



Santa Clara Valley Water District Recycled Water Committee Meeting

Join Zoom Meeting:

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

Join by Phone:

1 (669) 900-9128, 99518153521# US (San Jose)

REGULAR MEETING AGENDA

**Wednesday, July 28, 2021
1:00 PM**

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

RECYCLED WATER COMMITTEE

Tony Estremera - District 6, Chair
Gary Kremen - District 7, Vice Chair
Richard Santos - District 3

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

EVA SANS
Assistant Deputy Clerk II
Office/Clerk of the Board
(408) 265-2306
esans@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**

Wednesday, July 28, 2021

1:00 PM

Teleconference Meeting

IMPORTANT NOTICES

This meeting is being held in accordance with the Brown Act as currently in effect under the State Emergency Services Act, the Governor's Emergency Declaration related to COVID-19, and the Governor's Executive Order N-29-20 issued on March 17, 2020 that allows attendance by members of the Committee, staff, and the public to participate and conduct the meeting by teleconference, videoconference, or both.

Members of the public wishing to address the Committee during a video conferenced meeting on an item not listed on the agenda, or any item listed on the agenda, should use the "Raise Hand" tool located in Zoom meeting link listed on the agenda. Speakers will be acknowledged by the Committee Chair in the order requests are received and granted speaking access to address the Committee.

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

This agenda has been prepared as required by the applicable laws of the State of California, including but not limited to, Government Code Sections 54950 et. seq. and has not been prepared with a view to informing an investment decision in any of Valley Water's bonds, notes or other obligations. Any projections, plans or other forward-looking statements included in the information in this agenda are subject to a variety of uncertainties that could cause any actual plans or results to differ materially from any such statement. The information herein is not intended to be used by investors or potential investors in considering the purchase or sale of Valley Water's bonds, notes or other obligations and investors and potential investors should rely only on information filed by Valley Water on the Municipal Securities Rulemaking Board's Electronic Municipal Market Access System for municipal securities disclosures and Valley Water's Investor Relations website, maintained on the World Wide Web at <https://emma.msrb.org/> and <https://www.valleywater.org/how-we-operate/financebudget/investor-relations>, respectively.

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

Join Zoom Meeting:

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

Meeting ID: 995 1815 3521

Join by Phone:

1 (669) 900-9128, 99518153521# US (San Jose)

1. CALL TO ORDER:

1.1. Roll Call.

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

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

3. APPROVAL OF MINUTES:

3.1. Approval of Minutes.

[21-0795](#)

Recommendation: Approve the minutes of the June 23, 2021 meeting.

Manager: Michele King, 408-630-2711

Attachments: [Attachment 1: 062321 Minutes](#)

4. ACTION ITEMS:

- 4.1. Update on Purified Water Program Implementation including Partnership with Cities of San Jose and Palo Alto. [21-0796](#)
Recommendation: Receive information on:
A. Procurement and technical activities supporting development of the request for proposals (RFP);
B. Public Private Partnership (P3) Procurement; and
C. Regulatory agency and other outreach activities.
Manager: Kirsten Struve, 408-630-3138
- 4.2. Update on Expanding Recycled Water Use in South County. [21-0797](#)
Recommendation: Receive information and provide feedback.
Manager: Kirsten Struve, 408-630-3138
- 4.3. Update on Refinery Recycled Water Exchange Project with Central Contra Costa Sanitary District and Contra Costa Water District [21-0798](#)
Recommendation: Receive and discuss information on the Refinery Recycled Water Exchange Project.
Manager: Kirsten Struve, 408-630-3138
Attachments: [Attachment 1: PowerPoint](#)
- 4.4. Discuss the 2021 Recycled Water Committee Work Plan, Upcoming Discussion Items, and Next Meeting Date. [21-0799](#)
Recommendation: Accept the updated 2021 Recycled Water Committee Work Plan and provide feedback on upcoming discussion items and meeting schedule.
Manager: Michele King, 408-630-2557
Attachments: [Attachment 1: 2021 Work Plan](#)
[Attachment 2: Updated 2021 Work Plan](#)
- 5. INFORMATION ITEMS:**
None.
- 6. 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.
- 7. ADJOURN:**
7.1. Adjourn to Regular Meeting at 12:00 p.m., on Wednesday, August 25, 2021, to be called to order in compliance with the State Emergency Services Act, the Governor's Emergency Declaration related to COVID-19, and the Governor's Executive Order N-29-20.



Santa Clara Valley Water District

File No.: 21-0795

Agenda Date: 7/28/2021
Item No.: 3.1.

COMMITTEE AGENDA MEMORANDUM

Recycled Water Committee

SUBJECT:

Approval of Minutes.

RECOMMENDATION:

Approve the minutes of the June 23, 2021 meeting.

SUMMARY:

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

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

ATTACHMENTS:

Attachment 1: 062321 Minutes

UNCLASSIFIED MANAGER:

Michele King, 408-630-2711

THIS PAGE INTENTIONALLY LEFT BLANK



RECYCLED WATER COMMITTEE MEETING

MINUTES

WEDNESDAY, JUNE 23, 2021
12:00 PM

(Paragraph numbers coincide with agenda item numbers)

1. CALL TO ORDER:

A regular meeting of the Santa Clara Valley Water District (Valley Water) Recycled Water Committee (Committee) was called to order via Zoom video teleconference at 12:00 p.m.

1.1 Roll Call.

Committee members participating by teleconference were District 3 Director R. Santos, and District 6 Director T. Estremera, Chairperson presiding, constituting a quorum of the Committee.

Vice Chairperson G. Kremen was excused from attending.

Staff in attendance was E. Sans, Assistant Deputy Clerk II.

Staff participating by teleconference were H. Ashktorab, L. Bankosh, H. Barrientos, S. Bogale, R. Callender, E. Latedjou-Durant, H. McMahon, C. Narayanan, C. Orellana, L. Orta, M. Richardson, M. Silva, K. Struve, C. Sun, D. Taylor, D. Tucker, K. Wong, B. Yerrapotu, and T. Yoke.

Also in attendance were Valley Water consultant contractors J. Gain, Brown & Caldwell, P. Daniel, Liquisti, LLC, and Professor R. Luthy, Stanford University.

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

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

3. APPROVAL OF MINUTES:

3.1 Approval of Minutes.

Recommendation: Approve the minutes of the May 26, 2021 meeting.

05/26/21
1

The Committee considered the attached minutes of the May 26, 2021 meeting.

Move to Approve: T. Estremera
Second: R. Santos
Yeas: R. Santos, T. Estremera
Nays: None
Abstains: None
Recuses: None
Absent: G. Kremen
Summary: 2 Yeas; 0 Nays; 0 Abstains; 1 Absent.

4. ACTION ITEMS:

4.1 Update on the Purified Water Program including Public-Private Partnership (P3) and Countywide Water Reuse Master Plan (CoRe Plan).

Recommendation: A. Receive information on the status, findings, and next steps for the Countywide Water Reuse Master Plan;
B. Recommend presentation of the Final CoRe Plan to the Board of Directors; and
C. Receive information on the status of the Purified Water Project, including partnerships with Cities of San Jose and Palo Alto.

Mr. David Tucker, Associate Civil Engineer, reviewed the information on this item, per the attached Committee Agenda Memo, and the corresponding presentation materials contained in Attachment 1 were reviewed by staff as follows: Mr. Tucker reviewed Slides 1 through 7, and 23 through 25; Ms. Jenny Gain, Brown & Caldwell Project Manager, reviewed Slides 8 through 22; and Ms. Kirsten Struve, Assistant Officer, reviewed Slide 26.

The Committee unanimously approved the recommendation to present the final CoRe Plan to the full Board in August.

Move to Approve: T. Estremera
Second: R. Santos
Yeas: R. Santos, T. Estremera
Nays: None
Abstains: None
Recuses: None
Absent: G. Kremen
Summary: 2 Yeas; 0 Nays; 0 Abstains; 1 Absent.

4.2 Update on Bottling Purified Demonstration Water.

Recommendation: Receive information and provide feedback.

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

The Committee noted the information without formal action.

4.3 Update on Urban Runoff Study with Stanford University.

Recommendation: Receive information and provide feedback.

Professor Richard Luthy, Stanford University, reviewed the information on this item, per the attached Committee Agenda Memo, and the corresponding presentation materials contained in Attachment 1.

Chairperson Estremera confirmed that he would work with the Chief Executive Officer to agendaize the Urban Runoff Study with Stanford University at an upcoming Board meeting.

4.4 Discuss the 2021 Recycled Water Committee Work Plan, Upcoming Discussion Items, and Next Meeting Date.

Recommendation: Accept the updated 2021 Recycled Water Committee Work Plan and provide feedback on upcoming discussion items and meeting schedule.

The Committee unanimously approved the Updated RWC 2021 Work Plan as contained in Attachment 2, and requested that staff agendaize Work Plan Item No. 14, Urban Runoff Study with Stanford University, before December 2021.

Move to Approve: T. Estremera
Second: R. Santos
Yeas: R. Santos, T. Estremera
Nays: None
Abstains: None
Recuses: None
Absent: G. Kremen
Summary: 2 Yeas; 0 Nays; 0 Abstains; 1 Absent.

5. INFORMATION ITEMS:

None.

6. ADJOURN:

6.1 Chairperson Estremera adjourned the meeting at 1:25 p.m. to the next regular meeting on July 28, 2021 to be called to order in compliance with the State Emergency Services Act, the Governor's Emergency Declaration related to COVID-19, and the Governor's Executive Order N-29-20.

Eva Marie Sans
Assistant Deputy Clerk II

Approved:

Date:

THIS PAGE INTENTIONALLY LEFT BLANK



Santa Clara Valley Water District

File No.: 21-0796

Agenda Date: 7/28/2021

Item No.: 4.1.

COMMITTEE AGENDA MEMORANDUM

Recycled Water Committee

SUBJECT:

Update on Purified Water Program Implementation including Partnership with Cities of San Jose and Palo Alto.

RECOMMENDATION:

Receive information on:

- A. Procurement and technical activities supporting development of the request for proposals (RFP);
- B. Public Private Partnership (P3) Procurement; and
- C. Regulatory agency and other outreach activities.

SUMMARY:

Staff is continuing to advance the indirect potable reuse project (i.e., approximately 11,000 acre-feet per year of groundwater recharge) using a fixed-price Design-Build-Finance-Operate-Maintain delivery method.

The main items of this update include:

- Procurement: The Request for Qualifications deadline was July 23, 2021 and staff is evaluating the submissions. P3 Legal Counsel has been selected. Work continues on development of performance specifications for the RFP.
- Technical analyses: Supporting analyses for the draft Environmental Impact Report have continued as refinements have been made to the pipeline alignments. The pipeline alignment geotechnical analysis contract was approved at the June 22, 2021 Board meeting. Staff is also evaluating the level of effort and associated cost for the potential cleanup of the former Los Altos Treatment Plant site in Palo Alto.
- Partnership with Cities: Staff continues to develop lease terms and Reverse Osmosis Concentrate management terms with City of Palo Alto staff. The Board heard an update on the partnership efforts with the City of San José at the July 13, 2021 Board meeting. In addition, meetings with San José, Santa Clara, Campbell, Sunnyvale, NASA Ames, and Mountain View

have occurred to gather input on the pipeline alignment.

- Regulatory agency discussions: Meetings were held with the Regional Water Quality Control Board (Water Board) on conditions for managing reverse osmosis concentrate at the Palo Alto site and with the State Division of Drinking Water to obtain initial feedback on project implementation.
- Outreach: Staff continues to perform public outreach on the Purified Water Project.

Impacts of the above on overall schedule are under evaluation.

ATTACHMENTS:

None.

UNCLASSIFIED MANAGER:

Kirsten Struve, 408-630-3138



Santa Clara Valley Water District

File No.: 21-0797

Agenda Date: 7/28/2021
Item No.: 4.2.

COMMITTEE AGENDA MEMORANDUM

Recycled Water Committee

SUBJECT:

Update on Expanding Recycled Water Use in South County.

RECOMMENDATION:

Receive information and provide feedback.

SUMMARY:

The Santa Clara Valley Water District (Valley Water) and the Cities of Gilroy and Morgan Hill have a long history of collaboration to ensure the utilization and expansion of recycled water in South County. Since 1999, South County water reuse has been anchored by a series of partnering agreements that have promoted the development and expansion of our South County Recycled Water System.

Valley Water has recognized that future expansion of existing recycled water programs or implementation of new recycled and purified water programs in Santa Clara County will rely upon partnership agreements between Valley Water and contributing project partners. These collaborative partnerships will be key to achieving Valley Water's goal for water reuse to provide at least 10% of total County water supply demands. In South County, Valley Water has established the Joint Water Resources Committee (Committee) with elected officials representing the Cities of Gilroy and Morgan Hill for this shared advisory purpose. Valley Water continues to pursue relationships and formal agreements to support existing and future recycled and purified water expansion.

Given the importance of water reuse to future water supply and the magnitude of our current infrastructure investment, a higher level of public collaboration and partnership are warranted in South County. The Cities of Gilroy and Morgan Hill have recently indicated their joint interest in developing a roadmap with Valley Water for enhanced water reuse collaboration in South County. A meeting of the Joint Water Resources Committee has been scheduled for August 4, 2021, to discuss opportunities for future collaboration and partnership on water reuse in South County. Staff will discuss proposed agenda items including an overview of South County recycled water efforts, options to strengthen and enhance Committee authority, and a roadmap to update our water recycling agreements and improve South County water reuse.

ATTACHMENTS:

None.

File No.: 21-0797

Agenda Date: 7/28/2021
Item No.: 4.2.

UNCLASSIFIED MANAGER:
Kirsten Struve, 408-630-3138



Santa Clara Valley Water District

File No.: 21-0798

Agenda Date: 7/28/2021

Item No.: 4.3.

COMMITTEE AGENDA MEMORANDUM

Recycled Water Committee

SUBJECT:

Update on Refinery Recycled Water Exchange Project with Central Contra Costa Sanitary District and Contra Costa Water District

RECOMMENDATION:

Receive and discuss information on the Refinery Recycled Water Exchange Project.

SUMMARY:

The Santa Clara Valley Water District (Valley Water) is evaluating the benefits of the Refinery Recycled Water Exchange Project (RRWE), a regional recycled water project with Central Contra Costa Sanitary District (Central San) and Contra Costa Water District (CCWD). RRWE involves Central San partnering with Valley Water to design, build and operate a recycled water facility to provide recycled water to CCWD to serve to their two existing oil refinery customers and CCWD providing Valley Water the Central Valley Project (CVP) contract supply that would have otherwise gone to those refineries. Central San and Valley Water would share the costs to design, build and operate the recycled water facility; cost allocation would need to be negotiated among the partners. Valley Water would pay for costs to convey CCWD's CVP water to Valley Water. Preliminary work on cost allocation will be presented by Central San at the July 28, 2021 Recycled Water Committee.

In April 2018, Valley Water entered into a Memorandum of Understanding (MOU) with Central San and CCWD to explore the possibility of a regional water exchange project. The main tasks under the MOU are to estimate potential yield, develop potential treatment trains that could produce the appropriate recycled water quality for the refineries, and determine the costs of the RRWE. Project partners (i.e. Valley Water, Central San and CCWD) have extended the MOU twice and are currently working on a third extension through June 30, 2022 to provide sufficient time to refine project yield and cost estimates given new information on refinery demands.

This project could provide up to approximately 9 thousand acre-feet (TAF) per year of additional supply to Valley Water that may help Valley Water meet its level of service goal, especially during dry years. However, since Valley Water would be receiving CVP water that is subject to water allocation by the U.S. Bureau of Reclamation (Bureau), rather than the recycled water produced by the project, RRWE would increase Valley Water's reliance on imported water and the associated risk of reduced future allocations. In addition, the imported water exchange associated with RRWE has regulatory and operational uncertainties that could impact the reliability of Valley Water receiving the project water.

To support project progress, a Board Liaison Committee was set up in August 2020 that includes a Board member representative, the general manager/CEO, and key staff from each partner agency. Central San has led each Board Liaison Committee meeting, providing updates on the project design alternatives, yield, and cost analysis and the cost allocation study.

Project Yield Evaluation

The original project definition assumed the refineries would have 22 TAF of annual demand that could be met with Central San's recycled water. However, since the 2018 MOU, one refinery has shifted operations such that the expected future refinery demands are now approximately 18 TAF/year. To determine how much of the 18 TAF/year of freed up CVP water that CCWD could transfer to Valley Water, CCWD completed CalSim II modeling and analysis. The CalSim II analysis indicated that the long-term average yield to Valley Water (i.e., volume of transferred CVP supply) for the RRWE is approximately 9 TAF/year (approximately 50% of the recycled water production of 18 TAF/year). Project yield to Valley Water is less than the recycled water production because of constraints in the Delta, CVP and SWP operations, and CCWD operations.

While Valley Water may be able to have access to approximately 9 TAF/year of CVP transfer supplies through this project, the amount of water Valley Water can use is further dependent on Valley Water's operational and physical capacity constraints during the time periods CCWD is able deliver the CVP water. Valley Water's capacity constraints through the Los Vaqueros Reservoir Expansion Project's Transfer Bethany Pipeline, South Bay Aqueduct, surface storage reservoirs, treatment plants, and recharge ponds could all reduce the amount of transfer water Valley Water can use. Evaluating Valley Water's constraints on receiving the transfers will depend on Los Vaqueros Reservoir Expansion Project operations and on which other projects Valley Water decides to participate in.

Project Yield Uncertainties

While the project may yield up to 9 TAF/year to Valley Water in the form of CVP transfer supplies, there are several factors that could decrease the project water available, including:

- Low CVP allocations during severe droughts that curtail the amount of water CCWD transfers to Valley Water.
- Per Bureau CVP transfer rules, water is only available for transfer if offset via another supply or conservation; thus, decreased refinery demands would reduce the amount of CVP transfer water available.
- Physical capacity constraints (e.g., Delta pumping and Transfer Bethany Pipeline capacity constraints for conveying CCWD's CVP water to Valley Water were not yet considered in the yield study).
- Uncertainties related to the completion of Los Vaqueros Reservoir Expansion facilities, including Transfer Bethany Pipeline, which are required to transfer the water to Valley Water.
- Potential physical and operational constraints in Valley Water's system that limit the amount of CVP water that can be brought into the Valley Water service area or placed into storage.

Cost Estimate

The preliminary 100-year net present value lifecycle unit cost by Central San for the 18 TAF/year RRWE project is currently estimated to be approximately \$1,800/AF. The costs include recycled

water production and distribution and CVP water conveyance to Valley Water. Project costs would primarily be allocated among Central San and Valley Water, but the allocation approach needs to be negotiated. CCWD is a facilitator of the water exchange and not receiving a water supply benefit from this project, thus they will only pay for RRWE operational costs that benefit CCWD. Valley Water is expected to cost share in the full project to produce the 18 TAF/year that will be provided to the refineries, but as described above, Valley Water would only receive up to 9 TAF of CVP water supply from CCWD.

Central San and Valley Water entered into a cost share agreement not to exceed \$35,000 in February 2021 to begin preliminary work on cost allocation. Central San and Valley Water hired Raftelis Financial Consultants, Inc. to conduct the cost allocation evaluation. The cost allocation was evaluated based on the economic value of the benefits provided by the project to both partners. While this study is still ongoing, preliminary analysis found that based on the current 100-year lifecycle cost estimate and project benefits, approximately \$800/AF may be allocated to Central San with the remaining \$1000/AF being the responsibility of Valley Water. Central San's preliminary allocated cost represents approximately 50% of the cost to design, build and operate a recycled water facility, including conveying the recycled water to the refineries, but not to convey CVP supplies to Valley Water. Since Valley Water will only receive 50% of the project yield but cost share for all recycled water produced, the effective unit cost to Valley Water is approximately \$1,800/AF.

Needs, Challenges, and Next Steps

The RRWE project faces challenges and uncertainties that require further evaluation. These uncertainties and associated challenges can be addressed at the next phase of the feasibility analysis and/or in collaboration with other regional projects that have similar needs and challenges. Parties are amending the existing MOU to continue this work. The issues requiring additional assessment and clarification include but are not limited to:

- Identify conveyance capacity competition with other regional projects
- Evaluate CCWD CVP contract and water transfer constraints
- Perform further yield analysis that includes drought curtailment considerations informed by guidance from the Bureau
- Evaluate potential Transfer Bethany Pipeline conveyance capacity constraints
- Analyze Valley Water's effective utilization rate
- Confirm that the refineries are a willing customer for the recycled water
- Identify potential for future reductions in refinery customer demands
- Finalize conveyance, storage, and commodity costs
- Finalize the cost and benefit allocation between Central San and Valley Water

ATTACHMENTS:

Attachment 1: Powerpoint

UNCLASSIFIED MANAGER:

Kirsten Struve, 408-630-3138

THIS PAGE INTENTIONALLY LEFT BLANK



UPDATE ON REFINERY RECYCLED WATER EXCHANGE PROJECT

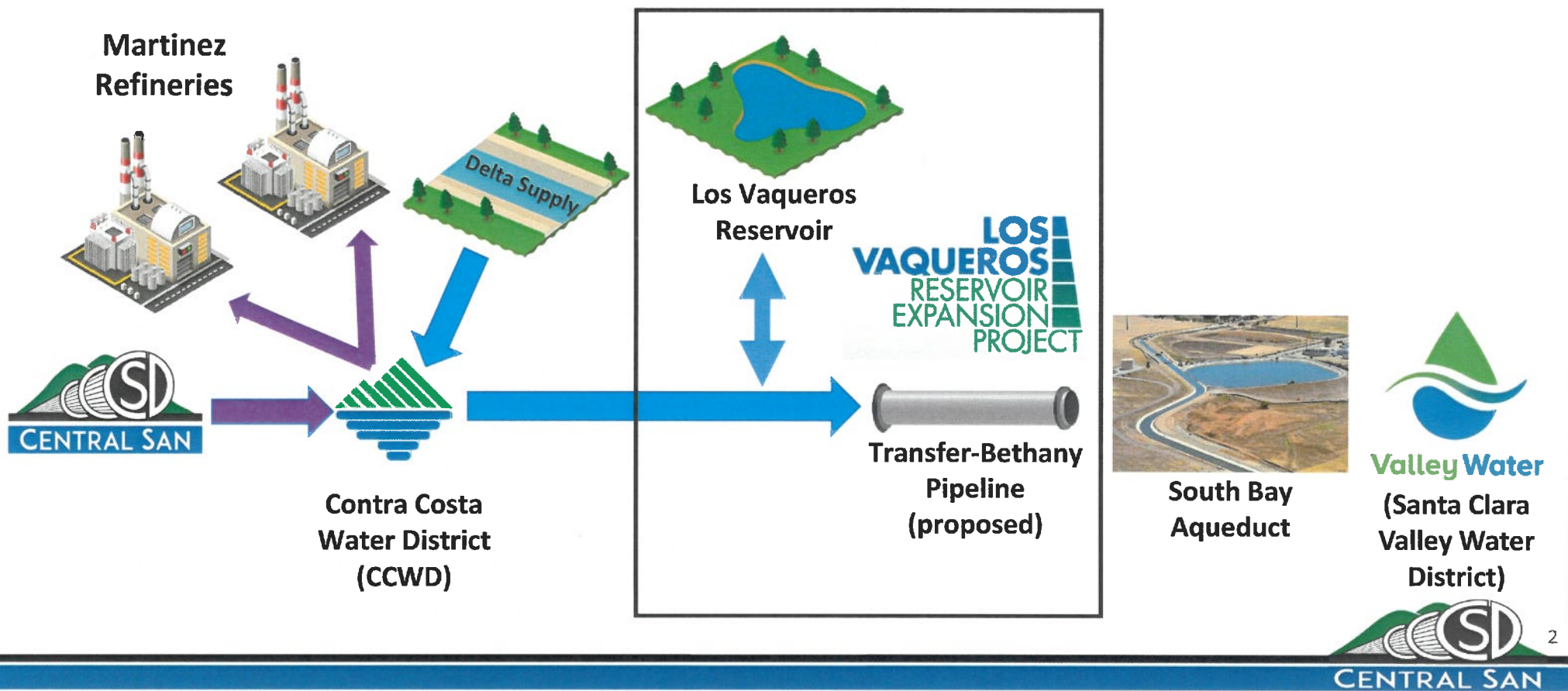
Melody LaBella, P.E.
Resource Recovery Program Manager

Valley Water Recycled Water Committee Meeting
July 28, 2021

Attachment 1



REFINERY RECYCLED WATER EXCHANGE PROJECT CONCEPT



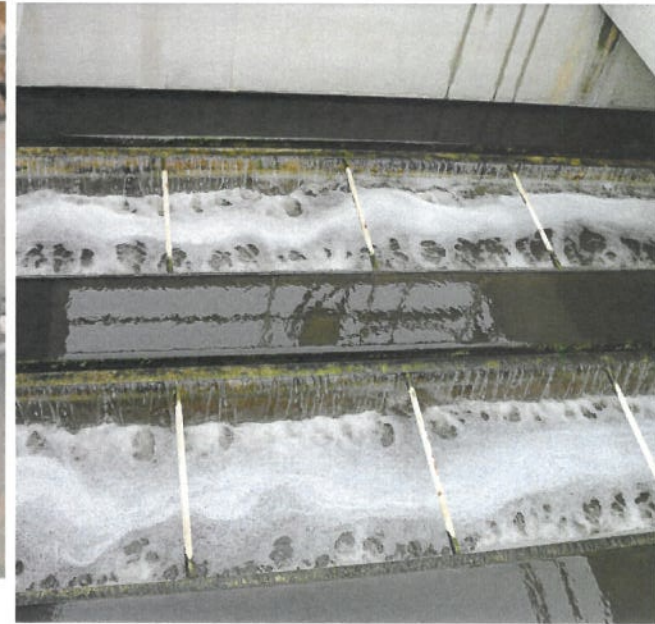
MEMORANDUM OF UNDERSTANDING (MOU)

- On April 30, 2018, a three-way MOU was executed between Central San, CCWD, and Valley Water to conduct a Preliminary Feasibility Evaluation of the Refinery Recycled Water Exchange Project
- On July 3, 2019, Amendment 1 was executed, extending the termination date to June 30, 2020
- On June 22, 2020, Amendment 2 was executed, extending the termination date to June 30, 2021

WORK PLAN DEVELOPED JUNE 2018

- Central San, CCWD, and Valley Water staff collaborated to develop a Work Plan called for in the MOU
- Tasks included:
 - A. Review and update costs Central San previously developed to provide recycled water for refinery use
 - B. Review refinery water quality requirements
 - C. Evaluate/estimate the project's yield
 - D. Develop updated cost estimates
 - E. Allocate costs, based on beneficiary pays
 - F. Final report





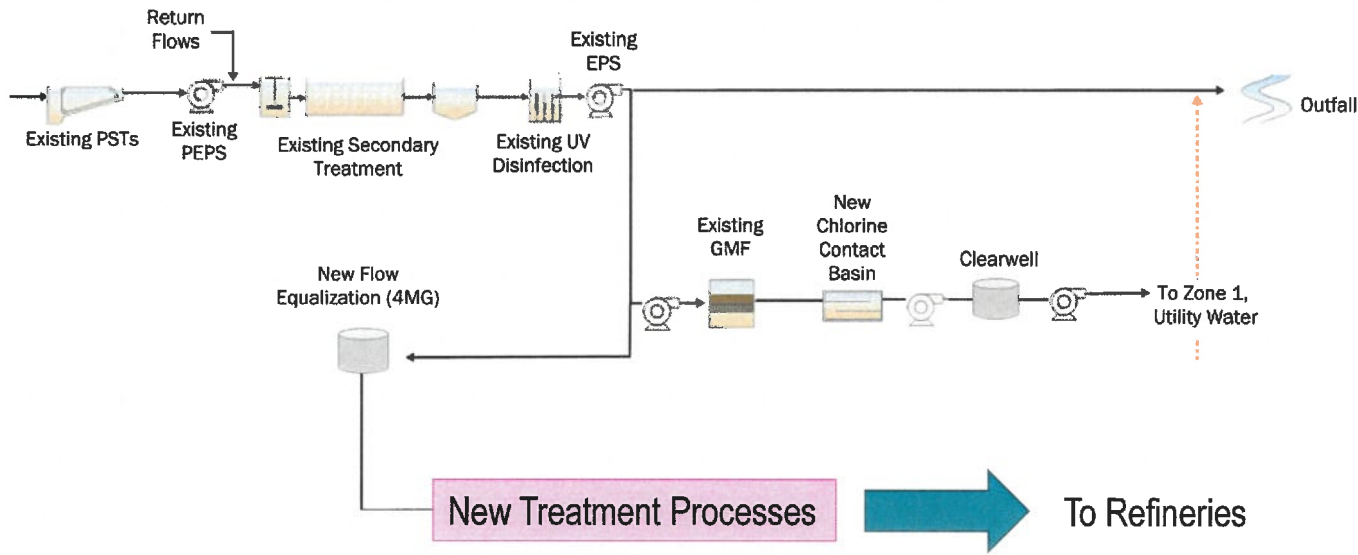
Water Exchange Cost Sharing



May 2021

Overview of Water Exchange Alternatives

Alternative 1 – Targeted Nitrogen Removal



Costs for 21,600 AFY Recycled Water Delivery

<u>Capital Costs</u>	
Treatment	\$ 444 M
Conveyance	\$ 49 M
Total Capital	\$ 493 M
O&M (\$/yr)	\$ 12 M

Unit Cost	\$1,500/AF*
------------------	--------------------

Costs for 18,500 AFY Recycled Water Delivery: (16.5 MGD)**

<u>Capital Costs</u>	
Treatment	\$ 391 M
Conveyance	\$ 48 M
Total Capital	\$ 439 M
O&M (\$/yr)	\$ 10 M

Unit Cost	\$1,500/AF*
------------------	--------------------

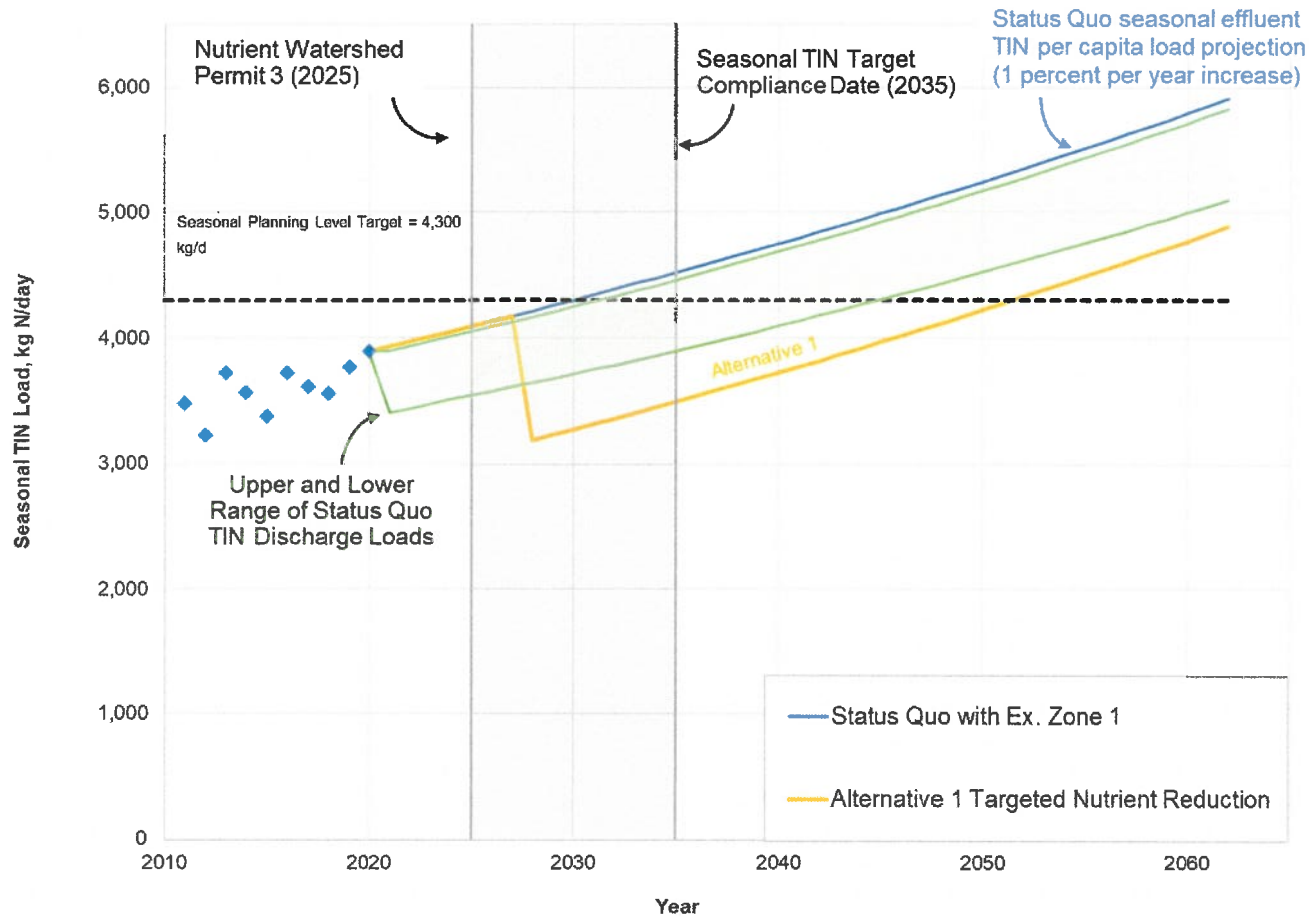
* Labor costs not included

** Lower flows required due to changes in refinery operations

MGD = million gallons per day

DRAFT

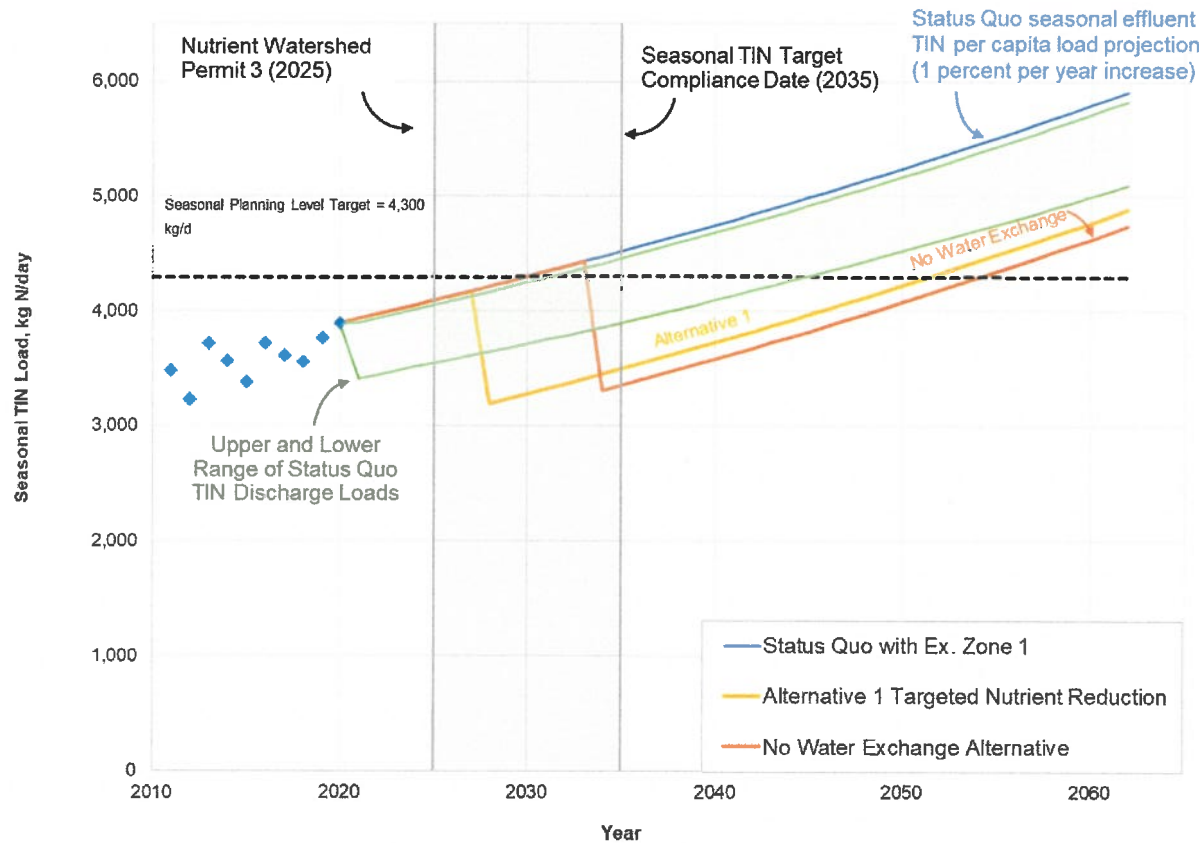
Cost Sharing Basis at 16.5 mgd delivery



Alternative 1:

- Compliance until 2051 (23 years)

Cost Sharing Basis at 16.5 mgd delivery



Alternative 1:

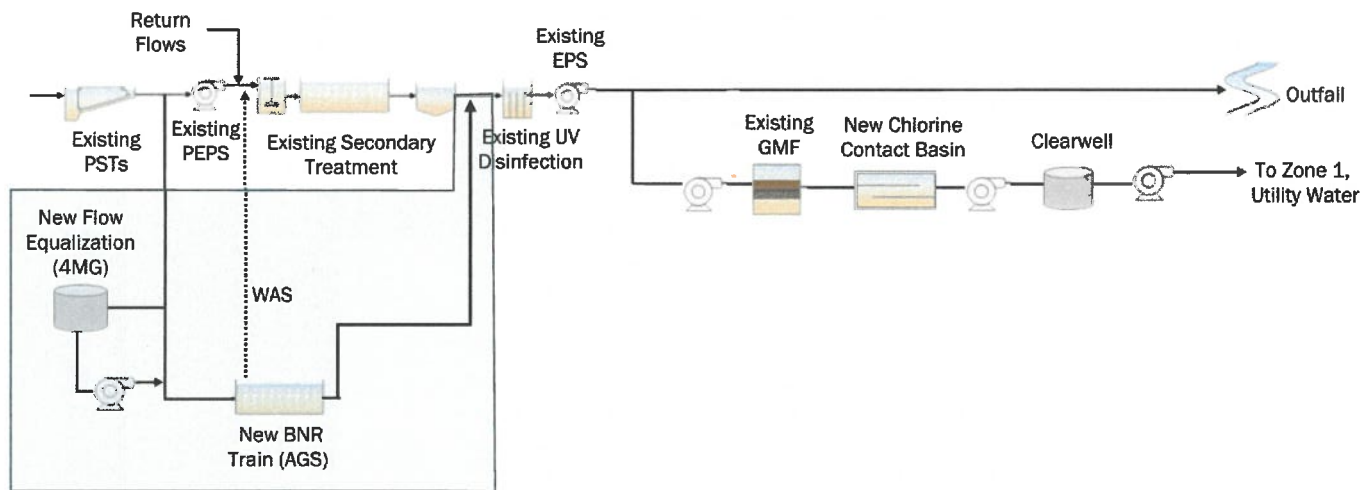
- Compliance until 2051 (23 years)

No Water Exchange:

- 24 mgd parallel treatment
- Compliance until 2054 (20 years)

DRAFT

No Water Exchange – Parallel Treatment



Constant-Flow Parallel Treatment

Costs for 24 MGD Parallel Treatment Train:

Capital Costs	
Treatment	\$ 225 M
Conveyance	\$ -- M
Total Capital	\$ 225 M
O&M (\$/yr)	\$ 5.0 M

DRAFT

Cost Sharing Approach

- Central San could contribute to the cost of providing the equivalent TIN load reduction as the Water Exchange Alternative 1 (i.e., Central San contributes the cost of the No Water Exchange Alternative)
 - Can be applied to any size delivery scenario

Cost Sharing Summary – 30-year PV

	16.5 mgd delivery	
	No Water Exchange (24 mgd)	WEX Alternative 1
Total Capital Cost	\$ 225.0 M	\$ 439.0 M
Total Operating Cost (PV)	\$ 115.0 M	\$ 299.7 M
Total Recycled Water Unit Cost (\$/AF)	NA	\$2,000
Valley Water Capital Cost	--	\$ 214.0 M
Central San Capital Cost	\$ 225.0 M	\$ 225.0 M
Valley Water Recycled Water Unit Cost (\$/AF)	--	\$1,000
Central San TIN Load Reduction Cost (\$/kg TIN)	\$110	\$120

Cost Sharing Summary – 100-year PV

	16.5 mgd delivery	
	No Water Exchange (24 mgd)	WEX Alternative 1
Total Capital Cost	\$ 225.0 M	\$ 439.0 M
Total Operating Cost (PV)	\$ 230.0 M	\$ 522.0 M
Total Recycled Water Unit Cost (\$/AF)	NA	\$1,600
Valley Water Capital Cost	--	\$ 213.0 M
Central San Capital Cost	\$ 225.0 M	\$ 225.0 M
Valley Water Recycled Water Unit Cost (\$/AF)	--	\$800
Central San TIN Load Reduction Cost (\$/kg TIN)	\$80	\$100

COST TABLE DEVELOPED BY CCWD (IN PROGRESS)

Line Item Description		30-YR PV Unit Cost (\$/AF)	100-YR PV Unit Cost (\$/AF)
Treatment Costs	Central San Commodity Charge (negotiable)	\$50	\$50
	Recycled Water Treatment and Conveyance - Alternative 1	\$2,000	\$1,600
	Recycled Water Cost Subtotal	\$2,050	\$1,650
	Central San Cost Allocation	-\$1,100	-\$800
	Net Recycled Water Cost with Central San Avoided Cost/Cost Benefit Allocation	\$950	\$850
	Transferable Recycled Water Cost <i>Assumes 50% Yield to Valley Water</i>	\$1,900	\$1,700
Conveyance Costs	USBR CVP Cost of Service for Exchange	\$41	\$41
	CCWD Conveyance	\$110	\$110
	CCWD Storage	\$0	\$0
	SBA Conveyance	\$40	\$40
	Transfer Bethany Pipeline Conveyance	TBD	TBD
	CCWD Avoided Costs (PRELIMINARY)	(\$101)	(\$101)
	Net Water Conveyance Cost Subtotal	\$90	\$90
	Preliminary Net Water Cost Estimated Range	\$1,990	\$1,790

DRAFT

NEXT STEPS

- Extend the termination date of the current MOU to June 30, 2022
- Finalize the cost allocation
- Complete the Preliminary Feasibility Evaluation Report
- Meet with the US Bureau of Reclamation?
- Determine if the project will proceed to a more-detailed Feasibility-level Evaluation

Refinery Recycled Water Exchange: Considerations for Further Study

valleywater.org

Other uncertainties to explore

- Impact of low CVP allocations on project yield
- Potential for future reductions in refinery customer demands
- Physical capacity constraints:
 - CCWD conveyance system
 - Transfer-Bethany Pipeline
 - Valley Water's local system
- CCWD CVP contract and water transfer constraints

QUESTIONS?



THIS PAGE INTENTIONALLY LEFT BLANK



Santa Clara Valley Water District

File No.: 21-0799

Agenda Date: 7/28/2021

Item No.: 4.4.

COMMITTEE AGENDA MEMORANDUM

Recycled Water Committee

SUBJECT:

Discuss the 2021 Recycled Water Committee Work Plan, Upcoming Discussion Items, and Next Meeting Date.

RECOMMENDATION:

Accept the updated 2021 Recycled Water Committee Work Plan and provide feedback on upcoming discussion items and meeting schedule.

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 January 15, 2021 meeting, the Committee approved the 2021 work plan that has agenda items necessary for the continuation of the recycled water projects (Attachment 1). Staff solicits Committee feedback on any additional timeline information for holding discussions on the assigned Work Plan items, and confirmation of the next meeting date. An updated 2021 work plan (Attachment 2) proposes changes for the remaining meetings in the year.

ATTACHMENTS:

Attachment 1: 2021 Work Plan

Attachment 2: Updated 2021 Work Plan

UNCLASSIFIED MANAGER:

Michele King, 408-630-2557

THIS PAGE INTENTIONALLY LEFT BLANK

RWC 2021 WORKPLAN

Task	Agenda Item	Staff/Lead												
			January 2021	February 2021	March 2021	April 2021	May 2021	June 2021	July 2021	August 2021	September 2021	October 2021	November 2021	December 2021
1	Update on Purified Water Program including Partnership with Cities of San Jose and Palo Alto	K. Struve	X	X	X	X	X	X	X	X	X	X	X	X
2	Countywide Water Reuse Master Plan	K. Struve			X									
3	Joint Mtg Prep/Debrief: TPAC	K. Struve			X									
4	Joint Mtg Prep/Debrief: Cities of Palo Alto/Mtn View	K. Struve		X					X					
5	Joint Mtg Prep/Debrief: City of Sunnyvale	K. Struve					X							
6	Update on SFPUC/BAWSCA Collaboration Efforts	K. Struve												X
7	Conceptual Recycled Water Exchange with Contra Costa Water District and Central Contra Costa Sanitary District	K. Struve				X								
8	IRS Letter	K. Struve/C. Sun												
9	Evaluate and propose policy options related to centralized and decentralized reuse for Committee's consideration	K. Struve						X						
10	Regional discussions on options to meeting the Board's 10% recycled water goal using either desalination and brackish water	K. Struve				X								
11	Update on Bottling Purified Water at the SVAWPC	K. Struve						X						X
12	Update on the Independent Advisory Panel Meeting	K. Struve											X	
13	Update on Public Private Partnership (P3) Procurement	K. Struve	X	X	X	X	X	X	X	X	X	X	X	X
14	Urban Runoff Study with Stanford University	K. Struve						X						X
15	Outreach Efforts	K. Struve/M. Lugo			X				X				X	
16	South Santa Clara County Water Reuse Opportunities	K. Struve						X						
17	South Santa Clara County Water Reuse Governance	K. Struve			X						X			

THIS PAGE INTENTIONALLY LEFT BLANK

UPDATED RWC 2021 WORKPLAN

Task	Agenda Item	2021											
		January 2021	February 2021	March 2021	April 2021	May 2021	June 2021	July 2021	August 2021	September 2021	October 2021	November 2021	December 2021
Focus 1: Advance the Expedited Purified Water Program by releasing an RFP for at least one locally-sponsored project													
<i>Advance the Expedited Purified Water Program</i>													
1.1	Update on Purified Water Program including Partnership with Cities of San Jose and Palo Alto (Previously Work Plan Item No. 1)	X	X	CANCELED	X	X	X	X	X	X	X	X	X
1.2	Independent Advisory Panel (Previously Work Plan Item No. 12)											X	
1.3	Update on Public Private Partnership [P3] Procurement (Previously Work Plan Item No. 13)	X	X		X	X	X	X	X	X	X	X	X
Focus 2: Implement the CoRe Plan													
2.1	Countywide Water Reuse Master Plan (Previously Work Plan Item No. 2)				X	X							
2.2	Joint Mtg Prep/Debrief: TPAC (Previously Work Plan Item No. 3)				X								
2.3	Joint Mtg Prep/Debrief: Cities of Palo Alto/Mtn View (Previously Work Plan Item No. 4)					X							
2.4	Joint Mtg Prep/Debrief: City of Sunnyvale (Previously Work Plan Item No. 5)												
2.5	Update on SFPUC/BAWSCA Collaboration Efforts (Previously Work Plan Item No. 6)												X
Focus 3: Continue to monitor Direct Potable Reuse (DPR) guidance and implement actions as needed.													
<i>Continue to monitor Direct Potable Reuse</i>													
3.1	Actively Engage in Direct Potable Reuse			X									
Focus 4: Finalize negotiations on term sheet for South County recycled water and agreement on governance													
<i>South County Recycled Water Agreement and Governance</i>													
4.1	South Santa Clara County Water Reuse Opportunities (Previously Work Plan Item No. 16)												X
4.2	South Santa Clara County Water Reuse and Governance (Previously Work Plan Item No. 17)		X				X		X				
Others													
0.1	Regional discussion on options to meeting the Board's 10% recycled water goal using either desalination and brackish water ; Feasibility analysis of Recycled Water Exchange with Contra Costa Water District and Central Contra Costa Sanitary District and feasibility of desalination (Previously Work Plan Item No. 10)						X						
0.2	Evaluate and propose policy options related to centralized and decentralized reuse for Committee's consideration (Previously Work Plan Item No. 9)												
0.3	Update on Bottling Purified Water at the SVAWPC (Previously Work Plan Item No. 11)					X							X
0.4	Urban Runoff Study with Stanford University (Previously Work Plan Item No. 14)					X							X
0.5	Outreach Efforts (Previously Work Plan Item No. 15)		X					X					
8	IRS Letter												
7	Conceptual Recycled Water Exchange with Contra Costa Water District and Central Contra Costa Sanitary District												

*Blue strikes - items added on updated work plan

*Red strikes - items deleted from current work plan

THIS PAGE INTENTIONALLY LEFT BLANK