

01/25/2022



MEMORANDUM
FC 14 (01-02-07)

TO: Board of Directors

FRO Agricultural Water
Advisory Committee

SUBJECT: Agricultural Water Advisory Committee
Meeting Summary for January 3, 2022

DATE January 25, 2022

This memorandum summarizes agenda items from the regular meeting of the Agricultural Water Advisory Committee held on January 3, 2022.

Attendees:

Committee members in attendance were: Mitchell Mariani (District 1), James Provenzano (District 2), William Cilker and David Vanni (District 3), Sheila Barry (District 4), Jan Garrod and Michael Miller (District 5), Tim Chiala (District 6), and Peter Van Dyke (Loma Prieta Resource Conservation District).

Board members in attendance were: Director Nai Hsueh (District 5), Board Alternate, Director Richard P. Santos (District 3), and Director John L. Varela (District 1), Board Representatives.

Staff members in attendance were: Jennifer Abadilla, Aaron Baker, Neeta Bijoor, Glenna Brambill, Justin Burks, Keila Cisneros, George Cook, Vanessa De La Piedra, Melissa Fels, Vincent Gin, Samantha Greene, Candice Kwok-Smith, Carmen Narayanan, Metra Richert, Don Rocha, Ashley Shannon, Kirsten Struve, Darin Taylor, and Gregory Williams.

Guest in attendance were: Anna Rallings and Josh Viers (UC Merced).

Public in attendance was: Director Linda J. LeZotte (Valley Water Board Member, District 4).

4. ACTION ITEMS

4.1 ELECTION OF CHAIR AND VICE CHAIR

Committee Chair Mr. David Vanni reviewed the following:

Summary from Meeting Agenda Memo:

Per the Board Resolution, the duties of the Chair and Vice-Chair are as follows:

The officers of each Committee shall be a Chairperson and Vice-Chairperson, both of whom shall be members of that Committee. The Chairperson and Vice-Chairperson shall be elected by the Committee, each for a term of one year commencing on January 1 and ending on December 31 and for no more than two consecutive terms. The Committee shall elect its officers at the first meeting of the calendar year. All officers shall hold over in their respective offices after their term of office has expired until their successors have been elected and have assumed office.

The Chairperson shall preside at all meetings of the Committee, and he or she shall perform other such duties as the Committee may prescribe consistent with the purpose of the Committee.

The Vice-Chairperson shall perform the duties of the Chairperson in the absence or incapacity of the Chairperson. In case of the unexpected vacancy of the Chairperson, the Vice-Chairperson shall perform such duties as are imposed upon the Chairperson until such time as a new Chairperson is elected by the Committee.

Should the office of Chairperson or Vice-Chairperson become vacant during the term of such office, the Committee shall elect a successor from its membership at the earliest meeting at which such election would be practicable, and such election shall be for the unexpired term of such office.

Should the Chairperson and Vice-Chairperson know in advance that they will both be absent from a meeting, the Chair may appoint a Chairperson Pro-tempore to preside over that meeting. In the event of an unanticipated absence of both the Chairperson and Vice-Chairperson, the Committee may elect a Chairperson Pro-tempore to preside over the meeting in their absence.

BACKGROUND:

The District Act provides for the creation of advisory boards, committees, or commissions by resolution to serve at the pleasure of the Board.

Accordingly, the Board has established Advisory Committees, which bring respective expertise and community interest, to advise the Board, when requested, in the capacity as defined: prepare Board policy alternatives and provide comment on activities in the implementation of the District's mission for Board consideration. In keeping with the Board's broader focus, Advisory Committees will not direct the implementation of District programs and projects, other than to receive information and provide comment.

Further, in accordance with Governance Process Policy-3, when requested by the Board, the Advisory Committees may help the Board produce the link between the District and the public through information sharing to the communities they represent.

The Board may also establish Ad-hoc Committees to serve in a capacity as defined by the Board and will be used sparingly.

The Committee by roll call vote unanimously elected Mr. Jan Garrod as the Committee Chair and Mr. Peter Van Dyke as the Committee Vice Chair for 2022.

4.2. REVIEW AND APPROVE 2021 ANNUAL ACCOMPLISHMENTS REPORT FOR PRESENTATION TO THE BOARD (COMMITTEE CHAIR)

Ms. Glenna Brambill reported on the following:

Summary from Meeting Agenda Memo:

The Accomplishments Report summarizes the committee's discussions and actions to prepare Board policy alternatives and implications for Board deliberation throughout 2020. The Committee Chair, or designee, presents the Accomplishments Report to the Board at a future Board meeting.

The Committee may provide feedback to the Committee Chair, at this time, to share with Board as part of the Accomplishments Report presentation pertaining to the purpose, structure, and function of the Committee.

BACKGROUND:

Governance Process Policy-8:

The District Act provides for the creation of advisory boards, committees, or commissions by resolution to serve at the pleasure of the Board.

Accordingly, the Board has established Advisory Committees, which bring respective expertise and community interest, to advise the Board, when requested, in a capacity as defined: prepare Board policy alternatives and provide comment on activities in the implementation of the District's mission for Board consideration. In keeping with the Board's broader focus, Advisory Committees will not direct the implementation of District programs and projects, other than to receive information and provide comment.

Further, in accordance with Governance Process Policy-3, when requested by the Board, the Advisory Committees may help the Board produce the link between the District and the public through information sharing to the communities they represent.

The Committee by roll call vote unanimously approved the 2021 Annual Accomplishments Report for presentation to the Board.

4.3 DROUGHT RESPONSE UPDATE

Ms. Neeta Bijoor reported on the following:

Summary from Meeting Agenda Memo:

Drought Conditions

On June 9, 2021, the Valley Water Board of Directors declared a water shortage emergency condition pursuant to California Water Code §350, called for water use restrictions of 15% compared to 2019, and urged the County of Santa Clara to proclaim a local emergency. The County of Santa Clara proclaimed a local emergency on June 15, which was ratified by the Board of Supervisors on June 22

The U.S. Drought Monitor Report from December 7, 2021, indicates that the majority of the County is in extreme drought, and the northeastern portion of the County is in exceptional drought. The northern Sierra Nevada snowpack, a primary source of imported water, was at 71% of normal as of December 14, 2021, and statewide snowpack was 76% of normal.

Reflecting critically dry conditions across the state, the Central Valley Project and State Water Project drastically reduced imported water allocations in 2021, which typically comprise half of Valley Water's annual water supply. An additional Central Valley Project Municipal and Industrial Public Health and Safety increment of 28,500 AF was delivered during the second half of 2021. Valley Water secured agreements for about 58,000 AF of emergency transfer supplies (not taking into account conveyance losses across the Delta) in 2021 and recovered approximately 35,000 AF from its Semitropic Groundwater Banking Program. These supplies are now being delivered to Valley Water or being stored in San Luis Reservoir for use in 2022. Valley Water has begun negotiating additional purchases of emergency transfer water in 2022 if conditions continue to be dry.

While the seasonal recovery has begun to stabilize or increase groundwater levels in many areas of the county, groundwater levels continue to decline due to the drought in some areas. Emergency imported water supplies and water use reduction by the community have begun to help slow groundwater level declines. However, if dry conditions continue and the Board's water use reduction target is not met consistently, projected 2022 groundwater storage is similar to what was observed in 2014 during the previous drought. This would increase the risk in 2022 of resumed subsidence in North County and wells going dry, particularly in South County. In South County, groundwater is the only drinking water supply.

Consequently, water conservation is an important strategy to help alleviate these negative impacts.

Water Conservation Programs

Valley Water continues to conduct public outreach to encourage water conservation and participation in Valley Water's conservation programs. Participation in these programs has greatly increased in 2021.

Valley Water has been conducting more expanded outreach with the Santa Clara County Farm Bureau, including two recent meetings on August 27, 2021, and October 29, 2021. Directors John Varela and Richard Santos have been participating in these meetings. Valley Water is scheduled to meet with the Farm Bureau's executive director on December 13, 2021, to discuss next steps and establish clear action items and opportunities for collaboration and/or support for potential water conservation measures. Valley Water will also schedule future standing meetings with the Farm Bureau in 2022 and will include Directors Varela and Santos.

As part of Resolution 21-68 adopted on June 9, 2021, Valley Water commits to aggressively promote water conservation programs to all water users including agriculture and urges Santa Clara County farmers to consider the water shortage emergency condition in planting and irrigation practices. Valley Water mailed letters to agricultural groundwater pumpers in July 2021 to inform them of the call for water use reduction and encourage participation in Valley Water's conservation programs. Valley Water has several conservation programs for agriculture, such as the Mobile Irrigation Lab, and is currently developing an agricultural water use baseline study. The Mobile Lab's contractor provided a full presentation on this program to the Agricultural Water Advisory Committee on October 4, 2021.

Countywide Water Use Reduction

Valley Water is engaging with retailers and cities to encourage drought response actions. As of November 30, 2021, the County of Santa Clara and 13 cities in Santa Clara County have taken action to their Councils in response to the extreme drought conditions and to Valley Water's call to reduce water use by 15% compared to

2019 levels. Cities that have not yet taken formal Council action still recognize the current drought conditions and have provided information on Valley Water's water conservation rebates and programs on their websites to encourage water use reduction among residential customers. On November 23, 2021, the San Francisco Public Utilities Commission (SFPUC) declared a water shortage emergency and approved measures aimed at further conserving and reducing water usage across the SFPUC's service territory. The declaration includes a 10 percent voluntary reduction compared to water use from July 2019 to June 2020. SFPUC customers are responding to the declaration and have expanded outreach and education to encourage wise water use across their jurisdictions.

After months of progress, Santa Clara County met Valley Water's call to reduce water use by 15% compared to 2019. Valley Water's retailers used 16% less water in October 2021 compared to October 2019. San Jose recorded about 2 inches of rain in October, which may have helped in reaching the goal. Rain often results in a decrease in outdoor water use. Valley Water anticipates that consistently maintaining a 15% reduction in water use each month will be challenging. Valley Water continues its outreach to the media and community to encourage residents, businesses, farms, and others to continue to save water.

The Agricultural Water Advisory Committee discussed the following: rainwater, aquifer, flush of sand/water table in Zone W-5, seasonal recovery, staying on a drought status, agencies receiving water conservation presentation, eCart, LRP graphs and the response time has improved, when will rainfall be back to normal, and continuing with water conservation.

Ms. Vanessa De La Piedra, Director John L. Varela, Director Richard P. Santos, and Mr. Aaron Baker were available to answer questions.

The Agricultural Water Advisory Committee took no action.

4.4 REVIEW AND COMMENT TO THE BOARD ON THE FISCAL YEAR 2022-23 PRELIMINARY GROUNDWATER PRODUCTIONS CHARGES

Ms. Carmen Narayanan reported on the following:

Summary from Meeting Agenda Memo:

Summary of Preliminary Groundwater Production Charge Analysis:

Staff has prepared the preliminary FY 2022-23 groundwater production charge analysis, which includes one baseline scenario for Board review. Staff is seeking Board input on the preliminary analysis to incorporate into the development of the groundwater production charge recommendation.

The groundwater production charge reflects the benefit of District activities to protect and augment groundwater supplies and is applied to water extracted from the groundwater basin in Zones W-2, W-5, W-7, and W-8. Zone W-2 encompasses the Santa Clara groundwater subbasin north of Metcalf Road or the North County. Zone W-5 overlays the Llagas subbasin from northern Morgan Hill south to the Pajaro River. Zone W-7 overlays the Coyote Valley south of Metcalf Road to northern Morgan Hill, and W-8 encompasses the area below Uvas and Chesbro Reservoirs.

The groundwater production charge recommendation will be detailed in the Annual Report on the Protection and Augmentation of Water Supplies that is planned to be filed with the Clerk of the Board on February 25, 2022. The public hearing on groundwater production charges is scheduled to open on April 12, 2022. It is anticipated that the Board would set the FY 2022-23 groundwater production charges by May 10, 2022, that would become effective on July 1, 2022.

The FY 2022-23 groundwater production charge and surface water charge setting process will be conducted consistent with the District Act, and Board resolutions 99-21 and 12-10.

Water Usage Trend

District managed water use for FY 2020-21 is estimated to be approximately 246,500 acre-feet (AF), roughly 16,000 AF higher than budgeted due to a dry winter and dry spring. Due to the current drought conditions, the Board called for 15% mandatory conservation compared to 2019. If the drought continues for current FY 2021-22 and conservation goals are achieved, then there could be about a 32,000 AF water usage deficit versus budget of 232,000 AF, which could translate to upwards of \$50 million in reduced revenue this fiscal year. Water use projections for FY 2022-23 and beyond have been adjusted due to the current drought and mandatory calls for

conservation. Based on trends from the last drought (2014-2017) returning to “normal” water use is projected by FY 2025-26.

Staff are carefully monitoring monthly water use actuals and working closely with the water retailers during the drought and will continue to do so during the upcoming rate setting process, modifying the water usage forecast as necessary.

Groundwater Production Charge Projections

Staff has prepared an initial baseline groundwater production charge projection scenarios for Board review. The agricultural groundwater production charge is equal to 10% of the Zone W-8 Municipal & Industrial (M&I) rate. The preliminary groundwater production charge analysis includes an 8% increase in the FY 2022-23 M&I groundwater production charge for Zone W-8. This translates to a groundwater production charge of about \$36.88 per acre foot for agricultural use.

Staff has prepared the following baseline scenario for Board consideration:

Scenario 1) Baseline:

This scenario includes the following projects and assumptions:

- Agricultural rates remain set at 10% of lowest M&I rate
- Conservation: 15% achieved by FY 2022-23, returning to prior projections by FY 2025-26
- Anderson Reservoir leveraging WIFIA loans (up to 40% of total project cost [TPC])
- Pacheco Reservoir Expansion Project (PREP) with \$496 Proposition 1 grants, WIFIA loans (up to 49% of TPC) and Partnership Participation at 35% of TPC
- Purified Water Expansion operational by FY28, assumes 100% debt financed by P3 entity
- Los Vaqueros (Transfer Bethany Pipeline)
- Delta Conveyance SWP portion at 3.23%
- New, additional emergency water supply purchases in FY 2022-23, FY2023-24, and FY 2024-25 (\$67.7M total)
- Leverage existing reserves (\$46M total from FY 2022-23 and FY 2023-24)
- Transfer \$39M near-term surplus funds from PREP to Rate Stabilization Reserve in FY 22; future PREP cost projection has been adjusted such that TPC is unchanged

Staff can model additional scenarios for the Board as needed.

Other Assumptions

A Drought Reserve was established in FY 2015-16 and was budgeted at \$10M for FY 2021-22. No further funding for this reserve is included in the preliminary analysis. The purpose of this reserve is to help minimize future rate impacts and complements the Supplemental Water Supply Reserve. The preliminary groundwater production charge analysis includes full use of the reserve in FY 2022-23, with reserve levels building back up over subsequent years.

All scenarios assume Water Utility operations cost of \$268.6M in FY 2022-23 versus the FY 2021-22 adopted budget of \$247.2M.

The preliminary analysis does not include unfunded capital projects or additional unfunded operations cost needs identified by staff.

Open Space Credit

The Valley Water Board has historically recognized that agriculture brings value to Santa Clara County in the form of open space and local produce. To help preserve this value, the District Act limits the agricultural charge to be no more than 25% of the M&I charge. In 1999, to further its support for agricultural lands, the Board put a policy in place to further limit the agricultural groundwater production charge to no more than 10% of the M&I charge.

The agricultural community currently benefits from low groundwater charges that are equivalent to about 2% of M&I charges in North County Zone W-2, 7% of M&I charges in South County Zone W-5, 6% of M&I charges in South County Zone W-7, and 10% of M&I charges in South County Zone W-8. According to Section 26.1 of the

District Act, agricultural water is “water primarily used in the commercial production of agricultural crops or livestock.”

The credit to agricultural water users has become known as an “Open Space Credit.” It is paid for by fungible, non-rate related revenue. To offset lost revenue that results from the difference between the adopted agricultural groundwater production charge and the agricultural charge that would have resulted at the full cost of service, Valley Water redirects a portion of the 1% ad valorem property taxes generated in the Water Utility, General and Watershed Stream Stewardship Funds.

A PowerPoint presentation will be provided at the meeting.

The Agricultural Water Advisory Committee discussed the following: thanked Valley Water for keeping agricultural rates down, Open Space Credit, and inflation being accounted for in the rates.

The Agricultural Water Advisory Committee took no action.

4.5 AGRICULTURAL WATER USE BASELINE STUDY UPDATE

Ms. Samantha Greene and Ms. Anna Rallings (UC Merced) reported on the following:

Summary from Meeting Agenda Memo:

In 2019, the Santa Clara Valley Water District (Valley Water) began the process of developing the Agricultural Water Use Baseline Study (Study) at the request of the Water Conservation and Demand Management Committee and with the support of the Agricultural Water Advisory Committee. The goal of the Study is to better understand current agricultural water use practices and identify opportunities for water use efficiency. Through this, Valley Water aims to support the agricultural community as they look for approaches to reduce water costs in their operations.

Due to complications created by the COVID-19 pandemic, the original contractor had to leave the project. In early 2021, Valley Water began collaborating with researchers from University of California -Merced (UCM). The UCM team is also part of the UC Water team that is supporting Valley Water’s Flood-Managed Aquifer Recharge (Flood-MAR) study. Their experience with the Flood-MAR study provides them excellent background knowledge of Valley Water and Santa Clara County land use. Moreover, the UCM team brings to this project excellent applied and technical skills.

Study components that UCM will address include:

- 1) Types of crops and associated acres of crops in the County
- 2) Types of irrigation systems used, by crop type
- 3) A survey of crop rotation and fallowing practices in the County that evaluates:
 - a. Trends by crop type
 - b. Geographical trends related to crop rotation and fallowing practices within the County (e.g., north vs. south, foothills vs. valley, position relative to a creek)
- 4) Water use by crop type and irrigation method, including comparing to crops’ water budgets
- 5) Geographical trends/distribution of agricultural practices and crop types in the County (e.g., north vs. south, foothills vs. valley, position relative to a creek)
- 6) Agricultural producers’ water use knowledge and mindsets regarding:
 - a. Concerns related to water supply
 - b. Water use and water conservation, including what motivates their irrigation method choices
 - c. Valley Water’s conservation programs
- 7) Factors that determine farmer crop choice
- 8) Recommendation of projects or programs to increase agricultural water use efficiency

Progress to Date

The UCM team has compiled all data needed to complete the analysis, which includes datasets related to land use, water use, and water supply. Data has been integrated from public sources, Valley Water records, and satellite imagery. Where applicable, the UCM team has created maps to help show spatial trends and findings. Spatial datasets were validated in-person during the summer of 2021 (referred to as windshield surveys). The windshield survey covered Coyote Valley to the southern boundary of Santa Clara County. Preliminary observations from the data collected thus far indicate the highest variation in irrigation technology was observed in annual crops,

particularly truck crops such as salad greens, peppers, and tomatoes. In addition, the UCM team identified a high number of low intensity pasture/fallow sites, particularly in the San Martin and Morgan Hill regions.

Next Steps

Now that the preliminary data is collected and validated, the UCM team will move on to the data analysis step to address the requested study components. Using the findings from the analysis, the UCM team will develop agricultural water-related recommendations. UCM aims to complete the study by the end of 2022. Valley Water staff will continue to provide updates to this committee as the study progresses.

The Agricultural Water Advisory Committee discussed the following: difference between hay vs pasture, fallowing, irrigation vs land grazing (animals), parcel size, bare land retaining water, soil types, and water management.

The Agricultural Water Advisory Committee took no action.

4.6 INJECTION WELLS FOR GROUNDWATER RECHARGE.

Mr. George Cook reported on the following:

Summary from Meeting Agenda Memo:

Groundwater can be artificially replenished by allowing surface water to infiltrate through streambeds and percolation ponds or by injecting water directly into aquifers. Santa Clara Valley Water District's (Valley Water) active recharge facilities include creeks and percolation ponds, which have much simpler operations and maintenance compared to injection wells. Committee Board representative Director John Varela received an inquiry regarding the potential use of injection wells to recharge stormwater. As described below, the injection of stormwater into drinking water aquifers is not recommended due to drinking water risks, operational complexity, and increased costs.

The primary consideration related to the potential injection of stormwater is protecting drinking water quality. Stormwater can contain various contaminants depending on land use, including metals, organic chemicals, fertilizers, and pesticides. Wells that inject surface water directly into aquifers bypass any natural filtration that occurs when water percolates through soils. Because local communities rely on groundwater, Valley Water works to aggressively protect groundwater from the threat of contamination, in accordance with Board of Directors policy. Valley Water's well ordinance and related permitting are specifically designed to keep poorer quality water at or near the land surface from reaching water supply aquifers due to the risk of contamination.

Injection wells are permitted by the Environmental Protection Agency, and the State Water Resources Control Board could also impose requirements to protect groundwater quality. It is likely that the injection of stormwater would trigger stringent measures (including treatment) and compliance monitoring to protect drinking water aquifers.

Using wells to inject water is complex and costly compared to surface spreading through percolation ponds or releases into creeks. Injecting water has significantly higher treatment, energy, and operational and maintenance costs. Valley Water's pilot injection well in Campbell has not been operated in many years for these reasons. Engineered solutions like injection wells also eliminate any potential environmental benefits that in-stream recharge or percolation ponds provide.

In making water supply investments, Valley Water considers the water supply need, cost, and benefits. Through the Water Supply Master Plan, which includes an annual assessment process, Valley Water works to identify investments that support continued reliability while minimizing impacts to rate payers. Stormwater is an increasingly valuable resource as water supplies become more constrained, but stormwater reuse must be balanced with groundwater protection. As recommended by the Water Supply Master Plan, Valley Water is exploring the potential use of agricultural lands or open space for managed aquifer recharge using stormwater (also called Flood-MAR). Valley Water will continue to keep the Agricultural Water Advisory Committee updated as the related feasibility study progresses. Valley Water is also a partner in maintaining and implementing the Santa Clara Basin Stormwater Resources Plan and the South County Stormwater Resources Plan. Through both these plans, Valley Water aims to expand centralized and decentralized stormwater capture and recharge in Santa Clara County by implementing Valley Water's own projects and by partnering with other agencies.

The Agricultural Water Advisory Committee discussed the following: perc ponds, monitoring wells, recharging and evaporation issues.

Ms. Vanessa De La Piedra and Mr. Aaron Baker were available to answer questions.

The Agricultural Water Advisory Committee took no action.

5. INFORMATION ITEM

5.1 STANDING ITEMS REPORT

Ms. Glenna Brambill reported on the following:

Summary from Meeting Agenda Memo:

The Agricultural Water Advisory Committee was established to assist the Board with policy review and development, provide comment on activities in the implementation of Valley Water's mission, and to identify Board-related issues.

On August 2020, the Board of Directors approved aligning the Board Advisory Committees' agendas and work plans with the Board's yearly work plan.

The new agenda format will allow regular reports on the Board's priorities from the Board's committees and/or Board committee representative and identify subjects where the committees could provide advice to the Board on pre-identified subjects in a timely manner to meet the Board's schedule and distribute information/reports that may be of interest to committee members.

The Agricultural Water Advisory Committee took no action.

The next regularly scheduled meeting is Monday, April 4, 2022, 1:30 p.m.

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