Santa Clara Valley Water District
Joint Water Resources Committee
with Cities of Gilroy and Morgan Hill

South County Regional Wastewater Authority
1500 Southside Drive
Gilroy, CA 95020

<u>This meeting is in-person only</u>.

REGULAR MEETING
AGENDA

Wednesday, April 2, 2025
8:30 AM

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

COMMITTEE MEMBERS:

Hon. John Varela, Director District 1, Chair
Hon. Greg Bozzo, Mayor, Gilroy
Hon. Richard Santos, Director District 3
Hon. Dion Bracco, Council Member, Gilroy
Hon. Yvonne Martinez Beltran, Council Member, Morgan Hill
Hon. Soraida Iwanaga, Council Member, Morgan Hill

All public records relating to an item on this agenda, which are not exempt from disclosure pursuant to the California Public Records Act, that are distributed to a majority of the legislative body will be available for public inspection at the Office of the Clerk of the Board at the Santa Clara Valley Water District Headquarters Building, 5700 Almaden Expressway, San Jose, CA 95118, at the same time that the public records are distributed or made available to the legislative body. Santa Clara Valley Water District will make reasonable efforts to accommodate persons with disabilities wishing to attend Board of Directors' meeting. Please advise the Clerk of the Board Office of any special needs by calling (408) 265-2600

COMMITTEE LIAISON:
Kirsten Struve

COMMITTEE CLERK:
Nicole Merritt
Assistant Deputy Clerk II
408-630-3262
nmerritt@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
Joint Water Resources Committee
with Cities of Gilroy and Morgan Hill
REGULAR MEETING AGENDA

Wednesday, April 2, 2025 **8:30 AM** **South County Regional Wastewater Authority**
1500 Southside Drive
Gilroy, CA 95020

1. CALL TO ORDER:

1.1. Roll Call.

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

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

2.1. Election of 2025 Committee Chair and Vice-Chair. 25-0018

Recommendation: Elect the 2025 Chair and Vice-Chair.
Manager: Candice Kwok-Smith, 408-630-3193
Est. Staff Time: 5 Minutes

3. APPROVAL OF MINUTES:

3.1. Approval of June 5, 2024 Joint Water Resources Committee Meeting Minutes. 24-0797

Recommendation: Approve the minutes.
Manager: Candice Kwok-Smith, 408-630-3193
Attachments: Attachment 1: 06052024 JWRC Minutes
Est. Staff Time: 5 Minutes

4. REGULAR AGENDA:

4.1. Receive Information and Provide Feedback on Valley Water's Water Supply Master Plan (WSMP) 2050. 24-0882

Recommendation: Provide feedback on the development of the WSMP 2050.

Manager: Kirsten Struve, 408-630-3138

Attachments: Attachment 1: Project Evaluation Summary
Attachment 2: 2050 Conservation Goal
Attachment 3: Potable Reuse Goal
Attachment 4: PowerPoint

Est. Staff Time: 30 Minutes

4.2. Receive South County Water Reuse Collaboration Update and Provide Feedback. 24-0881

Recommendation: Receive an update and provide feedback on South County water reuse collaboration and implementation.

Manager: Kirsten Struve, 408-630-3138

Attachments: Attachment 1: PowerPoint

Est. Staff Time: 5 Minutes

4.3. Review and Accept Joint Water Resources Committee 2025 Proposed Work Plan, and Confirm the Next Meeting Date. 24-0878

Recommendation:
A. Review and accept the Joint Water Resources Committee 2025 Proposed Work Plan; and
B. Confirm the next meeting date.

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

Attachments: Attachment 1: 2025 JWRC Proposed Work Plan

Est. Staff Time: 5 Minutes

5. CLERK REVIEW AND CLARIFICATION OF COMMITTEE REQUESTS.

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

6. ADJOURN:

6.1. Adjourn to TBD Meeting per Committee.

THIS PAGE INTENTIONALLY LEFT BLANK

Santa Clara Valley Water District

File No.: 25-0018

Agenda Date: 4/2/2025
Item No.: 2.1.

COMMITTEE AGENDA MEMORANDUM
Joint WRC with Cities of Gilroy/Morgan Hill/SCRWA

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

SUBJECT:
Election of 2025 Committee Chair and Vice-Chair.

RECOMMENDATION:
Elect the 2025 Chair and Vice-Chair.

SUMMARY:
Per the Board Resolution, the duties of the Chair and Vice-Chair are as follows:
The officers of each Committee shall be a Chairperson and Vice-Chairperson, both of whom shall be members of that Committee. The Chairperson and Vice-Chairperson shall be elected by the Committee, each for a term of one year commencing on January 1 and ending on December 31 and for no more than two consecutive terms. The Committee shall elect its officers at the first meeting of the calendar year. All officers shall hold over in their respective offices after their term of office has expired until their successors have been elected and have assumed office.

The Chairperson shall preside at all meetings of the Committee, and he or she shall perform other such duties as the Committee may prescribe consistent with the purpose of the Committee.

The Vice-Chairperson shall perform the duties of the Chairperson in the absence or incapacity of the Chairperson. In case of the unexpected vacancy of the Chairperson, the Vice-Chairperson shall perform such duties as are imposed upon the Chairperson until such time as a new Chairperson is elected by the Committee.

Should the office of Chairperson or Vice-Chairperson become vacant during the term of such office, the Committee shall elect a successor from its membership at the earliest meeting at which such election would be practicable, and such election shall be for the unexpired term of such office.

Should the Chairperson and Vice-Chairperson know in advance that they will both be absent from a meeting, the Chair may appoint a Chairperson Pro-tempore to preside over that meeting. In the event of an unanticipated absence of both the Chairperson and Vice-Chairperson, the Committee may elect a Chairperson Pro-tempore to preside over the meeting in their absence.

BACKGROUND:

The District Act provides for the creation of advisory boards, committees, or commissions 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.

The Board may also establish Ad-hoc Committees to serve in a capacity as defined by the Board and will be used sparingly.

ENVIRONMENTAL JUSTICE AND EQUITY IMPACT:
There are no environmental justice and equity impacts associated with this item.

ATTACHMENTS:
None.

UNCLASSIFIED MANAGER:
Candice Kwok-Smith, 408-630-3193

Santa Clara Valley Water District

File No.: 24-0797

Agenda Date: 4/2/2025
Item No.: 3.1.

COMMITTEE AGENDA MEMORANDUM
Joint WRC with Cities of Gilroy/Morgan Hill/SCRWA

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

SUBJECT:
Approval of June 5, 2024 Joint Water Resources Committee Meeting Minutes.

RECOMMENDATION:
Approve the minutes.

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

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

ENVIRONMENTAL JUSTICE AND EQUITY IMPACT:
The approval of minutes is not subject to environmental justice analysis.

ATTACHMENTS:
Attachment 1: 06052024 JWRC Minutes

UNCLASSIFIED MANAGER:
Candice Kwok-Smith, 408-630-3193

THIS PAGE INTENTIONALLY LEFT BLANK

For full meeting record, please review meeting videos at:
https://www.valleywater.org/how-we-operate/committees/board-committees

JOINT WATER RESOURCES COMMITTEE
(CITY OF GILROY, CITY OF MORGAN HILL AND VALLEY WATER)

DRAFT MINUTES

REGULAR MEETING SESSION
WEDNESDAY, JUNE 5, 2024
8:30 AM

(Paragraph numbers coincide with agenda item numbers)

1. CALL TO ORDER

A regular meeting of the Joint Water Resources Committee (City of Gilroy, City of Morgan Hill, and Valley Water) (Committee) was called to order at 8:30 a.m. at the South County Regional Wastewater Authority (SCRWA), 1500 Southside Drive, Gilroy, CA 95020.

1.1 ROLL CALL

Committee Members in attendance were: City of Gilroy Mayor and Vice Chairperson Marie Blankley and City of Gilroy Councilmember Dion Bracco; City of Morgan Hill Councilmembers Yvonne Martinez Beltran and Rene Spring; Valley Water District 3 Director Richard Santos and Valley Water District 1 Director John L. Varela, Chairperson presiding, constituting a quorum of the Committee.

Valley Water staff in attendance were: Hossein Ashktorab, Aaron Baker, Walter Gonzalez, Andy Gschwind, Ryan McCarter, Nicole Merritt, Kirsten Struve, and Dave Tucker.

SCRWA, City of Gilroy, and City of Morgan Hill staff in attendance were: SCRWA Environmental Programs Manager Saeid Vaziry, City of Gilroy Utilities Director Heath McMahon, and City of Morgan Hill Public Services Director Chris Ghione.

Public in Attendance was: None.

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

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

3. APPROVAL OF MINUTES:

3.1. Approval of April 3, 2024 Joint Water Resources Committee Meeting Minutes.

Recommendation: Approve the minutes.

The Committee considered the attached minutes of the April 3, 2024 Committee meeting.

Public Comments:
None.

It was moved by Director Santos and seconded by Councilmember Martinez Beltran and unanimously carried that the minutes be approved.

4. REGULAR AGENDA:

4.1. Receive South County Water Reuse Collaboration and Implementation Update and Provide Feedback.

Recommendation: Receive an update and provide feedback on the South County water reuse collaboration and implementation.

Dave Tucker reviewed the information on this item per the attached Committee agenda memo.

Dave Tucker was available to answer questions.

Public Comments:
None.

The Committee received the information, took no formal action, and confirmed staff has been working with the United States Bureau of Reclamation (USBR) on the grant agreement, and are currently waiting for the federal funding to be distributed; and noted appreciation for staff's work.

4.2. Receive Anderson Dam Seismic Retrofit Project Update.

Recommendation: Receive an update and information on the Anderson Dam Seismic Retrofit Project.

Ryan McCarter reviewed the information on this item per the attached Committee agenda memo and per the information contained in Attachment 1.

Ryan McCarter and Aaron Baker were available to answer questions.

Public Comments:
None.

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

- The Committee noted support for continuing to utilize options for recapturing creek storm flows and providing community education/outreach on the project status and regulations.
- The Committee noted the Anderson Dam Seismic Retrofit project is currently in the Design phase with the Division of Safety of Dams (DSOD) and the Federal

Energy Regulatory Commission (FERC) and working on the Environmental Review: California Environmental Quality Act/National Environmental Policy Act (CEQA/NEPA) and the permitting process with a goal to start construction in 2026.

4.3. Review and Accept the Joint Water Resources Committee 2024 Proposed Work Plan, and Confirm the Next Meeting Date.

Recommendation: A. Review and accept the Joint Water Resources Committee 2024 Proposed Work Plan; and
B. Confirm the next meeting date.

The Committee considered this Item without a staff presentation.

Public Comments:
None.

The Committee received and noted the information and took no formal action.

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.

Nicole Merritt confirmed the Committee noted the South County Water Reuse Collaboration Update and expressed appreciation for staff's work under Item 4.1; noted and provided feedback including support for options to recapture water and provide community education/ outreach for the Anderson Dam Seismic Retrofit Project under Item 4.2; and noted the JWRC Work Plan and confirmed upcoming meeting date under Item 4.3.

6. ADJOURN:

6.1. Adjourn to Regular Meeting at 8:30 a.m. on October 2, 2024.

Chairperson Varela adjourned the meeting at 9:20 a.m. to the regular meeting scheduled at 8:30 a.m. on October 2, 2024.

Nicole Merritt
Approved: Assistant Deputy Clerk II

THIS PAGE INTENTIONALLY LEFT BLANK

File No.: 24-0882

Agenda Date: 4/2/2025
Item No.: 4.1.

COMMITTEE AGENDA MEMORANDUM
Joint WRC with Cities of Gilroy/Morgan Hill/SCRWA

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

SUBJECT:
Receive Information and Provide Feedback on Valley Water's Water Supply Master Plan (WSMP) 2050.

RECOMMENDATION:
Provide feedback on the development of the WSMP 2050.

SUMMARY:
The Water Supply Master Plan (WSMP) is Santa Clara Valley Water District's (Valley Water) guiding document for long-term water supply investments to ensure water supply reliability for Santa Clara County. Updated approximately every five years, this long-range plan assesses projected future county-wide demands and evaluates and recommends water supply and infrastructure projects to meet those demands to achieve Valley Water's level of service goal through the planning horizon. Valley Water's level of service goal, as established in Board Ends Policy E-2, is to "Meet 100 percent of annual water demand during non-drought years and at least 80 percent of demand in drought years."

Valley Water is working on developing the WSMP 2050. At the January 2024 Committee meeting, staff presented an update on the development of the WSMP 2050, including the planning framework and baseline needs assessment. This memorandum summarizes the progress since then and includes project evaluation that details each project's benefits and risks/challenges; cost analysis for individual projects and portfolios; representative portfolios under three themes that present different strategies to address future water shortages; and a proposed adaptive management approach to support making incremental investment decisions as projects develop. In addition, it includes water conservation and potable reuse goals that were adopted by the Board of Directors (Board). The Board received two updates since January 2024, in June/July and December. This memorandum summarizes both board updates.

Water Supply Needs and Challenges
Valley Water operates a complex and interconnected water supply system to conjunctively manage supplies from surface water (imported and local) and groundwater to meet county-wide demand, now

and in the future. With conjunctive management and continued investment, Valley Water's existing system has proven flexible and reliable in meeting demands in most years, but extended droughts continue to be the greatest challenge. According to the WSMP analyses, if relying only on existing supplies and infrastructure, Valley Water will experience water shortages during the later years of an extended drought beginning in 2035, mostly driven by changing demands, regulations, and climate change. In 2050, the average shortage over a six-year drought could be as much as 72,000 acre-feet per year (AFY), depending on the projected demand and imported water supply conditions. These shortages are large and what was beyond meeting drought calls and long-term conservation goals. Therefore, Valley Water needs to invest in new projects to address those shortages to ensure long-term water supply reliability for Santa Clara County.
In addition to future water shortages, Valley Water's existing water supply system is aging and in need of maintenance and upgrading. At the same time, water infrastructure projects are becoming increasingly complex and expensive, which affects affordability and water rates. Therefore, Valley Water's WSMP 2050 aims to develop an investment strategy that balances providing safe clean water, reliability, adaptability, and affordability.

Project Evaluation
To address future water supply needs and other challenges, Valley Water evaluated a range of projects. The project types and major projects within each group are listed below.

- Alternative Supply
  - San José Direct Potable Reuse (DPR)
  - Palo Alto Potable Reuse
  - Local Seawater Desalination
  - Refinery Recycled Water Exchange
- Surface Supply
  - Delta Conveyance Project (DCP)
  - Sites Reservoir
- Storage
  - Pacheco Reservoir Expansion (Pacheco)
  - B.F. Sisk Dam Raise (Sisk)
  - Out of County Groundwater Banking (GW Bank)
- South County Recharge
  - San Pedro Ponds Improvement
  - Coyote Valley Recharge Pond
  - Madrone Channel Expansion

The projects were evaluated both quantitatively (supply benefit and cost) and qualitatively, to provide a comprehensive understanding of their benefits and risks. The evaluation started with a detailed analysis of the water supply benefit and cost of each project, followed by a qualitative assessment of each project's reliability in providing planned benefits, likelihood of success, environmental impacts, jurisdiction and partnership, and public acceptance. The environmental impacts of major projects are based on their published Environmental Impact Reports, which detail their impacts on natural and/or cultural resources and other aspects of the environment. Each project's benefits to Valley Water's water supply reliability as well as associated risks and challenges based on the evaluation criteria are

summarized in Attachment 1.

The project evaluation confirms that while all projects are beneficial to Valley Water's long-term water supply reliability, no single project can meet all our future needs and each project has risks and challenges. Some projects provide needed supply during droughts but are costly; others are lower in cost but are high risk or do not contribute significantly to drought reliability; and yet others require agreements with partners and therefore their success remains out of Valley Water's direct control. Furthermore, many projects are in the planning phase and still evolving, adding further uncertainty on their costs, benefits, and risks. Portfolios of projects that complement each other could provide a balanced, diverse, and sustainable water supply to address future needs and challenges.

Valley Water also developed water conservation and reuse goals for inclusion in the plan, as they are important components in our effort to address future shortages.

- **2050 Conservation Goal**
  A 2050 water conservation goal of 126,000 AFY was adopted by the Board on July 9, 2024, which is considered ambitious but implementable and balances benefits with affordability concerns (Attachment 2). This water conservation goal recognizes that Santa Clara County is already very water efficient and complements the State's "Making Water Conservation a Way of Life" regulation. It allows Valley Water to stay at the forefront of conservation with sufficient feasible program expansion options supported by community interest and reduces the need to invest in additional new supplies and/or storage. Meeting long-term conservation goals throughout the planning horizon is factored into baseline assumptions in the analysis. In addition, Valley Water will continue to implement the 'no-regrets' package of conservation and stormwater capture projects identified in the WSMP 2040.
- **Potable Reuse Goal**
  Potable reuse is a locally controlled and drought-resilient supply that is effective in mitigating drought risks. On December 10, 2024, the Board adopted a goal of 24,000 AFY of potable reuse by 2035, which can be achieved with a project in collaboration with the Cities of San José and Santa Clara, and a long-term vision to maximize water reuse in the county up to 32,000 AFY by 2050 (Attachment 3). This long-term vision includes additional potable and non-potable reuse, desalination, stormwater capture, and other alternative water sources. The inclusion of a 2035 goal with the long-term vision promotes a phased approach that accounts for uncertainty with future demand and wastewater availability while balancing affordability and risk of overinvestment.

Project Cost Analysis
Cost is one of the most important factors when developing a recommended investment strategy because of its impact on water rates and affordability. Cost analysis for water infrastructure projects typically includes multiple metrics to provide a complete picture of their financial implications. Valley Water's cost analysis was performed at the project and portfolio levels. For each project, the cost analysis includes total lifecycle cost and unit cost estimates. For each portfolio, the cost analysis includes total lifecycle cost and water rate impacts. The cost metrics are calculated using similar approaches to other agencies and are based on inputs from the WSMP expert panel.

The lifecycle cost includes capital and annual operations and maintenance costs over a project's useful service life with financing. The useful service life is assumed to be the time before a project incurs any significant repair/replacement costs - 30 years for purified water, desalination, and local pipeline projects; and 50 years for storage and other projects. The unit cost calculation is handled separately for supply and storage projects because they function very differently. For supply projects, the unit cost is calculated using present values of lifecycle cost relative to the anticipated average annual supply benefit (Table 1). For storage projects, a "storage capacity cost" or cost per acre-foot of storage capacity is calculated (Table 2) because of the challenges in estimating their annual water supply yields. Therefore, unit costs can be used to compare projects within the same group, but not for comparing supply projects with storage projects. All costs are represented in 2023 dollars. These cost calculations may be updated in future updates.

Table 1 Cost of Major Supply Projects (in 2023 Dollars)

Project	Average Annual Supply (AF)	Capital Cost (Million)	Annual O&M (Million)	Present Value (PV) Lifecycle Cost (Million)	Lifecycle Cost PV/ Yield PV ($/AF)	Annualized Unit Cost ($/AF)
Palo Alto Potable Reuse	8,000	$780	$13	$1,570	$10,200	$9,000
San José Direct Potable Reuse	24,000	$2,140	$30	$2,610	$6,400	$5,000
Local Seawater Desalination	24,000	$2,140	$30	$2,610	$6,400	$5,000
Refinery Recycled Water Exchange	8,000	$250	$9	$430	$2,800	$2,500
Delta Conveyance Project	14,000	$650	$2	$720	$2,700	$1,800
Sites Reservoir	5,000	$140	$0.6	$130	$1,200	$1,000

Table 2 Cost of Major Storage Projects (in 2023 Dollars)

Project	Storage (AF)	Capital Cost (Million)	Annual O&M (Million)	PV Lifecycle Cost (Million)	Lifecycle Cost PV/ Storage Capacity ($/AF)
Pacheco	140,000	$2,210	$2.5	$1,590	$11,400
B.F. Sisk Dam Raise	60,000	$440	$1.8	$470	$7,900
Groundwater Banking	350,000[1]	$280	$2.8	$350	$1,000

[1] Different levels of Groundwater banking were used in the portfolio analysis.

As part of the overall cost and benefit analysis, a cost of shortage analysis was performed to estimate the economic benefits of water supply investment to help inform investment decisions. The benefits were measured by avoided costs and estimated separately for residential, agricultural, and business sectors because they require different approaches. The cost of shortage for the residential sector is estimated as the dollar amount that water users would be willing to pay to avoid water shortages, which was estimated to be $1.6 billion for the stable demand and $2.8 billion for the high demand. The estimated impact on agriculture will range from $220 million to $280 million, under the assumption that crop production would be reduced in proportion to the estimated water shortage. The cost of water shortage for businesses, referenced from previous studies, could range from $1.2 billion for 10 percent water rationing and $14.2 billion for 30 percent rationing. All costs are expressed in 2023 dollars. In addition, if the shortage condition becomes chronic, groundwater overdraft could lead to land subsidence and widespread and costly infrastructure damage over time.

Overall Water Supply Strategy

For this plan update, portfolio analyses are used to identify the combinations of projects that may be needed to achieve water supply reliability under four future supply and demand conditions (Figure 1) based on different combinations of imported water supplies (moderately or severely impacted) and demand (stable or high).

Figure 1 Four Future Conditions for Planning

The portfolio analysis was focused on a future with stable demand and severely reduced imported

water supplies. With the high number of potential projects, there are many combinations and strategies to achieve long-term water supply reliability, depending on different considerations and factors. The development of portfolios involved extensive water supply modeling to ensure that potential portfolios address projected shortages.

To help outline investment options and present tradeoffs, potential investment strategies were developed based on three themes - lower cost, local control, and diversified. Under each strategy, multiple portfolios can meet future water supply needs. Based on the project evaluation and discussions with both internal and external experts, one representative portfolio for each strategy was selected for this presentation and summarized in Table 3, along with the total lifecycle cost.

Table 3 Multiple Strategies for Water Supply Reliability

Strategies	Projects[1]	Portfolio Cost[2] (Billion)
Lower Cost	San José Direct Potable Reuse, DCP, Sisk, Groundwater Banking (250,000 AF), South County Recharge	**$4.0**
Local Control	San José Direct Potable Reuse, Palo Alto Potable Reuse, Pacheco without Partners, Groundwater Banking (150,000 AF), South County Recharge	**$5.9**
Diversified	San José Direct Potable Reuse, DCP, Pacheco with Partners, Sisk, Groundwater Banking (350,000 AF), South County Recharge	**$5.3**

[1]Conservation is factored in the baseline condition.
[2]Portfolio cost includes the sum of the present value total cost for each project.

These three potential strategies represent different approaches to water supply reliability, but each comes with tradeoffs:

- **Lower Cost** - Focuses on affordability and minimizing costs, with a mix of supply and storage projects. The strategy provides drought-resilient supply through potable reuse, diversifies existing storage, and secures existing imported supply through DCP. However, it has high risks, as all four major projects require partnership and institutional agreements to be successful.

- **Local Control** - Focuses on projects within Santa Clara County which Valley Water has more control over. The strategy provides drought-resilient supply through potable reuse, diversifies existing storage, provides emergency storage, and reduces reliance on imported supply. However, it has the highest cost, as it includes the three most expensive projects being considered (two potable reuse projects and Pacheco).

- **Diversified** - Focuses on diversifying the existing system with a mix of local and imported supplies as well as storage projects. The diversified strategy, which is most closely aligned with the FY 2024-25 rate-setting portfolio, provides a similar variety of benefits as the other two strategies but builds in more resiliency and redundancy to help reduce the county's exposure to risk and uncertainty, including the risk of any one investment not performing up to expectations. However, it has a relatively high cost and more institutional complexity since it includes more projects.

All three strategies include Direct Potable Reuse in San José, emphasizing the importance of having drought-resilient local supplies in the long-term strategy. It should also be noted that all strategies require Valley Water to either maintain the existing level of storage or further diversify and develop additional storage.

As part of each portfolio evaluation, rate impacts for each portfolio were analyzed. Results are summarized in Table 4 below, along with the adopted FY 2024-25 water rates (commonly referred to as groundwater production charges).

Table 4. Water Rate Impact Comparison Between Strategies
Translation of portfolio costs to North County Zone W-2 Municipal & Industrial rate ($/AF), or average monthly impact to an average household[1]

Strategy	FY 26 to FY 30	FY 31 to FY 35	FY 36 to FY 40	FY 41 to FY 45	FY 46 to FY 50
FY 2024-25 Adopted Rates & PAWS Report[2]	*$2,985 / AF or $102.81 / month*	*$4,786 / AF or $164.82 / month*	*$7,385 / AF or $254.35 / month*	*$7,956 / AF or $273.99 / month*	*$7,956 / AF or $273.99 / month*
Lower Cost	$2,866 / AF or $98.71 / month	$4,296 / AF or $147.96 / month	$6,581 / AF or $226.65 / month	$7,068 / AF or $243.42 / month	$7,068 / AF or $243.42 / month
Local Control	$3,359 / AF or $115.70 / month	$5,627 / AF or $193.80 / month	$8,134 / AF or $280.14 / month	$8,731 / AF or $300.69 / month	$8,835 / AF or $304.28 / month
Diversified	$3,100 / AF or $106.75 / month	$5,153 / AF or $177.45 / month	$7,686 / AF or $264.71 / month	$8,344 / AF or $287.37 / month	$8,377 / AF or $288.51 / month

[1] For purposes of this analysis, an average household is assumed to use 15 hundred cubic feet, or 0.413 acre-feet, of water per month.
[2] PAWS Report: Annual Protection and Augmentation of Water Supplies Report, February 2024. Available online at www.valleywater.org.

South County Strategy
South County residents, businesses, and agriculture rely almost entirely on groundwater for water supply. Valley Water actively manages the groundwater basins to ensure continued sustainable supplies and takes appropriate action to protect groundwater-dependent communities such as prioritizing South County recharge during droughts. Groundwater recharge ponds are essential for long-term reliability and have played a critical role in drought recovery. With "weather whiplash" (frequent shifts between extremely wet and dry years) becoming more common and the high local reliance on groundwater, there is a need for additional recharge capacity in South County.

In this plan, several recharge projects in the South County are being evaluated, including expansion of the Madrone Channel, a new recharge pond in the Coyote Valley, San Pedro Ponds Improvement Project, and Agricultural Land Recharge (FloodMAR). In addition, Valley Water recently worked with the South County partner agencies to complete the 2024 update to the South County Recycled Water Master Plan to identify opportunities for additional water reuse.

Adaptive Management Framework
Portfolio analysis suggests that there are different ways to achieve future water supply reliability, each with tradeoffs and risks and challenges. Because many WSMP projects are still in the planning phase and will evolve, it is hard to predict which will ultimately be successful. Uncertainty with forecasted future supply and demand conditions further challenges decision-making. Planning under such deep uncertainty requires an adaptive management approach to provide the Board with flexibility and the ability to make incremental investment decisions and refine them over time, based on evolving information and actual conditions. Incremental decisions based on actual conditions will help reduce the risk of over- or under-investing.
The adaptive framework is intended to define a consistent, stepwise process of making project and program investment decisions. The framework includes a roadmap and annual reporting. The roadmap outlines near- and mid-term actions and defines indicators and conditions to guide project decisions. The annual reporting tracks project progress and provides up-to-date information to help inform decision-making.
The proposed roadmap includes recommended actions at different timelines, especially immediate actions as the starting point of the adaptive management framework:

- **Now -** focus on the **Lower Cost** strategy, which includes San José Potable Reuse, B.F. Sisk Dam Raise, Delta Conveyance Project, Groundwater Banking, and South County Recharge; Continue planning for Pacheco and Sites; Continue the Desalination feasibility study; Continue implementing conservation programs.
- **Near-term (2-3 years) -** Assess success/progress on project planning and implementation; Make project funding, participation, or go/no-go decisions based on indicators, new information, and actual conditions; Continue planning for other projects.
- **Mid-term (5 years) -** Assess progress on project implementation; Update demand projections and water supply outlook; Update WSMP

Annual reporting through the Monitoring and Assessment Program (MAP) will be a critical component of the adaptive management framework. A standard MAP report will be devised to include key elements of the WSMP, including progress on projects, conditions of indicators, and whether any adjustments are recommended. The timing of the MAP will be aligned with the annual CIP Five-Year Plan and Water Rate-Setting Cycle to support related decision-making.

In the next few years, major decisions will come up for several projects. Through this adaptive management framework, the Board will have multiple opportunities along each project’s trajectory to make informed decisions on investments. It also allows the WSMP to be closely linked to the annual CIP and rate-setting processes, fulfilling its role as the guiding document for long-term investment strategy.

Outreach Efforts
Stakeholder engagement is an important component of the WSMP 2050 development process and is carried out throughout the plan development. Staff has presented updates at various Committees and retailer meetings. Staff also met with environmental stakeholders to discuss their questions and responses to written comments. In addition, Valley Water continues to use the WSMP webpage: https://www.valleywater.org/your-water/water-supply-planning/water-supply-master-plan, stakeholder email list, blogs, social media, and communication newsletter as ongoing opportunities to provide updates and engage the public and stakeholders.

Valley Water convened an expert panel to support WSMP analyses and are continuing to engage with them through the entire process.

Next Steps
Staff will finalize the analysis and roadmap and start to draft the plan.

ENVIRONMENTAL JUSTICE AND EQUITY IMPACT:
The Water Supply Master Plan addresses water supply equity by ensuring a cost-effective, high-quality supply is available for all of Santa Clara County, including disadvantaged communities.

ATTACHMENTS:
Attachment 1: Project Evaluation Summary
Attachment 2: 2050 Conservation Goal
Attachment 3: Potable Reuse Goal
Attachment 4: PowerPoint

UNCLASSIFIED MANAGER:
Kirsten Struve, 408-630-3138

Attachment 1 – Project Evaluation Summary

Project	Benefits	Risks/Challenges	Expected online date
San José Direct Potable Reuse – Constructs an advanced water purification facility in San José to produce purified water for potable reuse. Purified water may augment treated and/or raw water supplies.	Up to 24,000 acre-feet per year (AFY) of locally controlled, drought resilient supply that is critical in mitigating risks of multi-year droughts. Increase operational flexibility.	Requires agreements with City of San José. Public acceptance remains mixed. High capital and operational costs. Requires reverse osmosis concentrate (ROC) management solutions.	2033
Palo Alto Potable Reuse – Construct an Advanced Water Purification Facility in Palo Alto to produce purified water for potable reuse.	8,400 AFY of locally controlled, drought resilient supply to mitigate risks of multi-year droughts.	Requires agreements with Palo Alto, public acceptance remains mixed, high capital and operational costs. Requires long-term ROC management solutions	Currently on CIP unfunded list
Local Seawater Desalination – A seawater desalination project in Santa Clara County using seawater from the South San Francisco Bay. Desalinated water could augment existing treated and/or raw water supplies.	Up to 24,000 AFY of locally controlled, drought resilient supply that mitigate risks of multi-year droughts and improve water supply reliability. Increase operational flexibility.	Project currently at the pre-feasibility stage. Environmental challenges, including brine management, power needs, and permitting in the sensitive Bay environment. High capital and operational cost. Multiple regulatory permitting steps.	2035
Refinery Recycled Water Exchange – A regional recycled water project between Valley Water, Central Contra Costa Sanitary District (Central San), and Contra Costa Water District (CCWD). The project will allow Central San to provide recycled water to two oil refineries in Contra Costa County in lieu of CCWD's Central Valley Project (CVP) water. CCWD will then	On average 8,500 - 10,000 AFY of imported water supply. Reduces regional reliance on the Delta. Increases regional drought resiliency.	Uncertainty in refinery demands and delivery of CVP supply. CCWD currently evaluating the project in their long-term plan. East Bay Municipal Utility District (EBMUD) also evaluating the project.	2030

provide its freed-up CVP supply to Valley Water.			
Delta Conveyance Project – Modernize the State Water Project (SWP) infrastructure in the Delta by adding new facilities to divert water and upgrading the current conveyance system. The project is intended to restore and protect the reliability of SWP water deliveries and, potentially, CVP water supplies south of the Delta.	At current 3.23% participation level, the project could provide on average 14,000 AFY of water supply benefits to Valley Water. It will help secure existing Delta-conveyed supplies, and improve access to transfer supplies and quality of imported water supplies.	Implementation complexity, long-term operational uncertainty, active public opposition due to environmental concerns, and long-term financing uncertainty.	2045
Sites Reservoir – A proposed off-stream water supply reservoir north of the Delta to provide new water supply by capturing flood flows from the Sacramento River. The project would be operated in coordination with the SWP and CVP.	Valley Water is assuming 2.7% participation level in the portfolio analysis, which could potentially provide dry year yield of around 9,200 AFY and 37,000 AF of storage. It also offers access for transfers and lease/purchase of additional storage.	Public opposition, requires through-delta conveyance, future regulatory changes. Project is currently fully subscribed.	2032
Pacheco Reservoir Expansion – Enlarges Pacheco Reservoir from about 5,500 AF to 140,000 AF and connects the reservoir to the Pacheco Conduit. The reservoir plans to be filled with natural inflow and imported (CVP and/or SWP) supplies. The project is currently moving toward 60% design.	Locally controlled, provides emergency storage with no annual carryover storage limit, downstream benefits for threatened fish, manages water quality impacts from San Luis Reservoir, diversifies Valley Water's storage program, captures and stores CVP Section 215 and SWP Article 21 water when available, and increases operational flexibility. Grant funding.	Public opposition, rising cost, environmental impact on cultural resources, difficulty in securing partners, and increased long-term environmental commitments.	2035
B.F. Sisk Dam Raise – Expands the capacity of San Luis Reservoir by 130,000 AF. New capacity would be shared by Reclamation and project participants and may	Valley Water is currently negotiating for 60,000 AF of storage for imported supplies. If secured, the storage may help diversify Valley Water's existing storage program, capture	Proposed storage is under negotiation. Requires moving a portion of Route 152.	2032

be operationally integrated with the CVP.	and store CVP Section 215 and SWP Article 21 water when available, and increase operational flexibility.		
Out of County Groundwater Banking – Participate in one or more Groundwater Banking Programs located within the Central Valley. Semitropic Groundwater Bank contract expires in 2035 and will need to be renegotiated.	Historically among the most cost-effective options. New programs may help diversify Valley Water's existing storage program, potentially increasing current put and take capacities.	No identified projects yet. Significant institutional, technical, and political hurdles to overcome, and potential competition with other agencies**.**	TBD
South County Recharge – Several projects in the South County are being evaluated, including San Pedro Ponds Improvement Project, Coyote Valley Recharge Pond, and Madrone Channel Expansion.	Increase recharge capacity and maximize use of existing infrastructure to help improve water supply reliability for South County. Increase operational flexibility in South County, help South County groundwater levels rebound from drought more efficiently.	May require landowner support. In preliminary planning phase.	2030

THIS PAGE INTENTIONALLY LEFT BLANK

Santa Clara Valley Water District

File No.: 24-0448

Agenda Date: 5/17/2024
Item No.: 4.1.

COMMITTEE AGENDA MEMORANDUM
Water Supply and Demand Management Committee

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

SUBJECT:
Review Potential Water Conservation Targets for Inclusion in the 2050 Water Supply Master Plan; and Recommend to the Santa Clara Valley Water District Board the 126,000 Acre Feet per Year (AFY) (Option B) Water Conservation Goal by 2050 for Inclusion in the Water Supply Master Plan 2050.

RECOMMENDATION:
Recommend to Santa Clara Valley Water District Board the 126,000 Acre Feet per Year (Option B) water conservation goal by 2050 for inclusion in the Water Supply Master Plan 2050.

SUMMARY:
Santa Clara Valley Water District (Valley Water) is the primary water resources agency in Santa Clara County, California, and serves about 2 million residents, primarily through 13 water retailers. Valley Water has been providing water conservation programs to its retail agencies' customers since 1992 and offers over 20 programs to reach all customer sectors to achieve the Valley Water Board of Directors (Board) long-term 2030 and 2040 water conservation goals. The Water Supply and Demand Management Committee (formed by merging the Water Conservation and Demand Management Committee and Water Storage Exploratory Committee (Committee)) and the Board monitor progress on achieving conservation goals. Additionally, the Water Supply Master Plan (Master Plan) which includes the conservation goals is updated every five (5) years and has an annual Monitoring and Assessment Program (MAP) report that presents progress on meeting the conservation goal. Through the Master Plan and MAP updates, the Committee and Board can modify the goals as new technologies, regulations, and trends become available or enacted.

Valley Water is currently developing its Master Plan 2050 and seeks to identify new 2050 conservation goals for inclusion in the Master Plan. Staff are presenting three options to achieve additional savings beyond Valley Water's 2040 conservation goal of 110 thousand acre-feet a year (TAFY). Three (3) potential 2050 Conservation Goals (2050 Goals), the menu of conservation programs, and the cost-effectiveness of achieving the portfolios being considered were presented at the December 2023 and January 2024 Committee meetings. At the January 2024 meeting, the

Committee requested a report back with additional comprehensive rationale presented for Board analysis including further details of comparisons with other similar agencies, current water conservation performance indicators, and the implementation of option strategies. This memorandum includes these additional details.

Goal Development Approach

Valley Water developed three 2050 Goals by evaluating its current program, potential future programs, and peer agency programs. The evaluation of current and potential future program offerings included estimated water savings, estimated community interest, implementability, cost effectiveness, and support for retailers in achieving State regulations. Staff also reviewed peer agency programs to see if there are applicable programs that Valley Water has not yet evaluated. In general, staff found that the number and variety of Valley Water's programs are equal or exceed our peer agency programs, but plan on completing a more detailed benchmarking study of the conservation programs at peer agencies over the next year.

Valley Water offers a comprehensive set of over 20 programs that help all sectors (e.g., residential, agricultural, commercial, industrial, and institutional) reduce their water use and most are cost effective and/or provide important community education about water use and conservation. The current conservation program costs approximately $600/AF. However, certain programs could be expanded or added in the future if Valley Water increases investment in conservation.

The three 2050 Goals summarized in the next section offer different options for investing in water conservation through 2050. As the conservation goal increases, the cost increases, staffing needs increase, and implementability will likely become more difficult. Implementability may become more difficult because Santa Clara County is relatively efficient, so it may be necessary to engage new customers and install new water-saving technology. Our retail customer average residential gallons per capita per day (GPCD) in the county during non-drought conditions (using years 2018-2020) ranges between approximately 71-74. In comparison, average statewide residential GPCD during the same period was between 85-93. Therefore, Santa Clara County is approximately 20% more efficient than the State of California on average and is in the top 10 of most efficient counties. During drought, additional water use reduction calls may also become more challenging as our community becomes more efficient which could impact meeting Valley Water's Level of Service goal.

Valley Water also considered expected future water use regulations when designing the 2050 Goal options. Per Senate Bill 1157 (SB 1157), the State developed indoor residential water use limits of 42 GPCD starting in 2030. Valley Water estimates that indoor residential water use accounts for approximately 50% of all residential water use. Most of our retailers' customers already achieve the SB 1157 water use limits, although some retailers will need to work with their customers to reduce their water use to meet SB 1157. Each of the three 2050 Goals presented in the next section will help all of Santa Clara County to meet or continue meeting the SB 1157 water use limits.

Potential Conservation Savings Goals

The potential 2050 Goals would be fulfilled by leaning into Valley Water's existing program while still providing flexibility to enhance existing and add new programs. Three (3) potential 2050 Goals and

unit costs have been identified and are described below:

1. *Option A Savings Goal* - 119 TAFY by 2050. This goal increases annual water savings by 10 TAFY above the 2040 goal. To achieve the increased savings, Valley Water would continue to offer the existing suite of programs but expand the reach of the programs to access more customers. This option acknowledges that current Valley Water programs are cost effective and provide water saving options to a wide range of users. This goal will cost the least, at approximately $1,230/acre-foot in 2023 dollars, while still providing additional conservation. However, this goal will not capitalize on proposed new cost-effective programs or incentives.

2. *Option B Savings Goal* - 126 TAFY by 2050. This goal increases annual water savings by 17 TAFY above the 2040 goal. To achieve the increased savings, Valley Water would need to significantly expand the reach of its current programs and add a leak assistance program. This would require additional conservation investment and increased staffing. To achieve this goal, Valley Water will need to increase annual average active water savings to 14 TAFY from 11 TAFY, which is equivalent to the water savings rate achieved during droughts when messaging and public awareness is at its greatest. Expanding the reach of existing programs and adding new programs will result in a total cost of $1,338/acre-foot in 2023 dollars. While this goal will require more investment than Option A, it does allow Valley Water to stay at the forefront of conservation by offering new innovative programs and technologies to Santa Clara County residents. With sufficient investment and retail agency outreach support, Valley Water could likely achieve Option B by 2050.

3. *Option C Savings Goal* - 133 TAFY by 2050. This goal increases annual water savings by 24 TAFY above the 2040 goal. To achieve the increased savings, Valley Water would need to do everything proposed in Option B while also reducing outdoor water use by an additional 25% compared to the 2020 estimated outdoor water use, expanding program offerings, and increasing staffing beyond that needed in Option B. While this option is technically feasible, its implementation would require significant expansion of our landscape rebate program and strong support from our retailers to encourage customer participation. Local ordinances that outlaw watering front yard lawns could help support this savings goal option, but Valley Water understands the significant difficulty and uncertainty involved in working with cities to implement such ordinances. Valley Water estimates that the effort involved to achieve Option C would cost $1,690/acre-foot.

Figure 1 summarizes the: (1) passive savings achieved as of 2020 within the Valley Water service area, (2) the active savings from past implementation as of 2020, (3) projected additional passive savings estimated to occur in the future, and (4) the additional active savings to be achieved from program implementation that would be required to achieve the potential 2050 Goals.

Figure 1. Potential 2050 Conservation Savings Goals - Active and Passive Savings

Staff Recommendation

Staff recommends the Committee recommend Option B as the 2050 Water Conservation Goal for Board adoption. Option B provides Valley Water an ambitious but implementable goal that will ensure Santa Clara County is a leader in conservation, ensure we use our water supplies wisely, and balances affordability concerns.

While Option A is the lowest cost alternative, based on the committee feedback so far, staff recommends choosing a more aggressive goal. By going with Option A, Valley Water may have to invest in additional expensive supply and storage projects in lieu of the additional savings that could be achieved with Option B. While Option B would require increasing participation by approximately 200%, which in turn will require additional staffing and funding resources, staff are confident that Valley Water can achieve Option B.

Option C would require significant investment to expand staff resources and program offerings. Even with the expanded funding, achieving Option C would still be very difficult and require significant support from our partner agencies. While technically feasible, there is uncertainty as to whether it could be achieved by 2050. If Valley Water chooses Option C, it may risk under-investing in other new supplies and storage if meeting the goal gets delayed and will also affect revenues.

To summarize, selecting Option B:

1) Is feasible

2) Balances costs with benefits
3) Reduces need to invest in additional new supplies and/or storage
4) Makes “Conservation a Way of Life” in Santa Clara County
5) Allows Valley Water to stay at the forefront of conservation

The long-term water conservation goals (i.e., 2030, 2040, and 2050) are monitored annually by the Committee and the Board as part of the long-term water conservation progress update and the Master Plan Monitoring and Assessment Program (MAP) update. Additionally, the Master Plan, including conservation goals, is updated every five (5) years. Through MAP and the Master Plan updates, the Committee and Board can modify the goals as new technologies, regulations, and trends become available or enacted. Therefore, staff think that Option B is an aggressive, achievable and productive goal, and that Valley Water has processes in place that can allow the Board to increase the goal if new technologies or regulations become available.

ENVIRONMENTAL JUSTICE AND EQUITY IMPACT:
Environmental justice and equity impact on EJ population are expected/likely to result from the implementation of the water conservation program to achieve 2050 Goals. The recommendation of Option B was selected to balance cost and benefit; the benefits and the impact/mitigation strategies on disadvantaged communities are discussed in greater detail below.

Water conservation offers a range of environmental justice benefits by promoting equitable access to clean water, reducing pollution, protecting ecosystems, mitigating climate change, saving costs for vulnerable communities, enhancing drought resilience, and empowering residents with knowledge and skills for sustainable water use. Valley Water provides such water conservation information in multiple languages and via various outreach techniques to reach all members of our community. Valley Water acknowledges that during drought, disadvantaged communities may be disproportionately impacted. To address these impacts, Valley Water promotes access to equitable and affordable water supplies (Water Supply Goal 2.6). Valley Water offers specific programs, such as the Lawn Busters program to provide water-efficient landscapes to low-income, elderly, disabled, or veteran homeowners and schools within disadvantaged communities.

ATTACHMENTS:
Attachment 1: PowerPoint
Attachment 2: 2050 Master Plan Potential Savings Goal Memo.
Attachment 3: 2050 Mstr. Pln. Conserv. Measure Dtls. & Portfolios
Attachment 4: Link to 2021 Water Conservation Strategic Plan

UNCLASSIFIED MANAGER:
Kirsten Struve, 408-630-3138

THIS PAGE INTENTIONALLY LEFT BLANK

Santa Clara Valley Water District

File No.: 24-0740

Agenda Date: 8/28/2024
Item No.: 4.3.

COMMITTEE AGENDA MEMORANDUM
Recycled Water Committee

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

SUBJECT:
Discuss the Recycled Water Goal for the Water Supply Master Plan (WSMP); and Recommend to the Valley Water Board a Potable Reuse Goal of 24,000 Acre Feet per Year (AFY) by 2035, and a Long-Term Vision to Maximize Water Reuse in the County up to 32,000 AFY, (Including Additional Potable and Non-Potable Reuse, Desalination, Stormwater Capture, and Other Alternative Water Supply Sources) for Inclusion in the WSMP 2050.

RECOMMENDATION:
Recommend to the Valley Water Board a potable reuse goal of 24,000 AFY by 2035 and a long-term vision to maximize water reuse in the county up to 32,000 AFY, (including additional potable and non-potable reuse, desalination, stormwater capture, and other alternative water supply sources) for inclusion in the WSMP 2050.

SUMMARY:
Valley Water's Water Supply Master Plan (WSMP) is a guiding document for long-term water supply investments to ensure water supply reliability for the county. The WSMP is regularly updated to evaluate anticipated water demands and water supply and infrastructure projects. As one of the WSMP project options, water reuse is a locally controlled and drought resilient supply that will help ensure our county's water supply in the face of climate change. Valley Water's Board of Directors (Board) have set a goal to promote, protect, and expand potable and non-potable reuse within the county. At the July 31, 2024 Recycled Water Committee (Committee) meeting, the Committee asked staff to include a higher aspirational goal as part of the WSMP 2050, in addition to the 24,000 AFY potable reuse goal by 2035. Maintaining 24,000 AFY as the goal for portfolio modeling will provide the Board with flexibility to consider storage and supply projects in addition to potable reuse.

The following options for a higher aspirational goal were evaluated. The goal could be met with any combination of potable reuse and desalination, however, the options were developed based on actual potential projects and potential wastewater availability.

Option 1 45,000 AFY is based on potential available wastewater for potable reuse in Palo Alto, San

José and Sunnyvale. This analysis was previously presented to the Committee on December 6, 2023 and is summarized in the following table. This would be a high-cost option and would require amending the existing water transfer agreement with Palo Alto to allow for additional time for implementation and negotiating agreements with Sunnyvale in addition to San José.

Partner Agency	**Potential Future Wastewater Availability (AFY)**	**Potential Purified Water Production (AFY)**
Palo Alto	10,000	8,000
Sunnyvale	5,600	4,800
San José / Santa Clara	est. 40,000	24,000 - 32,000
SCRWA	Fully Utilized in the Summer	--
Countywide Total:	55,600	36,800 - 44,800

Option 2 48,000 AFY is based on a 24,000 AFY potable reuse project and a 24,000 AFY desalination project. Desalination feasibility is currently being studied as a back up to potable reuse. The cost of this option is estimated to be about $5.4 billion. Desalination could have higher greenhouse gas emissions and will face challenges with brine disposal. Some environmental stakeholders have expressed concern about desalination. The feasibility study approved by the Board on July 9, 2024 will provide additional information as to whether such a project would be feasible.

Option 3 32,000 AFY based on a Palo Alto and San José potable reuse project. The cost of this option would be $4.9 billion. The Palo Alto purified water project is currently being modeled as a Direct Potable Reuse project in the WSMP portfolio analysis.

Several of these options are already included in WSMP portfolios that were presented to the Board in July. The Local Control theme included one portfolio which included Option 2 and another portfolio that included Option 3. Option 1 has not been modeled specifically, but since it is close to the Option 2 amount it can be extrapolated that it would model in a similar manner. Based on WSMP modeling, if these portfolios were able to be implemented, no additional storage or supply projects would be needed except a smaller amount of groundwater banking. These Local Control portfolio costs range from $4.6 billion to $5.9 billion. In addition to being high-cost options, the portfolios with maximized potable reuse are more risky as they do not diversify storage and supply which is inconsistent with Valley Water's long-term planning goals.

At this time, with our current water supply system, a 24,000 AFY project is facing utilization issues, meaning that there is not sufficient demand, conveyance or storage during normal and wet years to utilize all of the water that would be produced, which is the majority of the time. A larger facility does not necessarily result in reduced per acre foot costs, if the water cannot be utilized in the system and risks overinvestment and stranded assets if the facility must be idled. Ultimately, the investment decision on potable reuse should be driven by the county's needs for water and considered along

with other projects being evaluated in the WSMP to meet the Board's goal of affordable water rates. Therefore, a phased approach, with a realistic starting goal and flexibility to increase later as deemed needed towards an aspirational goal, is recommended given the risk and uncertainty associated with future demand, wastewater availability, and social/economic conditions.

Valley Water has supported non-potable reuse by our wastewater partners. Currently our wastewater partners recycle eleven percent of wastewater countywide.

Facility	2023 Wastewater Treated (AF)[1]	2023 Recycled Water Produced (AF)[2]	Recycled Water: Wastewater
Palo Alto	23,000	1,800	8%
Sunnyvale	15,000	0[3]	0%
San José/ Santa Clara	112,000	12,500	11%
South County	8,000	2,500	31%
Total:	158,000	16,800	11%

1. eSMR data, accessed 7/10/2024. Sum of daily average influent values.
2. SCVWD Water Tracker. Voluntary survey data provided by respective agency staff.
3. Sunnyvale's recycled water system is currently impacted by ongoing capital improvements at the water pollution control plant.

Our wastewater partners have plans to increase non-potable recycling per their Urban Water Management Plans (UWMP).

Facility	2023 Nonpotable Recycled Water Produced (AF) [1]	2045 Nonpotable Recycled Water Projections[2] (AF)
Palo Alto	1,800	800
Sunnyvale	0[2]	1,700
San José/ Santa Clara	12,500	21,700
South County	2,500	4,100

1. SCVWD Water Tracker. Voluntary survey data provided by respective agency staff.
2. 2020 Urban Water Management Plan. Valley Water. June 2021 (attachment 4)
3. Sunnyvale's recycled water system is currently impacted by ongoing capital improvements at the water pollution control plant.

Non-potable recycling, in some cases, might be a cost-effective way to use the right quality water for the right use, including irrigation, cooling towers, and data centers. Recognizing the increases in non -potable uses, staff recommendation is for Option 3 to be included as the aspirational goal with a review at the next WSMP update to determine if there is a water supply need for a larger project.

ENVIRONMENTAL JUSTICE AND EQUITY IMPACT:

There are no environmental justice and equity impacts associated with this agenda item. This action is unlikely to or will not result in adverse impacts and is not associated with an equity opportunity.

ATTACHMENTS:
Attachment 1: Alternative Water Supply Project Costs.
Attachment 2: Water Supply Master Plan 2050 Portfolios
Attachment 3: PowerPoint
Attachment 4: Link to 2020 Urban Water Management Plan

UNCLASSIFIED MANAGER:
Kirsten Struve, 408-630-3138

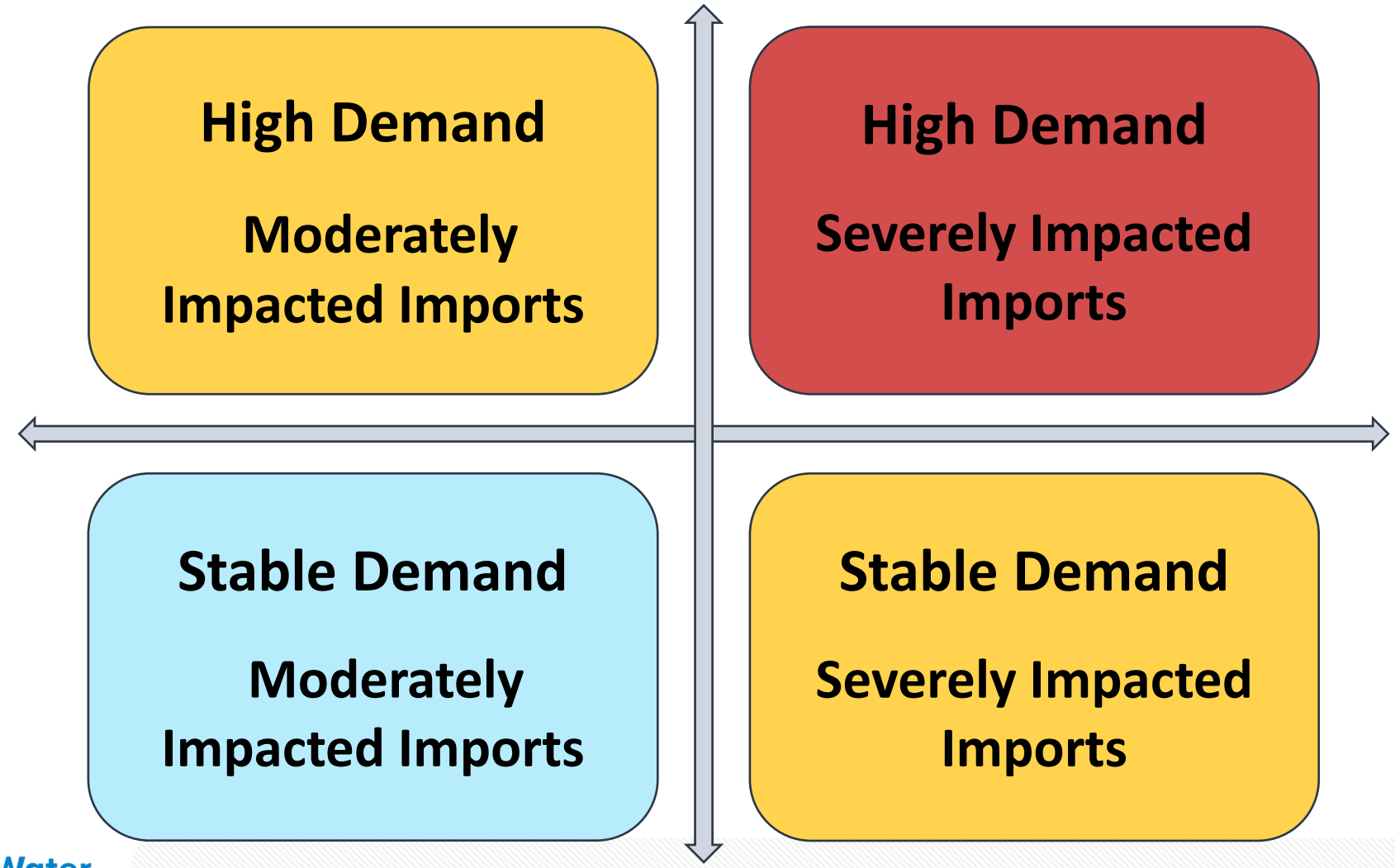
Water Supply Master Plan 2050 Development Update

Joint Water Resources Committee, April 2, 2025

WSMP 2050 Updates

- Goals
- Planning horizon
- Wider range of values
- Portfolio approach
- Recognition of uncertainty

Planning for Multiple Future Conditions



Water Supply Needs and Challenges

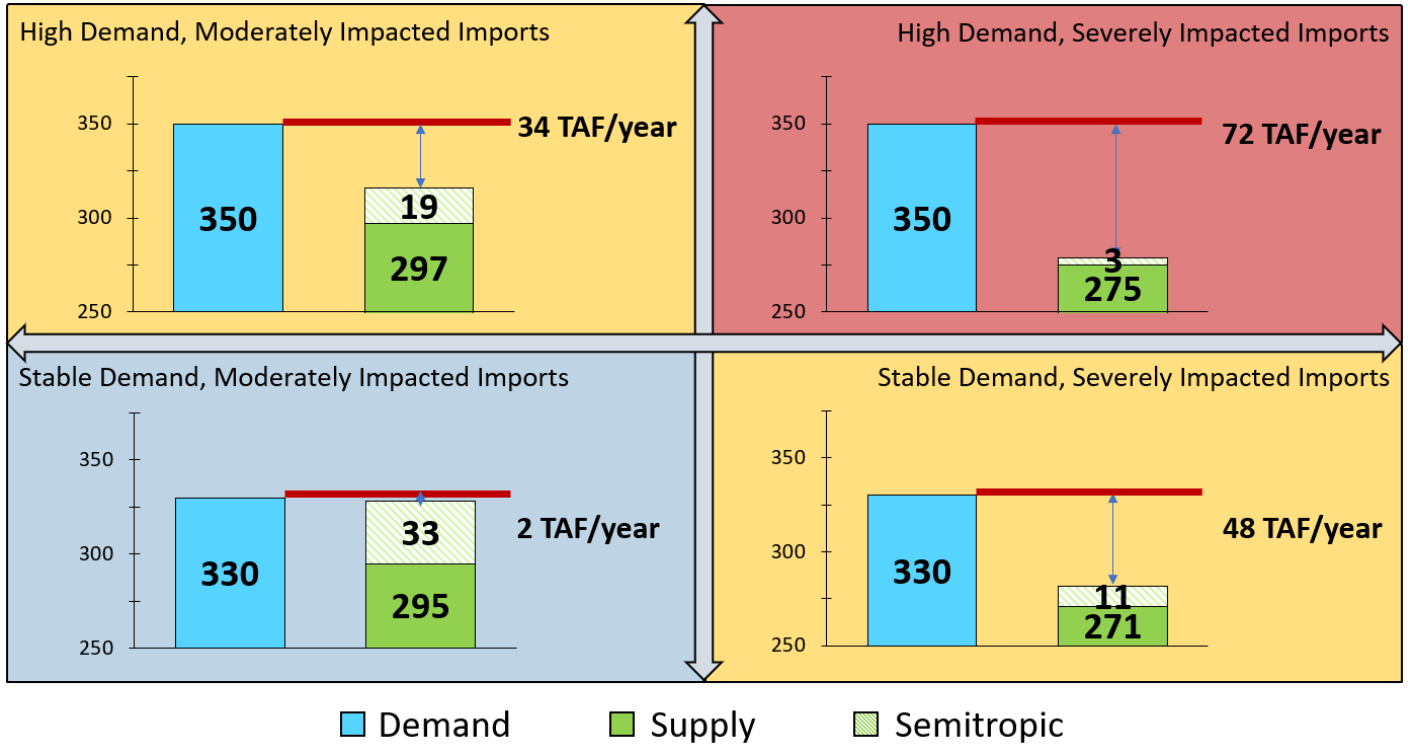
Multi-year droughts

Climate change impact

Aging infrastructure

Affordability

Annual shortage in a six-year drought in 2050



Project List Grouped by Primary Benefits

Alternative Supply

Palo Alto Potable Reuse

San José Direct Potable Reuse

Refinery Recycled Water Exchange

Local Seawater Desalination

Storage

Pacheco Reservoir Expansion

Groundwater Banking

B.F. Sisk Dam Raise

Surface Supply

Delta Conveyance Project

Sites Reservoir

Stormwater – Agricultural Land Recharge (FloodMAR)

Stormwater Capture

Recharge and Pipelines

Coyote Valley Recharge Pond

Lexington Pipeline

Lexington-Montevina Water Treatment Plant Connection

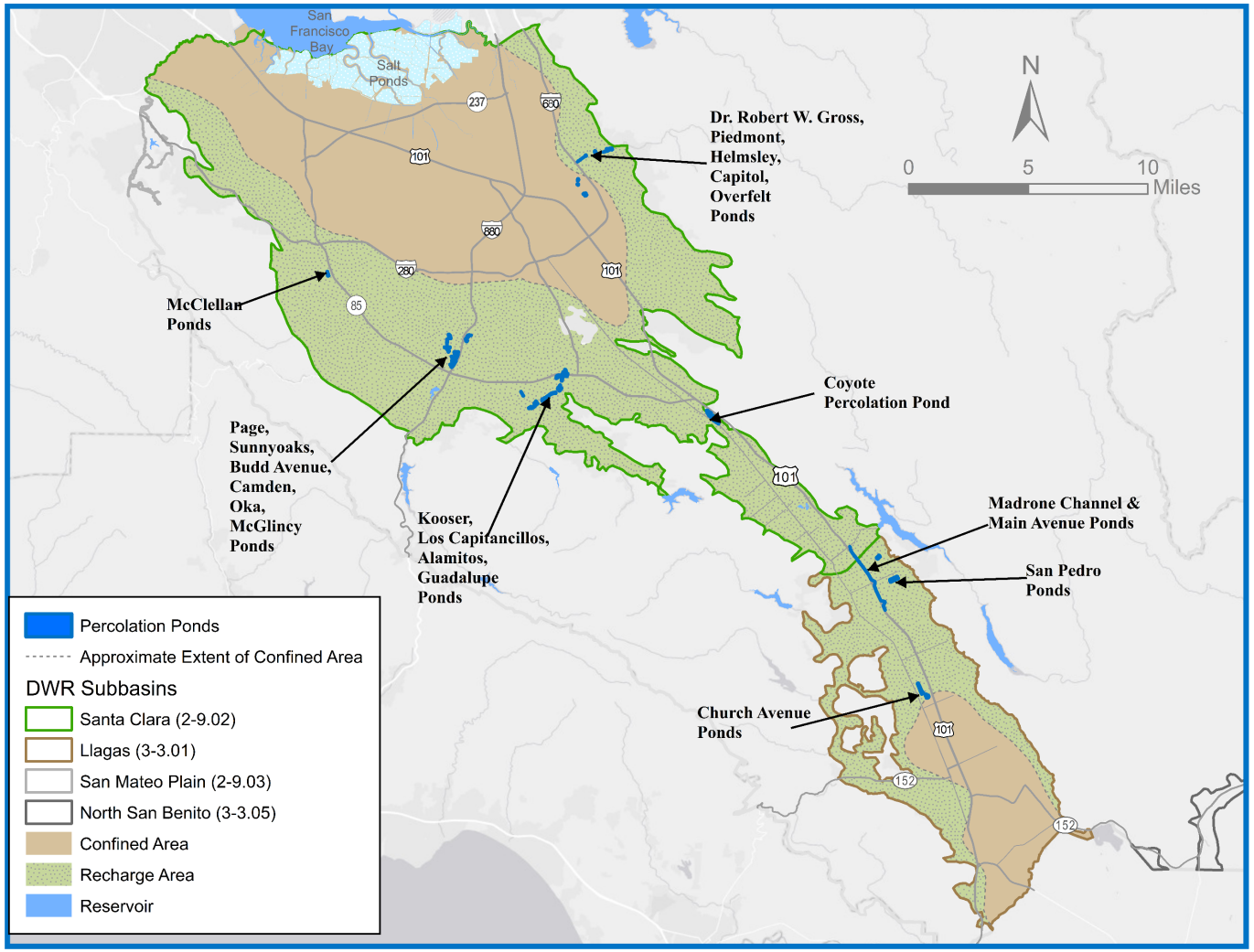
Butterfield Channel Managed Aquifer Recharge

Madrone Channel Expansion

San Pedro Ponds Improvement Project

South County Strategy

- Coyote Valley Recharge Pond
- Butterfield Channel Managed Aquifer Recharge
- Madrone Channel Expansion
- San Pedro Ponds Improvement Project
- Agricultural Land Recharge (FloodMAR)
- Water Reuse



Valley Water

Conservation and Potable Reuse Goals

- Water conservation goal
  - 126,000 AFY by 2050

- Potable reuse goal
  - 24,000 AFY by 2035
  - Long-term vision to maximize water reuse up to 32,000 AFY by 2050

Project Evaluation

- Water supply benefits
- Cost

- Reliability
- Likelihood of success
- Environmental impacts
- Jurisdiction and partnership
- Public acceptance

Cost of Major Supply Projects

All costs are in 2023 dollars

Project	Average Annual Supply (AF)	Capital Cost (Millions)	Annual O&M (Millions)	Present Value Lifecycle Cost* (Millions)	Lifecycle Cost PV/ Yield PV ($/AF)	Annualized Unit cost ($/AF)
Palo Alto Potable Reuse	8,000	$780	$13	$1,570	$10,200	$9,000
San José Direct Potable Reuse	24,000	$2,140	$30	$2,610	$6,400	$5,000
Local Seawater Desalination	24,000	$2,140	$30	$2,610	$6,400	$5,000
Refinery Recycled Water Exchange	8,000	$250	$9	$430	$2,800	$2,500
Delta Conveyance Project	14,000	$650	$2	$720	$2,700	$1,800
Sites Reservoir	5,000	$140	$0.6	$130	$1,200	$1,000

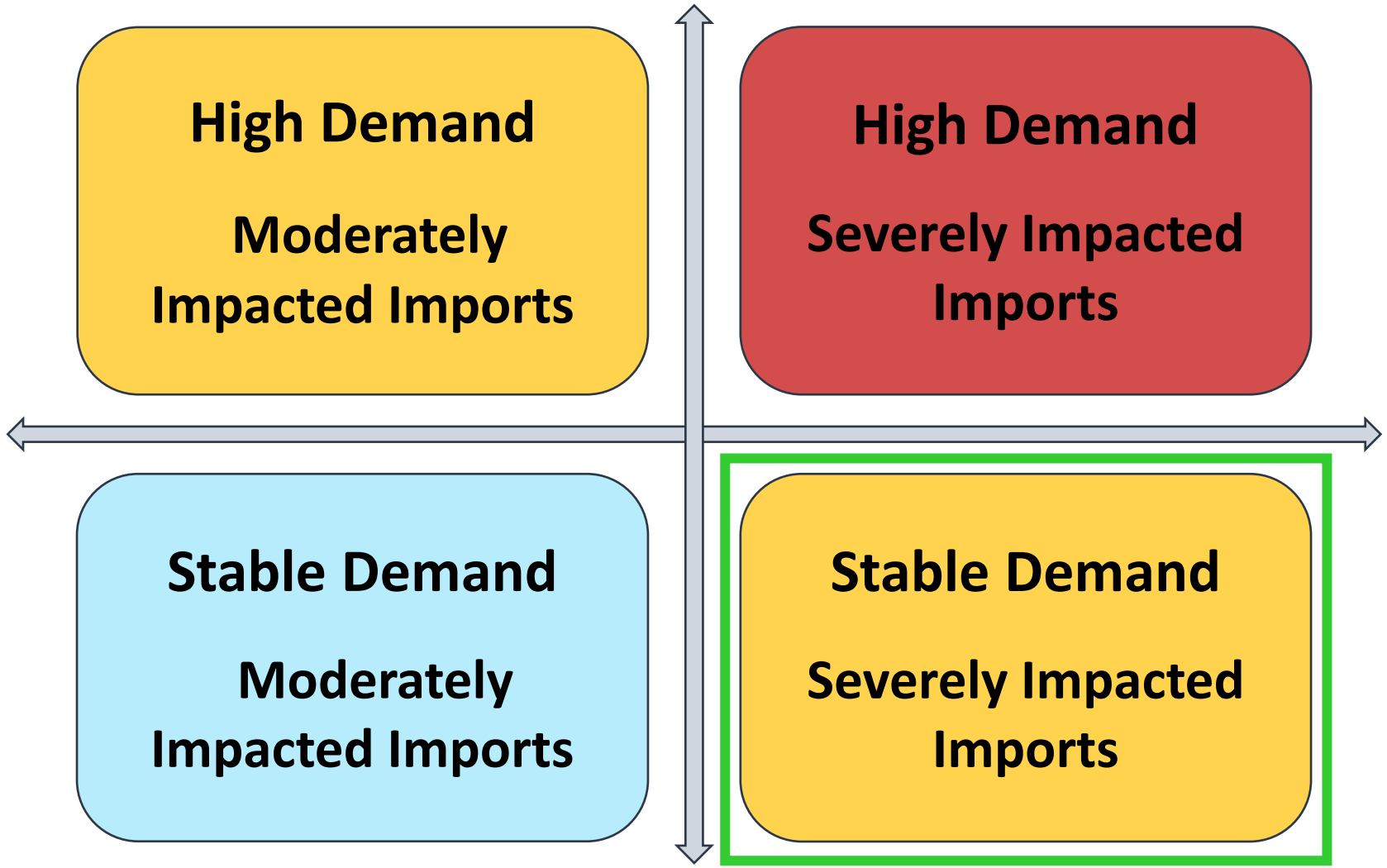
* Project lifecycles vary

Cost of Major Storage Projects

All costs are in 2023 dollars

Project	Storage (AF)	Capital Cost (Millions)	Annual O&M (Millions)	Present Value Lifecycle Cost (Millions)	Lifecycle Cost PV /Storage Capacity ($/AF)
Pacheco	140,000	$2,210	$2.5	$1,590	$11,400
B.F. Sisk Dam Raise	60,000	$440	$1.8	$470	$7,900
Groundwater Banking	350,000	$280	$2.8	$350	$1,000

Focusing on Middle-of-Road Condition



Portfolio Analysis

- Developed three themes to outline options and tradeoffs
  - Lower cost
  - Local control
  - Diversified
- Multiple feasible portfolios under each theme

Strategies for Water Supply Reliability

Lower Cost ($4 Billion)

Local Control ($5.9 Billion)

Diversified ($5.3 Billion)

Valley Water

Total cost represents Present Value of lifecycle cost in 2023 dollars

Rate Impact of Water Supply Strategies

Strategy *	FY 26 to FY 30	FY 31 to FY 35	FY 36 to FY 40	FY 41 to FY 45	FY 46 to FY 50
FY 2024-25 Adopted Rates & PAWS Report	*$2,985 / AF or $102.81 / month*	*$4,786 / AF or $164.82 / month*	*$7,385 / AF or $254.35 / month*	*$7,956 / AF or $273.99 / month*	*$7,956 / AF or $273.99 / month*
Lower Cost	**$2,866 / AF or $98.71 / month**	**$4,296 / AF or $147.96 / month**	**$6,581 / AF or $226.65 / month**	**$7,068 / AF or $243.42 / month**	**$7,068 / AF or $243.42 / month**
Local Control	**$3,359 / AF or $115.70 / month**	**$5,627 / AF or $193.80 / month**	**$8,134 / AF or $280.14 / month**	**$8,731 / AF or $300.69 / month**	**$8,835 / AF or $304.28 / month**
Diversified	**$3,100 / AF or $106.75 / month**	**$5,153 / AF or $177.45 / month**	**$7,686 / AF or $264.71 / month**	**$8,344 / AF or $287.37 / month**	**$8,377 / AF or $288.51 / month**

Valley Water

** Translation of portfolio costs to North County Zone W-2 Municipal & Industrial rate ($/AF), or average monthly impact to an average household (15 hundred cubic feet for purposes of this analysis). The FY 2024-25 PAWS Report can be found online at www.valleywater.org.*

High-level Cost of Shortage Estimates

- Cost of shortage (all in 2023$)

  Residential – willingness to pay ($1.6 - $2.8 Billion)

  Agricultural – crop production loss ($220 - $280 Million)

  Business – impact on sales revenue ($1.2 - $14.2 Billion)

  Subsidence – hard to quantify, potential billions of damages

Adaptive Management Framework

- Planning under deep uncertainty
  - Projects still evolving
  - Uncertainty with forecasted future supply and demand

- Adaptive management framework to provide flexibility for making incremental investment decisions

- Roadmap and annual reporting

Adaptive Management with Recommendations

NOW

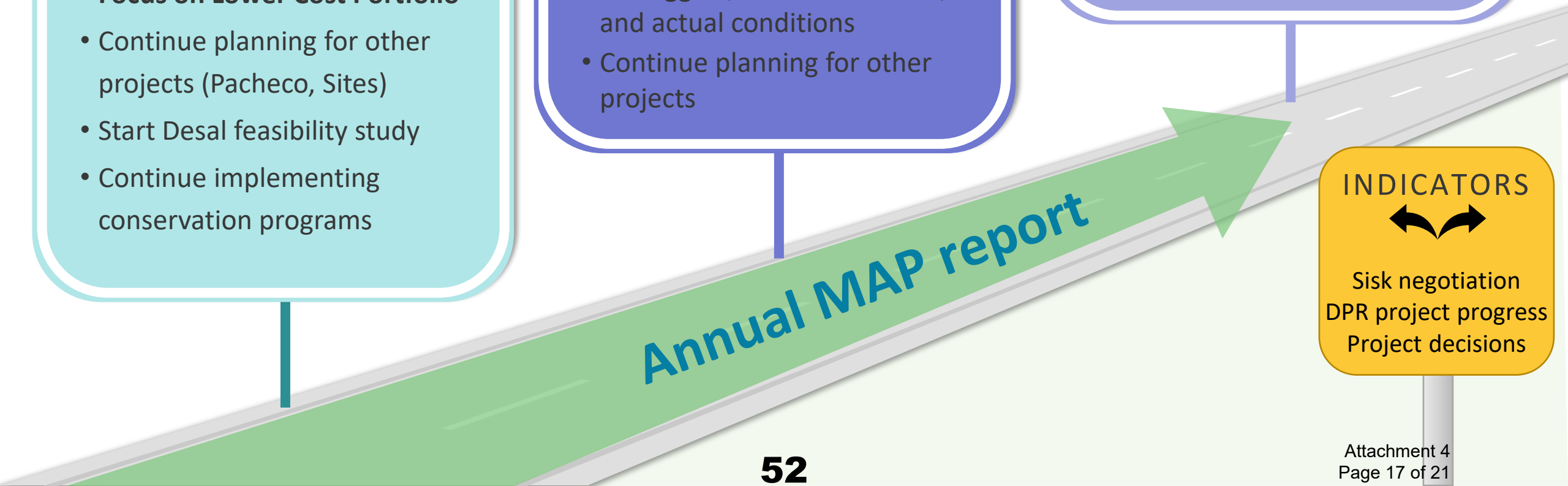
- **Focus on Lower Cost Portfolio**
- Continue planning for other projects (Pacheco, Sites)
- Start Desal feasibility study
- Continue implementing conservation programs

NEAR-TERM (2-3 YEARS)

- Assess progress on project planning and implementation
- Make project decisions based on triggers, new information, and actual conditions
- Continue planning for other projects

MID-TERM (5 YEARS)

- Assess progress on project implementation
- Update demand projections and water supply outlook
- Update WSMP



INDICATORS

Sisk negotiation
DPR project progress
Project decisions

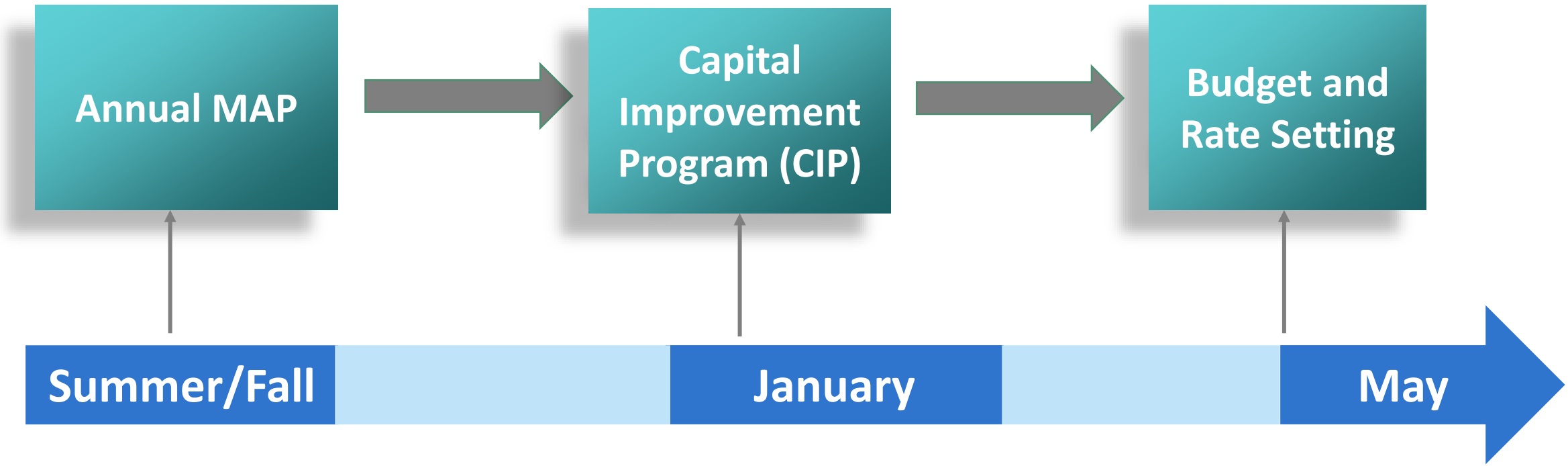
Annual Reporting

- Track project progress
- Report conditions of indicators
- Recommend actions as needed

- **Indicators**
  - Sisk negotiation
  - DPR project progress
  - Upcoming project decisions
  - Groundwater Bank negotiation
  - Regulatory and permitting issues
  - Annual supply
  - Annual water use
  - Conservation progress
  - Growth trend/demand
  - Regional agreements and decisions by other agencies

Valley Water

Annual MAP to Support Decision-Making



Stakeholder Engagement

- Various Committees
- Retailer meetings
- Stakeholder meeting and responses
- Newsletter/blog/social media
- Expert Panel

Next Steps

- Plan development
- Stakeholder outreach
- Plan adoption

File No.: 24-0881

Agenda Date: 4/2/2025
Item No.: 4.2.

COMMITTEE AGENDA MEMORANDUM
Joint WRC with Cities of Gilroy/Morgan Hill/SCRWA

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

SUBJECT:
Receive South County Water Reuse Collaboration Update and Provide Feedback.

RECOMMENDATION:
Receive an update and provide feedback on South County water reuse collaboration and implementation.

SUMMARY:

Since 1999 the Santa Clara Valley Water District (Valley Water), the City of Gilroy (Gilroy), and the City of Morgan Hill have collaborated to enhance and expand the use of non-potable water recycling in South Santa Clara County (South County). In 2017, the Joint Water Resources Committee (JWRC) was established to advance water resource interests in South County, which includes identifying future opportunities for purified and recycled water in South County, and determining funding to implement suggested projects based on the updated South County water reuse master plan. In 2021, the JWRC formed the Technical Working Group to evaluate opportunities and options to advance water reuse and purified water production and distribution in South County. The JWRC most recently received an informational update in June 2024.

Feasibility Study Update

Staff will discuss the status of Valley Water's 2023 United States Bureau of Reclamation (USBR) grant to develop a South County Recycled Water System Feasibility Study. This planning process will collaboratively evaluate opportunities and options for purified and recycled water reuse in South County and develop a water reuse strategy for the next decade. Valley Water has been working with USBR staff in Denver and Sacramento to develop an approved funding agreement. Valley Water is currently procuring technical services to support the feasibility and master planning processes. These plans will direct and support future grant funding for design and construction of South County water reuse projects under the USBR Title XVI grant program.

South County Recycled Water Pipeline

The Southern Alignment was first introduced in the 2004 Master Plan, updated in the 2015 Master Plan, and included a strategy to complete this pipeline through Developer Partnerships (e.g., Glen Loma Development). Since 2015, Vally Water has developed agreements with Gilroy and the developers to extend portions of the Southern Alignment as neighborhoods were constructed in the Glen Loma Development. In March 2022, Valley Water began construction on the South County Recycled Water Pipeline, part of the Southern Alignment, to expand the distribution of recycled water in Gilroy to serve new customers, improve service delivery through system redundancy during outages, and support future system expansion. The capital project included construction of recycled water pipeline that would connect the existing recycled water conveyance system to the South County Recycled Water Authority (SCRWA) wastewater treatment plant. Pipeline construction was coordinated with Gilroy and SCRWA and completed in 2024 except for one critical pipeline segment, Phase 1C.

Since 2020, Valley Water has been working with the developers and Gilroy to obtain a pipeline and construction easements necessary to complete the Phase 1C pipeline segment. In September 2024, Valley Water approved an agreement with the Green Valley Corporation to acquire the necessary easements for construction of the 1C pipeline segment through farmland. Pipeline construction will be coordinated with Gilroy and will commence in April 2025 after wet weather has cleared. The construction of the Pipeline 1C segment will significantly increase system capabilities along the original recycled water pipeline and provide system redundancy to support planned water reuse eastward of Highway 101.

ENVIRONMENTAL JUSTICE AND EQUITY IMPACT:
There are no environmental justice and equity impacts associated with this agenda item. This action is unlikely to or will not result in adverse impacts and is not associated with an equity opportunity.

ATTACHMENTS:
Attachment 1: PowerPoint

UNCLASSIFIED MANAGER:
Kirsten Struve, 408-630-3138

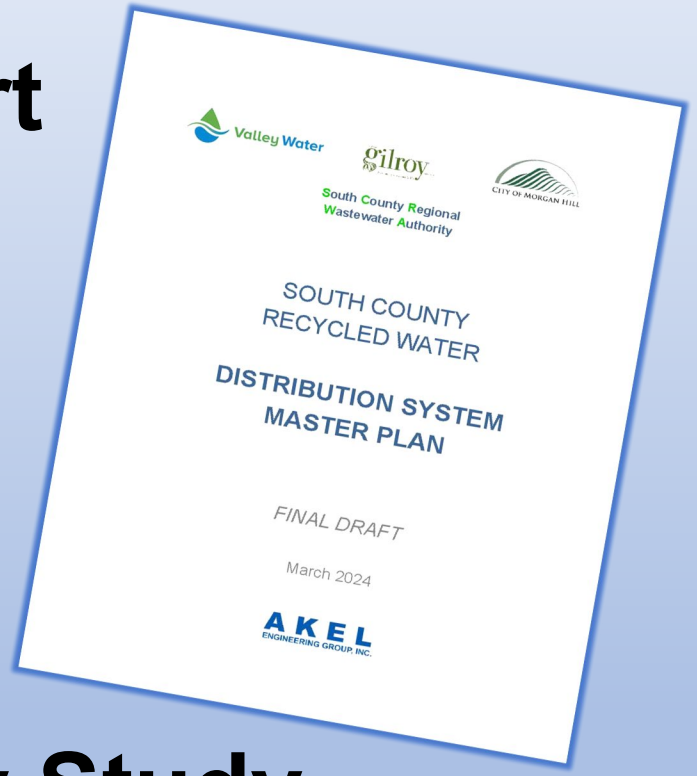
South Santa Clara County Water Reuse Collaboration

Joint Water Resources Committee Meeting
April 2, 2025

Valley Water

South County Feasibility Study Update

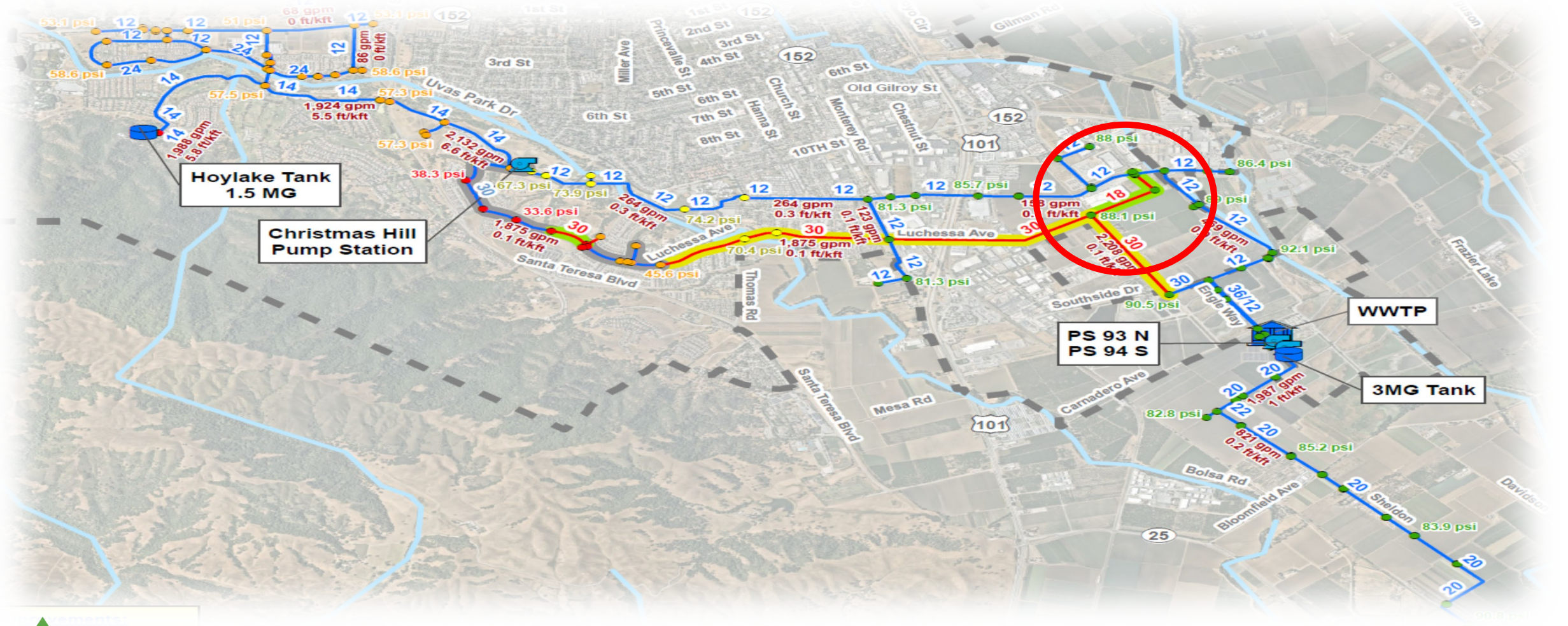
- USBR Feasibility Financial Support
- 2023 USBR Planning Grant
- 2024 Grant Agreement
- 2025 Master Planning - Feasibility Study



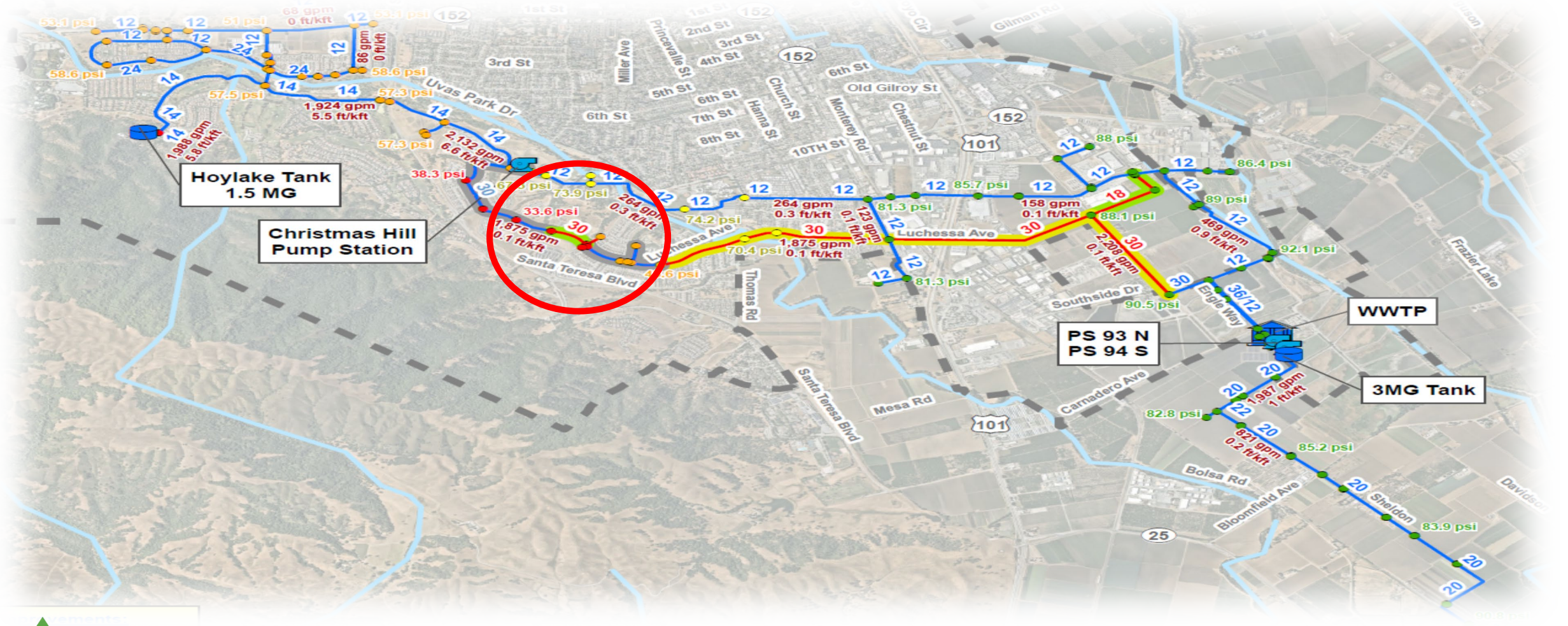
South County Recycled Water Pipeline

- Phase 1C Easement Acquisition
- 2025 Pipeline Construction
- Pipeline Master Planning

Recycled Water Phase 1C Pipeline



Recycled Water Southern Alignment



Valley Water

Clean Water • Healthy Environment • Flood Protection

Santa Clara Valley Water District

File No.: 24-0878

Agenda Date: 4/2/2025
Item No.: 4.3.

COMMITTEE AGENDA MEMORANDUM
Joint WRC with Cities of Gilroy/Morgan Hill/SCRWA

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

SUBJECT:
Review and Accept Joint Water Resources Committee 2025 Proposed Work Plan, and Confirm the Next Meeting Date.

RECOMMENDATION:
A. Review and accept the Joint Water Resources Committee 2025 Proposed Work Plan; and
B. Confirm the next meeting date.

SUMMARY:
Work Plans are created and implemented by all Board Committees to increase Committee efficiency, provide increased public notice of intended Committee discussions, and enable improved follow-up by staff. Work Plans are dynamic documents managed by Committee Chairs and are subject to change. Committee Work Plans also serve to assist to prepare an Annual Committee Accomplishments Reports. Discussion of topics as stated in the Plan have been described based on information from the following sources: • Items referred to the Committee by the Board; • Items requested by the Committee to be brought back by staff; • Items scheduled for presentation to the full Board of Directors; and • Items identified by staff.

ENVIRONMENTAL JUSTICE AND EQUITY IMPACT:
The review of the JWRC Work Plan is not subject to environmental justice analysis.

ATTACHMENTS:
Attachment 1: 2025 JWRC Proposed Work Plan

UNCLASSIFIED MANAGER:
Candice Kwok-Smith, 408-630-3193

THIS PAGE INTENTIONALLY LEFT BLANK

(Proposed) 2025 Joint Water Resources Committee Workplan

CATEGORY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
Water Supply Master Plan and South County Opportunities	Canceled			X						X		
South County Water Reuse Collaboration and Implementation □ Water Purification Potential for Future Water Supply				X		X				X		
South County Water Reuse Program Feasiblility Study				X		X				X		
STANDING ITEMS												
Elect Committee Chair and Vice Chair (Annually)				X								
Approval of Meeting Minutes				X		X				X		
Review Committee Work Plan				X		X				X		

*Yellow highlighted item – new or updated items on the work plan.
*Red font - removed item
Revised: 03/21/2025

THIS PAGE INTENTIONALLY LEFT BLANK