



## MEMORANDUM

FC 14 (01-02-07)

**TO:** Board of Directors

**SUBJECT:** Joint Recycled Water Advisory Committee  
Meeting Summary for September 5, 2019

**FROM:** Joint Recycled Water  
Advisory Committee

**DATE:** October 8, 2019

This memorandum summarizes agenda items from the regular meeting of the Joint Recycled Water Advisory Committee held on September 5, 2019.

### **Attendees:**

Valley Water Board Members in attendance were: Director Tony Estremera-District 6 Director Barbara Keegan-District 2 and Director Gary Kremen-District 7 and Director.

Committee Members in attendance were: Council Member Ruben Abrica, City of East Palo Alto, Council Member Lucas Ramirez, City of Mountain View, Council Members Alison Cormack and Tom DuBois, City of Palo Alto.

Valley Water Staff/Contractor in attendance were: Gina Adriano, Hossein Ashktorab, Henry Barrientos, Glenna Brambill, Tim Bramer, Mera Burton, Phillippe Daniel, Jerry De La Piedra, Garth Hall, Nina Hawk, Brian Hopper, Elise Latedjou-Durand, Katherine Oven, Steven Peters, Eva Sans, Miguel Silva, Medi Sinaki, David Tucker and Bhavani Yerrapotu.

Guests in attendance were: Ed Arango, Diego Barragan, Phil Bobel, Lou Carella, Karla Dailey, Samantha Engelage, Michael Fuller, Karin North, Dave Warner and Stan Williams.

## **4. ACTION ITEMS**

### **4.1 UPDATE ON NORTHWEST COUNTY STRATEGIC PLANNING**

Mr. Phil Bobel and Ms. Samantha Engelage reviewed the following and were available to answer questions.

#### **Summary:**

This agenda item provides an update to the Joint Recycled Water Committee and describes the completion of the Northwest County Recycled Water Strategic Plan.

#### **Northwest County Recycled Water Strategic Plan**

On July 26, 2016, the Board of Directors of the Santa Clara Valley Water District (Valley Water) approved a cost sharing agreement between the City of Palo Alto and Valley Water to support the development of the Northwest County Recycled Water Strategic Plan (Strategic Plan). The Strategic Plan was tasked to evaluate expansion opportunities for the recycled water system associated with the Regional Water Quality Control Plant (RWQCP) in Palo Alto.

To support evaluation of expansion opportunities, a detailed study of local groundwater conditions in the northwest Santa Clara County was performed to assess local hydrogeology and opportunities for groundwater augmentation with advanced purified water. A comprehensive analysis of potential recycled water supply and demand was performed for the RWQCP service area to identify potential recycled water users. Preliminary design and financial planning were performed to develop project costs and identify potential funding opportunities.

The Strategic Plan evaluated a number of non-potable (NPR), indirect potable (IPR), and direct potable reuse alternatives within the RWQCP service area, including the possibility of implementing treated water augmentation, or the introduction of advanced purified water directly into the treated water distribution system. Alternatives were evaluated and ranked based on cost and non-cost criteria.

Results of the analysis indicate that NPR opportunities within the RWQCP service area could yield between 200 and 1,200 acre-feet (AF) per year (AFY) at a cost ranging from \$2,100/AF to \$4,600/AF. IPR opportunities could yield up to 5,900 AFY at a cost ranging from \$3,300/AF to \$4,400/AF. Raw water augmentation opportunities

could yield up to 5,300 AFY and cost approximately \$2,500/AF. Implementation of alternatives may be subject to further studies, recycled water availability, and the results of the Countywide Water Reuse Master Plan.

The interim final report of the Strategic Plan (Attachment 2) was released to stakeholders on August 19, 2019 and will be presented to the Palo Alto City Council in early 2020 for acceptance.

A copy of the interim final report and associated appendices can be found on the project's website:  
[https://www.cityofpaloalto.org/gov/depts/utl/residents/resources/water\\_resources/recycled\\_water.asp](https://www.cityofpaloalto.org/gov/depts/utl/residents/resources/water_resources/recycled_water.asp)

#### Next Steps

The Strategic Plan project team will complete a financial assistance application with the Clean State Revolving Fund program to seek a low-interest loan to complete the design and construction of the local Advanced Water Purification Facility.

In addition, City of Palo Alto, City of Mountain View, and Valley Water staff will continue to work on siting evaluations to inform selection of suitable sites for a future regional advanced water purification facility. Information generated as part of the siting study will inform 10% design deliverables being developed by the Countywide Water Reuse Master Plan.

Mr. Stan Williams of Poseidon Water spoke regarding project costs, operation and maintenance-repairs, energy use and costs, climate changes, concept of direct potable reuse-caution-regulatory risks-not yet finalized and funding concerns.

The Joint Recycled Water Advisory Committee discussed the following items: options cost raised in the agenda memo- potable vs non potable reuse, non-cost benefits, injected/percolate aquifer water needs to be retreated (no plume/contamination).

The Joint Recycled Water Advisory Committee took no action.

## **4.2 UPDATE ON COUNTYWIDE WATER REUSE MASTER PLAN AND REVERSE OSMOSIS CONCENTRATE MANAGEMENT PLAN**

Mr. Miguel Silva and Mr. Medi Sinaki reviewed the following and were available to answer questions.

### **Summary:**

On September 26, 2018, staff provided the Joint Recycled Water Policy Committee (Committee) with an update of the Santa Clara Valley Water District's (Valley Water) Countywide Water Reuse Master Plan (Reuse Master Plan). The goal of the Reuse Master Plan is to improve water supply reliability, through water reuse, in collaboration with recycle water producers, wholesalers, retailers, users, and other interested parties. During the September 26, 2018 meeting staff discussed Reuse Master Plan objectives, roles and responsibilities, baseline development, regional integration and stakeholder engagement opportunities. This item will provide an update on the Reuse Master Plan, which now incorporates improvements adopted by Valley Water's Board of Directors on June 11, 2019.

Current efforts of the Reuse Master Plan are focused on developing and evaluating the viability of the three recommended project portfolios based on preliminary one percent level of design (1% design). Important considerations as staff continues the planning process include:

- The portfolios include independent project elements that may be mixed/matched for planning purposes;
- The portfolios will be developed for maximum project flexibility;
- The Reuse Master Plan will involve an assessment of treated water augmentation (TWA) requirements and opportunities; and
- The revised schedule allows for increased stakeholder review time and added more collaboration opportunities.

The revised scope of the consultant agreement involves developing recommended alignments and infrastructure for each project element (i.e. pre-engineering (1% design) depicting facility locations and/or pipeline alignments) that are intended to facilitate discussion, collaboration and confirmation before preparing preliminary 10% project designs (10% design). These 10% designs will document existing conditions and develop engineering/technical information to allow objective assessments of the advantages and limitations of each project alternative. An economic assessment of the 10% designs will be undertaken to consider the cost of the water supply source,

capital investments, and operations and maintenance costs (including 30- and 100-year lifecycle replacement costs) of the associated infrastructure.

On August 13, 2019, the Project Partner Group (PPG) convened to review 1% designs and provide feedback to Valley Water before the planning process continues forward with 10% design. Staff will provide the Committee the results of these PPG discussions, as well as other major comments received regarding preliminary 1% designs of portfolio project elements. Staff will also provide an update of our Reverse Osmosis Concentrate (ROC) Management Program, a critical component of the Reuse Master Plan to properly manage the concentrated salt stream formed when producing advanced purified water for potable reuse.

#### **NEXT STEPS:**

Staff will revise the preliminary 1% designs based on comments from stakeholders, including the PPG before initiating further engineering and technical analysis. Staff will then proceed with the preparation of 10% project designs and an American Association of Cost Engineering (AACE) Class V cost analysis for completion by late September 2019. The 10% designs will include corresponding ROC management solutions (including 10% design and AACE Class V cost estimates) for each portfolio currently under development. Staff is also planning follow-up stakeholder meetings for October to discuss these 10% designs and ancillary cost analyses before beginning preparation of the Draft Reuse Master Plan Report.

The Joint Recycled Water Advisory Committee discussed the following items: Measure E site challenges, discuss location(s) at next meeting, preliminary stages of design, partnerships-funds ongoing discussions and the existing 3 plans.

Mr. Phil Bobel, Mr. Hossein Ashktorab, Mr. Garth Hall and Ms. Nina Hawk were available to answer questions

The Joint Recycled Water Advisory Committee took no action.

#### **4.3 UPDATE ON PARTNERSHIP TO EXPAND WATER REUSE**

Mr. Jerry De La Piedra reviewed the following and was available to answer questions.

##### **Summary:**

A reliable supply of clean water is necessary for the environmental, economic, and social well-being of Santa Clara County. On behalf of the community, the Santa Clara Valley Water District (Valley Water), along with local partners such as the cities of Palo Alto and Mountain View, have made significant investments to manage demands for water as well as to develop water supplies and infrastructure to meet the county's water needs. As demands continue to grow, and future supplies become more uncertain due to climate change, it's important we continue to expand these partnerships to develop locally controlled, drought-resilient supplies such as water reuse.

Valley Water is currently in the process of updating its Water Supply Master Plan (Master Plan), which recommends investment decisions to meet the county's 2040 water supply reliability goals in a cost-effective manner. One of the key strategies of the Master Plan is to expand water conservation and water reuse. These types of programs offer multiple benefits, including being locally controlled and drought-resilient, and are generally well-supported by the community. They also offer various environmental benefits, such as:

- Reduce county-wide reliance on imported water;
- Reduce water that must be taken from the Tuolumne River;
- Reduce Regional Water Quality Control Plant flow and pollutant loading discharged to the San Francisco Bay.

The Master Plan has identified a goal of developing 24,000 acre-feet per year of potable reuse capacity by 2028. In addition, Valley Water has established a goal that 10 percent of total countywide demands be met from water reuse by 2025. To assist in meeting these goals, Valley Water has been in discussions with the cities of Palo Alto and Mountain View on a partnership. These discussions have focused on the development of a local plant/program (owned and operated by Palo Alto) to provide a higher quality of recycled water, primarily for irrigation and cooling towers, and a regional plant/program (owned and operated by Valley Water) to provide advanced purified water for potable reuse.

Discussions have been ongoing for over a year, and although they are not complete, staff is providing the Committee an update on the discussions' current status. A draft term sheet for the proposed partnership is provided (Attachment 1), along with a draft schedule (Attachment 2) for approval by all agencies. It should be noted that although significant progress has been made over the last year or so, not all terms have been agreed upon by staff. The goal is to complete these discussions by October 2019 for City Council and Valley Water Board consideration in November/December 2019. Staff from Palo Alto and Valley Water are also in the process of reaching out to the other agencies that send wastewater to the Palo Alto Regional Water Quality Control Plant to discuss key terms in the proposed agreement that apply to them and to determine their level of interest in this agreement.

The Joint Recycled Water Advisory Committee discussed the following items: Tuolumne and Hetch Hetchy water, multi- use, 9 mgd plant at this time looking to increase in the future, draft agreement has language issues agencies are discussing, flows from the plant effect small plants, water supply guarantees, defining of parameters and quantity, RO responsibility disposition, plant sale, climate change concerns, naming of plant being considered, thanked those that have worked on the agreement to date, technical terms made plain so understandable, partners are looped in, recycled water, lacking historical background and the next steps.

Mr. Ed Arango, Mr. Phil Bobel, Ms. Nina Hawk, Mr. Michael Fuller, Ms. Karin North and Mr. Garth Hall were available to answer questions.

Mr. Dave Warner of Palo Alto (had a handout) and Mr. Stan Williams both spoke regarding their concerns with the water, costs, impacts, and the agreement.

### Handout Agenda Item 4.3

## The Transfer Agreement: What Palo Alto Cares About

### Reliability

- **Low. Additional source of supply:** City council already acknowledged Bay Delta Plan was not a threat given numerous means to mitigate. If supply is a concern, a better solution is to choose an option with known costs rather than the unknown costs in the transfer agreement.

### Funds

- **Low. \$1M/year.** Not significant relative to price of potable water.

### Environment

- **High. Mitigate Tuolumne river devastation caused by Palo Alto's imports.** Not significantly addressed by transfer agreement. Instead Valley Water goes as far as opposing the Bay Delta Plan.
- **Medium. Effluent used to offset other water imports:** Not addressed by transfer agreement. Instead water could be used for projected Valley Water demand increases

**Conclusion:** Unless the transfer agreement better addresses Palo Alto's priorities, other options better align with Palo Alto's values, including the "do nothing" option (keep options open)

**Please incorporate Palo Alto's environmental priorities**

The Joint Recycled Water Advisory Committee took no action.

If you have any questions or concerns, you may contact me at, [gbrambill@valleywater.org](mailto:gbrambill@valleywater.org) or 1.408.630.2408.

Thank you.

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