



MEMORANDUM

FC 14 (01-02-07)

TO: Board of Directors
FROM: Joint Water Resources Committee
SUBJECT: Joint Water Resources Committee Meeting Summary for December 19, 2019
DATE: January 14, 2020

This memorandum summarizes agenda items from the regular meeting of the Joint Water Resources Committee held on December 19, 2019.

Attendees:

Valley Water Board Members in attendance were: Director Richard P. Santos, District 3 and Director John L. Varela, District 1.

Committee Members in attendance were: Council Member Dion Bracco, City of Gilroy, Council Member Larry Carr, City of Morgan Hill

Valley Water Staff in attendance were: Glenna Brambill, Natalie Dominguez, Samantha Greene, Garth Hall, Albert Le, Metra Richert and David Tucker.

City of Gilroy Staff in attendance was: Saeid Vaziry.

City of Morgan Hill Staff in attendance were: Chris Ghione and Dan Repp.

Guests in attendance were: Doug Muirhead-Morgan Hill Resident and Billy Wong (Stantec).

4. ACTION ITEMS

4.1 SOUTH COUNTY DRINKING WATER TREATMENT PLANT DISCUSSION

Mr. Garth Hall reviewed the following:

Summary:

Board policy directs the Santa Clara Valley Water District (Valley Water) to ensure a safe, clean, and reliable water supply currently and in the future. In southern Santa Clara County (South County) the community relies primarily on groundwater pumping to meet water demands, but pumping exceeds natural groundwater recharge. To ensure sustainable groundwater supplies, Valley Water replenishes the groundwater subbasins with local and imported surface water. As the South County population grows in the future, additional investments may be required to meet water demands. Valley Water has identified several projects that may help meet projected future demands, including a South County drinking water treatment plant (WTP). This memo describes South County water supply planning and the potential need for a WTP.

BACKGROUND:

The cities of Morgan Hill and Gilroy rely on groundwater pumping to meet nearly all water demands, as do thousands of private well owners in unincorporated areas of Santa Clara County (County). Pumping far exceeds natural recharge from rainfall and other sources, so Valley Water replenishes the groundwater subbasins with local and imported surface water. Recycled water and water conservation programs also help maintain sustainable groundwater conditions by reducing the need for pumping.

Valley Water, in collaboration with its water retailers and other key stakeholders, undertakes various planning efforts to ensure water supply reliability for current and future generations. Valley Water coordinated with the water retailers, cities and other stakeholders on the update to Valley Water's Water Supply Master Plan 2040 (Master Plan). This plan recommends additional actions and investments needed to address projected future shortfalls during multi-year droughts. As part of the Master Plan, Valley Water is also completing a groundwater recharge

assessment to help inform which Master Plan projects may meet pumping demands, including additional recharge projects and in-lieu recharge projects such as a WTP.

The Master Plan process involved developing demand projections through year 2040, modeling to determine potential future investment needs, and modeling proposed water supply projects to assess how they may meet future needs. In 2016, Valley Water updated its demand modeling, which considered development assumptions and constraints provided by retailers and land use agencies. Demand modeling indicated that South County demands may increase by approximately 9% by 2040. Valley Water is currently updating their demand model, in part, to reflect post-drought water use practices and update development assumptions. Staff will provide an update once the new demand modeling is completed.

Staff regularly models Valley Water's water supply system and groundwater conditions to help inform future water supply investment needs. Modeling indicates a future need for additional supply in South County if demands increase as projected. Staff assesses potential projects identified through the Master Plan update that can help meet the additional demand, including additional groundwater recharge or an in-lieu recharge project to reduce groundwater pumping, such as a WTP. Potential South County projects include managed recharge in the Butterfield Channel, optimizing San Pedro Pond recharge operations, stormwater recharge, expanded recycled water use, additional water conservation, and a new WTP (Attachment 1).

Valley Water Board of Directors directed staff to begin planning to implement a "no regrets" package of water conservation and stormwater projects that includes projects in South County. In addition, staff is developing the Countywide Water Reuse Master Plan which, in part, builds on the 2015 South County Recycled Water Master Plan and evaluates expanded South County recycled water potential. Staff is also investigating increasing recharge operations at San Pedro Ponds and the feasibility of building a South County WTP.

SOUTH COUNTY WATER TREATMENT PLANT

A South County WTP would use imported water (and possibly local surface water) supplies to provide potable drinking water to help meet water demands. Imported water would likely come from supplies stored in the San Luis Reservoir or in the proposed Pacheco Reservoir while local supplies may come from Anderson Reservoir. In the past, staff evaluated different WTP sizes, ranging from as small as 3.5 million gallons per day (MGD) in a 2009 study to 25 MGD in a 2003 study. The 2009 study found that the 3.5 MGD plant provided similar benefits towards maintaining South County groundwater storage as the 25 MGD plant, but at significantly lower cost. However, the 2009 study still concluded that additional groundwater recharge facilities could provide similar benefits as a South County WTP but for approximately \$1 million less per year, primarily owing to the higher construction costs of a WTP.

The Master Plan describes an annual monitoring and assessment plan (MAP) for water supply projects to ensure Valley Water continues to achieve water supply sustainability and resiliency. Through the MAP, staff is evaluating a 5 MGD South County WTP, with an estimated 100-year lifecycle cost (2018 dollars) ranging from \$85-\$140 million. A 5 MGD plant can provide up to 5,600 acre-feet per year and should provide adequate capacity to account for higher treated water demands during the summer. However, winter water demands are often lower than summer water demands, which may result in a lower annual average treated water demand. The cost estimate for the 5 MGD WTP includes planning, design, construction, operations and maintenance, and repair and replacement of the new WTP. The cost estimate does not include pipeline connections or property acquisition.

Building a WTP would require 5 to 30 acres of land, depending on plant size. Valley Water has the authority to acquire lands necessary to carry out the objectives and purposes of the District Act, including acquiring property to meet drinking water demands in South County through the construction of a WTP. However, a California Environmental Quality Act evaluation that includes analysis of the intended use of the land would need to be completed prior to acquiring land.

Valley Water owns three properties in the size range of 5 to 30 acres in South County that could be a future site for a South County WTP (Attachment 2). Each property is near a retailer service area, while the smallest property is also near a raw water pipeline. Building a WTP on a property farther from a raw water pipeline will be more expensive and will likely pose greater implementation risks. However, each of these sites would require further evaluation to determine suitability.

Staff analysis shows that a WTP can provide similar level of service benefits as an additional managed groundwater recharge project (e.g., San Pedro Pond optimization or Butterfield Channel managed recharge). Water supply modeling and cost projections indicate that the projects which focus on demand management, stormwater capture,

or maximizing operations of existing infrastructure can meet current projections for South County water demands. Additional groundwater recharge is more economical than a South County WTP and groundwater modeling indicates that additional managed recharge could maintain sustainable groundwater conditions under 2040 pumping demands. While a South County WTP may not be as economical as a new or improved recharge facility, it would increase operational flexibility in that surface water could be sent directly to the water treatment plant or to groundwater recharge facilities.

NEXT STEPS

To evaluate whether planned investments are adequate or additional action is needed, Valley Water will continue to monitor South County groundwater conditions and overall water supply and demand trends, including the development of the groundwater recharge assessment. Staff will continue to communicate with South County agencies on their projected growth and to obtain feedback on potential water supply projects. Once Valley Water updates demand projections, staff will further evaluate proposed water supply projects for South County, including a WTP. If staff concludes that a WTP may be needed, staff may recommend that Valley Water proceed with land acquisition.

The Joint Water Resources Committee discussed the following items: partnerships, groundwater sustainability, growth development issues, affordable housing, water supply planning, recycling, purification, water conservation, operation/recharge/supply costs, water rates, modeling for groundwater/recharge/O&M, charge zones, treatment plant versus groundwater recharge, location, water resources and agricultural issues.

The Joint Water Resources Committee took no action.

4.2 WATER SUPPLY MASTER PLAN UPDATE

Ms. Metra Richert reviewed the following:

Summary:

Santa Clara Valley Water District (Valley Water) staff will present an update on the 2040 Water Supply Master Plan (Master Plan) recently adopted by the Board and, in particular, a description of the Monitoring and Assessment Plan (MAP) element of the Master Plan. Going forward, the MAP will provide an annual review of the water supply strategies and project evaluations contemplated in the Master Plan. Attachment 1, a Powerpoint slide deck, provides an overview of the Master Plan, with a focus on the MAP.

The Valley Water Board of Directors adopted the Master Plan on November 20, 2019. The MAP will be a critical piece of the Valley Water planning process used to provide up-to-date operational and financial assumptions for water supply projects identified in the Master Plan, and to consider any proposed changes to the set of projects previously selected by the Board for planning purposes.

The Committee previously received a presentation on the *draft* Master Plan at its March 6, 2019 meeting.

The Joint Water Resources Committee discussed the following items: city ordinances, building concerns and cities allowed to make decisions for themselves.

The Joint Water Resources Committee took no action.

4.3 OPEN SPACE CREDIT OPTIONS DISCUSSION

Director John L. Varela reviewed the following:

Summary:

At the Board's May 14, 2019, meeting it was requested to bring back a recommendation about how to proceed forward in finding ways to replace the discretionary portion of the Open Space Credit subsidy through a community drive effort. On June 25, 2019, the Revenue Working Group (RWG) now called the Financial Sustainability Group, recommended to the Board that they encourage a collaborative effort for the purpose of identifying and securing a permanent, and/or ongoing funding source to replace the discretionary portion of the Open Space Credit.

At the July 1, 2019, meeting, the Agricultural Water Advisory Committee (Committee) approved the formation of a team of stakeholders - farm bureau, ag businesses and other interested parties, to discuss the Agricultural Plan, potential open space credit funding, agricultural lands, subsidy concerns, environmental and financial impacts and research of potential source agencies.

This item provides an opportunity for the Committee and Stakeholder groups to provide updates on the collaborative efforts to date.

BACKGROUND

Collaborative Scope and Purpose: The scope and purpose of the Collaborative will be to identify, investigate and secure a permanent, and/or ongoing, funding source to replace the discretionary portion of the Santa Clara Valley Water District (Valley Water) Open Space Credit which is currently being utilized to subsidize commercial agricultural water rates. This funding source shall be a new source of funding which is not part of the current Valley Water portfolio.

Collaborative Lead: Director John Varela for Valley Water, and Jan Garrod, Agricultural Water Advisory Committee Vice Chair.

Progress Report: A public update on the progress of the Collaborative shall be provided to the Board of Directors approximately one year, (July 1, 2020), prior to the expiration of the Open Space subsidy.

The Joint Water Resources Committee discussed the following items: reducing costs is key as they will increase over time and keeping the Cities, SCC Farm Bureau and other entities engaged on this issue.

Mr. Doug Muirhead would like to see someone taking the lead on this issue. He's also concerned that the County is not engaged since the passing of the County's Agricultural Plan.

The Joint Water Resources Committee took no action.

The next Joint Water Resources Committee meeting is Wednesday, February 4, 2020, after the SCRWA Meeting, 8:30 a.m. at the South County Regional Wastewater Authority Conference Room, 1500 Southside Drive, Gilroy, CA 95020

Introduced Ms. Natalie Dominguez as the new Board Committee Liaison for this Committee.

If you have any questions or concerns, you may contact me at, gbrambill@valleywater.org or 1.408.630.2408.

Thank you.

Glenna Brambill, Management Analyst II,
Board Committee Liaison
Office of the Clerk of the Board