



# Santa Clara Valley Water District

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**File No.:** 19-0837

**Agenda Date:** 10/8/2019

**Item No.:** 5.1.

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## BOARD AGENDA MEMORANDUM

### **SUBJECT:**

Receive Additional Information on the Groundwater Benefit Zone Study and Consider Recommendations for Updates to the Groundwater Benefit Zones.

### **RECOMMENDATION:**

- A. Receive information on additional stakeholder feedback and staff recommendations on the Groundwater Benefit Zone Study;
- B. Provide direction on the staff recommendation to modify existing groundwater benefit zones W-2 and W-5 and to create new zones W-7 (Coyote Valley) and W-8 (below Uvas and Chesbro Reservoirs);
- C. Direct staff to prepare metes and bounds for Board consideration;
- D. Provide direction on the staff recommendation to implement modified and new zones beginning July 1, 2020;
- E. Take no action on policy issue no. 1 (gradational groundwater benefit zones) raised by stakeholders; and
- F. Provide direction to staff on policy issue nos. 2 through 4 raised by stakeholders.

### **SUMMARY:**

The Santa Clara Valley Water District (Valley Water) has sustainably managed local groundwater resources in Santa Clara County for many decades. The Santa Clara Valley Water District Act authorizes the Board of Directors to establish zones encompassing areas where groundwater pumpers benefit directly and indirectly from Valley Water activities to protect and augment water supplies. Valley Water established the two primary groundwater benefit zones (Zones W-2 and W-5) in 1963 and 1977, respectively (Attachment 1). Valley Water last modified Zone W-2 in 1971 and Zone W-5 in 2008.

Valley Water initiated the Groundwater Benefit Zone Study (Study) to assess existing zones and recommend changes needed to ensure the zones reflect as accurately as possible areas receiving benefit from Valley Water activities to protect and replenish groundwater. Valley Water hired the consulting firm Montgomery & Associates (Montgomery) to perform an independent, science-based study of the zones. At the August 27, 2019 Board meeting, staff presented the findings detailed in Montgomery's Preliminary Groundwater Benefit Zone Study report as well as information and comments from stakeholders. During that Board meeting, staff recommended moving forward with four zones: modified Zones W-2 and W-5 and new zones W-7 and W-8 as documented in the August

27, 2019 agenda item.

At the August 27, 2019 Board meeting, staff committed to evaluate a recent inquiry from Happy Acres Mutual Water Company (Happy Acres) questioning whether they should be added to a zone. A representative from Stanford University also addressed the Board at the meeting, questioning the Study conclusion that Stanford's area benefits from Valley Water activities and suggested Stanford should receive credits for its activities that benefit groundwater in the basin. The Board directed staff to meet with Stanford, Palo Alto, and Great Oaks Water Company (who expressed similar opinions in their written comments) to further discuss their concerns and to bring related information back to the Board on October 8, 2019.

After Montgomery validated technical information submitted by Happy Acres showing its well is in bedrock, staff has adjusted the proposed Zone W-8 boundary to reflect this new information. The Happy Acres well will not be subject to groundwater charges if the recommended zones shown in Attachment 2 are adopted.

Staff and Montgomery met with representatives from Stanford, Palo Alto, and Great Oaks Water Company on September 16, 2019. Detailed discussion did not lead to consensus on technical issues; however, the meeting led to a better understanding of the perspectives of each agency. Most of the discussion focused on policy perspectives outside the scope of the Study, but which may be of interest for the Board. Following the meeting, staff received a proposal from Stanford, Palo Alto, and Great Oaks Water Company (Attachment 3). A summary of the proposal and related staff evaluation is provided below.

### **Recent input from Stanford, Palo Alto, and Great Oaks Water Company**

Valley Water and Montgomery staff met with representatives from Stanford, LSCE, Palo Alto, and Great Oaks Water Company ("participating retailers") on September 16, 2019. The discussion included both technical issues related to the Study and policy perspectives beyond the scope of the Study; collectively, these are summarized below.

#### Technical Issues Discussed on September 16

##### 1. Groundwater level evaluation to demonstrate benefit

Stanford/LSCE and Valley Water/Montgomery continue to have different technical perspectives on whether the Study's conclusions are supported for the Stanford/Palo Alto area. Montgomery asserts that groundwater recovery during certain periods can be attributed to Valley Water activities but Stanford/LSCE believe it is due to SFPUC deliveries and reduced pumping by Palo Alto and Stanford. However, LSCE acknowledged that if Valley Water groundwater management activities ceased to occur, groundwater levels in the Stanford area would drop.

Great Oaks reiterated concerns that if a benefit was demonstrated at any time, the benefit is assumed to continue. As described in the August 21, 2019 Valley Water response included in the August 27, 2019 Board item, the water budget and groundwater modeling clearly demonstrate

ongoing benefit.

2. Accounting for non-Valley Water activities

Since the purpose was to identify where there are benefits from Valley Water activities, the Study did not evaluate benefits from other activities such as SFPUC water deliveries or infiltration from Lake Lagunitas on the Stanford campus. However, the groundwater level evaluation was designed to exclude time periods when non-Valley Water activities could be contributing to increasing groundwater levels so that Valley Water would not be taking credit for the benefits from non-Valley Water activities.

Policy Perspectives Discussed on September 16

1. Relative benefit

The participating retailers raised the concern that all well owners within a zone would be charged the same rate (groundwater charge) despite the varying degree of benefit received in different areas. Instead, they favor a gradational approach to the zone boundaries. Valley Water staff noted that such an approach would require establishing a new zone for each rate since the District Act requires the rate in each zone to be fixed and uniform. Further, the gradation of benefits is likely continuous when all activities are considered. As a result, it would not be feasible to assess with any meaningful level of accuracy the gradation of benefits from Valley Water's full range of groundwater-management activities across a zone given the available data and tools. As a result, there is a substantial risk that any effort to do so would result in arbitrary dividing lines between zones. The degree of controversy that would ensue if Valley Water attempted to develop a method involving gradation of benefits is a matter for Board consideration.

Participating retailers suggest that determining relative benefit would be an easy measurement and argue that accepting the conclusions of the Study violate Valley Water's pricing policy language, which calls for charging specific beneficiaries when specific benefits are clearly and easily measurable. However, the policy language goes on to say that "When there is a question as to the identity of the beneficiary or the method of measuring the benefit, the allocation of cost should remain flexible and be determined in accordance with accepted practices and sound judgments based on the four water pricing concepts." The four pricing concepts are based on the "pooling concept", which means that all water sources and water facilities contribute to the common benefit of users within a zone regardless of cost. While staff is confident that there is benefit to the participating retailers, there would clearly be question as to the identity of individual beneficiaries with respect to relative benefit, and as to the method of measuring relative benefit.

2. Accounting for non-Valley Water activities

The benefits from non-Valley Water activities were not included in the Study since it relates to zones and charges for Valley Water activities only. Participating retailers proposed various potential offsets or credits for such non-Valley activities benefiting groundwater and committed to providing written proposals.

In the meeting, it was noted that these are policy perspectives beyond the scope of the Study that would require Board direction. Following the meeting, Stanford, Palo Alto, and Great Oaks provided five specific policy recommendations, which are included in Attachment 3 and summarized below, along with the staff evaluation.

Summary of Policy Proposals from Stanford, Palo Alto, and Great Oaks Water Company, with Staff Evaluation

1. Identify regional “rough-order-of-magnitude” gradation of benefits and develop zones with a gradation of rates corresponding to benefit levels.

Staff evaluation:

- This approach would likely require changes every year based on water sources, pumping, and recharge, and would require ongoing, intensive technical and administrative effort.
- Using regional flow modeling to quantify water level benefits in specific areas within a groundwater subbasin based on distance from various Valley Water activities goes beyond Valley Water’s current model capability. Staff is doubtful that even a refined model could adequately quantify benefits from Valley Water activities in localized areas to the degree needed to support the imposition of different zones/charges.
- Thresholds used to separate gradational zones would be arbitrary and likely challenged by other well users.

2. Develop a mechanism to quantify and implement groundwater charge credits/offsets for actions by others to develop and use alternative water supplies to groundwater.

Staff evaluation:

- Each water provider makes decisions on its water supplies, including investments in alternative water supplies.
- Those using non-Valley Water supplies avoid or reduce groundwater pumping, and therefore avoid or reduce related costs.
- If a credit is pursued, challenging issues would need to be carefully evaluated, such as:
  - What alternative sources would be eligible? In areas with multiple sources, how can we identify those that offset groundwater versus another source?
  - How would eligibility criteria be identified and measured?
  - What factors would be used to determine the amount of credit and how would it be structured?
  - Who would pay for related credits and administrative costs?
- Since the cost of proposed credits may be borne by other water retailers and pumpers, staff recommends all retailers and pumpers be consulted if this proposal is pursued.
- If credits are made available, unintended consequences may occur, including over-investment by others in water supply projects, loss of control by Valley Water as a Groundwater Sustainability Agency in maintaining a desirable groundwater storage balance, and possibly inequitable rate burdens among rate payers.

3. Develop a mechanism to quantify and implement groundwater charge credits/offsets for direct recharge activities.

Staff evaluation:

- Staff is not aware of any other entity in Santa Clara County conducting recharge for the purpose of augmenting groundwater supplies. However, incidental recharge occurs in many areas.
- Many entities infiltrate water to meet stormwater permitting, environmental, or mitigation requirements. Staff questions whether it is appropriate to provide a credit for an activity required for regulatory compliance.
- If credits are implemented, some entities may be motivated to develop projects where recharge benefits are negligible.
- If a credit concept is pursued, careful consideration should be given to issues such as:
  - Is the infiltration intentional, needed, and located where it would augment groundwater supplies?
  - How would groundwater quality be protected?
  - Who would fund related credits, and how might they be structured?

4. Recognize the difference among water rights and uses (i.e., appropriative uses versus overlying uses).

Staff evaluation:

- Well users may have different water rights, including overlying and appropriative rights.
- Regardless of their water rights, any well user within a groundwater benefit zone is subject to groundwater charges.

5. Revise groundwater charges to exclude costs not associated with groundwater recharge, such as treated water deliveries, and pass those costs along only to systems receiving that water.

Staff evaluation:

- Treated water deliveries are associated with groundwater recharge, as they provide the same benefit and are essential to maintaining sustainable conditions in the northern Santa Clara Subbasin. The concept of in-lieu recharge (including delivery of treated water) is foundational in Valley Water's methodology for developing groundwater charges and supported by the District Act.

*Staff conclusion on the five policy proposals by the participating retailers:*

Other than the first item, the proposed actions relate to policy perspectives unrelated to and beyond the scope of this Study and would require Board direction to further explore. A gradational approach to setting the zone boundaries (proposal 1) differs from current practice and the Study approach and would require Board direction. Staff does not believe a gradational zone approach is appropriate or currently feasible due to the dynamic and arbitrary nature of such boundaries.

Written comments provided outside of the meeting:

Previously, Stanford University, Great Oaks Water Company, and City of Palo Alto provided comments on the Study in July 2019. These were included (along with the Valley Water response) as a supplemental agenda item on August 27, 2019. On September 13, 2019, Luhdorff & Scalmanini (LSCE), a technical consultant hired by Stanford, submitted additional comments. Those comments and the Valley Water response are included in Attachment 4.

**Happy Acres Mutual Water Company**

Montgomery reviewed a well log provided by Happy Acres which indicates well 10S03E33D004 is in bedrock, rather than unconsolidated alluvium as indicated by the geologic maps in the area. Montgomery adjusted the proposed boundary of Zone W-8 near the Happy Acres well to reflect this new information. The Happy Acres well is no longer within the proposed zone and will not be subject to groundwater charges if the recommended zones are adopted.

It should be noted that any future requests by individual well users will continue to be evaluated and brought to the Board for consideration.

**Staff Recommendation**

Considering all available information and input, staff continues to recommend moving forward with the four zones presented to the Board on August 27, 2019 (modified Zones W-2 and W-5 and new Zones W-7 and W-8), with a minor adjustment to proposed Zone W-8 to exclude the area near the Happy Acres well (Attachment 2).

Staff continues to recommend fiscal year 2021 implementation of modified Zones W-2 and W-5 and new Zones W-7 and W-8 (with the latter adjusted slightly from the zone presented to the Board on August 27, 2019 to exclude the area near Happy Acres well based on new information). This would require the preparation of metes and bounds (the legal description that defines the boundaries of the zones) for Board consideration.

Staff's recommendation is based in part on the following considerations:

The zone evaluation by Montgomery uses best available data and tools to develop scientifically-sound recommendations. To staff's knowledge, this study goes well beyond what other agencies have done to develop groundwater benefit zones. In reviewing the Study report, Technical Review Committee Member and former Chief Hydrogeologist Carl Hague of the California Department of Water Resources noted: "...the amount of data that you have collected, evaluated and displayed in hydrographs, graphs, cross-sections and maps is mind-boggling. However, such an effort is necessary if groundwater management is to be effective, and user fees for that management are to be assessed equitably." Mr. Hague also noted that "the methodology used in this report will serve as an example for the Groundwater Sustainability Agencies formed under SGMA," the state's landmark Sustainable Groundwater Management Act. Given this comprehensive analysis, staff believes there is a strong technical basis to support the recommended zones.

**FINANCIAL IMPACT:**

As noted in the August 27, 2019 Board item, if the Board directs staff to pursue new or modified zones, Montgomery will prepare the legal survey description (metes and bounds) for Board consideration. This work is estimated to cost \$50,000 and is included in the existing consultant agreement no. A3741G. Valley Water would also need to conduct a rate study to support inclusion of the zones in the FY 21 rate-setting cycle. This work would be conducted by a financial consultant and is expected to cost \$86,000. Funds for this work have been budgeted under contract no. A4147F.

Any changes to groundwater benefit zones directed by the Board will not result in additional overall revenue for Valley Water. However, the rates within individual zones would likely change since a different group of Well Users would fund activities benefitting their area.

**CEQA:**

The recommended action does not constitute a project under CEQA because it does not have a potential for resulting in direct or reasonably foreseeable indirect physical change in the environment.

**ATTACHMENTS:**

- Attachment 1: Map, Existing GW Benefit Zones and Subbasins
- Attachment 2: Map, Staff Recommended GW Benefit Zones
- Attachment 3: Proposal by Stanford, Palo Alto, and Great Oaks
- Attachment 4: LSCE Comments and Valley Water Response
- Attachment 5: PowerPoint

**UNCLASSIFIED MANAGER:**

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