Santa Clara Valley Water District
Environmental and Water Resources Committee Meeting

HQ Boardroom
5700 Almaden Expressway
San Jose, CA 95118

REGULAR MEETING
AGENDA

Monday, October 21, 2024
6:00 PM

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

Charles Ice, Committee Chair
Arthur M. Keller, Committee Vice Chair

Director Barbara F. Keegan, District 2
Director Nai Hsueh, District 5
Director Tony Estremera, District 6

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John Bourgeois
Vincent Gin
(Staff Liaisons)

Dave Leon, (COB Liaison)
Assistant Deputy Clerk II
daveleon@valleywater.org
1-408-630-2006

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
Environmental and Water Resources Committee

REGULAR MEETING
AGENDA

Monday, October 21, 2024	**6:00 PM**	**HQ. Bldg. Boardroom, 5700 Almaden Expressway, San Jose, California**
		Join Zoom Meeting:
		https://valleywater.zoom.us/j/94403145442

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- Members of the Public are encouraged to review our overview on joining Valley Water Board Meetings at: https://www.youtube.com/watch?v=TojJpYCxXm0

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1. CALL TO ORDER:

1.1. Roll Call.

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

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

3. APPROVAL OF MINUTES:

3.1. Approval of July 15, 2024 Environmental and Water Resources Committee Minutes. 24-0950

Recommendation: Approve the minutes.

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

Attachments: Attachment 1: 071524 EWRC minutes

4. REGULAR AGENDA:

4.1. Receive Information and Provide Feedback on Valley Water's Water Supply Master Plan 2050. 24-0833

Recommendation: Provide feedback on the development of Water Supply Master Plan 2050.

Manager: Kirsten Struve, 408-630-3138

Attachments: Attachment 1: Project Summary
Attachment 2: 2050 Conservation Goal
Attachment 3: Potable Reuse Goal
Attachment 4: Additional Portfolios
Attachment 5: Link to Semitropic Groundwater Banking Updates
Attachment 6: WSMP Update

Est. Staff Time: 30 minutes

4.2. Review and Receive Updates on the Environmental and Water Resources Committee's Working Groups. 24-0939

Recommendation:
A. Review and receive updates on the Environmental and Water Resources Committee's Working Groups, and
B. Provide comments to the Board on implementation of Valley Water's mission applicable to working groups' recommendations.

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

Attachments: Attachment 1: EWRC Working Groups January 2024
Attachment 2: EWRC FINAL Working Group Restructure

Est. Staff Time: 5 minutes

4.3. Receive verbal update on the Anderson Dam Seismic Retrofit Project.

Est. Staff Time: 5 Minutes

4.4. Review Environmental and Water Resources Committee Work Plan, the Outcomes of Board Action of Committee Requests; and the Committee's Next Meeting Agenda. 24-0940

Recommendation: Review the Committee work plan to guide the committee's discussions regarding policy alternatives and implications for Board deliberation.

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

Attachments: Attachment 1: EWRC 2024 Work Plan
Attachment 2: EWRC Work Plan Appendix

Est. Staff Time: 5 minutes

5. STANDING ITEMS

5.1. Director's Reports.

5.2. Manager's Reports.

5. CLERK REVIEW AND CLARIFICATION OF COMMITTEE REQUESTS.

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

6. ADJOURN:

6.1. Adjourn to Regular/Special Meeting at 6:00 p.m. on January 27, 2025.

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Santa Clara Valley Water District

File No.: 24-0950

Agenda Date: 10/21/2024
Item No.: 3.1.

COMMITTEE AGENDA MEMORANDUM
Environmental and Water Resources Committee

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

SUBJECT:
Approval of July 15, 2024 Environmental and Water Resources Committee Minutes.

RECOMMENDATION:
Approve the minutes.

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

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

ENVIRONMENTAL JUSTICE IMPACT:
There are no Environmental Justice impacts associated with this item.

ATTACHMENTS:
Attachment 1: 071524 EWRC Minutes

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

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ENVIRONMENTAL AND WATER RESOURCES COMMITTEE

DRAFT MINUTES

Monday, July 15, 2024

(Paragraph numbers coincide with agenda item numbers)

A regularly scheduled meeting of the Environmental and Water Resources Committee (Committee) Meeting was held on July 15, 2024, at Santa Clara Valley Water District, Headquarters Building, 5700 Almaden Expressway, San Jose, California.

1. CALL TO ORDER/ROLL CALL

Committee Chair Charles Ice called the meeting to order at 6:03 p.m. A quorum was established with 11 members present.

Members in attendance were:

District 1: Loren Lewis
District 2: Chairperson Charles Ice, Shiloh Ballard
District 3: Charles Taylor, Bill Roth
District 4: Bob Levy
District 5: Mike Michitaka, Hon. Patrick S. Kwok
District 6: Jim Piazza
District 7: Tess Byler, Arthur M. Keller, Ph.D.

Members not in attendance were:
District 1: Swanee Edwards
District 6: Eleni Jacobson, Rebecca Gallardo

Board members in attendance were: Director Nai Hsueh (District 5) and Director Tony Estremera (District 6).

Director Richard Santos attended the meeting virtually.

Staff members in attendance were: Hossein Ashktorab, Aaron Baker, John Bourgeois, Navroop Jassal, Medi Sinaki, Stephanie Simunic, and Kristen Yasukawa.

Public in attendance were: Rebecca Eisenberg, Rebecca Gallardo, and Rick.

2. PUBLIC COMMENT

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

3. APPROVAL OF MINUTES

3.1 APPROVAL OF MINUTES

It was moved by Vice Chairperson Keller, seconded by Member Kwok, and majority vote carried, to approve the January 22, 2024 Committee meeting minutes as presented. Member Taylor abstained.

4. REGULAR AGENDA ITEMS

4.1. RECEIVE AN UPDATE ON DIRECT POTABLE REUSE (DPR) REGULATIONS AND THE DEVELOPMENT OF A POTABLE REUSE PROJECT.

Hossein Ashktorab reviewed the information on this item, per the attached Committee Agenda Memo, and the corresponding presentation materials contained in Attachment 1.

Aaron Baker, Hossein Ashktorab, and Kristen Yasukawa were available to answer questions.

The Committee received the information, took no formal action, and requested that staff report to the Committee relating to purified water perception polling.

4.2 VALLEY WATER'S HABITAT LANDS MITIGATION, CONSERVATION, AND MONITORING EFFORTS

John Bourgeois and Navroop Jassal reviewed the information on this item, per the attached Committee Agenda Memo, and the corresponding presentation materials contained in Attachment 1, and were available to answer questions.

The Committee received the information and took no formal action.

4.3 REVIEW AND RECEIVE UPDATES ON ENVIRONMENTAL AND WATER RESOURCES COMMITTEE'S WORKING GROUPS.

Chairperson Ice reviewed the item and requested that Commissioners consider chairing a working group.

The Committee received the information and took no formal action.

4.4 REVIEW ENVIRONMENTAL AND WATER RESOURCES COMMITTEE WORK PLAN, THE OUTCOMES OF BOARD ACTION OF COMMITTEE REQUESTS; AND THE COMMITTEE'S NEXT MEETING AGENDA.

Stephanie Simunic and John Bourgeois reviewed the information on this item, per the attached Committee Agenda Memo, and the corresponding presentation materials contained in Attachments 1 and 2 and were available to answer questions.

Chairperson Ice requested an item relating to groundwater banking on the January 2025 meeting agenda.

The Committee received the information and took no formal action.

5. STANDING ITEMS

5.1 DIRECTOR'S REPORTS

Director Hsueh discussed the Water Resources Protection Ordinance currently being considered by the Board and its Committees. She further noted that a summit relating to homeless encampment issues is scheduled for October 11, 2024.

5.2 MANAGER'S REPORTS
No reports were given.

6. CLERK REVIEW AND CLARIFICATION OF COMMITTEE'S REQUESTS TO THE BOARD
Stephanie Simunic noted the request on Item 4.1.

7. ADJOURNMENT
7.1 ADJOURN
Chairperson Ice adjourned the meeting at 7:23 p.m. to the next regular meeting on Monday, October 21, 2024 at 6:00 p.m.

Dave Leon
Assistant Deputy Clerk II

Date approved:

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Santa Clara Valley Water District

File No.: 24-0833

Agenda Date: 10/21/2024
Item No.: 4.1.

COMMITTEE AGENDA MEMORANDUM
Environmental and Water Resources Committee

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 2050.

RECOMMENDATION:
Provide feedback on the development of Water Supply Master Plan 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 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 April 2024 Committee meeting, staff presented the second update on the development of the WSMP 2050, including projected water shortage under four future supply and demand conditions, preliminary portfolio analysis, and example portfolios. 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 recommended water conservation and potable reuse goals.

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 76,000 acre-feet per year (AFY), depending on the projected demand and imported water supply conditions. These shortages are large and already account for 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 nearly 20 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)
  - Los Vaqueros Expansion (LVE)
  - 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 of Directors (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. The Recycled Water Committee recommends 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. This long-term vision includes additional potable and non-potable reuse, desalination, stormwater capture, and other alternative water sources. (Attachment 3). 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, water rate impacts, and the cost of shortage. The cost of shortage is defined as the dollar amount that water users would be willing to pay to avoid water shortage, which

is calculated based on the economic theory of demand and relies on price elasticities and forecasted demands (among other variables). 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. The portfolio cost analysis is discussed in a later section, and cost of shortage analysis will be included in a future Board update.

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

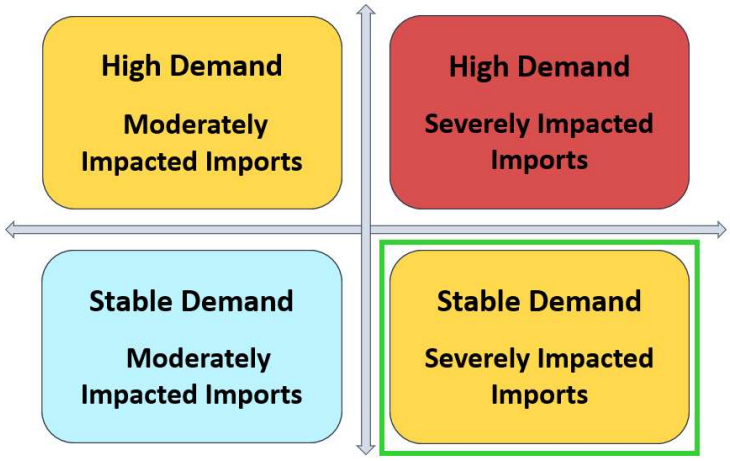
Table 2 Cost of Major Storage Projects (in 2023 Dollars)

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
Los Vaqueros Expansion	30,000	$260	$3.2	$350	$11,700
Groundwater Banking	350,000[1]	$280	$2.8	$350	$1,000

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

Overall Water Supply Strategy
As presented in the January Board 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 for this board update was focused on a future with stable demand and severely reduced imported water supplies. The portfolios evaluated for this condition also work for the best-case condition (stable demand and moderately impacted imports), generally perform similarly to another middle-of-road condition (high demand and moderately impacted imports), and serve as the foundation for developing portfolios for the worst-case condition (high demand and severely reduced imported supply). Given these similarities, this memorandum summarizes water supply portfolios for the stable demand/severely reduced imported water supply condition. Additional projects needed to address the worst-case future condition with high demand and severely reduced imports will be included in a future update.

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. Additional portfolios that would address projected shortages are provided in Attachment 4.

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, LVE, Sisk, Groundwater Banking (350,000 AF), South County Recharge	**$5.5**

[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. This project is also needed in nearly all other portfolios in the Attachment 4. It should also be noted that all strategies require Valley Water to either maintain existing level of storage or further diversify and develop additional storage.

As part of each portfolio evaluation, rate impacts for each portfolio were analyzed. The adopted FY 2024-25 water rates (commonly referred to as groundwater production charges), as presented to the Board in January, April and adopted in May 2024, most closely align with the Diversified portfolio. The Diversified portfolio includes an expanded investment in Groundwater Banking (350,000 AF) and higher Delta Conveyance Project (DCP) costs than are included in the FY 2024-25 rate-setting portfolio. Results are summarized in Table 4 below.

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

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 <../../../../L5/L5WordDoc/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

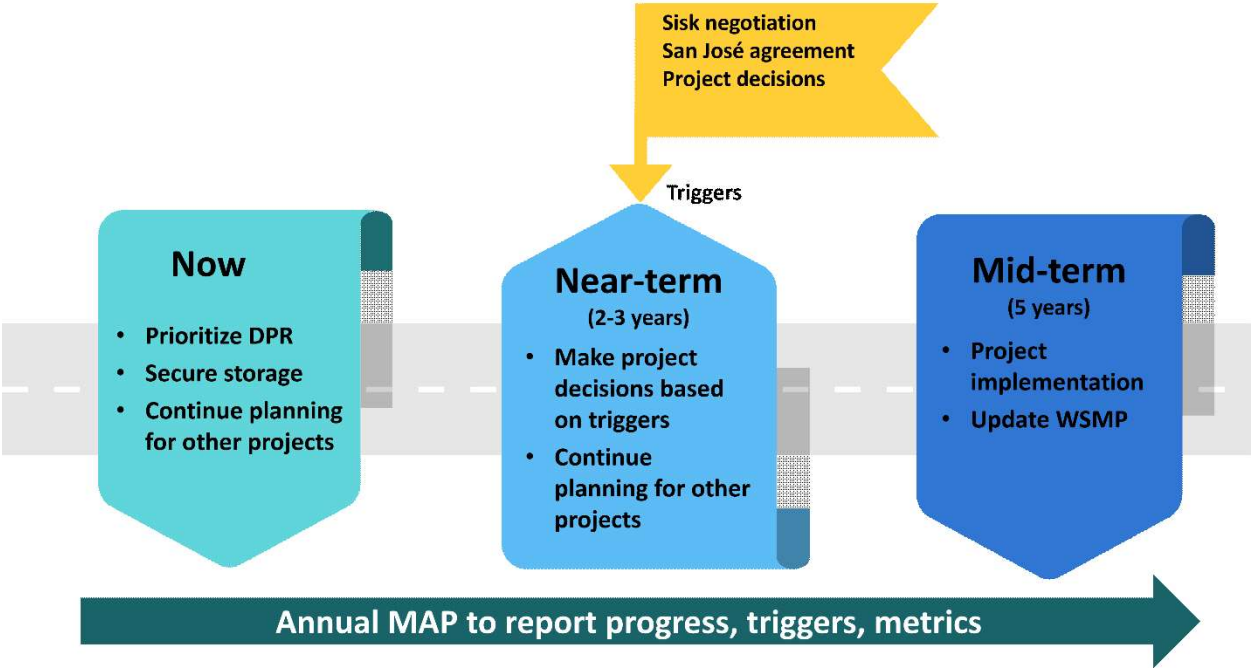
high local reliance on groundwater, there is a need for additional recharge capacity in South County.

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 triggers and conditions for project decisions, and the annual reporting tracks project progress and provides up-to-date information to help inform decision-making. A preliminary conceptual roadmap is presented in Figure 2.

Figure 2 Proposed Roadmap for Adaptive Management



With this adaptive framework, a critical component is reporting through the annual Monitoring and Assessment Program (MAP). A standard MAP report will be devised to include key elements of the WSMP, including progress on projects, conditions of triggers and 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.

Some example triggers and indicators that will guide as to whether to stay the course or pivot to different pathways include:

- Negotiations and agreements with other agencies (i.e., Sisk Dam Raise Project or direct potable reuse facility with the Cities of San José and Santa Clara)
- Timing of upcoming project decisions
- Groundwater bank negotiations
- Annual water use
- Annual supply
- Conservation measures (water savings, program participation)
- Imported water allocations
- Growth trend/demand

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.

Next Steps
Staff will finalize the analysis and roadmap and return to the Board for another update in the Fall. Staff will also start to draft the plan.

Groundwater Storage and Banking
This item includes an update requested by the Committee on groundwater banking. Valley Water has participated in the Semitropic Groundwater Banking and Exchange Program (Semitropic) since 1997 and has received significant benefit from the access to its storage capacity (Attachment 5). Semitropic is currently Valley Water's only out of county Groundwater Banking program. The WSMP analysis suggests that Valley Water needs to either maintain existing level of storage or further diversify and develop additional storage to meet future water supply needs. Currently, Valley Water may be overly dependent on Semitropic to meet its storage needs and is looking for new groundwater banking facilities to provide storage diversification and additional dedicated storage, which will optimize supplies available through Valley Water's existing imported water contracts. Valley Water is the Sustainable Groundwater Management Agency and has managed groundwater resources in Santa Clara County since 1929 through managed recharge.

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

ATTACHMENTS:
Attachment 1: Project Evaluation Summary
Attachment 2: 2050 Conservation Goal
Attachment 3: Potable Reuse Goal
Attachment 4: Additional Water Supply Portfolios
Attachment 5: Link to Semitropic Groundwater Banking Update
Attachment 6: 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
Los Vaqueros Expansion – Expand Los Vaqueros Reservoir storage from 160,000 to 275,000 AF and build the Transfer-Bethany Pipeline to connect the	Currently seeking to purchase at least 30,000 AF of dedicated storage to store imported supplies. The project can help diversify Valley Water's storage program and	Proposed storage currently under negotiation with the project's Joint Power Authority, CCWD maintains priority use, no guaranteed put/take	2033

reservoir to the California Aqueduct.	increase operational flexibility in conveying imported water.	timing and capacity for Valley Water, Operational and institutional complexity.	
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 be operationally integrated with the CVP.	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 and store CVP Section 215 and SWP Article 21 water when available, and increase operational flexibility.	Proposed storage is under negotiation. Requires moving a portion of Route 152.	2032
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

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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

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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

Attachment 4 – Additional Portfolios that Meet Water Supply Needs

	Portfolios						
Project	**Lower Cost**		**Local Control**		**Diversified**		
Palo Alto Potable Reuse					X		
San José Direct Potable Reuse	X		X	X	X	X	X
Local Seawater Desalination				X			
Refinery Recycled Water Exchange	X	X				X	
Delta Conveyance Project		X					X
Sites Reservoir						X	X
Pacheco Reservoir Expansion		With Partners	No Partners			With Partners	
Los Vaqueros Expansion		X					
B.F. Sisk Dam Raise		X			X	X	X
Groundwater Banking (Thousand Acre-Feet)	350	350	350	150	250	150	250
South County Recharge Projects	X	X	X	X	X	X	X
Portfolio Cost ($Billion)	**3.4**	**3.4**	**4.6**	**5.4**	**4.9**	**4.8**	**4.2**

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Link to Semitropic Groundwater Banking Updates:

https://scvwd.legistar.com/LegislationDetail.aspx?ID=6314390&GUID=8ADBE3FA-BB8A-4236-A203-AD3E9AB5B9F6

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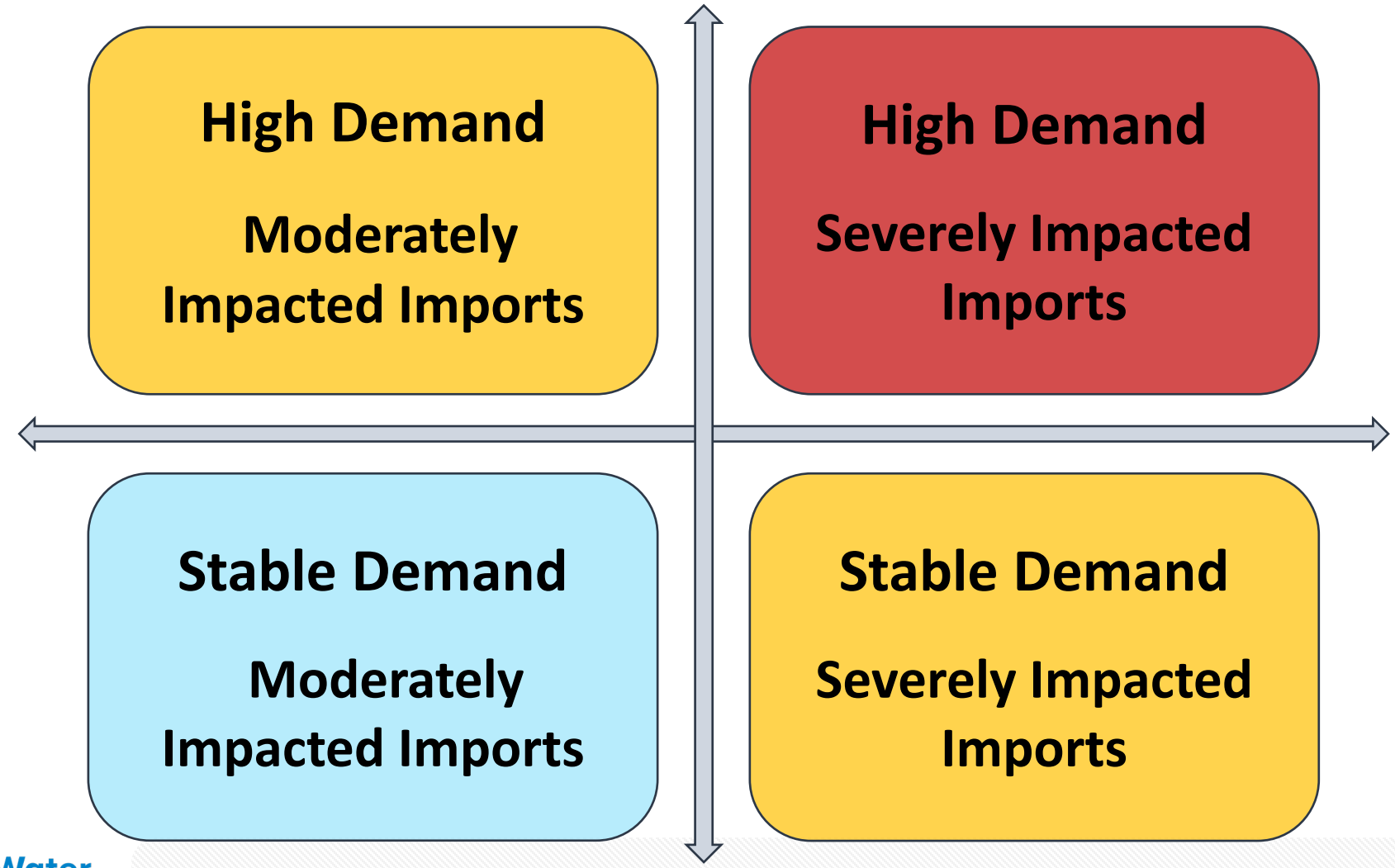
Water Supply Master Plan 2050 Development Update

Environmental and Water Resources Committee, 10/21/2024

WSMP 2050 Updates

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

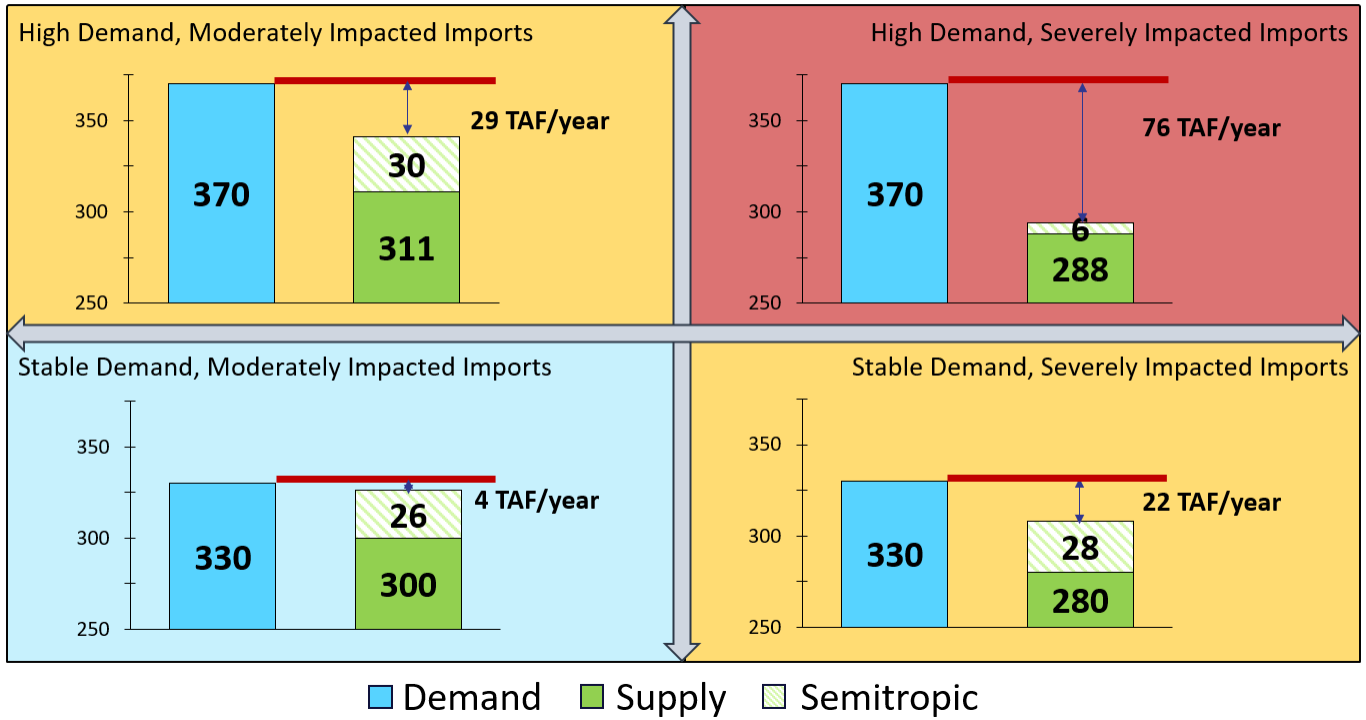
Planning for Multiple Future Conditions



Water Supply Needs and Challenges

- Multi-year droughts
- Climate change impact
- Aging infrastructure
- Affordability

Annual Shortage in 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

Surface Supply

Delta Conveyance Project

Sites Reservoir

Stormwater – Agricultural Land Recharge (FloodMAR)

Stormwater Capture

Storage

Pacheco Reservoir Expansion

Los Vaqueros Expansion

Groundwater Banking

B.F. Sisk Dam Raise

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

Project Evaluation

- Water supply benefits
- Cost

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

Benefits of Major Projects

- Drought supply
- Storage diversification
- Increased system reliability and flexibility
- Emergency storage
- Ability to capture excess CVP and SWP water
- Environmental benefits

Project Risks and Challenges

- Affordability
- Environmental impacts
- Contingent on agreement with other agencies
- Implementation complexity
- Operational and institutional complexity
- Public acceptance

Cost Analysis

- Project cost estimates
  - Total lifecycle cost
  - Unit cost
- Cost of portfolios
- Impact on water rate
- Cost of shortage

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

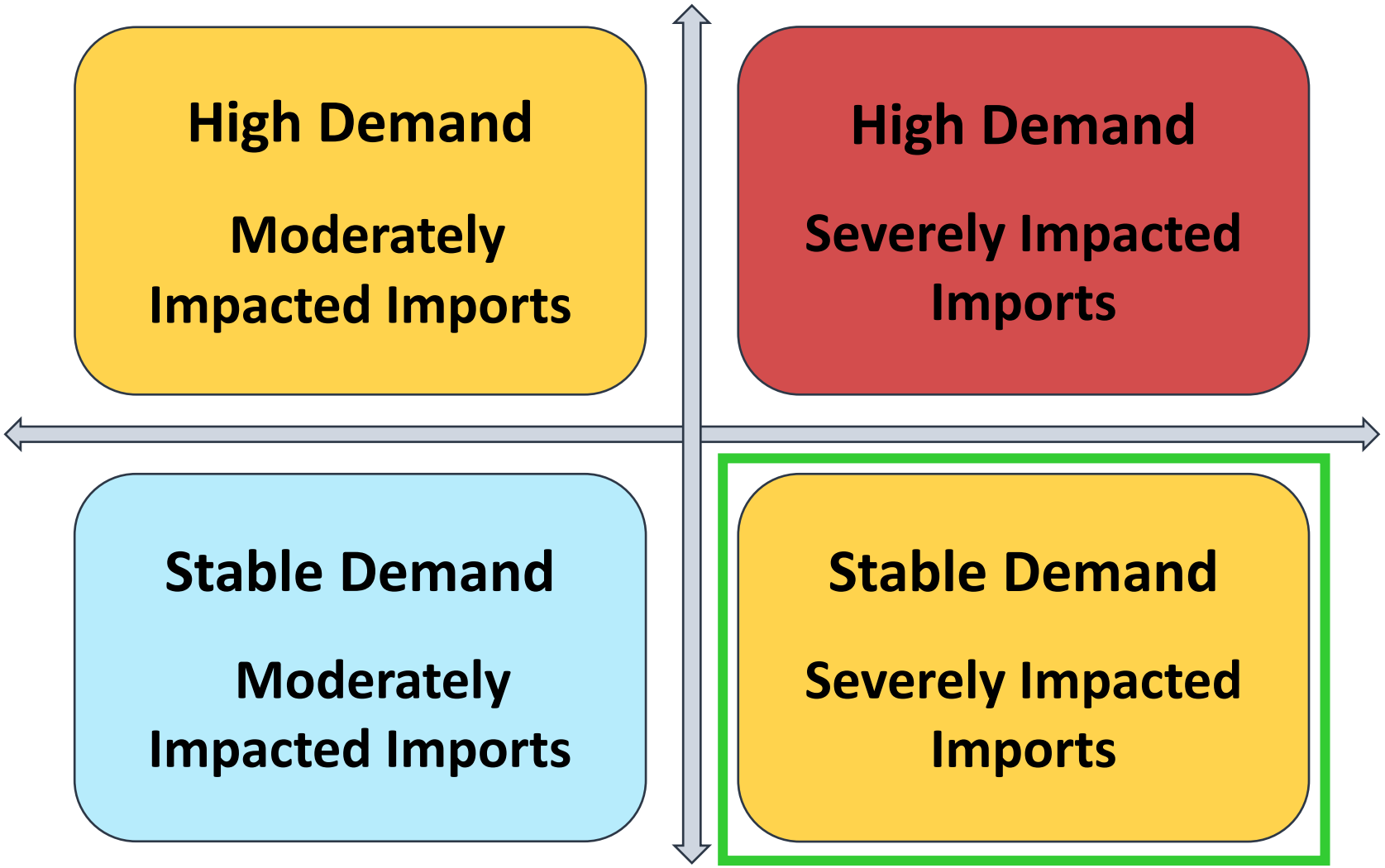
Project	Storage (AF)	Capital Cost (Millions)	Annual O&M (Millions)	Present Value Lifecycle Cost (Millions)	Lifecycle Cost PV /Storage Capacity ($/AF)
Pacheco	140,000	$2,210	$2.5	$1,590	$11,400
B.F. Sisk Dam Raise	60,000	$440	$1.8	$470	$7,900
Los Vaqueros Expansion	30,000	$260	$3.2	$350	$11,700
Groundwater Banking	350,000	$280	$2.8	$350	$1,000

Conservation and Potable Reuse Goals

- Board adopted water conservation goal
  - 126,000 AFY by 2050

- Recycled Water Committee recommended potable reuse goal
  - 24,000 AFY by 2035
  - Long-term vision to maximize water reuse

Focusing on Middle-of-Road Condition



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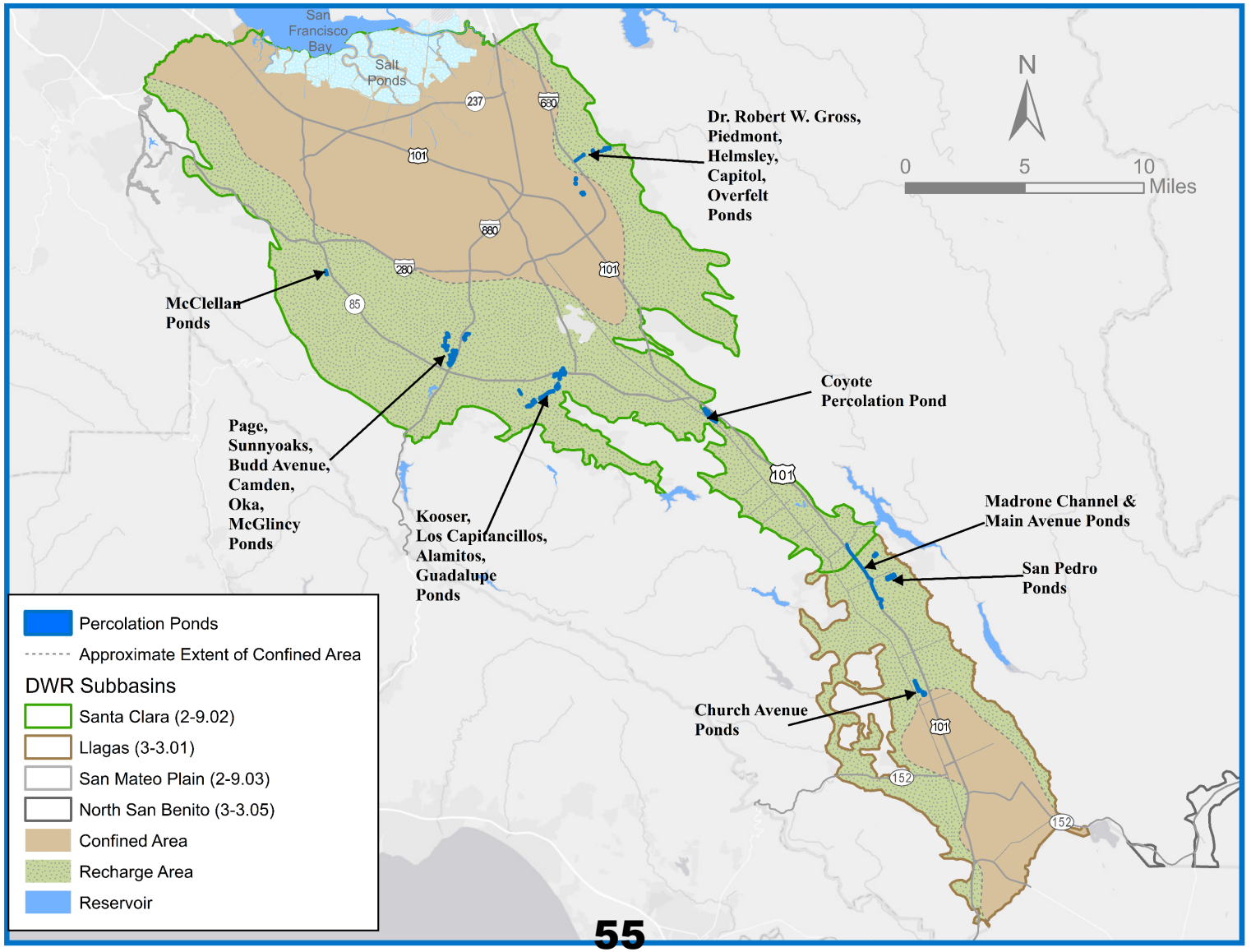
Portfolio Analysis

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

Groundwater Recharge



Groundwater Banking

- 350,000 (AF) of contracted storage
- Annual Put/take around 31,000 AF

Strategies for Water Supply Reliability

Lower Cost ($4 Billion)

Local Control ($5.9 Billion)

Diversified ($5.5 Billion)

Valley Water

Total cost represents Present Value of lifecycle cost in 2023 dollars

Rate Impact of Water Supply Strategies

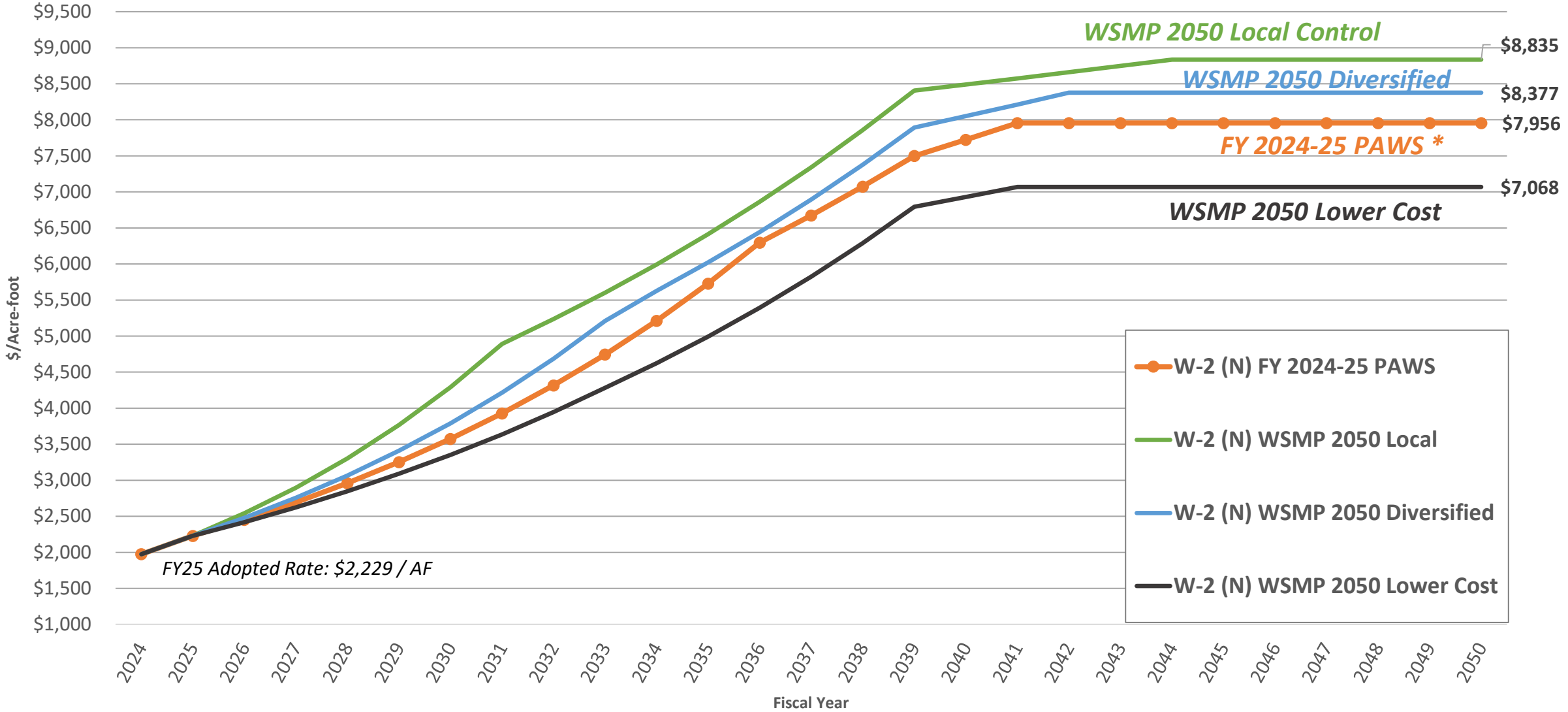
Strategy *	FY 26 to FY 30	FY 31 to FY 35	FY 36 to FY 40	FY 41 to FY 45	FY 46 to FY 50
FY 2024-25 Adopted Rates & PAWS Report	*$2,985 / AF or $102.81 / month*	*$4,786 / AF or $164.82 / month*	*$7,385 / AF or $254.35 / month*	*$7,956 / AF or $273.99 / month*	*$7,956 / AF or $273.99 / month*
Lower Cost	**$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.*

WSMP 2050 Strategies

North County Groundwater Production Charge Projection M&I ($/Acre-Foot)



Valley Water

** FY 2024-25 PAWS represents long-range rate projections as presented to the Board March 26, 2024, and is equivalent to Diversified portfolio excluding Groundwater Banking (350,000 AF) and increased DCP costs.*

Portfolio Evaluation Summary

- No single project can address all future needs
- Different strategies to achieve water supply reliability, with tradeoffs
- Importance of drought resilient supplies and diversifying storage

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

Projects	Estimated Decision Points					Project Online Date
	2024	2025	2026	2027	2028	
San José Direct Potable Reuse						**2033**
Los Vaqueros Expansion		Final Funding Decision				**2033**
B.F. Sisk Dam Raise	Planning Funding Decision	Final Construction Funding				**2032**
Pacheco			Final EIR/EIS Certification	Final Partnership Negotiations		**2035**
Sites Reservoir		Final Funding Decision				**2032**
Delta Conveyance Project	Funding Decision			Final Contract Decision		**2045**

Sisk negotiation
San José agreement
Project decisions

Triggers

Now

- Prioritize DPR
- Secure storage
- Continue planning for other projects

Near-term
(2-3 years)

- Make project decisions based on triggers
- Continue planning for other projects

Mid-term
(5 years)

- Project implementation
- Update WSMP

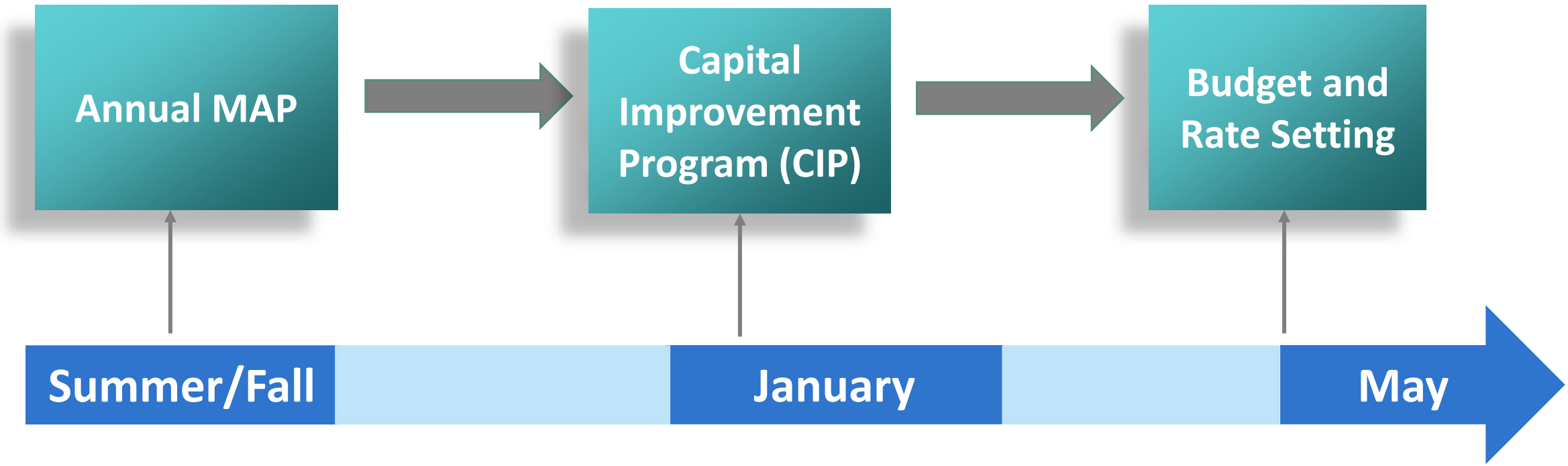
Annual MAP to report progress, triggers, metrics

Example Triggers and Metrics to Track

- **Key triggers**
  - Sisk negotiation
  - San José agreement
  - Upcoming project decisions
  - Groundwater Bank negotiation

- **Metrics to track**
  - Annual supply
  - Annual water use
  - Conservation progress
  - Growth trend/demand

Annual MAP to Support Decision-Making

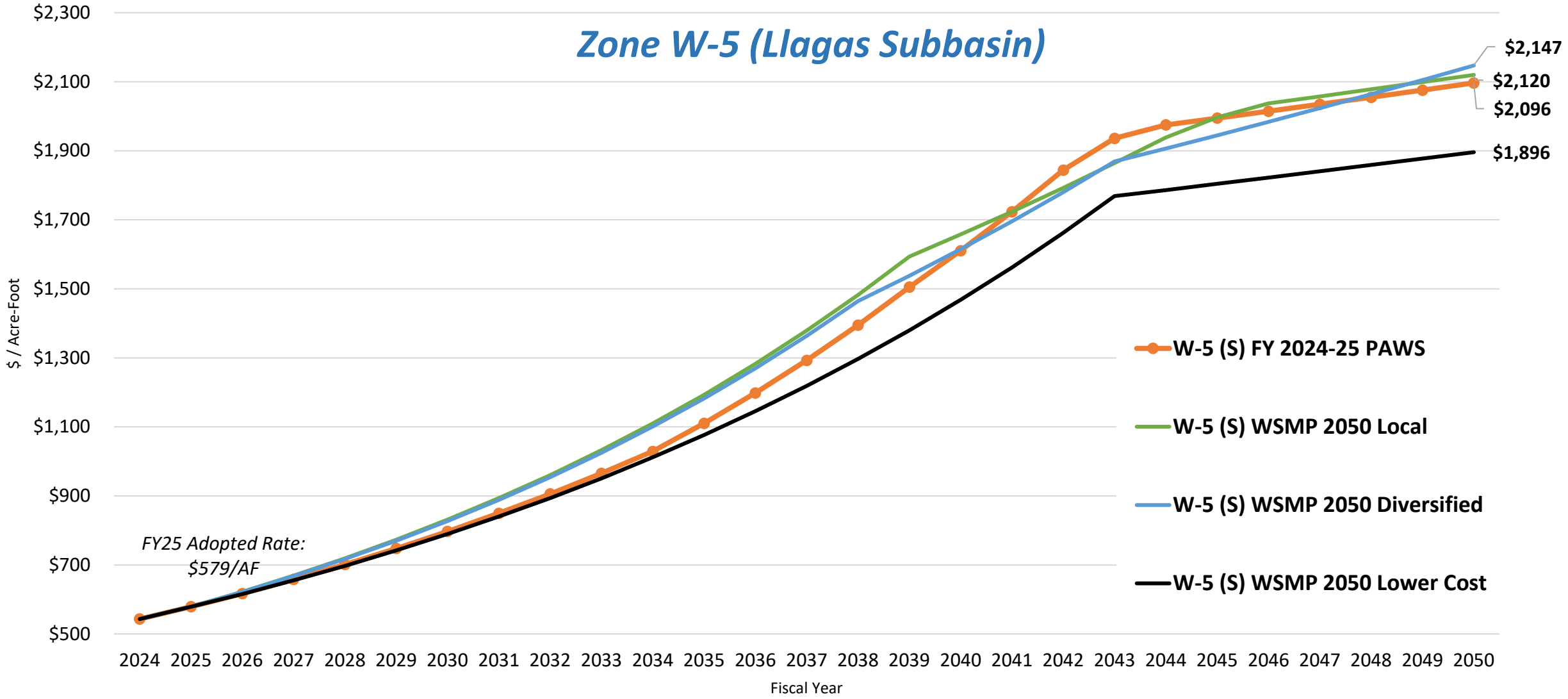


Next Steps

- Roadmap and recommendations
- Plan development
- Stakeholder outreach
- Plan adoption

Backup

WSMP 2050 Strategies
South County Groundwater Production Charge Projection M&I ($/Acre-Foot)

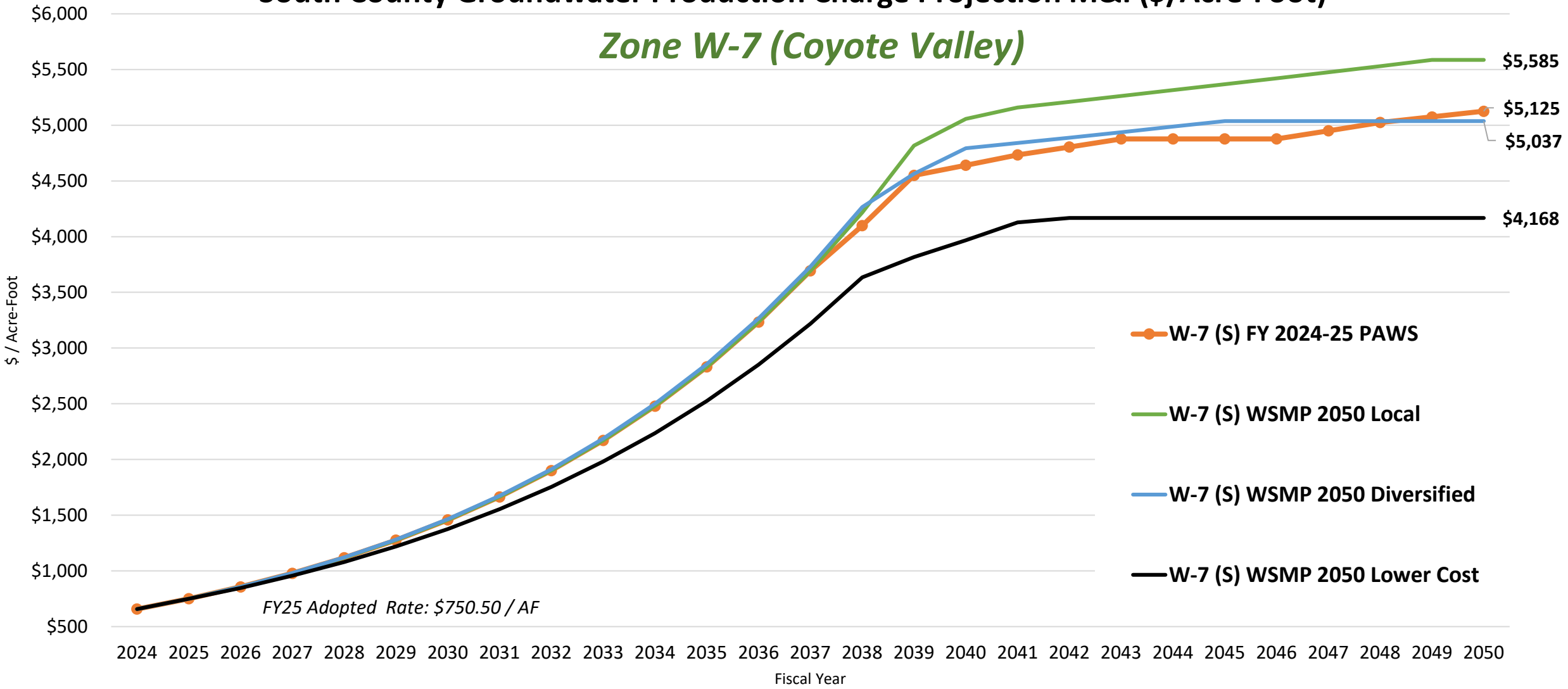


Valley Water

** FY 2024-25 PAWS represents long-range rate projections as presented to the Board March 26, 2024, and is equivalent to Diversified portfolio excluding Groundwater Banking (350,000 AF) and increased DCP costs.*

WSMP 2050 Strategies

South County Groundwater Production Charge Projection M&I ($/Acre-Foot)



Valley Water

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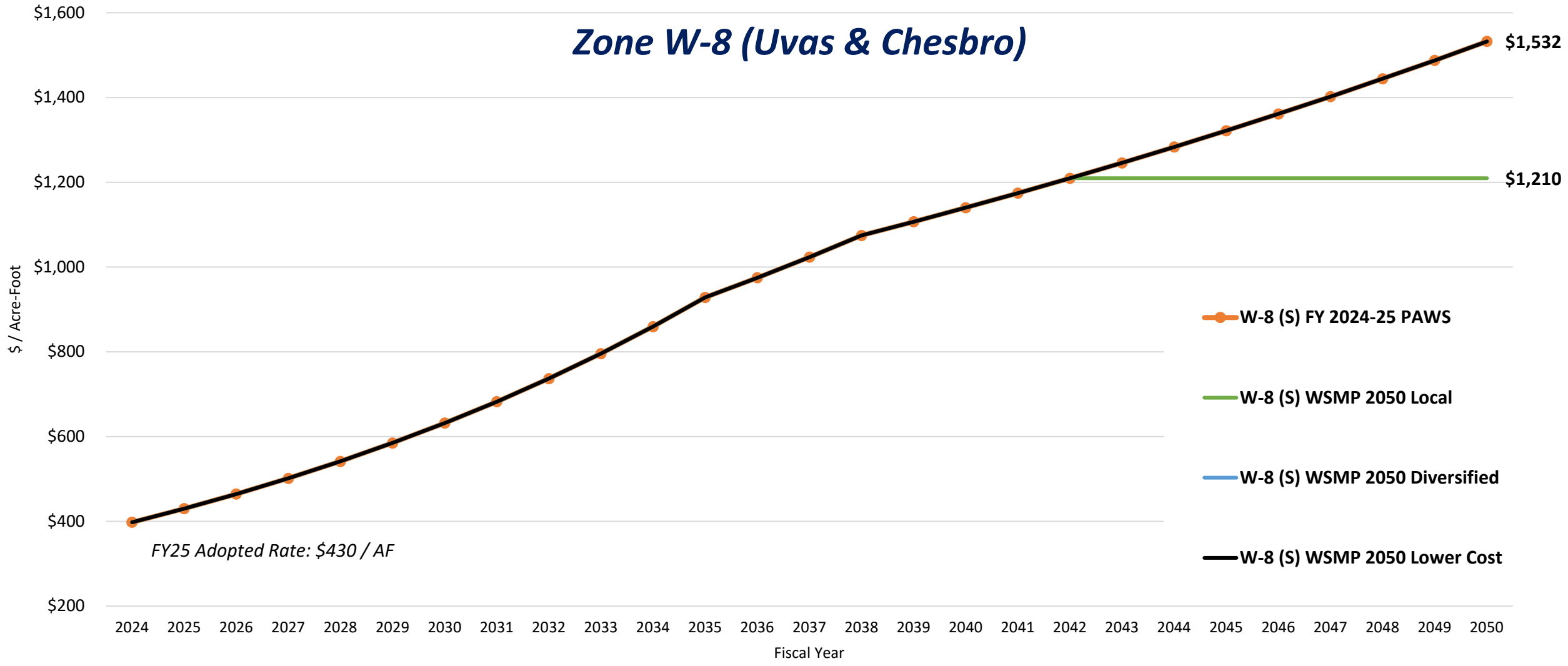
WSMP 2050 Strategies
South County Groundwater Production Charge Projection M&I ($/Acre-Foot)



Valley Water

** FY 2024-25 PAWS represents long-range rate projections as presented to the Board March 26, 2024, and is equivalent to Diversified portfolio excluding Groundwater Banking (350,000 AF) and increased DCP costs.*

Santa Clara Valley Water District

File No.: 24-0939

Agenda Date: 10/21/2024
Item No.: 4.2.

COMMITTEE AGENDA MEMORANDUM
Environmental and Water Resources Committee

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

SUBJECT:
Review and Receive Updates on the Environmental and Water Resources Committee's Working Groups.

RECOMMENDATION:

A. Review and receive updates on the Environmental and Water Resources Committee's Working Groups, and

B. Provide comments to the Board on implementation of Valley Water's mission applicable to working groups' recommendations.

SUMMARY:
At the Committee's October 2021, meeting, the Committee approved the working groups' structure to align with the issues and policies that the Board of Directors has on their work plan and calendar for the fiscal year.

The Board will continue to keep the Committee informed of the working groups' activities and results.

This will be a standing agenda item.

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 Board 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, Board 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 Board's 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: EWRC Working Groups April 2024
Attachment 2: EWRC FINAL Working Group Restructure

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

FY 2023-2024 EWRC Working Groups

PLEASE SIGN UP TODAY!

Working Group Number/Title	Member Name	Lead	Total Members
EWRC Oversight Manager: John Bourgeois, jbourgeois@valleywater.org, 1-408-630-2990			
1 INTEGRATED WATER RESOURCES MANAGEMENT:			
Valley Water Staff Liaison: Brian Mendenhall, bmendenhall@valleywater.org, 1-408-630-3093	Tess Byler Charles Ice Loren Lewis		3
2 WATER SUPPLY:			
Valley Water Staff Liaison: Jing Wu, jwu@valleywater.org, 1-408-630-2330	Arthur M. Keller, Ph.D. Hon. Patrick S. Kwok Mike Michitaka Jim Piazza		4
3 NATURAL FLOOD PROTECTION:			
Valley Water Staff Liaison: Katie Muller, kmuller@valleywater.org, 1-408-630-2934	Arthur M. Keller, Ph.D. Mike Michitaka Charles Taylor		3
4 ENVIRONMENTAL STEWARDSHIP:			
Valley Water Staff Liaison: John Bourgeois jbourgeois@valleywater.org, 1-408-630-2990	Swanee Edwards Bob Levy Jim Piazza	Bob	3
5 CLIMATE CHANGE:			
Valley Water Staff Liaison: Brian Mendenhall, bmendenhall@valleywater.org, 1-408-630-3093	Bob Levy Charles Taylor	Bob	2

FY 2023-2024 EWRC Working Groups

PLEASE SIGN UP TODAY!

Working Group Number/Title	Member Name	Lead	Total Members
Lead Member			

SPECIAL NOTES:

See 2021 EWRC Working Group Restructure Guidelines.

Members should limit the number of working groups they participate in because of possible Brown Act Violations (2-3 groups only).

Please Note: You will be sharing your phone number and email address with the other members when signing up for a working group.

When planning meetings, the Group Chair (Lead) should contact Dave Leon via email (daveleon@valleywater.org) and John Bourgeois (jbourgeois@valleywater.org) with meeting date/time and location and how many members are expected to attend.

Environmental and Water Resources Committee

Draft Work Plan Revisions, Working Groups

Originated on August 10, 2021

(Latest revision: October 19, 2021)

The Environmental and Water Resources Committee (EWRC) has a broad mandate that includes all aspects of the Valley Water mission (see attached excerpt from Board Resolution 17-75). However, this broad mandate can at times result in a dilution of purpose. These draft work plan revisions are aimed at focusing the EWRC's efforts in a way that takes better advantage of the resources and experience of a strong and diverse membership, while strengthening the advisory role of the EWRC to the benefit of the Valley Water Board and staff.

The EWRC takes its direction from the Board. Action items as directed by the Board will take top priority in Committee business.

The defined roles of the EWRC are to:

1. Provide input on policy.
2. Provide comment on activities in the implementation of Valley Water's mission.
3. Act as a link between Valley Water and the public.
4. Produce and present an Annual Accomplishments Report.

With these simple guiding principles in mind, to make the committee more directly connected to its stated purpose, we propose the following structure:

Policy and Implementation Input (roles 1 and 2 above)

The formation of 5 Working Groups:

1. **Integrated Water Resources Management** (sample topics: One Water Plan [Integrated Water Resources Master Plan], Flood-MAR [Managed Aquifer Recharge], Green stormwater infrastructure); staff liaison: Senior Water Resources Specialist overseeing One Water (currently Brian Mendenhall)
2. **Water Supply** (sample topics: Anderson Dam Seismic Retrofit project, Purified Water, Pacheco Reservoir Expansion Project); staff liaison: Senior Water Resources Specialist (currently Jing Wu)
3. **Natural Flood Protection** (sample topics: Shoreline Phase 2, Upper Penitencia Creek); staff liaison: Unit Manager (currently Afshin Rouhani)
4. **Environmental Stewardship** (sample topics: FAHCE, habitat connectivity and riparian corridors, fish passage including gravel and LWD); staff liaison: Unit Manger (currently Lisa Porcella)
5. **Climate Change** (sample topics: Climate Change Action Plan [CCAP] Implementation, GHG methodology updates); staff liaison: Senior Water Resources Specialist overseeing CCAP (currently Brian Mendenhall)

Access to the staff liaisons should be used respectfully, with the intent of 1) clarifying questions on specific topics and 2) obtaining access to background information and/or resources being provided to other committees.

Each Working Group will have 4-8 members and will designate a Lead.

Assigned Work: Assigned tasks by the Board will take priority for the EWRC. When input on an issue is desired by the Board, the item will go first to the Working Group (unless time does not permit and the WG feels the item can go straight to the full Committee). The Working Group will then present recommendations to the full committee for action if deemed appropriate.

Proactive Topics: If there are items that the EWRC would like more information on, and they are not an item requested from the Board, we suggest the following process:

- When applicable, EWRC liaison (see below) will attend the relevant Board or Committee where the item is being discussed.
- Discuss the item at the Working Group level to see if there is consensus on whether an item is appropriate to be brought to the entire Committee.
- Bring the item to the full EWRC during the standing agenda item to review the work plan and vote on whether or not to fully agendize the item for discussion at a subsequent meeting. If time is short, the Working Group Lead may bring the item to the Chair and Vice Chair of the EWRC who will consult with staff and may agendize it for the next meeting.
- Questions to consider when voting on an item:
    - Is the item being adequately addressed in another forum (see Standing Items Report for updates)?
    - Will the item, if brought to the EWRC, fall under one of the stated purposes of the Committee?
    - Can the EWRC positively contribute to the item to benefit Valley Water and the community?
    - Is there support from the Board liaisons for spending time on this item?

Board and Committee Liaisons (roles 1 and 2 above)

We recommend that EWRC assign a liaison (plus an alternate) to each Board Committee and that these Committee members briefly report out at each quarterly EWRC (as done under the Working Groups Update, a standing item on the agenda). The Chair will assign at-large appointments, and each Working Group will assign those liaisons for committees designated to that Working Group (see below). Updates will include any items that may be of interest to the EWRC and/or pertinent to the Committee Work Plan.

The Board Committees that we recommend designated liaisons include (with Working Group designation in parenthesis):

- Board Audit Committee (At-Large)
- Board Policy and Planning Committee (At-Large)
- Capital Improvement Program (CIP) Committee (At-Large)
- Diversity and Inclusion Ad Hoc Committee (At-Large)
- Homeless Encampment Committee (Environmental Stewardship)
- Recycled Water Committee (Water Supply)

- Stream Planning and Operations Committee (Environmental Stewardship)
- Water Conservation and Demand Management Committee (Water Supply)
- Water Storage Exploratory Committee (Water Supply)

Roles and responsibilities: The Board Committee liaisons are expected to regularly attend their designated Board Committee meetings, alerting their alternate if they are unable to attend. At those meetings, they will represent EWRC interests, report back to EWRC any items of interest, and elevate recommendations within their Working Groups on any items desired for proactive engagement (see above). The meeting schedule of these committees can be located as part of the regular meeting minutes and ongoing agenda item (Informational Link Reports), as well as at the below links. Typical meeting frequency and duration are listed below but are subject to variances.

https://www.valleywater.org/how-we-operate/committees/board-committees

- Board Policy and Planning Committee (BPPC) (typically 1 meeting per month, 2 hours)
- Stream Planning and Operations Committee (SPOC) (formerly FAHCE Ad Hoc Committee, typically every other month, 2 hours)
- Homeless Encampment Committee (typically every other month, 2 hours)
- Water Storage Exploratory Committee (WSEC) meetings are scheduled as called for by the Committee Chair, but typically 2 hours

https://www.valleywater.org/how-we-operate/committees/board-advisory-committees

- Redistricting Advisory Committee (RAC) this is a special Committee for Redistricting and will be completed by March 2022.
- Water Conservation and Demand Management Committee (WCaDMC) (typically 1 meeting per month, 2 hours)

Stakeholder Engagement (role 3 above)

The EWRC represents a vital cross-section of the Valley Water constituency. We want to emphasize the EWRC's role in being an extension of the larger community. As such, we request that EWRC members perform three vital functions:

1. Communicate relevant Valley Water issues and project updates to your network.
2. Bring to the Committee any environmental and water resources concerns or issues you are hearing in the community.
3. Bring to the Committee any environmental justice concerns or issues you are hearing in the community.

EWRC members have been carefully selected by Board members to represent a broad cross-section of the community. As leaders in the community, the Board values and relies on the EWRC members to assist in two-way communication with stakeholders and residents.

Pertinent excerpts from Board Resolution 17-75 on the functions of advisory committees.

RESOLUTION 17- 75

PROVIDING FOR AND DEFINING THE STRUCTURE AND FUNCTION OF ADVISORY COMMITTEES TO THE SANTA CLARA VALLEY WATER DISTRICT BOARD OF DIRECTORS AND REPEALING RESOLUTION

…

1.2 The Committees are established to assist the Board with policy review and development, provide comment on activities in the implementation of the District's mission for Board consideration, and to identify Board-related issues pertaining to the following:

1.2.2 Environmental and Water Resources Committee: ***water supply***, ***flood protection***, and ***environmental stewardship***.

…

1.3 In accordance with Governance Process Policy-8, the specific duties of the Committees are to:

1.3.1. Provide ***input on policy alternatives*** for Board deliberation.

1.3.2 Provide ***comment on the activities in the implementation*** of the District's mission for Board consideration.

1.3.3 Produce and present to the Board an ***Annual Accomplishments Report*** summarizing the outcomes of the Committee's annual Board-approved work plan.

1.3.4 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.

Santa Clara Valley Water District

File No.: 24-0940

Agenda Date: 10/21/2024
Item No.: 4.4.

COMMITTEE AGENDA MEMORANDUM
Environmental and Water Resources Committee

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

SUBJECT:
Review Environmental and Water Resources Committee Work Plan, the Outcomes of Board Action of Committee Requests; and the Committee's Next Meeting Agenda.

RECOMMENDATION:
Review the Committee work plan to guide the committee's discussions regarding policy alternatives and implications for Board deliberation.

SUMMARY:
The attached Work Plan outlines the topics for discussion to be able to prepare policy alternatives and implications for Board deliberation. The work plan is agendized at each meeting as accomplishments are updated and to review any work plan assignments by the Board.

BACKGROUND:

Governance Process Policy-8:
The District Act provides for the creation of advisory boards, committees, or 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.

ENVIRONMENTAL JUSTICE IMPACT:
There are no Environmental Justice impacts associated with this item.

ATTACHMENTS:
Attachment 1: EWRC 2024 Work Plan
Attachment 2: EWRC Work Plan Appendix

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

2024 Work Plan: Environmental and Water Resources Committee

Updated October 2024

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 BOARD POLICY	MEETING DATE	INTENDED OUTCOME(S) (Action or Information Only)	ACCOMPLISHMENT DATE AND OUTCOME
1	**Election of Chair and Vice Chair for 2023**	January 22	•Committee Elects Chair and Vice Chair for 2023. **(Action)**	**Accomplished January 22, 2024:** The Committee unanimously approved Charles Ice as the 2023 Environmental and Water Resources Committee Chair and Arthur M. Keller. PhD. as the 2023 Environmental and Water Resources Committee Vice Chair.
2	**Annual Accomplishments Report**	January 22	•Review and approve 2022 Accomplishments Report for presentation to the Board. **(Action)**	**Accomplished January 22, 2024:** The Committee unanimously approved the 2023 Annual Accomplishments Report.
3	**Update Status of Working Groups**	January 22 April 15 July 15 October 21	•Receive updates on the status of the working groups. ***(Action)*** •Submit requests to the Board, as appropriate.	**Accomplished January 22, 2024 and April 15, 2024:** The Committee received no updates from the Working Groups.
4	**Review of Environmental and Water Resources Committee Work Plan, the Outcomes of Board Action of Committee Requests and the Committee's Next Meeting Agenda**	April 15 July 15 October 21	•Receive and review the 2024 Board-approved Committee work plan**. (Action)** •Submit requests to the Board, as appropriate.	**Accomplished April 15, 2024:** The Committee received the information and took no formal action.

2024 Work Plan: Environmental and Water Resources Committee

Updated October 2024

ITEM	WORK PLAN ITEM BOARD POLICY	MEETING DATE	INTENDED OUTCOME(S) (Action or Information Only)	ACCOMPLISHMENT DATE AND OUTCOME
5	**Standing Items Report Fiscal Year 2024 Goals and Strategies:**	April 15 July 15 October 21	•Receive quarterly reports on standing items. **(Information)**	**Accomplished April 15, 2024:** The Committee received the information and took no formal action.
6	**One Water Plan – Stevens Creek and West Valley Watershed Plans' Metrics, Targets, and Prioritization Criteria**	April 15	•Receive information on the metrics and targets, and prioritization criteria for the Guadalupe and Upper Pajaro Watershed Plans. (Action) •Provide feedback to staff.	Anticipated accomplishment date: November 2024 or January 2025
7	**Water Supply Master Plan Update**	April 15	•Receive an update on the Water Supply Master Plan 2050 development •Provide feedback on the Water Supply Master Plan 2050 portfolio development and analysis.	**Accomplished April 15, 2024:** The Committee received the information, took no formal action, and requested that staff provide a link to the Committee members relating to the benchmarking study.
8	**Demonstration Garden**	April 15	•Receive an update on the creation of a Demonstration Garden featuring Valley Water's Landscape Rebate Program.	**Accomplished April 15, 2024:** The Committee received the information and took no formal action.
9	**Direct Potable Reuse**	July 15	Receive an update on Direct Potable Reuse regulations and the development of a Potable Reuse project.	**Accomplished July 15, 2024:** The Committee received the information, provided comments to staff, and took no formal action.
10	**Upper Watershed Lands Management Update**	July 15	Inform the committee of our ownership and management of lands in the upper watershed (Project D7).	**Accomplished July 15, 2024:** The Committee received the information and took no formal action.
11	**Anderson Dam Seismic Retrofit Update**	October 21		

2024 Work Plan: Environmental and Water Resources Committee

Updated October 2024

ITEM	WORK PLAN ITEM BOARD POLICY	MEETING DATE	INTENDED OUTCOME(S) (Action or Information Only)	ACCOMPLISHMENT DATE AND OUTCOME
12	**Review Fiscal Year 2024-2025 Board Work plan**	October 21	•Review Fiscal Year 2023-2024 Board Work Plan **(Information)**	

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2024 Work Plan Appendix

GOAL	OBJECTIVE	FY23 TACTICS	MONITORING COMMITTEE
INTEGRATED WATER RESOURCES MANAGEMENT ***"Efficiently manage water resources across business areas."***	*Objective #1 Challenge/Opportunity* *The maintenance of Valley Water's infrastructure is crucial to ensuring we continue to provide safe, clean water and critical flood protection for our communities. Timely maintenance is the most cost-effective investment, whereas deferred maintenance disproportionately increases costs and causes unplanned outages and failures risking the population of the county. In addition, aging assets are reaching the end of the design life and will require major recapitalization.*	• Develop a Fuel Management Policy to guide the incorporation of wildfire planning efforts in an integrated and programmatic way. • Continue a robust preventive maintenance program including monitoring asset condition and risk. • Strategically plan for larger infrastructure renewal projects through Safe Clean Water Project F8 – Sustainable Creek Infrastructure for Continued Public Safety; Water Treatment Plant, Distribution System, and SCADA Implementation Plans; Watersheds and Water Utility Operations and Maintenance Plans; and various Asset Management Plans. • Advance infrastructure renewal projects identified in strategic planning efforts by initiating new Capital or Small Capital Projects, or by conducting work as part of ongoing operations projects. • Develop comprehensive infrastructure master plans for all water utility treatment plant and distribution infrastructure (e.g. pipelines and pump stations) to plan out 30-year capital investments that meet future regulatory requirements, and fold in projects identified in the Asset Management and Operations & Maintenance Plans. • Expedient execution of the adopted Capital program and projects.	Board Policy and Planning Committee (BPPC) CIP Committee (CIPC)
	Objective #2 Challenge/Opportunity *Valley Water continues to pursue legislative and administrative solutions to resolve regulatory and permitting issues at the federal and state levels. The Board's efforts will continue to focus on improving internal capacity when applying for permits, as well as continuing to build relationships with regulatory agencies and staying abreast of the regulatory environment.*	• Continue to provide for agency-wide regulatory planning and permitting effort and pursue other efforts at the state and federal level to expedite permit review. • Continue to foster better relationships with regulatory agencies and open dialogue with environmental, environmental justice and other stakeholders. • Continue to work with the Regional Water Quality Control Board (RWQCB) under the terms of our memorandum of understanding (MOU) to expedite issue resolution and prevent regulatory overreach. • Collaborate with RWQCB on the Steelhead Regional Temperature Study.	BPPC
WATER SUPPLY ***"Provide a reliable, safe, and affordable water supply for current and future generations in all communities served."***	*Objective #1 Challenge/Opportunity* *Half of Santa Clara County's water supply is imported from outside the county. At this time, when there is a lot of water, Valley Water may not be able to take advantage of these supplies due to limitations in existing storage and transmission infrastructure as well as regulatory constraints. Having a diverse portfolio of storage options helps Valley Water be resilient. Therefore, Valley Water is evaluating whether diversifying its storage portfolio could help maximize our use of storage and stored water recovery under future conditions. Water storage in reservoirs also*	• Explore opportunities to develop new surface and groundwater storage projects that help Valley Water meet future water supply needs and be resilient to climate change. • Determine level of participation for projects and decisions about partnerships in accordance with the Water Supply Master Plan and water affordability. • Explore partnership opportunities for the Pacheco Reservoir Expansion Project • Validate Valley Water's continued participation in the Pacheco Reservoir Expansion Project during the MAP review process, bi-annual budget development, and following review and certification	Water Storage Exploratory Committee (WSEC)

	provides environmental, recreational, and incidental flood risk reduction benefits. Challenges include determining the appropriate level of participation for Valley Water in collaborative water storage projects and prioritizing projects within funding constraints.	of the project's Environmental Impact Report (EIR).	
	Objective #2 Challenge/Opportunity *The Water Supply Master Plan's "Ensure Sustainability" strategy includes securing existing water supplies and infrastructure. Valley Water's local and imported water supplies are vulnerable to climate change impacts, droughts, earthquake, and regulatory requirements that may restrict the amount of available water.*	•Participate in and influence decisions regarding the Delta Conveyance Project. •Participate in regional water supply resilience efforts. •Build and maintain effective partnerships to increase resiliency. •Complete and implement infrastructure master plans and asset management plans. •Partner with the California Department of Water Resources (DWR) to ensure reliability of the South Bay Aqueduct.	Water Conservation and Demand Management Committee (WCaDMC) (Groundwater) CIPC (infrastructure projects)
	Objective #3 Challenge/Opportunity *Recycled and purified water is a drought resilient, locally controlled water supply important to long-term sustainability. The Water Supply Master Plan includes developing up to 24,000 acre-feet per year of purified water by 2040. Purified water is recycled water that has been treated further using reverse osmosis and other advanced treatment to make it fit for drinking. Valley Water is pursuing indirect potable reuse which would use this purified water to replenish our groundwater. Implementation challenges include securing wastewater supply contractual agreements with wastewater agencies, available land, stringent regulatory requirements, and implementation costs.*	•Implement the first phase of the Purified Water Program, including release of a Request For Proposal (RFP) and enter into a contract for an Indirect Potable Reuse project that is implemented via a Public Private Partnership. • Implement the Countywide Water Reuse Master Plan. • Develop a Comprehensive Water Reuse Agreement for South County to advance water reuse and its production, distribution, and wholesaling in South County. • Continue to actively be involved with the Direct Potable Reuse (DPR) guidance and ensure Valley Water is positioned to implement a DPR project in the future. • Continue collaboration on the Silicon Valley Advanced Water Purification Center including building a strong collaborative relationship with the San José-Santa Clara Regional Wastewater Facility to expand the facility.	Recycled Water Committee (RWC)
	Objective #4 Challenge/Opportunity *As our largest reservoir, Anderson serves not only as a critical water supply facility, but also supports Valley Water's mission of flood protection and environmental stewardship. Given the reservoir's critical importance to ensuring safe, clean water for our communities and to protect public safety, it is imperative that the Anderson Dam Seismic Retrofit Project (ADSRP) move forward expeditiously. This includes the reconstruction of the Dam and completion of the interim risk reduction measures resulting from the February 20, 2020, directive from the Federal Energy Regulatory Commission (FERC).*	•Maintain the Anderson Reservoir level at the FERC directed level. • Complete the construction on the Anderson Dam Tunnel Project (ADTP). • Complete the design of the ADSRP. • Continue to work with appropriate regulatory agencies to advance the ADSRP. • Release the Draft Environmental Impact Report for the ADSRP. • Obtain all necessary permits for ADSRP construction. • Continue to educate and engage the public, key stakeholders, decision makers, and elected officials of the project progress and construction timeline. • Coordinate long term ADSRP operations with the Fisheries and Aquatic Habitat Collaborative Effort (FAHCE).	CIPC Stream Planning and Operations Committee (SPOC)
	Objective #5 Challenge/Opportunity *Droughts are a recurring feature of California's climate and may intensify with climate change. Water conservation is an essential component in providing a reliable water supply and Valley Water has set a water conservation goal for annual water savings of 99,000*	•Continue communication and educational outreach to promote Valley Water's water conservation programs. •Increase collaboration with our retailer partners to promote Valley Water's water conservation programs. •Implement new water conservation programs and engagement strategies identified within the Water Conservation Strategic Plan.	WCaDMC

	acre-feet (AF) by 2030 and 109,000 AF by 2040. As Valley Water faces challenges from climate change and drought, water conservation will continue to be amongst the most cost-effective tools for efficiently meeting current and future demands while mitigating droughts.	•Engage and support private-sector stakeholders, local, state, and federal agencies that promote water conservation. •Develop and implement a Drought Response Plan with support and input from our retailer partners and the broader community to guide short-term behavioral changes during water shortages.	
NATURAL FLOOD PROTECTION **"Provide Natural Flood Protection to reduce risk and improve health and safety."**	Objective #1 Challenge/Opportunity *Valley Water is challenged to sustain ecosystem health while managing local water resources for flood protection and water supply. By using an integrated approach to planning and designing flood protection planning, there is an opportunity to create projects with multiple benefits.*	•Make significant progress on One Water plans for the Guadalupe and Pajaro watersheds. •Complete construction of Reaches 1-3 of the Shoreline Phase I Project and pursue funding alternatives for Reaches 4-5 to provide 100-year coastal flood risk management, ecosystem restoration, recreational opportunities, and resiliency for sea level rise. •Complete construction of Phase 2A of the Upper Llagas Flood Protection Project to provide flood protection and habitat enhancement. •Advance the Palo Alto Flood Basin Project into construction, a repair project to ensure a functional flood basin with wetland habitat. •Advance the Sunnyvale East/West Channels Project into construction to provide 100-year storm water flood protection. •Compete the U.S. Army Corps of Engineers Upper Guadalupe River Project General Reevaluation Study to provide 100-year flood protection. •Advance the San Francisquito Creek upstream 101 Project into construction to provide flood protection. •Advance the Coyote Creek Flood Mitigation and Flood Protection Projects into construction to provide flood protection for an event equivalent to the 2017 storm event.	CIPC BPPC
	Objective #2 Challenge/Opportunity *As Valley Water continues to advance flood protection projects, the Board has an opportunity to strengthen relationships and improve coordination with conservation and environmental justice groups, as well as other local jurisdictions, with a specific focus on ensuring the voices of disadvantaged communities are equitably represented.*	•Advance One Water Countywide Framework in a comprehensive manner that includes diverse community-wide stakeholders and the incorporation of environmental justice policies in all planning efforts. • Continue progress on flood protection capital projects consistent with Valley Water's commitment to the Safe, Clean Water Program and equitability in all regions. • Plan flood risk reduction projects to provide a minimum level of protection countywide.	CIPC BPPC
ENVIRONMENTAL STEWARDSHIP ***"Sustain ecosystem health while managing local water resources for flood protection and water supply."***	*Objective #1 Challenge/Opportunity* *Valley Water's projects and programs require integrated planning to ensure capital improvements, operations, and maintenance activities are balanced with environmental stewardship goals. Valley Water strives to protect and restore habitats to support native species throughout Santa Clara County.*	•Continue to develop an integrated water resource plan for each watershed, including appropriate metrics to monitor Valley Water's impacts on and benefit to the environment. • Implement high priority actions included in the Climate Change Action Plan. • Make significant progress on the grant-funded planning study for the San Tomas Aquino Calabazas Creek Realignment Project. • Advance construction for the Bolsa Creek and Hale Creek projects to	BPPC

		begin in Summer 2022. • Advance Almaden Lake Improvement Project to begin construction in 2023. • Continue to develop and build on partnerships with environmental organizations and tribal communities when developing projects.	
	Objective #2 Challenge/Opportunity *Valley Water continues to coordinate with local cities and agencies to improve the health of our local waterways, including pollution prevention and addressing threats to water quality. Opportunities exist to further collaborate with the County, cities, and social services agencies on encampment abatement efforts and to develop long-term solutions for the homeless to keep our creeks clean.*	•Continue efforts to protect the ecosystem and water quality of our water Bodies and the integrity of our infrastructure. Such efforts include preventing stormwater pollution, increased implementation of green stormwater infrastructure, addressing mercury pollution, and homeless encampment clean ups. • Coordinate with the County, cities, and other service providers to try to ensure the permanent removal of homeless encampments from creeks and trails. • Continue partnerships and investments on a regional scale such as the South Bay Salt Pond Restoration and Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP).	Environmental Creek Cleanup Committee (ECCC) (SPOC)
	Objective #3 Challenge/Opportunity *For nearly 20 years, Valley Water has been working to resolve a water rights complaint surrounding fish, wildlife, water quality, and other beneficial uses in Coyote Creek, Guadalupe River, and Stevens Creek watershed areas. Challenges include completing the environmental review process, obtaining federal and state permits from multiple regulatory agencies, refining and processing water rights change petitions, the technical complexity of the fisheries impacts analysis, coordination with other ongoing related projects and managing stakeholder expectations.*	•Finalize the June 2021 Guadalupe River and Stevens Creek Environmental Impact Report (EIR) consistent with existing stakeholder agreement. •Advance 10 water right change petitions for securing water right orders. • Continue to implement the pilot flow program in Guadalupe and Stevens Creek. • Continue to implement feasibility studies, monitoring activities, and Planning and construction of various fish passage improvements as identified in existing stakeholder agreement. • Continue fisheries monitoring program. • Continue to support an adaptive management program that encompasses all three creeks.	SPOC
CLIMATE CHANGE ***"Mitigate Carbon Emissions and Adapt Valley Water Operations to Climate Change Impacts."***	*Objective #1 Challenge/Opportunity* *Valley Water's ability to fulfill its mission will be challenged in the future by warmer temperatures, changing precipitation patterns, reduced snowpack, and rising sea levels. Valley Water has been working on greenhouse reduction efforts since 2008 and many adaptation actions over the past decade; however, with adoption of the Climate Change Action Plan there is an opportunity for greater impact.*	•Update carbon accounting and establish new emissions reduction goal if needed. •Make significant progress on development of an agency-wide greenhouse gas reduction plan.	Climate Adaptation and Sustainability Committee (CAaSC)
BUSINESS MANAGEMENT ***"Promote effective management of water supply, flood protection, and environmental stewardship through responsive and socially responsible business services."***	*Objective #1 Challenge/Opportunity* *Valley Water is committed to creating and maintaining a diverse, inclusive, and equitable work environment that is devoid of discrimination and harassment and provides equal opportunity employment and advancement. Valley Water aims to implement the same values in the community through its flood protection, water supply, and environmental stewardship projects, and has an opportunity to serve as a leader for racial equity, diversity, and inclusion throughout the state.*	•Develop and implement a Diversity, Equity and Inclusion Master Plan that institutes best practices to address internal and external disparities and builds an organizational culture that is consistent with the Board's Resolution addressing racial equity, diversity, and inclusion. • Remain committed to environmental justice and the fair treatment and meaningful engagement of all people regardless of race, color, national origin, religion, gender identity, disability status, tribe, culture, income, immigration status, or English language proficiency, with respect to the planning, projects, policies, services, and operations of Valley Water.	Diversity & Inclusion Ad Hoc Committee (DIAHC)

		• Continue to collaborate with external stakeholders that are engaged in developing diversity, equity, and inclusion initiatives and actively participate in and provide leadership for diversity, equity, and inclusion efforts throughout the state. • Advance and foster mutually beneficial partnerships with regional tribal communities.	

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