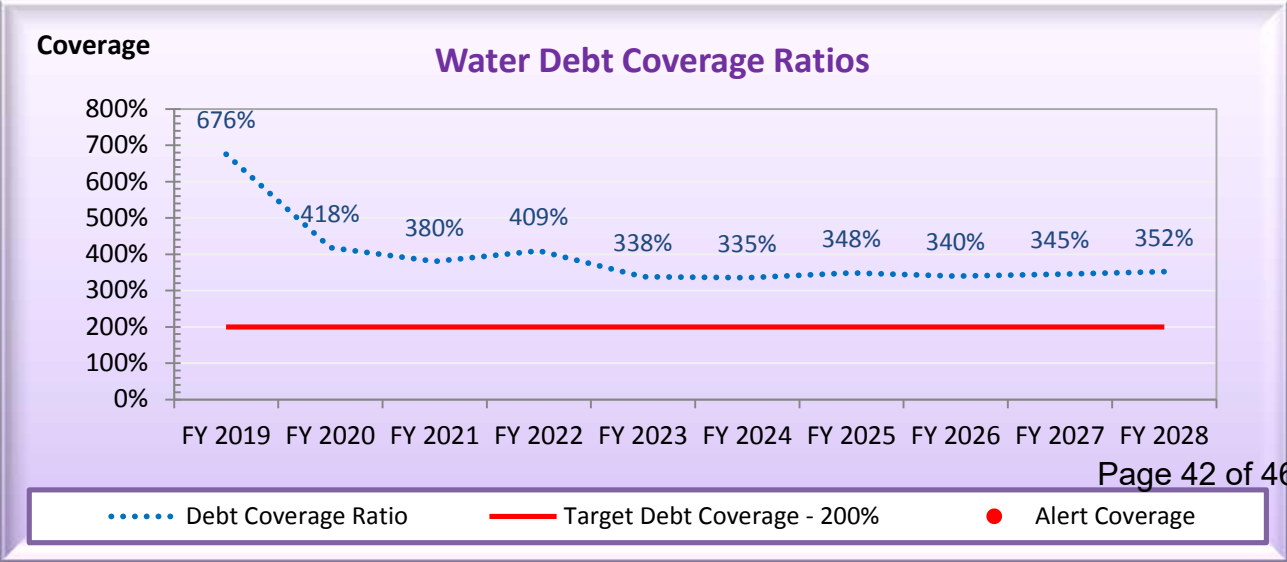
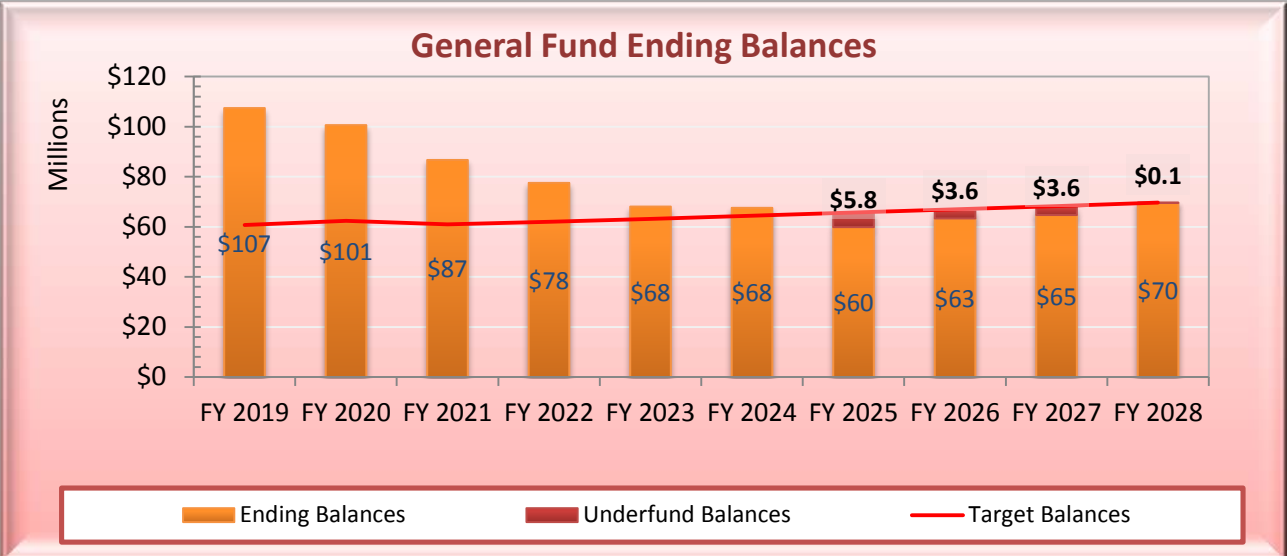


Scenario 3a – Ranch Purchase

Full AMI Loan and Full Debt Issuance

- Increase SRF loan amount by \$10.7 million and add \$72 million to District-bonded debt for outright N3 Ranch purchase
- Increase in annual debt service of \$4.3 million
- Increase in annual operating costs of \$4 million
- No rate increase
- Lowers debt coverage to about 300%
- CIP costs decline in FY 2025/26 and that mitigates annual deficits, but CIP decline is insufficient to replenish reserves
- General Fund ending balance is about \$67 million lower in FY 2027/28, and falls \$30 million below policy target

Scenario 3b – Ranch Purchase Full AMI Loan and Full Debt Issuance



Scenario 3b – Ranch Purchase

Full AMI Loan and Full Debt Issuance

- Increase SRF loan amount by \$10.7 million and add \$72 million to District-bonded debt for outright N3 Ranch purchase
- No rate increase
- Increase in annual debt service of \$4.3 million
- Increase operating costs for land management by \$4 million annually, but identify \$3.5 million in savings from a combination of water system reoperation, reductions to the CIP, and lower advanced funding payments for pension/OPEB liabilities
- Lowers debt coverage to about 350%
- General Fund ending balance is about \$37 million lower in FY 2027/28, but stays at minimum
- Reserve balance goes below policy target in several years
- Significant uncertainty with finances that far into the future – may determine a need for a rate increase or additional savings at a later time
- Evaluate long-term approach to use of debt for CIP

Other Financial Options

- At the May 2019 Budget Workshop, the Board discussed the following potential uses of available funds should financial performance exceed budget:
 - Maintaining reserves above target to protect against the potential financial impact of cost and water demand uncertainties and unknown future capital program needs
 - Not issuing debt for AMI to maximize the District's debt capacity
 - Additional payments for pension/OPEB liabilities
 - Ramping up the District's main renewal program
 - Mitigating future rate increases
- California Government Code does not list real estate as a permissible financial investment of reserve funds. Purchase must be justified on the basis of advancing the District's core mission

Financial Conclusions

- The District has the financial capacity to participate in a coalition or outright purchase the N3 Cattle Ranch:
 - Outright purchase may 1) result in rate increases of up to eight additional percent, and 2) lead the District to reevaluate its CIP financing approach
 - Doing so with a rate increase will limit the effect on the District's current level of financial capacity and will maintain commitments to water quality, system reliability, and benefit obligations
 - Doing so without a rate increase is feasible, but 1) will reduce the District's financial capacity, 2) create more volatility with future rate increases, and 3) may affect established programs
 - **Participation will compete with other District financial priorities**

Possible Next Steps

- Staff to collect more information and report back to the Board
- Begin negotiations with either property owners or coalition
 - Future Board Action Required to Appoint Negotiators
- Continue Monitoring
- Other?

SBA Reliability History

