



## **Santa Clara Valley Water District Recycled Water Committee Meeting**

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

Join Zoom Teleconference:  
<https://valleywater.zoom.us/j/99518153521>

### **REGULAR MEETING AGENDA**

**Wednesday, August 28, 2024  
12:00 PM**

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

#### **RECYCLED WATER COMMITTEE**

Tony Estremera - District 6, Chair  
Richard Santos - District 3, Vice Chair  
Jim Beall - District 4, Member

During the COVID-19 restrictions, all public records relating to an open session item on this agenda, which are not exempt from disclosure pursuant to the California Public Records Act, that are distributed to a majority of the legislative body, will be available to the public through the legislative body agenda web page at the same time that the public records are distributed or made available to the legislative body. Santa Clara Valley Water District will make reasonable efforts to accommodate persons with disabilities wishing to participate in the legislative body's meeting. Please advise the Clerk of the Board Office of any special needs by calling (408) 265-2600.

KIRSTEN STRUVE  
Committee Liaison

NICOLE MERRITT  
Assistant Deputy Clerk II  
Office/Clerk of the Board  
(408) 630-3262  
[nmerritt@valleywater.org](mailto:nmerritt@valleywater.org)

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

**Santa Clara Valley Water District  
Recycled Water Committee  
REGULAR MEETING AGENDA**

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To maximize public safety while still maintaining transparency and public access, members of the public have an option to participate by teleconference/video conference or attend in-person. To observe and participate in the meeting by teleconference/video conference, please see the meeting link located at the top of the agenda. If attending in-person, you are required to comply with Ordinance 22-03 - AN ORDINANCE OF THE SANTA CLARA VALLEY WATER DISTRICT SPECIFYING RULES OF DECORUM FOR PARTICIPATION IN BOARD AND COMMITTEE MEETINGS located at <https://s3.us-west-2.amazonaws.com/valleywater.org.if-us-west-2/f2-live/s3fs-public/Ord.pdf>

In accordance with the requirements of Gov. Code Section 54954.3(a), members of the public wishing to address the Board/Committee during public comment or on any item 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 in order to speak, at the time the item is called. Speakers will be acknowledged by the Board Chair in the order requests are received and granted speaking access to address the Board.

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

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**Join Zoom Meeting:**

**<https://valleywater.zoom.us/j/99518153521>**

**Meeting ID: 995 1815 3521**

**Join by Phone:**

**1 (669) 900-9128, 99518153521#**

**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 31, 2024 Recycled Water Committee Minutes. [24-0742](#)  
Recommendation: Approve the minutes.  
Manager: Candice Kwok-Smith, 408-630-3193  
Attachments: [Attachment 1: 073124 RWC Meeting Minutes](#)  
Est. Staff Time: 5 Minutes

**4. REGULAR AGENDA:**

- 4.1. Receive Purified Water Program Update including Partnerships with the Cities of San Jose and Santa Clara and Provide Feedback. [24-0739](#)  
Recommendation: Receive an update and provide feedback on the following topics:  
A. Collaboration effort with cities of San Jose and Santa Clara on Phase I demonstration facility and full-scale direct potable reuse facility at the Silicon Valley Advanced Water Purification Center  
B. Technical Analysis and Consultant Agreements; and  
C. Outreach.  
Manager: Kirsten Struve, 408-630-3138  
Est. Staff Time: 5 Minutes
- 4.2. Consider the Draft Agenda for the September 4, 2024 Joint Recycled Water Policy Advisory Committee (JRWPAC) meeting with the Focus on the Expansion of the Purified and Recycled Water System and Development of a Potable Reuse Project. [24-0744](#)  
Recommendation: Consider the draft agenda for the September 4th, 2024 JRWPAC meeting for review and provide feedback.  
Manager: Kirsten Struve, 408-630-3138  
Est. Staff Time: 5 Minutes

- 4.3. 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. [24-0740](#)

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.

Manager: Kirsten Struve, 408-630-3138

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](#)

Est. Staff Time: 10 Minutes

- 4.4. Receive and Discuss the 2024 Recycled Water Committee (RWC) Work Plan, and Provide Feedback on Upcoming Discussion Items, and Upcoming Meeting Date. [24-0741](#)

Recommendation: Receive information on the 2024 RWC Work Plan, and provide feedback on upcoming discussion items and next meeting date.

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

Attachments: [Attachment 1: 2024 Revised RWC Work Plan](#)

Est. Staff Time: 5 Minutes

**5. CLERK REVIEW AND CLARIFICATION OF COMMITTEE REQUESTS.**

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

**6. ADJOURN:**

- 6.1. Adjourn to Regular Meeting at 12:00 p.m., on September 25, 2024.

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# Santa Clara Valley Water District

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**File No.:** 24-0742

**Agenda Date:** 8/28/2024  
**Item No.:** 3.1.

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## COMMITTEE AGENDA MEMORANDUM Recycled Water Committee

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

### SUBJECT:

Approval of July 31, 2024 Recycled Water 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 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 Valley Water's historical records archives and serve as historical records of the Committee's meetings.

### ENVIRONMENTAL JUSTICE AND EQUITY IMPACT:

The approval of minutes is not subject to environmental justice analysis.

### ATTACHMENTS:

Attachment 1: 073124 RWC Meeting Minutes

### UNCLASSIFIED MANAGER:

Candice Kwok-Smith, 408-630-3193

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## RECYCLED WATER COMMITTEE MEETING

# DRAFT MINUTES

**SPECIAL MEETING  
WEDNESDAY, JULY 31, 2024  
12:00 PM**

(Paragraph numbers coincide with agenda item numbers)

### **1. CALL TO ORDER:**

A special meeting of the Santa Clara Valley Water District (Valley Water) Recycled Water Committee (Committee) was called to order in the Valley Water Headquarters Building Boardroom at 5700 Almaden Expressway, San Jose, California, and by Zoom teleconference, at 12:00 p.m.

#### **1.1. Roll Call.**

Committee members in attendance were District 4 Director Jim Beall, District 3 Vice Chairperson Richard P. Santos, and District 6 Director Tony Estremera, Chairperson presiding, constituting a quorum of the Committee.

Staff members in attendance were: Gina Adriano, Karen Adriano, Antonio Alfaro, Hossein Ashktorab, Aaron Baker, Nastaran Basiri, Sam Bogale, Rachael Gibson, Walter Gonzalez, Andy Gschwind, Zachary Helsley, Girlie Jacobson, Upasana Jadeja, Michele King, Candice Kwok-Smith, Emelia Lamas, Jessica Lovering, Marta Lugo, Michael Martin, Nicole Merritt, Steve Peters, Desiree Sausele, Stephanie Simunic, Kirsten Struve, Charlene Sun, Cheryl Togami, Pariya Torkaman, Dave Tucker, Derek Woodbury, Jing Wu, Kristen Yasukawa, and Genevieve Yip.

Public in attendance were: Valley Water Director Rebecca Eisenberg, (District 7), Molly Culton and Katja Irvin (Sierra Club), Phillippe Daniel, (Liquisti LLC.), Jan Davel (CDM Smith), Patrick Ferraro (San Jose State University), Pedro Hernandez (City of San Jose), iPhone (58), Arthur Keller (Minerva Consulting), Jim Kuhl, and Scott Wheatley (AECOM).

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

Chairperson Estremera declared time open for public comment on any item not on the agenda.

Nicole Merritt confirmed request to speak from Jim Kuhl would be on Agenda Items 3.1 and 4.2. There was no one present who wished to speak.

### **3. APPROVAL OF MINUTES:**

3.1. Approval of May 22, 2024 Recycled Water Committee Meeting Minutes.

Recommendation: Approve the minutes.

The Committee considered the attached minutes of the May 22, 2024 Committee meeting.

Chairperson Estremera acknowledged receipt of the attached email, Handout 3.1-A.

Copies of the Handout were distributed to the Committee and made available to the public.

Nicole Merritt and Andy Gschwind were available to answer questions.

Public Comments:

Jim Kuhl reviewed the information contained in email, identified as Handout 3.1-A.

It was moved by Vice Chairperson Santos and seconded by Director Beall, and unanimously carried that the minutes be approved as amended to include Jim Kuhl's public comment to reflect the proposed comment correction noted in red on Page 1 of Handout 3.1-A.

**4. REGULAR AGENDA:**

4.1. Receive Purified Water Program Update Including Partnerships with Cities of San Jose and Santa Clara and Provide Feedback.

Recommendation: Receive an update and provide feedback on the following topics:

- A. Collaboration effort with the cities of San Jose and Santa Clara on Phase 1 demonstration facility and full-scale direct potable reuse facility at the Silicon Valley Advanced Water Purification Center
- B. Technical analysis and Consultant agreements; and
- C. Outreach.

Kirsten Struve reviewed the information on this item, per the attached Committee Agenda Memo.

Kirsten Struve was available to answer questions.

Public Comments:

None.

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

- The Committee noted staff's great job and their support for continued community outreach through tours and education.
- The Committee confirmed the timing of the demonstration facility has not changed and noted staff looks to release the Request for Proposal (RFP)

for design early next year dependent upon lease amendment negotiations with the City of San Jose.

- The Committee confirmed that staff will include a preliminary review of the Master Plan for the full facility when staff works on the consultant agreement for the demonstration facility.
- The Committee confirmed if negotiations are completed before the end of the year that staff will continue to work towards expediting next steps for the project.

4.2. Discuss Recycled Water Goal for the Water Supply Master Plan (WSMP) and Recommend to Valley Water's Board a Water Reuse Goal for WSMP 2050.

- Recommendation:
- A. Discuss foundation for prior Committee recommendation to Valley Water's Board of Directors for 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, including additional potable and non-potable reuse, desalination, stormwater capture, and other alternative water supply sources for inclusion in the WSMP 2050;
  - B. Make a recommendation on a water reuse goal for WSMP 2050 to Valley Water's Board of Directors.

Kirsten Struve reviewed the information on this item, per the attached Committee Agenda Memo. and per the information contained in Attachments 1 and 2.

Kirsten Struve, Pedro Hernandez, and Aaron Baker were available to answer questions.

Chairperson Estremera acknowledged receipt of the attached email, Handout 4.2-A.

Copies of the Handout were distributed to the Committee and made available to the public.

Public Comments:

Jim Kuhl noted costs can be decreased if the approach is an aggressive goal to design big and for the design to be completed in one shot instead of increments like the method for the Orange County's wastewater facility and Jim Kuhl's further comments are noted in Handout 4.2-A.

Arthur Keller requested if the capital costs for the Palo Alto facility would be cheaper if the pipeline went to the Cities of Palo Alto and Mountain View instead of the City of San Jose.

Kirsten Struve confirmed that the Cities of Palo Alto and Mountain View do not receive a lot of water from Valley Water making it not cost effective to have the pipeline go to those cities at this time as a potable reuse project, however for a direct potable reuse project, the pipeline could be shorter than what was envisioned for the indirect potable reuse project.

Aaron Baker confirmed that the WSMP is analyzing the Palo Alto project as a potential direct potable reuse project.

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

- Director Beall noted support for increasing the water reuse goal beyond 24,000 AFY for WSMP 2050 and expressed opposition to the WSMP if the water reuse goal is not increased.
- Director Beall requested confirmation of the AFY, capacity or percentage that is currently recycled for comparison purposes and staff confirmed it was about 11% for the non-potable system for the City of San Jose.
- Director Beall noted support for confirming long-term water reuse goals beyond the demonstration and full-scale facility with the City of San Jose.
- Director Beall confirmed desalination options are being reviewed and the Palo Alto project is included in the long-term plan for potential direct potable reuse.
- Director Beall noted advanced water purification as a federal and state funding priority and support for a higher aspirational water reuse goal.
- The Committee noted support for remaining realistic while trying to do the maximum water reuse goal, avoiding a set up for failure, encouraging balance of selling water and conservation, and Director Santos noted a potential water reuse compromise of 35,000 AFY.
- The Committee confirmed that the City of San Jose staff working with Valley Water staff are researching and reviewing future design options to maximize flow for the filtration building and the next phase of the project and addressing sea level rise issues.
- Director Beall noted support of a presentation down the road from the City of San Jose to show future modernization plans for the treatment plant and review of documentation of the past brick sewer system.
- Director Beall requested continued discussion and research on increasing water recycling and water purification through alternate options like utilizing technology, potential clustering of server farms, and confirming heavy water commercial users. Staff confirmed follow up could occur with City of San Jose at a future Joint Recycled Water Policy Advisory Committee (JRWPAC) meeting.
- The Committee noted staff's verbal recommendation of up to 48,000 AFY as a potential water reuse goal as the long-term vision and aspirational goal and requested for this agenda item to return with amended recommendation language and options for further discussion at the next August 2024 RWC meeting.

4.3. Receive and Discuss the 2024 Recycled Water Committee (RWC) Work Plan, And Provide Feedback on Upcoming Discussion Items, and Upcoming Meeting Date.

Recommendation: Receive information on the 2024 RWC Work Plan, and provide feedback on upcoming discussion items and next meeting date.

Kirsten Struve reviewed the information on this item, per the attached Committee Agenda Memo, and per the information contained in Attachment 1.

Kirsten Struve and Rachael Gibson were available to answer questions.

Public Comment:  
None.

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

- The Committee confirmed the return of the water reuse goal for the WSMP under Item 4.2 at the next August 2024 RWC meeting.
- The Committee confirmed state propositions updates are brought routinely and directly to the Board.

**5. CLERK REVIEW AND CLARIFICATION OF COMMITTEE REQUESTS:**

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

Nicole Merritt confirmed the Committee approved the minutes as amended under Item 3.1; noted and provided feedback for Purified Water Program Update under Item 4.1; discussed and provided feedback of support to increase maximum reuse goal for WSMP 2050 and to return at next RWC meeting with amended recommendation language and Dir. Beall's request for follow up on increasing water recycling and water purification options per server farms and heavy water users under Item 4.2; and noted update for the 2024 RWC Work Plan and the return water reuse goal agenda item for WSMP 2050 under Item 4.3.

**6. Adjourn:**

6.1. Adjourn to Regular Meeting at 12:00 p.m. on August 28, 2024.

Chairperson Estremera adjourned the meeting at 1:15 p.m., to the regular meeting at 12:00 p.m. on August 28, 2024.

Nicole Merritt  
Assistant Deputy Clerk II

Date Approved:

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# Santa Clara Valley Water District

**File No.:** 24-0739

**Agenda Date:** 8/28/2024

**Item No.:** 4.1.

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## COMMITTEE AGENDA MEMORANDUM Recycled Water Committee

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

### SUBJECT:

Receive Purified Water Program Update including Partnerships with the Cities of San Jose and Santa Clara and Provide Feedback.

### RECOMMENDATION:

Receive an update and provide feedback on the following topics:

- A. Collaboration effort with cities of San Jose and Santa Clara on Phase I demonstration facility and full-scale direct potable reuse facility at the Silicon Valley Advanced Water Purification Center
- B. Technical Analysis and Consultant Agreements; and
- C. Outreach.

### SUMMARY:

#### A. Collaboration with Cities

Valley Water and the City of San José have completed work on the City staff funding agreement, which is now going through San José approvals and is scheduled for discussion at the Treatment Plant Advisory Committee (TPAC) in August. San José has assigned staff to work with Valley Water on the Purified Water Project. A city staff funding agreement with the City of Santa Clara is in progress.

Staff from the City and Valley Water are continuing to collaborate with the San Francisco Bay Regional Water Quality Control Board on a strategy for Reverse Osmosis Concentrate (ROC) management that is effective and protective of the environment.

In addition, City of San José staff and Valley Water are continuing to collaborate on the need for an access road to a future Microsoft data center which is planned on private property adjacent to the Silicon Valley Advanced Water Purification Center (SVAWPC). This project will include moving the existing Visitor Center trailer to a new location.

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Staff from Valley Water and the Cities of San José and Santa Clara are planning a workshop with staff from the San Francisco Public Utilities Commission to discuss developing a partnership charter for the Purified Water Project (PWP).

## **B. Technical Analysis and Consultant Agreements**

Valley Water is continuing to make progress on a contract amendment with CDM Smith the Project Management Company for the PWP to provide project management services related to the San Jose Purified Water Project (SJPWP) as well as ESA for CEQA assistance. The agreement is being amended to reflect changes to the PWP as directed by the Board of Directors at the February 27, 2024, meeting when the Palo Alto PWP was placed on the CIP unfunded list. The amendment will reflect the necessary changes to focus efforts on the SJPWP including both the Phase I San Jose Direct Potable Reuse (DPR) demonstration facility and initial planning of the future full-scale DPR facility. Staff updated the CIP committee on these two agreements.

Technical analyses are ongoing, including:

- Evaluating options for connecting the future full-scale facility into the water supply system, including evaluating cost, infrastructure and operational constraints that impact utilization of the water
- Developing a thorough understanding of studies and data required to meet the DPR regulations with associated timelines.
- Evaluating various options for ROC management in collaboration with the City of San José and regulatory agencies.
- Evaluating options to accelerate the timeline by evaluating phasing the demonstration facility and collecting essential data on a smaller scale earlier.

On August 6, 2024, the California Office of Administrative Law approved the final DPR regulations. The final DPR regulations were filed with the Secretary of State and will take effect on October 1, 2024.

## **C. Outreach**

A learning center is being planned as part of the Phase 1 San Jose DPR demonstration facility. Staff is conducting benchmarking with other water agencies to collect information about best practices and lessons learned from developing a learning center about water and water reuse. As part of the benchmarking, staff will attend the WaterReuse California Conference in September, which will include site visits to the Water Replenishment District's Albert Robles Center, PureWater Southern California's Innovation Center and Orange County Water District. Staff will utilize the benchmarking information to determine the specifications for a learning center and sequencing with the phases of planning, design and construction.

Staff continues to conduct tours and outreach initiatives to build support for potable reuse, which includes:

- SVAWPC 10<sup>th</sup> Anniversary Media Event - On August 28, a media event is planned to celebrate



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the 10<sup>th</sup> anniversary of the SVAWPC, which opened in July 2014. Media will be invited to the SVAWPC to hear about the future of water reuse and take a tour of the SVAWPC.

- Public Tour Program - In July, 233 members of the public visited SVAWPC, and 182 visitors were students between the ages of eight and 18. The staff of the Pacheco Storm Water District and San Benito County also toured the facility as part of a larger Valley Water infrastructure tour and the month concluded with a tour for the University of California's Naturalist and Environmental Stewards Program.
- Public Perception Poll - Staff is working with a polling consultant to administer this year's poll to gauge public perception on water reuse and using purified water for drinking water purposes. Upon completion this fall, the results will be shared with the Recycled Water Committee.

Staff also continues to coordinate with the City of San José and Microsoft regarding the impacts of the planned future Microsoft construction project to the east of the SVAWPC, which includes relocating the SVAWPC Visitors Center, changes to signage and parking and more.

**ENVIRONMENTAL JUSTICE AND EQUITY IMPACT:**

There are no environmental justice and equity impacts associated with this item.

**ATTACHMENTS:**

None.

**UNCLASSIFIED MANAGER:**

Kirsten Struve, 408-630-3138

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# Santa Clara Valley Water District

**File No.:** 24-0744

**Agenda Date:** 8/28/2024

**Item No.:** 4.2.

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## COMMITTEE AGENDA MEMORANDUM Recycled Water Committee

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

### SUBJECT:

Consider the Draft Agenda for the September 4, 2024 Joint Recycled Water Policy Advisory Committee (JRWPAC) meeting with the focus on the expansion of the Purified and Recycled Water System and Development of a Potable Reuse Project.

### RECOMMENDATION:

Consider the draft agenda for the September 4<sup>th</sup>, 2024 JRWPAC meeting for review and provide feedback.

### SUMMARY:

The agenda will be focused on furnishing updates and information on the progress towards the development of the purified water as well as expansion of the recycled water programs by South Bay Water Recycling (SBWR). Information and updates on the following areas will be presented:

- A. Staff Funding Agreement and introduction of San José staff
- B. Amendment of Agreements for development of the DPR Demonstration Facility
- C. Roadmap
- D. Technical Studies
- E. SBWR
- F. Outreach

### ENVIRONMENTAL JUSTICE AND EQUITY IMPACT:

There are no environmental justice and equity impacts associated with this item. This action is

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unlikely to or will not result in adverse impacts and is not associated with an equity opportunity.

**ATTACHMENTS:**

None.

**UNCLASSIFIED MANAGER:**

Kirsten Struve, 408-630-3138



# Santa Clara Valley Water District

File No.: 24-0740

Agenda Date: 8/28/2024

Item No.: 4.3.

## COMMITTEE AGENDA MEMORANDUM Recycled Water Committee

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

### SUBJECT:

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

### RECOMMENDATION:

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

### SUMMARY:

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

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

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

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

Partner Agency	Potential Future Wastewater Availability (AFY)	Potential Purified Water Production (AFY)
<i>Palo Alto</i>	10,000	8,000
<i>Sunnyvale</i>	5,600	4,800
<i>San José / Santa Clara</i>	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) <sup>1</sup>	2023 Recycled Water Produced (AF) <sup>2</sup>	Recycled Water: Wastewater
Palo Alto	23,000	1,800	8%
Sunnyvale	15,000	0 <sup>3</sup>	0%
San José/ Santa Clara	112,000	12,500	11%
South County	8,000	2,500	31%
<b>Total:</b>	<b>158,000</b>	<b>16,800</b>	<b>11%</b>

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) <sup>1</sup>	2045 Nonpotable Recycled Water Projections <sup>2</sup> (AF)
Palo Alto	1,800	800
Sunnyvale	0 <sup>2</sup>	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:

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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 1. Alternative Water Supply Project Costs**

<b>Project</b>	<b>Average Annual Supply (AF)</b>	<b>Capital Cost (Million)</b>	<b>Annual O&amp;M (Million)</b>	<b>Present Value (PV) Lifecycle Cost (Million)</b>	<b>Lifecycle Cost PV/ Yield PV (\$/AF)</b>	<b>Annualized Unit Cost (\$/AF)</b>
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

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## Attachment 2. Water Supply Master Plan 2050 Portfolios

	Portfolios									
Project	Lower Cost			Local Control			Diversified			
Palo Alto Potable Reuse				X				X		
San José Direct Potable Reuse	X	X		X	X	X	X	X	X	X
Local Seawater Desalination						X				
Refinery Recycled Water Exchange		X	X						X	
Delta Conveyance Project	X		X				X			X
Sites Reservoir									X	X
Pacheco Reservoir Expansion			With Partner	No Partner	No Partner		With Partner		With Partner	
Los Vaqueros Expansion			X				X			
B.F. Sisk Dam Raise	X		X				X	X	X	X
Groundwater Banking (TAF)	250	350	350	150	350	150	350	250	150	250
South County Recharge Projects	X	X	X	X	X	X	X	X	X	X
<b>Portfolio Cost (\$ Billion)</b>	<b>4.0</b>	<b>3.4</b>	<b>3.4</b>	<b>5.9</b>	<b>4.6</b>	<b>5.4</b>	<b>5.5</b>	<b>4.9</b>	<b>4.8</b>	<b>4.2</b>

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# **Update on Potential Water Reuse Goal Based on Water Supply Master Plan**


**Recycled Water Committee**

**August 28, 2024**

*Ensuring Water Reliability*

**Water Reuse**

**Desalination:  
Feasibility Study  
underway**




**Potable**



**Non-Potable**



**Indirect  
Potable  
Reuse**



**Direct  
Potable  
Reuse**



**Enhanced**

# Potential Wastewater Availability

3

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



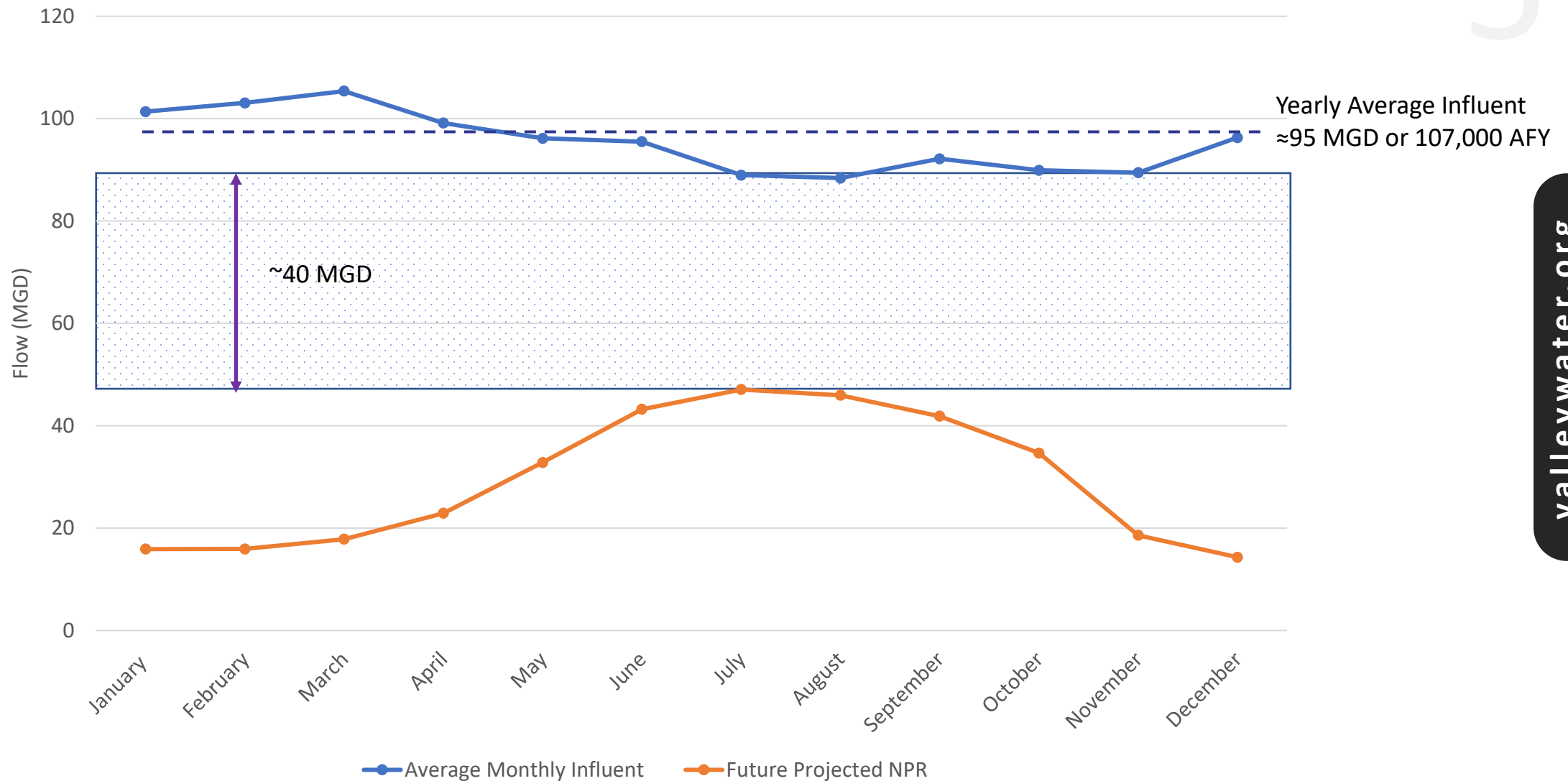


# NonPotable Reuse

- Highest use in the summer
- Limits how much wastewater is available for potable reuse during summer
- Irrigation, cooling towers, data centers



## San José/Santa Clara - Potential Flow Conditions



# Non-Potable Recycled Water: Planned Increase

6

Facility	2023 Total Nonpotable Recycled Water Produced (AFY) <sup>1</sup>	2045 Nonpotable Recycled Water Projections <sup>2</sup> (AFY)
Palo Alto	1,800	800
Sunnyvale	0 <sup>3</sup>	1,700
San José/ Santa Clara	12,500	21,700
South County	2,500	4,100
<b>Total:</b>	<b>16,800</b>	<b>28,300</b>

1. SCVWD Water Tracker. Voluntary survey data provided by respective agency staff.
2. 2020 Urban Water Management Plan. *Valley Water*. June 2021
3. Sunnyvale recycled water production impacted by capital improvement projects.

# Option 1: 45,000 acre-feet per year

7

Project	Yield (AFY)
San José DPR Project	32,000
Palo Alto DPR Project	8,000
Sunnyvale Project	5,000
Total:	45,000

# Option 2: 48,000 acre-feet per year

Project	Yield (AFY)	Cost
San José DPR Project	24,000	\$2.14B
Local Seawater Desalination	24,000	\$2.14B
Total:	48,000	\$4.28B

# Option 3: 32,000 acre-feet per year

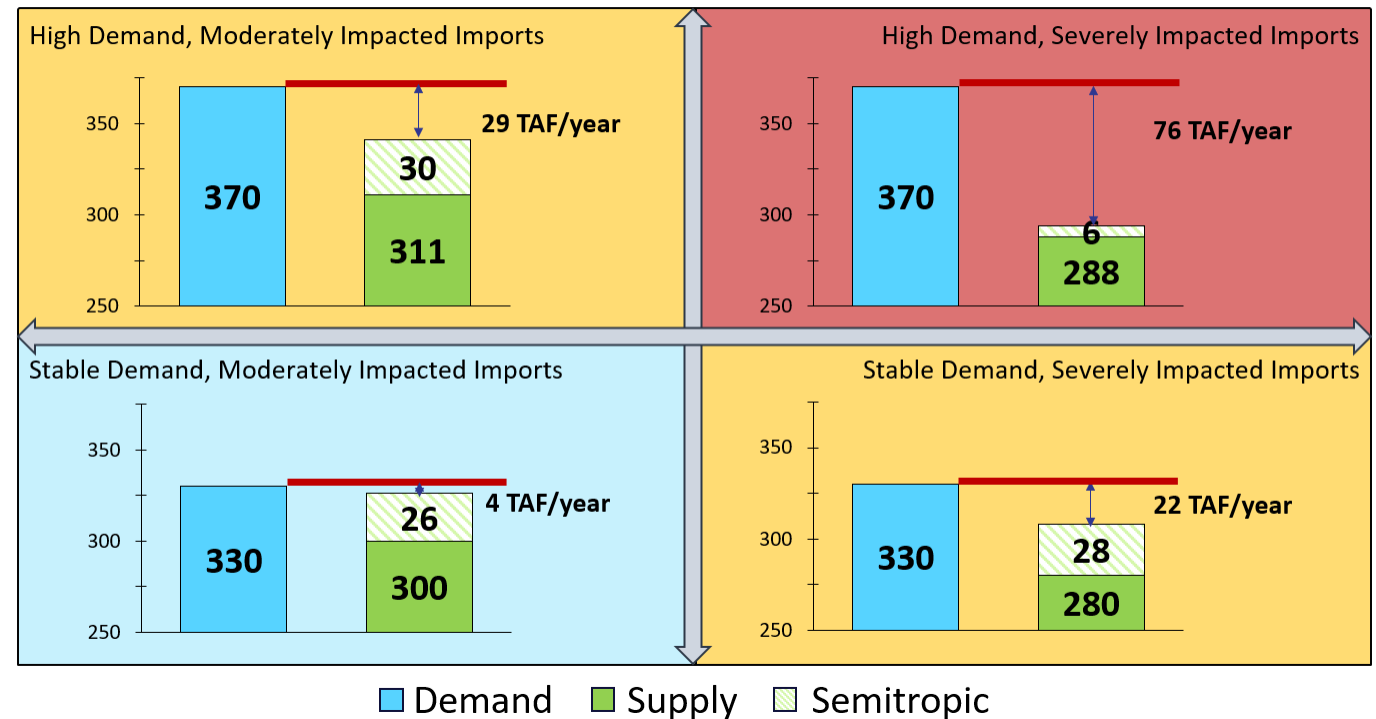
Project	Yield (AFY)	Cost
San José DPR Project	24,000	\$2.14B
Palo Alto DPR Project	8,000	\$780M
Total:	32,000	\$2.92B

# Water Supply Need – Fill Shortage

10

- 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
- Affordability/Cost

## Annual Shortage in Six-year Drought in 2050



# Strategies for Water Supply Reliability

## Lower Cost (\$4 Billion)



## Local Control (\$5.9 Billion)



## Diversified (\$5.4 Billion)



# Recommendation

12

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 to 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



## Link to 2020 Urban Water Management Plan

**[https://fta.valleywater.org/dl/pggls1SeCr?\\_gl=1\\*sx01jx\\*\\_ga\\*MTQxMzE5NTQ5OS4xNjkyMjEwNDA4\\*\\_ga\\_ZJR8CB7LNP\\*MTcyMzA2MDM5Mi4xNTYuMS4xNzIzMDYwNjQ0LjM5LjAuMA](https://fta.valleywater.org/dl/pggls1SeCr?_gl=1*sx01jx*_ga*MTQxMzE5NTQ5OS4xNjkyMjEwNDA4*_ga_ZJR8CB7LNP*MTcyMzA2MDM5Mi4xNTYuMS4xNzIzMDYwNjQ0LjM5LjAuMA)**



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# Santa Clara Valley Water District

**File No.:** 24-0741

**Agenda Date:** 8/28/2024

**Item No.:** 4.4.

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## **COMMITTEE AGENDA MEMORANDUM Recycled Water Committee**

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

### **SUBJECT:**

Receive and Discuss the 2024 Recycled Water Committee (RWC) Work Plan, and Provide Feedback on Upcoming Discussion Items, and Upcoming Meeting Date.

### **RECOMMENDATION:**

Receive information on the 2024 RWC Work Plan, and provide feedback on upcoming discussion items and next meeting date.

### **SUMMARY:**

Under direction of the Clerk, Work Plans are used by all Board Committees to increase Committee efficiency, provide increased public notice of intended Committee discussions, and enable improved follow-up by staff. Work Plans are dynamic documents managed by Committee Chairs and are subject to change.

At the March 27, 2024 meeting, the Committee approved the 2024 work plan that has agenda items necessary for the continuation of the recycled water projects. An updated 2024 work plan (Attachment 1) proposes changes for the remaining meetings in the year.

Staff solicits Committee feedback on any additional timeline information for holding discussions on the assigned Work Plan items, confirmation of the next meeting dates, and would like to request canceling the June 2024 meeting.

### **ENVIRONMENTAL JUSTICE AND EQUITY IMPACT:**

The review and acceptance of the RWC Work Plan and meeting schedule are not subject to environmental justice analysis.

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**File No.:** 24-0741

**Agenda Date:** 8/28/2024  
**Item No.:** 4.4.

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**ATTACHMENTS:**

Attachment 1: 2024 Revised RWC Work Plan

**UNCLASSIFIED MANAGER:**

Candice Kwok-Smith, 408-630-3193

## RWC 2024 WORK PLAN

Task	Agenda Item	January	February	March	April	May	June	July	August	September	October	November	December
<b>FY 24 Tactic 1: Advance the Purified Water Program</b>													
1.1	Update on Purified Water Program including Partnership with Cities of San Jose and Santa Clara - Phase I Facility and full-scale Direct Potable Reuse Facility at the Silicon Valley Advanced Water Purification Center	X		X		X		X	X	X	X	X	X
<b>FY 24 Tactic 2: Implement the Countywide Water Reuse Master Plan.</b>													
2.1	Joint Mtg Prep/Debrief: Joint Recycled Water Policy Advisory Committee, including coordination on the Silicon Valley Advanced Water Purification Facility and building strong collaborative relationships	X		X					X				
2.2	Joint Mtg Prep/Debrief: Cities of Palo Alto/Mtn View.												
2.3	Joint Mtg Prep/Debrief: City of Sunnyvale.												
2.4	Update on SFPUC/BAWSCA Collaboration Efforts.												
2.5	Independent Advisory Panel.								X				
<b>FY 24 Tactic 3: Continue to actively be involved with Direct Potable Reuse (DPR) guidance and implement actions for the future.</b>													
3.1	Actively Engage in Direct Potable Reuse					X							X
<b>FY 24 Tactic 4: Develop a Comprehensive Water Reuse Agreement for South County to advance water reuse and its production, distribution, and wholesaling in South County.</b>													
4.1	South Santa Clara County Water Reuse Collaboration.	X				X			X				X
<b>FY 24 Tactic 5: Continue to monitor feasibility of desalination.</b>													
5.1	Continue to investigate feasibility of desalination (local and regional).					X				X			
<b>Others</b>													
6.1	Regional discussion on options: Feasibility analysis of Recycled Water Exchange with Contra Costa Water District and Central Contra Costa Sanitary District.												
6.2	Update on Bottling Purified and water tasting station at the SVAWPC.					X							
6.3	Investigating Different Source of Water for Purification including Urban Water Runoff/Stormwater									X			
6.4	Outreach Comprehensive Efforts.										X		
6.5	Potential Water Reuse Goal based on Water Supply Master Plan	X		X				X	X				
6.6	State and Federal Grant opportunities					X			X				

\*Blue strikes - items added on updated work plan

\*Red strikes - items deleted from current work plan

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