



**MEMORANDUM**  
FC 14 (01-02-07)

**TO:** Board of Directors

**FRO** Agricultural Water  
Advisory Committee

**SUBJECT:** Agricultural Water Advisory Committee  
Meeting Summary for January 9, 2023

**DATE** March 14, 2023

This memorandum summarizes agenda items from the regular meeting of the Agricultural Water Advisory Committee held on January 9, 2023.

**Attendees:**

Committee members in attendance were: Mitchell Mariani (District 1), James Provenzano (District 2), Sheila Barry and Brent Bonino (District 4), Jan Garrod and Trevor Garrod (District 5), Robert (Bob) Long and 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, Luan Buckley, Justin Burks, Vanessa De La Piedra, Vincent Gin, Samantha Greene, Jason Gurdak, Cindy Kao, Bassam Kassab, Candice Kwok-Smith, Carmen Narayanan, Michael Potter, Metra Richert, Don Rocha, Ashley Shannon, Kirsten Struve, and Darin Taylor.

Guests in attendance were: Nick Santos and Jon (UC Merced).

Public in attendance was: Hon. Jim Beall (Valley Board Member-District 4), Ryan Castillo, Hon. Rebecca Eisenberg (Valley Board Member-District 7), Rosemary Feldman, Dhruv Khanna, Julie Morris (Ag Liaison), Shariar Moghadam (Valley Oak Farm) and David Vanni.

**3. SPECIAL RECOGNITION PRESENTATION**

Director Richard P. Santos recognized his two outgoing representatives William Cilker and David Vanni for their long-time service to the Agricultural Water Advisory Committee. David Vanni was presented with a plaque and was appreciative of being recognized.

**5. ACTION ITEMS**

**5.1. ELECTION OF CHAIR AND VICE CHAIR**

The Committee unanimously elected Jan Garrod as Agricultural Water Advisory Committee Chair and Peter Van Dyke as the Agricultural Water Advisory Committee Vice Chair.

**5.2. REVIEW AND APPROVE 2022 ANNUAL ACCOMPLISHMENTS REPORT FOR PRESENTATION TO THE BOARD (COMMITTEE CHAIR)**

Chair Jan Garrod 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 2022. 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 Agricultural Water Advisory Committee took the following action:

The Committee unanimously approved the 2022 Annual Accomplishments Report.

## **5.3 REVIEW AND PROVIDE COMMENT TO THE BOARD ON THE FISCAL YEAR 2023-24 PRELIMINARY PROPOSED GROUNDWATER PRODUCTION CHARGES**

Carmen Narayanan reported on the following:

### **Summary from Meeting Agenda Memo:**

#### **Summary of Preliminary Groundwater Production Charge Analysis:**

Staff has prepared a preliminary FY 2023-24 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 24, 2023. The public hearing on groundwater production charges is scheduled to open on April 11, 2023. It is anticipated that the Board would set the FY 2023-24 groundwater production charges by May 9, 2023, that would become effective on July 1, 2023.

The FY 2023-24 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 2021-22 is estimated to be approximately 220,800 acre-feet (AF), roughly 11,500 AF lower than budgeted due to drought conditions and the Board's call for 15% mandatory conservation compared to 2019. In response to the ongoing drought, water use is budgeted for FY 2022-23 at a low of 192,100 AF. In FY 2023-24 and beyond, water usage has been adjusted based on trends from the last drought (2014-

2017) returning to “normal” water use is projected by FY 2025-26. Water usage is projected around 205,000 AF for FY 2023-24.

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 scenario 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 2023-24 M&I groundwater production charge for Zone W-8. Notably this projected increase is consistent with prior year long-term projections. This translates to a groundwater production charge of about \$39.80 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 49% of total project cost [TPC])
- Pacheco Reservoir Expansion Project (PREP) with \$504M 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) with up to 50 kAF storage
- Delta Conveyance SWP portion at 3.23%
- Ongoing, additional emergency water supply purchases in FY2023-24 and FY 2024-25 (\$28.3M total)
- Leverage existing reserves (around \$50M total from FY 2023-24 and FY 2024-25)

In addition to the baseline scenario outlined above, Staff anticipates preparing several scenarios for Board consideration, including an extended drought scenario and scenarios reflecting a range of assumptions for the Pacheco Reservoir Expansion Project and the Purified Water Program. Staff can model additional scenarios for the Board as needed.

#### **Other Assumptions**

All scenarios assume Water Utility operations cost of \$269.9M in FY 2023-24 versus the FY 2022-23 adopted budget of \$264.7M.

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 no more than 25% of the M&I charge. (However, in *City of San Buenaventura v. United Water Conservation District*, the California Supreme Court recently struck down as unconstitutional a similar limitation on agricultural water charges as compared to M&I charges contained in the Water Conservation District section of the Water Code.) 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 defined as “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: keeping the rates low, open space funding, farming’s future/crops, and the study of comparison of agricultural rates.

Darin Taylor was available to answer questions.

Public Comment:

Dhruv Khanna noted the following concerns:

problem projects, looking at policies, associated costs, and flood control.

The Agricultural Water Advisory Committee took the following action:

The Committee unanimously approved having a subcommittee to discuss the rates and comparison data from other agencies regarding farming.

The Board representatives and staff will be willing to have the meeting with the subcommittee to discuss the myriad of issues and concerns with production charges.

#### **5.4 DROUGHT EMERGENCY RESPONSE AND WATER SUPPLY UPDATE**

Neeta Bijoor reported on the following:

##### **Summary from Meeting Agenda Memo:**

##### **Drought Conditions**

On June 9, 2021, the Board adopted Santa Clara Valley Water District (Valley Water) Resolution 21-68 which declared a water shortage emergency condition pursuant to California Water Code §350, called for water use reduction of 15% compared to 2019, and urged the County of Santa Clara (County) to proclaim a local emergency. The County ratified its proclamation of a drought emergency on June 22, 2021. Valley Water Resolution 22-20 amended Valley Water Resolution 21-68 on April 12, 2022, to call for no more than 2 days of irrigation in a week for ornamental lawns and prohibit excessive runoff, midday irrigation, and irrigation after rainfall. On May 24, 2022, the Board pursuant to Water Code §375 adopted Ordinance 22-02 to enforce these restrictions. Ordinance 22-02 went into effect on June 1, 2022, and was amended on September 13, 2022, to include the State’s watering ban on watering non-functional turf at Commercial, Industrial, and Institutional (CII) properties.

In 2022, Santa Clara County (County) and the State of California experienced the driest January, February and March on record. Valley Water’s Federal and State imported water allocations were drastically reduced to historic lows in 2021 and 2022. On March 28, 2022, Governor Gavin Newsom issued Executive Order N-7-22 to call on local water suppliers to move to at least Stage 2 of their water shortage contingency plans.

The U.S. Drought Monitor Report from December 15, 2022, indicates that the county is primarily in severe drought, with the eastern edge in extreme drought. Rains since October 2022 are helping increase local water supplies, though the county’s drought status has not changed. The northern Sierra Nevada snowpack, a primary source of Valley Water’s imported water, has been improving and is above average as of December 19, 2022. Staff will provide updates regarding latest drought conditions.

Groundwater levels have stabilized in much of the county and continue to increase in many areas due to Valley Water’s managed recharge operations and ongoing water conservation by the community. With drought conditions expected to continue, water use reduction is essential to minimize the risk of resumed subsidence in North County and wells going dry, particularly in South County. The risk of dry wells and subsidence increases as

the drought persists. Conservation is an important strategy to help reach the Board's 15% call for water use reduction and mitigate against negative impacts.

### **Water Conservation Outreach and Programs**

Our water conservation campaigns continue with tips for saving water and messaging to dial back on irrigation during winter. Valley Water is also promoting our landscape, irrigation and graywater rebates, outdoor water surveys and free water conservation tools available in our online shopping cart.

Valley Water is also running an ad campaign on the ban on watering ornamental turf by industrial, institutional and commercial facilities. Ads run on audio and video streaming platforms, digital, social media, newspapers, and supermarket shopping carts. Our monthly newsletter continues to feature water conservation tips and resources.

In October, Valley Water concluded its series of educational water conservation webinars hosted online for the general public. The series will resume in spring 2023.

Staff submits a column on behalf of Chair Pro Tem Varela to the Santa Clara Valley Farm Bureau every other month. These columns focus on water supply and agriculture issues in South County, including the drought emergency and the need for conservation.

Valley Water Directors and staff continue to deliver drought speakers bureau presentations both in person and via Zoom.

Water conservation program participation decreases during winter months. However, Valley Water is continuing to see high participation rates in water conservation programs as compared to previous years.

### **Countywide Water Use Reduction**

Valley Water's water savings call of 15% compared to 2019 was exceeded in July, August and October 2022, with countywide savings of 16% compared to 2019 water use. Our water conservation programs, our enforcement program launched in June, and our increased public outreach have all been effective in helping us achieve these savings. Santa Clara County's cumulative water savings from June 2021 – October 2022 is 7%, compared to 2019.

### **Water Waste Enforcement**

Valley Water's Water Waste Program is continuing its educational mission while enforcing mandatory outdoor water use restrictions. Valley Water is addressing these complaints and coordinating with water retailers and municipalities on enforcement efforts. Over 1,800 water waste complaints were received since the enforcement program was launched in June. Enforcement has been successful as there have been only 7 complaints of water waste following the first complaint, which suggests that people are addressing their water waste following the first complaint.

The Agricultural Water Advisory Committee discussed the following: Water Use Report.

Kirsten Struve was available to answer questions.

The Agricultural Water Advisory Committee took no action.

## **5.5 AGRICULTURAL WATER USE BASELINE STUDY**

Ashley Shannon and Nick Santos (UC Merced) reported on the following

### **Summary from Meeting Agenda Memo:**

Santa Clara Valley Water District (Valley Water) has completed an 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. Valley Water collaborated with researchers from the University of California-Merced (UCM) on the Study, with the goal of better understanding current agricultural water use

practices, which account for about 8% of Santa Clara County's water usage, and identifying opportunities for water use efficiency. In short, the Study found that the local agricultural sector in Valley Water's service area was highly water efficient.

### Approach

The Valley Water and UCM team collaborated to utilize remote sensing, well billing information, County of Santa Clara crop reports, and expert interviews to provide insights into the use of agricultural water in the Valley Water service area and potential areas of future investment or investigation. Since metered wells do not have associated crop details and specific metered wells often provide water to multiple parcels, parcel level water use estimates could not be developed. Instead, the team evaluated water use by the Agricultural Resource Areas (ARAs) defined in the County of Santa Clara's 2018 Agricultural Plan (Attachment 1).

The assessment of Valley Water agricultural water use involved the development of composite datasets of existing data, and ground truthing information on crops and irrigation systems. To ground truth information, the team conducted a visual survey to assess the present status of irrigation technology in the Valley Water service area. The team visually surveyed 675 parcels covering 10,330 acres. Field-collected data were used to validate geospatial data on crop type and any associated irrigation technology, and to provide some validated comparison to the 2018 LandIQ crop distribution. The team also analyzed local reports, such as County of Santa Clara crop reports. The team analyzed billing data for both metered wells, which account for about 82% of agricultural water usage in the county, and unmetered wells, which use a "Table of Averages" worksheet to estimate water usage. The Table of Averages worksheet is used to estimate the amount of water being pumped by factoring the amount of land and the crops being grown. A Mass Balance approach was used to assess the sub-regional distribution of water use intensity in the Valley Water service area. The Mass Balance model is intended to reconcile sources and sinks of water (i.e., where water comes from and where it goes). A Mass Balance for each ARA was calculated to identify over-irrigation or under-irrigation.

$$\text{Well Production} + \text{Precipitation} - \text{Evapotranspiration} = \text{Mass Balance}$$

Well production is from Valley Water billing data. Precipitation is from PRISM Climate Group, which provides climate observations gathered from a wide range of monitoring networks. Evapotranspiration (ET) data, which is water loss from soil evaporation and plant transpiration, were obtained from OpenET. Open ET provides satellite-based agricultural field ET estimates.

### Findings

This Study found that the local agricultural sector in Valley Water's service area was highly water efficient. During dry years, less than 10% of water applied to crops is lost to infiltration or runoff. In comparison, Valley Water's Large Landscape Program, which provides water budgeting and irrigation surveys for commercial ornamental landscapes in Santa Clara County, found that on average in 2021, overwatering accounted for 30% of the irrigation water used by these properties.

In addition, discussions with local growers and farm suppliers conducted during the study have emphasized the appropriateness of current irrigation systems as based on grower needs (particularly for growers that are tenants). High-efficiency irrigation systems, for example, are inappropriate for certain crop types. Feedback also indicated water costs alone are insufficient to make a return-on investment business case for large irrigation infrastructure and/or technology investments. Investment in multi-benefit technologies, such as fertigation, may make a stronger business case and can be explored.

### Recommendations

Since Santa Clara County agricultural users were found to be water efficient, the main recommendation is to continue to look for opportunities to enhance Valley Water's existing water conservation programs, such as the Mobile Irrigation Lab (MIL) and rebates for agriculture. To help prepare for the future, especially given the uncertainty in climate change, the study also recommends that Valley Water consider increasing our understanding of the types of crops each well supplies. Better understanding water usage per crop type will allow Valley Water to better plan for future agricultural water needs and design future conservation programs to help agricultural producers respond to climate change.

This topic was presented and discussed at the November 2022 Water Conservation and Demand Management Committee. In response to the Committee's questions about next steps, Staff added that findings of the Study would be incorporated in the upcoming Request for Proposal for Valley Water's Mobile Irrigation Lab. This may include increased soil moisture monitoring support through on-farm trainings, equipment rebates, or enhanced consulting services.

The Agricultural Water Advisory Committee discussed the following: favorable study, pasture information, site reviewed, and field crops.

Kirsten Struve and Samantha Greene were available to answer questions.

The Agricultural Water Advisory Committee took no action.

## **5.6 INFORMATION ON PROPOSAL TO UPDATE THE UNTREATED SURFACE WATER PROGRAM**

Bassam Kassab reported on the following:

### **Summary from Meeting Agenda Memo:**

The Untreated Surface Water Program (Program) was established in 1974 per the Board adopted Resolution 74-28 establishing the Surface Water Rules and Regulations (Rules) to offset groundwater pumping through direct use of surface water, when available. Valley Water currently provides untreated surface water from its reservoirs and raw water distribution pipelines to 64 permittees in Santa Clara County (County). Water use categories include agricultural use, municipal and industrial (M&I) uses, and domestic/residential landscaping use.

Significant issues with the Program have been identified because of the growth in the number of permittees over the years and the increasing impacts of surface water deliveries on Valley Water's ability to manage overall water supply for the County's nearly two (2) million residents. Valley Water has had to increase its pumping operations or reduce groundwater recharge at times to maintain surface water deliveries and adequate pressures in its raw water distribution pipelines.

In 2016, in response to the issues with the Program, the Board directed staff to update the Rules in accordance with eight Program principles adopted by the Board. Since that time, staff has worked with the Board and the Board Planning and Policy Committee to develop a two-phase proposal to update the Program. Under Board direction, staff held two public outreach meetings in November 2021 and presented the proposed plan to update the Program to stakeholders seeking their input. Staff then shared the revised two-phase plan and outreach findings with the Board on March 22, 2022. The Board instructed staff to present the information to the Landscape Committee and Agricultural Water Advisory Committee before returning to the Board for consideration.

### **TWO PHASE PROPOSAL FOR THE FUTURE OF THE PROGRAM:**

#### **Phase 1: Residential/Domestic Landscaping Use Concludes at the End of Calendar Year 2023**

- Impacts Program permittees who use surface water for domestic landscaping and who have retailer service and/or groundwater wells available to use
- Preserves interruptible service of surface water to existing agricultural and M&I permittees that provide goods and services to the community and restricts service for those purposes only
- Solves inequity issues in neighborhoods wherein only one or a few neighbors benefit from the Program solely for private landscaping use, albeit they have an alternate source of water
- Supports water conservation
- Surface water use for fire safety will be guided by a separate Valley Water effort
- Staff will perform property inspections for impacted permittees to verify alternate source information, provide technical guidance as needed, verify the water use type (agricultural, M&I, and/or domestic use), and inspect trees and landscaping on the property
- An appeal process will be made available for impacted permittees as part of Phase 1

#### **Phase 2: Revise Surface Water Rules and Make Other Changes**

- Update to include metering requirement and associated fees
- Service will be specified to exclude domestic/residential landscaping use
- Permittees may be required to install backflow preventers to prevent cross-contamination

- Creek diverters will be reminded to comply with all local and state requirements for operating stream diversions
- Incorporate annual acknowledgement by permittees that water supply is interruptible
- Valley Water supply must be a secondary source

**IMPACT OF CHANGES:**

Staff has identified the following potential impacts and benefits of the two-phase proposal to the communities listed below:

- *Agricultural businesses:* Since Agriculture provides a public benefit, agricultural permittees will benefit by continuing to stay on the Program during implementation of Phase 1 and will have their permit renewed under the new conditions of Phase 2 as they are developed.
- *M&I permittees:* The businesses that provide a public benefit will stay on the Program.
- *Neighbors of existing permit holders for domestic landscape use:* Phase 1 implementation will ensure equity among neighbors by having everyone in the community rely on the same water source and pay the same rate for watering their private lawns.
- *Fire safety for residents:* This proposal will not impact the use of untreated surface water use for fire safety. Knowing that surface water is an interruptible source, its use for fire safety will be guided by a separate Valley Water effort or policy.

**NEXT STEPS:**

Following presentations to the Landscape Committee and Agricultural Water Advisory Committee on information to update the Program, staff shall return to the Board in winter 2023 with the final two-phase proposal for the Board to consider. Invitations to attend the noticed public meeting will be extended to all stakeholders.

The Agricultural Water Advisory Committee discussed the following: program expansion, use of surface water for fire protection, storm water recharge, central valley, and statewide subsidence.

Kirsten Struve, Jon (UC Merced), and Aaron Baker were available to answer questions.

Public Comment:

Valley Oak Farm commented on surface water users.

The Agricultural Water Advisory Committee took no action.

The next regularly scheduled meeting is Monday, April 3, 2023, 1:30 p.m.

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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