Valley Water
Clean Water • Healthy Environment • Flood Protection

MEMORANDUM

FC 14 (01-02-07)

TO: Board of Directors

FROM: Recycled Water Committee

SUBJECT: Recycled Water Committee (RWC) June 28, 2023 Special Meeting Summary.

DATE: August 08, 2023

This memorandum summarizes agenda items from the meeting of the Recycled Water Committee (RWC) held on Wednesday, June 28, 2023.

Attendees:

Valley Water Board members in attendance were: Director Jim Beall (District 4), Vice Chairperson Richard P. Santos (District 3), and Committee Chairperson Tony Estremera (District 6).

Staff members in attendance were: Brandon Adriano, Hossein Ashktorab, Aaron Baker, Henry Barrientos, Lakeisha Bryant, Rick Callender, Anthony Fulcher, Girlie Jacobson, Nicole Merritt, David Montenegro, Carlos Orellana, Leslie Orta, Melanie Richardson, Don Rocha, Amandeep Saini, Nicholas Simard, Medi Sinaki, Kirsten Struve, Darin Taylor, Cindy Torres, Sherilyn Tran, and Zuberi White.

Guests in attendance were: Director Keegan (District 2), Phillippe Daniel (Liquisti LLC), Jan Davel (CDM Smith), Patrick Ferraro (San Jose State University), Bridget Gile and Richard Luthy (Stanford University), Arthur Keller (Minerva Consulting), and Sanjay Reddy (Carollo Engineers).

Public in attendance was: Pedro Carillo, Susan Hinton, Melanie Tan, and XXX-XXX-8150.

1. **Approval of May 24, 2023 Recycled Water Committee Meeting Minutes.**

   The Committee considered this Item without a staff presentation.

   Public Comments:
   None.

   It was moved by Vice Chair Santos and seconded by Director Beall, and unanimously carried that the minutes be approved.

   REGULAR AGENDA:

2. **Receive Purified Water Program Update Including Partnerships with Cities of San Jose and Palo Alto and Outreach Efforts on Purified Water.**
   Kirsten Struve reported on the following:

Summary from Meeting Agenda Memo:

A. **Collaboration with the City of Palo Alto and Other Partners**

Santa Clara Valley Water District (Valley Water) continues to meet with the City of Palo Alto (Palo Alto) staff to finalize agreements for the proposed future purification facility in Palo Alto, including a lease agreement for the former Los Altos Treatment Plant site and an Operations and Maintenance Agreement. Staff meets every two weeks with Palo Alto's Planning Department.

On June 5, 2023, the Palo Alto City Council held a pre-screening study session for the Purified Water Project as part of their regular development review process. The staff presentation provided an overview of the project, the need for a Comprehensive Plan Amendment, and a timeline. Councilmembers were supportive of the facilities while expressing some concern about the Project HomeKey, a new modular interim housing shelter that is being codeveloped by the City of Palo Alto and LifeMoves. Valley Water staff are working with the Project HomeKey design team to ensure good coordination and will be mindful to design our facility to be a good neighbor.

In addition, a Joint Recycled Water Committee with the Cities of Palo Alto, East Palo Alto, and Mountain View was held on June 12, 2023 with a similar presentation on the Regional Purification Project as well as an update on the local facility being developed by the City of Palo Alto.

The US Bureau of Reclamation (USBR) announced that the next funding opportunity for the Large-Scale Water Recycling Program will come out around late July. Valley Water is preparing a feasibility study to be eligible for funding and getting ready to apply as soon as it is announced.

Collaboration with cities and entities along the pipeline route are continuing as are discussions with the Cities of San José and Santa Clara regarding a future project in San José. Mayor Mahan's response to the Chair's letter is attached (Attachment A). Staff from the cities and Valley Water are meeting to develop a collaborative potable reuse project.

B. **Outreach Efforts for Purified Water Program**

Since the last update, staff continues to host public and private tours at the Purification Center. In the month of May, staff hosted seven tours reaching 100 members of the public. Tour groups included Cross Connections, University of San Francisco, National Charity League, and collaboration tours with the cities of San Jose and Campbell public libraries. Recently, staff provided a tour for Valley Water's Water 101 Academy, which is a leadership academy made up of 21 members of the public appointed by Valley Water Board members. The participants go through a three-month long leadership academy to learn about Valley Water and how it operates, from our budgeting to our various infrastructure projects, including the Purified Water Project. This year's academy participants included three local elected officials, Palo Alto Mayor Lydia Kou, Cupertino City Councilmember Kitty Moore, and Morgan Hill City Councilmember Yvonne Martinez Beltran. All three elected officials toured the Purification Center.

Staff is also working on updating signage at the Purification Center to keep the information current and to create a more engaging experience for visitors. Staff is working with the Graphics team to draft designs that will be presented to the committee at a future meeting.

Kirsten Struve was available to answer questions.

Public Comments:
Arthur Keller expressed concern about what steps are being taken to address the sea level rise in regard to the Palo Alto Plant.

Kirsten Struve confirmed plans to raise the Palo Alto plant site to the street level of San Antonio Road and adding in flood walls.

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

Cities of SJ/Santa Clara:

- The Committee noted staff is currently collaborating with city staff on project concepts, preparing the 60-day non-agenda memo in response to Director Beall's request, and applied for a planning grant.
- The Committee noted the importance of having the Purification Center outreach tours and more joint meetings to ensure the partnerships with other public officials to expedite support for future joint agreements and securing funding.
- The Committee noted the next Joint Recycled Water Policy Advisory Committee (SJ/SC) will occur on September 6, 2023.
- The Committee noted the full Board to be notified of the upcoming Purification Center tour with the Santa Clara Valley Water Commission on August 23, 2023.

3. Receive Recycled Water Use Update at Lake Cunningham.
Henry Barrientos reported on the following:

Summary from Meeting Agenda Memo:
At the request of the Recycled Water Committee (RWC), Valley Water staff prepared the following information related to the history and operation of the City of San Jose's recreational park, Lake Cunningham. Specifically, the RWC requested staff investigate the feasibility of using tertiary treated recycled water at the park to mitigate water quality issues and re-establish use of the lake for recreational purposes. In May 2022 the City of San Jose completed the Lake Cunningham Shoreline and Water Quality Study - Baseline Conditions and Treatment Measures Draft Report. The report evaluated the water quality challenges and proposed several possible solutions. Valley Water staff has reviewed the information in the 2022 Study and evaluated the viability of using recycled water to mitigate water quality issues at the lake.

BACKGROUND
The Cunningham Flood Detention Facility is situated in the Valley Water's East Zone within Lake Cunningham Regional Park (LCRP), a 202-acre water-oriented park located in the southeast section of San Jose and is upstream of Valley Water's Lower Silver Creek Flood

Protection Project. The park was designed and constructed in accordance with a LCRP Master Plan originally developed in 1976 by the City of San Jose (City) to function dually as a recreational and flood detention facility. Lower Silver, Flint, and Ruby Creeks flow along the perimeter of the park.

In 1978, Valley Water entered into a Joint Use Agreement (1978 Agreement) with the City to develop a joint recreational-flood detention facility at the LCRP site. Per the 1978 Agreement, the City holds fee title to all the park lands and is responsible for the park's recreational-related facilities including Lake Cunningham (Lake). The City granted Valley Water an easement to all park lands and Valley Water is responsible for the flood improvement measures in LCRP which include the creeks, creek levees, and overflow weirs. The easement, recorded in October of 1980, includes language that allows for Valley Water to take measures necessary for flood protection purposes provided the measures are compatible with the park uses.

The City was the lead agency responsible for the design and construction of the improvements in the late 1970s and early 1980s and Valley Water assisted by providing design input and funds towards the construction of the park. The flood detention facility was planned to provide temporary storage of floodwaters from Lower Silver Creek, Flint Creek, and Ruby Creek in the park and the City was not to hold Valley Water responsible for any damages caused by the planned inundation.

In 2019 Valley Water completed flood protection improvements to raise the levees, build a floodwall, and replace a storm drain and check valve at the big meadow area. The project was FEMA certified for a 100-year flood event.

2022 City of San Jose Study

The 2022 study indicates several water quality issues and provides recommendations of proposed corrective actions to address these issues. Some of the issues relate to water temperature and stagnant water. Elevated water temperatures impact the geochemical process causing changes in water chemistry that impact phytoplankton and create inhabitable conditions for aquatic organisms. The water in the Lake is unable to be exchanged with fresh water which also contributes to elevated water temperatures. Contributions from sediments, bird feces, vegetation, fertilizers, run-off of irrigation and surface water also results in high nutrient levels. Bird feces also contribute to elevated bacterial concentrations.

Treatment options and recommendations from the 2022 study include alum treatment to remove phosphorous from the Lake, runoff sediment management and mechanical mixing. In addition, the construction of shoreline wetlands and vegetated swales to reduce nutrient loading, expansion of wetland areas and floating wetlands. To reduce fecal coliform loading, planting vegetative buffers is recommended.

Recycled Water

Tertiary treated recycled water from the City's South Bay Water Recycling (SBWR) system runs approximately 3 miles away from the Lake. The nearest recycled water distribution line

runs along a very busy corridor along Senter Road near the intersection of Tully Road in East San Jose. It is unclear at this time if sufficient recycled water is available to feed the Lake, and a hydraulic study would be required to make this determination. In addition, since SBWR owns the distribution line Valley Water would have to develop a Memorandum of Understanding and eventually agreements to obtain this water supply. However, past attempts to use recycled water to augment natural water bodies did not move forward due to concerns about water temperature and the potential presence of emerging contaminants. Given the stagnant nature of the water in the Lake and the potential presence of constituent of concern in recycled water, staff does not recommend the use of recycled water in the lake since this would not address water quality issues already present in the Lake.

Henry Barrientos, Kirsten Struve, Anthony Fulcher, and Melanie Richardson were available to answer questions.

Public Comments:
Susan Hinton expressed support of including the Santa Clara Valley Native Plant Society in any future Lake Cunningham improvement projects.

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

- The Committee noted the $1.5 million designated by the State Budget to the City of San Jose for Lake Cunningham for water quality and lake shoreline improvement.
- The Committee confirmed this Item is not within the scope of the RWC and is to return on the September 6, 2023 Agenda for the Joint Recycled Water Policy Advisory Committee with the Cities of San Jose/Santa Clara for further discussion and direction to recommend to have this Item go on an upcoming Agenda for a Board Joint Meeting with the City of San Jose.

4. Receive Urban Runoff Study with Stanford University.
Hossein Ashktorab, Richard Luthy reported on the following:

Summary from Meeting Agenda Memo:
In August 2018 Valley Water in partnership with Stanford University, initiated a two-phased project to evaluate alternatives for stormwater capture for water reuse purposes and considerations for feasibility and cost analysis, specifically analyzing whether it would be feasible to use Coyote Creek storm flows as an additional water source.

In September 2022, the project team (Stanford and Valley Water) led by Stanford presented preliminary findings from the November 2021 through July 2022 Coyote Creek water quality sampling to the Recycled Water Committee (RWC). Since then, the team has conducted two additional rounds of sampling for a total of eight sampling events. Water quality parameters analyzed include conventional, organic, and emerging constituents from the National Primary Drinking Water Regulations (NPDWR) and the Priority Pollutant List. Many of these constituents were not detected in Coyote Creek or were present at levels far below safe drinking water standards. The results indicate presence of perfluorochemicals PFOS and

PFOA, which may require additional analysis and consideration regarding potential treatment and use for recharge. This report provides an update on the additional sampling conducted. Moving forward, Valley Water Staff and Stanford University project team members will synthesize findings from the sampling at Coyote Creek to further evaluate water quality and seasonality and consider these results in the context of potential treatment needs for stormwater (e.g., creek storm flow) to further explore the feasibility of capture and reuse. Special interest is placed on wet weather flows and how water quality compares to dry weather conditions.

Stanford Team members have pursued academic discussions with some of the regulatory agencies such as the Regional Water Quality Control Board. These have yielded encouraging feedback on the ecological feasibility of centralized stormwater capture, which sets the stage for future investigation of issues related to regulations, laws, and water rights pertinent to aquatic and other wildlife resources. However, given the complex nature of the regulatory and environmental implications, further discussions and developing a better understanding of the associated issues are needed.

Hossein Ashktorab, Bridget Gile, Richard Luthy, and Kirsten Struve were available to answer questions.

Public Comments:
Arthur Keller expressed concern for how stormwater is treated separately from sewer water during the overflow, rainy season to avoid overwhelming the sewer treatment plants in communities where the stormwater and sewer water are combined.

Kirsten Struve confirmed that stormwater and sewer water systems are not combined in Santa Clara County and noted that all the Bay Area cities have green infrastructure plans and are currently implementing such infrastructure to improve the water quality of stormwater before it is discharged to the creeks and Bay.

The Committee received the information and agreed by consensus that this study will be included in a requested future Water Supply Master Plan Update to the full Board without official action.

5. Receive and Discuss the 2023 Recycled Water Committee Work Plan, Upcoming Discussion Items, and Next Meeting Date.

The Committee considered this Item without a staff presentation:

Summary from Meeting Agenda Memo:
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.

Kirsten Struve was available to answer questions.

Public Comments:
None.

The Committee confirmed the next regular meeting would be August 23, 2023.

6. Adjourn.

Chairperson Estremera adjourned the meeting at 11:29 a.m.
The next regular meeting on August 23, 2023 was subsequently re-scheduled to a special meeting on August 18, 2023.
Board member comments and suggestions can be forwarded to Nicole Merritt, Assistant Deputy Clerk II at (408) 630-3262 or by email to nmerritt@valleywater.org.

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