



Memorandum

TO: TRANSPORTATION AND
ENVIRONMENT COMMITTEE

FROM: Jeff Provenzano

SUBJECT: Water Supply Status Report **DATE:** March 17, 2025

Approved

Date:

3/27/2025

RECOMMENDATION

Accept this status report on water supply discussions between the City of San José and regional water agencies.

BACKGROUND

Approximately half of the water used in Santa Clara County is pumped from groundwater basins. To help offset groundwater pumping and prevent overdraft, the Santa Clara Valley Water District (Valley Water) uses local and imported surface water to replenish the groundwater basins through recharge facilities, which include recharge ponds and creeks. Valley Water also provides treated drinking water sourced primarily from imported water supplies.

San José developed into the city it is today based upon access to both replenished local groundwater supplies and abundant imported water supplies. With a changing climate and potential negative environmental impacts of long-term temperature and precipitation trends to the source and diversion of imported water supplies, there is real value in allocating resources to reduce San José's reliance on imported water supplies. Doing so will strengthen climate change-driven resiliency, support adaptation to long-term impacts on water supplies, and develop local and sustainable projects.

The city must collaborate with other local water agencies to advance in these areas. As such, the city has engaged with local partners to evaluate and develop additional recycled water, desalination, and potable reuse water supply projects.

ANALYSIS

The following are highlights and updates for each of the projects and additional considerations:

Santa Clara Valley Water District – Purified Water Program

1) Master Agreement with the Santa Clara Valley Water District for Support Services to the Santa Clara Valley Water's Purified Water Program

To support collaboration and provide technical assistance in developing the Purified Water Program, the city has entered into a Master Agreement with Valley Water for staff support services. Under the terms of the Master Agreement, Valley Water will reimburse the City up to \$1,000,000 per fiscal year for work performed under the agreement. Areas of collaboration include:

- attendance of meetings,
- negotiation of agreements related to a purified water demonstration facility and visitors center,
- regulatory coordination regarding reverse osmosis concentrate management and disposal,
- and related support.

Next year's workplan includes determination of a facility a location, defining quantity and quality of tertiary treated wastewater for expanding advanced water purification capabilities, evaluating purified water treatment options, regulatory coordination, technical support and coordination, and evaluation of potential private activity limitations.

2) Direct Potable Reuse Demonstration Facility

Valley Water is evaluating a potential Direct Potable Reuse Demonstration Facility. This facility would assist in the eventual design and operation of a larger facility in compliance with State regulations, and would provide the following benefits:

- Support State permitting and meeting regulatory requirements.
- Investigation of data gaps and informing operation and maintenance requirements for a full-scale facility.
- Determining the impacts of new treatment train on reverse osmosis (RO) concentrate.
- Provide a visitors center supporting public outreach/education including the opportunity to sample purified water.

To support this project, the following three (3) agreements are currently under discussion for proposed amendments subject to completion and approval of environmental review under California Environmental Quality Act (CEQA):

1. Amendment to Agreement between the City of San José and the Santa Clara Valley Water District for Operation and Maintenance of the Silicon Valley Advanced Water Purification Center.
2. Amendment to Recycled Water Facilities and Programs Integration Agreement Between the City of San José and the Santa Clara Valley Water District.
3. Amendment to Ground Lease and Property Use Agreement Between the City of San José and the Santa Clara Valley Water District for Advanced Water Treatment Facility.

3) *Full-Scale Purified Water Feasibility Study*

In November 2024, Valley Water executed a grant agreement with the U.S. Bureau of Reclamation to conduct a feasibility study for the San José purified water project, which will support future federal funding opportunities. Valley Water is now in the process of procuring technical consultant services to support this planning effort. Procurement is expected to be finalized by July 2025, with collaborative planning work to begin in early summer. The grant provides up to three years to complete the planning effort.

Further updates will be provided to Recycled Water Policy Advisory Committee and Treatment Plant Advisory Committee in Spring 2025, with final agreements for City of San José & City of Santa Clara council consideration in early Fall 2025.

Santa Clara Valley Water District – Water Desalination Technical Feasibility Study

In October 2023, Valley Water completed a preliminary environmental feasibility study to develop a desalination project in Santa Clara County. The completion of this preliminary study represents the first phase in evaluating a potential desalination project in the county. The study indicates that a desalination facility in the county may be feasible provided certain environmental issues are addressed. Specifically, critical issues include those related to protection of the sensitive South Bay ecosystem related to intake of water, brine management, and protection of habitats. Valley Water will be conducting a feasibility study which will evaluate the technical feasibility, costs, and regulatory permitting requirements associated with a possible desalination project in South San Francisco Bay.

San José Water Company – Recycled Water Expansion

San José Water Company is exploring options to expanded recycled water. In 2024, the city entered into an amended and restated Wholesaler–Retailer Agreement with San José Water Company that wholesales an additional 5,000 acre-feet-per-year of recycled

water. Additional use of recycled water in the city will result in an offset to potable water usage and enable the city to further diversify its water supply portfolio.

Additional Considerations

As progress on water resiliency efforts continues, there are multiple technical, financial, institutional, and regulatory considerations to be evaluated, which are necessary components to define and determine a successful project.

Additional considerations include, but are not limited to: declining wastewater flows, wastewater effluent availability (during summer months in drought years), infrastructure and regulatory limitations on project size and use of purified water, decreasing potable water usage and long-term water use projections, regulatory impacts, water affordability, wholesale rate increases, potential enhanced source control impacts on residents and businesses, reverse osmosis concentrate solutions, potential impacts on the Regional Wastewater Facility's bonds, and designation of a Direct Potable Reuse Responsible Agency (DiPRRA) including responsibilities, authority, and liability. Further considerations include staff resources and appropriate funding sources, project financing, land availability, long-term water supplies to support North San José and Santa Clara, energy consumption, and public support.

These additional considerations, necessary to define a successful project, are part of ongoing efforts. Valley Water's potable reuse feasibility study and Direct Potable Reuse Demonstration Facility (mentioned above) combined are intended to provide real time data and analysis, to evaluate and provide guidance on these considerations, and highlight any potential next steps.

COORDINATION

This project has been coordinated with the City Attorney's Office and Budget Office.

/s/
Jeff Provenzano
Director, Environmental Services

For questions, please contact Eric Dunlavey, Deputy Director, Environmental Services, at eric.dunlavey@sanjoseca.gov or (408) 535-3500.