Santa Clara Valley Water District
Board of Directors Meeting

HQ. Bldg. Boardroom, 5700 Almaden Expressway, San Jose, California
Join Zoom Meeting: https://valleywater.zoom.us/j/84454515597

CLOSED SESSION AND REGULAR MEETING
(TO BE PUBLISHED 6/28/24)
AGENDA

Tuesday, July 9, 2024
11:00 AM

District Mission: Provide Silicon Valley safe, clean water for a healthy life, environment and economy.

All public records relating to an open session item on this agenda, which are not exempt from disclosure pursuant to the California Public Records Act, that are distributed to a majority of the legislative body, will be available to the public through the legislative body agenda web page at the same time that the public records are distributed or made available to the legislative body. Santa Clara Valley Water District will make reasonable efforts to accommodate persons with disabilities wishing to participate in the legislative body's meeting. Please advise the Clerk of the Board Office of any special needs by calling (408) 265-2600.

RICK L. CALLENDER, ESQ.
Chief Executive Officer

MICHELE L KING, CMC
Clerk of the Board
(408) 265-2600
Fax (408) 266-0271
www.valleywater.org

Note: The finalized Board Agenda, exception items and supplemental items will be posted prior to the meeting in accordance with the Brown Act.

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Santa Clara Valley Water District
Board of Directors

CLOSED SESSION AND REGULAR MEETING
AGENDA

Tuesday, July 9, 2024	**11:00 AM**	**HQ. Bldg. Boardroom, 5700 Almaden Expressway, San Jose, California** **Join Zoom Meeting:** **https://valleywater.zoom.us/j/84454515597**

IMPORTANT NOTICES AND PARTICIPATION INSTRUCTIONS

Santa Clara Valley Water District (Valley Water) Board of Directors/Board Committee meetings are held as a "hybrid" meetings, conducted in-person as well as by telecommunication, and is compliant with the provisions of the Ralph M. Brown Act.

To maximize public safety while still maintaining transparency and public access, members of the public have an option to participate by teleconference/video conference or attend in-person. To observe and participate in the meeting by teleconference/video conference, please see the meeting link located at the top of the agenda. If attending in-person, you are required to comply with Ordinance 22-03 - AN ORDINANCE OF THE SANTA CLARA VALLEY WATER DISTRICT SPECIFYING RULES OF DECORUM FOR PARTICIPATION IN BOARD AND COMMITTEE MEETINGS located at https://s3.us-west-2.amazonaws.com/valleywater.org.if-us-west-2/f2-live/s3fs-public/Ord.pdf

In accordance with the requirements of Gov. Code Section 54954.3(a), members of the public wishing to address the Board/Committee during public comment or on any item listed on the agenda, may do so by filling out a Speaker Card and submitting it to the Clerk or using the "Raise Hand" tool located in the Zoom meeting application to identify yourself in order to speak, at the time the item is called. Speakers will be acknowledged by the Board/Committee Chair in the order requests are received and granted speaking access to address the Board. Written comments on any item on the agenda may be submitted to clerkoftheboard@valleywater.org or board@valleywater.org.

- Members of the Public may test their connection to Zoom Meetings at: https://zoom.us/test
- Members of the Public are encouraged to review our overview on joining Valley Water Board Meetings at: https://www.youtube.com/watch?v=TojJpYCxXm0

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This agenda has been prepared as required by the applicable laws of the State of

California, including but not limited to, Government Code Sections 54950 et. seq. and has not been prepared with a view to informing an investment decision in any of Valley Water's bonds, notes or other obligations. Any projections, plans or other forward-looking statements included in the information in this agenda are subject to a variety of uncertainties that could cause any actual plans or results to differ materially from any such statement. The information herein is not intended to be used by investors or potential investors in considering the purchase or sale of Valley Water's bonds, notes or other obligations and investors and potential investors should rely only on information filed by Valley Water on the Municipal Securities Rulemaking Board's Electronic Municipal Market Access System for municipal securities disclosures and Valley Water's Investor Relations website, maintained on the World Wide Web at https://emma.msrb.org/ and https://www.valleywater.org/how-we-operate/financebudget/investor-relations, respectively.

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https://valleywater.zoom.us/j/84454515597
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1. CALL TO ORDER/ROLL CALL:

1.1. Roll Call.

2. 11:00 AM - CLOSED SESSION:

Notice to the Public: The Board of Directors meets in Closed Session in accordance with the Ralph M. Brown Act. Following the conclusion of Closed Session discussion, the Board will return for the remaining items on the regular meeting agenda.

2.1. CLOSED SESSION 24-0570
CONFERENCE WITH LEGAL COUNSEL
Initiation of Litigation
Pursuant to Government Code Section 54956.9(d)(4)
One Potential Case

2.2. CLOSED SESSION 24-0646
CONFERENCE WITH LEGAL COUNSEL
Conference with Real Property Negotiators
Pursuant to Government Code Section 54956.8
Setting Negotiation Parameters for Price and Terms of Payment for Purchase, Sale, or Exchange of Property Interest in APNs 728-34-020,

728-34-021, 728-35-001, 729-36-001, 678-02-031, 678-02-034, 725-06-008, 729-46-001, 725-08-001, 725-06-008, 725-05-002, and 725-04-003
Agency Negotiators: Rick Callender, Chris Hakes, Ryan McCarter, John Bourgeois
Negotiating Parties: County of Santa Clara

2.3. CLOSED SESSION 24-0630
PUBLIC EMPLOYEE PERFORMANCE EVALUATION
Pursuant to Government Code Section 54957(b)(1)
Titles: CEO, District Counsel, and Clerk of the Board

2.4. District Counsel Report on Closed Session.

3. 1:00 PM - TIME CERTAIN:

3.1. Pledge of Allegiance/National Anthem.

3.2. Orders of the Day.
A. Approximate Discussion Time (Board); and
B. Adjustments to the Order of Agenda Items.

3.3. Time Open for Public Comment on any Item not on the Agenda.
Notice to the public: Members of the public who wish to address the Board/Committee on any item not listed on the agenda may do so by filling out a Speaker Card and submitting it to the Clerk or using the "Raise Hand" tool located in the Zoom meeting application to identify yourself to speak. Speakers will be acknowledged by the Board/Committee Chair in the order requests are received and granted speaking access to address the Board/Committee. Speakers' comments should be limited to three minutes or as set by the Chair. The law does not permit Board/Committee action on, or extended discussion of, any item not on the agenda except under special circumstances. If Board/Committee action is requested, the matter may be placed on a future agenda. All comments that require a response will be referred to staff for a reply in writing. The Board/Committee may take action on any item of business appearing on the posted agenda.

3.4. Receive an Update and Provide Feedback on Santa Clara Valley Water District's Water Supply Master Plan 2050; Consider and Approve May 17, 2024, Water Supply and Demand Management Committee Recommendation to Set a Water Conservation Goal of 126,000 Acre-Feet Per Year by 2050; Consider and Approve March 27, 2024 Recycled Water Committee Recommendation to Set Potable Reuse Goal of 24,000 Acre-Feet Per Year by 2035. 24-0628
(Continued From June 25, 2024.)

Recommendation:
A. Consider and approve the May 17, 2024, Recommendation of the Water Supply and Demand Management Committee to set water conservation goal

of 126,000 acre-feet per year by 2050 in the Water Supply Master Plan 2050;

B. Consider and approve the March 27, 2024, Recommendation of the Recycled Water Committee to set a potable reuse goal of 24,000 acre-feet per year by 2035 as well as long-term vision to maximize water reuse in the County in the Water Supply Master Plan 2050, including additional potable and non-potable reuse, desalination, stormwater capture, and other alternative water sources;

C. Provide feedback and direction on portfolio analysis and three water supply strategies for meeting water supply needs; and

D. Provide feedback and direction on proposed adaptive management framework.

Manager: Kirsten Struve, 408-630-3138

Attachments:
Attachment 1: Project Evaluation Summary
Attachment 2: 2050 Conservation Goal
Attachment 3: Potable Reuse Goal
Attachment 4: Additional Water Supply Portfolios
Attachment 5: PowerPoint
*Handout 3.4-A: R. Norton
*Handout 3.4-B: K. Irvin
*Handout 3.4-C: J. Kuhl
*Handout 3.4-D: J. Kuhl
*Handout 3.4-E: iBMR 24-0006
*Handout 3.4-F: iBMR 24-0007

Est. Staff Time: 10 Minutes.

3.5. Consider the May 17, 2024, Environmental Creek Cleanup Committee Recommendation to Adopt the Proposed Water Resources Protection Zones Ordinance. 24-0568

Recommendation: Consider recommendation resulting from the May 17, 2024, Environmental Creek Cleanup Committee meeting to:

A. Adopt the Proposed Water Resources Protection Zones Ordinance; and

B. Provide feedback and recommendations to staff as necessary.

Manager: Jennifer Codianne, 408-630-3876

Attachments:
Attachment 1: Ordinance
Attachment 2: PowerPoint
Handout 3.5-A: Chen

Est. Staff Time: 10 Minutes.

REGULAR AGENDA:

4. CONSENT CALENDAR: (4.1 - 4.4) (Est. Time: 5 Minutes)

Notice to the public: There is no separate discussion of individual consent calendar items. Recommended actions are voted on in one motion. If an item is approved on the consent vote, the specific action recommended by staff is adopted. Items listed in this section of the agenda are considered to be routine by the Board, or delegated to the Board Appointed Officers (BAOs) yet required by law or contract to be Board approved (EL-7.10). Any item may be removed for separate consideration at the request of a Board member. Whenever a resolution is on the consent calendar, a roll call vote will be taken on the entire calendar. Members of the public wishing to address the Board on any consent items may do so by filling out a Speaker Card and submitting it to the Clerk or using the "Raise Hand" tool located in the Zoom meeting application to identify themselves to speak.

4.1. Adopt Recommended Positions on State Legislation: AB 2813 (Aguiar-Curry) Government Investment Act, and Other Legislation Which May Require Urgent Consideration for a Position by the Board. 24-0027

Recommendation: Adopt a position of "Support" on: AB 2813 (Aguiar-Curry) Government Investment Act.

Manager: Marta Lugo, 408-630-2237

4.2. Grant the Application for Leave to File Late Claim for Claim of Hortense Vasquez on Behalf of Michael Baughman and Deny the Claim on the Merits. 24-0629
(Continued From June 25, 2024.)

Recommendation:
A. Grant the application to file a late claim of Hortense Vasquez on behalf of Michael Baughman; and
B. Deny the claim on the merits.

Manager: J. Carlos Orellana, 408-630-2755

Attachments: Attachment 1: Claim
Attachment 2: Application for Leave to File Late Claim

4.3. Receive the Independent Auditor's Reports Related to Santa Clara Valley Water District's Annual Comprehensive Financial Report for the Fiscal Year Ended June 30, 2023. 24-0581

Recommendation: Receive the Independent Auditor's reports related to Santa Clara Valley Water District's Annual Comprehensive Financial Report for the Fiscal Year ended June 30, 2023.

Manager: Darin Taylor, 408-630-3068

Attachments: Attachment 1: Investment Policy Compliance
Attachment 2: Article XIII-B Appropriations Procedure
Attachment 3: Compensation and Benefits Compliance
Attachment 4: Flood Control Master Resolution Compliance

4.4. Consider and Approve Nominations for Two-Year Committee Appointments and Reappointments to the Santa Clara Valley Water Youth Commission. 24-0599

Recommendation: Consider and approve nominations for two-year appointments and reappointments to the Santa Clara Valley Water Youth Commission.

Manager: Candice Kwok-Smith, 408-630-3193

Attachments: Attachment 1: SCVWD Resolution Number 17-75

5. BOARD OF DIRECTORS:

5.1. Board Committee Reports.

6. WATER UTILITY ENTERPRISE:

6.1. Approve a Budget Adjustment for the Desalination Project No. 91441003 and Approve the Agreement No. A5050A With Black & Veatch Corporation, to Provide a Desalination Engineering Feasibility Study, Project No. 91441003, PlanetBids File No. VW0379, for a Total Not-to-Exceed fee of $1,717,738. 24-0627

Recommendation:
A. Approve a budget adjustment in the amount of $1,717,738 to Fiscal Year 2025 for the Desalination Engineering Feasibility Study Project; and
B. Approve the Standard Consultant Agreement with Black & Veatch Corporation, to provide a Desalination Engineering Feasibility Study, Project No. 91441003, PlanetBids File No. VW0379, for a total not-to-exceed fee of $1,717,738.

Manager: Kirsten Struve, 408-630-3138

Attachments: Attachment A: Gov. Code 84308
Attachment 1: Agreement

Est. Staff Time: 5 Minutes.

7. WATERSHEDS:

8. ASSISTANT CHIEF EXECUTIVE OFFICER:

9. EXTERNAL AFFAIRS:

10. CHIEF EXECUTIVE OFFICER:

10.1. CEO and Chiefs' Report.

11. ADMINISTRATION:

12. DISTRICT COUNSEL:

12.1. Denial of May 10, 2024, Claim by Stanford University Against Santa Clara Valley Water District for Refund of Water Year 2023-24 Groundwater Production Charges. 24-0635

Recommendation: Deny Stanford University's claim.

Manager: Andrew Gschwind, 408-630-2804

Attachments: Attachment 1: Claim

Est. Staff Time: 5 Minutes.

13. BOARD POLICY PLANNING CALENDAR/PROPOSED FUTURE BOARD AGENDA ITEMS:

13.1. Approve the Fiscal Year 2024-2025 Board Policy Planning Calendar. 24-0176

Recommendation: Approve the Fiscal Year 2024-2025 Board Policy Planning Calendar.

Manager: Michele King, 408-630-2711

Attachments: Attachment 1: FY 24-25 Board Calendar

Est. Staff Time: 5 Minutes.

14. BOARD MEMBER REPORTS/ANNOUNCEMENTS:

15. CLERK REVIEW AND CLARIFICATION OF BOARD REQUESTS:

16. ADJOURN:

16.1 Adjourn to the 1:00 p.m. Regular meeting on July 23, 2024, in the Santa Clara Valley Water District Headquarters Building Boardroom, 5700 Almaden Expressway, San Jose, California, and via Zoom teleconference.

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Santa Clara Valley Water District

File No.: 24-0570

Agenda Date: 7/9/2024
Item No.: 2.1.

NON-EXHIBIT/CLOSED SESSION ITEM

SUBJECT:
CLOSED SESSION
CONFERENCE WITH LEGAL COUNSEL
Initiation of Litigation
Pursuant to Government Code Section 54956.9(d)(4)
One Potential Case

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Santa Clara Valley Water District

File No.: 24-0646

Agenda Date: 7/9/2024
Item No.: 2.2.

NON-EXHIBIT/CLOSED SESSION ITEM

SUBJECT:
CLOSED SESSION
CONFERENCE WITH LEGAL COUNSEL
Conference with Real Property Negotiators
Pursuant to Government Code Section 54956.8
Setting Negotiation Parameters for Price and Terms of Payment for Purchase, Sale, or Exchange of Property Interest in APNs 728-34-020, 728-34-021, 728-35-001, 729-36-001, 678-02-031, 678-02-034, 725-06-008, 729-46-001, 725-08-001, 725-06-008, 725-05-002, and 725-04-003
Agency Negotiators: Rick Callender, Chris Hakes, Ryan McCarter, John Bourgeois
Negotiating Parties: County of Santa Clara

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Santa Clara Valley Water District

File No.: 24-0630

Agenda Date: 7/9/2024
Item No.: 2.3.

NON-EXHIBIT/CLOSED SESSION ITEM

SUBJECT:
CLOSED SESSION
PUBLIC EMPLOYEE PERFORMANCE EVALUATION
Pursuant to Government Code Section 54957(b)(1)
Titles: CEO, District Counsel, and Clerk of the Board

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Santa Clara Valley Water District

File No.: 24-0628

Agenda Date: 7/9/2024
Item No.: 3.4.

BOARD AGENDA MEMORANDUM

Government Code § 84308 Applies: Yes ☐ No ☒
(If "YES" Complete Attachment A - Gov. Code § 84308)

SUBJECT:
Receive an Update and Provide Feedback on Santa Clara Valley Water District's Water Supply Master Plan 2050; Consider and Approve May 17, 2024, Water Supply and Demand Management Committee Recommendation to Set a Water Conservation Goal of 126,000 Acre-Feet Per Year by 2050; Consider and Approve March 27, 2024 Recycled Water Committee Recommendation to Set Potable Reuse Goal of 24,000 Acre-Feet Per Year by 2035.
(Continued From June 25, 2024.)

RECOMMENDATION:

A. Consider and approve the May 17, 2024, Recommendation of the Water Supply and Demand Management Committee to set water conservation goal of 126,000 acre-feet per year by 2050 in the Water Supply Master Plan 2050;
B. Consider and approve the March 27, 2024, Recommendation of the Recycled Water Committee to set a potable reuse goal of 24,000 acre-feet per year by 2035 as well as long-term vision to maximize water reuse in the County in the Water Supply Master Plan 2050, including additional potable and non-potable reuse, desalination, stormwater capture, and other alternative water sources;
C. Provide feedback and direction on portfolio analysis and three water supply strategies for meeting water supply needs; and
D. Provide feedback and direction on proposed adaptive management framework.

SUMMARY:
The Water Supply Master Plan (WSMP) is Santa Clara Valley Water District's (Valley Water) guiding document for long-term water supply investments to ensure water supply reliability for Santa Clara County. Updated approximately every five years, this long-range plan assesses projected future county-wide demands and evaluates and recommends water supply and infrastructure projects to meet those demands to achieve Valley Water's level of service goal through the planning horizon. Valley Water's level of service goal, as established in Board Ends Policy 2, is to "Meet 100 percent of annual water demand during non-drought years and at least 80 percent of demand in drought years."

Valley Water is working on developing the WSMP 2050. At the January 9, 2024 Board of Directors (Board) meeting, staff presented second update on the development of the WSMP 2050, including

projected water shortage under four future supply and demand conditions, preliminary portfolio analysis, and example portfolios. Since then, staff has been focusing on additional portfolio analysis and project evaluation. This memorandum summarizes the progress on those efforts and includes project evaluation that details each project's benefits and risks/challenges; cost analysis for individual projects and portfolios; representative portfolios under three themes that present different strategies to address future water shortages; and a proposed adaptive management approach to support making incremental investment decisions as projects develop. In addition, it includes recommended water conservation and potable reuse goals for Board approval.

Water Supply Needs and Challenges
Valley Water operates a complex and interconnected water supply system to conjunctively manage supplies from surface water (imported and local) and groundwater to meet county-wide demand, now and in the future. With conjunctive management and continued investment, Valley Water's existing system has proven flexible and reliable in meeting demands in most years, but extended droughts continue to be the greatest challenge. According to the WSMP analyses, if relying only on existing supplies and infrastructure, Valley Water will experience water shortages during the later years of an extended drought beginning in 2035, mostly driven by changing demands, regulations, and climate change. In 2050, the average shortage over a six-year drought could be as much as 76,000 acre-feet per year (AFY), depending on the projected demand and imported water supply conditions. These shortages are large and already account for meeting drought calls and long-term conservation goals. Therefore, Valley Water needs to invest in new projects to address those shortages to ensure long-term water supply reliability for Santa Clara County.

In addition to future water shortages, Valley Water's existing water supply system is aging and in need of maintenance and upgrading. At the same time, water infrastructure projects are becoming increasingly complex and expensive, which affects affordability and water rates. Therefore, Valley Water's WSMP 2050 aims to develop an investment strategy that balances providing safe clean water, reliability, adaptability, and affordability.

Project Evaluation
To address future water supply needs and other challenges, Valley Water evaluated nearly 20 projects. The project types and major projects within each group are listed below.

- Alternative Supply
    - San José Direct Potable Reuse (DPR)
    - Palo Alto Potable Reuse
    - Local Seawater Desalination
    - Refinery Recycled Water Exchange
- Surface Supply
    - Delta Conveyance Project (DCP)
    - Sites Reservoir
- Storage
    - Pacheco Reservoir Expansion (Pacheco)
    - Los Vaqueros Expansion (LVE)
    - B.F. Sisk Dam Raise (Sisk)

    - Out of County Groundwater Banking (GW Bank)
- South County Recharge
    - San Pedro Ponds Improvement
    - Coyote Valley Recharge Pond
    - Madrone Channel Expansion

The projects were evaluated both quantitatively (supply benefit and cost) and qualitatively, to provide a comprehensive understanding of their benefits and risks. The evaluation started with a detailed analysis of the water supply benefit and cost of each project, followed by a qualitative assessment of each project's reliability in providing planned benefits, likelihood of success, environmental impacts, jurisdiction and partnership, and public acceptance. The environmental impacts of major projects are based on their published Environmental Impact Reports, which detail their impacts on natural and/or cultural resources and other aspects of the environment. Each project's benefits to Valley Water's water supply reliability as well as associated risks and challenges based on the evaluation criteria are summarized in Attachment 1.

The project evaluation confirms that while all projects are beneficial to Valley Water's long-term water supply reliability, no single project can meet all our future needs and each project has risks and challenges. Some projects provide needed supply during droughts but are costly; others are lower in cost but are high risk or do not contribute significantly to drought reliability; and yet others require agreements with partners and therefore their success remains out of Valley Water's direct control. Furthermore, many projects are in the planning phase and still evolving, adding further uncertainty on their costs, benefits, and risks. Portfolios of projects that complement each other could provide a balanced, diverse, and sustainable water supply to address future needs and challenges.

Valley Water also developed water conservation and reuse goals for inclusion in the plan, as they are important components in our effort to address future shortages.

- **2050 Conservation Goal**
  The Water Supply and Demand Management Committee recommends the Board adopt 126,000 AFY as the 2050 water conservation goal, which is considered ambitious but implementable, and balances benefits with affordability concerns (Attachment 2). This water conservation goal recognizes that Santa Clara County is already very water efficient and complements the State's "Making Water Conservation a Way of Life" regulation. It allows Valley Water to stay at the forefront of conservation with sufficient feasible program expansion options supported by community interest and reduces the need to invest in additional new supplies and/or storage. Meeting long-term conservation goals throughout the planning horizon is factored into baseline assumptions in the analysis. In addition, Valley Water will continue to implement the 'no-regrets' package of conservation and stormwater capture projects identified in the WSMP 2040.

- **Potable Reuse Goal**
  Potable reuse is a locally controlled and drought-resilient supply that is effective in mitigating drought risks. The Recycled Water Committee recommends a goal of 24,000 AFY of potable reuse by 2035, which can be achieved with a project in collaboration with the Cities of San

José and Santa Clara. In an effort to explore additional potable reuse, the Committee also recommends including a long-term vision to maximize water reuse in the county. This long-term vision includes additional potable and non-potable reuse, desalination, stormwater capture, and other alternative water sources. (Attachment 3). The inclusion of a 2035 goal with the long-term vision promotes a phased approach that accounts for uncertainty with future demand and wastewater availability while balancing affordability and risk of overinvestment.

Project Cost Analysis
Cost is one of the most important factors when developing a recommended investment strategy because of its impact on water rates and affordability. Cost analysis for water infrastructure projects typically includes multiple metrics to provide a complete picture of their financial implications. Valley Water's cost analysis was performed at the project and portfolio levels. For each project, the cost analysis includes total lifecycle cost and unit cost estimates. For each portfolio, the cost analysis includes total lifecycle cost, water rate impacts, and the cost of shortage. The cost of shortage is defined as the dollar amount that water users would be willing to pay to avoid water shortage, which is calculated based on the economic theory of demand and relies on price elasticities and forecasted demands (among other variables). The cost metrics are calculated using similar approaches to other agencies and are based on inputs from the WSMP expert panel.

The lifecycle cost includes capital and annual operations and maintenance costs over a project's useful service life with financing. The useful service life is assumed to be the time before a project incurs any significant repair/replacement costs - 30 years for purified water, desalination, and local pipeline projects; and 50 years for storage and other projects. The unit cost calculation is handled separately for supply and storage projects because they function very differently. For supply projects, the unit cost is calculated using present values of lifecycle cost relative to the anticipated average annual supply benefit (Table 1). For storage projects, a "storage capacity cost" or cost per acre-foot of storage capacity is calculated (Table 2) because of the challenges in estimating their annual water supply yields. Therefore, unit costs can be used to compare projects within the same group, but not for comparing supply projects with storage projects. All costs are represented in 2023 dollars. These cost calculations may be updated in future updates. The portfolio cost analysis is discussed in a later section, and cost of shortage analysis will be included in a future Board update.

Table 1 Cost of Major Supply Projects (in 2023 Dollars)

Project	Average Annual Supply (AF)	Capital Cost (Million)	Annual O&M (Million)	Present Value (PV) Lifecycle Cost (Million)	Lifecycle Cost PV/ Yield PV ($/AF)	Annualized Unit Cost ($/AF)
Palo Alto Potable Reuse	8,000	$780	$13	$1,570	$10,200	$9,000
San José Direct Potable Reuse	24,000	$2,140	$30	$2,610	$6,400	$5,000
Local Seawater Desalination	24,000	$2,140	$30	$2,610	$6,400	$5,000
Refinery Recycled Water Exchange	8,000	$250	$9	$430	$2,800	$2,500
Delta Conveyance Project	14,000	$650	$2	$720	$2,700	$1,800
Sites Reservoir	5,000	$140	$0.6	$130	$1,200	$1,000

Table 2 Cost of Major Storage Projects (in 2023 Dollars)

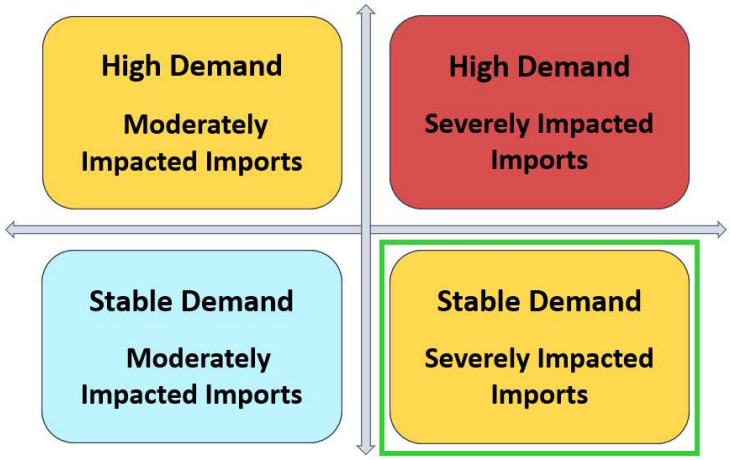
Project	Storage (AF)	Capital Cost (Million)	Annual O&M (Million)	PV Lifecycle Cost (Million)	Lifecycle Cost PV/ Storage Capacity ($/AF)
Pacheco	140,000	$2,210	$2.5	$1,590	$11,400
B.F. Sisk Dam Raise	60,000	$440	$1.8	$470	$7,900
Los Vaqueros Expansion	30,000	$260	$3.2	$350	$11,700
Groundwater Banking	350,000[1]	$280	$2.8	$350	$1,000

[1] Different levels of Groundwater Banking were used in the portfolio analysis.

Overall Water Supply Strategy

As presented in the January Board update, portfolio analyses are used to identify the combinations of projects that may be needed to achieve water supply reliability under four future supply and demand conditions (Figure 1) based on different combinations of imported water supplies (moderately or severely impacted) and demand (stable or high).

Figure 1 Four Future Conditions for Planning



The portfolio analysis for this board update was focused on a future with stable demand and severely reduced imported water supplies. The portfolios evaluated for this condition also work for the best-case condition (stable demand and moderately impacted imports), generally perform similarly to another middle-of-road condition (high demand and moderately impacted imports) and serve as the foundation for developing portfolios for the worst-case condition (high demand and severely reduced imported supply). Given these similarities, this memorandum summarizes water supply portfolios for the stable demand/severely reduced imported water supply condition. Additional projects needed to address the worst-case future condition with high demand and severely reduced imports will be included in a future update.

With the high number of potential projects, there are many combinations and strategies to achieve long-term water supply reliability, depending on different considerations and factors. The development of portfolios involved extensive water supply modeling to ensure that potential portfolios address projected shortages.

To help outline investment options and present tradeoffs, potential investment strategies were developed based on three themes - lower cost, local control, and diversified. Under each strategy, multiple portfolios can meet future water supply needs. Based on the project evaluation and discussions with both internal and external experts, one representative portfolio for each strategy was selected for this presentation and summarized in Table 3, along with the total lifecycle cost. Additional portfolios that would address projected shortages are provided in Attachment 4.

Table 3 Multiple Strategies for Water Supply Reliability

Strategies	Projects[1]	Portfolio Cost[2] (Billion)
Lower Cost	San José Direct Potable Reuse, DCP, Sisk, Groundwater Banking (250,000 AF), South County Recharge	**$4.0**
Local Control	San José Direct Potable Reuse, Palo Alto Potable Reuse, Pacheco without Partners, Groundwater Banking (150,000 AF), South County Recharge	**$5.9**
Diversified	San José Direct Potable Reuse, DCP, Pacheco with Partners, LVE, Sisk, Groundwater Banking (350,000 AF), South County Recharge	**$5.5**

[1] Conservation is factored in the baseline condition.
[2] Portfolio cost includes the sum of the present value total cost for each project.

These three potential strategies represent different approaches to water supply reliability, but each comes with tradeoffs:

- **Lower Cost** - Focuses on affordability and minimizing costs, with a mix of supply and storage projects. The strategy provides drought-resilient supply through potable reuse, diversifies existing storage, and secures existing imported supply through DCP. However, it has high risks, as all four major projects require partnership and institutional agreements to be successful.

- **Local Control** - Focuses on projects within Santa Clara County which Valley Water has more control over. The strategy provides drought-resilient supply through potable reuse, diversifies existing storage, provides emergency storage, and reduces reliance on imported supply. However, it has the highest cost, as it includes the three most expensive projects being considered (two potable reuse projects and Pacheco).

- **Diversified** - Focuses on diversifying the existing system with a mix of local and imported supplies as well as storage projects. The diversified strategy, which is most closely aligned with the FY 2024-25 rate-setting portfolio, provides a similar variety of benefits as the other two strategies but builds in more resiliency and redundancy to help reduce the county's exposure to risk and uncertainty, including the risk of any one investment not performing up to expectations. However, it has a relatively high cost and more institutional complexity since it includes more projects.

All three strategies include Direct Potable Reuse in San José, emphasizing the importance of having drought-resilient local supplies in the long-term strategy. This project is also needed in nearly all other portfolios in the Attachment 4. It should also be noted that all strategies require Valley Water to either maintain existing level of storage or further diversify and develop additional storage.

As part of each portfolio evaluation, rate impacts for each portfolio were analyzed. The adopted FY

2024-25 water rates (commonly referred to as groundwater production charges), as presented to the Board in January, April and adopted in May 2024, most closely align with the Diversified portfolio. The Diversified portfolio includes an expanded investment in Groundwater Banking (350,000 AF) and higher Delta Conveyance Project (DCP) costs than are included in the FY 2024-25 rate-setting portfolio. Results are summarized in Table 4 below.

Table 4 Water Rate Impact Comparison Between Strategies
Translation of portfolio costs to North County Zone W-2 Municipal & Industrial rate ($/AF), or average monthly impact to an average household[1]

Strategy	FY 26 to FY 30	FY 31 to FY 35	FY 36 to FY 40	FY 41 to FY 45	FY 46 to FY 50
FY 2024-25 Adopted Rates & PAWS Report[2]	*$2,985 / AF or $102.81 / month*	*$4,786 / AF or $164.82 / month*	*$7,385 / AF or $254.35 / month*	*$7,956 / AF or $273.99 / month*	*$7,956 / AF or $273.99 / month*
Lower Cost	$2,866 / AF or $98.71 / month	$4,296 / AF or $147.96 / month	$6,581 / AF or $226.65 / month	$7,068 / AF or $243.42 / month	$7,068 / AF or $243.42 / month
Local Control	$3,359 / AF or $115.70 / month	$5,627 / AF or $193.80 / month	$8,134 / AF or $280.14 / month	$8,731 / AF or $300.69 / month	$8,835 / AF or $304.28 / month
Diversified	$3,100 / AF or $106.75 / month	$5,153 / AF or $177.45 / month	$7,686 / AF or $264.71 / month	$8,344 / AF or $287.37 / month	$8,377 / AF or $288.51 / month

[1] For purposes of this analysis, an average household is assumed to use 15 hundred cubic feet, or 0.413 acre-feet, of water per month.
[2] PAWS Report: Annual Protection and Augmentation of Water Supplies Report, February 2024. Available online at <https://www.valleywater.org/>.

South County Strategy
South County residents, businesses, and agriculture rely almost entirely on groundwater for water supply. Valley Water actively manages the groundwater basins to ensure continued sustainable supplies and takes appropriate action to protect groundwater-dependent communities such as prioritizing South County recharge during droughts. Groundwater recharge ponds are essential for long-term reliability and have played a critical role in drought recovery. With "weather whiplash" (frequent shifts between extremely wet and dry years) becoming more common and the high local reliance on groundwater, there is a need for additional recharge capacity in South County.

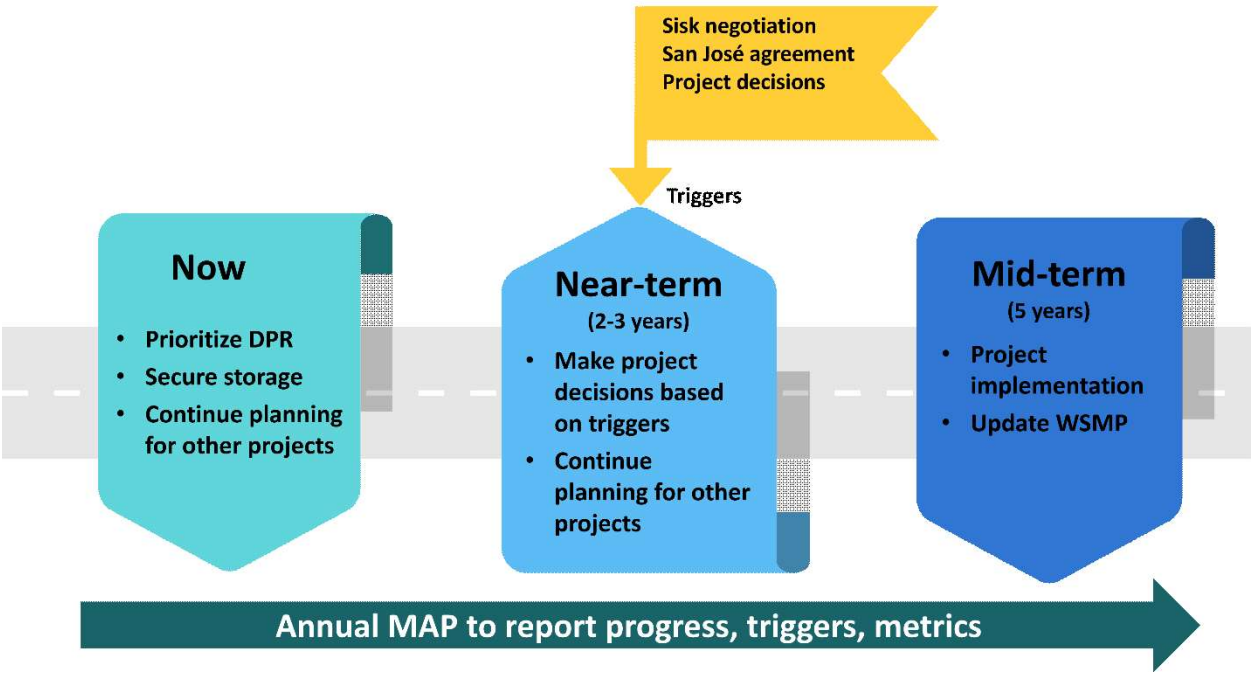
In this plan, several recharge projects in the South County are being evaluated, including expansion of the Madrone Channel, a new recharge pond in the Coyote Valley, San Pedro Ponds Improvement Project, and Agricultural Land Recharge (FloodMAR). In addition, Valley Water recently worked with the South County partner agencies to complete the 2024 update to the South County Recycled Water Master Plan to identify opportunities for additional water reuse.

Adaptive Management Framework
Portfolio analysis suggests that there are different ways to achieve future water supply reliability, each with tradeoffs and risks and challenges. Because many WSMP projects are still in the planning

phase and will evolve, it is hard to predict which will ultimately be successful. Uncertainty with forecasted future supply and demand conditions further challenges decision-making. Planning under such deep uncertainty requires an adaptive management approach to provide the Board with flexibility and the ability to make incremental investment decisions and refine them over time, based on evolving information and actual conditions. Incremental decisions based on actual conditions will help reduce the risk of over- or under-investing.

The adaptive framework is intended to define a consistent, stepwise process of making project and program investment decisions. The framework includes a roadmap and annual reporting. The roadmap outlines near- and mid-term actions and defines triggers and conditions for project decisions, and the annual reporting tracks project progress and provides up-to-date information to help inform decision-making. A preliminary conceptual roadmap is presented in Figure 2.

Figure 2 Proposed Roadmap for Adaptive Management



With this adaptive framework, a critical component is reporting through the annual Monitoring and Assessment Program (MAP). A standard MAP report will be devised to include key elements of the WSMP, including progress on projects, conditions of triggers and indicators, and whether any adjustments are recommended. The timing of the MAP will be aligned with the annual CIP Five-Year Plan and Water Rate-Setting Cycle to support related decision-making.

Some example triggers and indicators that will guide as to whether to stay the course or pivot to different pathways include:

- Negotiations and agreements with other agencies (i.e., Sisk Dam Raise Project or direct potable reuse facility with the Cities of San José and Santa Clara)
- Timing of upcoming project decisions

- Groundwater bank negotiations
- Annual water use
- Annual supply
- Conservation measures (water savings, program participation)
- Imported water allocations
- Growth trend/demand

In the next few years, major decisions will come up for several projects. Through this adaptive management framework, the Board will have multiple opportunities along each project's trajectory to make informed decisions on investments. It also allows the WSMP to be closely linked to the annual CIP and rate-setting processes, fulfilling its role as the guiding document for long-term investment strategy.

Outreach Efforts
Stakeholder engagement is an important component of the WSMP 2050 development process and will be carried out throughout the plan development. In January 2024, staff presented major milestones and progress to date at the quarterly Water Retailer meeting and Water Commission meeting. A similar presentation was given to the Environmental and Water Resources Committee in April 2024. In addition to Board and committee meetings, Valley Water continues to use the WSMP webpage (<https://www.valleywater.org/your-water/water-supply-planning/water-supply-master-plan>), stakeholder email list, blogs, social media, communication newsletter and other channels as ongoing opportunities to provide updates and engage the public and stakeholders.

Valley Water convened an expert panel to support WSMP analyses and are continuing to engage with them through the entire process.

Next Steps
Based on Board feedback and direction, Staff will finalize the analysis and roadmap and return to the Board for another update in the Fall. Staff will also start to draft the plan.

ENVIRONMENTAL JUSTICE AND EQUITY IMPACT:
There are no environmental justice and equity impacts associated with this item.

FINANCIAL IMPACT:
There is no financial impact associated with this item.

CEQA:
The recommended actions do not constitute a project under CEQA because they do not have the potential for resulting in direct or reasonably foreseeable indirect physical change in the environment.

ATTACHMENTS:

Attachment 1: Project Evaluation Summary
Attachment 2: 2050 Conservation Goal
Attachment 3: Potable Reuse Goal
Attachment 4: Additional Water Supply Portfolios
Attachment 5: PowerPoint
*Handout 3.4-A: R. Norton
*Handout 3.4-B: K. Irvin
*Handout 3.4-C: J. Kuhl
*Handout 3.4-D: J. Kuhl
*Handout 3.4-E: iBMR 24-0006
*Handout 3.4-F: iBMR 24-0007

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Attachment 1 – Project Evaluation Summary

Project	Benefits	Risks/Challenges	Expected online date
San José Direct Potable Reuse – Constructs an advanced water purification facility in San José to produce purified water for potable reuse. Purified water may augment treated and/or raw water supplies.	Up to 24,000 acre-feet per year (AFY) of locally controlled, drought resilient supply that is critical in mitigating risks of multi-year droughts. Increase operational flexibility.	Requires agreements with City of San José. Public acceptance remains mixed. High capital and operational costs. Requires reverse osmosis concentrate (ROC) management solutions.	2033
Palo Alto Potable Reuse – Construct an Advanced Water Purification Facility in Palo Alto to produce purified water for potable reuse.	8,400 AFY of locally controlled, drought resilient supply to mitigate risks of multi-year droughts.	Requires agreements with Palo Alto, public acceptance remains mixed, high capital and operational costs. Requires long-term ROC management solutions	Currently on CIP unfunded list
Local Seawater Desalination – A seawater desalination project in Santa Clara County using seawater from the South San Francisco Bay. Desalinated water could augment existing treated and/or raw water supplies.	Up to 24,000 AFY of locally controlled, drought resilient supply that mitigate risks of multi-year droughts and improve water supply reliability. Increase operational flexibility.	Project currently at the pre-feasibility stage. Environmental challenges, including brine management, power needs, and permitting in the sensitive Bay environment. High capital and operational cost. Multiple regulatory permitting steps.	2035
Refinery Recycled Water Exchange – A regional recycled water project between Valley Water, Central Contra Costa Sanitary District (Central San), and Contra Costa Water District (CCWD). The project will allow Central San to provide recycled water to two oil refineries in Contra Costa County in lieu of CCWD's Central Valley Project (CVP) water. CCWD will then	On average 8,500 - 10,000 AFY of imported water supply. Reduces regional reliance on the Delta. Increases regional drought resiliency.	Uncertainty in refinery demands and delivery of CVP supply. CCWD currently evaluating the project in their long-term plan. East Bay Municipal Utility District (EBMUD) also evaluating the project.	2030

provide its freed-up CVP supply to Valley Water.			
Delta Conveyance Project – Modernize the State Water Project (SWP) infrastructure in the Delta by adding new facilities to divert water and upgrading the current conveyance system. The project is intended to restore and protect the reliability of SWP water deliveries and, potentially, CVP water supplies south of the Delta.	At current 3.23% participation level, the project could provide on average 14,000 AFY of water supply benefits to Valley Water. It will help secure existing Delta-conveyed supplies, and improve access to transfer supplies and quality of imported water supplies.	Implementation complexity, long-term operational uncertainty, active public opposition due to environmental concerns, and long-term financing uncertainty.	2045
Sites Reservoir – A proposed off-stream water supply reservoir north of the Delta to provide new water supply by capturing flood flows from the Sacramento River. The project would be operated in coordination with the SWP and CVP.	Valley Water is assuming 2.7% participation level in the portfolio analysis, which could potentially provide dry year yield of around 9,200 AFY and 37,000 AF of storage. It also offers access for transfers and lease/purchase of additional storage.	Public opposition, requires through-delta conveyance, future regulatory changes. Project is currently fully subscribed.	2032
Pacheco Reservoir Expansion – Enlarges Pacheco Reservoir from about 5,500 AF to 140,000 AF and connects the reservoir to the Pacheco Conduit. The reservoir plans to be filled with natural inflow and imported (CVP and/or SWP) supplies. The project is currently moving toward 60% design.	Locally controlled, provides emergency storage with no annual carryover storage limit, downstream benefits for threatened fish, manages water quality impacts from San Luis Reservoir, diversifies Valley Water's storage program, captures and stores CVP Section 215 and SWP Article 21 water when available, and increases operational flexibility. Grant funding.	Public opposition, rising cost, environmental impact on cultural resources, difficulty in securing partners, and increased long-term environmental commitments.	2035
Los Vaqueros Expansion – Expand Los Vaqueros Reservoir storage from 160,000 to 275,000 AF and build the Transfer-Bethany Pipeline to connect the	Currently seeking to purchase at least 30,000 AF of dedicated storage to store imported supplies. The project can help diversify Valley Water's storage program and	Proposed storage currently under negotiation with the project's Joint Power Authority, CCWD maintains priority use, no guaranteed put/take	2033

reservoir to the California Aqueduct.	increase operational flexibility in conveying imported water.	timing and capacity for Valley Water, Operational and institutional complexity.	
B.F. Sisk Dam Raise – Expands the capacity of San Luis Reservoir by 130,000 AF. New capacity would be shared by Reclamation and project participants and may be operationally integrated with the CVP.	Valley Water is currently negotiating for 60,000 AF of storage for imported supplies. If secured, the storage may help diversify Valley Water's existing storage program, capture and store CVP Section 215 and SWP Article 21 water when available, and increase operational flexibility.	Proposed storage is under negotiation. Requires moving a portion of Route 152.	2032
Out of County Groundwater Banking – Participate in one or more Groundwater Banking Programs located within the Central Valley. Semitropic Groundwater Bank contract expires in 2035 and will need to be renegotiated.	Historically among the most cost-effective options. New programs may help diversify Valley Water's existing storage program, potentially increasing current put and take capacities.	No identified projects yet. Significant institutional, technical, and political hurdles to overcome, and potential competition with other agencies**.**	TBD
South County Recharge – Several projects in the South County are being evaluated, including San Pedro Ponds Improvement Project, Coyote Valley Recharge Pond, and Madrone Channel Expansion.	Increase recharge capacity and maximize use of existing infrastructure to help improve water supply reliability for South County. Increase operational flexibility in South County, help South County groundwater levels rebound from drought more efficiently.	May require landowner support. In preliminary planning phase.	2030

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Santa Clara Valley Water District

File No.: 24-0448

Agenda Date: 5/17/2024
Item No.: 4.1.

COMMITTEE AGENDA MEMORANDUM
Water Supply and Demand Management Committee

Government Code § 84308 Applies: Yes ☐ No ☒
(If "YES" Complete Attachment A - Gov. Code § 84308)

SUBJECT:
Review Potential Water Conservation Targets for Inclusion in the 2050 Water Supply Master Plan; and Recommend to the Santa Clara Valley Water District Board the 126,000 Acre Feet per Year (AFY) (Option B) Water Conservation Goal by 2050 for Inclusion in the Water Supply Master Plan 2050.

RECOMMENDATION:
Recommend to Santa Clara Valley Water District Board the 126,000 Acre Feet per Year (Option B) water conservation goal by 2050 for inclusion in the Water Supply Master Plan 2050.

SUMMARY:
Santa Clara Valley Water District (Valley Water) is the primary water resources agency in Santa Clara County, California, and serves about 2 million residents, primarily through 13 water retailers. Valley Water has been providing water conservation programs to its retail agencies' customers since 1992 and offers over 20 programs to reach all customer sectors to achieve the Valley Water Board of Directors (Board) long-term 2030 and 2040 water conservation goals. The Water Supply and Demand Management Committee (formed by merging the Water Conservation and Demand Management Committee and Water Storage Exploratory Committee (Committee)) and the Board monitor progress on achieving conservation goals. Additionally, the Water Supply Master Plan (Master Plan) which includes the conservation goals is updated every five (5) years and has an annual Monitoring and Assessment Program (MAP) report that presents progress on meeting the conservation goal. Through the Master Plan and MAP updates, the Committee and Board can modify the goals as new technologies, regulations, and trends become available or enacted.

Valley Water is currently developing its Master Plan 2050 and seeks to identify new 2050 conservation goals for inclusion in the Master Plan. Staff are presenting three options to achieve additional savings beyond Valley Water's 2040 conservation goal of 110 thousand acre-feet a year (TAFY). Three (3) potential 2050 Conservation Goals (2050 Goals), the menu of conservation programs, and the cost-effectiveness of achieving the portfolios being considered were presented at the December 2023 and January 2024 Committee meetings. At the January 2024 meeting, the

Committee requested a report back with additional comprehensive rationale presented for Board analysis including further details of comparisons with other similar agencies, current water conservation performance indicators, and the implementation of option strategies. This memorandum includes these additional details.

Goal Development Approach

Valley Water developed three 2050 Goals by evaluating its current program, potential future programs, and peer agency programs. The evaluation of current and potential future program offerings included estimated water savings, estimated community interest, implementability, cost effectiveness, and support for retailers in achieving State regulations. Staff also reviewed peer agency programs to see if there are applicable programs that Valley Water has not yet evaluated. In general, staff found that the number and variety of Valley Water's programs are equal or exceed our peer agency programs, but plan on completing a more detailed benchmarking study of the conservation programs at peer agencies over the next year.

Valley Water offers a comprehensive set of over 20 programs that help all sectors (e.g., residential, agricultural, commercial, industrial, and institutional) reduce their water use and most are cost effective and/or provide important community education about water use and conservation. The current conservation program costs approximately $600/AF. However, certain programs could be expanded or added in the future if Valley Water increases investment in conservation.

The three 2050 Goals summarized in the next section offer different options for investing in water conservation through 2050. As the conservation goal increases, the cost increases, staffing needs increase, and implementability will likely become more difficult. Implementability may become more difficult because Santa Clara County is relatively efficient, so it may be necessary to engage new customers and install new water-saving technology. Our retail customer average residential gallons per capita per day (GPCD) in the county during non-drought conditions (using years 2018-2020) ranges between approximately 71-74. In comparison, average statewide residential GPCD during the same period was between 85-93. Therefore, Santa Clara County is approximately 20% more efficient than the State of California on average and is in the top 10 of most efficient counties. During drought, additional water use reduction calls may also become more challenging as our community becomes more efficient which could impact meeting Valley Water's Level of Service goal.

Valley Water also considered expected future water use regulations when designing the 2050 Goal options. Per Senate Bill 1157 (SB 1157), the State developed indoor residential water use limits of 42 GPCD starting in 2030. Valley Water estimates that indoor residential water use accounts for approximately 50% of all residential water use. Most of our retailers' customers already achieve the SB 1157 water use limits, although some retailers will need to work with their customers to reduce their water use to meet SB 1157. Each of the three 2050 Goals presented in the next section will help all of Santa Clara County to meet or continue meeting the SB 1157 water use limits.

Potential Conservation Savings Goals

The potential 2050 Goals would be fulfilled by leaning into Valley Water's existing program while still providing flexibility to enhance existing and add new programs. Three (3) potential 2050 Goals and

unit costs have been identified and are described below:

1. *Option A Savings Goal* - 119 TAFY by 2050. This goal increases annual water savings by 10 TAFY above the 2040 goal. To achieve the increased savings, Valley Water would continue to offer the existing suite of programs but expand the reach of the programs to access more customers. This option acknowledges that current Valley Water programs are cost effective and provide water saving options to a wide range of users. This goal will cost the least, at approximately $1,230/acre-foot in 2023 dollars, while still providing additional conservation. However, this goal will not capitalize on proposed new cost-effective programs or incentives.

2. *Option B Savings Goal* - 126 TAFY by 2050. This goal increases annual water savings by 17 TAFY above the 2040 goal. To achieve the increased savings, Valley Water would need to significantly expand the reach of its current programs and add a leak assistance program. This would require additional conservation investment and increased staffing. To achieve this goal, Valley Water will need to increase annual average active water savings to 14 TAFY from 11 TAFY, which is equivalent to the water savings rate achieved during droughts when messaging and public awareness is at its greatest. Expanding the reach of existing programs and adding new programs will result in a total cost of $1,338/acre-foot in 2023 dollars. While this goal will require more investment than Option A, it does allow Valley Water to stay at the forefront of conservation by offering new innovative programs and technologies to Santa Clara County residents. With sufficient investment and retail agency outreach support, Valley Water could likely achieve Option B by 2050.

3. *Option C Savings Goal* - 133 TAFY by 2050. This goal increases annual water savings by 24 TAFY above the 2040 goal. To achieve the increased savings, Valley Water would need to do everything proposed in Option B while also reducing outdoor water use by an additional 25% compared to the 2020 estimated outdoor water use, expanding program offerings, and increasing staffing beyond that needed in Option B. While this option is technically feasible, its implementation would require significant expansion of our landscape rebate program and strong support from our retailers to encourage customer participation. Local ordinances that outlaw watering front yard lawns could help support this savings goal option, but Valley Water understands the significant difficulty and uncertainty involved in working with cities to implement such ordinances. Valley Water estimates that the effort involved to achieve Option C would cost $1,690/acre-foot.

Figure 1 summarizes the: (1) passive savings achieved as of 2020 within the Valley Water service area, (2) the active savings from past implementation as of 2020, (3) projected additional passive savings estimated to occur in the future, and (4) the additional active savings to be achieved from program implementation that would be required to achieve the potential 2050 Goals.

Figure 1. Potential 2050 Conservation Savings Goals - Active and Passive Savings

Staff Recommendation

Staff recommends the Committee recommend Option B as the 2050 Water Conservation Goal for Board adoption. Option B provides Valley Water an ambitious but implementable goal that will ensure Santa Clara County is a leader in conservation, ensure we use our water supplies wisely, and balances affordability concerns.

While Option A is the lowest cost alternative, based on the committee feedback so far, staff recommends choosing a more aggressive goal. By going with Option A, Valley Water may have to invest in additional expensive supply and storage projects in lieu of the additional savings that could be achieved with Option B. While Option B would require increasing participation by approximately 200%, which in turn will require additional staffing and funding resources, staff are confident that Valley Water can achieve Option B.

Option C would require significant investment to expand staff resources and program offerings. Even with the expanded funding, achieving Option C would still be very difficult and require significant support from our partner agencies. While technically feasible, there is uncertainty as to whether it could be achieved by 2050. If Valley Water chooses Option C, it may risk under-investing in other new supplies and storage if meeting the goal gets delayed and will also affect revenues.

To summarize, selecting Option B:

1) Is feasible

2) Balances costs with benefits
3) Reduces need to invest in additional new supplies and/or storage
4) Makes “Conservation a Way of Life” in Santa Clara County
5) Allows Valley Water to stay at the forefront of conservation

The long-term water conservation goals (i.e., 2030, 2040, and 2050) are monitored annually by the Committee and the Board as part of the long-term water conservation progress update and the Master Plan Monitoring and Assessment Program (MAP) update. Additionally, the Master Plan, including conservation goals, is updated every five (5) years. Through MAP and the Master Plan updates, the Committee and Board can modify the goals as new technologies, regulations, and trends become available or enacted. Therefore, staff think that Option B is an aggressive, achievable and productive goal, and that Valley Water has processes in place that can allow the Board to increase the goal if new technologies or regulations become available.

ENVIRONMENTAL JUSTICE AND EQUITY IMPACT:
Environmental justice and equity impact on EJ population are expected/likely to result from the implementation of the water conservation program to achieve 2050 Goals. The recommendation of Option B was selected to balance cost and benefit; the benefits and the impact/mitigation strategies on disadvantaged communities are discussed in greater detail below.

Water conservation offers a range of environmental justice benefits by promoting equitable access to clean water, reducing pollution, protecting ecosystems, mitigating climate change, saving costs for vulnerable communities, enhancing drought resilience, and empowering residents with knowledge and skills for sustainable water use. Valley Water provides such water conservation information in multiple languages and via various outreach techniques to reach all members of our community. Valley Water acknowledges that during drought, disadvantaged communities may be disproportionately impacted. To address these impacts, Valley Water promotes access to equitable and affordable water supplies (Water Supply Goal 2.6). Valley Water offers specific programs, such as the Lawn Busters program to provide water-efficient landscapes to low-income, elderly, disabled, or veteran homeowners and schools within disadvantaged communities.

ATTACHMENTS:
Attachment 1: PowerPoint
Attachment 2: 2050 Master Plan Potential Savings Goal Memo.
Attachment 3: 2050 Mstr. Pln. Conserv. Measure Dtls. & Portfolios
Attachment 4: Link to 2021 Water Conservation Strategic Plan

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Kirsten Struve, 408-630-3138

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Santa Clara Valley Water District

File No.: 24-0238

Agenda Date: 3/27/2024
Item No.: 4.4.

COMMITTEE AGENDA MEMORANDUM
Recycled Water Committee

Government Code § 84308 Applies: Yes ☐ No ☒
(If "YES" Complete Attachment A - Gov. Code § 84308)

SUBJECT:
Receive Update on the Recycled Water Goal for the Water Supply Master Plan 2050; and Recommend to Valley Water's Board a Potable Reuse Goal.

RECOMMENDATION:

A. Receive information and provide feedback on potential water reuse goal update; and
B. Recommend to Valley Water's Board a potable reuse goal of 24,000 Acre Feet per Year (AFY) by 2035 as well as a long-term vision to maximize water reuse in the county for inclusion in the Water Supply Master Plan 2050.

SUMMARY:

Water reuse is a locally controlled and drought resilient supply that will help ensure our county's water supply in the face of climate change. Valley Water's Board of Directors (Board) have set a goal to promote, protect, and expand potable and non-potable reuse within the county. Valley Water's Water Supply Master Plan (WSMP) is a guiding document for long-term water supply investments to ensure water supply reliability for the county. The WSMP is regularly updated to evaluate changing anticipated water supply demands and water supply and infrastructure projects.

Valley Water has consistently included goals to expand potable reuse as a part of a future diversified water supply portfolios. These goals are intended to be clear, measurable, and achievable. As such, the specific goals are included in water supply modeling to support development of the WSMP. While the goals provide guidance to staff and support Board decision making, they do not prevent staff from evaluating projects outside of the goal or prevent the Board from approving a larger project if one becomes feasible. Valley Water's 2012 WSMP included the goal to develop 20,000 acre-feet per year (AFY) of indirect potable reuse (IPR) by 2030 to be used to augment local groundwater supplies. In 2015, the Board directed staff to pursue 45,000 AFY of IPR by 2020 as part of the Expedited Recycled and Purified Water Program. In 2019, the WSMP 2040 included an updated goal to develop 24,000 AFY of potable reuse by 2028. In 2020, the Board directed staff to pursue a first phase project to meet the smaller goal of 11,200 AFY of potable reuse due to declining water supply demands. On

February 27, 2024, the Board directed staff to remove the Palo Alto Purified Water Project from the CIP and place it on the unfunded projects list.

Valley Water staff is currently updating the WSMP 2040 to assess future water supplies and anticipated demands through 2050 (WSMP 2050). Staff is recommending that an updated goal of 24,000 AFY of potable reuse by 2035 is an achievable goal that can be met with a project in collaboration with the Cities of San José and Santa Clara (referred to as the San José Purified Water Project). The San José Purified Water Project can meet this goal while balancing affordability and risk, while also taking into account project partners' plans to expand their non-potable recycled water systems and concerns over regulatory impacts of a larger project, including managing Reverse Osmosis concentrate.

In response to the Committee's previous comments to explore additional potable reuse, staff will include a long-term vision in the WSMP 2050 to maximize water reuse in the county and are committed to reevaluating the goal during future WSMP updates, which occur every five years, to determine if additional water is needed, and if Valley Water has made progress implementing the San José Purified Water Project. There are risks to setting a higher goal now, which include potential uncertainty of future wastewater flows, planning assumptions that conflict with our project partners' water supply planning, and the potential to underestimate the need for other water supply projects that are evaluated as part of portfolios to address future shortage.

The WSMP 2050 update will include modeling the 24,000 AFY San José Purified Water Project as a primary purified water project, with two project alternatives (24,000 AFY of local desalination and an 8,000 AFY DPR project) as potential backup projects. If water supply analysis indicates the need for additional supply to fill gaps under certain demand/supply conditions, the backup projects can be evaluated in conjunction with the 24,000 AFY San José Purified Water Project as part of portfolio analysis, to be compared with other alternative solutions. If the backup projects are found to be better and more cost-effective alternatives, they can be further evaluated and developed in future WSMP updates. Inclusion of the long-term vision promotes a phased approach that accounts for uncertainty with future demand, wastewater availability, and balances affordability and risk of overinvestment.

ENVIRONMENTAL JUSTICE AND EQUITY IMPACT:
There are no environmental justice and equity impacts associated with this agenda item. This action is unlikely to or will not result in adverse impacts and is not associated with an equity opportunity.

ATTACHMENTS:
Attachment 1: PowerPoint

UNCLASSIFIED MANAGER:
Kirsten Struve, 408-630-3138

Attachment 4 – Additional Portfolios that Meet Water Supply Needs

	Portfolios						
Project	**Lower Cost**		**Local Control**		**Diversified**		
Palo Alto Potable Reuse					X		
San José Direct Potable Reuse	X		X	X	X	X	X
Local Seawater Desalination				X			
Refinery Recycled Water Exchange	X	X				X	
Delta Conveyance Project		X					X
Sites Reservoir						X	X
Pacheco Reservoir Expansion		With Partners	No Partners			With Partners	
Los Vaqueros Expansion		X					
B.F. Sisk Dam Raise		X			X	X	X
Groundwater Banking (Thousand Acre-Feet)	350	350	350	150	250	150	250
South County Recharge Projects	X	X	X	X	X	X	X
Portfolio Cost ($Billion)	**3.4**	**3.4**	**4.6**	**5.4**	**4.9**	**4.8**	**4.2**

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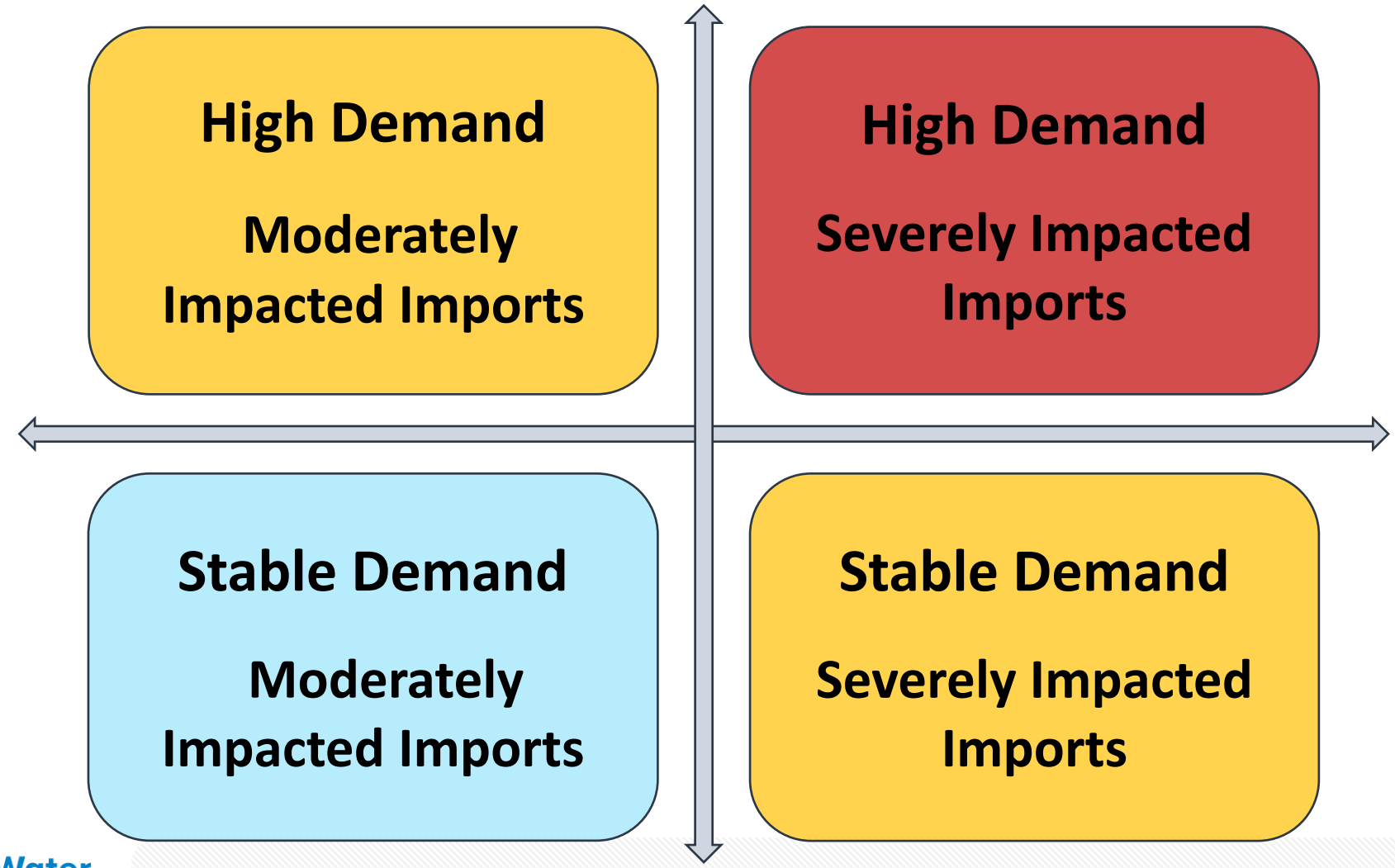
Water Supply Master Plan 2050 Development Update

Board of Directors Meeting, June 25, 2024

WSMP 2050 Updates

- Goals
- Planning horizon
- Wider range of values
- Portfolio approach
- Recognition of uncertainty

Planning for Multiple Future Conditions



Water Supply Needs and Challenges

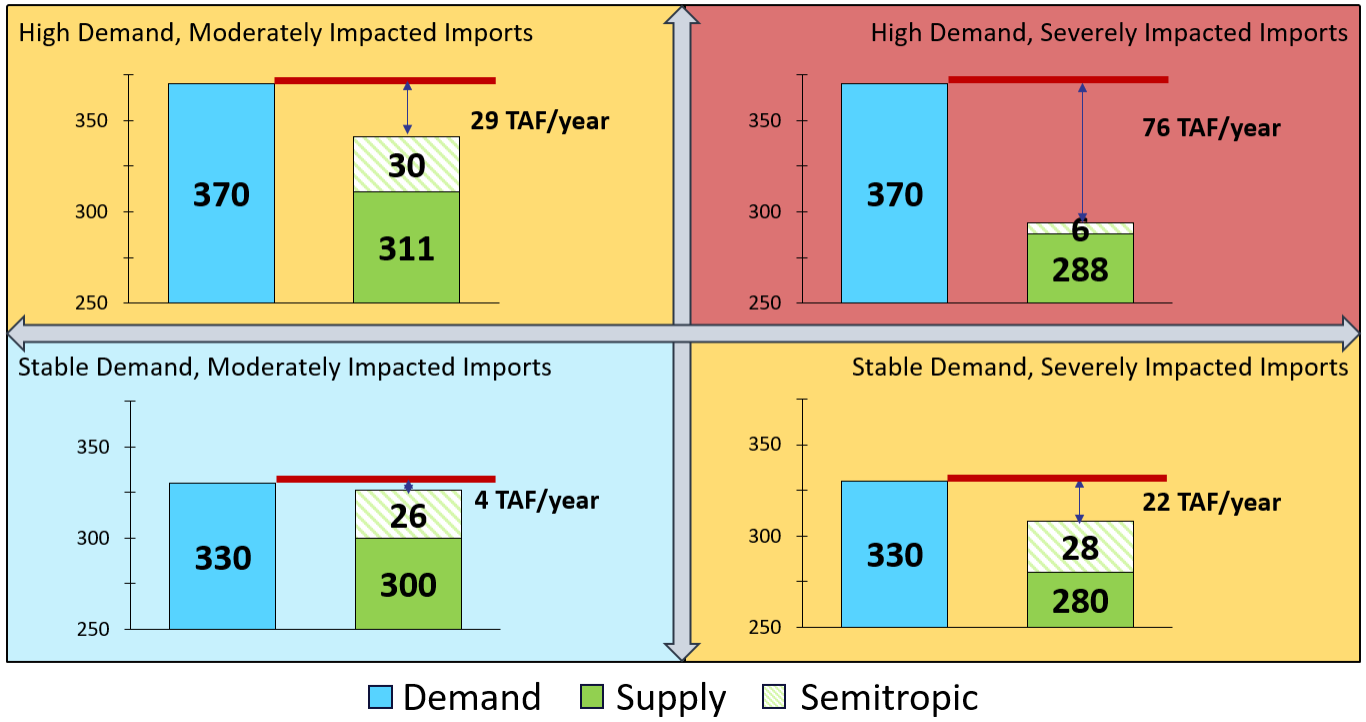
Multi-year droughts

Climate change impact

Aging infrastructure

Affordability

Annual Shortage in Six-year Drought in 2050



Project List Grouped by Primary Benefits

Alternative Supply

Palo Alto Potable Reuse

San José Direct Potable Reuse

Refinery Recycled Water Exchange

Local Seawater Desalination

Surface Supply

Delta Conveyance Project

Sites Reservoir

Stormwater – Agricultural Land Recharge (FloodMAR)

Stormwater Capture

Storage

Pacheco Reservoir Expansion

Los Vaqueros Expansion

Groundwater Banking

B.F. Sisk Dam Raise

Recharge and Pipelines

Coyote Valley Recharge Pond

Lexington Pipeline

Lexington-Montevina Water Treatment Plant Connection

Butterfield Channel Managed Aquifer Recharge

Madrone Channel Expansion

San Pedro Ponds Improvement Project

Project Evaluation

- Water supply benefits
- Cost

- Reliability
- Likelihood of success
- Environmental impacts
- Jurisdiction and partnership
- Public acceptance

Benefits of Major Projects

- Drought supply
- Storage diversification
- Increased system reliability and flexibility
- Emergency storage
- Ability to capture excess CVP and SWP water
- Environmental benefits

Project Risks and Challenges

- Affordability
- Environmental impacts
- Contingent on agreement with other agencies
- Implementation complexity
- Operational and institutional complexity
- Public acceptance

Cost Analysis

- Project cost estimates
  - Total lifecycle cost
  - Unit cost
- Cost of portfolios
- Impact on water rate
- Cost of shortage

Cost of Major Supply Projects

All costs are in 2023 dollars

Project	Average Annual Supply (AF)	Capital Cost (Millions)	Annual O&M (Millions)	Present Value Lifecycle Cost* (Millions)	Lifecycle Cost PV/ Yield PV ($/AF)	Annualized Unit cost ($/AF)
Palo Alto Potable Reuse	8,000	$780	$13	$1,570	$10,200	$9,000
San José Direct Potable Reuse	24,000	$2,140	$30	$2,610	$6,400	$5,000
Local Seawater Desalination	24,000	$2,140	$30	$2,610	$6,400	$5,000
Refinery Recycled Water Exchange	8,000	$250	$9	$430	$2,800	$2,500
Delta Conveyance Project	14,000	$650	$2	$720	$2,700	$1,800
Sites Reservoir	5,000	$140	$0.6	$130	$1,200	$1,000

* Project lifecycles vary

Cost of Major Storage Projects

All costs are in 2023 dollars

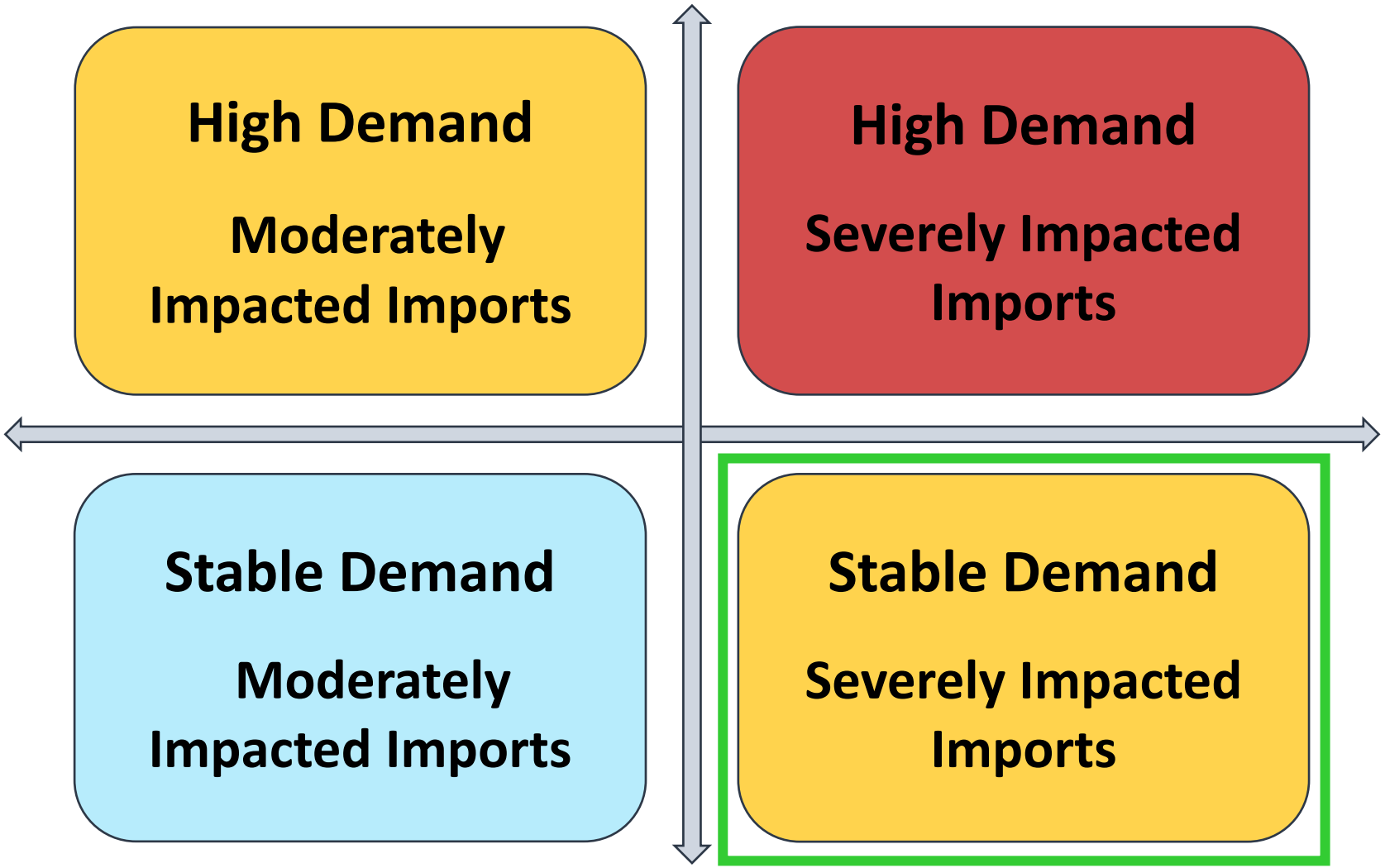
Project	Storage (AF)	Capital Cost (Millions)	Annual O&M (Millions)	Present Value Lifecycle Cost (Millions)	Lifecycle Cost PV /Storage Capacity ($/AF)
Pacheco	140,000	$2,210	$2.5	$1,590	$11,400
B.F. Sisk Dam Raise	60,000	$440	$1.8	$470	$7,900
Los Vaqueros Expansion	30,000	$260	$3.2	$350	$11,700
Groundwater Banking	350,000	$280	$2.8	$350	$1,000

Conservation and Potable Reuse Goals

- Water conservation goal
  - 126,000 AFY by 2050

- Potable reuse goal
  - 24,000 AFY by 2035
  - Long-term vision to maximize water reuse in the county

Focusing on Middle-of-Road Condition



Portfolio Analysis

- Developed three themes to outline options and tradeoffs
  - Lower cost
  - Local control
  - Diversified
- Multiple feasible portfolios under each theme

Strategies for Water Supply Reliability

Lower Cost ($4 Billion)

Local Control ($5.9 Billion)

Diversified ($5.5 Billion)

Valley Water

Total cost represents Present Value of lifecycle cost in 2023 dollars

Rate Impact of Water Supply Strategies

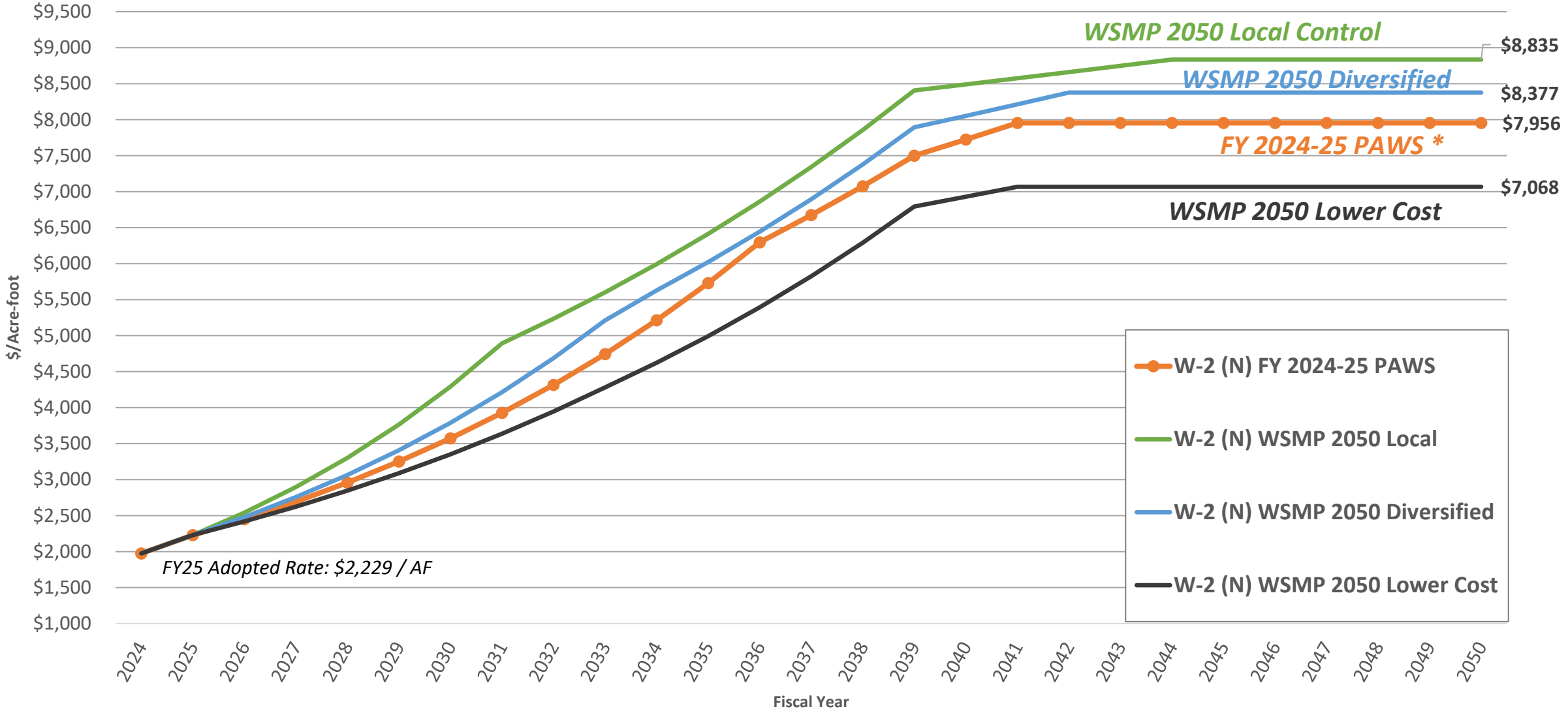
Strategy *	FY 26 to FY 30	FY 31 to FY 35	FY 36 to FY 40	FY 41 to FY 45	FY 46 to FY 50
FY 2024-25 Adopted Rates & PAWS Report	*$2,985 / AF or $102.81 / month*	*$4,786 / AF or $164.82 / month*	*$7,385 / AF or $254.35 / month*	*$7,956 / AF or $273.99 / month*	*$7,956 / AF or $273.99 / month*
Lower Cost	**$2,866 / AF or $98.71 / month**	**$4,296 / AF or $147.96 / month**	**$6,581 / AF or $226.65 / month**	**$7,068 / AF or $243.42 / month**	**$7,068 / AF or $243.42 / month**
Local Control	**$3,359 / AF or $115.70 / month**	**$5,627 / AF or $193.80 / month**	**$8,134 / AF or $280.14 / month**	**$8,731 / AF or $300.69 / month**	**$8,835 / AF or $304.28 / month**
Diversified	**$3,100 / AF or $106.75 / month**	**$5,153 / AF or $177.45 / month**	**$7,686 / AF or $264.71 / month**	**$8,344 / AF or $287.37 / month**	**$8,377 / AF or $288.51 / month**

Valley Water

** Translation of portfolio costs to North County Zone W-2 Municipal & Industrial rate ($/AF), or average monthly impact to an average household (15 hundred cubic feet for purposes of this analysis). The FY 2024-25 PAWS Report can be found online at www.valleywater.org.*

WSMP 2050 Strategies

North County Groundwater Production Charge Projection M&I ($/Acre-Foot)



Valley Water

** FY 2024-25 PAWS represents long-range rate projections as presented to the Board March 26, 2024, and is equivalent to Diversified portfolio excluding Groundwater Banking (350,000 AF) and increased DCP costs.*

Portfolio Evaluation Summary

- No single project can address all future needs
- Different strategies to achieve water supply reliability, with tradeoffs
- Importance of drought resilient supplies and diversifying storage

Adaptive Management Framework

- Planning under deep uncertainty
  - Projects still evolving
  - Uncertainty with forecasted future supply and demand

- Adaptive management framework to provide flexibility for making incremental investment decisions

Projects	Estimated Decision Points					Project Online Date
	2024	2025	2026	2027	2028	
San José Direct Potable Reuse						**2033**
Los Vaqueros Expansion		Final Funding Decision				**2033**
B.F. Sisk Dam Raise	Planning Funding Decision	Final Construction Funding				**2032**
Pacheco			Final EIR/EIS Certification	Final Partnership Negotiations		**2035**
Sites Reservoir		Final Funding Decision				**2032**
Delta Conveyance Project	Funding Decision			Final Contract Decision		**2045**

Sisk negotiation
San José agreement
Project decisions

Triggers

Now

- Prioritize DPR
- Secure storage
- Continue planning for other projects

Near-term (2-3 years)

- Make project decisions based on triggers
- Continue planning for other projects

Mid-term (5 years)

- Project implementation
- Update WSMP

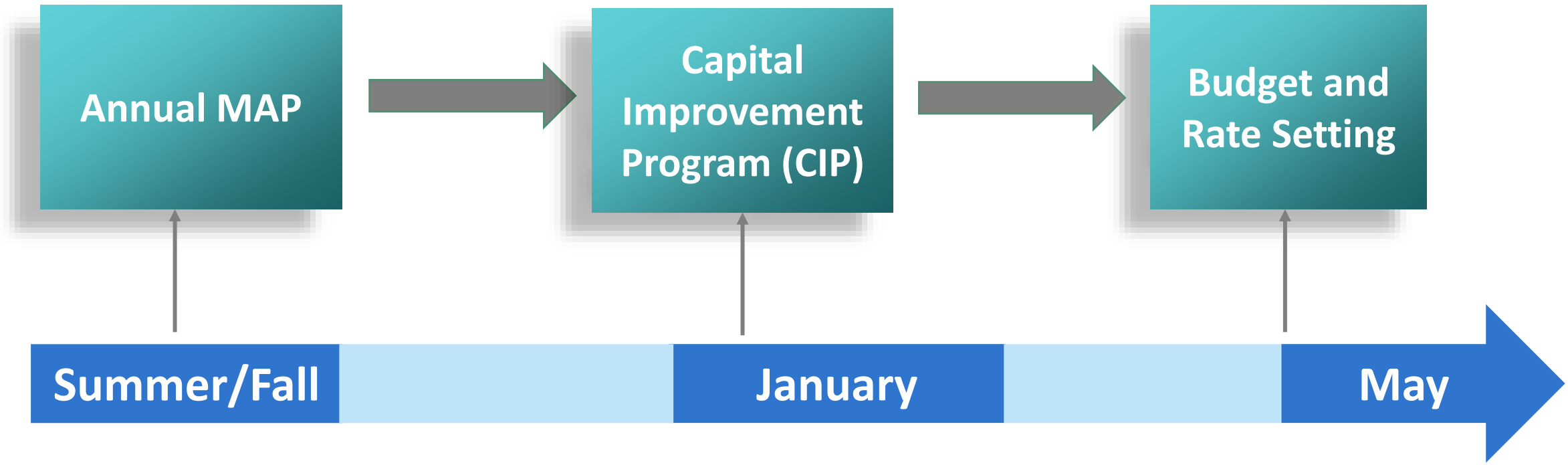
Annual MAP to report progress, triggers, metrics

Example Triggers and Metrics to Track

- **Key triggers**
  - Sisk negotiation
  - San José agreement
  - Upcoming project decisions
  - Groundwater Bank negotiation

- **Metrics to track**
  - Annual supply
  - Annual water use
  - Conservation progress
  - Growth trend/demand

Annual MAP to Support Decision-Making



Stakeholder Engagement

- Water Retailer meeting
- Water Commission meeting
- Environmental Water Resources Committee
- Newsletter/blog/social media

Expert Engagement

- Conservation targets and programs
- Recycled and purified water projects
- Project evaluation
- Adaptive management framework

Next Steps

- Roadmap and recommendations
- Plan development
- Stakeholder outreach
- Plan adoption

Questions and Answers

1. Do we need Pacheco for future water supply reliability?

- Portfolio analysis suggests there are different ways to achieve future water supply reliability, some with Pacheco and others not
- Pacheco provides for local control, and has unique water supply benefits that include providing emergency storage and the ability to capture excess Delta water
- Uncertainty in other projects which are still under negotiation necessitates an adaptive management approach
- Recommend continued planning for Pacheco and making decision through the adaptive management framework

Questions and Answers

2. Why do we continue to include additional imported water projects instead of working to reduce/replace imported water with new local supply?

- Local control strategy has the highest cost
- Imported water is among the cheapest supply. A diversified portfolio with mixed local and imported supply helps minimize future water rate increases and is more resilient and reliable
- Delta Conveyance Project (DCP) will help secure our existing State Water Project supply and is an affordable project option
- Prudent to plan for a variety of options because uncertainty in other WSMP Projects

Questions and Answers

3. How do we plan for affordable water rates?

- Need to balance between reliability and affordability. There is economic consequence of not having water in the future
- The three water supply strategies present the tradeoffs between cost and other considerations
- Adaptive management framework provides flexibility to make incremental investment decisions to reduce the risk of over- or under-investing
- A new study undergoing to review water use projections and analyze demand elasticity as well as water rate affordability

Questions and Answers

4. With conservation as a way of life regulation, demand may go down. Can we focus on conservation/reuse to address our future needs, and stop the rebound of water use after a drought to pre-drought levels?

- Used 2 demand forecasts - a stable and a high demand, both within historic water use
- Actively pursuing water conservation and potable reuse, but they alone may not address large future shortages
- Long-term water conservation goals for 2030, 2040, and 2050, and short-term drought reduction, both factored into baseline demand assumptions
- Potable reuse is needed in almost all situations, but other supply and/or storage projects also needed. Water reuse is constrained by wastewater availability
- Water conservation can help reduce the rate and magnitude of drought rebound, but some water use reduction during drought is not sustainable, including for agriculture, parks, etc.

Questions and Answers

5. What is our strategy for South County which is highly dependent on groundwater?

- Actively manage the groundwater basins to ensure continued sustainable supplies
- Take appropriate actions to protect groundwater-dependent communities such as prioritizing South County recharge during droughts
- Evaluate several recharge projects, including expansion of the Madrone Channel, Coyote Valley recharge pond, San Pedro Ponds Improvement Project, and Agricultural Land Recharge (FloodMAR)
- Identify opportunities for additional water reuse

Questions and Answers

6. What is the full cost for imported water?

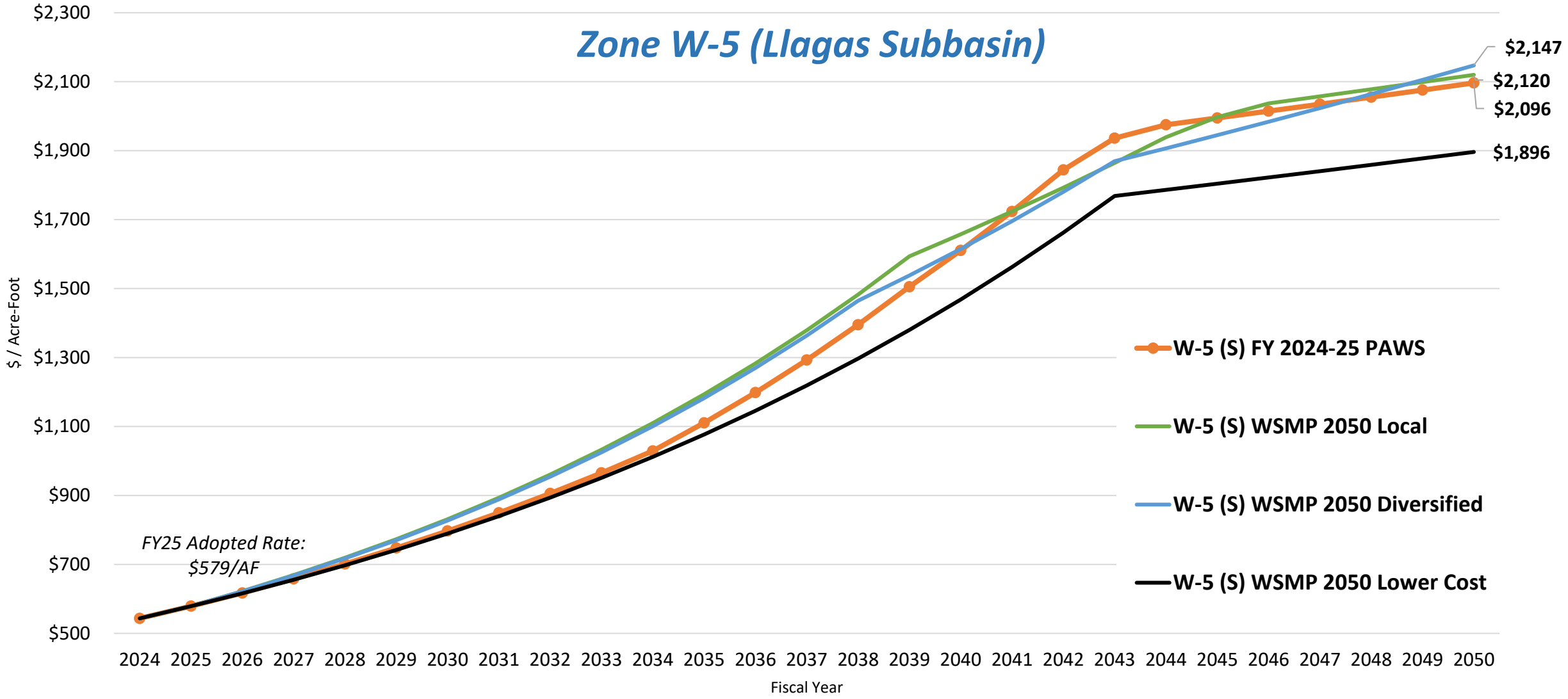
- SWP/CVP current unit cost, averaging past 5 years (drought period): **$450/AF**
- Modeled 50-year Present Value lifecycle cost/Present Value Yield including climate change: **$514/AF**
  - Includes Delta-Mendota Canal and California Aqueduct subsidence and South Bay Aqueduct long-term repair costs
- New imported supply projects (i.e., DCP and Sites) evaluated as part of WSMP process
- Storage, including existing Semitropic storage, provides support for all Valley Water's water supply sources through integrated water supply operation

Feedback Requested

- Approval of water conservation and potable reuse goals
- Water supply strategy
- Adaptive management framework
- Information to help inform decisions

Backup

WSMP 2050 Strategies
South County Groundwater Production Charge Projection M&I ($/Acre-Foot)

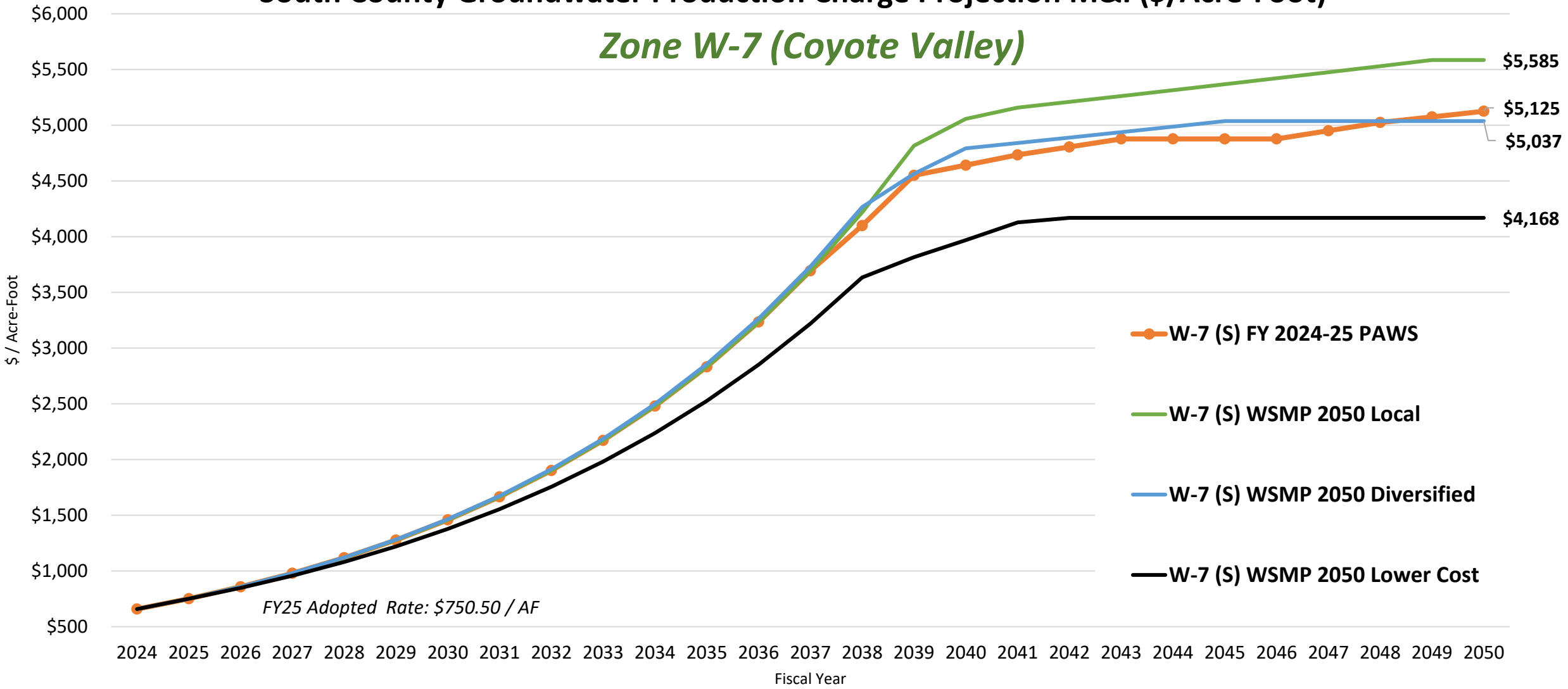


Valley Water

** FY 2024-25 PAWS represents long-range rate projections as presented to the Board March 26, 2024, and is equivalent to Diversified portfolio excluding Groundwater Banking (350,000 AF) and increased DCP costs.*

WSMP 2050 Strategies

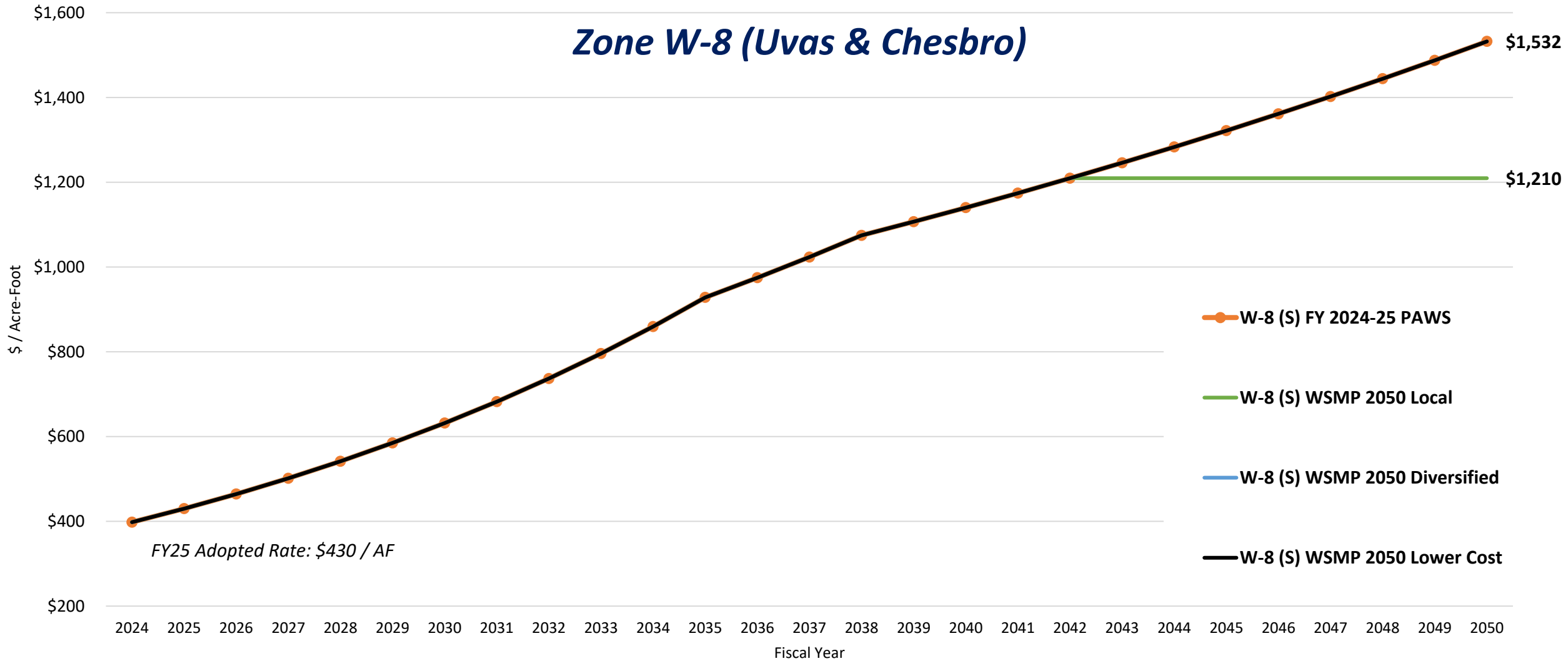
South County Groundwater Production Charge Projection M&I ($/Acre-Foot)



Valley Water

** FY 2024-25 PAWS represents long-range rate projections as presented to the Board March 26, 2024, and is equivalent to Diversified portfolio excluding Groundwater Banking (350,000 AF) and increased DCP costs.*

WSMP 2050 Strategies
South County Groundwater Production Charge Projection M&I ($/Acre-Foot)



Valley Water

** FY 2024-25 PAWS represents long-range rate projections as presented to the Board March 26, 2024, and is equivalent to Diversified portfolio excluding Groundwater Banking (350,000 AF) and increased DCP costs.*

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Valley Water Board of Directors and Senior Staff
June 21, 2024
Subject: June 24, 2024, Agenda Item 3.4
Board of Directors of Santa Clara Valley Water District (Valley Water) Update Master Plan

Dear Valley Water Board of Directors and Senior Staff:

Thank you for this major update planning for the future, which has a strong framework. Using this lens, certain information needs to be clarified, integrated and refined. Before accepting this report, I urge the Board to direct staff to come back with the following additional information for the three-points as follows-

1. The report supplies no updated information on factors arriving at and determining future water demand (Report states: *depending on the projected demand).*

Future water demand is governed by population growth by age and type of residency, commercial and industrial use and agriculture use in the County.

In using an adaptive approach going forward, the demand side of the mathematics must be updated and sourced with data references. The District Board should require staff to release information on the methods and sources in predicting future water demand in the County.

(Recent trends show weaker growth that forecast in the past and major changes in demographic.https://socialservices.sccgov.org/sites/g/files/exjcpb701/files/SCC_Population_Growth_Projections_Older_Adults.pdf)

Taking into account a possible lower demand forecast, a more flexible mix of supply may be more cost effective and more readily available.

2. There are probabilities related to each of the potential additional water supply sources.

For each potential new or additional water source, probabilities should be factored into ranking potential projects. Not all alternatives have equal probability given varying factors of uncertainty and risk, adverse impact of climate change, potential lawsuits, and other external factors recognized for risks. Factored in should be likely consequences of climate change and costs of litigation related to on-going challenges to the EIR. The framework should be expanded to include data modified and modeled showing these probabilities and risks.

3. Costs for each of the alternatives water resources are a subject for reappraisal.

Each of these projects should have costs broken down entered as data for : planning, permits, consultants, construction, financing fees and legal fees. Without this information, the assumptions are not transparent.

In summary, thank you for the opportunity comment on this important report.
Before accepting this draft Water Master Plan. Valley Water Board should require of staff more information and disclosure on1) updated examination of forecast for future water demand, 2) probabilities of realization for each project given risks and 3) disaggregated costs.

Sincerely,
Rita Norton

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Max Overland

Subject: June 25, 2024 Item 3.4. Water Supply Master Plan 2050
Attachments: Comments on WSMP update item 3-4 062524.pdf

From: Katja Irvin <katja.irvin@sbcglobal.net>
Sent: Sunday, June 23, 2024 7:20 PM
To: Clerk of the Board <clerkoftheboard@valleywater.org>; Board of Directors <board@valleywater.org>
Cc: Kirsten Struve <KStruve@valleywater.org>; Barbara Keegan <BKeegan@valleywater.org>; Jim Beall <JBeall@valleywater.org>; Nai Hsueh <NHsueh@valleywater.org>; Tony Estremera <TEstremera@valleywater.org>; Rebecca Eisenberg <Reisenberg@valleywater.org>; Richard Santos <rsantos@valleywater.org>; John Varela <jvarela@valleywater.org>
Subject: June 25, 2024 Item 3.4. Water Supply Master Plan 2050

Dear Valley Water Board and Staff,

Thank you for the opportunity for public input on the Water Supply Master Plan Update 2050. My comments for this agenda item are attached.

I have many other comments, but these seem the most important for this agenda item. I would welcome the opportunity to discuss these with staff.

Thank you for your consideration,

Katja Irvin
San Jose Resident

Board Meeting, June 25, 2024
Item 3.4. Water Supply Master Plan 2050

Public comment from Katja Irvin

Dear Valley Water Board and Staff,

Thank you for the opportunity for public input on the Water Supply Master Plan Update 2050. I am providing some comments for your consideration.

Storage Goals. Surface Water and Groundwater Storage Goals (capacity and put/take) are needed in addition to the Conservation Goal and Potable Reuse Goal. Otherwise, there is no goalpost for the storage projects and the need to invest in so many storage projects is arbitrary.

Storage Capacity vs. Yields. In addition to capacity, it seems important to compare projects based on put and take restrictions and estimated yields to really evaluate storage projects on a meaningful level.

Local Control Strategy. Please explain reasoning behind the local control theme/strategy. Any project that is dependent on imported water, including Pacheco, should not be included in this strategy since we do not have control of CVP and SWP operations which will determine any water supply benefits from these projects.

Environmental Strategy. A more meaningful theme/strategy would be one that aims to reduce environmental impacts and to increase climate change resiliency. At least some of us believe this should be more important than local control.

Environmental Portfolios. The Diversified portfolio from Attachment 4 that includes San Jose Direct Potable Reuse, Palo Alto Potable Reuse, B.F. Sisk Dam Raise, Groundwater Banking, and South County Recharge would be an excellent “Environmental” portfolio. Refinery Recycled Water Exchange and Los Vaqueros Expansion could also be included in Environmental portfolios.

Adaptive Management. Please explain how this is different from the MAP (Monitoring and Assessment Program) for the 2040 WSMP which did not result in any adjustments to investment decisions. Also explain how each of the triggers would result in adjustments (i.e. removing or adding projects to the WSMP). Additional important triggers to consider are: "New project cost estimates," "Extension of project schedules," and "New regulatory and permitting issues."

WSMP Update Schedule. The timing for completion of the WSMP by the end of 2024 is problematic because new milestones and cost estimates are expected for several important projects in the first half of 2025 (Pacheco, Los Vaqueros, BF Sisk, Sites, etc). If you extend the update process by six months, the plan will be starting with a more realistic base for the next five years.

Thank you for your consideration of these comments.

Comment for Valley Water Board Meeting on Tuesday, June 25, 2024

Revision: R2 6/18/24

To: Valley Water Board and Staff Members

Subject: Comment for Valley Water Board Meeting on Tuesday, June 25, 2024

Attachment: Comment PDF file copy

Agenda Item 3.4

Link: Agenda (legistar1.com)

Comment:

Valley Water must determine and publish what the '*Operational Cost*' to import Delta water with and without allocations of the unpaid supporting infrastructure project costs by year between now and 2060. Only with the true 'Operational Cost' with and without allocation loading can meaningful fiscal decision making be possible in developing the 2050 Water Supply Master Plan regarding what infrastructure projects should be funded or rejected, such as Pacheco Reservoir Expansion Project.

Best regards,

Jim

Jim Kuhl, Civic Issue Activist and Environmental Advocate
Email: jim.kuhl@comcast.net

Comment Background Information

In the Green text Project Executive Summary prepared by Valley Water Staff for this meeting, projects 1, 2 and 3 are identified as requiring *high capital and operational cost* compared to #4 PREP. Yet, $2.7B PREP is identified as only having rising cost. This Valley Water Staff assessment is significantly misleading and factually inaccurate!

Attachment1 in Project Executive Summary (See green text)

Project	Risks challenges Identified	Best in Class Benchmark Comment
1. San Jose Direct Potable Reuse	***High capital and operational cost.***	**Orange County Wastewater Ground Water Replacement System** **Investment: $487M** **Operating Cost: $750/AF** **Loaded℗ Operational Cost: $1,036**
2. Palo Alto Potable Reuse	***High capital and operational cost.***	
3. Local Seawater Desalinization	***High capital and operational cost.***	**Carlsbad Desalinization Plant** **Investment: $1B** **Operating Cost: $1,629/AF** **Loaded℗ Operating Cost: $2,923/AF**
4. Pacheco Reservoir Expansion (PREP) **Investment: $2.7B and growing** **Operational Cost: Unknown** **Loaded℗ Operational Cost: $5,075/AF & growing**	***Rising cost***	

Loaded℗: Includes the allocation of the infrastructure project's investment and loan interest (3%) amortized into operating cost over 30 years.

Valley Water has not identified the cost to import Delta Water nor the cost that fully allocates all the associated costs.

Comment for Valley Water Board Meeting on Tuesday, June 25, 2024

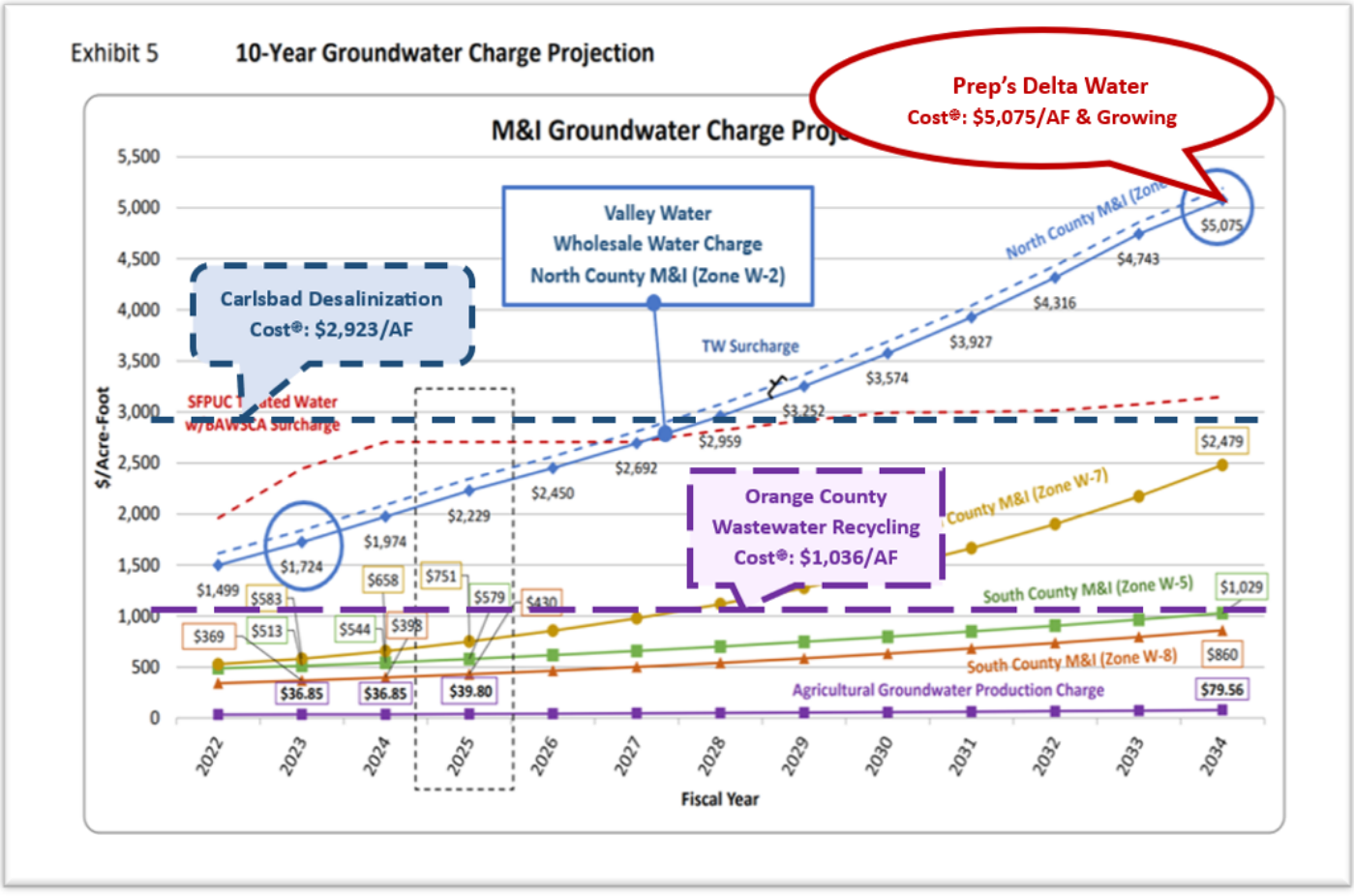
Revision: R2 6/18/24

From benchmarking (R1), it has been determined that Orange County wastewater recycling loaded cost for groundwater well injection, also usable for potable water, is $1,036/AF for an original investment of $487M. Carlsbad Desalinization Plant loaded operational cost is $2,923/AF for an original investment of $1B. Brackish Bay Water desalinization loaded operational cost is estimated to be ≈$2,623/AF with the required investment undetermined but similar to Carlsbad's $1B.

Because Delta water flows through PREP, all operating costs and unpaid infrastructure investment cost involved in importing/exporting Delta water (i.e., pipes, pumps, reservoirs, settling ponds, operating expense, energy, SWP & CWP annual contract cost, etc.) must be fairly and proportionally allocated for a PREP comparative economic financial analysis.

The best estimate of loaded operational cost for importing Deta water and exporting to retail utilities through the Valley Water system costs is $5,075/AF in 2034 and continues to grow.

Valley Water's Exhibit 5 below has been modified below to visually illustrate the contrasting loaded operating costs being described relative to 'North County Groundwater Charge Projection'. Economic fiscal questions surface regarding what projects should be funded and the consequences on water affordability.



,

Beyond 2034, the expectation is that the cost of importing water from the Delta will continue to significantly grow, due to the planned continued investment in high-cost supporting infrastructure projects. The cost estimate, including interest, exceeds $43B (R2). As a result, North County groundwater charge, shown on Exhibit 5 is expected to continue to significantly grow beyond 2034. The investment cost growth impact will peak, flatten and then decline after 2060 as this infrastructure debt is slowly paid off. The reservoir expansions and the Delta Tunnel are expected to have 100-year lives and their ultimate operational cost will be low.

Comment for Valley Water Board Meeting on Tuesday, June 25, 2024

Revision: R2 6/18/24

The illogical aspect of Valley Water's strategy and planning thrust to store imported Delta water in expanded reservoirs and aquifer ground banks is: The strategy is designed to compensate for an unreliable Delta water source that is highly susceptible to droughts! Less investment and operational expensive wastewater recycling into potable water and desalinization of brackish water from the San Francisco Bay project options exist that can eliminate the high reliance risk on Delta water.

Valley Water's Board and Staff legacy to future generations in the 2050 Water Supply Master Plan should be:
#1. Provide a reliable source of water that is sustainable given deeper longer droughts caused by climate change.
#2. Provide the most affordable water supply possible, after #1 is resolved satisfactorily.

Comment Appendix

R1. See Jim Kuhl's Comment titled: "Pacheco Reservoir Expansion Project (PREP) Alternative Infrastructure Projects Economic Comparison" dated 5/14/24 submitted for Valley Water Board Meeting 5/17/24. A copy of this Comment can be obtained by submitting an email request to Jim Kuhl.

R2. VW 2040 Water Supply Master Plan's greater than 1 billion dollars planned investment infrastructure projects are shown in the table below. In most cases, project costs will be shared with other water distrcits in partnerships but the shared percentage is unknown. Project costs keep increasing. The amount shown in the table is the result of 6/14/24 web searches to keep the estimates current.

Infrastructure Projects	**Loans: Bonds +Loans + Grants** Billions	**30 Year Loans with 3% Interest** (1.52 x Loans)
Anderson Dam Sesmic Retrofit	$2.3	$3.45B
Pacheco Reservoir Expansion -shared	$2.8 – shared	$4.26B
San Luis Reservoir B.F. Sisk Dam – shared	$1.0 – shared	$1.52B
Vaqueros Reservior Expansion – shared	$1.25 – shared	$1.90B
Delta Tunnel – shared	$20.1- shared	$30.55B
Potable Reuse	$1.2	$1.82B
Total	**$28.65**	**$43.5B**

- See Link: https://www.valleywater.org/sites/default/files/Water%20Supply%20Master%20Plan%202040_11.01.2019_v2.pdf

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From: jim.kuhl@comcast.net <jim.kuhl@comcast.net>
Sent: Monday, June 24, 2024 2:07 PM
To: Clerk of the Board <clerkoftheboard@valleywater.org>; Board of Directors <board@valleywater.org>; John Varela <jvarela@valleywater.org>; Barbara Keegan <BKeegan@valleywater.org>; Richard Santos <rsantos@valleywater.org>; Jim Beall <JBeall@valleywater.org>; Nai Hsueh <NHsueh@valleywater.org>; Tony Estremera <TEstremera@valleywater.org>; Rebecca Eisenberg <Reisenberg@valleywater.org>
Cc: Rachael Gibson <rgibson@valleywater.org>; Matt Keller <MKeller@valleywater.org>; Michael Potter <MPotter@valleywater.org>; Aaron Baker <ABaker@valleywater.org>; Vincent Gin <VGin@valleywater.org>; Kirsten Struve <KStruve@valleywater.org>
Subject: Comment for Valley Water Board Meeting on Tuesday, June 25, 2024

To: Valley Water Board and Staff Members

Date: 6/24/24

Subject: Comment for Valley Water Board Meeting on Tuesday, June 25, 2024

Agenda Item 3.4
Link: Agenda (legistar1.com)

Manager: Kristen Struve
See attachments titled: **Attachments 5: PowerPoint** Page 10 of 37 **Cost of Major Supply Projects**

Comment:

In the slide titled 'Cost of Major Supply Projects' (R1) :

1. **How were the 'Capital Costs' and 'Annual O&M' estimates developed?**
2. **How do these performance projection estimates of 'Capital Cost' and 'Annual O&M' compare to best-in-class benchmarks?**
   - **Orange County's Wastewater Recycling to groundwater well injection facility**
   - **Carlsbad Desalinization Plant**

Best regards,

Jim

Jim Kuhl, Civic Issue Activist and Environmental Advocate
Email: jim.kuhl@comcast.net

Comment Background Appendix:

Cost of Major Supply Projects

All costs are in 2023 dollars

Project	Average Annual Supply (AF)	Capital Cost (Millions)	Annual O&M (Millions)	Present Value Lifecycle Cost* (Millions)	Lifecycle Cost PV/ Yield PV ($/AF)	Annualized Unit cost ($/AF)
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San José Direct Potable Reuse	24,000	$2,140	$30	$2,610	$6,400	$5,000
Local Seawater Desalination	24,000	$2,140	$30	$2,610	$6,400	$5,000
Refinery Recycled Water Exchange	8,000	$250	$9	$430	$2,800	$2,500
Delta Conveyance Project	14,000	$650	$2	$720	$2,700	$1,800
Sites Reservoir	5,000	$140	$0.6	$130	$1,200	$1,000

* Project lifecycles vary

Attachment 5
Page 10 of 37

Valley Water

MEMORANDUM

FC 14 (08-21-19)

TO: Board of Directors

FROM: Aaron Baker, P.E.
Chief Operating Officer

SUBJECT: IBMR I-24-0006: Water Supply Master Plan 2050 Demands

DATE: June 20, 2024

Director Beall requested clarification on the water demand scenarios used in the Water Supply Master Plan (WSMP) development, opportunities to address drought rebound, and water conservation opportunities through Board Member Request 24-0006.

Valley Water develops long-term demand forecasts to support Valley Water's water supply infrastructure investment decisions. These demand forecasts are key inputs for determining how much new water supply or infrastructure Santa Clara County may need in the future. For the WSMP 2050 currently in development, Valley Water is using two demand scenarios: stable demand and high demand. This memorandum will summarize the demand model and WSMP demand scenarios. More detail can be found in Attachment 1 of the January 9, 2024 Board item (https://scvwd.legistar.com/gateway.aspx?M=F&ID=55bc01c7-1f9d-4087-88ac-f30d2b5c9bb0.pdf)

Demand Model and WSMP Scenarios

Since Valley Water cannot predict what the future weather or economy will be, Valley Water developed an econometric demand model that projects the normal demands – i.e., expected water use under average weather conditions and an average economy. The demand model was built using historic water use, demographic, economic, and climate data. Staff then developed scenarios for forecasting future demands using Association of Bay Area Governments (ABAG) data and information provided by the cities/retailers.

To help evaluate future uncertainties, Valley Water developed two demand forecasts: a stable and a high demand forecast (table 1). The stable demand assumes a small drought rebound by 2030 with demands remaining flat after 2030. Despite forecasted housing and economic growth and climate change, Valley Water would be assumed able to maintain stable demands through its aggressive conservation program and water use resolutions. The high demand assumes climate change impacts and housing and economic growth cause water use to increase significantly. In this scenario, there is increased outdoor and indoor water use from increased evapotranspiration and cooling demands, respectively.

Table 1. Normal and Drought Year Demands for 2050 (Rounded to nearest 5 TAF)

Demand Scenario	Normal (TAFY)	Drought (TAFY)
Stable	330	295
High	365	310

Role of Conservation

When evaluating future investment needs, Valley Water considers both long-term and short-term conservation. The normal demands described above and in Table 1 account for long-term conservation savings from Valley Water's on-going water conservation program activities. The normal demands assume 99 thousand acre-feet per year (TAFY) by 2030, 110 TAFY by 2040, and 126 TAFY by 2050 in water conservation savings. The WSMP analysis also accounts for short-term conservation that occurs during droughts.

During droughts, the Board of Directors may request the community to reduce their water use to support drought response. These water use reductions are applied in the analysis only during drought years. The demand forecasts during drought years for both scenarios are shown in Table 1. These additional drought reductions include calls for further reducing outdoor watering, fallowing agricultural lands, as well as more efficient use indoors, including shorter showers. They are not permanent reductions like converting landscapes, although the landscape rebate program sees very high interest in participation during droughts.

Following a drought, water demand typically rebounds to normal water use, although it may still remain lower than pre-drought. Rebounds occur, in part, because agriculture may cease fallowing their lands, parks and other landowners restart full irrigation of functional turf (e.g., game fields and play areas), and the community returns to other pre-drought activities such as maintaining vegetable and community gardens. While the rebound from the 2012-2016 drought was initially smaller than historic rebounds and then interrupted by the 2020-2022 drought, the water use from 2017-2020 indicates rebounds may still occur. Since rebounds have historically occurred in Santa Clara County and California as a whole, it is a conservative and reasonable approach to include separate demands for drought and normal years in the WSMP analysis.

Opportunities to Address Drought Rebound

Through Valley Water's long-term water conservation program activities, drought rebound can be controlled. While eliminating drought rebound may not be feasible, Valley Water can help reduce the rate and magnitude of drought rebound through conservation messaging and offering conservation options to the community. For example, if Valley Water maintains drought-level investment in the Landscape Rebate Program, it will help reduce the proportion of the population that returns to watering their lawns. Instead, more residents will convert their lawns to drought-resilient landscapes.

Valley Water offers a comprehensive set of over 20 programs that help all sectors (e.g., residential, agricultural, commercial, industrial, and institutional) reduce their water use and now performs outreach on water conservation year-round. In addition, Valley Water continues to track technological innovations and regulations that can support demand management and help mitigate drought rebound. Maintaining a strong long-term conservation program is critical to ensuring Santa Clara County makes "water conservation a way of life" and limits the magnitude of drought rebound. The full list of programs can be found at https://www.valleywater.org/saving-water/rebates-surveys.

DocuSigned by:
Aaron Baker
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Aaron Baker, P.E.
Chief Operating Officer
Water Supply Division

cc: Rick L. Callender, Esq., Chief Executive Officer
Kirsten Struve, Assistant Officer
Vincent Gin, P.E., Deputy Operating Officer

Valley Water

MEMORANDUM

FC 14 (01-25-23)

TO: Board of Directors **FROM**: Aaron Baker, P.E.

SUBJECT: IBMR I-24-0007: Request for Imported Water Program Costs **DATE**: June 17, 2024

In response to Director Jim Beall's request, I-24-0007, this memorandum discusses Valley Water's imported water program costs.

Valley Water initially invested in the State Water Project (SWP) and Central Valley Project (CVP) in the 1960's and 1970's to address land subsidence resulting from depletion of local groundwater basins. The state and federal governments built the South Bay Aqueduct (SBA) and the San Felipe Division, respectively, to bring SWP and CVP supplies to Santa Clara County. These supplies are used in conjunction with groundwater and local water captured and stored in surface reservoirs. Valley Water recharges local and imported water into the groundwater basin and delivers both directly to water treatment plants. During water shortages, the SWP and CVP infrastructure also provides access to supplemental water purchases and state and federal emergency supplies, as well as access to broad statewide partnerships, to increase water supply resiliency. Imported water comprises half of the county's water supply portfolio, with about forty percent from SWP and CVP contract supplies and another 10 percent from the San Francisco Public Utilities Commission, which supplies water directly to some retailers in the county.

Valley Water has paid for our capital, and operations and maintenance (O&M) obligations for the SWP and CVP over the past 62 years and has invested over $1.4 Billion ($2.2 Billion in 2023 dollars) to date. Moving forward, capital improvement and O&M costs of both projects will continue to be significant and are included in long-range cost projections. The costs described below are projections based upon available information from the Department of Water Resources (DWR), U.S. Bureau of Reclamation (USBR), and San Luis & Delta-Mendota Water Authority (SLDMWA), as well as escalation of current contract costs.

Imported water costs are described in the following four sections. The information gathered below is the latest data as of June 17, 2024.

Current Imported Water Cost

The current cost of our SWP and CVP supplies are described in a memo from Chief Financial Officer Darin Taylor, dated April 15, 2024. The unit cost provided was calculated based on an average of actual water supply conditions from 2019 to 2023, which captures the most recent historic drought as well as two wet years. Current baseline costs included in the calculation include the following:

- SWP and CVP Contract Water Delivery Costs (Fixed and Variable Charges) – SWP and CVP contractual fixed costs, SWP variable charges paid to DWR for water delivery to Valley Water, and CVP variable charges paid to both USBR and SLDMWA for water delivery to Valley Water.
- San Felipe Division Capital Repayment – Capital obligation to USBR for the San Felipe Division.
- San Felipe Reach Capital and O&M Costs – Valley Water's internal capital and O&M costs for San Felipe Reaches 1, 2 and 3.

The imported water baseline unit cost was calculated to be $450/acre-feet (AF). Valley Water also has a contract with Semitropic Groundwater Storage District (Semitropic) where imported water supplies can be stored outside the county. Putting water into Semitropic occurs primarily in wet years, while taking water out of Semitropic via exchange occurs primarily in drought years or when needed, for example to mitigate for loss of local supplies while Anderson dam is reconstructed. Utilization of Semitropic is integrated into Valley Water's annual operations decision-making and facilitates efficient use of local surface water and groundwater management as well as imported supplies. Adding the average Semitropic costs from 2019 through 2023, which includes higher costs due to both drought operations and wet-year operations captured during this time period, to the imported water baseline unit cost would result in a combined unit cost of $490/AF.

Future Baseline Imported Water Cost

Valley Water's long-term imported water baseline costs were included in the long-range financial planning presentation to the Board on March 26, 2024 (Item 10.1 - Receive and Discuss Long Range Financial Planning Models for the Water Utility Enterprise Fund, the Watersheds Stream Stewardship Fund, and the Safe, Clean Water Fund) and are summarized below:

- SWP and CVP Contract Water Delivery Costs (Fixed and Variable Charges) – SWP and CVP contractual fixed costs, SWP variable charges paid to DWR for water delivery to Valley Water, and CVP variable charges paid to both USBR and SLDMWA for water delivery to Valley Water.

- Delta-Mendota Canal (DMC) Subsidence and Extraordinary O&M Project Costs – SLDMWA'S total projection is $578M over the next ten years; Valley Water's portion forecasted at $30.5M and included in CVP cost projections over the next 30 years.

- San Felipe Division Capital Repayment – Remaining capital obligation to USBR for the San Felipe Division; $172M remaining through 2035 per the contract repayment schedule.

- San Felipe Reach Capital and O&M Costs – Valley Water's internal capital and O&M costs for San Felipe Reaches 1, 2 and 3.

- California Aqueduct Subsidence Program (CASP) – DWR's total projection is $1.4B through 2035; Valley Water's portion is included in DWR Statement of Charges projections but is expected to be minimal since planned subsidence repairs are limited to facilities that do not directly service Valley Water.

- South Bay Aqueduct Long Term Repairs – Valley Water's projection for long-term repairs of the South Bay Aqueduct; forecasted at $50M beginning in 2028 and repaid over the following 35 years; final cost projections and plans to be provided by DWR in the future.

Consistent with the Water Supply Master Plan 2050 (WSMP) cost analysis methodology, the cost of this continued baseline SWP and CVP water service is $1.91 Billion (in 2023 dollars) over a 50-year time period from 2024-2074.

Climate change projections show precipitation patterns for both local and imported supplies shifting towards more extreme wet years, more intense droughts, and increased temperatures. Modeling scenarios estimate a reduction in our average annual SWP plus CVP supplies from 190,000 AF currently to 128,000 AF by 2040. Consistent with the approach used in the WSMP, a levelized unit cost,

which is the unit cost needed to recover the total cost of the project over the next 50 years, is calculated in Table 1.

Table 1 – Future Imported Water Costs with 2040 Climate Change Impact

	Average Annual Supply (AF)	Present Value Cost (Millions)	Levelized Unit Cost ($/AF)
Baseline Imported Water Supplies**	128,000	$1,910	$514

** Baseline imported water supplies are those supplies allocated to Valley Water through long-term water supply contracts executed with the State of California and the U.S. Bureau of Reclamation for SWP and CVP water supplies.

Potential Imported Water Supply Projects

Valley Water is participating in the planning phase for several new water supply projects that could help offset projected climate change impacts to our imported water supplies. Valley Water has not yet made a commitment to invest in the construction of these projects, which are being evaluated as part of the WSMP process. The levelized unit cost for these projects are shown in Table 2 below.

Table 2 – Potential Imported Water Supply Project Costs

Water Supply Project	Average Annual Supply Produced (AF)	Present Value Lifecycle Cost (Millions)	Levelized Unit Cost ($/AF)
Delta Conveyance Project	14,000	$720	$2,700
Sites Reservoir Project**	5,000	$130	$1,200

**This participation level corresponds to the maximum wait-listed participation level (2.65%) for Valley Water. Current participation level is at 0.2%

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Potential Water Storage Projects

If new investments are made in new imported projects and local projects such as purified water, additional storage investments would likely be required to optimally manage unused wet-year water for use in dry years. Similar to the way Semitropic is currently utilized in Valley Water's water supply operations, new water supply storage would be incorporated into annual decision-making regarding how Valley Water's various water supply sources are integrated and utilized. Investment in new storage would also support Valley Water's planning strategy to diversify storage options to improve overall water supply resiliency in dry years, as well as provide additional tools to manage operations as we approach the expiration date for our Semitropic banking contract in 2035.

Storage projects that are being evaluated as part of the WSMP process include the following:

Table 3 – Potential Water Storage Projects

Water Storage Project	Storage (AF)	Present Value Lifecycle Cost (Millions)	Lifecycle Cost PV/Storage Capacity ($/AF)
Pacheco Reservoir Expansion Project	140,000	$1,590	$11,400
B.F. Sisk Dam Raise and Reservoir Expansion Project	60,000	$470	$7,900
Las Vaqueros Reservoir Expansion Project	30,000	$350	$11,700
New Groundwater Banking Project	350,000	$350	$1,000

The combined cost of baseline imported water supplies and new projects depends on the specific portfolio of projects that the Valley Water Board chooses to invest in. The WSMP is evaluating various combinations of projects to meet Valley Water's level of service (LOS) goal through the planning horizon. The Board will receive an update on the WSMP on June 25, 2024.

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Aaron Baker
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Aaron Baker, P.E.
Chief Operating Officer
Water Utility Enterprise

Attachment 1: Follow Up from April 9, 2024 Board Meeting, Item 23-1065

Valley Water

MEMORANDUM

FC 14 (01-25-23)

TO: Board of Directors

FROM: Darin Taylor

SUBJECT: Follow Up from April 9, 2024 Board Meeting, Item 23-1065.

DATE: April 15, 2024

On April 9, 2024 the Board held a public hearing on the February 2024 Annual Report on the Protection and Augmentation of Water Supplies and Recommended Increases in Groundwater Production Charges, Surface Water Charges, and Recycled Water Charges for Fiscal Year 2024-25.

After hearing the staff presentation, members of the Board posed several questions. Staff has prepared responses in the attached question and answer (Q&A) document. The Q&A document also includes responses to related questions received from members of the public.

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Darin Taylor
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Darin Taylor
Chief Financial Officer
Office of the Chief Executive Officer

CC: R. Callender, A. Baker, S. Bogale, L. Penilla, J. Collins, V. Gin, K. Struve, C. Narayanan
CN
Memo_4-9-2024_Board_FollowUp

1. How are costs allocated across groundwater production zones, and are the allocations equitable?

A: Valley Water employs an integrated approach to manage a sustainable water supply through conjunctive management and use of surface water and groundwater resources to maximize water use efficiency. Water utility costs are allocated between the 4 groundwater production zones based upon benefits received. Benefits received within each zone are based on the infrastructure used and activities undertaken to provide a reliable water supply to each zone.

Groundwater Benefit Zones:
In 2020 a comprehensive Zone of Benefit Study was completed. Beginning in 2014, the scientific study focused on Valley Water's groundwater benefit zones and is based on up-to-date geologic studies, local groundwater data, and the services Valley Water provides. In 2020 Valley Water Board of Directors adopted changes to update the zones based on the study results. There was extensive community outreach as part of this study. The current zones ensure ratepayers are grouped in a way that reflects the most recent and relevant data regarding services and benefits received by well users, including retailers.

Cost Allocations:
In general, costs are driven by infrastructure that provides benefit to a zone, and shared infrastructure costs are allocated to zones primarily based on the amount of water delivered to each zone by that infrastructure. While water rates differ from zone to zone, they are equitable in that a water user only pays for benefits provided to that zone.

The FY 2024-25 PAWS report (https://www.valleywater.org/your-water/current-water-charges/proposed-water-charges) provides details for the Basis of Cost Allocations between North and South Zones for operating projects (see Appendix B). Appendix C provides capital cost recovery details for completed capital projects benefiting the 3 South County Zones.

2. What portion of water rate increases are driven by capital investments?

A: Over the next ten years, on average, 63% of total rate increases are driven by the Capital Improvement Program (CIP). It is important to note that due to the South County zone's capital cost recovery mechanism (i.e., once a capital project is completed, the portion benefiting a South County zone is amortized over 30 years), the portion of CIP costs driving annual rate increases will vary. Of note, over the next ten years, Operations & Maintenance (O&M) costs increase by 3.7% per year, on average.

3. How has inflation impacted the water rate projection? Is it a major cost driver of the rate projection?

A: The U.S. experienced severe inflation in 2021 and 2022 due to global events related to COVID-19, supply chain issues, and the Russian invasion of Ukraine. In fact, the U.S. CPI peaked in June 2022 at 9.1% year over year. Since June 2023, the U.S. CPI has ranged between 3% and 4% year over year each month. Nevertheless, the impact of that severe inflation surge is felt today in the prices for labor and goods and services.

The construction cost escalation factors for VW's Capital Projects ranges between 7% and 4.8% from FY25 to FY30, which is a significant contributor to the total project cost of capital projects.

4. What inflation factors are being used for Water Utility projects?

A: Valley Water uses several inflation factors. Prior year actuals and current and future year projections are shown in the table below. Construction cost inflation factors are provided to Valley Water by O'Connor Construction Management, Inc. (OCMI) who conducted a San Jose Market Study for the Construction Cost Escalation Rate (CCER) to be used in the FY 2024-25 planning cycle. The OCMI Market Study is attached to this memo.

Valley Water Cost Inflation Factors	Actual	Actual	Actual	Actual	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected
	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34
Supplies & Services Inflation*	1.6%	3.2%	6.8%	2.9%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Construction Cost Inflation**	5.4%	3.4%	14.1%	0.1%	12.0%	7.0%	5.5%	5.5%	5.5%	5.0%	4.8%	4.8%	4.8%	4.8%	4.8%

* Actual supplies and services inflation based on the San Francisco-Oakland-Hayward Consumer Price Index for all urban consumers as of June 2023
** Actual construction cost inflation based on the City Cost Index of Engineering News Record results for the San Francisco Bay Area as of June 2023

5. How much is the Water Utility spending on imported water?

A: The cost of Valley Water's imported water supplies are competitive with other sources of supply. The unit cost of our contractual supplies from the State Water Project (SWP) and Central Valley Project (CVP) is approximately $450 per acre-foot based on average annual hydrology. However, these unit costs would be greater in dry years and lower in wet years. Current 2024 water allocations are 30% for SWP and 75% M&I / 35% Ag for CVP, equating to approximately 140,000 AF of supply for Valley Water which is more than half of the water delivered in the County.

In the upcoming biennial budget, total imported water supply costs are close to $80 million in FY 2024-25 and $84 million in FY 2025-26, excluding supplemental water transfers and new water supply and storage project costs. CVP contract costs include U.S. Bureau of Reclamation costs for CVP water deliveries and San Felipe Division capital costs, as well as San Luis & Delta-Mendota Water Authority costs. SWP contract costs include all costs for delivery of SWP water, including costs related to the South Bay Aqueduct. Semitropic Groundwater Banking includes annual O&M and water banking activity costs and San Felipe Reach costs include Valley Water's internal capital and O&M costs for the San Felipe Division.

Imported Water Supply Costs	FY 2024-25	FY 2025-26
Imported Water Contract Costs (Central Valley Project, State Water Project & Semitropic Groundwater Bank)	$69.9 M	$72.5 M
San Felipe Reach Capital and O&M Costs	$ 9.7 M	$11.3 M
TOTAL	**$79.6 M**	**$83.8 M**

Potential imported water supply-related project costs are shown in the following table. These projects are being evaluated as part of the Water Supply Master Plan 2050. Updates on each of these projects are being planned for future Water Supply and Demand Management Committee meetings.

Imported Water Supply-Related Projects	FY 2024-25	FY 2025-26
Delta Conveyance [1]	$5.8 M	$8.0 M
B.F. Sisk Dam Raise at San Luis Reservoir [2]	$10.0 M	$5.0 M
Los Vaqueros Reservoir Expansion [3]	$ 4.0 M	$4.5 M
TOTAL	**$19.8 M**	**$17.5 M**

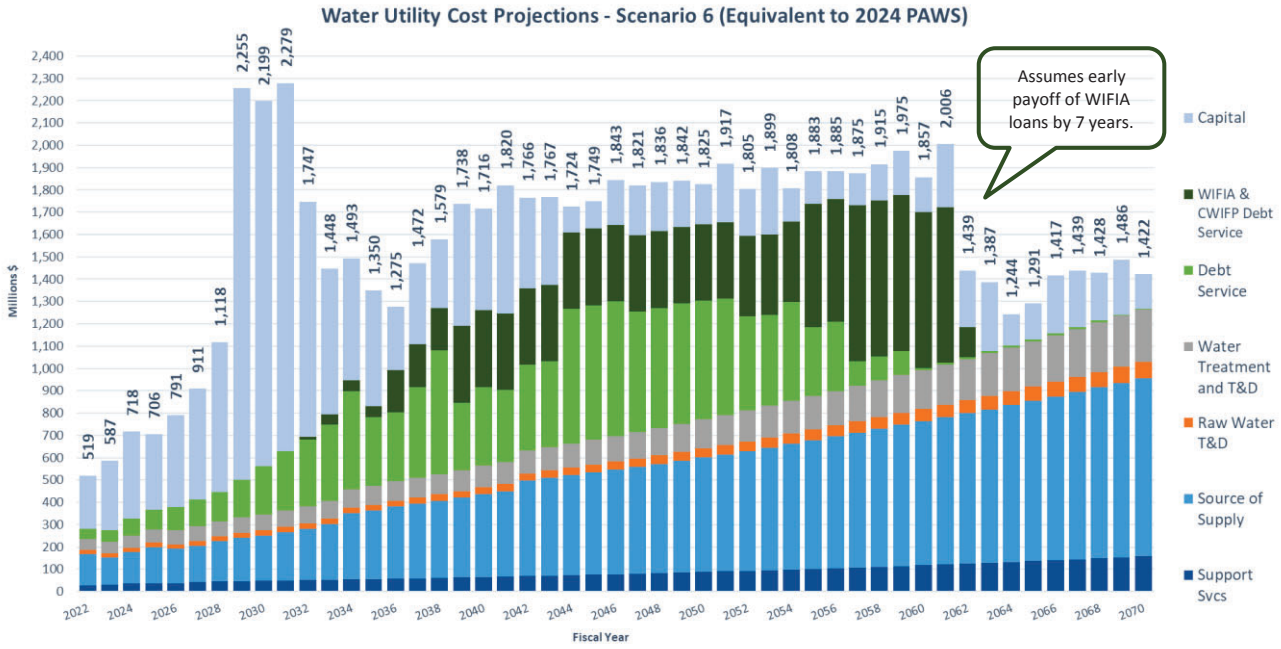
1. Delta Conveyance costs reflected as an Operations Project. Ten-year total investment approximately $94M.
2. B.F. Sisk Dam Raise costs reflected as an Operations Project. Ten-year total investment approximately $225M.
3. Los Vaqueros Reservoir Expansion costs reflected as an Operations Project. Ten-year total investment approximately $130M.

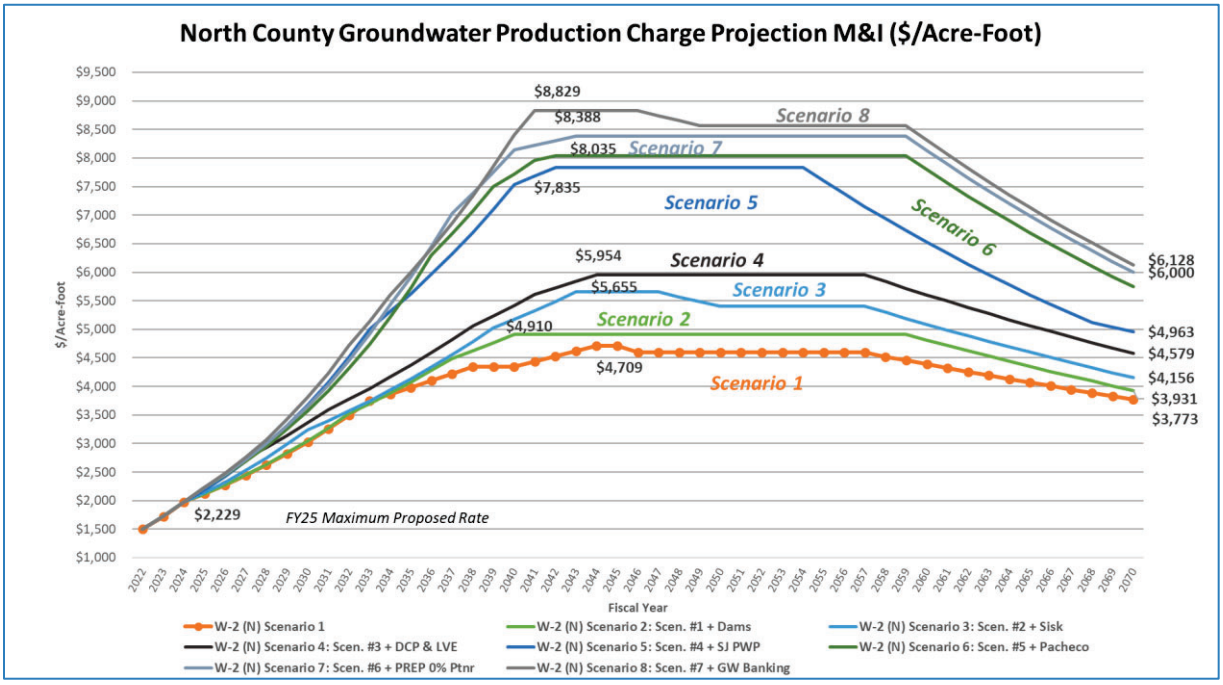
6. When will an analysis on the elasticity of water usage and water rates be available?

A: Staff has engaged a consultant for a *Study on Water Use Demand, Elasticity and Rate Affordability*. This study is kicking off this Spring and the Board can expect staff to bring the project scope for review and discussion at an upcoming Water Conservation and Demand Management Committee meeting. Staff anticipates the study to take a year or so to complete, and is hopeful it will be informative to the FY 2025-26 rate setting cycle.

7. Show debt service repayment schedules for WIFIA/CWIFP loans. What is the corresponding impact on water rates?

A: The overall impacts of WIFIA and CWIFP loan debt service, is highlighted in the "Water Utility Cost Projections – Scenario 6" graph below, which reflects water supply investments incorporated into the 2024 PAWS Report. In the scenario shown, WIFIA and CWIFP debt is paid off roughly 7 years early due to excess cash generation in the outer years. The subsequent graph shows the North County M&I Groundwater charge projection for several water supply investment scenarios, with each successive scenario building on top of the former. Scenario 6 shows the water rate projection based on the WIFIA and CWIFP debt service projection shown in the Water Utility Cost Projection graph below.





8. Are conservation savings factored into the water use projection? Is water conservation cost effective and how much is budgeted?

A: Yes, Water conservation is reflected in District-managed water use for FY 2023-24 adopted budget (207,000 acre-feet) and future projections (222,000 in FY 2024-25). If it were not for the conservation efforts achieved by residents and businesses in Santa Clara County, District-managed water use projections would otherwise be higher, all things being equal. That said, staff anticipates a post-drought water use rebound similar to what has been observed after previous droughts. Next year's water rate setting cycle will be informed by the summer 2024 water usage and by the consultant study results. The water use projection will be adjusted accordingly.

In 2023 an estimated 84,000 acre-feet of water was conserved in Santa Clara County. Valley Water has a robust conservation program that consists of various rebates and resources for residents and businesses in Santa Clara County, available through over 20 programs. Prior year spending and current year budget is highlighted in the table below.

Programs & Projects	FY 21	FY 22	FY 23	FY 24
Drought Emergency	$ -	$ 4.1	$ 4.8	$ -
Water Conservation Program	$ 4.6	$ 7.8	$ 11.6	$ 12.1
TOTAL (millions) =	$ 4.6	$ 11.9	$ 16.4	$ 12.1

Water conservation is cost effective on a per acre-foot cost for new water supply and it saves residents and businesses money when implementing conservation. At the same time, water conservation results in less revenue to the Water Utility.

The Water Supply Master Plan analysis has shown that investment beyond conservation and recycling is needed for a reliable water supply in the future, even with the most aggressive possible conservation targets. In order to meet the Board's current water conservation targets, drought level participation must be maintained even in non-drought years. The water conservation targets are already included in the demand projections and therefore the portfolios being analyzed for the Water Supply Master Plan. While water conservation is a cost-effective new supply, depending on climate change impacts on demands, water conservation may not be sufficient to ensure a reliable supply in the future.

More information can be found online at www.watersavings.org.

9. Is the San Jose direct potable purified water project funded?

A: The San Jose Direct Potable Reuse (DPR) Phase 1 Demonstration Facility is validated, funded and included in the included in the CIP Draft FY 2025-29 Five-Year Plan. Preliminary cost projections for the San Jose DPR Phase 2 Full-Scale Facility are included in water utility rate projections in FY 2028-29 and beyond, although not included in the CIP Draft FY 2025-29 Five-Year Plan at this time.

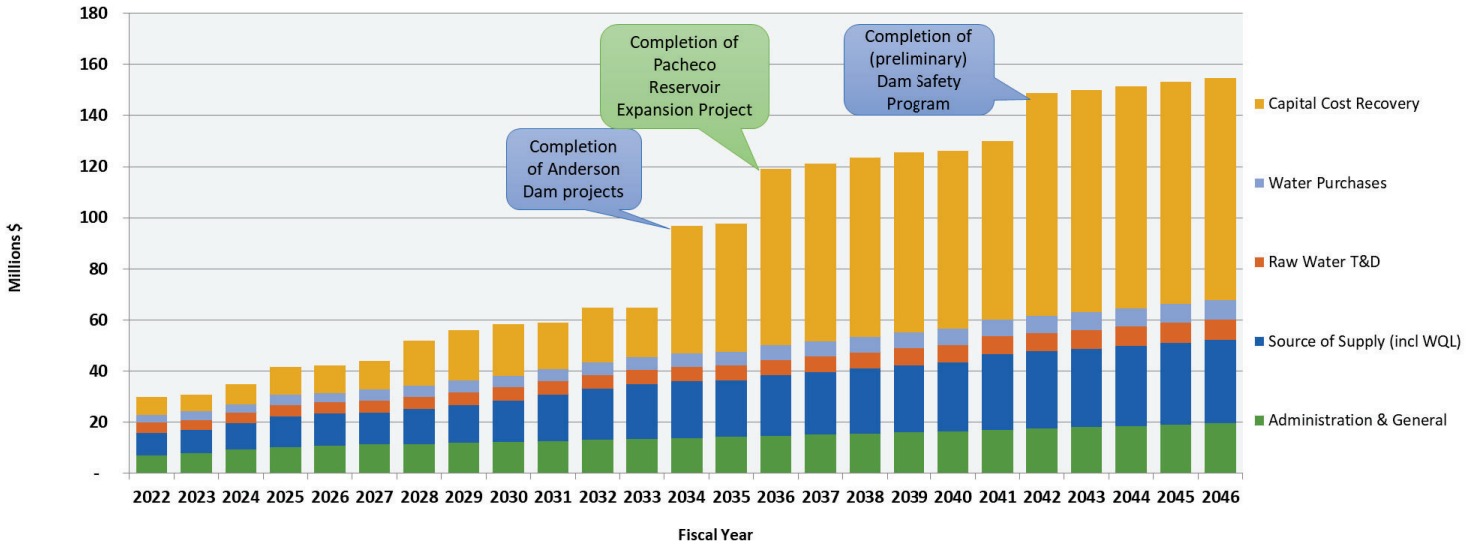
The Palo Alto Indirect Potable Reuse (IPR) Project was placed on the Unfunded Project list in the CIP Draft FY 2025-29 Five-Year Plan and will be reviewed and evaluated over the next 2 years.

10. Is groundwater recapture being maximized?

A: Per the District Act and SGMA, Valley Water is the Groundwater Sustainability Agency for the Santa Clara and Llagas subbasins. Valley Water responsibly manages the water supplies of the Santa Clara County by conjunctively managing the surface water and groundwater and has an effective managed aquifer recharge program using water from our ten local reservoirs and imported water. Several additional or expanded recharge facilities are being evaluated as part of the Water Supply Master Plan 2050 to increase recharge capacity and operational flexibility. In addition, Flood Managed Aquifer Recharge is also being evaluated as part of the Board's no regret policy to recharge on agricultural or open lands.

11. What happens to the South County cost projections after FY34?

A: The South County cost projection graph has been extended beyond FY34 as shown in the graph below.



12. Is the North County Zone W-2 M&I groundwater charge projected to increase by 12X in 11 years versus the FY 23 actual charge of $1,724/AF?

A: A 12X increase would mean a projected groundwater charge of $20,688/AF in FY 34 which is not correct. Instead, the PAWS report reflects a North County groundwater charge of $5,075 in FY 34.

For North County Zone W-2 what is the contribution of the increase with and without Pacheco, Sisk, Los Vaqueros Expansion, and Delta Conveyance?

A: See item 10.1 from the 3/26/24 Board meeting regarding the Long Range Financial Planning Models. Scenario 2 is the North County Zone W-2 groundwater charge projection without Pacheco, Sisk, LVE and Delta Conveyance. Scenario 6 includes all of those projects plus the impact of a San Jose Purified Water Program Phase 2 Full-Scale Facility project.

What are the cost drivers of VW's groundwater charge projection?

A: The key cost drivers of the long-term rate projection are large capital projects and investments in new water supply.

Santa Clara Valley Water District

File No.: 24-0568

Agenda Date: 7/9/2024
Item No.: 3.5.

BOARD AGENDA MEMORANDUM

Government Code § 84308 Applies: Yes ☐ No ☒
(If "YES" Complete Attachment A - Gov. Code § 84308)

SUBJECT:
Consider the May 17, 2024, Environmental Creek Cleanup Committee Recommendation to Adopt the Proposed Water Resources Protection Zones Ordinance.

RECOMMENDATION:
Consider recommendation resulting from the May 17, 2024, Environmental Creek Cleanup Committee meeting to:

A. Adopt the Proposed Water Resources Protection Zones Ordinance; and
B. Provide feedback and recommendations to staff as necessary.

SUMMARY:
At its May 17, 2024, meeting, the Santa Clara Valley Water' District's (Valley Water) Environmental Creek Cleanup Committee (ECCC) recommended that the Board adopt a proposed Water Resources Protection Zones Ordinance (Ordinance), which aims to reduce encampments, prevent re-encampments, and prohibit related activities along creeks, waterways, water supply facilities, and other lands where Valley Water holds land rights. The Ordinance is intended to protect water resources, endangered species, and other ecological resources, as well as to support and improve safety for Valley Water's field operations staff.

Water Resources Protection Zones Ordinance

The purpose of the Ordinance (Attachment 1) is to establish water resources protection zones (WRPZ) to ensure that Valley Water continues providing Silicon Valley safe, clean water for a healthy life, environment, and economy, as well as to support and improve safety conditions for field operations staff. The Ordinance is intended to improve water quality, to protect water supply facilities and riparian habitats, and to promote staff safety by prohibiting camping and related activities within the WRPZ.

The Ordinance prohibits the following activities:

a. Unauthorized establishment of encampments and any depositing of trash, debris, and/or

hazardous pollutants related to the establishment or presence of encampments.

b. Any activity or nuisance that unreasonably disturbs the occupants of neighboring properties, including but not limited to the possession or use of explosives, fireworks, or other toxic or hazardous materials or substances, or use of any loudspeakers, public address systems, sound amplifiers, radio, or broadcast within the WRPZ in such manner that sounds are unreasonably loud or directed beyond the immediate area of the listener, except to the extent appropriate permits are obtained in accordance with any applicable municipal code section.

c. Any activities that could create a hazard or potential hazard to Valley Water employees or the public, or that could interfere with, obstruct, or prevent the safe operation of Valley Water facilities, including but not limited to buildings or habitat, or its activities associated with water quality, environmental stewardship, or flood risk reduction.

d. Any unlawful activities.

Based on the ECCC's input, and per prior Board direction, Valley Water will continue to collaborate with governmental and private partners to seek ways to contribute to housing or shelter alternatives that support the relocation of unsheltered people from Valley Water lands. While Valley Water, as a water district, ultimately does not have control over housing outcomes, it is committed to using its power as an environmental stewardship agency to protect the waterways in collaboration with cities and the County as they fulfill their housing and social service roles. However, Valley Water cannot wait until holistic solutions to homelessness have been established and implemented before taking action to fulfill its obligations as an environmental steward and to ensure that Valley Water staff are safe while performing work in the field. The Ordinance is intended to address these principal obligations of environmental stewardship and staff safety while Valley Water continues its collaboration with other organizations and pursues solutions to homelessness on a separate track.

The ECCC also provided recommendations regarding Ordinance enforcement. Per Section 9(b) of the Santa Clara Valley Water District Act, a violation of any Valley Water ordinance is a misdemeanor. However, additional language was added to the draft Ordinance to ensure that Valley Water provides adequate warning and an opportunity for anyone in violation to voluntarily relocate or otherwise remedy the violation before further enforcement actions are taken. The intention is not for this Ordinance to result in criminalization, but instead for it to result in encampment relocation or the cessation of prohibited activities. Valley Water will first employ an educational approach, providing information on Ordinance requirements, resources for identifying Valley Water lands, and a request to remedy the violation. Even if a person in violation chooses not to self-remedy, and escalated enforcement is warranted, the prosecutor may still exercise his or her discretion to specify that an offense is merely an infraction rather than a misdemeanor.

Background and Need for the Ordinance

Valley Water's mission is to provide Silicon Valley safe, clean water for a healthy life, environment, and economy. As part of this mission, Valley Water has an obligation to protect against activities that negatively impact water quality and ecological resources. Valley Water also has an obligation to

protect its field staff whose work is critical to meeting regulatory requirements and maintaining flood protection and water supply infrastructure. The continued presence of encampments of unsheltered people on lands where Valley Water holds property rights threatens Valley Water's ability to carry out its mission and ensure the safety of its staff.

Environmental Concerns

The Valley Water 2014-2023 Stream Maintenance Program (SMP) uses several methods for mitigating the environmental impacts of stream maintenance projects such as revegetation and invasive plant management. Valley Water spends millions of dollars on terrestrial and aquatic habitat enhancements. But trampling, excavation, vegetation and tree removal, and increased fire frequency associated with encampments have damaged and destroyed required habitat mitigation. For example, encampment-related impacts have prevented the successful establishment of 2.5 acres of river and floodplain habitat enhancements that were implemented, at considerable cost and effort, to provide advance mitigation for the Upper Guadalupe River Project. Failure to successfully establish mitigation limits the value of Valley Water's investment and substantially increases the time and cost to comply with environmental mitigation requirements.

Due to increasing safety issues and damage to mitigation sites from fires, vehicle traffic, trash and biohazardous materials, large structures, and bank excavations within and adjacent to Valley Water mitigation sites, the SMP program has had to abandon seven problematic Invasive Plant Management Program (IPMP) sites and has canceled over 36 acres of mitigation credit previously applied to the SMP program for the mitigation of SMP impacts. Valley Water had already expended over $1.8 million dollars in labor, equipment, and materials to manage these mitigation sites.

Additionally, encampments and their associated uses can degrade water quality, obstruct fish passage, and damage and destroy habitats that various species depend upon. Protected species such as Steelhead trout, Chinook salmon, and other native species require the use of waterways and floodplains for their survival. In addition, protected waters and wetlands provide habitat, convey flood waters, help recharge groundwater, and provide other ecosystem services. Encampments commonly degrade water quality, obstruct fish passage, and damage and destroy habitats on which these species depend. Human waste from encampments adds nutrients to streams facilitating algae growth that is harmful to aquatic species.

Staff Safety Concerns

Over the last several years there has been an increase in the number of security incidents experienced by Valley Water staff that were associated with unsheltered people, including armed threats of violence, verbal assaults and physical intimidation, vicious dog encounters, and fire-related occurrences. Compounding the severity of these dangerous incidents is a rise in drug activity associated with unsheltered people residing on Valley Water property, as evidenced by an increasing rate of drug arrests and overdoses. If encampment activity is allowed to persist on Valley Water property, Valley Water staff will continue to be exposed to undue safety risks.

Related to this, a new workplace safety law, Senate Bill 553 (Chapter 289, Statutes of 2023), took effect on July 1, 2024, and requires prudent actions when incidents of workplace violence occur.

Senate Bill 553 enhances workplace safety protocols and requires employers to develop their own workplace violence prevention plans as part of their Cal/OSHA Injury and Illness Prevention Plans. Under this new law, Valley Water's "workplace" is considered any property or facilities Valley Water owns or controls.

Valley Water field operations staff operate in a workplace primarily located along creeks, waterways, and water supply facilities. When a staff safety incident occurs in the field, there must be an investigation, assessment, and application of mitigation measures. Any mitigation efforts put in place to address field workplace hazards may take days to complete, possibly suspending or delaying mission-critical work at that immediate location. The continued presence of encampments on Valley Water lands increases the opportunity for safety incidents and the likelihood that the associated legally mandated mitigation response will delay mission-critical work.

Safety Concerns for People Living Along Waterways

Currently, more than 700 people are estimated to be living on Valley Water property and easements. Encampments located along waterways are both a human and an environmental tragedy, resulting in deaths and negative health outcomes for unsheltered individuals. Waterways are often prone to flash floods, causing rapidly rising water that is a serious hazard to unsheltered people living in or near creek channels. Additionally, unsheltered individuals utilizing creeks and waterways put their health and safety at risk due to unhygienic and unsafe living conditions, waterborne diseases such as Shigella, frequent fire activity, as well as exposure to the elements.

Recommendation

In light of the concerns stated above, consider the ECCC recommendation to adopt the proposed Water Resources Protection Zones Ordinance, and provide feedback and recommendations as necessary.

ENVIRONMENTAL JUSTICE AND EQUITY IMPACT:
The Water Resources Protection Zones Ordinance addresses environmental stewardship by protecting water resources, endangered species, and other ecological resources which may be located near disadvantaged communities.

FINANCIAL IMPACT:
There is no financial impact associated with this item.

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: Ordinance
Attachment 2: PowerPoint
Handout 3.5-A: Chen

UNCLASSIFIED MANAGER:
Jennifer Codianne, 408-630-3876

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BOARD OF DIRECTORS
SANTA CLARA VALLEY WATER DISTRICT

ORDINANCE NO. 24-

ESTABLISHING PROHIBITIONS WITHIN
WATER RESOURCES PROTECTION ZONES

WHEREAS, the Santa Clara Valley Water District Act (District Act) authorizes the Santa Clara Valley Water District (Valley Water) to provide comprehensive water management for all beneficial uses and protection from flooding within Santa Clara County, in order to provide a reliable supply of healthy and clean water; reduce the potential for flood damage; protect, and when appropriate, enhance and restore natural resources of streams and watersheds; and

WHEREAS, trampling, excavation, vegetation and tree removal, and increased fire frequency associated with encampments have damaged and destroyed required habitat mitigation on lands that Valley Water holds in fee and easement. Encampments and associated uses can degrade water quality, obstruct fish passage, and damage and destroy habitats that these species depend on; and

WHEREAS, there has been an increase in the number of security incidents and fire-related occurrences encountered by Valley Water staff that were related to unsheltered people; and

WHEREAS, this ordinance is intended to protect water resources, endangered species and other ecological resources, as well as to support and improve the safety of Valley Water's field operations staff.

The Board of Directors of the Santa Clara Valley Water District does ORDAIN as follows:

SECTION 1: PURPOSE AND INTENT

1.1 The purpose of the Water Resources Protection Zones Ordinance (Ordinance) is to establish water resources protection zones (WRPZ) to better enable Valley Water to continue providing Silicon Valley safe, clean water for a healthy life, environment, and economy.

1.2 The Ordinance is intended to address the impacts of encampments near waterways and water supply facilities where Valley Water holds land rights in order to improve water quality and to protect the riparian habitat of creeks and waterways.

1.3 The Ordinance aims to reduce encampments and prevent re-encampment along creeks, waterways and water supply facilities. It is intended to protect water resources, endangered species and other ecological resources, as well as to support and improve safety for Valley Water staff.

Valley Water adopts the Ordinance pursuant to the authorities granted to it by the Santa Clara Valley Water District Act (California Water Code Appendix, Chapter 60, Section 9(b)).

SECTION 2: DEFINITIONS

2.1 "Water Resources Protection Zone" is defined as all lands where Valley Water owns property in fee title, has an easement, or has maintenance obligations pursuant to effective licenses and agreements.

Valley Water's property rights in fee and easement can be viewed using the following link: https://gis.valleywater.org/FeeEasement/

2.2 "Camping" is defined as unauthorized sleeping, erecting a shelter of any type, storing, using, maintaining, or placing personal property.

2.3 "Encampments" is defined as one (1) or more structures occupied by an individual or group of individuals that is located illegally on Valley Water or other public property. An area where there are no structures, but where personal property is stored or where animals are kept and/or maintained without authorization from Valley Water, is also considered an encampment.

2.4 "Habitat" is defined as a place in which the physical, chemical, and/or biological factors which support the survival and/or reproduction of a particular species or biological community is present, including places in which these factors are naturally occurring, places in which these factors have been established by human action, and places in which these factors are actively and intentionally being developed for the purpose of supporting the species or biological community.

SECTION 3: PROHIBITIONS WITHIN WATER RESOURCES PROTECTION ZONES

3.1 Camping is prohibited within the WRPZ to protect the adjacent waterways, water supply facilities, water quality, and riparian corridors.

3.2 The following activities are prohibited in the WRPZ:

(a) Unauthorized establishment of encampments and any depositing of trash, debris, and/or hazardous pollutants related to the establishment or presence of encampments.

(b) Any activity or nuisance that unreasonably disturbs the occupants of neighboring properties, including but not limited to the possession or use of explosives, fireworks, or other toxic or hazardous materials or substances, or use of any loudspeakers, public address systems, sound amplifiers, radio, or broadcast within the WRPZ in such manner that sounds are unreasonably loud or directed beyond the immediate area of the listener, except to the extent appropriate permits are obtained in accordance with any applicable municipal code section.

(c) Any activities that could create a hazard or potential hazard to Valley Water employees or the public, or that could interfere with, obstruct, or prevent the safe operation of Valley Water facilities, including but not limited to buildings or habitat, or its activities associated with water quality, environmental stewardship, or flood risk reduction.

(d) Any unlawful activities.

SECTION 4: ENFORCEMENT/REGULATION OF WATER RESOURCES PROTECTION ZONES

4.1 For violations of the prohibitions set forth in Section 3, the following enforcement procedures apply. In steps (a) and (b) below, Valley Water will provide opportunities for a violator of the Ordinance to voluntarily relocate or otherwise remedy a violation before any enforcement actions in step (c) are pursued.

(a) Warning, Education, and Notice

For violations of the prohibited activities in Sections 3.2(a) – (c), Valley Water will first employ an educational approach, providing a single warning. The warning will include information on Ordinance requirements, resources for identifying Valley Water lands, and a request to relocate the encampment or cease other prohibited activities. For any unauthorized encampment in violation of Section 3.2(a), Valley Water will post a written notice of scheduled cleanup and removal concurrently with the warning and education.

(b) Time Period for Voluntary Relocation or Remedy

If an encampment in violation of Section 3.2(a) of this Ordinance is not voluntarily relocated after Valley Water has provided warning, education, and notice pursuant to step 4.1(a), and after a period of seventy-two (72) hours has passed, Valley Water will proceed with its encampment removal protocol, which includes collaborating with other local agencies, arranging for the processing and storage of identifiable personal belongings, and encampment cleanup and removal. Any violation of Sections 3.2(b) – (c) must be remedied by the violating party upon receiving warning and education from Valley Water. A potential violation of Section 3.2(d) will be referred to law enforcement officers for immediate enforcement.

(c) Violation a Misdemeanor

If the prohibited activities set forth in Sections 3.2(a) – (c) persist after the time period for voluntary relocation or remedy in Section 4.1(b), or immediately upon observation of a violation of Section 3.2(d), law enforcement officers may enforce this Ordinance against any person in violation of any of the provisions herein. It is a misdemeanor for any person to violate any Valley Water ordinance adopted pursuant to Section 9(b) of the District Act after the effective date of the ordinance. Any violation of this Ordinance is punishable by a fine not exceeding five hundred dollars ($500), or imprisonment in the county jail not to exceed thirty (30) days, or both that fine and that imprisonment. Any violation or threatened violation may also be enjoined by civil action. The prosecutor may in his or her discretion specify that the offense is an infraction.

SECTION 5: SEVERABILITY

If any section or provision of this Ordinance is held to be unconstitutional or invalid, that finding will not affect the validity of the Ordinance as a whole nor any part thereof, other than the part held to be unconstitutional or invalid.

SECTION 6: EFFECTIVE DATE

PASSED AND ADOPTED by the Board of Directors of the Santa Clara Valley Water District by the following vote on July 9, 2024, and effective thirty (30) days after adoption pursuant to Section 9 of the District Act:

AYES: Directors

NOES: Directors

ABSENT: Directors

ABSTAIN: Directors

SANTA CLARA VALLEY WATER DISTRICT

NAI HSUEH
Chair, Board of Directors

ATTEST: MICHELE L. KING, CMC

Clerk, Board of Directors

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Water Resources Protection Zones Ordinance

Valley Water Board of Directors
July 9, 2024

Valley Water

Proposed WRPZ Ordinance

- Establishes “water resources protection zones” (WRPZ) to reduce encampments and prevent re-encampments along creeks and waterways
- Prohibits other activities that negatively impact the environment, Valley Water staff safety, and surrounding communities
- Ordinance goals:
  - Protect water resources, endangered species, riparian habitat of creeks and waterways, and other ecological resources
  - Protect Valley Water investments in environmental mitigation
  - Support and improve the safety of Valley Water’s field operations staff

Collaboration on Solutions to Homelessness

- Valley Water is committed to using its environmental stewardship power to protect our waterways in collaboration with cities and the County as they fulfill their housing and social service roles
- Holistic solutions to homelessness remain in progress; Valley Water will continue to collaborate with governmental and private partners to develop housing or shelter alternatives
- Long-term solutions are in development; but Valley Water must act now to fulfill its obligations as an environmental steward and to ensure the safety of field staff

Ordinance Enforcement

- Intent of WRPZ Ordinance is not criminalization, but rather relocation of encampments or cessation of prohibited activities to minimize water quality impacts, protect riparian habitat, and ensure field operations staff safety
- Valley Water's educational approach will include:
  - Issuance of a warning
  - Information on activities prohibited by the Ordinance
  - Help identifying Valley Water lands where Ordinance prohibitions apply
  - An opportunity to relocate or self-remedy any violations
- Even if escalated enforcement is warranted, the prosecutor may still exercise discretion to specify that an offense is merely an infraction rather than a misdemeanor

QUESTIONS

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Michele King

Subject: FW: Encampments on Penitencia Creek

From: Susan Anderson Chen <sanderchen@comcast.net>
Sent: Thursday, June 6, 2024 10:05 PM
To: Richard Santos <rsantos@valleywater.org>; Mark Bilski <MBilski@valleywater.org>; Jennifer Codianne <JCodianne@valleywater.org>
Cc: mkraus94@gmail.com
Subject: Encampments on Penitencia Creek

Dear Director Santos and Staff,

Several weeks ago, I learned that the Penitencia Neighborhood Association was sending letters in support of the Proposed Water Resources Protection Zones Ordinance to strengthen your stand on removing encampments located on Valley Water's property along the creek banks in San Jose.

While not a member of the Penitencia Neighborhood Association, our community is also near Penitencia Creek, and I would like to share some of the impacts the close proximity of campers have had on our residents. I am a volunteer board member of the Creekside Station at Berryessa Owners Association. Our community of 113 townhomes is located north of Penitencia Creek between North Capitol Avenue and I-680. Since abatements were halted in 2020, dealing with disruptions caused by the campers has taken a considerable amount of the board's time and the association's money.

Not all the campers who have caused problems for us are located on Valley Water's property along the creek. There are other jurisdictions where we have seen camper activity, but the creek seems to be a base that attracts people to the other surrounding properties.

These are some of the things we are experiencing:

Fire Danger and Smoke
In the past two years, we have had two grass fires that started between the creek and our community that very nearly reached one of our buildings. One of the fires singed some of our landscaping. Each spring and summer, I make calls or file online requests to the appropriate jurisdictions to have the tall grasses mowed before they dry out. I have made several calls in the past year to report fires that look like they are out of control or could easily spread. I've stood and watched brush fires burn, weighing whether to start knocking on neighbors' doors and trying to remain calm while waiting for the fire department to arrive.

We are concerned that an insurance inspector will make note of the camps, and our property/liability coverage will be cancelled.

On warm evenings when we want to open our windows and turn off the air conditioning, we are often unable to do so because of smoke from the campfires. We worry about the effects of frequently breathing in smoke from the fires, not only in our homes, but also while out in the community.

Noise

A number of residents have told me they have been awakened by people talking loudly, arguing, or ranting to no one in particular. Sometimes we hear loud music, and often, we hear fireworks or banging noises.

Trespassing
People regularly pass through our community to get to the creek. We have found people sleeping on our front porches, and we've found clothing items, trash and drug paraphernalia in front of homes. A few people park their cars in the community while apparently living at the creek. One man walked into a real estate agent's open house wearing only shorts.

Electricity Theft
Last year, some campers re-routed electricity from outdoor lighting along our sound wall to their camps. After paying several times to have the light fixtures that were damaged repaired, we ultimately chose to re-route the wiring to all the fixtures to make it more difficult to tap into the electricity. This cost our association over $15,000, more than twice our annual budget for lighting maintenance.

I've had several reports of people coming here to use the electrical outlets located on the front porches of homes.

Use of Community Park and Playground
Some residents recently called 911 when they witnessed a camper sitting on a bench next to the playground holding a machete. The same man has also been seen carrying an axe through the community.

Several people told me they saw a man relieving himself on the shrubs within clear sight of our playground, and I have witnessed this myself at least three times, even while there was a porta-potty a short distance away.

Parents visiting the playground with their children feel the constant need to be cautious and watchful, and they sometimes find themselves cutting their visits short due to uncomfortable situations either at the camps or with campers entering our property. Older children are rarely permitted to use the park while unattended.

We have a barbecue and gazebo for picnics that sit largely unused. The electricity and water have been shut off since 2020, and we no longer allow use of the propane grill. We installed a lock on the hose bib for a planting box in the park after campers left hoses with water spraying there several times.

Use of Public Trails
Most residents of our community no longer feel comfortable or safe using the Penitencia Creek Trail between North Capitol Avenue and I-680, which is also our most direct pedestrian/bike route to Independence High School and the BART station.

Fence Replacement
We are currently getting proposals to replace the fence between our community park and the County Parks property along the creek. There is nothing wrong with the fence, but residents feel we need a stronger, taller fence to make it more difficult for campers to enter our property from the creek area. From the initial proposals, this is looking like it could be a $30,000+ project.

Security Patrols
The board has periodically weighed getting security patrols in the community to prevent trespassing, but doing so would require an increase in homeowner dues, and we are unsure how much impact patrols would have.

I hope this gives you some idea of the kind of stress that those of us living near the camps are facing. We know that a relatively small number of campers account for most of these issues, but as we've seen the number of unhoused neighbors grow, the problems have become more frequent and serious. Thanks for your time and attention.

Sincerely,

Susan Anderson Chen
Creekside Station at Berryessa Owners Association
San Jose
408-771-6109

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Santa Clara Valley Water District

File No.: 24-0027

Agenda Date: 7/9/2024
Item No.: 4.1.

BOARD AGENDA MEMORANDUM

Government Code § 84308 Applies: Yes ☐ No ☒
(If "YES" Complete Attachment A - Gov. Code § 84308)

SUBJECT:
Adopt Recommended Positions on State Legislation: AB 2813 (Aguiar-Curry) Government Investment Act, and Other Legislation Which May Require Urgent Consideration for a Position by the Board.

RECOMMENDATION:
Adopt a position of "Support" on: AB 2813 (Aguiar-Curry) Government Investment Act.

SUMMARY:
AB 2813 (Aguiar-Curry) Government Investment Act (Amended-06/26/24)
Position Recommendation: Support
Priority Recommendation: 2

AB 2813 would enact statutory provisions to guide the implementation of ACA 1 (Aguiar-Curry, 2023). AB 2813 would go into effect only if California voters pass ACA 1 in the statewide General Election on November 5, 2024. ACA 1 proposes to the California voters an amendment to the California Constitution to enable general obligation bonds, used for affordable housing and public infrastructure, to be enacted with a 55 percent vote threshold, versus the current two-thirds vote threshold now required. ACA 1 would apply to general obligation bonds proposed by a city, a county, or a special district, including Valley Water.

AB 2813 would define "affordable housing" as including, but not limited to, rental housing, ownership housing, interim housing, and affordable housing programs such as downpayment assistance, first-time homebuyer programs, and owner-occupied affordable housing rehabilitation programs. The bill also requires a local government to ensure that projects funded with ACA 1 bonded indebtedness have an estimated useful life of at least fifteen years, with exceptions for facilities and equipment for emergency response, which must have an estimated useful life of a minimum of five years.

AB 2813 would require a local government to appoint a citizens' oversight committee within 60 days of the certification of an election approving ACA 1 bonded indebtedness. The citizens' oversight

committee would be provided administrative as well as technical assistance and resources from the governing board of the local government. This assistance would be provided without expending proceeds derived from the ACA 1 bonded indebtedness. AB 2813 specifies that, notwithstanding any other provision of law, ACA 1 bonded indebtedness in combination with the existing bonded indebtedness of a local government shall not exceed the applicable statutory limit on the maximum amount of bonded indebtedness that a local government may incur.

Importance to Valley Water

ACA 1, if approved by the voters, would enable general obligation bonds proposed by the Valley Water Board pursuant to the District Act to pass with a 55 percent vote threshold. The change from a two-thirds to a 55 percent vote threshold increases the likelihood that general obligation bonds would be enacted. These bonds, that would be passed pursuant to ACA 1, would adhere to the implementation guidance in AB 2813.

Notably, AB 2813 expands the definition of “affordable housing” to include interim housing. This change is crucial to help address encampments of unsheltered individuals located along waterways in Santa Clara County. Interim housing stands as the primary first step to getting an unsheltered person into housing and services, regardless of whether it is constructed by a city, the County of Santa Clara, or Valley Water. Due to the critical need for interim housing in Santa Clara County and the serious harm to water quality and to species caused by encampments, AB 2813’s inclusion of interim housing in the definition of “affordable housing” for the purposes of ACA 1 implementation is a critical change that may help provide much needed general obligation bond funding to address the human and environmental tragedy of homelessness in Santa Clara County.

Staff recommends a position of “Support” on AB 2813.

Pros

- Adds interim housing to the definition of “affordable housing”.
- Provides a framework for how to operate citizens’ oversight committees.

Cons

- Exempts some costs of the citizens’ oversight committee from being paid for with bond proceeds.

ENVIRONMENTAL JUSTICE AND EQUITY IMPACT:
There are no Environmental Justice impacts associated with this item.

FINANCIAL IMPACT:
There is no financial impact associated with this item.

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:
None.

UNCLASSIFIED MANAGER:
Marta Lugo, 408-630-2237

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Santa Clara Valley Water District

File No.: 24-0629

Agenda Date: 7/9/2024
Item No.: 4.2.

BOARD AGENDA MEMORANDUM

Government Code § 84308 Applies: Yes ☐ No ☒
(If "YES" Complete Attachment A - Gov. Code § 84308)

SUBJECT:
Grant the Application for Leave to File Late Claim for Claim of Hortense Vasquez on Behalf of Michael Baughman and Deny the Claim on the Merits.
(Continued From June 25, 2024.)

RECOMMENDATION:
A. Grant the application to file a late claim of Hortense Vasquez on behalf of Michael Baughman; and
B. Deny the claim on the merits.

SUMMARY:
Santa Clara Valley Water District (Valley Water) received a claim from Ms. Hortense Vasquez on behalf of Michael Baughman on April 16, 2024. The claim was for fire damage to carports at the Waterbury Apartments located at 3673 Waterbury Court in San Jose. The fire was allegedly caused by unhoused individuals. The date of loss according to the clam form was "around October 2023." Staff researched the date of loss using Valley Water records from the October 2023 time period and it was determined to be on or about October 5, 2023. Based on the date of loss and receipt of claim, the claim was eleven days late.

On April 17, 2024, staff informed Ms. Vasquez that her claim was being returned without action as it was not presented within six months after the loss event or occurrence as required by law. Ms. Vasquez was also informed that she could apply to the Board of Directors to present a late claim. Shortly thereafter on April 21, 2024, Ms. Vasquez emailed the Board of Directors stating that the only defense for the late claim was that she was not aware of the six-month statute of limitations.

Government Code Section 911.2 states that a claim relating to . . . injury or to personal property . . . shall be presented . . . not later than six months after the accrual of the cause of action. Government Code Section 911.4-911.6 states that, when a claim is not presented within the six-month window, the claimant can apply to the Board and that the board shall grant an application for a late claim where the failure to present the claim was through mistake, inadvertence, surprise or excusable neglect and the public entity was not prejudiced in its defense of the claim. Reasonable diligence by claimant is

required to make such a showing. See *Tsingaris v. State of California* (1979) 91 Cal. App. 3d 312.

One of the main purposes of the claim submission deadline is to ensure public entities can timely investigate and attempt to resolve claims. *City of San José v. Sup. Ct.*, 12 Cal.3d 447, 455 (1974). Even if a claimant presents a valid excuse for their untimeliness, the application may still be denied if the delay prevents the public entity from being able to adequately investigate the claim.

Here, while the lack of knowledge of legal deadlines is generally not excusable neglect, here there is no prejudice to Valley Water because it was already aware of the circumstances giving rise to the claim dating back to October. Therefore, staff is not opposed to the granting of the application to file a late claim.

However, even if the claim had been timely submitted, the claim would have been substantively defective because Valley Water is not responsible for the acts of independent third parties, particularly when there are allegations of potentially criminal behavior. Staff therefore recommends that the claim be denied on the merits.

ENVIRONMENTAL JUSTICE AND EQUITY IMPACT:
There are no Environmental Justice Impacts associated with this item.

FINANCIAL IMPACT:
There is no financial impact associate with this item.

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: Claim
Attachment 2: Application for Leave to File Late Claim

UNCLASSIFIED MANAGER:
J. Carlos Orellana, 408-630-2755

CLAIM AGAINST THE SANTA CLARA VALLEY WATER DISTRICT
California Government Code Sections 900 and following

Valley Water

	Clerk of the Board's Date Stamp

The completed form can be mailed, sent electronically or hand delivered. Mail or deliver to:

Clerk of the Board
Santa Clara Valley Water District-HQ
5700 Almaden Expressway
San Jose, CA 95118

Or submit the completed form electronically to:
clerkoftheboard@valleywater.org

For SCVWD Use Only	
Date Received:	**ROUTING**
☐ Via U.S. Mail	☐ CEO
☐ Hand Delivered	☐ District Counsel
☐ Email	☐ Risk Management
☐ Other: _____	☐ COB
	☐ BOD (District #): _____

With certain exceptions, claims for personal injury or property damage MUST be filed within six months of the incident giving rise to the claim*. Claimant must complete each section. If information is unknown, write "unknown" in the appropriate box. Please use additional pages if necessary. Please attach itemized receipts, witness statements, photos and all other documentation that you believe will be helpful to process your claim. Claimant MUST sign and date the form; see last page.*

Name of Claimant: Hortense Vasquezfor M Baughman	Email Address: hortense.vasquez@yahoo.com		
Address of Claimant: 3674 Waterbury Ct	City: San Jose	State: CA	Zip: 95117
Address to which Notices should be sent, if different from above: PO Box 1323	City: Morgan Hill	State: Ca	Zip: 95038
Home Phone Number:	Cell Phone Number: 408-603-8888	Work Phone Number:	
Is this claim being filed on behalf of a minor? ☐ Yes ☒ No	If so, please indicate minor's date of birth: Relationship to the minor:		
Date and time of incident or loss: Around October 2023	Location of incident or loss (address): Carport of 3673 Waterbury Ct San Jose, CA 95117	Is there a police report? ☐ Yes If Yes, Police Report Case #: ☒ No	

Describe how the incident or loss happened, and the reason you believe the Santa Clara Valley Water District is responsible for your damages (*Please attach additional sheets if necessary*):

There has been homeless people living on the Valley Water property on San Tomas Expressway. The homeless get to the area thru the Waterbury Apartments, thru the gate on the left side or the fence on the right side of 3674 Waterbury Ct (same owner Michael Baughman).
For the last few years, Valley Water has repaired many many times the gate and fence. Last year the fence was replaced by Valley Water with an expanded metal fnence which seems to have done the trick for the 3674 iside of the property as far as damage. I hear tenants say the homeless are piggy backing and are jumping it.
In 2021 the fire department was being called by tenants almost on a daily basis because the homeless were building bonfires every night. The police was also called but thehomeless would quickly go to your property and the police said they could not do anything unless they were on the Waterbury property.
I do not know what exactly happened in October of last year but was labeled as an explosion. This enabled Mr. Snyder to remove the homeless, remove the garbage, trim, all the trees and bushes and paint the wall from all the graffiti (the walls are painted for graffiti every few months). Mr Snyder told me that Mr. Cahen would contact me in regards to the damage to the carports, this never happened and I did not follow up.
I sent a note to Mr. Snyder last night about homeless again and he asked me about the dmage to the carport, which prompt me reaching out about the damage.

Valley Water

CLAIM AGAINST THE SANTA CLARA VALLEY WATER DISTRICT
California Government Code Sections 900 and following

In detail, describe the damage or injury *(Please attach additional sheets if necessary)*:
I understand Mr. Snyder has sent you pictures.

List Name(s) and contact information of any witness(es) or District employee involved (if any):
Ron Snyder

DAMAGES CLAIMED: Basis for computation of amounts claimed (include copies of bills, invoices, estimates, receipts, photos, police case # or other documentation.) Note: If your claim is more than $10,000, you need not fill in an amount, but must state whether jurisdiction for the claim would be in the Limited Jurisdiction (up to $25,000) or Unlimited jurisdiction of the Superior Court.

Is the amount of the claim under $10,000? ☐ Yes ☐ No
Court Jurisdiction: (Check One) ☐ Limited Civil ☐ Unlimited Civil

ITEMS	CLAIM AMOUNT
1.	$
2.	$
3.	$
4.	$
TOTAL AMOUNT	$

WARNING: IT IS A CRIMINAL OFFENSE TO FILE A FALSE OR FRAUDULENT CLAIM (Penal Code Section 72 and 550)

I have read the matters and statements made in the above claim and I know the same to be true of my own knowledge, except to those matters stated upon information and belief and as to such matters I believe the same to be true. I certify under penalty of perjury that the foregoing is TRUE and CORRECT.

Signed this 15 day of April , 20 24 DocuSigned by: Hortense Vasquez F3C8FE63C2C94A8... _____
Claimant's Signature

Government Code Section 945.6 provides that, with limited exceptions, any suit brought against a public entity must be commenced:

(1) If written notice is given of a denial of claim in accordance with **Section 913**, not later than six months after the date such notice is personally delivered or deposited in the mail.
(2) If written notice is not given of a denial of claim in accordance with **Section 913**, within two years from the accrual of the cause of action.

Michele King

From: Hortense Vasquez <hortense.vasquez@yahoo.com>
Sent: Sunday, April 21, 2024 6:27 PM
To: Board of Directors
Cc: Lilian Dennis; Ronald Snyder
Subject: Claim done by the homeless at 3673 Waterbury Ct., San Jose, CA
Attachments: Current Claim Form (07-10-23)_Fillable Copy.pdf; 4.17.24 Late Claim Letter.pdf

I am being told by Ms. Dennis that the claim was denied because it was past the six months. since the incident.
The only defense for the late claim was that I did not know I had only 6 months to file a claim, otherwise you can be sure I would have done it on time.
Santa Clara Water District has always repair the damage done by the homeless thru out the years, and I sent several letters saying something big was bound to happen because the homeless were building bonfires every night and the fire department was being called almost nightly.
I do not think you need me to go thru the incident again, I am including the form I filled out and all the correspondence sent to me by Ms. Dennis.

I hope you will reconsider the decision.
Thank you very much
Hortense Vasquez
408-603-8888

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	Clerk of the Board's Date Stamp	
The completed form can be mailed, sent electronically or hand delivered. Mail or deliver to: Clerk of the Board Santa Clara Valley Water District-HQ 5700 Almaden Expressway San Jose, CA 95118 Or submit the completed form electronically to: **clerkoftheboard@valleywater.org**	**For SCVWD Use Only**	
	Date Received:	**ROUTING**
	☐ Via U.S. Mail	☐ CEO
	☐ Hand Delivered	☐ District Counsel
	☐ Email	☐ Risk Management
	☐ Other: _____	☐ COB
		☐ BOD (District #): _____

With certain exceptions, claims for personal injury or property damage MUST be filed within six months of the incident giving rise to the claim*. Claimant must complete each section. If information is unknown, write "unknown" in the appropriate box. Please use additional pages if necessary. Please attach itemized receipts, witness statements, photos and all other documentation that you believe will be helpful to process your claim. Claimant MUST sign and date the form; see last page.*

Name of Claimant: Hortense Vasquezfor M Baughman		Email Address: hortense.vasquez@yahoo.com	
Address of Claimant: 3674 Waterbury Ct	City: San Jose	State: CA	Zip: 95117
Address to which Notices should be sent, if different from above: PO Box 1323	City: Morgan Hill	State: Ca	Zip: 95038
Home Phone Number:	Cell Phone Number: 408-603-8888	Work Phone Number:	
Is this claim being filed on behalf of a minor? ☐ Yes ■ No	If so, please indicate minor's date of birth: Relationship to the minor:		
Date and time of incident or loss: Around October 2023	Location of incident or loss (address): Carport of 3673 Waterbury Ct San Jose, CA 95117	Is there a police report? ☐ Yes If Yes, Police Report Case #: ■ No	

Describe how the incident or loss happened, and the reason you believe the Santa Clara Valley Water District is responsible for your damages (*Please attach additional sheets if necessary*):

There has been homeless people living on the Valley Water property on San Tomas Expressway. The homeless get to the area thru the Waterbury Apartments, thru the gate on the left side or the fence on the right side of 3674 Waterbury Ct (same owner Michael Baughman).
For the last few years, Valley Water has repaired many many times the gate and fence. Last year the fence was replaced by Valley Water with an expanded metal fnence which seems to have done the trick for the 3674 iside of the property as far as damage. I hear tenants say the homeless are piggy backing and are jumping it.
In 2021 the fire department was being called by tenants almost on a daily basis because the homeless were building bonfires every night. The police was also called but thehomeless would quickly go to your property and the police said they could not do anything unless they were on the Waterbury property.
I do not know what exactly happened in October of last year but was labeled as an explosion. This enabled Mr. Snyder to remove the homeless, remove the garbage, trim, all the trees and bushes and paint the wall from all the graffiti (the walls are painted for graffiti every few months). Mr Snyder told me that Mr. Cahen would contact me in regards to the damage to the carports, this never happened and I did not follow up.
I sent a note to Mr. Snyder last night about homeless again and he asked me about the dmage to the carport, which prompt me reaching out about the damage.

In detail, describe the damage or injury *(Please attach additional sheets if necessary)*:
I understand Mr. Snyder has sent you pictures.

List Name(s) and contact information of any witness(es) or District employee involved (if any):
Ron Snyder

DAMAGES CLAIMED: Basis for computation of amounts claimed (include copies of bills, invoices, estimates, receipts, photos, police case # or other documentation.) Note: If your claim is more than $10,000, you need not fill in an amount, but must state whether jurisdiction for the claim would be in the Limited Jurisdiction (up to $25,000) or Unlimited jurisdiction of the Superior Court.

Is the amount of the claim under $10,000? ☐ Yes ☐ No
Court Jurisdiction: (Check One) ☐ Limited Civil ☐ Unlimited Civil

ITEMS	**CLAIM AMOUNT**
1.	$
2.	$
3.	$
4.	$
TOTAL AMOUNT	$

WARNING: IT IS A CRIMINAL OFFENSE TO FILE A FALSE OR FRAUDULENT CLAIM (Penal Code Section 72 and 550)

I have read the matters and statements made in the above claim and I know the same to be true of my own knowledge, except to those matters stated upon information and belief and as to such matters I believe the same to be true. I certify under penalty of perjury that the foregoing is TRUE and CORRECT.

Signed this 15 day of April , 20 24

Claimant's Signature

Government Code Section 945.6 provides that, with limited exceptions, any suit brought against a public entity must be commenced:

(1) If written notice is given of a denial of claim in accordance with **Section 913**, not later than six months after the date such notice is personally delivered or deposited in the mail.
(2) If written notice is not given of a denial of claim in accordance with **Section 913**, within two years from the accrual of the cause of action.

April 17, 2024

EMAIL: hortense.vasquez@yahoo.com

Hortense Vasquez
obo Michael Baughman
P.O. Box 1323
Morgan Hill, CA 95038

Re: Late Claim

Dear Ms. Vasquez:

The claim which was presented to the Santa Clara Valley Water District on April 16, 2024 is being returned because it was not presented within six (6) months after the event or occurrence as required by law. See sections 901 and 911.2 of the Government Code. Because the claim was not presented within the time allowed by law, no action was taken on the claim.

WARNING

Your only recourse at this time is to apply without delay to Valley Water's Board of Directors for leave to present a late claim. See sections 911.4 to 912.2, inclusive, and section 946.6 of the Government Code. Under some circumstances, leave to present a late claim may be granted. See Government Code section 911.6.

If you have any questions, you can contact the Risk Management Unit at (408) 630-2652 or at RiskManager@valleywater.org.

Sincerely,

Lilian Dennis

Lilian Dennis
Management Analyst II
Risk Management Unit

Enc: Claim

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Santa Clara Valley Water District

File No.: 24-0581

Agenda Date: 7/9/2024
Item No.: 4.3.

BOARD AGENDA MEMORANDUM

Government Code § 84308 Applies: Yes ☐ No ☒
(If "YES" Complete Attachment A - Gov. Code § 84308)

SUBJECT:
Receive the Independent Auditor's Reports Related to Santa Clara Valley Water District's Annual Comprehensive Financial Report for the Fiscal Year Ended June 30, 2023.

RECOMMENDATION:
Receive the Independent Auditor's reports related to Santa Clara Valley Water District's Annual Comprehensive Financial Report for the Fiscal Year ended June 30, 2023.

SUMMARY:
On January 9, 2024, the Board accepted the Annual Comprehensive Financial Report (ACFR) for the fiscal year ended June 30, 2023, which was audited by Santa Clara Valley Water District's (Valley Water) external auditor, Vasquez and Company. The external auditor has prepared additional assurance letters and reports, in accordance with attestation standards established by the American Institute of Certified Public Accountants. Those reports, which were not available for the January 9, 2024, Board meeting, are attached (See Attachments 1 through 4).

ENVIRONMENTAL JUSTICE AND EQUITY IMPACT:
There are no Environmental Justice impacts associated with this item.

FINANCIAL IMPACT:
Auditing services costs are included in the FY 2023-24 budget.

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: Investment Policy Compliance

Attachment 2: Article XIII-B Appropriations Procedure
Attachment 3: Compensation and Benefits Compliance
Attachment 4: Flood Control Master Resolution Compliance

UNCLASSIFIED MANAGER:
Darin Taylor, 408-630-3068

Santa Clara Valley Water District
Independent Accountant's Report on Agreed-Upon Procedures Applied to Treasurer's Reports
Year Ended June 30, 2023

VASQUEZ + COMPANY LLP

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Santa Clara Valley Water District
Independent Accountant's Report on Agreed-Upon Procedures
Applied to Treasurer's Reports
Year Ended June 30, 2023

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Independent Accountant's Report on Agreed-Upon Procedures Applied to Treasurer's Reports

To the Board of Directors
Santa Clara Valley Water District
San Jose, California

We have performed the procedures enumerated below to the Santa Clara Valley Water District's (the District) Quarterly Treasurer's Reports. Management of the District is responsible for the preparation of the Quarterly Treasurer's Reports.

The District has agreed to and acknowledged that the procedures performed are appropriate to meet the intended purpose of evaluating the District's compliance with the provisions of the California Government Code, the District's Investment Policy and the District's Staff Investment Guidelines related to the Quarterly Treasurer's Reports for the year ended June 30, 2023. This report may not be suitable for any other purpose. The procedures performed may not address all of the items of interest to a user of this report and may not meet the needs of all users of this report and, as such, users are responsible for determining whether the procedures performed are appropriate for their purposes.

The procedures and associated findings are as follows:

1. We obtained the four Quarterly Treasurer's Reports (quarterly reports) for the year ended June 30, 2023. For each of the four quarterly reports, we performed the following:

    a. Compared the investments reported in the Quarterly Treasurer's Report to the investments allowed in the California Government Code Sections 53601 and 53646.
    b. Compared the investments reported in the Quarterly Treasurer's Report to the investments allowed by the District's Investment Policy.
    c. Compared the investments reported in the Quarterly Treasurer's Report to the investments allowed by the District's Investment Manual Policies and Desk Procedures.

    Result
    No exceptions were noted as a result of performing this procedure.

We were engaged by the District to perform this agreed-upon procedures engagement and conducted our engagement in accordance with attestation standards established by the American Institute of Certified Public Accountants. We were not engaged to and did not conduct an examination or review engagement, the objective of which would be the expression of an opinion or conclusion, respectively, on the District's compliance with the California Government Code and the District's investment policy and guidelines as of June 30, 2023. Accordingly, we do not express such an opinion or conclusion. Had we performed additional procedures, other matters might have come to our attention that would have been reported to you.

We are required to be independent of the District and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements related to our agreed-upon procedures engagement.

This report is intended solely for the information and use of the Board of Directors and management of the District, and is not intended to be, and should not be, used by anyone other than those specified parties.

Vasquez & Company LLP

Glendale, California
December 20, 2023

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Santa Clara Valley Water District
Independent Accountant's Report on Agreed-Upon Procedures Applied to Article XIII B Appropriations Limit Calculation
Year Ended June 30, 2023

VASQUEZ + COMPANY LLP

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Santa Clara Valley Water District
Independent Accountant's Report on Agreed-Upon Procedures
Applied to Article XIII B Appropriations Limit Calculation
Year Ended June 30, 2023

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+ COMPANY LLP

Independent Accountant's Report on Agreed-Upon Procedures Applied to Article XIII B Appropriations Limit Calculation

To the Board of Directors
Santa Clara Valley Water District
San Jose, California

We have performed the procedures enumerated below to the accompanying Article XIII B Appropriations Limit Calculation of the Santa Clara Valley Water District (the "District") for the year ended June 30, 2023. The District's management is responsible for the Article XIII B Appropriations Limit Calculation.

The District's management and the League of California Cities (League) (as presented in the League's publication entitled *Agreed-Upon Procedures Applied to the Appropriations Limitation Prescribed by Article XIII B of the California Constitution)* have agreed to and acknowledge that the procedures performed are solely to assist the District in meeting the requirements of Section 1.5 of Article XIII B of the California Constitution. This report may not be suitable for any other purpose. The procedures performed may not address all the items of interest to a user of this report and may not meet the needs of all users of this report and, as such, users are responsible for determining whether the procedures performed are appropriate for their purposes.

The procedures and associated findings are as follows:

1. We obtained the District's calculation of the Article XIII B Appropriations Limit for the year ended June 30, 2023 and compared the limit and annual adjustment factors included in that calculation to the limit and annual adjustment factors that were adopted by the resolution of the Board of Directors. We also compared the population and inflation options included in the aforementioned calculation to those that were selected by a recorded vote of the Board of Directors.

   Result: No exceptions were noted as a result of performing this procedure. The inflation factor used by the District in the calculation of the Article XIII B Appropriations Limit was the percentage change in California per capita personal income of 7.55 percent and the Santa Clara County (County) population percentage change over the prior year of (0.69) percent.

2. For the accompanying Article XIII B Appropriations Limit Calculation, we added last year's limit to the total adjustments and compared the resulting amount to this year's limit. We also recalculated the adjustment factor and the adjustment for inflation and population and compared the results with the District's calculation.

   Result: No exceptions were noted as a result of performing this procedure.

3. We compared the prior year appropriations limit presented in the accompanying Article XIII B Appropriations Limit Calculation to the prior year appropriations limit adopted by the Board of Directors for the prior year.

   Result: No exceptions were noted as a result of performing this procedure.

We were engaged by the District's management to perform this agreed-upon procedure engagement and conducted our engagement in accordance with the attestation standards established by the American Institute of Certified Public Accountants. We were not engaged to, and did not conduct an examination or review engagement, the objective of which would be the expression of an opinion or conclusion, respectively, on the accompanying Article XIII B Appropriations Limit Calculation. Accordingly, we do not express such an opinion or conclusion. Had we performed additional procedures, other matters might have come to our attention that would have been reported to you. No procedures have been performed with respect to the determination of the appropriations limit for the base year, as defined by Article XIII B of the California Constitution.

We are required to be independent of the District and to meet our other ethical responsibilities, in accordance with relevant ethical requirements related to our agreed-upon procedures engagement.

This report is intended solely for the use of the Board of Directors and management of the District and is not intended to be, and should not be, used by anyone other than these specified parties. However, this report is a matter of public record, and its distribution is not limited.

Vasquez & Company LLP

Glendale, California
December 20, 2023

Appropriations limit for fiscal year ended June 30, 2022				$	175,348,489
Adjustments factors for the fiscal year ended June 30, 2023					
Inflation Factor (Note 3)	Population Factor (Note 4)	Combined Factor			
1.0755	0.9931	1.0681			0.06810
Adjustment for inflation and population					11,941,232
Other adjustments					-
Total adjustments					11,941,232
Appropriations limit for fiscal year ended June 30, 2022				$	187,289,721

NOTE 1 PURPOSE OF LIMITED PROCEDURES REVIEW

Under Article XIII B of the California Constitution (the Gann Spending Limitation Initiative), California governmental agencies are restricted as to the amount of annual appropriations from proceeds of taxes. Effective for years beginning on or after July 1, 1990, under Section 1.5 of Article XIII B, the annual calculation of the appropriations limit is subject to an agreed-upon procedures review in connection with the annual audit.

NOTE 2 METHOD OF CALCULATION

Under Section 10.5 of Article XIII B, for fiscal years beginning on or after July 1, 1990, the appropriations limit is required to be calculated based on the limit for the fiscal year 1986-87, adjusted for the inflation and population factors discussed in Notes 3 and 4 below.

NOTE 3 INFLATION FACTOR

A California governmental agency may adjust its appropriations limit by either the annual percentage change in the 4th quarter per capita personal income (which percentages are supplied by the State Department of Finance), or the percentage change in the local assessment roll from the preceding year due to the change of local nonresidential construction. The factor adopted by the District for the fiscal year 2022-2023 is the percentage change in the State of California's per capita personal income.

NOTE 4 POPULATION FACTOR

A California governmental agency may adjust its appropriations limit by either the annual percentage change of the jurisdiction's own population or the annual percentage change in population in the County where the jurisdiction is located. The factor adopted by the District for the fiscal year 2022-2023 represents the Santa Clara County population percentage change over the prior year.

NOTE 5 OTHER ADJUSTMENTS

A California government agency may be required to adjust its appropriations limit when certain events occur, such as the transfer of responsibility for municipal services to, or from, another government agency or private entity. The District had no such adjustments for the year ended June 30, 2023.

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Santa Clara Valley Water District
Independent Accountant's Report on Agreed-Upon Procedures Applied to the Board Policy on Executive Limitations Over Compensation and Benefits
Year Ended June 30, 2023

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Santa Clara Valley Water District
Independent Accountant's Report on Agreed-Upon Procedures
Applied to the Board Policy on Executive Limitations
Over Compensation and Benefits
Year Ended June 30, 2023

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Independent Accountant's Report on Agreed-Upon Procedures
Applied to the Board Policy on Executive Limitations Over Compensation and Benefits

To the Board of Directors
Santa Clara Valley Water District
San Jose, California

We have performed the procedures enumerated below related to the Chief Executive Officer (CEO) of the Santa Clara Valley Water District's (the District) compliance with the requirements of the Board Policy on Executive Limitations Over Compensation and Benefits (the Policy) in relation to the compensation and benefits of employees covered under the Policy, as described and interpreted in Attachment A, during the fiscal year ended June 30, 2023. The CEO as the Board Appointed Officer (BAO) of the District is responsible for compliance with those requirements.

The District has agreed to and acknowledged that the procedures performed are appropriate to meet the intended purpose of evaluating the District's compliance with the requirements of the Policy. This report may not be suitable for any other purpose. The procedures performed may not address all of the items of interest to a user of this report and may not meet the needs of all users of this report and, as such, users are responsible for determining whether the procedures performed are appropriate for their purposes.

The procedures and associated findings are as follows:

1. We obtained the Policy and the related BAO's Interpretation of the Board Governance Policies for the year ended June 30, 2023. We performed the following:

    a. Confirmed that the CEO has no capacity to change his or her own compensation and benefits by inspecting the approved Board Agenda Memorandum and Board Resolution providing for the compensation of the CEO.
    b. Confirmed that there were no instances of retaliation against any employee by inquiring with the Human Resources Manager and inspecting board meeting minutes and legal confirmation replies.
    c. Confirmed that the CEO has no capacity to promise or imply permanent or guaranteed employment by inspecting Memorandums of Understanding.
    d. Confirmed that the CEO has no capacity to agree to bargaining unit agreements outside parameters set by the Board by inspecting bargaining unit agreements approved by the Board and Board Resolutions.

Result
No exceptions were noted as a result of performing these procedures.

We were engaged by the District to perform this agreed-upon procedures engagement and conducted our engagement in accordance with attestation standards established by the American Institute of Certified Public Accountants. We were not engaged to and did not conduct an examination or review engagement, the objective of which would be the expression of an opinion or conclusion, respectively, on the District's compliance with the requirements of the Policy as of June 30, 2023. Accordingly, we do not express such an opinion or conclusion. Had we performed additional procedures, other matters might have come to our attention that would have been reported to you.

We are required to be independent of the District and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements related to our agreed-upon procedures engagement.

This report is intended solely for the information and use of the Board of Directors and management of the District, and is not intended to be, and should not be, used by anyone other than those specified parties.

Vasquez & Company LLP

Glendale, California
April 25, 2024

ATTACHMENT A – Board Policy of Executive Limitations Over
Compensation and Benefits and the BAO's Interpretation

The Board's existing Executive Limitation Policy on Compensation and Benefits (EL-3) states that: With respect to compensation and benefits, employment, and the treatment of employees and persons doing work for or on behalf of the District, a BAO shall not cause or allow jeopardy to fiscal integrity or public image. The CEO as the BAO of the District is responsible for compliance with those requirements. Further, without limiting the scope of the foregoing by this enumeration, he or she shall not:

1. Change his or her own compensation and benefits.
2. Retaliate against any employee.
3. Promise or imply permanent or guaranteed employment.
4. Agree to bargaining unit agreements outside parameters set by the Board.

In consideration of this policy as a whole, the CEO's interpretation is that the CEO shall not cause or allow jeopardy to fiscal integrity or public image resulting from not abiding by the prohibitions described in subsections 1-4 of this policy. In other words, if the CEO is in compliance with these prohibitions, it would be reasonable to conclude that the CEO is in compliance with this policy as a whole.

This interpretation is necessary to establish measurable criteria for determining the CEO's compliance with this policy, taken as a whole. The intent is not to limit the scope of the policy but rather to clarify the means by which compliance will be measured.

While subsections 1, 2, and 4 are very clear and require no further interpretation, subsection 3 is rather broad and require further interpretation by the CEO.

3. Promise or imply permanent or guaranteed employment.
   Employment offer letters are clearly written and Memorandums of Understanding with employees do not promise or imply permanent or guaranteed employment.

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Santa Clara Valley Water District
Report on Compliance with Terms, Covenants, Provisions or Conditions, as Described in the Flood Control System Master Resolution, the Trust Agreements and the Installment Purchase Agreement Related to the Certificates of Participation
2012 Series A and 2017 Series A
Year Ended June 30, 2023

VASQUEZ + COMPANY LLP

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Santa Clara Valley Water District
Report on Compliance with Terms, Covenants, Provisions, or Conditions, as Described in the Flood Control System Master Resolution, the Trust Agreements, and the Installment Purchase Agreement Related to the Certificates of Participation 2012 Series A and 2017 Series A
Year Ended June 30, 2023

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Independent Auditor's Report

To the Board of Directors
of the Santa Clara Valley Water District
San Jose, California

We have audited, in accordance with auditing standards generally accepted in the United States of America, the basic financial statements of the Santa Clara Valley Water District (the District) as of and for the year ended June 30, 2023, and have issued our report thereon dated December 20, 2023.

In connection with our audit, nothing came to our attention that caused us to believe that the District failed to comply with the terms, covenants, provisions or conditions as described in the Flood Control System Master Resolution 94-60 dated June 23, 1994, the Trust Agreements dated November 1, 2012 and March 1, 2017, and the Installment Purchase Agreement dated June 15, 1994, which are summarized in Appendix B of the Certificates of Participation 2012 Series A official statement dated November 13, 2012 and Appendix B of the Certificates of Participation 2017 Series A official statement dated February 14, 2017, insofar as they relate to accounting matters. However, our audit was not directed primarily toward obtaining knowledge of such noncompliance. Accordingly, had we performed additional procedures, other matters might have come to our attention regarding the District's noncompliance with the terms, covenants, provisions or conditions of the Flood Control System Master Resolution, the Trust Agreements and the Installment Purchase Agreement as referenced above, insofar as they relate to accounting matters.

This report is intended solely for the information and use of the Board of Directors of the Santa Clara Valley Water District, the Board of Directors of the District Public Facilities Financing Corporation, and District management and is not intended to be and should not be used by anyone other than these specified parties.

Vasquez & Company LLP

Glendale, California
December 20, 2023

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Santa Clara Valley Water District

File No.: 24-0599

Agenda Date: 7/9/2024
Item No.: 4.4.

BOARD AGENDA MEMORANDUM

Government Code § 84308 Applies: Yes ☐ No ☒
(If "YES" Complete Attachment A - Gov. Code § 84308)

SUBJECT:
Consider and Approve Nominations for Two-Year Committee Appointments and Reappointments to the Santa Clara Valley Water Youth Commission.

RECOMMENDATION:
Consider and approve nominations for two-year appointments and reappointments to the Santa Clara Valley Water Youth Commission.

SUMMARY:
In accordance with Board Governance Process Policy-8, Board Committees are established to assist the Board with policy advice, Santa Clara Valley Water District (Valley Water) Mission implementation, respective expertise, and, importantly, to help produce the link between Valley Water and the community.

Commission member nominations for the Santa Clara Valley Water Youth Commission will be submitted for Board appointment consideration in accordance with Board Resolution 17-75, Providing for and Defining the Structure and Function of Board Committees (Attachment 1), as a Supplemental Memorandum available to the public July 5, 2024.

ENVIRONMENTAL JUSTICE AND EQUITY IMPACT:
There are no environmental justice and equity impacts associated with this action. This action is unlikely to or will not result in adverse impacts and is not associated with an equity opportunity.

FINANCIAL IMPACT:
The Office of the Clerk of the Board has budgeted funds to support the business meetings of the Board's Advisory Committees for Fiscal Year 2024-2025.

CEQA:
The recommended action does not constitute a project under CEQA because it does not have the

potential for resulting in direct or reasonably foreseeable indirect physical change in the environment.

ATTACHMENTS:
Attachment 1: SCVWD Resolution Number 17-75

UNCLASSIFIED MANAGER:
Candice Kwok-Smith, 408-630-3193

BOARD OF DIRECTORS
SANTA CLARA VALLEY WATER
DISTRICT

RESOLUTION 17- 75
PROVIDING FOR AND DEFINING THE STRUCTURE AND FUNCTION OF ADVISORY COMMITTEES TO THE SANTA CLARA VALLEY WATER DISTRICT BOARD OF DIRECTORS AND REPEALING RESOLUTION 15-28

BE IT RESOLVED by the Board of Directors of the Santa Clara Valley Water District as follows:

There have been established as advisory to the Santa Clara Valley Water District (District) Board of Directors (Board), in accordance with the District Act, the following committees (hereafter "Committees"), which shall continue in accordance with the provisions of this resolution:

1. Agricultural Water Advisory Committee (established by the District Act, which states " . . . The Board shall create an advisory committee consisting of farmers to represent users of agricultural water.");

2. Environmental and Water Resources Committee;

3. Santa Clara Valley Water Commission; and

4. Santa Clara Valley Water District Youth Commission.

1. PURPOSE

1.1 This resolution sets forth the purpose, activities, and membership guidelines of the Committees.

1.2 The Committees are established to assist the Board with policy review and development, provide comment on activities in the implementation of the District's mission for Board consideration, and to identify Board-related issues pertaining to the following:

1.2.1 **Agricultural Water Advisory Committee**: agricultural water supply and use and groundwater production charges.

1.2.2 **Environmental and Water Resources Committee**: water supply, flood protection, and environmental stewardship.

1.2.3 **Santa Clara Valley Water Commission**: water supply, flood protection, and environmental stewardship.

1.2.4 **Santa Clara Valley Water District Youth Commission**: public policy, education, outreach, and all matters impacting the Santa Clara County youth and the water district.

1.3 In accordance with Governance Process Policy-8, the specific duties of the Committees are to:

1.3.1 Provide input on policy alternatives for Board deliberation.

1.3.2 Provide comment on the activities in the implementation of the District's mission for Board consideration.

1.3.3 Produce and present to the Board an Annual Accomplishments Report summarizing the outcomes of the Committee's annual Board-approved work plan.

1.3.4 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.

1.4 In carrying out these duties, the Committee members bring to the District their respective expertise and the interests of the communities they represent.

2. MEMBERSHIP

2.1 Committee membership shall consist of the following:

Agricultural Water Advisory Committee

2.1.1 The Agricultural Water Advisory Committee shall be comprised of 16 members who are farmers and reside or do business, as determined by the Board, within Santa Clara County.

2.1.2 The Agricultural Water Advisory Committee shall also be comprised of one member who owns a private well (non-retail) within Santa Clara County.

2.1.3 Each Director may nominate up to two farmers who reside and/or farm within the nominating Director's district. In the event that a Director is unable to nominate a farmer from his/her district, the Director may nominate a farmer from anywhere within Santa Clara County.

2.1.4 The Loma Prieta Resource Conservation District and the Santa Clara County Farm Bureau may each nominate one representative for appointment as long as the nominee is a farmer who resides or does business, as determined by the Board, within Santa Clara County.

2.1.5 The Agricultural Water Advisory Committee does not have alternate members.

Environmental and Water Resources Committee

2.1.6 Effective July 1, 2015, the Environmental and Water Resources Committee shall be comprised of 21 At-Large members, who reside or do business, as determined by the Board, within Santa Clara County.

2.1.7 Effective July 1, 2015, each Director may nominate up to three at-large members.

Santa Clara Valley Water Commission

2.1.8 The Santa Clara Valley Water Commission shall be comprised of 18 elected representatives: one from each City and Town in Santa Clara County, the County of Santa Clara, the Santa Clara County Open Space Authority, and the Midpeninsula Regional Open Space District. Each elected representative may have at least one alternate who may be another elected official or staff person from the same jurisdiction.

2.1.9 All municipal representatives and alternates to the Santa Clara Valley Water Commission shall be appointed by their perspective agency.

Santa Clara Valley Water District Youth Commission

2.1.10 The Santa Clara Valley Water District Youth Commission shall be comprised of 21 Board-appointed members who reside and attend high school in Santa Clara County.

2.1.11 Each Director may nominate up to three at-large members of the Santa Clara Valley Water District Youth Commission.

2.2 Members and alternates (where applicable) of the Agricultural Water Advisory Committee, Environmental and Water Resources Committee, and Santa Clara Valley Water Commission serve a two-year renewable term that begins upon appointment, or January 1 if a renewed appointment, and expires on December 31 of the year following appointment. Term of office for Committee members and alternates who are appointed mid-year shall begin upon appointment and run through December 31 of the year following appointment.

2.3 Members of the Santa Clara Valley Water District Youth Commission serve a two-year renewable term that begins upon appointment, or September 1 if a renewed appointment, and expires on August 31 of the year following appointment. Term of office for Committee members and alternates who are appointed mid-term shall begin upon appointment and run through August 31 of the year following appointment.

2.4 Board appointed Committee members shall be held over until they are reappointed or successors are appointed by the Board.

2.5 Municipal appointed Committee members shall be held over until they are reappointed or successors are appointed by the County of Santa Clara and each City and Town therein.

2.6 Board member nominee appointments to Committees shall be subject to a majority vote of a quorum of the Board.

2.7 Following two or more consecutive unexcused absences, the Board may choose to remove a Board appointee. An unexcused absence is defined as failure to notify the District at least 48 hours in advance that the member will not attend the meeting.

2.8 Nothing in this resolution affects the eligibility of any current member of any Committee to serve out his or her current term, as long as the member continues to meet the eligibility criteria in effect when he or she was appointed to the Committee.

3. OFFICERS AND DUTIES

3.1 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.

3.2 The term of the Chairperson and Vice-Chairperson of the Agricultural Water Advisory Committee, Environmental and Water Resources Committee, and Santa Clara Valley Water Commission is one year commencing on January 1 and ending on December 31 and for no more than two consecutive terms. The Agricultural Water Advisory Committee, Environmental and Water Resources Committee, and Santa Clara Valley Water Commission shall elect their 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.

3.3 The term of the Chairperson and Vice-Chairperson for the Santa Clara Valley Water District Youth Commission shall commence on September 1 and end on August 31 of the following year. However, the term of the first Chairperson and Vice-Chairperson of the Santa Clara Valley Water District Youth Commission will commence at the Santa Clara Valley Water District Youth Commission's first meeting and end on August 31 of the following year.

3.4 The Chairperson of each Committee shall have the following authority and duties:

(a) Preside at all meetings of the Committee;

(b) Facilitate productive meetings in accordance with posted Agenda and the Ralph M. Brown Act (open meeting law);

(c) Add items to the committee agenda;

(d) Invite speakers for any agendized item;

(e) Manage speaker time limits;

(f) Facilitate communication of committee comments, requests, and recommendations to the Board of Directors;

(g) Report to the committee on decisions of the Board of Directors which impact the committee's activities; and

(h) Perform other such duties as the Committee may prescribe consistent with the purpose of the Committee.

3.5 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.

3.6 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.

3.7 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.

4. MEETINGS

4.1 Meetings of the Committees shall be open and public and called in accordance with the Ralph M. Brown Act, Government Code Sections 54950 and following. Such meetings shall be held at the District Headquarters or such other place and time within Santa Clara County as the Board may designate.

4.2 Special meetings may be called by the Board and conducted in accordance with Section 54956 of the Government Code.

4.3 Committees shall convene four times per year or more often, as authorized by the Board, except for the Agricultural Water Advisory Committee, which shall convene at least once a year, or more often, as authorized by the Board.

4.4 The Board approves and sets all Committee annual work plans and meeting agendas. Committee meeting agendas will be considered pre-approved by the Board once it has approved each of the annual Advisory Committee work plans. Modifications to meeting agendas will be considered by the Board, or Board Chair, as needed, through a review of the pre-approved work plans when it receives and considers Committee policy recommendations, comments, and requests, staff recommended modifications, and requests by members of the public. The Board may also initiate modifications to pre-approved work plans at any time.

4.5 Notices of each meeting, together with an agenda, the draft minutes of the preceding meeting, and supporting meeting materials, shall be provided to the Committee members no less than ten business days in advance.

4.6 Any Committee meeting in which all items on the Agenda are informational, excluding the approval of meeting minutes, will be cancelled and notification sent from the Clerk of the Board at least ten days prior to the scheduled meeting date.

4.7 A majority of the appointed members of the Committee or their alternates is required to constitute a quorum for the purposes of conducting its business and exercising its powers and for all other purposes. If the Clerk of the Board, or his/her designated representative (Clerk), has been notified at least two business days in advance of a scheduled meeting that a quorum will not be present, the Clerk will cancel the meeting and notice the membership of the cancellation.

4.8 In the event that a Committee meeting is cancelled due to the lack of a quorum, upon concurrence of the Committee Chair and the Board Representative, the Committee meeting may be re-scheduled or re-convened to a specified date, time, and place.

4.9 In the event a quorum of the Committee is not present at the scheduled start time of the meeting, or is lost during the meeting, at the discretion of the Chair of each Advisory Committee, individual Committee members present in the room may proceed to hear informational agenda items, including any staff reports. No action shall be taken on any agenda item when a quorum does not exist. No official record of statements made by individual Committee members, staff, or members of the public will be created. However, if a quorum is achieved at any time, action items may be heard, discussed, and voted upon.

4.10 Except for such actions to adjourn, action of the Committee may be taken only upon the affirmative vote of not less than a majority of the appointed members or their alternates present. The voting on all matters shall be by voice vote unless a roll call vote is called for by any member of the Committee. Only appointed Committee members or appointed alternates (who are sitting in an appointed member's stead) may vote on a matter.

4.11 Discussion on any agenda item by either Committee members or by any member of the general public may be limited, at the discretion of the Chairperson, to such length of time as the Chairperson may deem reasonable under the circumstances.

4.12 The Committee may adjourn any regular or special meeting to a time and place specified in the order of adjournment.

5. SUB-COMMITTEES

5.1 Subcommittees of Board Advisory Committees will not be recognized. However, less than a quorum of Committee members may meet informally outside of meetings in accordance with Ralph M. Brown Act requirements.

BE IT FURTHER RESOLVED that Resolution No. 15-28 is hereby repealed.

PASSED AND ADOPTED by the Board of Directors of Santa Clara Valley Water District by the following vote on

AYES: Directors T. Estremera, R. Santos, N. Hsueh, G. Kremen, L. LeZotte, J. Varela

NOES: Directors None

ABSENT: Directors B. Keegan

ABSTAIN: Directors None

SANTA CLARA VALLEY WATER DISTRICT

John L. Varela

JOHN L. VARELA
Chair/Board of Directors

ATTEST: MICHELE L. KING, CMC

Michele L. King

Clerk/Board of Directors

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Santa Clara Valley Water District

File No.: 24-0627

Agenda Date: 7/9/2024
Item No.: 6.1.

BOARD AGENDA MEMORANDUM

Government Code § 84308 Applies: Yes ☒ No ☐
(If "YES" Complete Attachment A - Gov. Code § 84308)

SUBJECT:
Approve a Budget Adjustment for the Desalination Project No. 91441003 and Approve the Agreement No. A5050A With Black & Veatch Corporation, to Provide a Desalination Engineering Feasibility Study, Project No. 91441003, PlanetBids File No. VW0379, for a Total Not-to-Exceed fee of $1,717,738.

RECOMMENDATION:
A. Approve a budget adjustment in the amount of $1,717,738 to Fiscal Year 2025 for the Desalination Engineering Feasibility Study Project; and
B. Approve the Standard Consultant Agreement with Black & Veatch Corporation, to provide a Desalination Engineering Feasibility Study, Project No. 91441003, PlanetBids File No. VW0379, for a total not-to-exceed fee of $1,717,738.

SUMMARY:
Staff seeks Board approval and authorization to execute a consultant agreement with Black & Veatch Corporation (Black & Veatch) to conduct a Desalination Engineering Feasibility Study (Project).

At the October 27, 2023, Recycled Water Committee (Committee) meeting staff presented an update on the completion of an Environmental Feasibility Study for the development of a desalination project in Santa Clara County. The completion of this preliminary study was the first phase in evaluating the potential for design and construction of a desalination facility in the County. As recommended by the Committee, staff has proceeded to implement the second phase to evaluate the engineering feasibility, costs, and regulatory permitting requirements associated with a desalination project in the South San Francisco Bay (South Bay). This is the first time Santa Clara Valley Water District (Valley Water) is evaluating a desalination facility in the South Bay as an alternative water supply. A desalination project will be evaluated in the Water Supply Master Plan 2050 update.

Approval of the Standard Consultant Agreement with Black & Veatch Corporation (Agreement) (Attachment 1) will provide critical information on the feasibility for an alternate water supply as part of Valley Water's water supply portfolio.

Consultant Selection Process

Prior to publishing the Request for Proposals (RFP) to solicit a desalination engineering feasibility study, staff conducted outreach to 461 firms registered with the National Institute of Governmental Purchasing, Inc., category codes: 91843 - Environmental Consulting; 92652 - Impact Studies, Environmental; and 92672 - Planning and Advisory Services, Environmental, which are the targeted categories within Valley Water's Procurement Portal, PlanetBids (PB). Staff also issued advertisements in the SJ Post Record newspaper and Small Business Exchange, Inc.

On January 1, 2024, staff published the RFP for a desalination engineering feasibility study by sending it to 475 firms that were registered with NIGP, category codes: 91843 - Environmental Consulting; 92652 - Impact Studies, Environmental; and 92672 - Planning and Advisory Services, Environmental, which are the targeted categories within PB.

A total of three proposals were received on January 26, 2024, from the following consultant firms: (1) Black & Veatch; (2) CDM Smith, Inc.; and (3) GHD, Inc. Of the total 475 firms informed of the solicitation, 48 firms confirmed interest as prospective proposers in PB.

An Evaluation Committee (EC) consisting of four panelists from Valley Water with subject matter expertise with desalination engineering feasibility study evaluated and ranked the written proposals. Based on the technical and interview evaluations, the EC recommended that staff proceed to contract negotiations with the highest-ranked firm, Black & Veatch.

Negotiations with Black & Veatch have been successfully completed. Staff recommends Board approval of the Standard Consultant Agreement with Black & Veatch, to provide a Desalination Engineering Feasibility Study in a not-to-exceed fee of $1,717,738. The agreement has a one-year term with an option solely exercisable by Valley Water, to extend it for up to two additional one-year terms.

Consultant Agreement and Scope of Services

The recommended Consultant Agreement with Black & Veatch includes the required tasks and budget to provide a desalination engineering feasibility study. A summary of tasks and fees for this Agreement is presented in Table 1 below.

COST BREAKDOWN		
Task	**Description**	**Not-to-Exceed Fees**
1	Project Management	$233,563
2	Data and Information Collecti	$67,034
3	Feasibility Study	$889,957
4	CEQA and Other Regulatory F	$80,537
5	Presentation of Results	$35,961
6	Supplemental Services	$410,686

Total Not-to-Exceed Fees	**$1,717,738**

Scope of services includes project management, data and information collection, feasibility study, CEQA and other regulatory requirements, outreach to stakeholders, presentation of results, and Supplemental Services. Prior to performing any Supplemental Services, the Consultant will be required to obtain written authorization from the Water Utility Capital Division Operating Officer through the issuance of an approved Task Order.

Details on scope, budget, and schedule for Consultant to perform a desalination engineering feasibility study are included in the proposed Agreement (Attachment 1).

ENVIRONMENTAL JUSTICE AND EQUITY IMPACT:
Further analysis is necessary to determine the Environmental Justice impacts associated with any potential future desalination project in Santa Clara County. Any analysis of the environmental impact will be completed if a specific project is being proposed for Valley Water's investment. The findings of that analysis would be presented to the Board during a future update.

FINANCIAL IMPACT:
The Desalination Project, Project No. 91441003, is included in the FY 2024-25 Adopted Operating and Capital Budget. A budget adjustment of $1,717,738 is recommended to increase the FY 2024-25 budget for the Project to accommodate the increase to the FY 2024-25 planned expenditures due to the Standard Consultant Agreement. The funding source will be the Water Enterprise Fund (Fund 61) Operating and Capital Reserves. At the time of this writing, staff anticipates that savings from the Recycled Water Project, Project No. 91101004, will be captured in FY 2023-24, which will fully cover the $1,717,738 increase to the FY 2024-25 budget for Project No. 91441003.

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 A: Gov. Code 84308
Attachment 1: Agreement

UNCLASSIFIED MANAGER:
Kirsten Struve, 408-630-3138

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Attachment A
Government Code §84308

Approve Standard Consultant Agreement with Black & Veatch Corporation, to provide a desalination engineering feasibility study, Project No. 91101004, Agreement No. A5050A, PB File No. VW0379, for a Not-to-Exceed Aggregate Fee of $1,717,738

List of Parties and Their Agents/Representatives Known to Staff

Organization Name	**Name**	**Role**	**Location**
Black & Veatch Corporation	Craig Lichty	Vice President	2999 Oak Road, Suite 400 Walnut Creek, CA 94597
Data Instincts	Mark Millan	Public Outreach	9481 Vinecrest Road Windsor, CA 95492
Dudek	Ann Sansevero	CEQA/Environmental Permitting	725 Front Street, Suite 400 Santa Cruz, CA 95060
EOA, Inc.	Tom Hall	Brine Management & Disposal / NPDES Permitting	1410 Jackson Street Oakland, CA 94612
Fugro	Ronald Bajuniemi	Geophysical / Geotechnical	1777 Botelho Drive Walnut Creek, CA 94596
Miller Marine Science & Consultant, Inc.	Eric Miller	Intake / Outfall Marine Biology	2 Boulder Circle Aliso Viejo, CA 92656
Todd Groundwater	Salley McCraven	Subsurface Seawater Hydrogeology	1301 Marina Village Parkway, Suite 320 Alameda, CA 94501
TWB Environmental Research and Consulting	Tim Hogan	Intake / Outfall Marine Biology	17 Winnemay Street Natick, MA 01760

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This agreement (Agreement) is effective once fully executed (Effective Date), by and between SANTA CLARA VALLEY WATER DISTRICT (Valley Water or District), and BLACK & VEATCH CORPORATION, a Delaware corporation (Consultant), individually the Party or collectively the Parties.

WHEREAS, Valley Water desires certain services hereinafter described and Consultant affirms it has the requisite experience and expertise, and desires to provide such services.

NOW, THEREFORE, Valley Water and Consultant, for the consideration and upon the Terms and Conditions specified, agree as follows:

SECTION ONE

SCOPE OF SERVICES

The Scope of Services (Services) to be performed pursuant to this Agreement is described in the Schedule(s), Scope of Services, attached hereto and incorporated herein by this reference (Schedule(s)). Services described in each Schedule are considered a Scope of Services that is separate and apart from the Scope of Services described in another Schedule.

SECTION TWO

DUTIES OF CONSULTANT

1. Performance

A. Each Scope of Service described in an attached Schedule(s) must be performed by Consultant, or at its direction, to meet the purposes specified in this Agreement. References to “Consultant” herein include those performing any portion of the Services at its direction such as Subconsultants, vendors, suppliers, subcontractors, and other business entities and individuals. Consultant will collaborate with Valley Water staff in engineering, asset management, operations, and maintenance units to be made aware of Valley Water operational constraints, procedures, or preferences relevant to Consultant’s performance of the Services described in the attached Schedule(s).

B. Unless the requirements for the Services described in the attached Schedule(s) are specifically modified in writing, Consultant must perform Services and provide all deliverables as required.

C. Consultant shall not undertake any Services not described in the attached Schedule(s) unless authorized in writing by Valley Water prior to the performance of such Services by issuance of a Task Order or pursuant to an amendment to this Agreement signed by both Parties.

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2. Consultant Controlled Areas

Consultant is responsible for the security and safety of the area(s) it controls wherein it is required to perform field operations pursuant to the Scope of Services.

3. Licensing

Services performed by Consultant will be undertaken only by persons appropriately licensed, certified, or registered in California, as applicable to the Services described herein, when required by statutes or regulations, as well as pursuant to the relevant standard of care as described in Section Two, Duties of Consultant, subsection 11. Standard of Care. Examples of such Services include those performed by: California State Licensed Contractors, Professional Engineers and Architects, Inspectors, and Surveyors. Consultant shall make available upon Valley Water's request documentation of qualifications and licensing of personnel performing Services described herein. Consultant must be registered with the California Department of Labor Standards Enforcement if the Services or a portion thereof is determined to be "Public Works" pursuant to California Labor Code §1720(a)(1).

4. Valley Water's Approval of Deliverables

Deliverables prepared by Consultant, notwithstanding acceptance and approval by Valley Water, which Valley Water determines must subsequently be modified due to errors or omissions, will be corrected at no additional cost to Valley Water.

5. Errors and Omissions

The Services may include preparation of deliverables by Consultant to be implemented in a public works construction project. Consultant is responsible for any direct or actual damages incurred by Valley Water which Valley Water determines result from Consultant's errors or omissions in Consultant's deliverables, including, but not limited to, any increase in Valley Water's payment(s) due to its construction contractor, which increase is directly attributable to required revisions to the construction Contract Documents to the extent caused by Consultant's negligent acts, errors, or omissions.

6. Valley Water Standardization Requirements

A. Consultant shall perform the Services utilizing Valley Water nomenclature, standardized forms, software requirements, documented procedures, and best management practices. Consultant shall use Microsoft Office software and Autodesk Civil 3D software that is compatible with Valley Water's current Microsoft Office software and Autodesk software used at the time(s) Valley Water issues a Notice to Proceed pursuant to this Agreement.

B. Engineering drawings prepared by Consultant must be in compliance with Valley Water's Computer-Aided Design and Drafting (CADD) standards including line types, line weights, text sizes, text orientation, dimensioning, labeling/numbering system for detailed plan views and detailed section views. Drawings prepared using different CADD software and versions must be converted to be compatible with Valley Water's CADD software at no additional cost to Valley Water. Prior to acceptance, Valley Water

reserves the right to test the submitted CADD files to verify that the files are not corrupted or missing linkages (for blocks, etc., used in the drawings) and that the standards are retained during the conversion process used by Consultant.

7. Consultant's Key Staff and Subconsultants

A. Consultant's Key Staff and firms subcontracted by Consultant (Subconsultants) assigned to perform the Services are identified in the Schedule(s), Scope of Services, Attachment Three, Consultant's Key Staff and Subconsultants.

B. The Project team organization chart and delegated responsibilities of each team member will be submitted to Valley Water for concurrence.

C. Consultant may utilize Subconsultants, subcontractors, suppliers, or vendors it deems appropriate to the complexity and nature of the required Services.

1) Consultant must obtain Valley Water's approval of all Subconsultants. Upon Valley Water's request, Consultant must provide copies of all Subconsultant agreements.

2) Consultant must require its delegates or Subconsultants to agree, in writing, to adhere to Terms and Conditions of this Agreement.

D. Any delegation or use of Subconsultants by Consultant will not operate to relieve Consultant of its responsibilities as described in this Agreement.

E. If any of Consultant's designated key staff persons or Subconsultants fail to perform to the satisfaction of Valley Water, on written notice from Valley Water, Consultant will have 15 calendar days to remove that person from the Project and provide a replacement acceptable to Valley Water.

F. Consultant will not charge Valley Water for the time it takes Consultant's replacement personnel to obtain Valley Water-specific Project knowledge in the possession of the person(s) being replaced.

G. Consultant's Key Staff: Valley Water's authorized representative may approve any revisions to Consultant's list of key staff assigned to the Project as an administrative modification to this Agreement, and such approval will be confirmed in writing.

H. Consultant's Subconsultants

1) Valley Water's authorized representative may approve any revisions to Consultant's list of authorized Subconsultants when the Subconsultant is deleted from the list and the Scope of Services is deleted from the Agreement or such services are assumed by the Consultant; such approval will be confirmed in writing.

2) Valley Water's authorized representative may approve any revisions to Consultant's list of authorized Subconsultants when a listed Subconsultant is replaced (to perform the same Scope) or a new Subconsultant is added (to perform new Scope), provided the firm complies with all insurance requirements established by Valley Water for such work; such approval will be confirmed in writing.

8. Compliance with All Laws

A. Consultant's performance must be in compliance with the most current versions of any and all laws relevant to the Services it performs pursuant to this Agreement, including, but not limited to adherence to: all applicable governmental laws, statutes, ordinances, rules, codes, regulations, orders, and other requirements; governmental requirements applicable to state and federal compliance with the Professional Land Surveyors Act; state and federal Endangered Species Act; state and federal water quality laws; and all other state and federal laws or regulations regarding environmental protection and compliance, health, safety, wages, hours, equal employment opportunity, nondiscrimination, working conditions, and transportation. In the event that Valley Water's assistance is necessary to achieve such compliance, Consultant shall promptly notify Valley Water.

B. Consultant shall provide, at Valley Water's request, documentation demonstrating Consultant's compliance with all laws as described herein. After reasonable notice and according to reasonable conditions, Valley Water has the right to inspect and copy any records of Consultant regarding such compliance.

C. Consultant represents and warrants that neither Consultant nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any federal government department or agency.

9. Occupational Safety and Health

A. Consultant will perform the Services in compliance with the most current versions of all laws, standards, rules, and regulations of the Occupational Safety and Health Act, and all state and federal laws and regulations relating to safety and health standards. Consultant shall perform the Services in compliance with, will furnish only supplies, articles, and equipment that comply with such laws, standards, and regulations.

B. Consultant shall immediately notify Valley Water in the event of any personal injury accident or occurrence occurring during the performance of the Services. Upon Valley Water's request, Consultant shall provide Valley Water with documentation fully describing the accident and injury and the actions implemented to prevent similar occurrences.

10. Consultant as Independent Contractor

Consultant will perform all Services as an independent contractor and not an agent or employee of Valley Water. Consultant represents and warrants that it and its contractors who are performing any of the Services as Subconsultants will perform such Services as an independent contractor, and neither Consultant nor Subconsultants nor their employees are the servants, agents or employees of Valley Water. Except as expressly provided in this Agreement, Valley Water exercises no direction, supervision or control over Consultant, its employees, agents, or Subconsultants.

11. Standard of Care

A. Consultant must possess and maintain during the term of this Agreement all certifications, licenses, permits, and qualifications to perform the Services and prepare all deliverables. Consultant must perform all Services and prepare all deliverables in accordance with those standards and practices of care, skill, and diligence that are generally recognized and customarily observed by competent persons in Consultant's area of specialty in the State of California at the time such Services are rendered.

B. Consultant shall perform the Services and prepare all deliverables without any errors or omissions, and in accordance with Section Two, Duties of Consultant, subsection 8. Compliance with All Laws.

C. Consultant and its Subconsultants must perform the Services in compliance with all applicable written federal, state and local codes, statutes, laws, regulations, and ordinances, including, but not limited to, environmental, energy conservation, and disabled access requirements as per the provisions of Section Two, Duties of Consultant, subsection 8. Compliance with All Laws.

SECTION THREE

DUTIES OF VALLEY WATER

1. Available Data

Valley Water will make available to Consultant all data and information in its possession and control and which it deems necessary to the preparation of the deliverables specified in the Schedule(s). Valley Water will actively aid and assist Consultant in obtaining such information from other agencies and individuals as it deems necessary. Valley Water is not responsible for providing data and information that it does not possess.

2. Review of Deliverables

A. Valley Water will designate a Project Manager (Valley Water Project Manager) for purposes of administering and managing this Agreement.

B. Consultant’s progress in completing the Services will be reviewed by Valley Water Project Manager at each milestone identified in the Schedule(s) and at such other time(s) at the discretion of Valley Water.

C. Consultant must notify Valley Water in writing when it completes each deliverable described in the Schedule(s) and provide Valley Water with said deliverable. Deliverables deemed satisfactory and in compliance with this Agreement are subject to approval by Valley Water. Within 30 calendar days of receipt of each deliverable, Valley Water will either (1) notify Consultant that Valley Water accepts the deliverable, or (2) notify the Consultant that the deliverable is not acceptable and must be revised.

D. If Valley Water advises Consultant that a deliverable must be revised due to errors or omissions by the Consultant, Consultant must correct, at no cost to Valley Water, those deficiencies as soon as possible and shall notify Valley Water upon completion of the revised deliverable and submit to Valley Water.

E. Valley Water will then review the revised deliverable and within 30 calendar days of receipt, advise the Consultant if the revised deliverable is acceptable. All deficient deliverables will be revised at no cost to Valley Water and this process will continue until Consultant has corrected all deficiencies identified by Valley Water.

F. None of the proposed changes or revisions or anything else in this Agreement will be construed to relieve the Consultant of professional or legal responsibility for the performance of the Services as otherwise required by the Terms and Conditions of this Agreement. Corrections to any deliverable as a result of Consultant's errors or omissions, as determined by Valley Water, will not result in additional costs or expenses to Valley Water.

3. Access to Valley Water Facilities

Valley Water will facilitate access to Valley Water facilities as required for the Consultant to perform the Services.

SECTION FOUR

FEES AND PAYMENTS

1. Total Fixed Not-to-Exceed Fees

A. Payment for all Services performed by Consultant to the satisfaction of Valley Water, as described in the Schedule(s) will be based on the hourly rates, subject to the Total Fixed Not-to-Exceed (NTE) Fees stated in the Schedule, Attachment One, Fees and Payments, for completion of the associated tasks. Valley Water will make payments to Consultant according to the terms provided for herein and in the Schedule, Attachment One, Fees and Payments. Payments made by Valley Water to the Consultant for Services rendered will be considered full compensation for all personnel, materials, supplies, Subconsultant(s), equipment, and reimbursable expenses, incurred by the Consultant to perform the Services.

B. Upon the written approval of Valley Water Deputy Operating Officer, unless delegated to an Assistant Operating Officer and/or Unit Manager referenced herein, remaining funds previously budgeted for tasks that are completed, reduced, or deleted, may be reallocated to tasks that have not yet been completed, provided the Agreement Total Not-to-Exceed Fee is not exceeded. Transferring funds from a task not yet completed to a different task is not permitted.

C. Upon the written approval of Valley Water Deputy Operating Officer, unless delegated to an Assistant Operating Officer and/or Unit Manager referenced herein, the Scope of Services described in a task may be reduced, revised, or deleted. If the Scope of Services of a task is reduced or deleted, the portion of the funds attributed to that reduced or eliminated task may be reallocated to existing tasks, or transferred to a Supplemental Services task, if provided for herein.

D. Any reduction or deletion of tasks and any inter-task transfers will be clearly noted and described in the subsequent monthly progress report to Valley Water.

E. Services to be performed pursuant to the Supplemental Services task, if provided for herein, will commence only after issuance of a fully executed Task Order.

F. Automobile travel mileage expenses will be paid at the current Internal Revenue Services (IRS) rate. Valley Water will not reimburse Consultant nor its Subconsultants for mileage nor travel time to and from Valley Water Headquarters and surrounding campus located at 5700 Almaden Expressway, San Jose, California. However, Valley Water will reimburse Consultant and its Subconsultants for mileage incurred from Valley Water Headquarters or Consultant's and Subconsultants' firm addresses, whichever is closer to the destination, to Project site(s) and, if directed or authorized by Valley Water, to meeting locations such as with regulatory agencies, for community outreach activities and meetings, for partnering meetings, and Dispute Review Board meetings.

2. Consultant Monthly Invoices

A. Consultant's monthly invoices will be prepared in accordance with the terms of this Agreement, Section Four, Fees and Payments, and represent Services performed and reimbursable costs incurred during the identified billing period. Invoices must be consistent with Scope of Services described in the Schedule(s) attached hereto, and include the following:

1) Employee classification and name itemized with all labor charges by Service task;

2) Summary of the amount Consultant has been billed by their Subconsultants and further detailed by Service task;

3) A description of the site where Services were performed, if applicable;

4) The name of Valley Water staff requesting Services;

5) The dates when Services were performed;

6) Other direct charges and expenses by Service task;

7) Other direct charges and expenses must reflect actual fees versus the Agreement Not-to-Exceed Fees as stated in the Schedule(s), Attachment One, Fees and Payments, and/or Task Orders; and

8) To the extent that the Consultant is adding an administrative, processing, overhead or mark-up fee, Valley Water will not pay for such duplication of costs for both the Consultant and its Subconsultants.

B. Before submitting monthly invoices, a draft invoice (in Adobe PDF format) will be provided in electronic format by the Consultant for preliminary review by Valley Water Project Manager. Upon preliminary approval by Valley Water, Consultant will email the complete, signed, and dated electronic copy invoice, including all supporting documentation. Valley Water's preliminary review of the draft invoice does not represent final approval of the electronic copy invoice, but is intended to reduce potential for re-submittals of electronic copy invoice by Consultant.

C. Each monthly invoice must include a monthly progress report that documents whether or not the Services are on schedule to be completed in accordance with the Schedule, Attachment Two, Schedule of Completion, which applies to the specific Scope of Services, and within the Agreement NTE Fees in accordance with the Schedule, Attachment One, Fees and Payments. The progress report shall document Services completed, the execution of the tasks described in this Services, and enable Valley Water to evaluate the Consultant's progress and performance towards completion of the Services.

   1) The monthly progress report shall include:

      a. An assessment of actual versus planned progress in completing the Services, including a description of the tasks and deliverables completed to date;

      b. A look-ahead schedule listing deliverables and activities planned for the next two months;

      c. A statement that progress towards completion of the Services is on schedule and will be completed within the timeline set forth in the Schedule of Completion; or, if completion of the Services is not on schedule, then a statement of the anticipated length of the delay, the cause of the delay, measures proposed or taken to prevent or minimize the delay, and the schedule for implementation of such measures;

      d. A summary of performed tasks to date, an updated Project work plan including estimate of work required to complete this Agreement, explanation of any major variances in percentage of services to be completed compared to percentage of this Agreement NTE fees remaining, and any anticipated changes to this Agreement that may be necessary to complete the Services;

      e. For any proposed change to the Scope of Services, provide a summary of the proposed changes, including supporting rationale for such change;

      f. For each task, the percentage of the fees incurred for the task compared to dollar amount allocated to the task, the percentage of services performed versus the percentage of Agreement NTE fees incurred for such task, and explanation of any significant variances in percentage of services performed compared to percentage of fees incurred;

      g. A statement that all tasks, as specified in this Agreement, shall be completed within the NTE amount of the Agreement;

      h. Level of Small Business Enterprise (SBE) participation, if applicable, documenting the level of SBE participation throughout the Project; and

      i. Any changes in Consultant's key staff or Subconsultants.

D. Invoices will include a summary of labor expenditures, direct costs, and billed Subconsultant charges. Invoices, transmitted separately from the monthly progress reports, will be organized such that the billing categories correspond with the Services tasks.

E. Consultant shall submit all invoices through Projectmates or other document control system designated by Valley Water. All inquiries regarding Projectmates must be directed to Valley Water's Capital Project Management and Project Controls Program (CPMPC@valleywater.org).

F. In addition to ensuring that each invoice is accompanied with a monthly progress report, Consultant must also ensure that each invoice and corresponding attachments contain the following information:

1) Agreement number;

2) Consultant Invoice number in the following format: Agreement Number followed by a three-digit consecutive numbering sequence and separated by a period. For example, A1234A.001, A1234A.002, etc.

3) Full legal name of Consultant/Firm;

4) Payment remit-to address;

5) Invoice date (the date invoice is emailed);

6) Detailed description of Services provided, including the "distribution account(s)" for those Services;

7) Number of hours spent by each person performing services and a brief description of the services performed by each person; and

8) Beginning and end date for billing period that services were provided.

G. Consultant shall invoice for its performance of the Services on a monthly basis consistent with the task fee breakdown stated in the Schedule, Attachment One, Fees and Payments, which applies to the specific Scope of Services.

H. Valley Water Project Manager will review Consultant's written invoice within five Valley Water business days of receipt, address any questions with Consultant's Contact/Principal Officer and approve the undisputed amount of the invoice within ten working days of receipt of the invoice. Valley Water will pay undisputed invoice amounts within 30 calendar days from date invoice is received by Valley Water Project Manager.

I. Invoice Disputes

1) Valley Water may in good faith assert a bona fide dispute as to all or a portion of fees specified in any invoice. If any portion of an amount due to Consultant pursuant to this Agreement is subject to a bona fide dispute between the Parties, within 30 calendar days of Consultant's submission of an invoice in which a disputed amount is included, Valley Water will notify Consultant in writing of the specific items in dispute, and will describe Valley Water's reason(s) for disputing each such item.

2) Consultant and Valley Water Project Manager must act in good faith to resolve the dispute in a timely manner. If the dispute is not resolved by Consultant and Valley Water Project Manager within 30 calendar days of Consultant receiving Valley Water's written notice of dispute, Consultant and Valley Water will attempt to resolve the dispute pursuant to the Standard Consultant Agreement, Appendix Two, Dispute Resolution.

J. Consultant's services will be performed by its staff members and Subconsultants' staff members at the lowest hourly and unit rates commensurate with the complexity of the required Services.

K. Consultant shall ensure that its personnel performing Services pursuant to this Agreement document their time doing so.

3. Prevailing Wages

A. A portion of the Services to be performed pursuant to this Agreement may be considered "Public Works" subject to California Labor Code §1771, et. seq. and the applicable implementing regulations. If Consultant's Services includes such work, Consultant and its Subconsultants must comply with all Labor Codes applicable to prevailing wages.

B. Labor Code §1720 provides as follows:

"(a) As used in this chapter, "public works" means all of the following:

(1) Construction, alteration, demolition, installation, or repair work done under contract and paid for in whole or in part out of public funds, except work done directly by a public utility company pursuant to order of the Public Utilities Commission or other public authority. For purposes of this paragraph, "construction" includes work performed during the design, site assessment, feasibility study, and other preconstruction phases of construction, including, but not limited to, inspection and land surveying work, regardless of whether any further construction work is conducted, and work performed during the postconstruction phases of construction, including, but not limited to, all cleanup work at the jobsite. For purposes of this paragraph, "installation" includes, but is not limited to, the assembly and disassembly of freestanding and affixed modular office systems."

C. Consultant and its Subconsultants shall not engage in the performance of public work, as defined in California Labor Code §1771.1, unless currently registered and qualified to perform public work pursuant to California Labor Code §1725.5.

D. The General Prevailing Wage Rates issued by the California Department of Industrial Relations may be adjusted by the State throughout the term of this Agreement. Notwithstanding any other provision of this Agreement, Consultant will not be entitled to any adjustment in compensation rates in the event there are adjustments to the General Prevailing Wage Rates.

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E. This Agreement is subject to compliance monitoring and enforcement by the State of California Department of Industrial Relations. Upon request, Consultant and Subconsultants must furnish the records specified in Labor Code §1776 directly to the Labor Commissioner, in a format prescribed by the Labor Commissioner.

F. All records or documents required to be kept verifying statutory compliance with the prevailing wage requirement, such as certified payroll records, must be made available for audit at no cost to Valley Water, in electronic or hard copy format, at Valley Water's discretion, and hard copies made available at any time during regular business hours, upon written request by Valley Water.

G. **California State Department of Industrial Relations Contractor and Sub-Contractor Registration Requirements**

Prior to Valley Water executing a Task Order for Services involving public works, as defined herein, Consultant, and its Subconsultant(s) performing public works, must provide evidence, in the form required by Valley Water, that Consultant and its Subconsultant(s) are in compliance with the California State Department of Industrial Relations Contractor and Sub-Contractor Registration Requirements.

4. Retention

A. Unless otherwise specified in the Schedule(s), Attachment One, Fees and Payments, when the total compensation payable pursuant to this Agreement, ten percent of each invoice will be withheld by Valley Water and not paid to Consultant until 30 calendar days after the assigned Valley Water representative signs the final approval for all Services/deliverables as stated in the applicable Schedule, Attachment Two, Schedule of Completion, and Section Three, Duties of Valley Water, subsection 2. Review of Deliverables.

B. Provided that at any time after 50% of the work has been completed, Valley Water may, at its sole discretion, determine that satisfactory progress is being made in the completion of the Agreement, and prospectively make the remaining progress payments in full. The retention previously withheld on the first 50% of the work will continue to be withheld until final Agreement close out.

C. Consultant may request, and Valley Water may consider and approve, release of retention withheld by Valley Water.

SECTION FIVE

SCHEDULE OF COMPLETION

1. Performance of Tasks

Consultant will commence performing the tasks described in this Agreement, in accordance with the attached Schedule(s), Scope of Services, upon receipt of the Notice to Proceed (NTP) issued by Valley Water.

2. Project Schedule Table

Consultant will perform and complete the services described in the Scope of Services in accordance with the Project Schedule table (Project Schedule) as stated in the Schedule, Attachment Two, Schedule of Completion. Consultant will coordinate services with Valley Water to provide the timeline of all tasks and subtasks, including the site visits, document review, meetings, and deliverables.

3. Monitoring of Project Schedule

The approved Project Schedule will be monitored monthly. Changes to the schedule for performance of tasks and deliverables are subject to advance written approval by Valley Water.

4. Project Delays

Consultant will make all reasonable efforts to comply with the Project Schedule as stated in the Schedule, Attachment Two, Schedule of Completion. In the event the Project Schedule will be delayed, Consultant will notify Valley Water Project Manager as soon as possible, providing the reason why, the length of the delay, and a description of the actions being taken to address the delay. In the event Consultant is delayed in performance of its services by circumstances beyond its control, Valley Water may, at its discretion, grant a reasonable adjustment in the Project Schedule.

5. Changes to the Project Schedule

Valley Water Project Manager and Consultant may agree to modify the Project Schedule specified for Consultant's performance as an administrative modification to the Agreement and will confirm such modifications in writing.

SECTION SIX

AGREEMENT MODIFICATIONS

The Parties may agree to modify the Terms and Conditions of this Agreement by executing a written amendment hereto.

SECTION SEVEN

TERM AND TERMINATION

1. Term & Automatic Termination

This Agreement encompasses all Services that Consultant is responsible to perform within the time limits and Not-to-Exceed Fees set forth herein. Consultant will not undertake to provide Services where it reasonably appears that the Services cannot be provided and expenses cannot be incurred within said total compensation limit and the applicable Not-to-Exceed Fees of any Task Order.

2. Valley Water Rights

A. Suspension: Valley Water may, by written notice to Consultant, suspend any or all Services pursuant to this Agreement or to any individual Task Order. Valley Water may subsequently terminate this Agreement or any Task Order for convenience or determine to proceed. If a decision to proceed is not made within 90 days from the date of the notice of suspension, any decision to proceed must be conditioned upon execution of a new Notice to Proceed or Task Order.

B. Termination for Convenience: Valley Water may, by written notice to Consultant, terminate all or part of this Agreement or any Task Order at any time for Valley Water's convenience. Upon receipt of such notice, Consultant will immediately cease all work as specified in the notice. If this Agreement or any Task Order is so terminated, Consultant will be compensated as set forth in Section Seven, Term and Termination, subsection 3. Consultant's Compensation upon Termination or Suspension.

C. Termination for Breach: If Consultant violates any of the covenants, agreements or stipulations of this Agreement or a Task Order, or if Consultant fails to fulfill in a timely and proper manner its obligations pursuant to this Agreement or any Task Order, and does not cure such failure or violation within 30 days (or a reasonable extension thereof, if requested, which extension will not be unreasonably withheld) after receipt of written notice from Valley Water specifying such failure or violation, Valley Water will thereupon have the right to terminate this Agreement and any or all uncompleted Task Orders by giving written notice to Consultant of such termination. Such notice will specify the effective date thereof, and Consultant will not be entitled to compensation for services or expenses beyond the specified termination date.

D. If, after notice of termination for breach of this Agreement or any Task Order, it is determined that Consultant did not breach the Agreement or Task Order, the termination will be deemed to have been implemented for Valley Water's convenience, and Consultant will receive payment that is allowed by this Agreement for a termination for convenience.

E. The rights and remedies provided herein to Valley Water are in addition to any other rights and remedies provided by law, this Agreement, or a Task Order.

3. Consultant's Compensation upon Termination or Suspension

In the event of termination of this Agreement or any Task Order, or suspension of Services by Valley Water, Consultant shall receive compensation based on satisfactory performance, accepted by Valley Water, as follows:

A. Direct Labor: Consultant shall be entitled to receive compensation for all authorized direct labor performed prior to termination pursuant to the provisions of this Agreement or Task Order and all authorized labor expenses incurred to demobilize from the Project after the date of termination;

B. Other Direct Costs and Expenses: Consultant shall be entitled to receive compensation for all authorized other direct costs and expenses incurred prior to termination and all authorized expenses incurred to demobilize from the Project after the date of termination; and

C. In no event shall the total compensation paid for any item of Service exceed the payment specified in the Agreement or applicable Task Order for that item of Service.

4. Survival

The Terms and Conditions of this Agreement, that by their context and a standard of reasonableness, are intended to survive termination, suspension, completion, and expiration of this Agreement, shall survive, including but not limited to, the following Sections and subsections: Independent Contractor Status, Confidentiality, Indemnification, Insurance Requirements, and Dispute Resolution, as well as any Consultant representations and warranties.

SECTION EIGHT

INDEMNIFICATION

1. Notwithstanding any other provision of this Agreement, Consultant agrees to indemnify, defend and hold harmless Valley Water, its agents, officers, directors, and employees from and against any and all demands, claims, damages, losses and reasonable expenses, including but not limited to liabilities, obligations, claims, costs, reasonable expenses (including, without limitation, interest, penalties and reasonable attorney's fees), fines, taxes, levies, imposts, assessment, demands, damages or judgments of any kind or nature, whether in law or equity (including, without limitation, death or injury to any person, property damage, administrative and judicial orders and consents, or any other loss) to the extent they arise out of, pertain to, or relate to the Consultant's negligence, recklessness, or willful misconduct.

2. The foregoing does not limit any strict liability imposed on the Consultant by law. The rights, duties, and obligations of the Parties as set forth above in this Section Eight, Indemnification, survive termination, expiration, completion, and suspension of this Agreement.

SECTION NINE

INSURANCE REQUIREMENTS

Insurance requirements applicable to this Agreement are set forth in the Standard Consultant Agreement, Appendix Four, Insurance Requirements. Consultant must provide and maintain at its own expense, during the term of this Agreement, or as may be further required herein, all insurance coverages as detailed in the Standard Consultant Agreement, Appendix Four, Insurance Requirements, and comply with all provisions stated therein.

SECTION TEN

OWNERSHIP AND REUSE OF DELIVERABLES

1. Valley Water Ownership

All deliverables and other materials prepared by Consultant, including computer programs and media developed by the Consultant, to perform the Services, during the term of this Agreement, will be and remain the property of Valley Water following payment in full to

Consultant for each task or portion of a completed task, or in accordance with Section Seven, Term and Termination. In the event the work is not completed, the completed portions thereof will become the property of Valley Water. Consultant will provide Valley Water with such deliverables and material at appropriate times during this Agreement. Consultant may retain a copy for its records. Consultant does not convey, assign, or transfer the intellectual property rights it has, so as to limit its ability or right to develop, design, or provide services on other projects of or for its other clients.

2. Reuse of Instruments of Service

If Valley Water desires to reuse the completed plans, specifications, or other deliverables, in total or in part, on project sites associated with this Agreement, or any other site, or to complete any incomplete portion of construction documentation which Valley Water has already paid Consultant, Valley Water will release Consultant from any liability incurred by Valley Water from reusing said deliverables.

3. Copies of Data

Copies of data exchanged by, through, and between Valley Water and Consultant that may be relied upon are limited to printed copies. Computer-generated files, disks, or tapes of text, data or graphics that are furnished are only for the mutual convenience of the Parties.

4. Computer-Generated Material

Any risk of translation or reliance on information obtained or derived from computer-generated material is at the user's sole risk, and no representations are made, either express or implied, as to the long-term performance of data thus transferred.

5. Work for Hire

Any and all original correspondence, memoranda, reports, designs, plans, specifications, data compilations, computer programs, or drawings delivered to Valley Water by Consultant according to the Terms of this Agreement, in or by any medium is deemed to be "work for hire" according to the copyright laws of the United States and the copyright belongs to Valley Water.

6. Copyright Claims

Co-venturers, subcontractors, Subconsultants, suppliers, and vendors to Consultant are likewise bound by these copyright terms. Valley Water makes no copyright claim and requires no release for copyrighted material or trademarked names used incidentally by Consultant.

SECTION ELEVEN

EQUAL OPPORTUNITY

1. Equal Opportunity Employer

Valley Water is an equal opportunity employer and requires its consultants to have and adhere to a policy of equal opportunity and non-discrimination. In the performance of the Agreement, Consultant will comply with all applicable federal, state, local laws and

regulations, and will not discriminate against any subcontractor, employee, or applicant for employment in the recruitment, hiring, employment, utilization, promotion, classification or reclassification, transfer, recruitment advertising, evaluation, treatment, demotion, layoff, termination, rates of pay or other forms of compensation, and selection for professional development training (including apprenticeship), or against any other person, on the basis of sex (which includes pregnancy, childbirth, breastfeeding and medical conditions related to pregnancy, childbirth or breastfeeding), race, religion, color, national origin (including language use restrictions), ancestry, religious creed (including religious dress and grooming practices), political affiliation, disability (mental and physical, including HIV or AIDS), medical condition (cancer and genetic characteristics), genetic information, marital status, parental status, gender, age (40 and over), pregnancy, military and veteran status, sexual orientation, gender identity and gender expression, the exercise of family and medical care leave, the exercise of pregnancy disability leave, or the request, exercise, or need for reasonable accommodation.

2. Compliance with Applicable Equal Opportunity Laws

Consultant's policy must be in conformance with applicable state and federal guidelines including the Federal Equal Opportunity Clause, 41 Code of Federal Regulations, Part 60-1, §60-1.4; Title VII of the Civil Rights Act of 1964 as amended; the Americans with Disabilities Act of 1990; the Rehabilitation Act of 1973 (§503 and §504); the Age Discrimination Act of 1975 (42 U.S.C. §6101 et seq.); the California Fair Employment and Housing Act (Government Code §12900 et. seq.); and California Labor Code §1101 and §1102.

3. Investigation of Claims

Consultant must designate a specific position within its organization to be responsible for investigating allegations of non-compliance with the anti-discrimination and anti-harassment provisions of this Agreement. Consultant must conduct a fair, prompt, and thorough investigation of all allegations directed to Consultant by Valley Water. In cases where such investigation results in a finding of discrimination, harassment, or hostile work environment, Consultant must take prompt, effective action against the offender.

SECTION TWELVE

MISCELLANEOUS PROVISIONS

1. Entire Agreement

This Agreement, which includes the Terms and Conditions, Appendices, the Schedule(s), Schedule(s)' Attachments, and all executed Task Orders, represents the entire understanding between the Parties hereto relating to the Services described in this Agreement and its executed Task Orders, which are incorporated herein by this reference, and supersedes any and all prior proposals or agreements, whether written or oral, that may exist between the Parties. This Agreement may not be modified or amended except in writing as stated herein. To the extent that any Schedule conflicts with this Agreement, this Agreement shall control.

2. Formation of Agreement

A. No agreement between the Parties is formed until all applicable actions have been completed to the satisfaction of Valley Water. Valley Water Project Manager will not issue a Notice to Proceed until all required documents have been submitted and accepted by Valley Water.

B. Formation of this Agreement between the Parties requires accomplishment of the following, as applicable:

1) Execution of the Agreement by Consultant;

2) Submission by the Consultant, and acceptance by Valley Water, of evidence of all required insurance coverages and documents;

3) Submission by the Consultant, and acceptance by Valley Water, of evidence of all required Form 700 documents, if applicable;

4) Submission by the Consultant, and acceptance by Valley Water, of all required Non-Disclosure Agreements (NDA) as provided in the Schedule(s), Attachment Four, Reference Materials, if applicable;

5) Submission by the Consultant, and acceptance by Valley Water, of a Health and Safety Plan, if applicable;

6) Any other requirements that are deemed necessary by Valley Water; and

7) Execution of the Agreement by Valley Water.

3. No Assignment

A. The expertise and experience of Consultant are material considerations for Valley Water's award and execution of this Agreement. Consultant will not assign or transfer any interest in this Agreement nor the performance of any of Consultant obligations hereunder, without prior written consent of Valley Water in the form of an amendment executed by the Parties, and any attempt to so assign this Agreement, or any rights, duties or obligations arising hereunder, will be void and of no effect. Any assignment of monies due or to become due in accordance with this Agreement, will be to the extent permitted by law, and will be subject to all proper set-offs, deductions, and withholdings in favor of Valley Water.

B. In no event shall an assignment of any interest in this Agreement release the Consultant from its duties and responsibilities as described in this Agreement nor shall the Consultant be released from liability created by the provision of Services as described in this Agreement until such assignment takes effect. Any attempted or purported assignment without Valley Water's written consent in the form of an amendment executed by the Parties is null and void.

4. Reasonableness

Discretionary actions or approvals to be performed by the Parties will be exercised in a reasonable manner.

5. Gifts

Consultant hereby acknowledges that Valley Water policy prohibits the acceptance by Valley Water personnel of gifts of any kind from its contractors, consultants, suppliers or vendors. Consultant shall honor this policy by not sending or bringing gifts to Valley Water.

6. Audits

Consultant agrees that Valley Water and its agent(s) have the right to review, obtain, and copy all records pertaining to performance of this Agreement. Consultant agrees to provide Valley Water and its agent(s) with any relevant information requested, in electronic and hard copy format, at Valley Water's discretion, and will permit Valley Water and its agent(s) access to its premises, upon reasonable notice, during normal business hours for the purpose of interviewing employees (alternatively, by phone at Valley Water's discretion) and inspecting or copying books, records, accounts, computerized records, and other materials that may be relevant to the matter under investigation or subject to audit, such as by a government agency, providing Valley Water with grant funds to pay for Consultant's services, for the purpose of determining compliance with this Agreement. Consultant further agrees to maintain such records for a period of three years after final payment as provided for in this Agreement.

7. Force Majeure

Neither Party will be held responsible for delays caused by acts beyond its control, such as acts of God or public enemies, utility or communication delays, or failures not caused by such Party's negligence or fault, accidents not caused by such Party's negligence or fault, labor disputes, war, or failure of the other Party to provide data as required pursuant to this Agreement.

8. Binding Effect

This Agreement is binding on the heirs, executors, administrators, successors, and assigns of the Parties.

9. Choice of Law and Venue

The Parties agree that this Agreement is to be governed, construed, and enforced in accordance with the laws of the State of California. The Parties also agree that the venue of any litigation arising out of or connected with this Agreement will lie exclusively in the state trial court or Federal District Court located in Santa Clara County in the State of California. The Parties consent to jurisdiction over their persons and over the subject matter of any such litigation in such courts, and consent to service of process issued by such courts.

10. Confidentiality

A. Due to the nature of the services Consultant will provide pursuant to this Agreement, there may be disclosures made to Consultant of detailed information about Valley Water's operations, including on a need-to-know basis information which may be protected from public disclosure by confidentiality laws, the attorney-client privilege, and/or other provisions of law which govern the nature and timing of disclosure of public information.

B. Consultant understands and acknowledges that Valley Water staff members providing information to the Consultant do so with the understanding that such information will be handled appropriately.

C. In the event Consultant receives such restricted or confidential information, Consultant will limit access to the information to only those of Consultant's employees, its subcontractors and its Subconsultants authorized by Valley Water to have the information.

D. Consultant will notify Valley Water immediately of any request by any third party to have access to confidential information and will not disclose the requested information without first receiving express written authorization from Valley Water.

E. Notwithstanding the aforementioned Confidentiality requirements, upon the request of Valley Water Project Manager, Consultant, and its Subconsultants shall execute Valley Water's most current Non-Disclosure Agreement in effect at that time.

F. The requirements stated herein will survive completion, expiration, suspension, and termination of this Agreement.

11. Release of Information Prohibited

Consultant is not permitted to provide any information concerning the Project to the media nor anyone other than authorized Valley Water personnel. Consultant will not release any information pertinent to the Project for publication, public disclosure, or in any other manner without first obtaining clearance and a release in writing from Valley Water. Any media inquiry at any time to Consultant relating to any matter concerning Services provided or requested to be provided pursuant to this Agreement will be referred immediately to Valley Water. Consultant will not communicate with the media regarding any such matter.

12. Conflict of Interest

A. Consultant represents that there exists no actual or potential conflict of interest concerning the services to be performed pursuant to this Agreement.

B. Consultant represents that Consultant's performance required as stated in this Agreement does not require the breach of any agreement or obligation to keep in confidence the proprietary information of another party. Consultant will not bring to Valley Water, or use in the performance of Consultant's duties as described in this Agreement, any materials or documents of another party considered confidential or proprietary unless Consultant has obtained written authorization from such party, and the informed consent of Valley Water, for the possession and use of such materials.

C. Consultant represents and warrants that during the term of the Agreement, Consultant, Consultant's parent company, Consultant's subsidiaries, or any affiliated entity sharing substantially similar ownership of or control with Consultant, shall not act as a Consultant or expert for any party in support of any potential or active claim or legal action against Valley Water by such party.

D. CALIFORNIA FAIR POLITICAL PRACTICES COMMISSION STATEMENT OF ECONOMIC INTEREST FORM 700 ("FORM 700"): Upon Valley Water's request, Consultant employees, officers, agents, Subconsultants, and subcontractors shall complete, execute, and submit a Form 700 as follows:

1) Consultant employees, officers, agents, Subconsultants, and subcontractors assigned to perform services pursuant to this Agreement, shall file, in a manner prescribed by Valley Water, an Assuming Office Statement. The Assuming Office Statement shall be filed:

   a. Within 30 calendar days of the effective date of this Agreement; or

   b. Within 30 calendar days of Consultant hiring, adding, or promoting to a designated filer position, employees, officers, agents, Subconsultants, and subcontractors to perform services pursuant to this Agreement;

2) Consultant employees, officers, agents, Subconsultants, and subcontractors assigned to perform services pursuant to this Agreement, that filed an Assuming Office Statement, shall file in a manner prescribed by Valley Water, an amendment to their Form 700 any time there is a need to correct or change disclosure information;

3) Consultant employees, officers, agents, Subconsultants, and subcontractors assigned to perform services pursuant to this Agreement, that filed an Assuming Office Statement, shall file an Annual Statement in a manner prescribed by Valley Water, during the annual filing season, as determined by Valley Water;

4) Consultant employees, officers, agents, Subconsultants, and subcontractors assigned to perform services pursuant to this Agreement, that filed an Assuming Office Statement, shall file, in a manner prescribed by Valley Water, a Leaving Office Statement with Valley Water when one of the following occurs:

   a. Upon termination of this Agreement; or

   b. Within 30 calendar days of Consultant employees, officers, agents, Subconsultants, and subcontractors vacating a designated filing position (i.e., removed from the Project, promotion, demotion, transfer to non-designated position, end of employment, or as a result of changes in designated filer positions in Valley Water's Conflict of Interest Code);

5) Consultant understands and agrees that its employees, officers, agents, Subconsultants, and subcontractors may be disqualified from providing services to Valley Water pursuant to the California Political Reform Act, Government Code §81000 et. seq. and §1090. If any of Consultant's employees, officers, agents, Subconsultants, and subcontractors are disqualified from providing services, on

written notice from Valley Water Project Manager, Consultant will have 15 calendar days to remove said employee(s), officer(s), agent(s), Subconsultant(s)' and subcontractor(s)' employee(s) from the Project and provide a replacement acceptable to Valley Water;

6) The failure of Consultant's employees, officers, agents, Subconsultants, and subcontractors to file an Assuming Office, Annual, Amended, or Leaving Office Statement within the time prescribed by Valley Water is deemed a material breach and may result in termination of the Agreement for cause.

13. Task Orders

A. Some tasks and Services may be assigned to the Consultant through issuance of Task Orders. After the tasks and Services are identified and communicated to the Consultant by Valley Water Project Manager, Consultant will prepare a proposed Task Order (see Standard Consultant Agreement, Appendix Three, Task Order Template). The proposed Task must identify the following:

1) Description of the Services, including deliverables;

2) The total Not-to-Exceed Fees for Consultant to complete the Services, including estimated number of hours per assigned staff to complete the Services;

3) Proposed staff that will be assigned to complete the Services, including resumes if not previously provided to Valley Water's Project Manager;

4) Estimated cost of each other direct cost and reimbursable expense, including any applicable fees;

5) Schedule for completing the Services; and

6) Copies of applicable state and federal permits required to complete the services, unless previously provided to Valley Water.

B. Consultant agrees that the Not-to-Exceed Fees specified in a proposed Task Order will be the product of a good faith effort in exercising its professional judgment. After an agreement has been reached on the negotiable items, the finalized Task Order will be signed by both Valley Water's authorized representative referenced in the Standard Consultant Agreement, Appendix One, Additional Legal Terms, and Consultant's authorized representative.

C. Consultant must not commence performance of work or services on a Task Order until it has been approved by Valley Water's authorized representative and Notice to Proceed has been issued by Valley Water Project Manager. No payment will be made for any services performed prior to approval or after the period of performance of the Task Order. The period of performance for Task Orders will be in accordance with dates specified in the Task Order. No Task Order will be written which extends beyond the expiration date of this Agreement. The total amount payable by Valley Water for an individual Task Order will not exceed the amount agreed to in the Task Order.

D. Prevailing Wage Requirements: The Scope of Services may be considered by Valley Water to be “Public Works” requiring the payment of prevailing wages. See the Standard Consultant Agreement, Section Four, Fees and Payments, subsection 3. Prevailing Wages, and Appendix Three, Task Order Template.

14. Good Neighbor

Valley Water always strives to be a good neighbor to the community adjacent to its facilities. Consultant will ensure that disturbance to neighbors is minimized. Consultant, its staff, and Subconsultants will always interact with the members of the public in a polite and professional manner.

15. Governmental Permits and Notifications

Unless otherwise expressly stated herein or in an executed Task Order, Consultant represents and warrants that it has investigated the need for, and has or will procure, at its cost, and in its own name to the extent allowed by law, all governmental permits, notifications, approvals and inspections required for the performance of the Services. Consultant shall promptly notify Valley Water if any such permit or approval lapses or is modified or revoked. If, pursuant to applicable law, any such permits or approvals must be procured in Valley Water’s name, Consultant shall promptly so inform Valley Water and assist Valley Water in obtaining such permits or approvals.

16. Taxes and Benefits

Consultant has full and exclusive liability for the payment of, and Consultant will pay, any and all taxes and contributions for unemployment insurance, retirement benefits, workers’ compensation insurance or benefits, life insurance, pensions, annuities and similar benefits and any other employment-related costs, obligations, and duties that may now or hereafter be imposed by law, collective bargaining agreements or otherwise with respect to persons employed by Consultant for the performance of Services pursuant to this Agreement.

17. Nonwaiver of Rights

The failure of either Party to this Agreement to object to or to take affirmative action with respect to any conduct of the other Party that is in violation of the terms of this Agreement will not be construed as a waiver thereof, or as waiver of any future breach or subsequent wrongful conduct.

18. No Third-Party Beneficiaries

Nothing in this Agreement, whether express or implied, shall be construed to give any person or entity, other than the Parties hereto, any legal or equitable right, remedy, or claim under or in respect of this Agreement or any covenants, conditions, or provisions contained herein.

19. Severability

If a court of competent jurisdiction holds any provision of this Agreement to be illegal, unenforceable, or invalid in whole or in part for any reason, the validity and enforceability of the remaining provisions, or portions of them, will not be affected, unless an essential

purpose of this Agreement would be defeated by the loss of the illegal, unenforceable, or invalid provision.

20. Debt Limitation

This Agreement is contingent on the appropriation of sufficient funding by Valley Water for the services described in this Agreement. Valley Water is subject to laws or policies which limit its ability to incur debt in future years. Nothing in this Agreement shall constitute an obligation of future legislative bodies of Valley Water to appropriate funds for purposes of this Agreement.

21. Notices

Unless otherwise specified in this Agreement, all requests for written approval or legal notices must be sent to the representatives below. All notices are deemed to have been given when made in writing and when delivered or mailed to the representatives of Valley Water and Consultant at their respective addresses as follows:

VALLEY WATER:

Deputy Operating Officer listed in the attached Schedule, Scope of Services, Section 1. Representatives.

CONSULTANT:

Consultant Principal Officer, as listed in the attached Schedule, Scope of Services, Section 1. Representatives.

22. Appendices

The following list of Standard Consultant Agreement Appendices are incorporated herein by this reference as though set forth in full:

Appendix One - Additional Legal Terms
Appendix Two - Dispute Resolution
Appendix Three - Task Order Template
Appendix Four - Insurance Requirements

23. Schedule(s) and Attachments

Schedule S, Scope of Services, and the following listed Attachments are incorporated herein by this reference as though set forth in full:

Attachment One - Fees and Payments
Attachment Two - Schedule of Completion
Attachment Three - Consultant’s Key Staff and Subconsultants
Attachment Four - Reference Materials

(SIGNATURES FOLLOW ON NEXT PAGE)

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IN WITNESS WHEREOF, THE PARTIES HAVE SET FORTH BELOW THEIR CONSENT TO THE TERMS AND CONDITIONS OF THIS AGREEMENT THROUGH THE SIGNATURES OF THEIR DULY AUTHORIZED REPRESENTATIVES.

SANTA CLARA VALLEY WATER DISTRICT
Valley Water

By: _____
Nai Hsueh
Chair, Board of Directors

Date: _____

ATTEST:

_____
Michele L. King, CMC
Clerk, Board of Directors

BLACK & VEATCH CORPORATION
Consultant

By: DocuSigned by: Craig Lichty 3B7E7F8EB41D40E...
Craig Lichty
Vice President

Date: 6/25/2024

Consultant's Address:
2999 Oak Rd, Suite 400
Walnut Creek, CA 94597

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STANDARD CONSULTANT AGREEMENT
APPENDIX ONE
ADDITIONAL LEGAL TERMS

1. Conflict of Interest for Future Services

A. Consultant's duties and services pursuant to this Agreement (including Consultant's parent company, Consultant's subsidiaries, or any affiliated entity sharing substantially similar ownership of or control with Consultant, or any of its Subconsultants), shall not include preparing or assisting Valley Water with any portion of its preparation of a request for proposals, request for qualifications, or any other solicitation regarding a subsequent or additional Agreement with Valley Water. Valley Water shall at all times retain responsibility for public contracting, including with respect to any subsequent phase of this Project. Consultant's participation in the planning, discussions, or drawing of project plans or specifications shall be limited to conceptual, preliminary, or initial plans or specifications. Consultant shall cooperate with the public entity to ensure that all bidders for a subsequent contract on any subsequent phase of this project have access to the same information, including all conceptual, preliminary, or initial plans or specifications prepared by consultant pursuant to this Agreement.

2. Dispute Resolution

If a dispute occurs between the Parties as a result of this Agreement, then the Parties agree to use the Dispute Resolution process outlined in the Standard Consultant Agreement, Appendix Two, Dispute Resolution.

3. Small Business Enterprise (SBE) Outreach Program Participation - NOT USED

4. Task Order Approvals

A. Services to be performed pursuant to a Task Order may only commence once a specific Notice to Proceed for that Task Order has been issued by Valley Water.

B. Task Orders are subject to approval by Valley Water Deputy Operating Officer unless delegated to an Assistant Operating Officer and/or Unit Manager.

C. Valley Water Assistant Operating Officer is authorized to approve individual Task Orders in an amount not-to-exceed $[authorization amount]. [NOT USED]

D. Valley Water Unit Manager is authorized to approve individual Task Orders in an amount not-to-exceed $[authorization amount]. [NOT USED]

E. The total not-to-exceed amount for any one Task Order shall not exceed $[NTE Amount]. [NOT USED]

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STANDARD CONSULTANT AGREEMENT
APPENDIX TWO
DISPUTE RESOLUTION

1. Consultant's Questions and Concerns

Questions regarding the Terms, Conditions, and Services relating to this Agreement will be decided by Valley Water who will furnish the decisions to Consultant in writing within 30 days after receiving a written request from Consultant.

2. Dispute Resolution

A. Alternate Dispute Resolution

Valley Water intends to use Alternate Dispute Resolution (ADR) techniques including partnering and mediation to resolve disputes relating to the Project.

B. Consultant and its Subconsultants are expected to participate in all ADR efforts.

C. The cost of partnering, training facilities, and facilitator will be paid for by Valley Water, unless the Parties agree otherwise.

3. Negotiations Before and During Mediation

Negotiations to resolve disputes before and during mediation are initiated for settlement purposes only, are confidential, and are not binding unless otherwise agreed by Valley Water and Consultant.

4. Voluntary Mediation

A. Initiation of Mediation

Any Party to a dispute or claim may initiate mediation by notifying the other Party or Parties in writing.

B. Request for Mediation

A request for mediation must contain a brief written statement of the nature of the dispute or claim, and the names, addresses, and phone numbers of all parties to the dispute or claim, and those who will represent them, if any, in the mediation.

C. Selection of Mediator

1) Upon receipt of a written request for mediation, unless otherwise agreed by the Parties, within 14 days, the Parties will confer to select an appropriate mediator agreeable to all Parties.

2) If the Parties cannot agree on a mediator, they hereby agree to accept a mediator appointed by a recognized association such as the American Arbitration Association.

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D. Qualifications of a Mediator

1) Any mediator selected must have expertise in the area of the dispute and be knowledgeable in the mediation process.

2) No person shall serve as a mediator in any dispute in which that person has any financial or personal interest in the result of the mediation.

3) Before accepting an appointment, the prospective mediator must disclose any circumstances likely to create a presumption of bias or prevent a prompt meeting with the Parties. Upon receipt of such information, the Parties will confer and decide whether to select another mediator.

E. Vacancies

If any mediator becomes unwilling or unable to serve, another mediator will be selected unless the Parties agree otherwise.

F. Representation

1) Any Party may be represented by person(s) of their choice who must have full authority to negotiate.

2) The names and addresses of such person(s) must be communicated in writing to both Parties and to the mediator.

G. Time and Place of Mediation

1) The mediator will set the time of each mediation session.

2) The mediation will be held at a convenient location agreeable to the mediator and the Parties, as determined by the mediator.

3) All reasonable efforts will be made by the Parties and the mediator to schedule the first session within 60 days after selection of the mediator.

H. Identification of Matters in Dispute

1) Parties shall comply with the process as required by the mediator with regard to providing the mediator with a memorandum setting forth its position with regard to the issues that need to be resolved. At the discretion of the mediator, or otherwise agreed by the Parties, the Parties may mutually exchange such memoranda.

2) At the first session, the Parties will be expected to produce all information reasonably required for the Mediator to understand the issue(s) presented. The mediator may require each Party to supplement such information.

STANDARD CONSULTANT AGREEMENT
APPENDIX TWO
DISPUTE RESOLUTION

I. Authority of Mediator

1) The mediator does not have authority to impose a settlement on the Parties but will attempt to assist the Parties in reaching a satisfactory resolution of their dispute.

2) The mediator is authorized to conduct joint and separate meetings with the Parties and to make oral and written recommendations for settlement.

3) Whenever necessary, the mediator may also obtain expert advice concerning technical aspects of the dispute, provided the Parties agree and assume the expenses of obtaining such advice. Arrangements for obtaining such advice will be made by the mediator or the Parties, as determined by the mediator.

4) The mediator is authorized to end the mediation whenever, in the mediator's judgment, further efforts at mediation would not contribute to a resolution of the dispute between the Parties.

J. Privacy

1) Mediation sessions are private.

2) The Parties and their representatives may attend mediation sessions.

3) Other persons may attend only with the permission of the Parties and with the consent of the mediator.

K. Confidentiality

Except as provided by California or federal law or regulation:

1) The mediator will not divulge confidential information disclosed to a mediator by the Parties or by witnesses in the course of the mediation.

2) All records, reports, or other documents received by a mediator while serving as mediator, are confidential.

3) The mediator must not be compelled to divulge such records or to testify in regard to the mediation in any adversary proceeding or judicial forum.

4) The Parties must maintain the confidentiality of the mediation and must not rely on, or introduce as evidence in any arbitration, judicial or other proceedings:

a. Views expressed, or suggestions made by the other Party with respect to a possible settlement of the dispute;

b. Statements made by the other Party in the course of the mediation proceedings;

c. Proposals made or views expressed by the mediator; and

d. Whether the other Party had or had not indicated willingness to accept a proposal for settlement made by the mediator.

L. No Stenographic Record

There shall be no stenographic record of the mediation.

M. Termination of Mediation

The mediation shall be terminated:

1) By the execution of a Settlement Agreement by the Parties;

2) By a written declaration of the mediator to the effect that further efforts at mediation are no longer worthwhile; or

3) By a written declaration of a Party or Parties to the effect that the mediation proceedings are terminated.

N. Exclusion of Liability

No mediator shall be a necessary Party in judicial proceedings related to the mediation.

O. Interpretation and Application of These Mediation Provisions

The mediator will interpret and apply these mediation provisions insofar as they relate to the mediator's duties and responsibility.

P. Expenses

1) The expenses of witnesses for each Party must be paid by the Party producing the witnesses.

2) All other expenses of the mediation, including required travel and other expenses of the mediator, and the expenses of any witness called by the mediator, or the cost of any proofs or expert advice produced at the direct request of the mediator, will be apportioned as the mediator finds appropriate or as otherwise agreed to by the Parties.

5. Compensation for Participation in Mediation

Neither Consultant nor Valley Water is entitled to compensation for time spent in or for negotiations or mediation to resolve questions or disputes between Consultant and Valley Water arising out of this Agreement.

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STANDARD CONSULTANT AGREEMENT
APPENDIX THREE
TASK ORDER TEMPLATE

Task Order No. _____

Title: _____

Agreement: Standard Consultant Agreement _____ ("Agreement") Between the Santa Clara Valley Water District ("Valley Water") and _____ ("Consultant"), dated _____.

Valley Water: _____

Consultant: _____

Dollar Amount of Task Order: Not-to-Exceed $_____

1. Upon full execution of this Task Order No._____, as set forth in the Standard Consultant Agreement, Section Twelve, Miscellaneous Provisions, subsection 13. Task Orders, and the issuance of a Notice to Proceed by Valley Water Project Manager, the Consultant is hereby authorized to perform the Services described in Attachment A to this Task Order. Any costs incurred, Services performed or expenditures by the Consultant before this Task Order is executed or before the issuance of the Notice to Proceed will be considered outside the contracted Scope of Services and will not be eligible for payment.

2. Both the Scope of Services to be performed and the deliverables to be provided in accordance with this Task Order are described in Attachment A which is attached hereto and incorporated by this reference. Attachment A shall include at a minimum the following:

   A. The Consultant personnel to be assigned to perform the Services, including resumes if not previously provided to Valley Water;

   B. The total not-to-exceed fees amount for Consultant to complete the Services, including estimated number of hours required to perform the Services assigned to each Consultant classification;

   C. Estimated cost of each other direct cost and reimbursable expense, including any applicable fees; and

   D. The distribution detail for each service, direct cost, and reimbursable expense. This information must be included in the invoice for the services authorized pursuant to this Task Order; and

   E. Project schedule for completing the Scope of Services.

3. Consultant shall be compensated at fixed fees or at the hourly rates established in Schedule S, Attachment One, Fees and Payments. Consultant agrees that it will provide all equipment and furnish all materials, except as may be otherwise noted in the Attachment A.

4. This Task Order becomes effective on the date of full execution by authorized representatives of the Parties and remains in effect until the earlier of: completion of the tasks set forth in Attachment A or [expected completion date].

5. Copies of applicable local, state and federal permits required to perform the Services described in Attachment A are attached to this Task Order, unless the Consultant previously provided the appropriate permits to Valley Water.

6. Consultant shall perform all Services described in Attachment A to this Task Order in accordance with the Terms and Conditions of the Agreement.

7. Prevailing Wage Requirements [NOT USED]

   A. The Scope of Services described in this Task Order is considered by Valley Water to be "Public Works" requiring the payment of prevailing wages. See the Standard Consultant Agreement, Section Four, Fees and Payments, subsection 3. Prevailing Wages.

   B. In accordance with prevailing wage laws, the Director of the California Department of Industrial Relations (Director) has ascertained the general prevailing rate of wages and employer payments for health and welfare, pension, vacation, and similar purposes available to the particular craft, classification, or type of workers employed on the Project. These rates are set forth in the latest determination obtained from the Director, which is on file in Valley Water's Office of the Clerk of the Board of Directors and incorporated herein by reference the same as though set forth in full. The rates are also available on the State of California Department of Industrial Relations website at http://www.dir.ca.gov.

8. Signatures:

Signature: _____ _____

NAME OF CONSULTANT FIRM — DATE
[PRINT NAME]
[PRINT TITLE]

Signature: _____ _____

SANTA CLARA VALLEY WATER DISTRICT — DATE
[PRINT NAME]
[PRINT TITLE]

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STANDARD CONSULTANT AGREEMENT
APPENDIX FOUR
INSURANCE REQUIREMENTS

Please Note: Failure to comply with the instructions below could result in a delay in receiving the Notice to Proceed. The District will not be responsible for time lost or costs incurred due to failure to comply with these requirements. Please note the check-list of documents needed at the end of this Appendix Four Insurance Requirements.

Without limiting the Consultant's indemnification of, or liability to, the Santa Clara Valley Water District ("District" or "Valley Water"), the Consultant must provide and maintain at its own expense, during the term of this Agreement, or as may be further required herein, the following insurance coverages and provisions as listed below.

Consultant must provide its insurance broker(s)/agent(s) with a copy of these requirements and warrants that these requirements have been reviewed by Consultant's insurance agent(s) and/or broker(s), who have been instructed by Consultant to procure the insurance coverage required herein.

In addition to certificates, Consultant must furnish District with copies of all original endorsements affecting coverage required by this Appendix Four Insurance Requirements. The certificates and endorsements are to be signed by a person authorized by that insurer to bind coverage on its behalf. **All endorsements and certificates are to be received and approved by District before the Agreement is executed**. In the event of a claim or dispute, District has the right to require Consultant's insurer to provide complete, certified copies of all required pertinent insurance policies, including endorsements affecting the coverage required by this Appendix Four Insurance Requirements document.

If your insurance broker has any questions about the above requirements, please advise him/her to email Valley Water Risk Manager at RiskManager@valleywater.org.

Certificates of Insurance

Consultant shall furnish the District with a Certificate of Insurance. The certificates will be issued on a standard ACORD Form.

Consultant shall instruct their insurance broker/agent to submit all insurance certificates and required notices electronically in PDF format to the designated District Contract Administrator and email a copy to **valleywater@ebix.com**.

The certificates will:

1. Identify the underwriters, the types of insurance, the insurance limits, the deductibles and the policy term;
2. Include copies of all the actual policy endorsements required herein; and
3. In the "Certificate Holder" box include:

Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118
Agreement No. A5050A / PB No. VW0379

IMPORTANT: The agreement or PB number must be included.

STANDARD CONSULTANT AGREEMENT
APPENDIX FOUR
INSURANCE REQUIREMENTS

In the Description of Operations/Locations/Vehicles/Special Items Box:

1. Certificate Holder shall be named as Additional Insured;
2. District agreement or project number shall appear;
3. The list of policies scheduled as underlying on the Umbrella policy shall be listed; and
4. Waiver of Subrogation must be indicated as endorsed to all policies.

If Consultant receives any notice that any of the insurance policies required by this Appendix Four Insurance Requirements may be cancelled or coverage reduced for any reason whatsoever, Consultant or insurer shall immediately provide written notice to the designated District Contract Administrator that such insurance policy required by this Appendix Four Insurance Requirements is canceled or coverage is reduced.

Maintenance of Insurance

If Consultant fails to maintain such insurance as is called for herein, District, at its option, may suspend payment for work performed and/or may order Consultant to suspend all Consultant's work at Consultant's expense until a new policy of insurance is in effect.

Renewal of Insurance

Consultant will provide the District with a current Certificate of Insurance and endorsements within thirty (30) business days from the expiration of insurance.

Consultant shall instruct its insurance broker/agent to:

1. Submit all renewals of insurance certificates and required notices electronically in PDF format to: **valleywater@ebix.com**

2. Provide the following information in the "Certificate Holder" box:

   Santa Clara Valley Water District
   5750 Almaden Expressway
   San Jose, CA 95118
   Agreement No. A5050A / PB No. VW0379

   IMPORTANT: The agreement or PB number must be included.

Consultant must, at its sole cost and expense, procure and maintain during the entire period of this Agreement the following insurance coverage(s).

STANDARD CONSULTANT AGREEMENT
APPENDIX FOUR
INSURANCE REQUIREMENTS

Required Coverages

1. **Commercial General/Business Liability Insurance** with coverage as indicated:

   $1,000,000 per occurrence / **$1,000,000** aggregate limits for bodily injury and property damage

   General Liability insurance must include:

   a. Coverage at least as broad as found in standard ISO form CG 00 01.
   b. Contractual Liability expressly including liability assumed under this contract.
   c. If Consultant must be working within fifty (50) feet of a railroad or light rail operation, any exclusion as to performance of operations within the vicinity of any railroad bridge, trestle, track, roadbed, tunnel, overpass, underpass, or crossway must be deleted, or a railroad protective policy in the above amounts provided.
   d. Severability of Interest.
   e. Broad Form Property Damage liability.

2. **Business Auto Liability Insurance** with coverage as indicated:

   $1,000,000 combined single limit for bodily injury and property damage per occurrence, covering all owned, non-owned and hired vehicles.

3. **Professional/Errors and Omissions Liability** with coverage as indicated:

   $2,000,000 per claim/ **$2,000,000** aggregate

   Professional/Errors and Omission Liability appropriate to the Consultant's profession, and must include:

   a. If coverage contains a deductible, or self-insured retention, it shall not be greater than one hundred thousand dollars ($100,000) per occurrence/event.
   b. Coverage shall include contractual liability
   c. If coverage is claims-made:

      i. Certificate of Insurance shall clearly state that the coverage is claims-made.
      ii. Policy retroactive date must coincide with or precede the Consultant's start of work (including subsequent policies purchased as renewals or replacements).
      iii. Policy must allow for reporting of circumstances or incidents that might give rise to future claims.
      iv. Insurance must be maintained and evidence of insurance must be provided for at least three (3) years after completion of the contract of work.

4. **Workers' Compensation and Employer's Liability Insurance**

   Statutory California Workers' Compensation coverage covering all work to be performed for the District.

   Employer Liability coverage for not less than $1,000,000 per occurrence.

STANDARD CONSULTANT AGREEMENT
APPENDIX FOUR
INSURANCE REQUIREMENTS

General Requirements

With respect to all coverages noted above, the following additional requirements apply:

1. **Additional Insured Endorsement(s):** Consultant must provide an additional insured endorsement for Commercial General/Business Liability (for both on-going and completed operations) and Business Automobile liability coverage naming the **Santa Clara Valley Water District, its Directors, officers, employees, and agents, individually and collectively,** as additional insureds, and must provide coverage for acts, omissions, etc. arising out of the named insureds' activities and work. Other public entities may also be added to the additional insured endorsement as applicable and the Consultant will be notified of such requirement(s) by the District. **NOTE:** This section does not apply to the Workers' Compensation and Professional Liability policies.

   (**NOTE:** Additional insured language on the Certificate of Insurance is **NOT** acceptable without a separate endorsement such as Form CG 20 10, CG 2033, CG 2037, or CG 2038. Editions dated 07/04 are not acceptable.)

2. **Primacy Clause:** Consultant will provide evidence (either through the Certificate of Insurance, endorsement or language in the insurance contract) that consultant's insurance is primary with respect to any other insurance which may be carried by the District, its Directors, its officers, agents and employees, and the District's coverage must not be called upon to contribute or share in the loss. **NOTE:** This section does not apply to the Workers' Compensation policies.

3. **Cancellation Clause**: Consultant will provide endorsements for all policies stating that the policy will not be cancelled without 30 days prior notification to the District**.**

4. **Acceptability of Insurers:** All coverages must be issued by companies admitted to conduct business in the State of California, which hold a current policy holder's alphabetic and financial size category rating of not less than A- V, according to the current Best's Key Rating Guide or a company of equal financial stability that is approved by the District's Risk Manager. Non-Admitted companies may be substituted on a very limited basis at the Risk Manager's sole discretion.

5. **Self-Insured Retentions or Deductibles:** Any deductibles or self-insured retentions must be declared to and approved by the District. At the option of the District, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the District, its officers, officials, employees and volunteers; or the Consultant shall provide a financial guarantee satisfactory to the Entity guaranteeing payment of losses and related investigations, claim administration, and defense expenses. Consultant agrees that in the event of a claim they will pay down any agreed upon SIR in a prompt manner as soon as bills are incurred in order to trigger the insurance related to the SIR.

6. **Subconsultants:** The Consultant shall secure and maintain or shall be responsible for ensuring that all subconsultants performing the Contract Services secure and maintain all insurance coverages appropriate to their tier and scope of work in a form and from insurance companies reasonably acceptable to the District.

7. **Amount of Liability not Limited to Amount of Insurance:** The insurance procured by Consultant for the benefit of the District must not be deemed to release or limit any liability of Consultant. Damages recoverable by the District for any liability of Consultant must, in any event, not be limited by the amount of the required insurance coverage.

8. **Coverage to be Occurrence Based:** Except for Professional Liability, all coverage must be occurrence-based coverage. Claims-made coverage is not allowed.

9. **Waiver of Subrogation:** Consultant agrees to waive subrogation against the District to the extent any loss suffered by Consultant is covered by any Commercial General Liability policy, Automobile policy, Workers' Compensation policy described in **Required Coverages** above. Consultant agrees to advise its broker/agent/insurer and agrees to provide evidence (either through the Certificate of Insurance, endorsement or language in the insurance contract) that subrogation has been waived by its insurer.

10. **Non-compliance:** The District reserves the right to withhold payments to the Consultant in the event of material noncompliance with the insurance requirements outlined above.

STANDARD CONSULTANT AGREEMENT
APPENDIX FOUR
INSURANCE REQUIREMENTS

CHECK LIST OF DOCUMENTS NEEDED

General Liability:	A.	Limits **($1,000,000)**	
	B.	Additional Insured (Endorsement)	
	C.	Waiver of Subrogation (COI, Endorsement or policy language)	
	D.	Primacy (COI, Endorsement or policy language)	
	E.	Cancellation Endorsement	

Auto Liability:	A.	Limits **($1,000,000)**	
	B.	Additional Insured (Endorsement)	
	C.	Waiver of Subrogation (COI, Endorsement or policy language)	
	D.	Primacy (COI, Endorsement or policy language)	
	E.	Cancellation Endorsement	

Umbrella:	A.	Limits ($)	
	B.	Primacy (Endorsement or policy language)	

Workers Comp:	A.	Limits **($1,000,000)**	
	B.	Waiver of Subrogation (Endorsement or policy language)	
	C.	Cancellation Endorsement	

Professional Liability:	A.	Limits **($2,000,000)**	
	B.	Cancellation Endorsement	

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SCHEDULE S
SCOPE OF SERVICES

1. Representatives

A. Valley Water's representatives are as listed below. Unless otherwise provided in this Agreement, all correspondence to Valley Water must be addressed to the Valley Water Project Manager (VWPM):

Henry Barrientos (VWPM)
Senior Water Resources Specialist
Recycled and Purified Water Unit
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118-3638

Phone: 408-630-2078
Email: hbarrientos@valleywater.org

Other Valley Water Representatives (All Legal Notices)

Hossein Ashktorab
Recycled and Purified Water Manager
Recycled and Purified Water Unit
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118-3638

Phone: 408-630-2291
Email: hashktorab@valleywater.org

Vincent Gin
Deputy Operating Officer
Water Supply Division
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118-3638

Phone: 408-630-2633
Email: vgin@valleywater.org

B. Consultant's Project Manager is as listed below. All Valley Water questions pertaining to this Agreement shall be referred to the Consultant's Project Manager.

Melanie Tan
Project Manager
Black & Veatch Corporation
2999 Oak Road, Suite 400
Walnut Creek, CA 94597

Phone: 916-858-2459
Email: TanM@bv.com

C. Consultant's Principal Officer for this Agreement is as listed below. As per the Agreement, Section Twelve, Miscellaneous Provisions, subsection 21. Notices, all notices pertaining to this Agreement must be submitted to the Consultant's Principal Officer.

Craig Lichty
Vice President
Black & Veatch Corporation
2999 Oak Road, Suite 400
Walnut Creek, CA 94597

Phone: 925-949-5985
Email: LichtyC@bv.com

2. Scope of Services

A. This Schedule S, Scope of Services describes the professional services to be performed by Consultant for Valley Water's **Desalination Engineering Feasibility Study** (Project). Valley Water reserves the right to initiate a new consultant agreement selection process for services for any subsequent phase(s) and/or utilize Valley Water staff to perform such services.

3. Project Objectives

A. Evaluate engineering feasibility of a seawater desalination facility and determine a suitable capacity and location in the South Bay with minimum 10 million gallons per day (MGD) and maximum 40 MGD production capacity for drinking water supply and develop a concept level setting for the facility.

B. Determine feasible treatment processes for a future desalination facility including intake location(s) and brine management options.

4. Project Background

A. The mission of the Santa Clara Valley Water District, now known as Valley Water, is to provide Silicon Valley safe, clean water for a healthy life, environment, and economy.

Valley Water is a public agency providing water supply, flood protection, and stream stewardship for Santa Clara County. Valley Water manages an integrated water resources system that includes the supply of clean safe water, flood protection and stewardship of streams on behalf of Santa Clara County's 2 million residents. Valley Water effectively manages ten dams and surface water reservoirs, three water treatment plants, a state-of-the-art water quality laboratory, and more than 275 miles of streams. For information about Valley Water, visit www.valleywater.org.

B. Valley Water is seeking to evaluate the engineering feasibility of a seawater desalination facility (Project) in Santa Clara County with intake of seawater from the South San Francisco Bay (South Bay). A desalination facility would augment potable water supplies and serve the primary purpose of providing a new reliable water supply for current and future populations in the Santa Clara County. This engineering feasibility study would

build upon previously completed work by Valley Water which focused on the environmental evaluation and feasibility of a desalination facility.

5. Assumptions and Requirements

A. General Assumptions and Requirements

1) **Manage Scope of services.** The Consultant shall manage the Scope of Services such that the work is completed within the Not-to-Exceed Fees limit and in accordance with the Project schedule and ensure that all services and deliverables meet Valley Water and Project objectives and requirements.

2) **Deliverable Format**. Consultant shall submit deliverables in both electronic and hardcopy format, if requested. Deliverables shall be submitted in PDF and native (editable) format, including Word documents, Excel spreadsheets, PowerPoint files, Autodesk files, etc. The hard copy deliverables shall be printed in professional quality presentation and submitted in 5 (five) copies, if requested. Valley Water may require original copies of signed documents and/or scanned (Adobe PDF) versions.

   a. Valley Water Standardization Requirements

      (1) Consultant shall perform the Services utilizing Valley Water nomenclature, standardized forms, software requirements, documented procedures, and best management practices. Consultant shall use Microsoft Office software and Autodesk Civil 3D software that is compatible with Valley Water's current Microsoft Office software and Autodesk software used at the time(s) Valley Water issues a Notice to Proceed pursuant to this Agreement.

      (2) Engineering drawings prepared by Consultant must be in compliance with Valley Water's Computer-Aided Design and Drafting (CADD) standards including line types, line weights, text sizes, text orientation, dimensioning, labeling/numbering system for detailed plan views and detailed section views. Drawings prepared using different CADD software and versions must be converted to be compatible with Valley Water's CADD software at no additional cost to Valley Water. Prior to acceptance, Valley Water reserves the right to test the submitted CADD files to verify that the files are not corrupted or missing linkages (for blocks, etc., used in the drawings) and that the standards are retained during the conversion process used by the Consultant.

3) **Review of Deliverables**. Valley Water will review and comment on all Project deliverables and forward to the Consultant for revision and preparation of final versions. As determined by Valley Water, some of the deliverables may also be subject to review and comment from regulatory agencies and stakeholders following Valley Water review process. For each deliverable, Valley Water will collect comments from all Valley Water stakeholders and provide a single set of consolidated comments to the Consultant. The comments provided by Valley Water staff during the workshops will be documented by the Consultant as meeting minutes and will be included in the next revision of the documents.

4) **Valley Water Quality Environmental Management System**. Valley Water maintains a Quality Environmental Management System (QEMS) which has procedures, guidelines, and work instructions for the performance of various Valley Water work. If requested, Consultant will perform the applicable Agreement tasks and/or sub-tasks in accordance with the QEMS framework. In such situations, the VWPM will provide the Consultant with the specific QEMS procedure, guideline, and/or work instruction prior to the preparation of such deliverables.

5) **Consultant Responsibility**. Consultant, with its expertise in performing the Services described herein, is responsible for making the appropriate assumptions in each task to complete each task's deliverables and to achieve the Project objectives of this Agreement as described in Section 3. Project Objectives.

6) **Document Control.** Consultant must utilize the document control system designated by Valley Water (Capital Project Management and Project Control's Program).

7) **File Exchange Service.**

   a. Consultant must utilize the file exchange service designated by Valley Water (Capital Project Management and Project Controls Program), accessible to all parties as designated by Valley Water, to facilitate communications.

   b. Consultant may need to coordinate with Valley Water's Capital Project Management and Project Controls Program (CPMPC@valleywater.org) to address any firewall issues and/or permissions required to allow for these communications.

8) **Quality Assurance / Quality Control (QA/QC) Program.**

   a. Consultant will develop and implement ongoing , proven QA/QC procedures. Consultant will implement a formal Quality Management Program to ensure that Valley Water receives quality-controlled deliverables. The Program will include quality control checks of calculations and work products, as well as quality assurance reviews and documentation of the quality control process. Consultant's QA/QC procedures will include a review of all deliverables using appropriately qualified technical resources and advisors for the Project.

   b. The QA/QC procedures will contain details and methodology for reviewing documents, including technical memos and cost estimates. Reviews will be assigned, and sign-off procedures will be documented.

   c. Consultant must provide records that demonstrate that quality reviews were performed on Consultant and subconsultant deliverables.

B. Project-Specific Assumptions and Requirements

1. Figures and layouts will be provided in PDF format.

2. Tasks and/or subtasks are not required to be developed using Valley Water's QEMS framework Unless specifically noted herein, no external agencies or stakeholders will provide review of deliverables.

6. Scope of Services Tasks

Task 1 - Project Management

The purpose of this task is for Consultant to manage this Scope of Services such that the work is completed within the not-to-exceed fees limit stated in Schedule S, Attachment One, Fees and Payments, and in accordance with the Project Schedule stated in Schedule S, Attachment Two, Schedule of Completion, while ensuring that all services and deliverables by the Consultant meet Valley Water and Project requirements.

1.1 **Kickoff Meeting**. Consultant will prepare for and attend in-person kickoff meeting and site visit with Valley Water. The purpose of the kickoff meeting is to introduce key Valley Water and Consultant team members to one another, acquaint all participants with the purpose of and expectations for the Project, describe team members' roles and responsibilities, describe Project procedures, and summarize scope and schedule.

1.2 **Project Administration and Schedule.** Consultant shall provide a draft schedule with key milestones from Tasks 2 through 5 below. Consultant shall complete all work for Tasks 2 through 5 within 12 months from the Notice to Proceed. Consultant shall provide updated schedules at the presentations described under Task 5, Presentation of Results.

1.3 **Meetings with Valley Water**. If requested, Consultant Project Manager must provide a brief update of the team's work activities completed, the look-ahead activities, and the issues and actions that require Valley Water's attention, in a monthly meeting/conference call with the Valley Water Project Manager.

Task 1 – Deliverables and Meetings

1. Draft Schedule with key milestones from Tasks 2 through 5 in PDF format
2. Meeting Agenda and Presentations in PDF format
   a. Monthly (12) project management meetings over one year with Consultant
3. Meeting/Conference Calls attendance and notes in PDF format
4. Signed Final Monthly Invoices and Progress Reports in PDF format.

Task 1 - Assumptions

1. Project duration is one year.

2. Check-in and update meetings will be monthly (12 meetings over one year with Consultant). The meetings will be attended by Consultant's Project Manager, Consultant's Deputy Project Manager and one (1) project team member. Additional attendees (such as subcontractors) per meeting will be determined by Consultant and Valley Water on an as needed basis.

3. A 2-hour kick-off meeting will be held with Consultant's Project Manager and Consultant's Deputy Project Manager.

4. Consultant shall complete all work for Tasks 2 through 5 within 12 months from NTP. Consultant is not responsible in delays to the schedule due to changes in regulatory guidance, their review time or other schedule changes from Valley Water.

5. Each Project Management meeting will be held virtually via Microsoft Teams unless specifically requested by Valley Water.

Task 2 – Data and Information Collection

2.1 Consultant shall prepare a list of Requests for Information (RFI) and provide to VW Staff for data and information collection. Consultant shall utilize the 2023 Desalination Environmental Feasibility and Planning Study (DEFPS) and the most recently adopted Water Supply Master Plan to aid in the development of the Project, as well as projected flows and demands provided by VW. VW shall provide Consultant with necessary data collection sources and information pertaining to this Project, including - but not limited to - Reference Materials in Attachment Four and various reference materials by the entities and Stakeholders described below:

a. DEFPS prepared by GEI Consultants (July 2023);
b. State Water Resources Control Board (SWRCB) and Regional Water Quality Control Board (RWQCB) online databases (e.g., Geotracker, eWRIMS);
c. Don Edwards Refuge;
d. United States Geological Survey (USGS);
e. Valley Water Reports;
f. Department of Water Resources (DWR) reports and online databases (e.g., CASGEM, Groundwater Information Center, Water Data Library, Well Completion Report database);
g. Water resources and land use planning documents from local agencies and municipalities within and near the Study Area (e.g., Urban Water Management Plans, Water Master Plans, General Plans); and
h. Documents prepared under California Environmental Quality Act (CEQA) describing groundwater conditions and use; other federal (e.g., EPA, NOAA), state (e.g., DDW, California GIS Resource Center), and/or local agencies with reports (e.g., BAWSCA); existing groundwater-flow models (for available aquifer parameters in the shallow Study Area).
i. Brackish water studies prepared for Valley Water.
j. Brackish water studies prepared for San Jose Water.

2.2 As part of this task, Consultant will prepare for and attend virtual meetings with key external stakeholders to obtain regulatory and partner inputs to confirm the scope of work required for this Study. Regulatory stakeholders included under this scope of services are:

a. State Water Resources Control Board (SWRCB);
b. Regional Water Quality Control Board (RWQCB);
c. San Francisco Bay Conservation and Development Commission (BCDC); and
d. San Jose Water (SJW).

Task 2 – Deliverables and Meetings

1. Meeting agendas, presentations and notes in PDF format and associated supplemental materials
2. Draft and Final Summarized Data Requests Technical Memorandum
3. Meetings with VW Staff for data and information collection.
4. Meetings with SWRCB and RWQCB
5. Meetings with SJW

Task 2 - Assumptions

1. Consultant PM and if required, Deputy PM will attend all the meetings.
2. Consultant will issue RFIs based on the review and analysis of the DEFPS and other Reference Materials as needed.
3. Environmental data in Valley Water's possession is available electronically. A public records request will need to be acquired for other data.
4. Consultant will hold two (2) virtual meetings each at two (2) hours in length with VW staff for data and information collection.
5. Consultant will hold a total of six (6) meetings each at two (2) hours in length with the SWRCB, RWQCB, and SJW virtually, via Microsoft Teams. One (1) Subject Matter Experts (SMEs) from Consultant will attend each meeting.
6. Valley Water will provide updated Computer-Aided Design and Drafting (CADD) standards.
7. Valley Water will provide information to Consultant within three (3) weeks after receiving RFI.

Task 3 – Feasibility Study

Consultant shall conduct a Feasibility Study of a desalination facility (reverse osmosis or equivalent) to produce potable water to augment existing VW water supplies. The Feasibility Study will begin with a Fatal Flaw Analysis (Task 3.1) to screen the alternatives identified in the Desalination Environmental Feasibility and Planning Study (DEFPS). The alternatives that pass the Fatal Flaw Analysis will then go through a more detailed Alternatives Analysis (Task 3.2).

3.1 **Fatal Flaw Analysis**. The Fatal Flaw Analysis will guide the Alternatives Analysis and includes three areas of focus: (3.1.1) Subsurface Intakes, (3.1.2) Brine Management, and (3.1.3) Siting Considerations.

3.1.1 Subsurface Intakes. Subsurface intake evaluation will include hydrogeologic characterization and feasibility analysis as described below to determine the maximum feasible yield of source water. Three (3) potential subsurface intake sites will be investigated.

3.1.1.1 Hydrogeologic Characterization. The hydrogeologic characterization will include collection of data for the deep aquifer; however, the focus of the characterization will be the shallow subsurface in the Study Area.

3.1.1.2 Climatic and Hydrologic Data. Consultant will provide a description of the physical environment including climate, topography, surface water features, and tidal flux in the Study Area. This task will also provide a discussion of expected seawater level rise for the Study Area.

3.1.1.3 Brackish Groundwater. Consultant will conduct a review of prior studies pertinent to brackish groundwater desalination within the study area, and assess the feasibility of integration with bay water intake options through blending with groundwater. Factors to be considered in evaluation of brackish source water include likely well yields and chloride concentrations; and common challenges associated with groundwater pumping, such as land subsidence, groundwater quality, and the risk of salt water intrusion.

3.1.1.4 Geology. The surficial geology and hydro stratigraphy of the Study Area will be documented. This will include maps of soils, surficial geology and description of the unconsolidated alluvial aquifers and aquitards, such as bay mud. The vertical extent of aquifers and aquitards will be documented. Geologic structure will be summarized, including description of any nearby faults affecting groundwater flow in the shallow subsurface.

Consultant will provide three (3) (one through each of the three potential subsurface intake sites) hydrogeologic cross-sections through the Study Area. The cross sections will depict the ground surface, discontinuous nature of fine- and coarse-grained materials, estimated depths to groundwater in the shallow and deep aquifers. While data will be collected to the full depth of the lower confined aquifer to the bedrock base, the focus of this investigation and cross sections is the shallow aquifer and near subsurface materials where subsurface intake facilities could be located.

3.1.1.4.1 Aquifer Hydraulic Properties and Local Extraction Rates. Aquifer hydraulic properties (e.g., hydraulic conductivity, transmissivity, and storativity) and well performance (e.g., yield and specific capacity) will be described for the shallow subsurface materials in the Study Area. Aquifer parameter data in the shallow subsurface in the Study Area are likely to be very limited due to the prevalence of fine-grained materials and lack of production or monitoring wells. Available aquifer parameters such as transmissivity and storativity will be extracted from available groundwater flow models for the local area. If any nearby environmental release sites include pumping test or remedial extraction well extraction data, these data will be compiled and summarized to help characterize potential shallow subsurface well yields. The resulting data set will be a key component in assessing the adequacy of potential subsurface intake well or well systems to meet design capacity.

3.1.1.4.2 Groundwater Levels and Flow Direction. Valley Water collects and reports on groundwater levels and flow directions as part of regular reporting. Currently groundwater flow in both the shallow and deep aquifers are toward the Bay. Depth to shallow groundwater in the

Study Area will be extracted from Valley Water contour maps. Any available nearby environmental release site groundwater level data will also be documented. Maps showing shallow groundwater flow contours in the Study Area will be prepared.

3.1.1.4.3 Tidal Flux. The levels of Bay water in the Study Area will be discussed. Tidal flux is not expected to impact proposed subsurface intake bermed pond locations but may impact the Charleston Slough that is open to the Bay. Estimates of slough inundation will be described in terms of surface elevation and tide levels.

3.1.1.4.4 Water Quality. This task will provide an overview of Study Area groundwater quality conditions, trends, factors, and issues focused on chloride, boron, and total dissolved solids (TDS) as indicators of Bay water intrusion. Chloride maps prepared by Valley Water will be presented for the Study Area along with a discussion of seawater intrusion mechanisms. USGS studies evaluating sources and mechanisms of elevated seawater indicator chemicals in the South Santa Clara Valley, which will be described.

3.1.1.5 Subsurface Intake Fatal Flaw Analysis. Consultant will prepare a report describing the Subsurface Intakes Fatal Flaw Analysis including appropriate text, charts, figures, and tables to support the assessment. The Subsurface Intakes Feasibility Analysis will incorporate guidance related to geologic and hydrogeologic considerations from the regulatory agency consultation and, if available, the latest state regulatory guidance on the geological and hydrogeological considerations that must be taken into account when evaluating the feasibility of subsurface intakes.

The three subsurface intake sites will be characterized based on available data. The Study Area hydrogeology will be used to assess the potential for use of the three identified locations for subsurface intakes. Based on the hydrogeology described, the feasibility of subsurface intakes will be assessed in terms of 1) lateral connection of shallow subsurface permeable units to the Bay water and 2) potential yields of well or well systems installed in the proposed subsurface intake locations to meet design capacities. If any nearby remedial extraction well data are available, they will be used to estimate potential Study area well or well system yields. Lacking those data, aquifer parameters extracted from the available numerical flow models will be used to estimate shallow well yields. Conclusions, data gaps/limitations, and recommendations for additional study will be included.

3.1.1.6 Source Water Availability. The fatal flaw analysis will determine whether the maximum feasible yield of source water can support the minimum production capacity of the desalination facility. Specifically, the investigation will determine whether there is sufficient yield to support Valley Water's desalination facility to meet the water supply gap that is anticipated to be 24,000 AFY. This requires a minimum of 50 MGD of source water. If 50 MGD of source water is not feasible, the maximum capacity of the subsurface intake well or well systems will be

determined and will be used as part of the hybrid option (subsurface intake and open intake) that will be evaluated as part of the Alternatives Analysis (Task 3.2).

Aquifer hydraulic properties (e.g., hydraulic conductivity, transmissivity, and storativity) and well performance (e.g., yield and specific capacity) will be described for the shallow subsurface materials in the Study Area. Aquifer parameter data in the shallow subsurface in the Study Area are likely to be very limited due to the prevalence of fine-grained materials and lack of production or monitoring wells. Available aquifer parameters such as transmissivity and storativity will be extracted from available groundwater flow models for the local area. If any nearby environmental release sites include pumping test or remedial extraction well extraction data, these data will be compiled and summarized to help characterize potential shallow subsurface well yields.

3.1.2 Brine Management. The Fatal Flaw Analysis of brine management will be informed by California Water Code section 13142.5(b) and the California Ocean Plan's desalination regulation as well as the regulatory agency consultation process. Pursuant to California Ocean Plan's regulations, the feasibility assessment fatal flaw analysis will focus on the preferred technology for minimizing intake and mortality of all forms of marine life resulting from brine discharge, which is to commingle desalination plant brine with wastewater (e.g., agricultural, municipal, industrial, power plant cooling water, etc.) that would otherwise be discharged. The following tasks will determine whether wastewater can provide adequate dilution to ensure salinity of the commingled discharge meets the receiving water limitation for salinity in chapter III.M.3 of the California Ocean Plan:

a. Calculate brine/effluent blending ranges based on long-term treated effluent availability from Palo Alto Regional Wastewater Quality Control Plant (RWQCP) and from San Jose/Santa Clara Regional Wastewater Facility (RWF);
b. Assess regulatory feasibility of desalination facility final effluent deepwater outfall option to deepwater channel in north central Lower South San Francisco Bay;
c. Coordinate with project team to identify likely extent of receiving water monitoring and mitigation studies based on Ocean Plan guidance. Identify initial dilution and far-field modeling studies that may be required to support a 100% brine or 1:1 brine to effluent blend. Conduct focused reasonable potential analysis and identify potential requirements of new NPDES permit;
d. Coordinate with project team to assess the ability of a horizontal levee (HL) to successfully treat either 100% brine or a 1:1 brine to effluent blend. If deemed infeasible, team to assess feasibility to redesign a HL to process 100% brine or a 1:1 brine/effluent blend. Coordinate with team to develop estimates of HL land area required to process 100% brine and 1:1 brine/effluent blend based on assumed hydraulic loading ability of HL. Identify potential requirements of a new NPDES permit for the HL effluent;
e. Assess regulatory feasibility of discharging 1:1 brine to effluent blend through either the RWQCP or the RWF shallow water outfall. Coordinate with project team to identify likely extent of receiving water monitoring and mitigation studies based on Ocean Plan guidance. Identify initial dilution and mixing zone modeling studies that may be required. Conduct focused reasonable potential analysis to identify pollutant metals that may require new or modified NPDES permit effluent limits or other permit requirements to accommodate a brine discharge;

f. Assess potential extent of qualitative impacts to existing POTW outfall locations (receiving waters) based on brine discharge from the deepwater outfall or from HL sites;
g. Review ROC treatment/management alternatives being studied by VW and provide qualitative assessment of their feasibility for desalination brine treatment/management; and
h. Prepare draft and final technical memorandum summarizing results of above tasks.

3.1.3 Siting Considerations. Consultant will work with Valley Water and stakeholders to ensure the range of the desalination facility design capacities evaluated in Task 3.1.1.5 Source Water Availability is consistent with applicable local, state and federal regulations. Consultant will review site locations and eliminate any sites with potential Fatal Flaws based on the following considerations:

3.1.3.1 Regulatory. Applicable regulations for a seawater desalination project in South San Francisco Bay will be assessed. The relevance of the California Ocean Plan (State and Regional Water Boards) will be critical factors in determining the options available (e.g., siting, capacity, intake and discharge technologies, mitigation) for a proposed plant. Consultant will review all previous communications/outreach to regulators to understand project history and to develop a regulatory roadmap for the proposed plant.

Consultant will eliminate options; the remaining viable options will be assessed in greater detail and will assist primarily in the siting, sizing, and intake/discharge technology evaluations.

3.1.3.2 Engineering. A high-level evaluation of site availability for the intakes, outfalls, and treatment plants at the locations Identified in the DEFPS ~~GEI~~ report will be conducted.

3.1.3.3 Geotechnical. A comparative assessment of foundation concepts and ground improvement options across selected sites based on liquefaction hazard, settlement hazard, and general subsurface stratigraphic conditions will be performed to validate siting locations.

Consultant will prepare a Desktop Geotechnical Technical Memorandum for sites that passed the fatal flaw analysis. The study will look at geologic hazards, stratigraphic units, geomorphology, land modifications, sedimentation and erosion, use available geotechnical data (e.g. borings, CPTs) from nearby sites and integration into a geo-database, and prepare conceptual foundation design inputs for project facilities.

3.2 Alternatives Analysis. The project elements that have passed through the Fatal Flaw Analysis (Task 3.1) will be further evaluated as part of the Feasibility Study.

3.2.1 **Technology Evaluation**. Consultant will recommend one treatment process based on the assumed raw water quality makeup, best suited for desalination facility requirements considering any space limitations. Consultant shall identify and evaluate current

regulations in meeting treatment requirements based on meetings in Task 2 Data and Information Collection.

3.2.2 **Location and Sizing Evaluation**. Consultant will use the recommended location that passed through Fatal Flaw Analysis for siting of the proposed desalination facility, including sea water intake and outfall options, and an evaluation of related geology and hydrodynamic impacts.

3.2.3 **Intake Location Evaluation**. If it is determined during Fatal Flaw Analysis that subsurface intakes are not feasible to achieve the minimum flow objective, then Consultant shall evaluate an open water intake and/or a hybrid approach that also includes a smaller flow capacity subsurface intake system coupled with an open water intake. Consultant shall recommend schematics illustrating size requirements for subsurface intakes and potential locations.

3.2.4 **Reverse Osmosis Concentrate / Brine Disposal Evaluation**. If commingling desalination plant brine with wastewater that would otherwise be discharged from one of the existing local facilities is eliminated as feasible during the Fatal Flaw Analysis, then Consultant, through consultation with VW and regulatory agency staff, will determine regulatory acceptance of horizontal levees prior to evaluating the construction of a deep-water outfall as preferred project alternative.

Consultant shall include:

a. Brine / RO concentrate discharge and possible impacts to publicly owned treatment works (POTWs) outfall locations within the Santa Clara County as determined in the Fatal Flaw Analysis;
b. Schematics illustrating size requirements and potential locations;
c. Consider any RO concentrate/brine management strategies with those currently being studied by VW and shall coordinate with VW for any alternative management strategies;
d. Qualitatively evaluate two (2) different RO concentrate/brine disposal options including the desalination facility final effluent outfall and adjacent salt-water wetlands; and
e. Include an evaluation of any potential impacts to existing POTWs in the vicinities of the project site.

3.2.5 **Distribution System Connection Points and Storage Evaluation**. Consultant shall evaluate the most suitable connection points, sizing, regulatory requirements, etc. for the product water blending with the potable water supply and include all facilities (including additional storage and in-situ instrumentation) needed to blend the product water with existing potable water. Two (2) connection points will be evaluated.

3.2.6 **Scalability Evaluation**. Consultant shall size the facility for the maximum capacity available at the selected facility site, intake, and outfall to meet long-term and interim demands for increased potable water production. The optimal near-term size will be determined and the layout will consider expansion to the maximum capacity available.

3.2.7 **Opinion of Probable Construction Cost**. Consultant shall calculate and provide a Class 5 Opinion of Probable Construction Cost (OPCC) estimate per the AACE International classification system including both capital expenditures (CAPEX) and operating expenses (OPEX) for the most viable option. The cost estimate shall be appropriate for a feasibility study for a project definition of 0 – 2 percent and an expected accuracy of -50 to +100 percent.

3.2.8 **Sensitivity Analysis** - NOT USED

3.2.9 **Greenhouse Gas Emissions & Energy Consumption Evaluation**. Consultant shall estimate the proposed desalination facility's greenhouse gas emissions and energy use for the average annual production.

Task 3 – Deliverables and Meetings

1. Fatal Flaw Analysis Technical Memorandum Draft and Final PDF. The Fatal Flaw Analysis TM will include attachments for:
   a. Hydrogeologic Characterization (Tasks 3.1.1.1 through 3.1.1.6)
   b. Brine Discharge Alternatives (Task 3.1.2)
   c. Desktop Geotechnical Technical Memorandum (Task 3.1.3)
2. Provide draft Feasibility Study Report outline at 10 percent project completion to VW for review at least fourteen (14) calendar days prior to the corresponding presentations.
3. After the Fatal Flaw Analysis Results Workshop and TM, compile and summarize the results from Tasks 2 – 5 into a Feasibility Study Report. Provide draft reports at 50, 80, and 95 percent project completion (a total of three (3) submittals) to VW for review at least fourteen (14) calendar days prior to the corresponding presentations. Report shall include schematics, flow sheets and preliminary site plans.
4. Meeting notes and associated supplemental material for the three (3) (50, 80, and 95 percent) Task 3 Percent Project Completion Meetings (2-hrs each).
5. Final Feasibility Study Report.
6. PDF of meeting notes and materials
7. Fatal Flaw Analysis Results Meeting.
8. The Project Completion Meetings. See Task 5.

Task 3 - Assumptions

1. Fatal Flaw Analysis Results Meeting will be presented in a virtual, two (2) hour Workshop. Notes and slides will be submitted in PDF format.
2. CA Water Code section 13142.5(b) and the California Ocean Plan's desalination regulations apply to the project study area.
3. Feasible is defined "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors."
4. The scope of the subsurface intake Fatal Flaw analysis will be limited to the geologic and hydrogeologic considerations as identified in existing regulatory guidance.

5. A project alternative that passes through the Fatal Flaw Analysis does not guarantee acceptance by local, state and federal permit and regulatory agencies.

6. Cost estimate will be provided for the one (1) alternative included in the Feasibility Study.

7. All requested data will be received within two weeks of RFIs.

8. The Hydrogeologic Characterization of Study Area and Subsurface Intake Feasibility Analysis will extract aquifer parameters from existing numerical groundwater flow models but will not include any numerical modeling as part of the analysis.

9. One site reconnaissance visit to proposed subsurface intake sites is included. It is assumed that the sites can be visited in one 8-hour day under one mobilization, but the number of proposed sites is uncertain, and more time may be needed.

10. No drilling, well installation, sampling or laboratory analysis is included e.g., no site-specific field investigation will be conducted under this project.

11. Valley Water will be responsible for and will coordinate any needed access agreements for the reconnaissance site visits.

12. For the Fatal Flaw analysis, brine production scenario to be assessed is limited to the production capacity determined in Task 3 for the brine that may be blended 1:1 with treated effluent.

13. Primary focus of brine disposal feasibility evaluations will be on compliance with likely SFB Regional Water Board and Ocean Plan Requirements

14. Brine disposal feasibility evaluations will be qualitative and based on readily available information and currently applicable regulatory guidance and regulations.

15. VW to provide long-term treated effluent availability data from RWQCP and RWF.

16. Consultant will download readily available LSB receiving water quality data from SFEI RMP to assess brine pollutant levels, with brine concentrations assumed two times ambient.

17. Comments and responses matrix are not required.

18. Valley Water will provide anticipated long-term water demands for 2040.

19. For the Brackish Groundwater review (Task 3.1.1.3)

    a. The study area for this task is the area from the Bay edge to the year 2020 100 mg/L chloride concentration contour plus a one-half mile buffer inland of the contour.

    b. The Consultant is not providing an upper limit on the number of sites to review, instead priority will be given to site locations based on preferred chloride groundwater concentrations, readily available reports and data from Valley Water, sites with lithologic logs extending deeper into the shallow aquifer and detailed cross sections, and sites with aquifer tests or remedial extraction wells.

c. The investigation will focus on the shallow aquifer as elevated chloride in the principal aquifer is localized.

d. In addition to prior studies, Consultant will review available data and reports on environmental release and dewatering sites in the study area. This may require additional RWQCB file reviews if all environmental site reports and data are not available from Valley Water. It is uncertain the number of environmental and dewatering sites that might be located in the study area. Accordingly, Consultant will prioritize the Bayfront area and move out toward the extent of the buffer area as budget allows. Note that permeable lenses extent and thickness (and likely higher well yields) in the shallow aquifer increase with distance from the Bay.

e. No site-specific cross sections will be prepared for this task.

f. No modeling will be conducted as part of this task.

g. The permeable lenses in the shallow aquifer have been characterized as thin and of limited lateral extent. Therefore, conditions at one site might not be representative of conditions at a nearby site. After literature review and fatal flaw analysis is completed, site specific field studies at each site that are not part of this scope of services will be required to confirm the permeability of the potential well yields.

h. Data may be insufficient to definitively characterize shallow aquifer well yields and parameters at any given location. Site specific field studies will be required to close data gaps.

Task 4 – California Environmental Quality Act (CEQA) and Other Regulatory Requirements

4.1 Consultant shall consider applicable California Environmental Quality Act (CEQA) and other potential regulatory requirements from SWRCB, RWQCB and BCDC, that may apply to the future construction and operation of the proposed desalination facility as described in the EFPS. Consultant shall include a CEQA and Regulatory Requirements Report, that will include estimated timelines and a list of permits required.

4.1.1 The Engineering Feasibility Study will include a discrete section on CEQA and regulatory permitting requirements, summarizing the results of an attached CEQA and Regulatory Requirements Report to be prepared. The intent is to build on the DEFPS document and provide refined information relevant for the assessment of engineering feasibility for the selected alternative. The intent is not to cover all applicable regulations and requirements but rather to focus on those regulatory requirements that may influence the determination of project feasibility. It is anticipated that Consultant's review will be supported by an initial site reconnaissance visit, the agency meetings, and review of the EFPS and other materials provided by Valley Water.

4.1.2 Consultant will prepare and lead presentations related to CEQA and Regulatory Requirements Report.

4.1.3 Consultant will address Valley Water comments on each version of the document and will present a clean and track changes version of the subsequent report to Valley Water. Valley Water comments on the report are assumed to be relatively minor in nature and will not require additional technical work to address.

Task 4 – Deliverables and Meetings

1. See Task 3 Deliverables. CEQA and Regulatory Requirements Report will be an Attachment to the report in Task 3.1 Fatal Flaw Analysis at 80% and Final submittal. It will not be updated at each deliverable.
2. Meeting Notes and associated supplemental material.
3. Check-in Meetings

Task 4 - Assumptions

1. Two (2) presentations, one (1) hour each, will occur virtually via Microsoft Teams for the Task 4 items. Meetings will be attended by Consultant PM, Deputy PM and one (1) SME.

2. One (1) 8-hour site visit to the selected facility site, intake, and outfall.

3. Separate comments and responses matrix are not required.

4. The CEQA Checklist may be prepared as an Optional Task.

Task 5 – Presentation of Results

5.1 Consultant shall present progress and results to VW at 80 and 100 percent project completion. VW will provide feedback that the Consultant will incorporate into the project and summary report.

5.2 Consultant shall provide presentation attendees with summary notes and electronic copies of any supplemental materials used during the presentations no later than seven (7) calendar days from the presentation. Consultant may be required to also prepare and present the findings of the Feasibility Study to the VW Board of Directors and/or special committees.

Task 5 – Deliverables and Meetings

1. See Task 3 Deliverables.
2. Meeting Notes and associated supplemental material.

Task 5 - Assumptions

1. One (1) virtual presentation of results meeting will be held with Valley Water at 100 percent project completion. Presentation will be one (1) hour long and attended by Consultant PM, Deputy PM and one (1) SME.

2. One (1) virtual presentation of 1-hr each to the Valley Water Board of Directors and special committees to present results and attended by Consultant PM, Deputy PM and one (1) SME.

3. Separate comments and responses matrix is not required.

Task 6 - Supplemental Services

Valley Water may require, and the Consultant will perform, Supplemental Services on an as-needed basis. Prior to performing any Supplemental Services, Consultant must receive an approved Task Order issued by Valley Water and executed by both Parties. Refer to the Standard Consultant Agreement, Section Twelve, Miscellaneous Provisions, subsection 13. Task Orders, and Appendix Three, Task Order Template.

6.1 Specific examples include, but not limited to:

6.1.1 Stakeholder Meetings

6.1.1.1 As directed by VW staff, Consultant may present results to stakeholders at 80 and 95 percent project completion. Consultant shall incorporate feedback provided by the VW after the 80 percent project completion presentation under Task 5, Presentation of Results prior to the 80 percent project completion stakeholder meeting. Stakeholders include, but are not limited to, residents, nongovernmental organizations, VW and its directors, Cities within Santa Clara County (including Cities of San Jose, Palo Alto, and Mountain View), and the San Francisco Bay Regional Water Quality Control Board.

6.1.1.2 This type of one-on-one meeting is a qualitative research method best-suited for uncovering the range of views, beliefs, attitudes, opinions, and experiences that may exist in a certain population, primarily among key stakeholders. During the meeting, an experienced interviewer uses a discussion guide to conduct a structured conversation with participants. Like other qualitative methods, the one-on-one meetings allow for detailed exploration of topics but do not provide data that is statistically representative of a larger population. Instead, the information obtained is descriptive and should be considered as representing a range of opinions that may exist among various segments, especially key stakeholders, agencies and community leaders. The Consultant will help identify the stakeholders and how best to communicate with them.

6.1.1.3 Benefits: This optional task is recommended as it has been proven to be highly effective in identifying understated project concerns, potential project opposing views, and garnering project support from important key stakeholders. Findings from the In-Depth Interview (IDI) process are highly effective in helping to shape outreach strategy and communication planning for a project as it evolves and progresses toward agency consideration and implementation.

6.1.1.4 IDIs can reap the following results:

a. Assess current perceptions of water supplies and role desalination may play.
b. Learn initial reactions to and perceptions about proposed desalination applications and options.
c. Listen to views on the best approach for introducing the use of desalination water to the community.

d. Listen to views on the best approach for delivering specific outreach messages, and even testing messages.
e. Hear views from trusted sources of information within the community.
f. Answer questions and respond to various perceptions directly with stakeholders during interviews, and if necessary, mitigate mis-information.
g. Consider the best approach toward educating and engaging the greater community if a desalination project were to move forward.

6.1.2 Public Outreach

Consultant shall, at the discretion of Valley Water, prepare informational material in collaboration with Valley Water Outreach Staff and assist staff with reports, presentations, and workshops for Valley Water management, Committees, and partner agencies as needed. Consultant shall, as needed, provide administrative and/or technical support at public outreach events. Consultant shall assist, as needed, in educational campaigns and stakeholder meetings on the benefits of desalination to increase public perception and awareness of the potential expansion opportunities. At the discretion of Valley Water, prepare informational material in collaboration with Valley Water Outreach Staff and assist staff with reports, presentations, and workshops for Valley Water management, Committees, and partner agencies as needed. Consultant shall, as needed, provide administrative and/or technical support at public outreach events. Consultant shall assist, as needed, in educational campaigns and stakeholder meetings on the benefits of desalination to increase public perception and awareness of the potential expansion opportunities.

6.1.3 Conceptual Design

Consultant shall produce design parameters and associated schematics for 5 percent project definition for the desalination facility with a product water capacity determined in Task 3 to achieve an instantaneous TDS of 200 ± 50 mg/L after being blended with existing raw water or other water supplies. Consultant shall define these parameters for the following projections:

a) Near Term – 2024: Incorporates estimated near-term increases in potable water demand.

b) Long Term – 2040: Incorporates estimated long-term increases in potable water demand due to regional growth and other sources of demand.

c) Scalability Evaluation - Not Used.

d) Opinion of Probable Construction Cost
Consultant shall calculate and provide a Class 4 OPCC estimate per the Association for the Advancement of Cost Engineering (AACE) International classification system. The cost estimate shall be appropriate for a feasibility study for a project definition of 1 – 15 percent and an expected accuracy of -30 to +50 percent.

e) Schematics & Site Plans
Consultant shall provide process schematics and preliminary site plans indicating sizing requirements, locations, and process connections needed for systems evaluated.

6.1.4 Funding Identification & Assistance – NOT USED

6.1.5 CEQA Checklist

A CEQA Checklist shall be prepared for the one selected alternative and will include a list of permits with estimated timelines. The Checklist shall be added as an attachment to the CEQA and Regulatory Requirements Report.

6.2 Additional Services. Consultant will provide additional quantities of previously identified services as requested by Valley Water. Consultant will provide additional services for any quantity of tasks and deliverables beyond those stated in Task 1 through 5 as Task 6 Supplemental Services, to include but not be limited to:

6.2.1 Additional meetings; six (6) additional meetings for two (2) team members at four (4) hours each for preparation and participation.

6.2.2 Additional time allotted for meetings;

6.2.3 Additional status/progress reports;

6.2.4 Additional phone conference calls; 12 additional conference calls for two (2) team members at one (1) hour each per call.

6.2.5 Additional pages or copies of technical memoranda, plans, reports, drawings, and specifications; and

6.2.6 Additional public outreach visual materials.

Task 6 – Deliverables

1. Draft and Final PDF Conceptual Design Report.

2. Meeting minutes.

3. Draft and Final CEQA Checklist document for selected alternative.

Task 6 – Assumptions

1. Task 6.1.1 - 8 additional meetings, time for meetings, status/progress reports, conference calls and public outreach has been included in this task. This includes the PM, Deputy PM, and 1 SME. This task also includes 15 in-depth interviews.

2. Task 6.1.2 - 50 one-hour meetings with Data Instincts in preparation for Public Outreach. Two meetings for Public Outreach with Miller Marine Science. One additional Consultant representative available for each meeting.

3. Task 6.1.3 - No electrical or I&C design or consideration is included in conceptual design.

4. Task 6.2.2 - Conceptual design report will include items listed in the task. There will be no structural, architectural, electrical, or instrumentation and control concepts included. It will be schematic in nature and cover general design requirements and site and process schematics.

5. Separate comments and responses matrix is not required.

7. Attachments

The following Standard Consultant Agreement listed Attachments are incorporated herein by this reference as though set forth in full:

Attachment One - Fees and Payments
Attachment Two - Schedule of Completion
Attachment Three - Consultant's Key Staff and Subconsultants
Attachment Four - Reference Materials

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SCHEDULE S
ATTACHMENT ONE
FEES AND PAYMENTS

1. Total Authorized Funding

Total payment for Services performed, to the satisfaction of Valley Water, as described in the Schedule(s) will not exceed a total amount of **$1,717,738** (Not-to-Exceed Fees or NTE). Under no conditions will the total compensation to the Consultant exceed this NTE payment amount without prior written approval in the form of an amendment to this Agreement executed by Valley Water's Board of Directors (Board) or Board designee.

2. Cost Breakdown

The NTE total compensation of this Agreement consists of the following task fee breakdown. No services will be performed or fees paid by Valley Water to the Consultant for Supplemental Services without written authorization by Valley Water as stated in this Agreement.

COST BREAKDOWN

Task	Description	Not-to-Exceed Fees
1	Project Management	$233,563
2	Data and Information Collection	$67,034
3	Feasibility Study	$889,957
4	CEQA and Other Regulatory Requirements	$80,537
5	Presentation of Results	$35,961
6	Supplemental Services	$410,686
	Total Not-to-Exceed Fees	**$1,717,738**

3. Terms and Conditions

A. Payments for Services performed, as defined in this Schedule, which applies to the specific Services, will be based on the following terms:

1) Valley Water will pay for Services provided by the Consultant according to the schedule of rates for professional, technical, and administrative personnel as well as materials and supplies as listed below in the Hourly/Unit Rate Schedule.

2) The stated hourly rates are effective for the term of this Agreement unless otherwise revised as indicated. After 12 months from the date this Agreement is entered into by parties ("anniversary date"), and each 12 months thereafter, these hourly rates may be negotiated by the Consultant and Valley Water, provided Consultant submits written notice to Valley Water of Consultant's request to revise the hourly rates 90) calendar days prior to the anniversary date of this Agreement. Both Parties will use as a benchmark for negotiations the percent change for the previous 12 months of the "Employment Cost Index (ECI), for total compensation for private industry workers, for the San Francisco-Oakland-San Jose, CA CSA Census region and

metropolitan area (not seasonally adjusted)" as published by the U.S. Department of Labor, Bureau of Labor Statistics, or 3.5% whichever is less. A negative index will result in rates remaining the same. Such rate revisions are subject to written approval by Valley Water's Deputy Operating Officer, unless delegated to an Assistant Operating Officer and/or Unit Manager.

B. **Reimbursable Expenses**

1) If approved in advance by the Valley Water Project Manager (VWPM), reimbursable expenses not already covered in overhead may include, but are not limited to, mapping, rendering, printouts, leased equipment, mailing and delivery services, printing services, film and processing, plotting, and supplies. These other direct expenses will be billed on a monthly basis at actual cost plus 5% linked to each Agreement Task, provided that the Task total NTE amount is not exceeded. Consultant shall provide detailed receipts for each other direct expense item(s) with monthly invoices submitted. No markup will be applied to reimbursable expenses, either by the Consultant or by its subconsultants, subcontractors, or vendors. Consultant shall provide invoices for all such services regardless of cost.

2) Equipment purchased on behalf of Valley Water that costs $50 or more must receive the prior written approval of the VWPM. All equipment purchased on behalf of Valley Water and paid for by Valley Water shall become the property of Valley Water and be delivered to Valley Water prior to expiration of this Agreement.

3) If prior approval has been obtained from the VWPM, travel and overnight accommodations, including per diem, required for performance of this Agreement will be paid at reasonable cost not to exceed the U.S. General Services Agency Per Diem Rates for Sunnyvale/Palo Alto/San Jose, California area. Travel expenses are reimbursed at actual cost. For air travel, Valley Water will pay the cost of a coach class or equivalent ticket. Where air travel is required, Valley Water will pay the total cost of taxi, rideshare, public transportation, or a rental car, which may include insurance, gas, car fee, and taxes and will be paid at the actual costs incurred. Vehicle rental is limited to a compact or economy model, unless prior approval has been obtained from the VWPM for a different type of vehicle.

4) Expenses incurred by the Consultant, including expenses incurred by Subconsultants, subcontractors and vendors (not their hourly rates), such as, for example, outside lab services, will be reimbursed at actual cost plus 5%. Consultant shall provide invoices for all such services regardless of cost. The 5% markup will be applied only once, either by the Consultant or by its subconsultants, subcontractors, or vendors.

5. For staff with rates exceeding the rate of $[RATE LIMIT]/hr, the Consultant must obtain written approval from the Valley Water Project Manager (VWPM) as to the numbers of hours per task prior to that individual working on the Project. [NOT USED]

C. **Prevailing Wage Requirements** [NOT USED]

1) The Scope of Services described in a Task INSERT APPLICABLE TASK NUMBER HERE may be considered by Valley Water to be "Public Works" requiring the payment of prevailing wages. See Standard Consultant Agreement, Section Four, Fees and Payments, subsection 3. Prevailing Wages.

2) In accordance with prevailing wage laws, the Director of the California Department of Industrial Relations (Director) has ascertained the general prevailing rate of wages and employer payments for health and welfare, pension, vacation, and similar purposes available to the particular craft, classification, or type of workers employed on the Project. These rates are set forth in the latest determination obtained from the Director, which is on file in Valley Water's Office of the Clerk of the Board of Directors and incorporated herein by reference the same as though set forth in full. The rates are also available on the State of California Department of Industrial Relations website at http://www.dir.ca.gov.

HOURLY/UNIT RATE TABLE

CLASSIFICATION/STAFF	HOURLY/UNIT RATE
Consultant: Black & Veatch Corporation	
Senior Project Manager	$356.01
Project Director	$370.00
Senior Project Director	$400.00
Engineer Level 4/Senior Technician	$241.48
Engineer/Specialist Level 9	$355.00
Project Manager	$334.00
Senior Engineering Manager	$334.00
Engineering Manager	$285.00
Engineer/Specialist Level 8	$318.00
Engineer/Specialist Level 7	$302.00
Engineer/Specialist Level 6	$285.00
Engineer/Specialist Level 5	$268.00
Engineer Level 3/Technician	$206.98
Engineer Level 1-2/Junior Technician	$155.24
Senior Finance - Project Controls	$189.74
Finance - Accounting-Project Controls	$140.67
Senior Administrative Assistant	$147.37
Administrative Assistant	$110.53
Subconsultant(s): Data Instincts	
Principal	$255.00
Associate Communication Specialist	$205.04 - $225.28
Associate Communication Coordinator	$195.36

SCHEDULE S
ATTACHMENT ONE
FEES AND PAYMENTS

CLASSIFICATION/STAFF	HOURLY/UNIT RATE
Subconsultant(s): Dudek	
Project Director	$330.00
Senior Specialist V	$275.00
Senior Specialist IV	$270.08
Senior Specialist III	$255.13
Senior Specialist II	$224.82
Senior Specialist I	$213.91
Specialist V	$199.67
Specialist IV	$175.64
Specialist III	$172.53
Specialist II	$140.09
Specialist I	$139.96
GIS Analyst IV	$209.87
GIS Analyst III	$135.82
GIS Analyst II	$118.42
GIS Analyst I	$99.40
Publications Specialist IV	$168.16
Publications Specialist III	$124.78
Publications Specialist II	$106.03
Publications Specialist I	$95.56
Subconsultant(s): EOA, Inc.	
Principal	$311.00
Senior Managing Engineer/Scientist I	$303.00
Managing Engineer/Scientist III	$303.00
Senior Engineer/Scientist/Planner I	$216.00
Associate Engineer/Scientist II	$196.00
Technician, Administrative Manager	$130.00
Subconsultant(s): Fugro	
Principal	$300.00
Senior	$240.00
Project	$205.00
GIS	$220.00
Principal Engineer	$300.00
Principal Geologist	$300.00
Associate Engineer	$255.00
Senior Engineer	$240.00
Senior Geologist	$240.00
Project Engineer	$205.00
Senior Project Engineer	$215.00

SCHEDULE S
ATTACHMENT ONE
FEES AND PAYMENTS

CLASSIFICATION/STAFF	HOURLY/UNIT RATE
Senior Staff Engineer	$190.00
GIS Manager	$220.00
GIS Geologist	$190.00
Subconsultant(s): Miller Marine Science & Consultant, Inc.	
Principal	$215.00
Subconsultant(s): Todd Groundwater	
VP/Hydrogeologist	$284.00
Consulting Hydrogeologist	$260.00
Staff Geologist	$175.00
GIS Graphics	$175.00
Admin	$155.00
Subconsultant(s): TWB Environmental Research and Consulting	
Principal	$215.00

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SCHEDULE S
ATTACHMENT TWO
SCHEDULE OF COMPLETION

1. This Agreement commences on the Effective Date, subject to accomplishment of all of the conditions to formation of an agreement listed in the Standard Consultant Agreement, Section Twelve, Miscellaneous Provisions, subsection 2. Formation of Agreement.

2. Term. This Agreement expires one (1) year after the Effective Date, with an option solely exercisable by Valley Water, to extend it for up to two additional one-year terms, unless, prior to its expiration, its term is modified by a written amendment hereto, and signed by both Parties.

3. Valley Water's Project Manager and Consultant may agree to modify the schedule specified for Consultant's performance as an administrative modification to the Agreement and will confirm such modification in writing.

PROJECT SCHEDULE

Task	Description	Duration From Notice to Proceed (months)
1	Project Management	Duration of Agreement
2	Data and Information Collection	3
3	Feasibility Study	12
4	CEQA and Other Regulatory Requirements	12
5	Presentation of Results	Duration of Agreement
6	Supplemental Services	Duration of Agreement

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SCHEDULE S
ATTACHMENT THREE
CONSULTANT'S KEY STAFF AND SUBCONSULTANTS

1. Consultant's key staff assigned to the Project are as follows:

Team Member	Classification	Project Role	Contact Information
Craig Lichty	Project Director	Project Director	2999 Oak Road, Suite 400 Walnut Creek, CA 94597 925-949-5985 LichtyC@bv.com
Ben Wright	Senior Project Manager	Conveyance / Potable Water Augmentation	2999 Oak Road, Suite 400 Walnut Creek, CA 94597 916-858-2418 wrightb@bv.com
Dan Lopez	Project Director	Engineering	2999 Oak Road, Suite 400 Walnut Creek, CA 94597 925-207-3498 lopezdc@bv.com
Melanie Tan	Project Director	Project Manager	2999 Oak Road, Suite 400 Walnut Creek, CA 94597 916-858-2459 tanm@bv.com
Scott Maloni	Senior Project Director	Environmental, Regulatory & Institutional	300 Rancheros Drive, Suite 250 San Marcos, CA 92069 858-225-8257 malonis@bv.com
Scott Miller	Engineer Level 4/Senior Technician	Product Water Blending Quality	2999 Oak Rd, Suite 400 Walnut Creek, CA 94597 925-949-5988 millerse@bv.com
Vasu Veerapaneni	Engineer/Specialist Level 9	Desalination Facilities	11401 Lamar Avenue Overland Park, KS 66211 913-416-0150 veerapanenis@bv.com

2. The following Subconsultants and Subcontractors are authorized to perform Services pursuant to this Agreement:

Firm	Project Role	Contact Information
Data Instincts	Public Outreach	Mark Millan 9481 Vinecrest Road Windsor, CA 95492 707-836-0300 millan@datainstincts.com
Dudek	CEQA/Environmental Permitting	Ann Sansevero 725 Front Street, Suite 400 Santa Cruz, CA 95060 831-226-9373 asansevero@dudek.com

SCHEDULE S
ATTACHMENT THREE
CONSULTANT'S KEY STAFF AND SUBCONSULTANTS

Firm	Project Role	Contact Information
EOA, Inc.	Brine Management & Disposal / NPDES Permitting	Tom Hall 1410 Jackson Street Oakland, CA 94612 510-832-2852 twhall@eoainc.com
Fugro	Geophysical / Geotechnical	Ronald Bajuniemi 1777 Botelho Drive Walnut Creek, CA 94596 925-451-9908 rbajuniemi@fugro.com
Miller Marine Science & Consultant, Inc.	Intake / Outfall Marine Biology	Eric Miller 2 Boulder Circle Aliso Viejo, CA 92656 562-714-0266 ericm@millermarinescience.com
Todd Groundwater	Subsurface Seawater Hydrogeology	Sally McCraven 1301 Marina Village Parkway, Suite 320 Alameda, CA 94501 510-432-4759 smccraven@toddgroundwater.com
TWB Environmental Research and Consulting	Intake / Outfall Marine Biology	Tim Hogan 17 Winnemay Street Natick, MA 01760 617-413-5011 thogan@twb-erc.com

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SCHEDULE S
ATTACHMENT FOUR
REFERENCE MATERIALS

Ref No.	Description
1	Santa Clara Valley Water District Non-Disclosure Agreement (NDA)
2	Santa Clara Valley Water District (Valley Water) Standards for GIS Products April 2021 version: http://gis.valleywater.org/Download/GIS_PRODUCT_STANDARDS.pdf
3	Environmental Feasibility and Planning Study completed by GEI Consultants (July 2023) https://fta.valleywater.org/fl/o7zOCs87XJ

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Attachment A
Government Code §84308

Approve Standard Consultant Agreement with Black & Veatch Corporation, to provide a desalination engineering feasibility study, Project No. 91101004, Agreement No. A5050A, PB File No. VW0379, for a Not-to-Exceed Aggregate Fee of $1,717,738

List of Parties and Their Agents/Representatives Known to Staff

Organization Name	**Name**	**Role**	**Location**
Black & Veatch Corporation	Craig Lichty	Vice President	2999 Oak Road, Suite 400 Walnut Creek, CA 94597
Data Instincts	Mark Millan	Public Outreach	9481 Vinecrest Road Windsor, CA 95492
Dudek	Ann Sansevero	CEQA/Environmental Permitting	725 Front Street, Suite 400 Santa Cruz, CA 95060
EOA, Inc.	Tom Hall	Brine Management & Disposal / NPDES Permitting	1410 Jackson Street Oakland, CA 94612
Fugro	Ronald Bajuniemi	Geophysical / Geotechnical	1777 Botelho Drive Walnut Creek, CA 94596
Miller Marine Science & Consultant, Inc.	Eric Miller	Intake / Outfall Marine Biology	2 Boulder Circle Aliso Viejo, CA 92656
Todd Groundwater	Salley McCraven	Subsurface Seawater Hydrogeology	1301 Marina Village Parkway, Suite 320 Alameda, CA 94501
TWB Environmental Research and Consulting	Tim Hogan	Intake / Outfall Marine Biology	17 Winnemay Street Natick, MA 01760

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This agreement (Agreement) is effective once fully executed (Effective Date), by and between SANTA CLARA VALLEY WATER DISTRICT (Valley Water or District), and BLACK & VEATCH CORPORATION, a Delaware corporation (Consultant), individually the Party or collectively the Parties.

WHEREAS, Valley Water desires certain services hereinafter described and Consultant affirms it has the requisite experience and expertise, and desires to provide such services.

NOW, THEREFORE, Valley Water and Consultant, for the consideration and upon the Terms and Conditions specified, agree as follows:

SECTION ONE

SCOPE OF SERVICES

The Scope of Services (Services) to be performed pursuant to this Agreement is described in the Schedule(s), Scope of Services, attached hereto and incorporated herein by this reference (Schedule(s)). Services described in each Schedule are considered a Scope of Services that is separate and apart from the Scope of Services described in another Schedule.

SECTION TWO

DUTIES OF CONSULTANT

1. Performance

A. Each Scope of Service described in an attached Schedule(s) must be performed by Consultant, or at its direction, to meet the purposes specified in this Agreement. References to “Consultant” herein include those performing any portion of the Services at its direction such as Subconsultants, vendors, suppliers, subcontractors, and other business entities and individuals. Consultant will collaborate with Valley Water staff in engineering, asset management, operations, and maintenance units to be made aware of Valley Water operational constraints, procedures, or preferences relevant to Consultant’s performance of the Services described in the attached Schedule(s).

B. Unless the requirements for the Services described in the attached Schedule(s) are specifically modified in writing, Consultant must perform Services and provide all deliverables as required.

C. Consultant shall not undertake any Services not described in the attached Schedule(s) unless authorized in writing by Valley Water prior to the performance of such Services by issuance of a Task Order or pursuant to an amendment to this Agreement signed by both Parties.

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2. Consultant Controlled Areas

Consultant is responsible for the security and safety of the area(s) it controls wherein it is required to perform field operations pursuant to the Scope of Services.

3. Licensing

Services performed by Consultant will be undertaken only by persons appropriately licensed, certified, or registered in California, as applicable to the Services described herein, when required by statutes or regulations, as well as pursuant to the relevant standard of care as described in Section Two, Duties of Consultant, subsection 11. Standard of Care. Examples of such Services include those performed by: California State Licensed Contractors, Professional Engineers and Architects, Inspectors, and Surveyors. Consultant shall make available upon Valley Water's request documentation of qualifications and licensing of personnel performing Services described herein. Consultant must be registered with the California Department of Labor Standards Enforcement if the Services or a portion thereof is determined to be "Public Works" pursuant to California Labor Code §1720(a)(1).

4. Valley Water's Approval of Deliverables

Deliverables prepared by Consultant, notwithstanding acceptance and approval by Valley Water, which Valley Water determines must subsequently be modified due to errors or omissions, will be corrected at no additional cost to Valley Water.

5. Errors and Omissions

The Services may include preparation of deliverables by Consultant to be implemented in a public works construction project. Consultant is responsible for any direct or actual damages incurred by Valley Water which Valley Water determines result from Consultant's errors or omissions in Consultant's deliverables, including, but not limited to, any increase in Valley Water's payment(s) due to its construction contractor, which increase is directly attributable to required revisions to the construction Contract Documents to the extent caused by Consultant's negligent acts, errors, or omissions.

6. Valley Water Standardization Requirements

A. Consultant shall perform the Services utilizing Valley Water nomenclature, standardized forms, software requirements, documented procedures, and best management practices. Consultant shall use Microsoft Office software and Autodesk Civil 3D software that is compatible with Valley Water's current Microsoft Office software and Autodesk software used at the time(s) Valley Water issues a Notice to Proceed pursuant to this Agreement.

B. Engineering drawings prepared by Consultant must be in compliance with Valley Water's Computer-Aided Design and Drafting (CADD) standards including line types, line weights, text sizes, text orientation, dimensioning, labeling/numbering system for detailed plan views and detailed section views. Drawings prepared using different CADD software and versions must be converted to be compatible with Valley Water's CADD software at no additional cost to Valley Water. Prior to acceptance, Valley Water

reserves the right to test the submitted CADD files to verify that the files are not corrupted or missing linkages (for blocks, etc., used in the drawings) and that the standards are retained during the conversion process used by Consultant.

7. Consultant's Key Staff and Subconsultants

A. Consultant's Key Staff and firms subcontracted by Consultant (Subconsultants) assigned to perform the Services are identified in the Schedule(s), Scope of Services, Attachment Three, Consultant's Key Staff and Subconsultants.

B. The Project team organization chart and delegated responsibilities of each team member will be submitted to Valley Water for concurrence.

C. Consultant may utilize Subconsultants, subcontractors, suppliers, or vendors it deems appropriate to the complexity and nature of the required Services.

1) Consultant must obtain Valley Water's approval of all Subconsultants. Upon Valley Water's request, Consultant must provide copies of all Subconsultant agreements.

2) Consultant must require its delegates or Subconsultants to agree, in writing, to adhere to Terms and Conditions of this Agreement.

D. Any delegation or use of Subconsultants by Consultant will not operate to relieve Consultant of its responsibilities as described in this Agreement.

E. If any of Consultant's designated key staff persons or Subconsultants fail to perform to the satisfaction of Valley Water, on written notice from Valley Water, Consultant will have 15 calendar days to remove that person from the Project and provide a replacement acceptable to Valley Water.

F. Consultant will not charge Valley Water for the time it takes Consultant's replacement personnel to obtain Valley Water-specific Project knowledge in the possession of the person(s) being replaced.

G. Consultant's Key Staff: Valley Water's authorized representative may approve any revisions to Consultant's list of key staff assigned to the Project as an administrative modification to this Agreement, and such approval will be confirmed in writing.

H. Consultant's Subconsultants

1) Valley Water's authorized representative may approve any revisions to Consultant's list of authorized Subconsultants when the Subconsultant is deleted from the list and the Scope of Services is deleted from the Agreement or such services are assumed by the Consultant; such approval will be confirmed in writing.

2) Valley Water's authorized representative may approve any revisions to Consultant's list of authorized Subconsultants when a listed Subconsultant is replaced (to perform the same Scope) or a new Subconsultant is added (to perform new Scope), provided the firm complies with all insurance requirements established by Valley Water for such work; such approval will be confirmed in writing.

8. Compliance with All Laws

A. Consultant's performance must be in compliance with the most current versions of any and all laws relevant to the Services it performs pursuant to this Agreement, including, but not limited to adherence to: all applicable governmental laws, statutes, ordinances, rules, codes, regulations, orders, and other requirements; governmental requirements applicable to state and federal compliance with the Professional Land Surveyors Act; state and federal Endangered Species Act; state and federal water quality laws; and all other state and federal laws or regulations regarding environmental protection and compliance, health, safety, wages, hours, equal employment opportunity, nondiscrimination, working conditions, and transportation. In the event that Valley Water's assistance is necessary to achieve such compliance, Consultant shall promptly notify Valley Water.

B. Consultant shall provide, at Valley Water's request, documentation demonstrating Consultant's compliance with all laws as described herein. After reasonable notice and according to reasonable conditions, Valley Water has the right to inspect and copy any records of Consultant regarding such compliance.

C. Consultant represents and warrants that neither Consultant nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any federal government department or agency.

9. Occupational Safety and Health

A. Consultant will perform the Services in compliance with the most current versions of all laws, standards, rules, and regulations of the Occupational Safety and Health Act, and all state and federal laws and regulations relating to safety and health standards. Consultant shall perform the Services in compliance with, will furnish only supplies, articles, and equipment that comply with such laws, standards, and regulations.

B. Consultant shall immediately notify Valley Water in the event of any personal injury accident or occurrence occurring during the performance of the Services. Upon Valley Water's request, Consultant shall provide Valley Water with documentation fully describing the accident and injury and the actions implemented to prevent similar occurrences.

10. Consultant as Independent Contractor

Consultant will perform all Services as an independent contractor and not an agent or employee of Valley Water. Consultant represents and warrants that it and its contractors who are performing any of the Services as Subconsultants will perform such Services as an independent contractor, and neither Consultant nor Subconsultants nor their employees are the servants, agents or employees of Valley Water. Except as expressly provided in this Agreement, Valley Water exercises no direction, supervision or control over Consultant, its employees, agents, or Subconsultants.

11. Standard of Care

A. Consultant must possess and maintain during the term of this Agreement all certifications, licenses, permits, and qualifications to perform the Services and prepare all deliverables. Consultant must perform all Services and prepare all deliverables in accordance with those standards and practices of care, skill, and diligence that are generally recognized and customarily observed by competent persons in Consultant's area of specialty in the State of California at the time such Services are rendered.

B. Consultant shall perform the Services and prepare all deliverables without any errors or omissions, and in accordance with Section Two, Duties of Consultant, subsection 8. Compliance with All Laws.

C. Consultant and its Subconsultants must perform the Services in compliance with all applicable written federal, state and local codes, statutes, laws, regulations, and ordinances, including, but not limited to, environmental, energy conservation, and disabled access requirements as per the provisions of Section Two, Duties of Consultant, subsection 8. Compliance with All Laws.

SECTION THREE

DUTIES OF VALLEY WATER

1. Available Data

Valley Water will make available to Consultant all data and information in its possession and control and which it deems necessary to the preparation of the deliverables specified in the Schedule(s). Valley Water will actively aid and assist Consultant in obtaining such information from other agencies and individuals as it deems necessary. Valley Water is not responsible for providing data and information that it does not possess.

2. Review of Deliverables

A. Valley Water will designate a Project Manager (Valley Water Project Manager) for purposes of administering and managing this Agreement.

B. Consultant’s progress in completing the Services will be reviewed by Valley Water Project Manager at each milestone identified in the Schedule(s) and at such other time(s) at the discretion of Valley Water.

C. Consultant must notify Valley Water in writing when it completes each deliverable described in the Schedule(s) and provide Valley Water with said deliverable. Deliverables deemed satisfactory and in compliance with this Agreement are subject to approval by Valley Water. Within 30 calendar days of receipt of each deliverable, Valley Water will either (1) notify Consultant that Valley Water accepts the deliverable, or (2) notify the Consultant that the deliverable is not acceptable and must be revised.

D. If Valley Water advises Consultant that a deliverable must be revised due to errors or omissions by the Consultant, Consultant must correct, at no cost to Valley Water, those deficiencies as soon as possible and shall notify Valley Water upon completion of the revised deliverable and submit to Valley Water.

E. Valley Water will then review the revised deliverable and within 30 calendar days of receipt, advise the Consultant if the revised deliverable is acceptable. All deficient deliverables will be revised at no cost to Valley Water and this process will continue until Consultant has corrected all deficiencies identified by Valley Water.

F. None of the proposed changes or revisions or anything else in this Agreement will be construed to relieve the Consultant of professional or legal responsibility for the performance of the Services as otherwise required by the Terms and Conditions of this Agreement. Corrections to any deliverable as a result of Consultant's errors or omissions, as determined by Valley Water, will not result in additional costs or expenses to Valley Water.

3. Access to Valley Water Facilities

Valley Water will facilitate access to Valley Water facilities as required for the Consultant to perform the Services.

SECTION FOUR

FEES AND PAYMENTS

1. Total Fixed Not-to-Exceed Fees

A. Payment for all Services performed by Consultant to the satisfaction of Valley Water, as described in the Schedule(s) will be based on the hourly rates, subject to the Total Fixed Not-to-Exceed (NTE) Fees stated in the Schedule, Attachment One, Fees and Payments, for completion of the associated tasks. Valley Water will make payments to Consultant according to the terms provided for herein and in the Schedule, Attachment One, Fees and Payments. Payments made by Valley Water to the Consultant for Services rendered will be considered full compensation for all personnel, materials, supplies, Subconsultant(s), equipment, and reimbursable expenses, incurred by the Consultant to perform the Services.

B. Upon the written approval of Valley Water Deputy Operating Officer, unless delegated to an Assistant Operating Officer and/or Unit Manager referenced herein, remaining funds previously budgeted for tasks that are completed, reduced, or deleted, may be reallocated to tasks that have not yet been completed, provided the Agreement Total Not-to-Exceed Fee is not exceeded. Transferring funds from a task not yet completed to a different task is not permitted.

C. Upon the written approval of Valley Water Deputy Operating Officer, unless delegated to an Assistant Operating Officer and/or Unit Manager referenced herein, the Scope of Services described in a task may be reduced, revised, or deleted. If the Scope of Services of a task is reduced or deleted, the portion of the funds attributed to that reduced or eliminated task may be reallocated to existing tasks, or transferred to a Supplemental Services task, if provided for herein.

D. Any reduction or deletion of tasks and any inter-task transfers will be clearly noted and described in the subsequent monthly progress report to Valley Water.

E. Services to be performed pursuant to the Supplemental Services task, if provided for herein, will commence only after issuance of a fully executed Task Order.

F. Automobile travel mileage expenses will be paid at the current Internal Revenue Services (IRS) rate. Valley Water will not reimburse Consultant nor its Subconsultants for mileage nor travel time to and from Valley Water Headquarters and surrounding campus located at 5700 Almaden Expressway, San Jose, California. However, Valley Water will reimburse Consultant and its Subconsultants for mileage incurred from Valley Water Headquarters or Consultant's and Subconsultants' firm addresses, whichever is closer to the destination, to Project site(s) and, if directed or authorized by Valley Water, to meeting locations such as with regulatory agencies, for community outreach activities and meetings, for partnering meetings, and Dispute Review Board meetings.

2. Consultant Monthly Invoices

A. Consultant's monthly invoices will be prepared in accordance with the terms of this Agreement, Section Four, Fees and Payments, and represent Services performed and reimbursable costs incurred during the identified billing period. Invoices must be consistent with Scope of Services described in the Schedule(s) attached hereto, and include the following:

1) Employee classification and name itemized with all labor charges by Service task;

2) Summary of the amount Consultant has been billed by their Subconsultants and further detailed by Service task;

3) A description of the site where Services were performed, if applicable;

4) The name of Valley Water staff requesting Services;

5) The dates when Services were performed;

6) Other direct charges and expenses by Service task;

7) Other direct charges and expenses must reflect actual fees versus the Agreement Not-to-Exceed Fees as stated in the Schedule(s), Attachment One, Fees and Payments, and/or Task Orders; and

8) To the extent that the Consultant is adding an administrative, processing, overhead or mark-up fee, Valley Water will not pay for such duplication of costs for both the Consultant and its Subconsultants.

B. Before submitting monthly invoices, a draft invoice (in Adobe PDF format) will be provided in electronic format by the Consultant for preliminary review by Valley Water Project Manager. Upon preliminary approval by Valley Water, Consultant will email the complete, signed, and dated electronic copy invoice, including all supporting documentation. Valley Water's preliminary review of the draft invoice does not represent final approval of the electronic copy invoice, but is intended to reduce potential for re-submittals of electronic copy invoice by Consultant.

C. Each monthly invoice must include a monthly progress report that documents whether or not the Services are on schedule to be completed in accordance with the Schedule, Attachment Two, Schedule of Completion, which applies to the specific Scope of Services, and within the Agreement NTE Fees in accordance with the Schedule, Attachment One, Fees and Payments. The progress report shall document Services completed, the execution of the tasks described in this Services, and enable Valley Water to evaluate the Consultant's progress and performance towards completion of the Services.

   1) The monthly progress report shall include:

      a. An assessment of actual versus planned progress in completing the Services, including a description of the tasks and deliverables completed to date;

      b. A look-ahead schedule listing deliverables and activities planned for the next two months;

      c. A statement that progress towards completion of the Services is on schedule and will be completed within the timeline set forth in the Schedule of Completion; or, if completion of the Services is not on schedule, then a statement of the anticipated length of the delay, the cause of the delay, measures proposed or taken to prevent or minimize the delay, and the schedule for implementation of such measures;

      d. A summary of performed tasks to date, an updated Project work plan including estimate of work required to complete this Agreement, explanation of any major variances in percentage of services to be completed compared to percentage of this Agreement NTE fees remaining, and any anticipated changes to this Agreement that may be necessary to complete the Services;

      e. For any proposed change to the Scope of Services, provide a summary of the proposed changes, including supporting rationale for such change;

      f. For each task, the percentage of the fees incurred for the task compared to dollar amount allocated to the task, the percentage of services performed versus the percentage of Agreement NTE fees incurred for such task, and explanation of any significant variances in percentage of services performed compared to percentage of fees incurred;

      g. A statement that all tasks, as specified in this Agreement, shall be completed within the NTE amount of the Agreement;

      h. Level of Small Business Enterprise (SBE) participation, if applicable, documenting the level of SBE participation throughout the Project; and

      i. Any changes in Consultant's key staff or Subconsultants.

D. Invoices will include a summary of labor expenditures, direct costs, and billed Subconsultant charges. Invoices, transmitted separately from the monthly progress reports, will be organized such that the billing categories correspond with the Services tasks.

E. Consultant shall submit all invoices through Projectmates or other document control system designated by Valley Water. All inquiries regarding Projectmates must be directed to Valley Water's Capital Project Management and Project Controls Program (CPMPC@valleywater.org).

F. In addition to ensuring that each invoice is accompanied with a monthly progress report, Consultant must also ensure that each invoice and corresponding attachments contain the following information:

1) Agreement number;

2) Consultant Invoice number in the following format: Agreement Number followed by a three-digit consecutive numbering sequence and separated by a period. For example, A1234A.001, A1234A.002, etc.

3) Full legal name of Consultant/Firm;

4) Payment remit-to address;

5) Invoice date (the date invoice is emailed);

6) Detailed description of Services provided, including the "distribution account(s)" for those Services;

7) Number of hours spent by each person performing services and a brief description of the services performed by each person; and

8) Beginning and end date for billing period that services were provided.

G. Consultant shall invoice for its performance of the Services on a monthly basis consistent with the task fee breakdown stated in the Schedule, Attachment One, Fees and Payments, which applies to the specific Scope of Services.

H. Valley Water Project Manager will review Consultant's written invoice within five Valley Water business days of receipt, address any questions with Consultant's Contact/Principal Officer and approve the undisputed amount of the invoice within ten working days of receipt of the invoice. Valley Water will pay undisputed invoice amounts within 30 calendar days from date invoice is received by Valley Water Project Manager.

I. Invoice Disputes

1) Valley Water may in good faith assert a bona fide dispute as to all or a portion of fees specified in any invoice. If any portion of an amount due to Consultant pursuant to this Agreement is subject to a bona fide dispute between the Parties, within 30 calendar days of Consultant's submission of an invoice in which a disputed amount is included, Valley Water will notify Consultant in writing of the specific items in dispute, and will describe Valley Water's reason(s) for disputing each such item.

2) Consultant and Valley Water Project Manager must act in good faith to resolve the dispute in a timely manner. If the dispute is not resolved by Consultant and Valley Water Project Manager within 30 calendar days of Consultant receiving Valley Water's written notice of dispute, Consultant and Valley Water will attempt to resolve the dispute pursuant to the Standard Consultant Agreement, Appendix Two, Dispute Resolution.

J. Consultant's services will be performed by its staff members and Subconsultants' staff members at the lowest hourly and unit rates commensurate with the complexity of the required Services.

K. Consultant shall ensure that its personnel performing Services pursuant to this Agreement document their time doing so.

3. Prevailing Wages

A. A portion of the Services to be performed pursuant to this Agreement may be considered "Public Works" subject to California Labor Code §1771, et. seq. and the applicable implementing regulations. If Consultant's Services includes such work, Consultant and its Subconsultants must comply with all Labor Codes applicable to prevailing wages.

B. Labor Code §1720 provides as follows:

"(a) As used in this chapter, "public works" means all of the following:

(1) Construction, alteration, demolition, installation, or repair work done under contract and paid for in whole or in part out of public funds, except work done directly by a public utility company pursuant to order of the Public Utilities Commission or other public authority. For purposes of this paragraph, "construction" includes work performed during the design, site assessment, feasibility study, and other preconstruction phases of construction, including, but not limited to, inspection and land surveying work, regardless of whether any further construction work is conducted, and work performed during the postconstruction phases of construction, including, but not limited to, all cleanup work at the jobsite. For purposes of this paragraph, "installation" includes, but is not limited to, the assembly and disassembly of freestanding and affixed modular office systems."

C. Consultant and its Subconsultants shall not engage in the performance of public work, as defined in California Labor Code §1771.1, unless currently registered and qualified to perform public work pursuant to California Labor Code §1725.5.

D. The General Prevailing Wage Rates issued by the California Department of Industrial Relations may be adjusted by the State throughout the term of this Agreement. Notwithstanding any other provision of this Agreement, Consultant will not be entitled to any adjustment in compensation rates in the event there are adjustments to the General Prevailing Wage Rates.

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E. This Agreement is subject to compliance monitoring and enforcement by the State of California Department of Industrial Relations. Upon request, Consultant and Subconsultants must furnish the records specified in Labor Code §1776 directly to the Labor Commissioner, in a format prescribed by the Labor Commissioner.

F. All records or documents required to be kept verifying statutory compliance with the prevailing wage requirement, such as certified payroll records, must be made available for audit at no cost to Valley Water, in electronic or hard copy format, at Valley Water's discretion, and hard copies made available at any time during regular business hours, upon written request by Valley Water.

G. **California State Department of Industrial Relations Contractor and Sub-Contractor Registration Requirements**

Prior to Valley Water executing a Task Order for Services involving public works, as defined herein, Consultant, and its Subconsultant(s) performing public works, must provide evidence, in the form required by Valley Water, that Consultant and its Subconsultant(s) are in compliance with the California State Department of Industrial Relations Contractor and Sub-Contractor Registration Requirements.

4. Retention

A. Unless otherwise specified in the Schedule(s), Attachment One, Fees and Payments, when the total compensation payable pursuant to this Agreement, ten percent of each invoice will be withheld by Valley Water and not paid to Consultant until 30 calendar days after the assigned Valley Water representative signs the final approval for all Services/deliverables as stated in the applicable Schedule, Attachment Two, Schedule of Completion, and Section Three, Duties of Valley Water, subsection 2. Review of Deliverables.

B. Provided that at any time after 50% of the work has been completed, Valley Water may, at its sole discretion, determine that satisfactory progress is being made in the completion of the Agreement, and prospectively make the remaining progress payments in full. The retention previously withheld on the first 50% of the work will continue to be withheld until final Agreement close out.

C. Consultant may request, and Valley Water may consider and approve, release of retention withheld by Valley Water.

SECTION FIVE

SCHEDULE OF COMPLETION

1. Performance of Tasks

Consultant will commence performing the tasks described in this Agreement, in accordance with the attached Schedule(s), Scope of Services, upon receipt of the Notice to Proceed (NTP) issued by Valley Water.

2. Project Schedule Table

Consultant will perform and complete the services described in the Scope of Services in accordance with the Project Schedule table (Project Schedule) as stated in the Schedule, Attachment Two, Schedule of Completion. Consultant will coordinate services with Valley Water to provide the timeline of all tasks and subtasks, including the site visits, document review, meetings, and deliverables.

3. Monitoring of Project Schedule

The approved Project Schedule will be monitored monthly. Changes to the schedule for performance of tasks and deliverables are subject to advance written approval by Valley Water.

4. Project Delays

Consultant will make all reasonable efforts to comply with the Project Schedule as stated in the Schedule, Attachment Two, Schedule of Completion. In the event the Project Schedule will be delayed, Consultant will notify Valley Water Project Manager as soon as possible, providing the reason why, the length of the delay, and a description of the actions being taken to address the delay. In the event Consultant is delayed in performance of its services by circumstances beyond its control, Valley Water may, at its discretion, grant a reasonable adjustment in the Project Schedule.

5. Changes to the Project Schedule

Valley Water Project Manager and Consultant may agree to modify the Project Schedule specified for Consultant's performance as an administrative modification to the Agreement and will confirm such modifications in writing.

SECTION SIX

AGREEMENT MODIFICATIONS

The Parties may agree to modify the Terms and Conditions of this Agreement by executing a written amendment hereto.

SECTION SEVEN

TERM AND TERMINATION

1. Term & Automatic Termination

This Agreement encompasses all Services that Consultant is responsible to perform within the time limits and Not-to-Exceed Fees set forth herein. Consultant will not undertake to provide Services where it reasonably appears that the Services cannot be provided and expenses cannot be incurred within said total compensation limit and the applicable Not-to-Exceed Fees of any Task Order.

2. Valley Water Rights

A. Suspension: Valley Water may, by written notice to Consultant, suspend any or all Services pursuant to this Agreement or to any individual Task Order. Valley Water may subsequently terminate this Agreement or any Task Order for convenience or determine to proceed. If a decision to proceed is not made within 90 days from the date of the notice of suspension, any decision to proceed must be conditioned upon execution of a new Notice to Proceed or Task Order.

B. Termination for Convenience: Valley Water may, by written notice to Consultant, terminate all or part of this Agreement or any Task Order at any time for Valley Water's convenience. Upon receipt of such notice, Consultant will immediately cease all work as specified in the notice. If this Agreement or any Task Order is so terminated, Consultant will be compensated as set forth in Section Seven, Term and Termination, subsection 3. Consultant's Compensation upon Termination or Suspension.

C. Termination for Breach: If Consultant violates any of the covenants, agreements or stipulations of this Agreement or a Task Order, or if Consultant fails to fulfill in a timely and proper manner its obligations pursuant to this Agreement or any Task Order, and does not cure such failure or violation within 30 days (or a reasonable extension thereof, if requested, which extension will not be unreasonably withheld) after receipt of written notice from Valley Water specifying such failure or violation, Valley Water will thereupon have the right to terminate this Agreement and any or all uncompleted Task Orders by giving written notice to Consultant of such termination. Such notice will specify the effective date thereof, and Consultant will not be entitled to compensation for services or expenses beyond the specified termination date.

D. If, after notice of termination for breach of this Agreement or any Task Order, it is determined that Consultant did not breach the Agreement or Task Order, the termination will be deemed to have been implemented for Valley Water's convenience, and Consultant will receive payment that is allowed by this Agreement for a termination for convenience.

E. The rights and remedies provided herein to Valley Water are in addition to any other rights and remedies provided by law, this Agreement, or a Task Order.

3. Consultant's Compensation upon Termination or Suspension

In the event of termination of this Agreement or any Task Order, or suspension of Services by Valley Water, Consultant shall receive compensation based on satisfactory performance, accepted by Valley Water, as follows:

A. Direct Labor: Consultant shall be entitled to receive compensation for all authorized direct labor performed prior to termination pursuant to the provisions of this Agreement or Task Order and all authorized labor expenses incurred to demobilize from the Project after the date of termination;

B. Other Direct Costs and Expenses: Consultant shall be entitled to receive compensation for all authorized other direct costs and expenses incurred prior to termination and all authorized expenses incurred to demobilize from the Project after the date of termination; and

C. In no event shall the total compensation paid for any item of Service exceed the payment specified in the Agreement or applicable Task Order for that item of Service.

4. Survival

The Terms and Conditions of this Agreement, that by their context and a standard of reasonableness, are intended to survive termination, suspension, completion, and expiration of this Agreement, shall survive, including but not limited to, the following Sections and subsections: Independent Contractor Status, Confidentiality, Indemnification, Insurance Requirements, and Dispute Resolution, as well as any Consultant representations and warranties.

SECTION EIGHT

INDEMNIFICATION

1. Notwithstanding any other provision of this Agreement, Consultant agrees to indemnify, defend and hold harmless Valley Water, its agents, officers, directors, and employees from and against any and all demands, claims, damages, losses and reasonable expenses, including but not limited to liabilities, obligations, claims, costs, reasonable expenses (including, without limitation, interest, penalties and reasonable attorney's fees), fines, taxes, levies, imposts, assessment, demands, damages or judgments of any kind or nature, whether in law or equity (including, without limitation, death or injury to any person, property damage, administrative and judicial orders and consents, or any other loss) to the extent they arise out of, pertain to, or relate to the Consultant's negligence, recklessness, or willful misconduct.

2. The foregoing does not limit any strict liability imposed on the Consultant by law. The rights, duties, and obligations of the Parties as set forth above in this Section Eight, Indemnification, survive termination, expiration, completion, and suspension of this Agreement.

SECTION NINE

INSURANCE REQUIREMENTS

Insurance requirements applicable to this Agreement are set forth in the Standard Consultant Agreement, Appendix Four, Insurance Requirements. Consultant must provide and maintain at its own expense, during the term of this Agreement, or as may be further required herein, all insurance coverages as detailed in the Standard Consultant Agreement, Appendix Four, Insurance Requirements, and comply with all provisions stated therein.

SECTION TEN

OWNERSHIP AND REUSE OF DELIVERABLES

1. Valley Water Ownership

All deliverables and other materials prepared by Consultant, including computer programs and media developed by the Consultant, to perform the Services, during the term of this Agreement, will be and remain the property of Valley Water following payment in full to

Consultant for each task or portion of a completed task, or in accordance with Section Seven, Term and Termination. In the event the work is not completed, the completed portions thereof will become the property of Valley Water. Consultant will provide Valley Water with such deliverables and material at appropriate times during this Agreement. Consultant may retain a copy for its records. Consultant does not convey, assign, or transfer the intellectual property rights it has, so as to limit its ability or right to develop, design, or provide services on other projects of or for its other clients.

2. Reuse of Instruments of Service

If Valley Water desires to reuse the completed plans, specifications, or other deliverables, in total or in part, on project sites associated with this Agreement, or any other site, or to complete any incomplete portion of construction documentation which Valley Water has already paid Consultant, Valley Water will release Consultant from any liability incurred by Valley Water from reusing said deliverables.

3. Copies of Data

Copies of data exchanged by, through, and between Valley Water and Consultant that may be relied upon are limited to printed copies. Computer-generated files, disks, or tapes of text, data or graphics that are furnished are only for the mutual convenience of the Parties.

4. Computer-Generated Material

Any risk of translation or reliance on information obtained or derived from computer-generated material is at the user's sole risk, and no representations are made, either express or implied, as to the long-term performance of data thus transferred.

5. Work for Hire

Any and all original correspondence, memoranda, reports, designs, plans, specifications, data compilations, computer programs, or drawings delivered to Valley Water by Consultant according to the Terms of this Agreement, in or by any medium is deemed to be "work for hire" according to the copyright laws of the United States and the copyright belongs to Valley Water.

6. Copyright Claims

Co-venturers, subcontractors, Subconsultants, suppliers, and vendors to Consultant are likewise bound by these copyright terms. Valley Water makes no copyright claim and requires no release for copyrighted material or trademarked names used incidentally by Consultant.

SECTION ELEVEN

EQUAL OPPORTUNITY

1. Equal Opportunity Employer

Valley Water is an equal opportunity employer and requires its consultants to have and adhere to a policy of equal opportunity and non-discrimination. In the performance of the Agreement, Consultant will comply with all applicable federal, state, local laws and

regulations, and will not discriminate against any subcontractor, employee, or applicant for employment in the recruitment, hiring, employment, utilization, promotion, classification or reclassification, transfer, recruitment advertising, evaluation, treatment, demotion, layoff, termination, rates of pay or other forms of compensation, and selection for professional development training (including apprenticeship), or against any other person, on the basis of sex (which includes pregnancy, childbirth, breastfeeding and medical conditions related to pregnancy, childbirth or breastfeeding), race, religion, color, national origin (including language use restrictions), ancestry, religious creed (including religious dress and grooming practices), political affiliation, disability (mental and physical, including HIV or AIDS), medical condition (cancer and genetic characteristics), genetic information, marital status, parental status, gender, age (40 and over), pregnancy, military and veteran status, sexual orientation, gender identity and gender expression, the exercise of family and medical care leave, the exercise of pregnancy disability leave, or the request, exercise, or need for reasonable accommodation.

2. Compliance with Applicable Equal Opportunity Laws

Consultant's policy must be in conformance with applicable state and federal guidelines including the Federal Equal Opportunity Clause, 41 Code of Federal Regulations, Part 60-1, §60-1.4; Title VII of the Civil Rights Act of 1964 as amended; the Americans with Disabilities Act of 1990; the Rehabilitation Act of 1973 (§503 and §504); the Age Discrimination Act of 1975 (42 U.S.C. §6101 et seq.); the California Fair Employment and Housing Act (Government Code §12900 et. seq.); and California Labor Code §1101 and §1102.

3. Investigation of Claims

Consultant must designate a specific position within its organization to be responsible for investigating allegations of non-compliance with the anti-discrimination and anti-harassment provisions of this Agreement. Consultant must conduct a fair, prompt, and thorough investigation of all allegations directed to Consultant by Valley Water. In cases where such investigation results in a finding of discrimination, harassment, or hostile work environment, Consultant must take prompt, effective action against the offender.

SECTION TWELVE

MISCELLANEOUS PROVISIONS

1. Entire Agreement

This Agreement, which includes the Terms and Conditions, Appendices, the Schedule(s), Schedule(s)' Attachments, and all executed Task Orders, represents the entire understanding between the Parties hereto relating to the Services described in this Agreement and its executed Task Orders, which are incorporated herein by this reference, and supersedes any and all prior proposals or agreements, whether written or oral, that may exist between the Parties. This Agreement may not be modified or amended except in writing as stated herein. To the extent that any Schedule conflicts with this Agreement, this Agreement shall control.

2. Formation of Agreement

A. No agreement between the Parties is formed until all applicable actions have been completed to the satisfaction of Valley Water. Valley Water Project Manager will not issue a Notice to Proceed until all required documents have been submitted and accepted by Valley Water.

B. Formation of this Agreement between the Parties requires accomplishment of the following, as applicable:

1) Execution of the Agreement by Consultant;

2) Submission by the Consultant, and acceptance by Valley Water, of evidence of all required insurance coverages and documents;

3) Submission by the Consultant, and acceptance by Valley Water, of evidence of all required Form 700 documents, if applicable;

4) Submission by the Consultant, and acceptance by Valley Water, of all required Non-Disclosure Agreements (NDA) as provided in the Schedule(s), Attachment Four, Reference Materials, if applicable;

5) Submission by the Consultant, and acceptance by Valley Water, of a Health and Safety Plan, if applicable;

6) Any other requirements that are deemed necessary by Valley Water; and

7) Execution of the Agreement by Valley Water.

3. No Assignment

A. The expertise and experience of Consultant are material considerations for Valley Water's award and execution of this Agreement. Consultant will not assign or transfer any interest in this Agreement nor the performance of any of Consultant obligations hereunder, without prior written consent of Valley Water in the form of an amendment executed by the Parties, and any attempt to so assign this Agreement, or any rights, duties or obligations arising hereunder, will be void and of no effect. Any assignment of monies due or to become due in accordance with this Agreement, will be to the extent permitted by law, and will be subject to all proper set-offs, deductions, and withholdings in favor of Valley Water.

B. In no event shall an assignment of any interest in this Agreement release the Consultant from its duties and responsibilities as described in this Agreement nor shall the Consultant be released from liability created by the provision of Services as described in this Agreement until such assignment takes effect. Any attempted or purported assignment without Valley Water's written consent in the form of an amendment executed by the Parties is null and void.

4. Reasonableness

Discretionary actions or approvals to be performed by the Parties will be exercised in a reasonable manner.

5. Gifts

Consultant hereby acknowledges that Valley Water policy prohibits the acceptance by Valley Water personnel of gifts of any kind from its contractors, consultants, suppliers or vendors. Consultant shall honor this policy by not sending or bringing gifts to Valley Water.

6. Audits

Consultant agrees that Valley Water and its agent(s) have the right to review, obtain, and copy all records pertaining to performance of this Agreement. Consultant agrees to provide Valley Water and its agent(s) with any relevant information requested, in electronic and hard copy format, at Valley Water's discretion, and will permit Valley Water and its agent(s) access to its premises, upon reasonable notice, during normal business hours for the purpose of interviewing employees (alternatively, by phone at Valley Water's discretion) and inspecting or copying books, records, accounts, computerized records, and other materials that may be relevant to the matter under investigation or subject to audit, such as by a government agency, providing Valley Water with grant funds to pay for Consultant's services, for the purpose of determining compliance with this Agreement. Consultant further agrees to maintain such records for a period of three years after final payment as provided for in this Agreement.

7. Force Majeure

Neither Party will be held responsible for delays caused by acts beyond its control, such as acts of God or public enemies, utility or communication delays, or failures not caused by such Party's negligence or fault, accidents not caused by such Party's negligence or fault, labor disputes, war, or failure of the other Party to provide data as required pursuant to this Agreement.

8. Binding Effect

This Agreement is binding on the heirs, executors, administrators, successors, and assigns of the Parties.

9. Choice of Law and Venue

The Parties agree that this Agreement is to be governed, construed, and enforced in accordance with the laws of the State of California. The Parties also agree that the venue of any litigation arising out of or connected with this Agreement will lie exclusively in the state trial court or Federal District Court located in Santa Clara County in the State of California. The Parties consent to jurisdiction over their persons and over the subject matter of any such litigation in such courts, and consent to service of process issued by such courts.

10. Confidentiality

A. Due to the nature of the services Consultant will provide pursuant to this Agreement, there may be disclosures made to Consultant of detailed information about Valley Water's operations, including on a need-to-know basis information which may be protected from public disclosure by confidentiality laws, the attorney-client privilege, and/or other provisions of law which govern the nature and timing of disclosure of public information.

B. Consultant understands and acknowledges that Valley Water staff members providing information to the Consultant do so with the understanding that such information will be handled appropriately.

C. In the event Consultant receives such restricted or confidential information, Consultant will limit access to the information to only those of Consultant's employees, its subcontractors and its Subconsultants authorized by Valley Water to have the information.

D. Consultant will notify Valley Water immediately of any request by any third party to have access to confidential information and will not disclose the requested information without first receiving express written authorization from Valley Water.

E. Notwithstanding the aforementioned Confidentiality requirements, upon the request of Valley Water Project Manager, Consultant, and its Subconsultants shall execute Valley Water's most current Non-Disclosure Agreement in effect at that time.

F. The requirements stated herein will survive completion, expiration, suspension, and termination of this Agreement.

11. Release of Information Prohibited

Consultant is not permitted to provide any information concerning the Project to the media nor anyone other than authorized Valley Water personnel. Consultant will not release any information pertinent to the Project for publication, public disclosure, or in any other manner without first obtaining clearance and a release in writing from Valley Water. Any media inquiry at any time to Consultant relating to any matter concerning Services provided or requested to be provided pursuant to this Agreement will be referred immediately to Valley Water. Consultant will not communicate with the media regarding any such matter.

12. Conflict of Interest

A. Consultant represents that there exists no actual or potential conflict of interest concerning the services to be performed pursuant to this Agreement.

B. Consultant represents that Consultant's performance required as stated in this Agreement does not require the breach of any agreement or obligation to keep in confidence the proprietary information of another party. Consultant will not bring to Valley Water, or use in the performance of Consultant's duties as described in this Agreement, any materials or documents of another party considered confidential or proprietary unless Consultant has obtained written authorization from such party, and the informed consent of Valley Water, for the possession and use of such materials.

C. Consultant represents and warrants that during the term of the Agreement, Consultant, Consultant's parent company, Consultant's subsidiaries, or any affiliated entity sharing substantially similar ownership of or control with Consultant, shall not act as a Consultant or expert for any party in support of any potential or active claim or legal action against Valley Water by such party.

D. CALIFORNIA FAIR POLITICAL PRACTICES COMMISSION STATEMENT OF ECONOMIC INTEREST FORM 700 ("FORM 700"): Upon Valley Water's request, Consultant employees, officers, agents, Subconsultants, and subcontractors shall complete, execute, and submit a Form 700 as follows:

1) Consultant employees, officers, agents, Subconsultants, and subcontractors assigned to perform services pursuant to this Agreement, shall file, in a manner prescribed by Valley Water, an Assuming Office Statement. The Assuming Office Statement shall be filed:

   a. Within 30 calendar days of the effective date of this Agreement; or

   b. Within 30 calendar days of Consultant hiring, adding, or promoting to a designated filer position, employees, officers, agents, Subconsultants, and subcontractors to perform services pursuant to this Agreement;

2) Consultant employees, officers, agents, Subconsultants, and subcontractors assigned to perform services pursuant to this Agreement, that filed an Assuming Office Statement, shall file in a manner prescribed by Valley Water, an amendment to their Form 700 any time there is a need to correct or change disclosure information;

3) Consultant employees, officers, agents, Subconsultants, and subcontractors assigned to perform services pursuant to this Agreement, that filed an Assuming Office Statement, shall file an Annual Statement in a manner prescribed by Valley Water, during the annual filing season, as determined by Valley Water;

4) Consultant employees, officers, agents, Subconsultants, and subcontractors assigned to perform services pursuant to this Agreement, that filed an Assuming Office Statement, shall file, in a manner prescribed by Valley Water, a Leaving Office Statement with Valley Water when one of the following occurs:

   a. Upon termination of this Agreement; or

   b. Within 30 calendar days of Consultant employees, officers, agents, Subconsultants, and subcontractors vacating a designated filing position (i.e., removed from the Project, promotion, demotion, transfer to non-designated position, end of employment, or as a result of changes in designated filer positions in Valley Water's Conflict of Interest Code);

5) Consultant understands and agrees that its employees, officers, agents, Subconsultants, and subcontractors may be disqualified from providing services to Valley Water pursuant to the California Political Reform Act, Government Code §81000 et. seq. and §1090. If any of Consultant's employees, officers, agents, Subconsultants, and subcontractors are disqualified from providing services, on

written notice from Valley Water Project Manager, Consultant will have 15 calendar days to remove said employee(s), officer(s), agent(s), Subconsultant(s)' and subcontractor(s)' employee(s) from the Project and provide a replacement acceptable to Valley Water;

6) The failure of Consultant's employees, officers, agents, Subconsultants, and subcontractors to file an Assuming Office, Annual, Amended, or Leaving Office Statement within the time prescribed by Valley Water is deemed a material breach and may result in termination of the Agreement for cause.

13. Task Orders

A. Some tasks and Services may be assigned to the Consultant through issuance of Task Orders. After the tasks and Services are identified and communicated to the Consultant by Valley Water Project Manager, Consultant will prepare a proposed Task Order (see Standard Consultant Agreement, Appendix Three, Task Order Template). The proposed Task must identify the following:

1) Description of the Services, including deliverables;

2) The total Not-to-Exceed Fees for Consultant to complete the Services, including estimated number of hours per assigned staff to complete the Services;

3) Proposed staff that will be assigned to complete the Services, including resumes if not previously provided to Valley Water's Project Manager;

4) Estimated cost of each other direct cost and reimbursable expense, including any applicable fees;

5) Schedule for completing the Services; and

6) Copies of applicable state and federal permits required to complete the services, unless previously provided to Valley Water.

B. Consultant agrees that the Not-to-Exceed Fees specified in a proposed Task Order will be the product of a good faith effort in exercising its professional judgment. After an agreement has been reached on the negotiable items, the finalized Task Order will be signed by both Valley Water's authorized representative referenced in the Standard Consultant Agreement, Appendix One, Additional Legal Terms, and Consultant's authorized representative.

C. Consultant must not commence performance of work or services on a Task Order until it has been approved by Valley Water's authorized representative and Notice to Proceed has been issued by Valley Water Project Manager. No payment will be made for any services performed prior to approval or after the period of performance of the Task Order. The period of performance for Task Orders will be in accordance with dates specified in the Task Order. No Task Order will be written which extends beyond the expiration date of this Agreement. The total amount payable by Valley Water for an individual Task Order will not exceed the amount agreed to in the Task Order.

D. Prevailing Wage Requirements: The Scope of Services may be considered by Valley Water to be “Public Works” requiring the payment of prevailing wages. See the Standard Consultant Agreement, Section Four, Fees and Payments, subsection 3. Prevailing Wages, and Appendix Three, Task Order Template.

14. Good Neighbor

Valley Water always strives to be a good neighbor to the community adjacent to its facilities. Consultant will ensure that disturbance to neighbors is minimized. Consultant, its staff, and Subconsultants will always interact with the members of the public in a polite and professional manner.

15. Governmental Permits and Notifications

Unless otherwise expressly stated herein or in an executed Task Order, Consultant represents and warrants that it has investigated the need for, and has or will procure, at its cost, and in its own name to the extent allowed by law, all governmental permits, notifications, approvals and inspections required for the performance of the Services. Consultant shall promptly notify Valley Water if any such permit or approval lapses or is modified or revoked. If, pursuant to applicable law, any such permits or approvals must be procured in Valley Water’s name, Consultant shall promptly so inform Valley Water and assist Valley Water in obtaining such permits or approvals.

16. Taxes and Benefits

Consultant has full and exclusive liability for the payment of, and Consultant will pay, any and all taxes and contributions for unemployment insurance, retirement benefits, workers’ compensation insurance or benefits, life insurance, pensions, annuities and similar benefits and any other employment-related costs, obligations, and duties that may now or hereafter be imposed by law, collective bargaining agreements or otherwise with respect to persons employed by Consultant for the performance of Services pursuant to this Agreement.

17. Nonwaiver of Rights

The failure of either Party to this Agreement to object to or to take affirmative action with respect to any conduct of the other Party that is in violation of the terms of this Agreement will not be construed as a waiver thereof, or as waiver of any future breach or subsequent wrongful conduct.

18. No Third-Party Beneficiaries

Nothing in this Agreement, whether express or implied, shall be construed to give any person or entity, other than the Parties hereto, any legal or equitable right, remedy, or claim under or in respect of this Agreement or any covenants, conditions, or provisions contained herein.

19. Severability

If a court of competent jurisdiction holds any provision of this Agreement to be illegal, unenforceable, or invalid in whole or in part for any reason, the validity and enforceability of the remaining provisions, or portions of them, will not be affected, unless an essential

purpose of this Agreement would be defeated by the loss of the illegal, unenforceable, or invalid provision.

20. Debt Limitation

This Agreement is contingent on the appropriation of sufficient funding by Valley Water for the services described in this Agreement. Valley Water is subject to laws or policies which limit its ability to incur debt in future years. Nothing in this Agreement shall constitute an obligation of future legislative bodies of Valley Water to appropriate funds for purposes of this Agreement.

21. Notices

Unless otherwise specified in this Agreement, all requests for written approval or legal notices must be sent to the representatives below. All notices are deemed to have been given when made in writing and when delivered or mailed to the representatives of Valley Water and Consultant at their respective addresses as follows:

VALLEY WATER:

Deputy Operating Officer listed in the attached Schedule, Scope of Services, Section 1. Representatives.

CONSULTANT:

Consultant Principal Officer, as listed in the attached Schedule, Scope of Services, Section 1. Representatives.

22. Appendices

The following list of Standard Consultant Agreement Appendices are incorporated herein by this reference as though set forth in full:

Appendix One - Additional Legal Terms
Appendix Two - Dispute Resolution
Appendix Three - Task Order Template
Appendix Four - Insurance Requirements

23. Schedule(s) and Attachments

Schedule S, Scope of Services, and the following listed Attachments are incorporated herein by this reference as though set forth in full:

Attachment One - Fees and Payments
Attachment Two - Schedule of Completion
Attachment Three - Consultant’s Key Staff and Subconsultants
Attachment Four - Reference Materials

(SIGNATURES FOLLOW ON NEXT PAGE)

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IN WITNESS WHEREOF, THE PARTIES HAVE SET FORTH BELOW THEIR CONSENT TO THE TERMS AND CONDITIONS OF THIS AGREEMENT THROUGH THE SIGNATURES OF THEIR DULY AUTHORIZED REPRESENTATIVES.

SANTA CLARA VALLEY WATER DISTRICT
Valley Water

By: _____
Nai Hsueh
Chair, Board of Directors

Date: _____

ATTEST:

_____
Michele L. King, CMC
Clerk, Board of Directors

BLACK & VEATCH CORPORATION
Consultant

By: DocuSigned by: Craig Lichty 3B7E7F8EB41D40E...
Craig Lichty
Vice President

Date: 6/25/2024

Consultant's Address:
2999 Oak Rd, Suite 400
Walnut Creek, CA 94597

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STANDARD CONSULTANT AGREEMENT
APPENDIX ONE
ADDITIONAL LEGAL TERMS

1. Conflict of Interest for Future Services

A. Consultant's duties and services pursuant to this Agreement (including Consultant's parent company, Consultant's subsidiaries, or any affiliated entity sharing substantially similar ownership of or control with Consultant, or any of its Subconsultants), shall not include preparing or assisting Valley Water with any portion of its preparation of a request for proposals, request for qualifications, or any other solicitation regarding a subsequent or additional Agreement with Valley Water. Valley Water shall at all times retain responsibility for public contracting, including with respect to any subsequent phase of this Project. Consultant's participation in the planning, discussions, or drawing of project plans or specifications shall be limited to conceptual, preliminary, or initial plans or specifications. Consultant shall cooperate with the public entity to ensure that all bidders for a subsequent contract on any subsequent phase of this project have access to the same information, including all conceptual, preliminary, or initial plans or specifications prepared by consultant pursuant to this Agreement.

2. Dispute Resolution

If a dispute occurs between the Parties as a result of this Agreement, then the Parties agree to use the Dispute Resolution process outlined in the Standard Consultant Agreement, Appendix Two, Dispute Resolution.

3. Small Business Enterprise (SBE) Outreach Program Participation - NOT USED

4. Task Order Approvals

A. Services to be performed pursuant to a Task Order may only commence once a specific Notice to Proceed for that Task Order has been issued by Valley Water.

B. Task Orders are subject to approval by Valley Water Deputy Operating Officer unless delegated to an Assistant Operating Officer and/or Unit Manager.

C. Valley Water Assistant Operating Officer is authorized to approve individual Task Orders in an amount not-to-exceed $[authorization amount]. [NOT USED]

D. Valley Water Unit Manager is authorized to approve individual Task Orders in an amount not-to-exceed $[authorization amount]. [NOT USED]

E. The total not-to-exceed amount for any one Task Order shall not exceed $[NTE Amount]. [NOT USED]

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STANDARD CONSULTANT AGREEMENT
APPENDIX TWO
DISPUTE RESOLUTION

1. Consultant's Questions and Concerns

Questions regarding the Terms, Conditions, and Services relating to this Agreement will be decided by Valley Water who will furnish the decisions to Consultant in writing within 30 days after receiving a written request from Consultant.

2. Dispute Resolution

A. Alternate Dispute Resolution

Valley Water intends to use Alternate Dispute Resolution (ADR) techniques including partnering and mediation to resolve disputes relating to the Project.

B. Consultant and its Subconsultants are expected to participate in all ADR efforts.

C. The cost of partnering, training facilities, and facilitator will be paid for by Valley Water, unless the Parties agree otherwise.

3. Negotiations Before and During Mediation

Negotiations to resolve disputes before and during mediation are initiated for settlement purposes only, are confidential, and are not binding unless otherwise agreed by Valley Water and Consultant.

4. Voluntary Mediation

A. Initiation of Mediation

Any Party to a dispute or claim may initiate mediation by notifying the other Party or Parties in writing.

B. Request for Mediation

A request for mediation must contain a brief written statement of the nature of the dispute or claim, and the names, addresses, and phone numbers of all parties to the dispute or claim, and those who will represent them, if any, in the mediation.

C. Selection of Mediator

1) Upon receipt of a written request for mediation, unless otherwise agreed by the Parties, within 14 days, the Parties will confer to select an appropriate mediator agreeable to all Parties.

2) If the Parties cannot agree on a mediator, they hereby agree to accept a mediator appointed by a recognized association such as the American Arbitration Association.

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D. Qualifications of a Mediator

1) Any mediator selected must have expertise in the area of the dispute and be knowledgeable in the mediation process.

2) No person shall serve as a mediator in any dispute in which that person has any financial or personal interest in the result of the mediation.

3) Before accepting an appointment, the prospective mediator must disclose any circumstances likely to create a presumption of bias or prevent a prompt meeting with the Parties. Upon receipt of such information, the Parties will confer and decide whether to select another mediator.

E. Vacancies

If any mediator becomes unwilling or unable to serve, another mediator will be selected unless the Parties agree otherwise.

F. Representation

1) Any Party may be represented by person(s) of their choice who must have full authority to negotiate.

2) The names and addresses of such person(s) must be communicated in writing to both Parties and to the mediator.

G. Time and Place of Mediation

1) The mediator will set the time of each mediation session.

2) The mediation will be held at a convenient location agreeable to the mediator and the Parties, as determined by the mediator.

3) All reasonable efforts will be made by the Parties and the mediator to schedule the first session within 60 days after selection of the mediator.

H. Identification of Matters in Dispute

1) Parties shall comply with the process as required by the mediator with regard to providing the mediator with a memorandum setting forth its position with regard to the issues that need to be resolved. At the discretion of the mediator, or otherwise agreed by the Parties, the Parties may mutually exchange such memoranda.

2) At the first session, the Parties will be expected to produce all information reasonably required for the Mediator to understand the issue(s) presented. The mediator may require each Party to supplement such information.

STANDARD CONSULTANT AGREEMENT
APPENDIX TWO
DISPUTE RESOLUTION

I. Authority of Mediator

1) The mediator does not have authority to impose a settlement on the Parties but will attempt to assist the Parties in reaching a satisfactory resolution of their dispute.

2) The mediator is authorized to conduct joint and separate meetings with the Parties and to make oral and written recommendations for settlement.

3) Whenever necessary, the mediator may also obtain expert advice concerning technical aspects of the dispute, provided the Parties agree and assume the expenses of obtaining such advice. Arrangements for obtaining such advice will be made by the mediator or the Parties, as determined by the mediator.

4) The mediator is authorized to end the mediation whenever, in the mediator's judgment, further efforts at mediation would not contribute to a resolution of the dispute between the Parties.

J. Privacy

1) Mediation sessions are private.

2) The Parties and their representatives may attend mediation sessions.

3) Other persons may attend only with the permission of the Parties and with the consent of the mediator.

K. Confidentiality

Except as provided by California or federal law or regulation:

1) The mediator will not divulge confidential information disclosed to a mediator by the Parties or by witnesses in the course of the mediation.

2) All records, reports, or other documents received by a mediator while serving as mediator, are confidential.

3) The mediator must not be compelled to divulge such records or to testify in regard to the mediation in any adversary proceeding or judicial forum.

4) The Parties must maintain the confidentiality of the mediation and must not rely on, or introduce as evidence in any arbitration, judicial or other proceedings:

a. Views expressed, or suggestions made by the other Party with respect to a possible settlement of the dispute;

b. Statements made by the other Party in the course of the mediation proceedings;

c. Proposals made or views expressed by the mediator; and

d. Whether the other Party had or had not indicated willingness to accept a proposal for settlement made by the mediator.

L. No Stenographic Record

There shall be no stenographic record of the mediation.

M. Termination of Mediation

The mediation shall be terminated:

1) By the execution of a Settlement Agreement by the Parties;

2) By a written declaration of the mediator to the effect that further efforts at mediation are no longer worthwhile; or

3) By a written declaration of a Party or Parties to the effect that the mediation proceedings are terminated.

N. Exclusion of Liability

No mediator shall be a necessary Party in judicial proceedings related to the mediation.

O. Interpretation and Application of These Mediation Provisions

The mediator will interpret and apply these mediation provisions insofar as they relate to the mediator's duties and responsibility.

P. Expenses

1) The expenses of witnesses for each Party must be paid by the Party producing the witnesses.

2) All other expenses of the mediation, including required travel and other expenses of the mediator, and the expenses of any witness called by the mediator, or the cost of any proofs or expert advice produced at the direct request of the mediator, will be apportioned as the mediator finds appropriate or as otherwise agreed to by the Parties.

5. Compensation for Participation in Mediation

Neither Consultant nor Valley Water is entitled to compensation for time spent in or for negotiations or mediation to resolve questions or disputes between Consultant and Valley Water arising out of this Agreement.

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STANDARD CONSULTANT AGREEMENT
APPENDIX THREE
TASK ORDER TEMPLATE

Task Order No. _____

Title: _____

Agreement: Standard Consultant Agreement _____ ("Agreement") Between the Santa Clara Valley Water District ("Valley Water") and _____ ("Consultant"), dated _____.

Valley Water: _____

Consultant: _____

Dollar Amount of Task Order: Not-to-Exceed $_____

1. Upon full execution of this Task Order No._____, as set forth in the Standard Consultant Agreement, Section Twelve, Miscellaneous Provisions, subsection 13. Task Orders, and the issuance of a Notice to Proceed by Valley Water Project Manager, the Consultant is hereby authorized to perform the Services described in Attachment A to this Task Order. Any costs incurred, Services performed or expenditures by the Consultant before this Task Order is executed or before the issuance of the Notice to Proceed will be considered outside the contracted Scope of Services and will not be eligible for payment.

2. Both the Scope of Services to be performed and the deliverables to be provided in accordance with this Task Order are described in Attachment A which is attached hereto and incorporated by this reference. Attachment A shall include at a minimum the following:

   A. The Consultant personnel to be assigned to perform the Services, including resumes if not previously provided to Valley Water;

   B. The total not-to-exceed fees amount for Consultant to complete the Services, including estimated number of hours required to perform the Services assigned to each Consultant classification;

   C. Estimated cost of each other direct cost and reimbursable expense, including any applicable fees; and

   D. The distribution detail for each service, direct cost, and reimbursable expense. This information must be included in the invoice for the services authorized pursuant to this Task Order; and

   E. Project schedule for completing the Scope of Services.

3. Consultant shall be compensated at fixed fees or at the hourly rates established in Schedule S, Attachment One, Fees and Payments. Consultant agrees that it will provide all equipment and furnish all materials, except as may be otherwise noted in the Attachment A.

4. This Task Order becomes effective on the date of full execution by authorized representatives of the Parties and remains in effect until the earlier of: completion of the tasks set forth in Attachment A or [expected completion date].

5. Copies of applicable local, state and federal permits required to perform the Services described in Attachment A are attached to this Task Order, unless the Consultant previously provided the appropriate permits to Valley Water.

6. Consultant shall perform all Services described in Attachment A to this Task Order in accordance with the Terms and Conditions of the Agreement.

7. Prevailing Wage Requirements [NOT USED]

   A. The Scope of Services described in this Task Order is considered by Valley Water to be "Public Works" requiring the payment of prevailing wages. See the Standard Consultant Agreement, Section Four, Fees and Payments, subsection 3. Prevailing Wages.

   B. In accordance with prevailing wage laws, the Director of the California Department of Industrial Relations (Director) has ascertained the general prevailing rate of wages and employer payments for health and welfare, pension, vacation, and similar purposes available to the particular craft, classification, or type of workers employed on the Project. These rates are set forth in the latest determination obtained from the Director, which is on file in Valley Water's Office of the Clerk of the Board of Directors and incorporated herein by reference the same as though set forth in full. The rates are also available on the State of California Department of Industrial Relations website at http://www.dir.ca.gov.

8. Signatures:

Signature: _____ _____

NAME OF CONSULTANT FIRM — DATE
[PRINT NAME]
[PRINT TITLE]

Signature: _____ _____

SANTA CLARA VALLEY WATER DISTRICT — DATE
[PRINT NAME]
[PRINT TITLE]

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STANDARD CONSULTANT AGREEMENT
APPENDIX FOUR
INSURANCE REQUIREMENTS

Please Note: Failure to comply with the instructions below could result in a delay in receiving the Notice to Proceed. The District will not be responsible for time lost or costs incurred due to failure to comply with these requirements. Please note the check-list of documents needed at the end of this Appendix Four Insurance Requirements.

Without limiting the Consultant's indemnification of, or liability to, the Santa Clara Valley Water District ("District" or "Valley Water"), the Consultant must provide and maintain at its own expense, during the term of this Agreement, or as may be further required herein, the following insurance coverages and provisions as listed below.

Consultant must provide its insurance broker(s)/agent(s) with a copy of these requirements and warrants that these requirements have been reviewed by Consultant's insurance agent(s) and/or broker(s), who have been instructed by Consultant to procure the insurance coverage required herein.

In addition to certificates, Consultant must furnish District with copies of all original endorsements affecting coverage required by this Appendix Four Insurance Requirements. The certificates and endorsements are to be signed by a person authorized by that insurer to bind coverage on its behalf. **All endorsements and certificates are to be received and approved by District before the Agreement is executed**. In the event of a claim or dispute, District has the right to require Consultant's insurer to provide complete, certified copies of all required pertinent insurance policies, including endorsements affecting the coverage required by this Appendix Four Insurance Requirements document.

If your insurance broker has any questions about the above requirements, please advise him/her to email Valley Water Risk Manager at RiskManager@valleywater.org.

Certificates of Insurance

Consultant shall furnish the District with a Certificate of Insurance. The certificates will be issued on a standard ACORD Form.

Consultant shall instruct their insurance broker/agent to submit all insurance certificates and required notices electronically in PDF format to the designated District Contract Administrator and email a copy to **valleywater@ebix.com**.

The certificates will:

1. Identify the underwriters, the types of insurance, the insurance limits, the deductibles and the policy term;
2. Include copies of all the actual policy endorsements required herein; and
3. In the "Certificate Holder" box include:

Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118
Agreement No. A5050A / PB No. VW0379

IMPORTANT: The agreement or PB number must be included.

STANDARD CONSULTANT AGREEMENT
APPENDIX FOUR
INSURANCE REQUIREMENTS

In the Description of Operations/Locations/Vehicles/Special Items Box:

1. Certificate Holder shall be named as Additional Insured;
2. District agreement or project number shall appear;
3. The list of policies scheduled as underlying on the Umbrella policy shall be listed; and
4. Waiver of Subrogation must be indicated as endorsed to all policies.

If Consultant receives any notice that any of the insurance policies required by this Appendix Four Insurance Requirements may be cancelled or coverage reduced for any reason whatsoever, Consultant or insurer shall immediately provide written notice to the designated District Contract Administrator that such insurance policy required by this Appendix Four Insurance Requirements is canceled or coverage is reduced.

Maintenance of Insurance

If Consultant fails to maintain such insurance as is called for herein, District, at its option, may suspend payment for work performed and/or may order Consultant to suspend all Consultant's work at Consultant's expense until a new policy of insurance is in effect.

Renewal of Insurance

Consultant will provide the District with a current Certificate of Insurance and endorsements within thirty (30) business days from the expiration of insurance.

Consultant shall instruct its insurance broker/agent to:

1. Submit all renewals of insurance certificates and required notices electronically in PDF format to: **valleywater@ebix.com**

2. Provide the following information in the "Certificate Holder" box:

   Santa Clara Valley Water District
   5750 Almaden Expressway
   San Jose, CA 95118
   Agreement No. A5050A / PB No. VW0379

   IMPORTANT: The agreement or PB number must be included.

Consultant must, at its sole cost and expense, procure and maintain during the entire period of this Agreement the following insurance coverage(s).

STANDARD CONSULTANT AGREEMENT
APPENDIX FOUR
INSURANCE REQUIREMENTS

Required Coverages

1. **Commercial General/Business Liability Insurance** with coverage as indicated:

   $1,000,000 per occurrence / **$1,000,000** aggregate limits for bodily injury and property damage

   General Liability insurance must include:

   a. Coverage at least as broad as found in standard ISO form CG 00 01.
   b. Contractual Liability expressly including liability assumed under this contract.
   c. If Consultant must be working within fifty (50) feet of a railroad or light rail operation, any exclusion as to performance of operations within the vicinity of any railroad bridge, trestle, track, roadbed, tunnel, overpass, underpass, or crossway must be deleted, or a railroad protective policy in the above amounts provided.
   d. Severability of Interest.
   e. Broad Form Property Damage liability.

2. **Business Auto Liability Insurance** with coverage as indicated:

   $1,000,000 combined single limit for bodily injury and property damage per occurrence, covering all owned, non-owned and hired vehicles.

3. **Professional/Errors and Omissions Liability** with coverage as indicated:

   $2,000,000 per claim/ **$2,000,000** aggregate

   Professional/Errors and Omission Liability appropriate to the Consultant's profession, and must include:

   a. If coverage contains a deductible, or self-insured retention, it shall not be greater than one hundred thousand dollars ($100,000) per occurrence/event.
   b. Coverage shall include contractual liability
   c. If coverage is claims-made:

      i. Certificate of Insurance shall clearly state that the coverage is claims-made.
      ii. Policy retroactive date must coincide with or precede the Consultant's start of work (including subsequent policies purchased as renewals or replacements).
      iii. Policy must allow for reporting of circumstances or incidents that might give rise to future claims.
      iv. Insurance must be maintained and evidence of insurance must be provided for at least three (3) years after completion of the contract of work.

4. **Workers' Compensation and Employer's Liability Insurance**

   Statutory California Workers' Compensation coverage covering all work to be performed for the District.

   Employer Liability coverage for not less than $1,000,000 per occurrence.

STANDARD CONSULTANT AGREEMENT
APPENDIX FOUR
INSURANCE REQUIREMENTS

General Requirements

With respect to all coverages noted above, the following additional requirements apply:

1. **Additional Insured Endorsement(s):** Consultant must provide an additional insured endorsement for Commercial General/Business Liability (for both on-going and completed operations) and Business Automobile liability coverage naming the **Santa Clara Valley Water District, its Directors, officers, employees, and agents, individually and collectively,** as additional insureds, and must provide coverage for acts, omissions, etc. arising out of the named insureds' activities and work. Other public entities may also be added to the additional insured endorsement as applicable and the Consultant will be notified of such requirement(s) by the District. **NOTE:** This section does not apply to the Workers' Compensation and Professional Liability policies.

   (**NOTE:** Additional insured language on the Certificate of Insurance is **NOT** acceptable without a separate endorsement such as Form CG 20 10, CG 2033, CG 2037, or CG 2038. Editions dated 07/04 are not acceptable.)

2. **Primacy Clause:** Consultant will provide evidence (either through the Certificate of Insurance, endorsement or language in the insurance contract) that consultant's insurance is primary with respect to any other insurance which may be carried by the District, its Directors, its officers, agents and employees, and the District's coverage must not be called upon to contribute or share in the loss. **NOTE:** This section does not apply to the Workers' Compensation policies.

3. **Cancellation Clause**: Consultant will provide endorsements for all policies stating that the policy will not be cancelled without 30 days prior notification to the District**.**

4. **Acceptability of Insurers:** All coverages must be issued by companies admitted to conduct business in the State of California, which hold a current policy holder's alphabetic and financial size category rating of not less than A- V, according to the current Best's Key Rating Guide or a company of equal financial stability that is approved by the District's Risk Manager. Non-Admitted companies may be substituted on a very limited basis at the Risk Manager's sole discretion.

5. **Self-Insured Retentions or Deductibles:** Any deductibles or self-insured retentions must be declared to and approved by the District. At the option of the District, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the District, its officers, officials, employees and volunteers; or the Consultant shall provide a financial guarantee satisfactory to the Entity guaranteeing payment of losses and related investigations, claim administration, and defense expenses. Consultant agrees that in the event of a claim they will pay down any agreed upon SIR in a prompt manner as soon as bills are incurred in order to trigger the insurance related to the SIR.

6. **Subconsultants:** The Consultant shall secure and maintain or shall be responsible for ensuring that all subconsultants performing the Contract Services secure and maintain all insurance coverages appropriate to their tier and scope of work in a form and from insurance companies reasonably acceptable to the District.

7. **Amount of Liability not Limited to Amount of Insurance:** The insurance procured by Consultant for the benefit of the District must not be deemed to release or limit any liability of Consultant. Damages recoverable by the District for any liability of Consultant must, in any event, not be limited by the amount of the required insurance coverage.

8. **Coverage to be Occurrence Based:** Except for Professional Liability, all coverage must be occurrence-based coverage. Claims-made coverage is not allowed.

9. **Waiver of Subrogation:** Consultant agrees to waive subrogation against the District to the extent any loss suffered by Consultant is covered by any Commercial General Liability policy, Automobile policy, Workers' Compensation policy described in **Required Coverages** above. Consultant agrees to advise its broker/agent/insurer and agrees to provide evidence (either through the Certificate of Insurance, endorsement or language in the insurance contract) that subrogation has been waived by its insurer.

10. **Non-compliance:** The District reserves the right to withhold payments to the Consultant in the event of material noncompliance with the insurance requirements outlined above.

STANDARD CONSULTANT AGREEMENT
APPENDIX FOUR
INSURANCE REQUIREMENTS

CHECK LIST OF DOCUMENTS NEEDED

General Liability:	A.	Limits **($1,000,000)**	
	B.	Additional Insured (Endorsement)	
	C.	Waiver of Subrogation (COI, Endorsement or policy language)	
	D.	Primacy (COI, Endorsement or policy language)	
	E.	Cancellation Endorsement	

Auto Liability:	A.	Limits **($1,000,000)**	
	B.	Additional Insured (Endorsement)	
	C.	Waiver of Subrogation (COI, Endorsement or policy language)	
	D.	Primacy (COI, Endorsement or policy language)	
	E.	Cancellation Endorsement	

Umbrella:	A.	Limits ($)	
	B.	Primacy (Endorsement or policy language)	

Workers Comp:	A.	Limits **($1,000,000)**	
	B.	Waiver of Subrogation (Endorsement or policy language)	
	C.	Cancellation Endorsement	

Professional Liability:	A.	Limits **($2,000,000)**	
	B.	Cancellation Endorsement	

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SCHEDULE S
SCOPE OF SERVICES

1. Representatives

A. Valley Water's representatives are as listed below. Unless otherwise provided in this Agreement, all correspondence to Valley Water must be addressed to the Valley Water Project Manager (VWPM):

Henry Barrientos (VWPM)
Senior Water Resources Specialist
Recycled and Purified Water Unit
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118-3638

Phone: 408-630-2078
Email: hbarrientos@valleywater.org

Other Valley Water Representatives (All Legal Notices)

Hossein Ashktorab
Recycled and Purified Water Manager
Recycled and Purified Water Unit
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118-3638

Phone: 408-630-2291
Email: hashktorab@valleywater.org

Vincent Gin
Deputy Operating Officer
Water Supply Division
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118-3638

Phone: 408-630-2633
Email: vgin@valleywater.org

B. Consultant's Project Manager is as listed below. All Valley Water questions pertaining to this Agreement shall be referred to the Consultant's Project Manager.

Melanie Tan
Project Manager
Black & Veatch Corporation
2999 Oak Road, Suite 400
Walnut Creek, CA 94597

Phone: 916-858-2459
Email: TanM@bv.com

C. Consultant's Principal Officer for this Agreement is as listed below. As per the Agreement, Section Twelve, Miscellaneous Provisions, subsection 21. Notices, all notices pertaining to this Agreement must be submitted to the Consultant's Principal Officer.

Craig Lichty
Vice President
Black & Veatch Corporation
2999 Oak Road, Suite 400
Walnut Creek, CA 94597

Phone: 925-949-5985
Email: LichtyC@bv.com

2. Scope of Services

A. This Schedule S, Scope of Services describes the professional services to be performed by Consultant for Valley Water's **Desalination Engineering Feasibility Study** (Project). Valley Water reserves the right to initiate a new consultant agreement selection process for services for any subsequent phase(s) and/or utilize Valley Water staff to perform such services.

3. Project Objectives

A. Evaluate engineering feasibility of a seawater desalination facility and determine a suitable capacity and location in the South Bay with minimum 10 million gallons per day (MGD) and maximum 40 MGD production capacity for drinking water supply and develop a concept level setting for the facility.

B. Determine feasible treatment processes for a future desalination facility including intake location(s) and brine management options.

4. Project Background

A. The mission of the Santa Clara Valley Water District, now known as Valley Water, is to provide Silicon Valley safe, clean water for a healthy life, environment, and economy.

Valley Water is a public agency providing water supply, flood protection, and stream stewardship for Santa Clara County. Valley Water manages an integrated water resources system that includes the supply of clean safe water, flood protection and stewardship of streams on behalf of Santa Clara County's 2 million residents. Valley Water effectively manages ten dams and surface water reservoirs, three water treatment plants, a state-of-the-art water quality laboratory, and more than 275 miles of streams. For information about Valley Water, visit www.valleywater.org.

B. Valley Water is seeking to evaluate the engineering feasibility of a seawater desalination facility (Project) in Santa Clara County with intake of seawater from the South San Francisco Bay (South Bay). A desalination facility would augment potable water supplies and serve the primary purpose of providing a new reliable water supply for current and future populations in the Santa Clara County. This engineering feasibility study would

build upon previously completed work by Valley Water which focused on the environmental evaluation and feasibility of a desalination facility.

5. Assumptions and Requirements

A. General Assumptions and Requirements

1) **Manage Scope of services.** The Consultant shall manage the Scope of Services such that the work is completed within the Not-to-Exceed Fees limit and in accordance with the Project schedule and ensure that all services and deliverables meet Valley Water and Project objectives and requirements.

2) **Deliverable Format**. Consultant shall submit deliverables in both electronic and hardcopy format, if requested. Deliverables shall be submitted in PDF and native (editable) format, including Word documents, Excel spreadsheets, PowerPoint files, Autodesk files, etc. The hard copy deliverables shall be printed in professional quality presentation and submitted in 5 (five) copies, if requested. Valley Water may require original copies of signed documents and/or scanned (Adobe PDF) versions.

   a. Valley Water Standardization Requirements

      (1) Consultant shall perform the Services utilizing Valley Water nomenclature, standardized forms, software requirements, documented procedures, and best management practices. Consultant shall use Microsoft Office software and Autodesk Civil 3D software that is compatible with Valley Water's current Microsoft Office software and Autodesk software used at the time(s) Valley Water issues a Notice to Proceed pursuant to this Agreement.

      (2) Engineering drawings prepared by Consultant must be in compliance with Valley Water's Computer-Aided Design and Drafting (CADD) standards including line types, line weights, text sizes, text orientation, dimensioning, labeling/numbering system for detailed plan views and detailed section views. Drawings prepared using different CADD software and versions must be converted to be compatible with Valley Water's CADD software at no additional cost to Valley Water. Prior to acceptance, Valley Water reserves the right to test the submitted CADD files to verify that the files are not corrupted or missing linkages (for blocks, etc., used in the drawings) and that the standards are retained during the conversion process used by the Consultant.

3) **Review of Deliverables**. Valley Water will review and comment on all Project deliverables and forward to the Consultant for revision and preparation of final versions. As determined by Valley Water, some of the deliverables may also be subject to review and comment from regulatory agencies and stakeholders following Valley Water review process. For each deliverable, Valley Water will collect comments from all Valley Water stakeholders and provide a single set of consolidated comments to the Consultant. The comments provided by Valley Water staff during the workshops will be documented by the Consultant as meeting minutes and will be included in the next revision of the documents.

4) **Valley Water Quality Environmental Management System**. Valley Water maintains a Quality Environmental Management System (QEMS) which has procedures, guidelines, and work instructions for the performance of various Valley Water work. If requested, Consultant will perform the applicable Agreement tasks and/or sub-tasks in accordance with the QEMS framework. In such situations, the VWPM will provide the Consultant with the specific QEMS procedure, guideline, and/or work instruction prior to the preparation of such deliverables.

5) **Consultant Responsibility**. Consultant, with its expertise in performing the Services described herein, is responsible for making the appropriate assumptions in each task to complete each task's deliverables and to achieve the Project objectives of this Agreement as described in Section 3. Project Objectives.

6) **Document Control.** Consultant must utilize the document control system designated by Valley Water (Capital Project Management and Project Control's Program).

7) **File Exchange Service.**

   a. Consultant must utilize the file exchange service designated by Valley Water (Capital Project Management and Project Controls Program), accessible to all parties as designated by Valley Water, to facilitate communications.

   b. Consultant may need to coordinate with Valley Water's Capital Project Management and Project Controls Program (CPMPC@valleywater.org) to address any firewall issues and/or permissions required to allow for these communications.

8) **Quality Assurance / Quality Control (QA/QC) Program.**

   a. Consultant will develop and implement ongoing , proven QA/QC procedures. Consultant will implement a formal Quality Management Program to ensure that Valley Water receives quality-controlled deliverables. The Program will include quality control checks of calculations and work products, as well as quality assurance reviews and documentation of the quality control process. Consultant's QA/QC procedures will include a review of all deliverables using appropriately qualified technical resources and advisors for the Project.

   b. The QA/QC procedures will contain details and methodology for reviewing documents, including technical memos and cost estimates. Reviews will be assigned, and sign-off procedures will be documented.

   c. Consultant must provide records that demonstrate that quality reviews were performed on Consultant and subconsultant deliverables.

B. Project-Specific Assumptions and Requirements

1. Figures and layouts will be provided in PDF format.

2. Tasks and/or subtasks are not required to be developed using Valley Water's QEMS framework Unless specifically noted herein, no external agencies or stakeholders will provide review of deliverables.

6. Scope of Services Tasks

Task 1 - Project Management

The purpose of this task is for Consultant to manage this Scope of Services such that the work is completed within the not-to-exceed fees limit stated in Schedule S, Attachment One, Fees and Payments, and in accordance with the Project Schedule stated in Schedule S, Attachment Two, Schedule of Completion, while ensuring that all services and deliverables by the Consultant meet Valley Water and Project requirements.

1.1 **Kickoff Meeting**. Consultant will prepare for and attend in-person kickoff meeting and site visit with Valley Water. The purpose of the kickoff meeting is to introduce key Valley Water and Consultant team members to one another, acquaint all participants with the purpose of and expectations for the Project, describe team members' roles and responsibilities, describe Project procedures, and summarize scope and schedule.

1.2 **Project Administration and Schedule.** Consultant shall provide a draft schedule with key milestones from Tasks 2 through 5 below. Consultant shall complete all work for Tasks 2 through 5 within 12 months from the Notice to Proceed. Consultant shall provide updated schedules at the presentations described under Task 5, Presentation of Results.

1.3 **Meetings with Valley Water**. If requested, Consultant Project Manager must provide a brief update of the team's work activities completed, the look-ahead activities, and the issues and actions that require Valley Water's attention, in a monthly meeting/conference call with the Valley Water Project Manager.

Task 1 – Deliverables and Meetings

1. Draft Schedule with key milestones from Tasks 2 through 5 in PDF format
2. Meeting Agenda and Presentations in PDF format
   a. Monthly (12) project management meetings over one year with Consultant
3. Meeting/Conference Calls attendance and notes in PDF format
4. Signed Final Monthly Invoices and Progress Reports in PDF format.

Task 1 - Assumptions

1. Project duration is one year.

2. Check-in and update meetings will be monthly (12 meetings over one year with Consultant). The meetings will be attended by Consultant's Project Manager, Consultant's Deputy Project Manager and one (1) project team member. Additional attendees (such as subcontractors) per meeting will be determined by Consultant and Valley Water on an as needed basis.

3. A 2-hour kick-off meeting will be held with Consultant's Project Manager and Consultant's Deputy Project Manager.

4. Consultant shall complete all work for Tasks 2 through 5 within 12 months from NTP. Consultant is not responsible in delays to the schedule due to changes in regulatory guidance, their review time or other schedule changes from Valley Water.

5. Each Project Management meeting will be held virtually via Microsoft Teams unless specifically requested by Valley Water.

Task 2 – Data and Information Collection

2.1 Consultant shall prepare a list of Requests for Information (RFI) and provide to VW Staff for data and information collection. Consultant shall utilize the 2023 Desalination Environmental Feasibility and Planning Study (DEFPS) and the most recently adopted Water Supply Master Plan to aid in the development of the Project, as well as projected flows and demands provided by VW. VW shall provide Consultant with necessary data collection sources and information pertaining to this Project, including - but not limited to - Reference Materials in Attachment Four and various reference materials by the entities and Stakeholders described below:

a. DEFPS prepared by GEI Consultants (July 2023);
b. State Water Resources Control Board (SWRCB) and Regional Water Quality Control Board (RWQCB) online databases (e.g., Geotracker, eWRIMS);
c. Don Edwards Refuge;
d. United States Geological Survey (USGS);
e. Valley Water Reports;
f. Department of Water Resources (DWR) reports and online databases (e.g., CASGEM, Groundwater Information Center, Water Data Library, Well Completion Report database);
g. Water resources and land use planning documents from local agencies and municipalities within and near the Study Area (e.g., Urban Water Management Plans, Water Master Plans, General Plans); and
h. Documents prepared under California Environmental Quality Act (CEQA) describing groundwater conditions and use; other federal (e.g., EPA, NOAA), state (e.g., DDW, California GIS Resource Center), and/or local agencies with reports (e.g., BAWSCA); existing groundwater-flow models (for available aquifer parameters in the shallow Study Area).
i. Brackish water studies prepared for Valley Water.
j. Brackish water studies prepared for San Jose Water.

2.2 As part of this task, Consultant will prepare for and attend virtual meetings with key external stakeholders to obtain regulatory and partner inputs to confirm the scope of work required for this Study. Regulatory stakeholders included under this scope of services are:

a. State Water Resources Control Board (SWRCB);
b. Regional Water Quality Control Board (RWQCB);
c. San Francisco Bay Conservation and Development Commission (BCDC); and
d. San Jose Water (SJW).

Task 2 – Deliverables and Meetings

1. Meeting agendas, presentations and notes in PDF format and associated supplemental materials
2. Draft and Final Summarized Data Requests Technical Memorandum
3. Meetings with VW Staff for data and information collection.
4. Meetings with SWRCB and RWQCB
5. Meetings with SJW

Task 2 - Assumptions

1. Consultant PM and if required, Deputy PM will attend all the meetings.
2. Consultant will issue RFIs based on the review and analysis of the DEFPS and other Reference Materials as needed.
3. Environmental data in Valley Water's possession is available electronically. A public records request will need to be acquired for other data.
4. Consultant will hold two (2) virtual meetings each at two (2) hours in length with VW staff for data and information collection.
5. Consultant will hold a total of six (6) meetings each at two (2) hours in length with the SWRCB, RWQCB, and SJW virtually, via Microsoft Teams. One (1) Subject Matter Experts (SMEs) from Consultant will attend each meeting.
6. Valley Water will provide updated Computer-Aided Design and Drafting (CADD) standards.
7. Valley Water will provide information to Consultant within three (3) weeks after receiving RFI.

Task 3 – Feasibility Study

Consultant shall conduct a Feasibility Study of a desalination facility (reverse osmosis or equivalent) to produce potable water to augment existing VW water supplies. The Feasibility Study will begin with a Fatal Flaw Analysis (Task 3.1) to screen the alternatives identified in the Desalination Environmental Feasibility and Planning Study (DEFPS). The alternatives that pass the Fatal Flaw Analysis will then go through a more detailed Alternatives Analysis (Task 3.2).

3.1 **Fatal Flaw Analysis**. The Fatal Flaw Analysis will guide the Alternatives Analysis and includes three areas of focus: (3.1.1) Subsurface Intakes, (3.1.2) Brine Management, and (3.1.3) Siting Considerations.

3.1.1 Subsurface Intakes. Subsurface intake evaluation will include hydrogeologic characterization and feasibility analysis as described below to determine the maximum feasible yield of source water. Three (3) potential subsurface intake sites will be investigated.

3.1.1.1 Hydrogeologic Characterization. The hydrogeologic characterization will include collection of data for the deep aquifer; however, the focus of the characterization will be the shallow subsurface in the Study Area.

3.1.1.2 Climatic and Hydrologic Data. Consultant will provide a description of the physical environment including climate, topography, surface water features, and tidal flux in the Study Area. This task will also provide a discussion of expected seawater level rise for the Study Area.

3.1.1.3 Brackish Groundwater. Consultant will conduct a review of prior studies pertinent to brackish groundwater desalination within the study area, and assess the feasibility of integration with bay water intake options through blending with groundwater. Factors to be considered in evaluation of brackish source water include likely well yields and chloride concentrations; and common challenges associated with groundwater pumping, such as land subsidence, groundwater quality, and the risk of salt water intrusion.

3.1.1.4 Geology. The surficial geology and hydro stratigraphy of the Study Area will be documented. This will include maps of soils, surficial geology and description of the unconsolidated alluvial aquifers and aquitards, such as bay mud. The vertical extent of aquifers and aquitards will be documented. Geologic structure will be summarized, including description of any nearby faults affecting groundwater flow in the shallow subsurface.

Consultant will provide three (3) (one through each of the three potential subsurface intake sites) hydrogeologic cross-sections through the Study Area. The cross sections will depict the ground surface, discontinuous nature of fine- and coarse-grained materials, estimated depths to groundwater in the shallow and deep aquifers. While data will be collected to the full depth of the lower confined aquifer to the bedrock base, the focus of this investigation and cross sections is the shallow aquifer and near subsurface materials where subsurface intake facilities could be located.

3.1.1.4.1 Aquifer Hydraulic Properties and Local Extraction Rates. Aquifer hydraulic properties (e.g., hydraulic conductivity, transmissivity, and storativity) and well performance (e.g., yield and specific capacity) will be described for the shallow subsurface materials in the Study Area. Aquifer parameter data in the shallow subsurface in the Study Area are likely to be very limited due to the prevalence of fine-grained materials and lack of production or monitoring wells. Available aquifer parameters such as transmissivity and storativity will be extracted from available groundwater flow models for the local area. If any nearby environmental release sites include pumping test or remedial extraction well extraction data, these data will be compiled and summarized to help characterize potential shallow subsurface well yields. The resulting data set will be a key component in assessing the adequacy of potential subsurface intake well or well systems to meet design capacity.

3.1.1.4.2 Groundwater Levels and Flow Direction. Valley Water collects and reports on groundwater levels and flow directions as part of regular reporting. Currently groundwater flow in both the shallow and deep aquifers are toward the Bay. Depth to shallow groundwater in the

Study Area will be extracted from Valley Water contour maps. Any available nearby environmental release site groundwater level data will also be documented. Maps showing shallow groundwater flow contours in the Study Area will be prepared.

3.1.1.4.3 Tidal Flux. The levels of Bay water in the Study Area will be discussed. Tidal flux is not expected to impact proposed subsurface intake bermed pond locations but may impact the Charleston Slough that is open to the Bay. Estimates of slough inundation will be described in terms of surface elevation and tide levels.

3.1.1.4.4 Water Quality. This task will provide an overview of Study Area groundwater quality conditions, trends, factors, and issues focused on chloride, boron, and total dissolved solids (TDS) as indicators of Bay water intrusion. Chloride maps prepared by Valley Water will be presented for the Study Area along with a discussion of seawater intrusion mechanisms. USGS studies evaluating sources and mechanisms of elevated seawater indicator chemicals in the South Santa Clara Valley, which will be described.

3.1.1.5 Subsurface Intake Fatal Flaw Analysis. Consultant will prepare a report describing the Subsurface Intakes Fatal Flaw Analysis including appropriate text, charts, figures, and tables to support the assessment. The Subsurface Intakes Feasibility Analysis will incorporate guidance related to geologic and hydrogeologic considerations from the regulatory agency consultation and, if available, the latest state regulatory guidance on the geological and hydrogeological considerations that must be taken into account when evaluating the feasibility of subsurface intakes.

The three subsurface intake sites will be characterized based on available data. The Study Area hydrogeology will be used to assess the potential for use of the three identified locations for subsurface intakes. Based on the hydrogeology described, the feasibility of subsurface intakes will be assessed in terms of 1) lateral connection of shallow subsurface permeable units to the Bay water and 2) potential yields of well or well systems installed in the proposed subsurface intake locations to meet design capacities. If any nearby remedial extraction well data are available, they will be used to estimate potential Study area well or well system yields. Lacking those data, aquifer parameters extracted from the available numerical flow models will be used to estimate shallow well yields. Conclusions, data gaps/limitations, and recommendations for additional study will be included.

3.1.1.6 Source Water Availability. The fatal flaw analysis will determine whether the maximum feasible yield of source water can support the minimum production capacity of the desalination facility. Specifically, the investigation will determine whether there is sufficient yield to support Valley Water's desalination facility to meet the water supply gap that is anticipated to be 24,000 AFY. This requires a minimum of 50 MGD of source water. If 50 MGD of source water is not feasible, the maximum capacity of the subsurface intake well or well systems will be

determined and will be used as part of the hybrid option (subsurface intake and open intake) that will be evaluated as part of the Alternatives Analysis (Task 3.2).

Aquifer hydraulic properties (e.g., hydraulic conductivity, transmissivity, and storativity) and well performance (e.g., yield and specific capacity) will be described for the shallow subsurface materials in the Study Area. Aquifer parameter data in the shallow subsurface in the Study Area are likely to be very limited due to the prevalence of fine-grained materials and lack of production or monitoring wells. Available aquifer parameters such as transmissivity and storativity will be extracted from available groundwater flow models for the local area. If any nearby environmental release sites include pumping test or remedial extraction well extraction data, these data will be compiled and summarized to help characterize potential shallow subsurface well yields.

3.1.2 Brine Management. The Fatal Flaw Analysis of brine management will be informed by California Water Code section 13142.5(b) and the California Ocean Plan's desalination regulation as well as the regulatory agency consultation process. Pursuant to California Ocean Plan's regulations, the feasibility assessment fatal flaw analysis will focus on the preferred technology for minimizing intake and mortality of all forms of marine life resulting from brine discharge, which is to commingle desalination plant brine with wastewater (e.g., agricultural, municipal, industrial, power plant cooling water, etc.) that would otherwise be discharged. The following tasks will determine whether wastewater can provide adequate dilution to ensure salinity of the commingled discharge meets the receiving water limitation for salinity in chapter III.M.3 of the California Ocean Plan:

a. Calculate brine/effluent blending ranges based on long-term treated effluent availability from Palo Alto Regional Wastewater Quality Control Plant (RWQCP) and from San Jose/Santa Clara Regional Wastewater Facility (RWF);
b. Assess regulatory feasibility of desalination facility final effluent deepwater outfall option to deepwater channel in north central Lower South San Francisco Bay;
c. Coordinate with project team to identify likely extent of receiving water monitoring and mitigation studies based on Ocean Plan guidance. Identify initial dilution and far-field modeling studies that may be required to support a 100% brine or 1:1 brine to effluent blend. Conduct focused reasonable potential analysis and identify potential requirements of new NPDES permit;
d. Coordinate with project team to assess the ability of a horizontal levee (HL) to successfully treat either 100% brine or a 1:1 brine to effluent blend. If deemed infeasible, team to assess feasibility to redesign a HL to process 100% brine or a 1:1 brine/effluent blend. Coordinate with team to develop estimates of HL land area required to process 100% brine and 1:1 brine/effluent blend based on assumed hydraulic loading ability of HL. Identify potential requirements of a new NPDES permit for the HL effluent;
e. Assess regulatory feasibility of discharging 1:1 brine to effluent blend through either the RWQCP or the RWF shallow water outfall. Coordinate with project team to identify likely extent of receiving water monitoring and mitigation studies based on Ocean Plan guidance. Identify initial dilution and mixing zone modeling studies that may be required. Conduct focused reasonable potential analysis to identify pollutant metals that may require new or modified NPDES permit effluent limits or other permit requirements to accommodate a brine discharge;

f. Assess potential extent of qualitative impacts to existing POTW outfall locations (receiving waters) based on brine discharge from the deepwater outfall or from HL sites;
g. Review ROC treatment/management alternatives being studied by VW and provide qualitative assessment of their feasibility for desalination brine treatment/management; and
h. Prepare draft and final technical memorandum summarizing results of above tasks.

3.1.3 Siting Considerations. Consultant will work with Valley Water and stakeholders to ensure the range of the desalination facility design capacities evaluated in Task 3.1.1.5 Source Water Availability is consistent with applicable local, state and federal regulations. Consultant will review site locations and eliminate any sites with potential Fatal Flaws based on the following considerations:

3.1.3.1 Regulatory. Applicable regulations for a seawater desalination project in South San Francisco Bay will be assessed. The relevance of the California Ocean Plan (State and Regional Water Boards) will be critical factors in determining the options available (e.g., siting, capacity, intake and discharge technologies, mitigation) for a proposed plant. Consultant will review all previous communications/outreach to regulators to understand project history and to develop a regulatory roadmap for the proposed plant.

Consultant will eliminate options; the remaining viable options will be assessed in greater detail and will assist primarily in the siting, sizing, and intake/discharge technology evaluations.

3.1.3.2 Engineering. A high-level evaluation of site availability for the intakes, outfalls, and treatment plants at the locations Identified in the DEFPS ~~GEI~~ report will be conducted.

3.1.3.3 Geotechnical. A comparative assessment of foundation concepts and ground improvement options across selected sites based on liquefaction hazard, settlement hazard, and general subsurface stratigraphic conditions will be performed to validate siting locations.

Consultant will prepare a Desktop Geotechnical Technical Memorandum for sites that passed the fatal flaw analysis. The study will look at geologic hazards, stratigraphic units, geomorphology, land modifications, sedimentation and erosion, use available geotechnical data (e.g. borings, CPTs) from nearby sites and integration into a geo-database, and prepare conceptual foundation design inputs for project facilities.

3.2 Alternatives Analysis. The project elements that have passed through the Fatal Flaw Analysis (Task 3.1) will be further evaluated as part of the Feasibility Study.

3.2.1 **Technology Evaluation**. Consultant will recommend one treatment process based on the assumed raw water quality makeup, best suited for desalination facility requirements considering any space limitations. Consultant shall identify and evaluate current

regulations in meeting treatment requirements based on meetings in Task 2 Data and Information Collection.

3.2.2 **Location and Sizing Evaluation**. Consultant will use the recommended location that passed through Fatal Flaw Analysis for siting of the proposed desalination facility, including sea water intake and outfall options, and an evaluation of related geology and hydrodynamic impacts.

3.2.3 **Intake Location Evaluation**. If it is determined during Fatal Flaw Analysis that subsurface intakes are not feasible to achieve the minimum flow objective, then Consultant shall evaluate an open water intake and/or a hybrid approach that also includes a smaller flow capacity subsurface intake system coupled with an open water intake. Consultant shall recommend schematics illustrating size requirements for subsurface intakes and potential locations.

3.2.4 **Reverse Osmosis Concentrate / Brine Disposal Evaluation**. If commingling desalination plant brine with wastewater that would otherwise be discharged from one of the existing local facilities is eliminated as feasible during the Fatal Flaw Analysis, then Consultant, through consultation with VW and regulatory agency staff, will determine regulatory acceptance of horizontal levees prior to evaluating the construction of a deep-water outfall as preferred project alternative.

Consultant shall include:

a. Brine / RO concentrate discharge and possible impacts to publicly owned treatment works (POTWs) outfall locations within the Santa Clara County as determined in the Fatal Flaw Analysis;
b. Schematics illustrating size requirements and potential locations;
c. Consider any RO concentrate/brine management strategies with those currently being studied by VW and shall coordinate with VW for any alternative management strategies;
d. Qualitatively evaluate two (2) different RO concentrate/brine disposal options including the desalination facility final effluent outfall and adjacent salt-water wetlands; and
e. Include an evaluation of any potential impacts to existing POTWs in the vicinities of the project site.

3.2.5 **Distribution System Connection Points and Storage Evaluation**. Consultant shall evaluate the most suitable connection points, sizing, regulatory requirements, etc. for the product water blending with the potable water supply and include all facilities (including additional storage and in-situ instrumentation) needed to blend the product water with existing potable water. Two (2) connection points will be evaluated.

3.2.6 **Scalability Evaluation**. Consultant shall size the facility for the maximum capacity available at the selected facility site, intake, and outfall to meet long-term and interim demands for increased potable water production. The optimal near-term size will be determined and the layout will consider expansion to the maximum capacity available.

3.2.7 **Opinion of Probable Construction Cost**. Consultant shall calculate and provide a Class 5 Opinion of Probable Construction Cost (OPCC) estimate per the AACE International classification system including both capital expenditures (CAPEX) and operating expenses (OPEX) for the most viable option. The cost estimate shall be appropriate for a feasibility study for a project definition of 0 – 2 percent and an expected accuracy of -50 to +100 percent.

3.2.8 **Sensitivity Analysis** - NOT USED

3.2.9 **Greenhouse Gas Emissions & Energy Consumption Evaluation**. Consultant shall estimate the proposed desalination facility's greenhouse gas emissions and energy use for the average annual production.

Task 3 – Deliverables and Meetings

1. Fatal Flaw Analysis Technical Memorandum Draft and Final PDF. The Fatal Flaw Analysis TM will include attachments for:
   a. Hydrogeologic Characterization (Tasks 3.1.1.1 through 3.1.1.6)
   b. Brine Discharge Alternatives (Task 3.1.2)
   c. Desktop Geotechnical Technical Memorandum (Task 3.1.3)
2. Provide draft Feasibility Study Report outline at 10 percent project completion to VW for review at least fourteen (14) calendar days prior to the corresponding presentations.
3. After the Fatal Flaw Analysis Results Workshop and TM, compile and summarize the results from Tasks 2 – 5 into a Feasibility Study Report. Provide draft reports at 50, 80, and 95 percent project completion (a total of three (3) submittals) to VW for review at least fourteen (14) calendar days prior to the corresponding presentations. Report shall include schematics, flow sheets and preliminary site plans.
4. Meeting notes and associated supplemental material for the three (3) (50, 80, and 95 percent) Task 3 Percent Project Completion Meetings (2-hrs each).
5. Final Feasibility Study Report.
6. PDF of meeting notes and materials
7. Fatal Flaw Analysis Results Meeting.
8. The Project Completion Meetings. See Task 5.

Task 3 - Assumptions

1. Fatal Flaw Analysis Results Meeting will be presented in a virtual, two (2) hour Workshop. Notes and slides will be submitted in PDF format.
2. CA Water Code section 13142.5(b) and the California Ocean Plan's desalination regulations apply to the project study area.
3. Feasible is defined "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors."
4. The scope of the subsurface intake Fatal Flaw analysis will be limited to the geologic and hydrogeologic considerations as identified in existing regulatory guidance.

5. A project alternative that passes through the Fatal Flaw Analysis does not guarantee acceptance by local, state and federal permit and regulatory agencies.

6. Cost estimate will be provided for the one (1) alternative included in the Feasibility Study.

7. All requested data will be received within two weeks of RFIs.

8. The Hydrogeologic Characterization of Study Area and Subsurface Intake Feasibility Analysis will extract aquifer parameters from existing numerical groundwater flow models but will not include any numerical modeling as part of the analysis.

9. One site reconnaissance visit to proposed subsurface intake sites is included. It is assumed that the sites can be visited in one 8-hour day under one mobilization, but the number of proposed sites is uncertain, and more time may be needed.

10. No drilling, well installation, sampling or laboratory analysis is included e.g., no site-specific field investigation will be conducted under this project.

11. Valley Water will be responsible for and will coordinate any needed access agreements for the reconnaissance site visits.

12. For the Fatal Flaw analysis, brine production scenario to be assessed is limited to the production capacity determined in Task 3 for the brine that may be blended 1:1 with treated effluent.

13. Primary focus of brine disposal feasibility evaluations will be on compliance with likely SFB Regional Water Board and Ocean Plan Requirements

14. Brine disposal feasibility evaluations will be qualitative and based on readily available information and currently applicable regulatory guidance and regulations.

15. VW to provide long-term treated effluent availability data from RWQCP and RWF.

16. Consultant will download readily available LSB receiving water quality data from SFEI RMP to assess brine pollutant levels, with brine concentrations assumed two times ambient.

17. Comments and responses matrix are not required.

18. Valley Water will provide anticipated long-term water demands for 2040.

19. For the Brackish Groundwater review (Task 3.1.1.3)

    a. The study area for this task is the area from the Bay edge to the year 2020 100 mg/L chloride concentration contour plus a one-half mile buffer inland of the contour.

    b. The Consultant is not providing an upper limit on the number of sites to review, instead priority will be given to site locations based on preferred chloride groundwater concentrations, readily available reports and data from Valley Water, sites with lithologic logs extending deeper into the shallow aquifer and detailed cross sections, and sites with aquifer tests or remedial extraction wells.

c. The investigation will focus on the shallow aquifer as elevated chloride in the principal aquifer is localized.

d. In addition to prior studies, Consultant will review available data and reports on environmental release and dewatering sites in the study area. This may require additional RWQCB file reviews if all environmental site reports and data are not available from Valley Water. It is uncertain the number of environmental and dewatering sites that might be located in the study area. Accordingly, Consultant will prioritize the Bayfront area and move out toward the extent of the buffer area as budget allows. Note that permeable lenses extent and thickness (and likely higher well yields) in the shallow aquifer increase with distance from the Bay.

e. No site-specific cross sections will be prepared for this task.

f. No modeling will be conducted as part of this task.

g. The permeable lenses in the shallow aquifer have been characterized as thin and of limited lateral extent. Therefore, conditions at one site might not be representative of conditions at a nearby site. After literature review and fatal flaw analysis is completed, site specific field studies at each site that are not part of this scope of services will be required to confirm the permeability of the potential well yields.

h. Data may be insufficient to definitively characterize shallow aquifer well yields and parameters at any given location. Site specific field studies will be required to close data gaps.

Task 4 – California Environmental Quality Act (CEQA) and Other Regulatory Requirements

4.1 Consultant shall consider applicable California Environmental Quality Act (CEQA) and other potential regulatory requirements from SWRCB, RWQCB and BCDC, that may apply to the future construction and operation of the proposed desalination facility as described in the EFPS. Consultant shall include a CEQA and Regulatory Requirements Report, that will include estimated timelines and a list of permits required.

4.1.1 The Engineering Feasibility Study will include a discrete section on CEQA and regulatory permitting requirements, summarizing the results of an attached CEQA and Regulatory Requirements Report to be prepared. The intent is to build on the DEFPS document and provide refined information relevant for the assessment of engineering feasibility for the selected alternative. The intent is not to cover all applicable regulations and requirements but rather to focus on those regulatory requirements that may influence the determination of project feasibility. It is anticipated that Consultant's review will be supported by an initial site reconnaissance visit, the agency meetings, and review of the EFPS and other materials provided by Valley Water.

4.1.2 Consultant will prepare and lead presentations related to CEQA and Regulatory Requirements Report.

4.1.3 Consultant will address Valley Water comments on each version of the document and will present a clean and track changes version of the subsequent report to Valley Water. Valley Water comments on the report are assumed to be relatively minor in nature and will not require additional technical work to address.

Task 4 – Deliverables and Meetings

1. See Task 3 Deliverables. CEQA and Regulatory Requirements Report will be an Attachment to the report in Task 3.1 Fatal Flaw Analysis at 80% and Final submittal. It will not be updated at each deliverable.
2. Meeting Notes and associated supplemental material.
3. Check-in Meetings

Task 4 - Assumptions

1. Two (2) presentations, one (1) hour each, will occur virtually via Microsoft Teams for the Task 4 items. Meetings will be attended by Consultant PM, Deputy PM and one (1) SME.

2. One (1) 8-hour site visit to the selected facility site, intake, and outfall.

3. Separate comments and responses matrix are not required.

4. The CEQA Checklist may be prepared as an Optional Task.

Task 5 – Presentation of Results

5.1 Consultant shall present progress and results to VW at 80 and 100 percent project completion. VW will provide feedback that the Consultant will incorporate into the project and summary report.

5.2 Consultant shall provide presentation attendees with summary notes and electronic copies of any supplemental materials used during the presentations no later than seven (7) calendar days from the presentation. Consultant may be required to also prepare and present the findings of the Feasibility Study to the VW Board of Directors and/or special committees.

Task 5 – Deliverables and Meetings

1. See Task 3 Deliverables.
2. Meeting Notes and associated supplemental material.

Task 5 - Assumptions

1. One (1) virtual presentation of results meeting will be held with Valley Water at 100 percent project completion. Presentation will be one (1) hour long and attended by Consultant PM, Deputy PM and one (1) SME.

2. One (1) virtual presentation of 1-hr each to the Valley Water Board of Directors and special committees to present results and attended by Consultant PM, Deputy PM and one (1) SME.

3. Separate comments and responses matrix is not required.

Task 6 - Supplemental Services

Valley Water may require, and the Consultant will perform, Supplemental Services on an as-needed basis. Prior to performing any Supplemental Services, Consultant must receive an approved Task Order issued by Valley Water and executed by both Parties. Refer to the Standard Consultant Agreement, Section Twelve, Miscellaneous Provisions, subsection 13. Task Orders, and Appendix Three, Task Order Template.

6.1 Specific examples include, but not limited to:

6.1.1 Stakeholder Meetings

6.1.1.1 As directed by VW staff, Consultant may present results to stakeholders at 80 and 95 percent project completion. Consultant shall incorporate feedback provided by the VW after the 80 percent project completion presentation under Task 5, Presentation of Results prior to the 80 percent project completion stakeholder meeting. Stakeholders include, but are not limited to, residents, nongovernmental organizations, VW and its directors, Cities within Santa Clara County (including Cities of San Jose, Palo Alto, and Mountain View), and the San Francisco Bay Regional Water Quality Control Board.

6.1.1.2 This type of one-on-one meeting is a qualitative research method best-suited for uncovering the range of views, beliefs, attitudes, opinions, and experiences that may exist in a certain population, primarily among key stakeholders. During the meeting, an experienced interviewer uses a discussion guide to conduct a structured conversation with participants. Like other qualitative methods, the one-on-one meetings allow for detailed exploration of topics but do not provide data that is statistically representative of a larger population. Instead, the information obtained is descriptive and should be considered as representing a range of opinions that may exist among various segments, especially key stakeholders, agencies and community leaders. The Consultant will help identify the stakeholders and how best to communicate with them.

6.1.1.3 Benefits: This optional task is recommended as it has been proven to be highly effective in identifying understated project concerns, potential project opposing views, and garnering project support from important key stakeholders. Findings from the In-Depth Interview (IDI) process are highly effective in helping to shape outreach strategy and communication planning for a project as it evolves and progresses toward agency consideration and implementation.

6.1.1.4 IDIs can reap the following results:

a. Assess current perceptions of water supplies and role desalination may play.
b. Learn initial reactions to and perceptions about proposed desalination applications and options.
c. Listen to views on the best approach for introducing the use of desalination water to the community.

d. Listen to views on the best approach for delivering specific outreach messages, and even testing messages.
e. Hear views from trusted sources of information within the community.
f. Answer questions and respond to various perceptions directly with stakeholders during interviews, and if necessary, mitigate mis-information.
g. Consider the best approach toward educating and engaging the greater community if a desalination project were to move forward.

6.1.2 Public Outreach

Consultant shall, at the discretion of Valley Water, prepare informational material in collaboration with Valley Water Outreach Staff and assist staff with reports, presentations, and workshops for Valley Water management, Committees, and partner agencies as needed. Consultant shall, as needed, provide administrative and/or technical support at public outreach events. Consultant shall assist, as needed, in educational campaigns and stakeholder meetings on the benefits of desalination to increase public perception and awareness of the potential expansion opportunities. At the discretion of Valley Water, prepare informational material in collaboration with Valley Water Outreach Staff and assist staff with reports, presentations, and workshops for Valley Water management, Committees, and partner agencies as needed. Consultant shall, as needed, provide administrative and/or technical support at public outreach events. Consultant shall assist, as needed, in educational campaigns and stakeholder meetings on the benefits of desalination to increase public perception and awareness of the potential expansion opportunities.

6.1.3 Conceptual Design

Consultant shall produce design parameters and associated schematics for 5 percent project definition for the desalination facility with a product water capacity determined in Task 3 to achieve an instantaneous TDS of 200 ± 50 mg/L after being blended with existing raw water or other water supplies. Consultant shall define these parameters for the following projections:

a) Near Term – 2024: Incorporates estimated near-term increases in potable water demand.

b) Long Term – 2040: Incorporates estimated long-term increases in potable water demand due to regional growth and other sources of demand.

c) Scalability Evaluation - Not Used.

d) Opinion of Probable Construction Cost
Consultant shall calculate and provide a Class 4 OPCC estimate per the Association for the Advancement of Cost Engineering (AACE) International classification system. The cost estimate shall be appropriate for a feasibility study for a project definition of 1 – 15 percent and an expected accuracy of -30 to +50 percent.

e) Schematics & Site Plans
Consultant shall provide process schematics and preliminary site plans indicating sizing requirements, locations, and process connections needed for systems evaluated.

6.1.4 Funding Identification & Assistance – NOT USED

6.1.5 CEQA Checklist

A CEQA Checklist shall be prepared for the one selected alternative and will include a list of permits with estimated timelines. The Checklist shall be added as an attachment to the CEQA and Regulatory Requirements Report.

6.2 Additional Services. Consultant will provide additional quantities of previously identified services as requested by Valley Water. Consultant will provide additional services for any quantity of tasks and deliverables beyond those stated in Task 1 through 5 as Task 6 Supplemental Services, to include but not be limited to:

6.2.1 Additional meetings; six (6) additional meetings for two (2) team members at four (4) hours each for preparation and participation.

6.2.2 Additional time allotted for meetings;

6.2.3 Additional status/progress reports;

6.2.4 Additional phone conference calls; 12 additional conference calls for two (2) team members at one (1) hour each per call.

6.2.5 Additional pages or copies of technical memoranda, plans, reports, drawings, and specifications; and

6.2.6 Additional public outreach visual materials.

Task 6 – Deliverables

1. Draft and Final PDF Conceptual Design Report.

2. Meeting minutes.

3. Draft and Final CEQA Checklist document for selected alternative.

Task 6 – Assumptions

1. Task 6.1.1 - 8 additional meetings, time for meetings, status/progress reports, conference calls and public outreach has been included in this task. This includes the PM, Deputy PM, and 1 SME. This task also includes 15 in-depth interviews.

2. Task 6.1.2 - 50 one-hour meetings with Data Instincts in preparation for Public Outreach. Two meetings for Public Outreach with Miller Marine Science. One additional Consultant representative available for each meeting.

3. Task 6.1.3 - No electrical or I&C design or consideration is included in conceptual design.

4. Task 6.2.2 - Conceptual design report will include items listed in the task. There will be no structural, architectural, electrical, or instrumentation and control concepts included. It will be schematic in nature and cover general design requirements and site and process schematics.

5. Separate comments and responses matrix is not required.

7. Attachments

The following Standard Consultant Agreement listed Attachments are incorporated herein by this reference as though set forth in full:

Attachment One - Fees and Payments
Attachment Two - Schedule of Completion
Attachment Three - Consultant's Key Staff and Subconsultants
Attachment Four - Reference Materials

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SCHEDULE S
ATTACHMENT ONE
FEES AND PAYMENTS

1. Total Authorized Funding

Total payment for Services performed, to the satisfaction of Valley Water, as described in the Schedule(s) will not exceed a total amount of **$1,717,738** (Not-to-Exceed Fees or NTE). Under no conditions will the total compensation to the Consultant exceed this NTE payment amount without prior written approval in the form of an amendment to this Agreement executed by Valley Water's Board of Directors (Board) or Board designee.

2. Cost Breakdown

The NTE total compensation of this Agreement consists of the following task fee breakdown. No services will be performed or fees paid by Valley Water to the Consultant for Supplemental Services without written authorization by Valley Water as stated in this Agreement.

COST BREAKDOWN

Task	Description	Not-to-Exceed Fees
1	Project Management	$233,563
2	Data and Information Collection	$67,034
3	Feasibility Study	$889,957
4	CEQA and Other Regulatory Requirements	$80,537
5	Presentation of Results	$35,961
6	Supplemental Services	$410,686
	Total Not-to-Exceed Fees	**$1,717,738**

3. Terms and Conditions

A. Payments for Services performed, as defined in this Schedule, which applies to the specific Services, will be based on the following terms:

1) Valley Water will pay for Services provided by the Consultant according to the schedule of rates for professional, technical, and administrative personnel as well as materials and supplies as listed below in the Hourly/Unit Rate Schedule.

2) The stated hourly rates are effective for the term of this Agreement unless otherwise revised as indicated. After 12 months from the date this Agreement is entered into by parties ("anniversary date"), and each 12 months thereafter, these hourly rates may be negotiated by the Consultant and Valley Water, provided Consultant submits written notice to Valley Water of Consultant's request to revise the hourly rates 90) calendar days prior to the anniversary date of this Agreement. Both Parties will use as a benchmark for negotiations the percent change for the previous 12 months of the "Employment Cost Index (ECI), for total compensation for private industry workers, for the San Francisco-Oakland-San Jose, CA CSA Census region and

metropolitan area (not seasonally adjusted)" as published by the U.S. Department of Labor, Bureau of Labor Statistics, or 3.5% whichever is less. A negative index will result in rates remaining the same. Such rate revisions are subject to written approval by Valley Water's Deputy Operating Officer, unless delegated to an Assistant Operating Officer and/or Unit Manager.

B. **Reimbursable Expenses**

1) If approved in advance by the Valley Water Project Manager (VWPM), reimbursable expenses not already covered in overhead may include, but are not limited to, mapping, rendering, printouts, leased equipment, mailing and delivery services, printing services, film and processing, plotting, and supplies. These other direct expenses will be billed on a monthly basis at actual cost plus 5% linked to each Agreement Task, provided that the Task total NTE amount is not exceeded. Consultant shall provide detailed receipts for each other direct expense item(s) with monthly invoices submitted. No markup will be applied to reimbursable expenses, either by the Consultant or by its subconsultants, subcontractors, or vendors. Consultant shall provide invoices for all such services regardless of cost.

2) Equipment purchased on behalf of Valley Water that costs $50 or more must receive the prior written approval of the VWPM. All equipment purchased on behalf of Valley Water and paid for by Valley Water shall become the property of Valley Water and be delivered to Valley Water prior to expiration of this Agreement.

3) If prior approval has been obtained from the VWPM, travel and overnight accommodations, including per diem, required for performance of this Agreement will be paid at reasonable cost not to exceed the U.S. General Services Agency Per Diem Rates for Sunnyvale/Palo Alto/San Jose, California area. Travel expenses are reimbursed at actual cost. For air travel, Valley Water will pay the cost of a coach class or equivalent ticket. Where air travel is required, Valley Water will pay the total cost of taxi, rideshare, public transportation, or a rental car, which may include insurance, gas, car fee, and taxes and will be paid at the actual costs incurred. Vehicle rental is limited to a compact or economy model, unless prior approval has been obtained from the VWPM for a different type of vehicle.

4) Expenses incurred by the Consultant, including expenses incurred by Subconsultants, subcontractors and vendors (not their hourly rates), such as, for example, outside lab services, will be reimbursed at actual cost plus 5%. Consultant shall provide invoices for all such services regardless of cost. The 5% markup will be applied only once, either by the Consultant or by its subconsultants, subcontractors, or vendors.

5. For staff with rates exceeding the rate of $[RATE LIMIT]/hr, the Consultant must obtain written approval from the Valley Water Project Manager (VWPM) as to the numbers of hours per task prior to that individual working on the Project. [NOT USED]

C. **Prevailing Wage Requirements** [NOT USED]

1) The Scope of Services described in a Task INSERT APPLICABLE TASK NUMBER HERE may be considered by Valley Water to be "Public Works" requiring the payment of prevailing wages. See Standard Consultant Agreement, Section Four, Fees and Payments, subsection 3. Prevailing Wages.

2) In accordance with prevailing wage laws, the Director of the California Department of Industrial Relations (Director) has ascertained the general prevailing rate of wages and employer payments for health and welfare, pension, vacation, and similar purposes available to the particular craft, classification, or type of workers employed on the Project. These rates are set forth in the latest determination obtained from the Director, which is on file in Valley Water's Office of the Clerk of the Board of Directors and incorporated herein by reference the same as though set forth in full. The rates are also available on the State of California Department of Industrial Relations website at http://www.dir.ca.gov.

HOURLY/UNIT RATE TABLE

CLASSIFICATION/STAFF	HOURLY/UNIT RATE
Consultant: Black & Veatch Corporation	
Senior Project Manager	$356.01
Project Director	$370.00
Senior Project Director	$400.00
Engineer Level 4/Senior Technician	$241.48
Engineer/Specialist Level 9	$355.00
Project Manager	$334.00
Senior Engineering Manager	$334.00
Engineering Manager	$285.00
Engineer/Specialist Level 8	$318.00
Engineer/Specialist Level 7	$302.00
Engineer/Specialist Level 6	$285.00
Engineer/Specialist Level 5	$268.00
Engineer Level 3/Technician	$206.98
Engineer Level 1-2/Junior Technician	$155.24
Senior Finance - Project Controls	$189.74
Finance - Accounting-Project Controls	$140.67
Senior Administrative Assistant	$147.37
Administrative Assistant	$110.53
Subconsultant(s): Data Instincts	
Principal	$255.00
Associate Communication Specialist	$205.04 - $225.28
Associate Communication Coordinator	$195.36

SCHEDULE S
ATTACHMENT ONE
FEES AND PAYMENTS

CLASSIFICATION/STAFF	HOURLY/UNIT RATE
Subconsultant(s): Dudek	
Project Director	$330.00
Senior Specialist V	$275.00
Senior Specialist IV	$270.08
Senior Specialist III	$255.13
Senior Specialist II	$224.82
Senior Specialist I	$213.91
Specialist V	$199.67
Specialist IV	$175.64
Specialist III	$172.53
Specialist II	$140.09
Specialist I	$139.96
GIS Analyst IV	$209.87
GIS Analyst III	$135.82
GIS Analyst II	$118.42
GIS Analyst I	$99.40
Publications Specialist IV	$168.16
Publications Specialist III	$124.78
Publications Specialist II	$106.03
Publications Specialist I	$95.56
Subconsultant(s): EOA, Inc.	
Principal	$311.00
Senior Managing Engineer/Scientist I	$303.00
Managing Engineer/Scientist III	$303.00
Senior Engineer/Scientist/Planner I	$216.00
Associate Engineer/Scientist II	$196.00
Technician, Administrative Manager	$130.00
Subconsultant(s): Fugro	
Principal	$300.00
Senior	$240.00
Project	$205.00
GIS	$220.00
Principal Engineer	$300.00
Principal Geologist	$300.00
Associate Engineer	$255.00
Senior Engineer	$240.00
Senior Geologist	$240.00
Project Engineer	$205.00
Senior Project Engineer	$215.00

SCHEDULE S
ATTACHMENT ONE
FEES AND PAYMENTS

CLASSIFICATION/STAFF	HOURLY/UNIT RATE
Senior Staff Engineer	$190.00
GIS Manager	$220.00
GIS Geologist	$190.00
Subconsultant(s): Miller Marine Science & Consultant, Inc.	
Principal	$215.00
Subconsultant(s): Todd Groundwater	
VP/Hydrogeologist	$284.00
Consulting Hydrogeologist	$260.00
Staff Geologist	$175.00
GIS Graphics	$175.00
Admin	$155.00
Subconsultant(s): TWB Environmental Research and Consulting	
Principal	$215.00

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SCHEDULE S
ATTACHMENT TWO
SCHEDULE OF COMPLETION

1. This Agreement commences on the Effective Date, subject to accomplishment of all of the conditions to formation of an agreement listed in the Standard Consultant Agreement, Section Twelve, Miscellaneous Provisions, subsection 2. Formation of Agreement.

2. Term. This Agreement expires one (1) year after the Effective Date, with an option solely exercisable by Valley Water, to extend it for up to two additional one-year terms, unless, prior to its expiration, its term is modified by a written amendment hereto, and signed by both Parties.

3. Valley Water's Project Manager and Consultant may agree to modify the schedule specified for Consultant's performance as an administrative modification to the Agreement and will confirm such modification in writing.

PROJECT SCHEDULE

Task	Description	Duration From Notice to Proceed (months)
1	Project Management	Duration of Agreement
2	Data and Information Collection	3
3	Feasibility Study	12
4	CEQA and Other Regulatory Requirements	12
5	Presentation of Results	Duration of Agreement
6	Supplemental Services	Duration of Agreement

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SCHEDULE S
ATTACHMENT THREE
CONSULTANT'S KEY STAFF AND SUBCONSULTANTS

1. Consultant's key staff assigned to the Project are as follows:

Team Member	Classification	Project Role	Contact Information
Craig Lichty	Project Director	Project Director	2999 Oak Road, Suite 400 Walnut Creek, CA 94597 925-949-5985 LichtyC@bv.com
Ben Wright	Senior Project Manager	Conveyance / Potable Water Augmentation	2999 Oak Road, Suite 400 Walnut Creek, CA 94597 916-858-2418 wrightb@bv.com
Dan Lopez	Project Director	Engineering	2999 Oak Road, Suite 400 Walnut Creek, CA 94597 925-207-3498 lopezdc@bv.com
Melanie Tan	Project Director	Project Manager	2999 Oak Road, Suite 400 Walnut Creek, CA 94597 916-858-2459 tanm@bv.com
Scott Maloni	Senior Project Director	Environmental, Regulatory & Institutional	300 Rancheros Drive, Suite 250 San Marcos, CA 92069 858-225-8257 malonis@bv.com
Scott Miller	Engineer Level 4/Senior Technician	Product Water Blending Quality	2999 Oak Rd, Suite 400 Walnut Creek, CA 94597 925-949-5988 millerse@bv.com
Vasu Veerapaneni	Engineer/Specialist Level 9	Desalination Facilities	11401 Lamar Avenue Overland Park, KS 66211 913-416-0150 veerapanenis@bv.com

2. The following Subconsultants and Subcontractors are authorized to perform Services pursuant to this Agreement:

Firm	Project Role	Contact Information
Data Instincts	Public Outreach	Mark Millan 9481 Vinecrest Road Windsor, CA 95492 707-836-0300 millan@datainstincts.com
Dudek	CEQA/Environmental Permitting	Ann Sansevero 725 Front Street, Suite 400 Santa Cruz, CA 95060 831-226-9373 asansevero@dudek.com

SCHEDULE S
ATTACHMENT THREE
CONSULTANT'S KEY STAFF AND SUBCONSULTANTS

Firm	Project Role	Contact Information
EOA, Inc.	Brine Management & Disposal / NPDES Permitting	Tom Hall 1410 Jackson Street Oakland, CA 94612 510-832-2852 twhall@eoainc.com
Fugro	Geophysical / Geotechnical	Ronald Bajuniemi 1777 Botelho Drive Walnut Creek, CA 94596 925-451-9908 rbajuniemi@fugro.com
Miller Marine Science & Consultant, Inc.	Intake / Outfall Marine Biology	Eric Miller 2 Boulder Circle Aliso Viejo, CA 92656 562-714-0266 ericm@millermarinescience.com
Todd Groundwater	Subsurface Seawater Hydrogeology	Sally McCraven 1301 Marina Village Parkway, Suite 320 Alameda, CA 94501 510-432-4759 smccraven@toddgroundwater.com
TWB Environmental Research and Consulting	Intake / Outfall Marine Biology	Tim Hogan 17 Winnemay Street Natick, MA 01760 617-413-5011 thogan@twb-erc.com

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SCHEDULE S
ATTACHMENT FOUR
REFERENCE MATERIALS

Ref No.	Description
1	Santa Clara Valley Water District Non-Disclosure Agreement (NDA)
2	Santa Clara Valley Water District (Valley Water) Standards for GIS Products April 2021 version: http://gis.valleywater.org/Download/GIS_PRODUCT_STANDARDS.pdf
3	Environmental Feasibility and Planning Study completed by GEI Consultants (July 2023) https://fta.valleywater.org/fl/o7zOCs87XJ

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Santa Clara Valley Water District

File No.: 24-0635

Agenda Date: 7/9/2024
Item No.: 12.1.

BOARD AGENDA MEMORANDUM

Government Code § 84308 Applies: Yes ☐ No ☒
(If "YES" Complete Attachment A - Gov. Code § 84308)

SUBJECT:
Denial of May 10, 2024, Claim by Stanford University Against Santa Clara Valley Water District for Refund of Water Year 2023-24 Groundwater Production Charges.

RECOMMENDATION:
Deny Stanford University's claim.

SUMMARY:
Stanford University (Stanford) submitted a written claim by email to Santa Clara Valley Water District's (Valley Water) Clerk of the Board on May 10, 2024 (Claim), demanding a refund of groundwater charges paid in fiscal year 2023-2024. Stanford's claim identifies payments totaling $591,709.50 for the months of July 2023 through January 2024, and states that payments for February 2024 through June 2024 are yet to be determined. Stanford asserts that Valley Water's groundwater charges as applied to Stanford:

1. Violate the District Act;
2. Violate California Constitution, Article XIII C and/or XIIID (Propositions 26 and/or 218);
3. Unlawfully interfere with Stanford's vested groundwater and surface water rights, including unlawful trespass and/or taking; and
4. Violate the Sustainable Groundwater Management Act.

As previously reported, Stanford has long disputed the benefits it receives from Valley Water's management of the groundwater supply in Zone W-2 and has long argued that it should not be required to pay the Zone W-2 groundwater charges. Stanford has submitted similar claims for groundwater charges paid in Fiscal Years 2020-21, 2021-22, and 2022-23. Those claims were denied by the Board.

Stanford asserts that its wells are located in a distinct hydrologic area of the northern portion of the Santa Clara Subbasin, and Valley Water's recharge management activities further to the south do not affect the groundwater level in the northern portion of the subbasin where Stanford pumps groundwater. It also asserts that groundwater-management activities undertaken by Stanford and the City of Palo Alto since the 1960's, rather than Valley Water's activities, are responsible for sustainable groundwater levels in the area where Stanford pumps. Stanford claims that its surface water diversions from the San Francisquito Creek watershed provide in-lieu recharge benefit, and that water diverted and stored in its Lake Lagunita reservoir percolates

into the underlying subbasin further benefitting that subbasin.

As part of the Groundwater Benefit Zone Study completed in 2020, Valley Water's consultant considered Stanford's analysis, and responded in detail, through several rounds of correspondence, explaining the reasons that Stanford's assertions were mistaken. Through that process, Valley Water's consultants concluded that:

- The portion of the subbasin underlying Stanford is hydrologically connected to other areas of the subbasin where Valley Water groundwater management activities are located.
- Stanford's wells are located within the valley floor alluvium, which forms the primary aquifers of the Santa Clara Subbasin.
- These activities, including direct recharge and indirect recharge (e.g., treated and recycled water deliveries), provide substantial benefit to the groundwater budget in all years, and the subbasin would be in chronic imbalance and susceptible to land subsidence without Valley Water's work.
- Groundwater level data and the direct geologic and hydrogeologic connection to Valley Water activities to protect and augment groundwater support inclusion of the Stanford area in the groundwater benefit zone.

After considering the analysis and report of Valley Water's consultant and the analyses submitted by Stanford and other stakeholders, the Valley Water Board adopted Resolution Nos. 20-12 and 20-31, modifying Valley Water's then-existing benefit zones (W-2 and W-5) and adding two new zones in the South County area. As modified, Stanford's groundwater facilities remain in Zone W-2 and subject to the groundwater charges applicable in that zone.

Stanford's current Claim contains the same legal theories asserted in its claims submitted the last three fiscal years, which were denied. Consistent with the detailed analysis of those objections provided previously by Valley Water staff and consultants and with their detailed determination that Stanford's criticisms of the Study were and are misplaced, it remains staff's position that the Board's benefit zone determinations and its decision to adopt groundwater charges in each of those zones comply with applicable legal standards. Accordingly, we recommend that the Board deny Stanford's current Claim.

ENVIRONMENTAL JUSTICE AND EQUITY IMPACT:
There is no Environmental Justice impact associated with this item.

FINANCIAL IMPACT:
There is no financial impact associated with this item.

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

ATTACHMENTS:
Attachment 1: Claim

UNCLASSIFIED MANAGER:
Andrew Gschwind, 408-630-2804

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ELLISON SCHNEIDER HARRIS DONLAN

Robert E. Donlan
red@eslawfirm.com

May 10, 2024

Clerk of the Board
Santa Clara Valley Water District-HQ
5700 Almaden Expressway
San Jose, CA 95118
Email: clerkoftheboard@valleywater.org

Re: Claim Against the Santa Clara Valley Water District by Stanford University Regarding Fiscal Year 2023-2024 Groundwater Charges

Dear Clerk:

On behalf of Stanford University ("Stanford") we hereby submit the enclosed Government Claims Act ("Act") claim ("Claim") challenging groundwater charges improperly imposed by Santa Clara Valley Water District ("SCVWD") for fiscal year ("FY") 2023-2024.

Stanford has been engaged in discussions with SCVWD for many years in an effort to resolve disputes regarding SCVWD's groundwater charges. During this time, Stanford continued to pay SCVWD's groundwater charges under protest. As part of those discussions, Stanford has provided technical information demonstrating that Stanford does not benefit from SCVWD's activities for which the groundwater charge is imposed, and that Stanford's recharge activities pursuant to its surface water rights in the Stanford/Palo Alto area are responsible for stable and healthy groundwater conditions in the North County. Despite this information, SCVWD has continued to include the Stanford area in groundwater benefit zone W-2. SCVWD amended groundwater benefit zone W-2 in 2020, again finding that "all well users [including Stanford] in proposed modified Zone W-2 are benefiting in a reasonably similar way from Valley Water activities." Stanford disputes this finding as lacking factual and technical basis and legal justification. SCVWD continues to impose groundwater charges on Stanford. In an effort to resolve its dispute with SCVWD, Stanford submitted a proposal to SCVWD that would benefit both parties and the Santa Clara Subbasin. The parties entered into a tolling agreement to provide time to work towards a potential resolution, which the parties continue to do. However, the tolling agreement does not preclude SCVWD from adopting and imposing additional groundwater charges or preclude Stanford from submitting a Claim challenging additional charges. Accordingly, Stanford now submits the enclosed Claim challenging the groundwater charges SCVWD adopted and imposed for FY 2023-2024.

Notwithstanding the submission of this Claim for groundwater charges imposed for FY 2023-2024, Stanford remains committed to working with SCVWD toward an amicable resolution of these issues.

Thank you for your attention to this matter.

Respectfully,

Robert E. Donlan

Encl.
Cc: Tom Zigterman, Stanford University
Lincoln Bleveans, Stanford University
Eric Wright, Stanford University

CLAIM AGAINST THE SANTA CLARA VALLEY WATER DISTRICT
California Government Code Sections 900 and following

The completed form can be mailed, sent electronically or hand delivered. Mail or deliver to: Clerk of the Board Santa Clara Valley Water District-HQ 5700 Almaden Expressway San Jose, CA 95118 Or submit the completed form electronically to: **clerkoftheboard@valleywater.org**	Clerk of the Board's Date Stamp **For SCVWD Use Only** Date Received: 5/10/24 — **ROUTING** ☐ Via U.S. Mail: — ☒ CEO: ☐ Hand Delivered: — ☒ District Counsel ☒ E-mail: COB — ☒ Risk Management ☐ Other: _____ — ☒ COB ☐ BOD (District #): _____

With certain exceptions, claims for personal injury or property damage MUST be filed within six months of the incident giving rise to the claim*. Claimant must complete each section. If information is unknown, write "unknown" in the appropriate box. Please use additional pages if necessary. Please attach itemized receipts, witness statements, photos and all other documentation that you believe will be helpful to process your claim. Claimant MUST sign and date the form; see last page.*

Name of Claimant: Tom Zigterman on behalf of Stanford University			
Address of Claimant: 560 Fremont Rd., 2nd Flr.	City: Stanford	State: CA	Zip: 94305
Mailing Address to Which Notices Should be Sent if Different From Above:	City:	State:	Zip:
Home Phone Number:	Cell Phone Number:	Work Phone Number: 650-725-3400	
Is this claim being filed on behalf of a minor? ☐ Yes ☒ No	If so, please indicate minor's date of birth: _____ Relationship to the minor: _____		
Date and time of incident or loss: Please see Attachment 1.	Location of incident or loss (address): Santa Clara Valley Water District	Is there a police report? ☐ Yes If Yes, Police Report #: ☒ No	

Describe how the incident or loss happened, and the reason you believe the Santa Clara Valley Water District is responsible for your damages (*Please attach additional sheets if necessary*):

Please see Attachment 1.

Santa Clara Valley Water District

CLAIM AGAINST THE SANTA CLARA VALLEY WATER DISTRICT
California Government Code Sections 900 and following

In detail, describe the damage or injury *(Please attach additional sheets if necessary)*: Please see Attachment 1.

List Name(s) and contact information of any witness(es) or District employee involved (if any):

DAMAGES CLAIMED: Basis for computation of amounts claimed (include copies of bills, invoices, estimates, receipts, photos, police case # or other documentation.) Note: If your claim is more than $10,000, you need not fill in an amount, but must state whether jurisdiction for the claim would be in the Limited Jurisdiction (up to $25,000) or Unlimited jurisdiction of the Superior Court.

Is the amount of the claim under $10,000? ☐ Yes ☒ No

Court Jurisdiction: (Check One) ☐ Limited Civil ☒ Unlimited Civil

ITEMS	CLAIM AMOUNT
1. Please see Attachment 1.	$
2. Please see Attachment 1.	$
3. Please see Attachment 1.	$
4. Please see Attachment 1.	$
TOTAL AMOUNT	$

WARNING: IT IS A CRIMINAL OFFENSE TO FILE A FALSE OR FRAUDULENT CLAIM (Penal Code Section 72 and 550)

I have read the matters and statements made in the above claim and I know the same to be true of my own knowledge, except to those matters stated upon information and belief and as to such matters I believe the same to be true. I certify under penalty of perjury that the foregoing is TRUE and CORRECT.

Signed this 9th day of May, 2024 _____
Claimant's signature

Government Code Section 945.6 provides that, with limited exceptions, any suit brought against a public entity must be commenced:

(1) If written notice is given of a denial of claim in accordance with **Section 913**, not later than six months after the date such notice is personally delivered or deposited in the mail.
(2) If written notice is not given of a denial of claim in accordance with **Section 913**, within two years from the accrual of the cause of action.

ATTACHMENT 1

Date and time of incident or loss:

On May 16, 2023, SCVWD adopted Resolution No. 23-38, which determined groundwater production charges ("Groundwater Charges") for Fiscal Year 2023-2024. In accordance with the boundaries of Zone W-2 set forth in Resolution No. 20-12 adopted on April 28, 2020[1], the Groundwater Charges for Fiscal Year 2023-2024 apply to Zone W-2 and Stanford University ("Stanford" or "the University").

Pursuant to Resolution Nos. 20-12 and 23-38, SCVWD improperly imposed Groundwater Charges on Stanford in the amounts set forth below. Stanford timely paid (or is in the process of paying) the Groundwater Charges in full under protest and now seeks reimbursement.

Fiscal Year	Groundwater Charges
July 2023	$ 169,915.10
August 2023	$ 198,448.90
September 2023	$ 12,558.90
October 2023	$ 99,767.20
November 2023	$ 60,804.40
December 2023	$ 49,531.70
January 2024	$ 683.30
February 2024	$ TBD[2]
March 2024	$ TBD
April 2024	$ TBD
May 2024	$ TBD
June 2024	$TBD
Total	**$ TBD**

Describe how the incident or loss happened, and the reason you believe the Santa Clara Valley Water District is responsible for your damages:

For the reasons set forth below, Stanford is entitled to a full refund for the Groundwater Charges because SCVWD's imposition of the Groundwater Charges on Stanford: (1) violates the District Act; (2) violates Proposition 218 (i.e., Article XIII C of the California Constitution [as amended by Proposition 26] and/or Article XIII D of the California Constitution); (3) unlawfully interferes with Stanford's vested groundwater and surface water rights, including but not limited to the unlawful trespass upon and/or taking of those rights; and (4) violates the Sustainable Groundwater Management Act.

[1] Stanford is separately challenging the adoption of Resolution No. 20-12 and the Groundwater Charges for Fiscal Years 2020-2021, 2021-2022, and 2022-2023.

[2] Stanford will provide the "TBD" amounts once invoiced by SCVWD, and such amounts shall be deemed included within and part of this Claim.

For decades, and prior to creation of the SCVWD, Stanford has undertaken water management activities and projects in and around the University and within the Santa Clara Subbasin that have stabilized local groundwater levels and augmented the groundwater supplies in the subbasin. Starting in the early 1960s, Stanford (along with others in the Stanford/Palo Alto area) began using surface water supplied by the San Francisco Public Utilities Commission ("SFPUC"), which dramatically reduced groundwater demands in the North County area of the subbasin and resulted in the immediate and significant recovery of groundwater levels in the Stanford/Palo Alto area.

Stanford also diverts surface water from creeks in the San Francisquito Creek watershed pursuant to its very senior appropriative water rights, and uses this surface water in lieu of groundwater underlying University lands. Some of this surface water, such as that diverted to an impoundment known as Lagunita, percolates through the porous soil beneath the reservoir and directly recharges and augments the subbasin in the North County area. Stanford also captures stormwater before that water reaches the area's natural channels and creeks, and Stanford causes that stormwater to collect in Lagunita where it also percolates into the ground and recharges the subbasin. These activities by Stanford provide direct benefits to the subbasin in the Stanford/Palo Alto area. Stanford has demonstrated to SCVWD that it is Stanford's and the City of Palo Alto's groundwater recharge activities in the Stanford/Palo Alto area that are responsible for stable and healthy groundwater conditions in the North County area, not SCVWD's activities in the San Jose area.[3]

Substantial evidence provided to SCVWD demonstrates that the area of the subbasin surrounding Stanford does not benefit from SCVWD's groundwater management activities, including groundwater recharge and distribution of imported water in the southern portion of the subbasin.[4] Stanford is located in a distinct hydrologic area of the basin, and there is no SCVWD water supply infrastructure in the area surrounding Stanford (i.e., the nearest SCVWD recharge facilities are located approximately 10 miles south of Stanford). Stanford does not receive any water deliveries from SCVWD. A technical review of groundwater level fluctuations for wells in the Stanford/Palo Alto area and wells located south of that area in relation to the three major imported water projects[5] for the region substantiates that: (1) SCVWD's activities in the southern portion of the subbasin do not affect or benefit groundwater levels and conditions in the Stanford/Palo Alto area of the subbasin; and (2) the activities of Stanford and Palo Alto in the North County portion of the subbasin are responsible for sustainable and healthy groundwater levels in the Stanford/Palo Alto area.

SCVWD has improperly imposed the Groundwater Charges: (1) on an area of the subbasin that does not benefit from SCVWD's activities; (2) in a manner that, among other things, does not bear a fair or reasonable relationship to Stanford's burdens on the subbasin or the benefits received by

[3] Over many years, Stanford has provided evidence supporting its positions as part of the administrative processes related to SCVWD's groundwater benefit zones and groundwater charges. Stanford's prior claims challenging SCVWD's adoption of groundwater charges for Fiscal Years 2020-2021, 2021-2022, and 2022-2023 (attached and incorporated herein by reference) included comments and evidence that Stanford provided to SCVWD.

[4] See Footnote 3.

[5] The imported water projects include: (1) SFPUC surface water imported into the northern portion of the subbasin in 1962; (2) State Water Project surface water imported (by SCVWD) in the southern portion of the subbasin in 1965; and (3) Central Valley Project water imported (by SCVWD) in the southern portion of the subbasin in 1987.

Stanford from SCVWD's activities therein, or to the proportional cost of undertaking the activity as it relates to Stanford's burdens on the subbasin or benefits received by Stanford; (3) in a manner that interferes with and unlawfully regulates Stanford's exercise of its overlying groundwater rights; and (4) in a manner that interferes with and unlawfully regulates Stanford's stormwater recovery activities and surface water rights, including Stanford's right to recapture surface water that Stanford has recharged and stored in the subbasin under senior appropriative surface water rights.

Therefore, Stanford seeks a refund of the Groundwater Charges and demands that SCVWD cease the improper imposition of Groundwater Charges on Stanford.

In detail, describe the damage or injury:

See information above.

Robert E. Donlan
red@eslawfirm.com

May 4, 2023

Clerk of the Board
Santa Clara Valley Water District-HQ
5700 Almaden Expressway
San Jose, CA 95118
Email: clerkoftheboard@valleywater.org

Re: Claim Against the Santa Clara Valley Water District by Stanford University Regarding Fiscal Year 2022-2023 Groundwater Charges

Dear Clerk:

On behalf of Stanford University ("Stanford") we hereby submit the enclosed Government Claims Act ("Act") claim ("Claim") challenging groundwater charges improperly imposed by Santa Clara Valley Water District ("SCVWD") for fiscal year ("FY") 2022-2023.

Stanford has been engaged in discussions with SCVWD for many years in an effort to resolve disputes regarding SCVWD's groundwater charges. During this time, Stanford continued to pay SCVWD's groundwater charges under protest. As part of those discussions, Stanford has provided technical information demonstrating that Stanford does not benefit from SCVWD's activities for which the groundwater charge is imposed, and that Stanford's recharge activities pursuant to its surface water rights in the Stanford/Palo Alto area are responsible for stable and healthy groundwater conditions in the North County. Despite this information, SCVWD has continued to include the Stanford area in groundwater benefit zone W-2. SCVWD amended groundwater benefit zone W-2 in 2020, again finding that "all well users [including Stanford] in proposed modified Zone W-2 are benefiting in a reasonably similar way from Valley Water activities." Stanford disputes this finding as lacking factual and technical basis and legal justification. SCVWD continues to impose the groundwater charge on Stanford. In an effort to resolve its dispute with SCVWD, Stanford submitted a proposal to SCVWD that would benefit both parties and the Santa Clara Subbasin. The parties entered into a tolling agreement to provide time to work towards a potential resolution, which the parties continue to do. However, the tolling agreement does not preclude SCVWD from adopting and imposing additional groundwater charges or preclude Stanford from submitting a Claim challenging additional charges. Accordingly, Stanford now submits the enclosed Claim challenging the groundwater charges SCVWD adopted and imposed for FY 2022-2023.

Notwithstanding the submission of this Claim for groundwater charges imposed for FY 2022-2023, Stanford remains committed to working with SCVWD toward an amicable resolution of these issues.

Thank you for your attention to this matter.

Respectfully,

Robert E. Donlan

Encl.
Cc: Tom Zigterman, Stanford University
Lincoln Bleveans, Stanford University
Eric Wright, Stanford University

CLAIM AGAINST THE SANTA CLARA VALLEY WATER DISTRICT
California Government Code Sections 900 and following

	Clerk of the Board's Date Stamp
The completed form can be mailed, sent electronically or hand delivered. Mail or deliver to: Clerk of the Board Santa Clara Valley Water District-HQ 5700 Almaden Expressway San Jose, CA 95118 Or submit the completed form electronically to: **clerkoftheboard@valleywater.org**	**For SCVWD Use Only** Date Received: ☐ Via U.S. Mail: ☐ Hand Delivered: ☐ E-mail: ☐ Other: _____
	ROUTING ☐ CEO: ☐ District Counsel ☐ Risk Management ☐ COB ☐ BOD (District #): _____

With certain exceptions, claims for personal injury or property damage MUST be filed within six months of the incident giving rise to the claim*. Claimant must complete each section. If information is unknown, write "unknown" in the appropriate box. Please use additional pages if necessary. Please attach itemized receipts, witness statements, photos and all other documentation that you believe will be helpful to process your claim. Claimant MUST sign and date the form; see last page.*

Name of Claimant: Lincoln Bleveans on behalf of Stanford University			
Address of Claimant: 315 Bonair Siding	City: Stanford	State: CA	Zip: 94305
Mailing Address to Which Notices Should be Sent if Different From Above:	City:	State:	Zip:

Home Phone Number:	Cell Phone Number:	Work Phone Number: 650-725-3400
Is this claim being filed on behalf of a minor? ☐ Yes ☒ No	If so, please indicate minor's date of birth: _____ Relationship to the minor: _____	
Date and time of incident or loss: Please see Attachment 1.	Location of incident or loss (address): Santa Clara Valley Water District	Is there a police report? ☐ Yes If Yes, Police Report #: ☒ No

Describe how the incident or loss happened, and the reason you believe the Santa Clara Valley Water District is responsible for your damages (*Please attach additional sheets if necessary*):

Please see Attachment 1.

Santa Clara Valley Water District

CLAIM AGAINST THE SANTA CLARA VALLEY WATER DISTRICT
California Government Code Sections 900 and following

In detail, describe the damage or injury *(Please attach additional sheets if necessary)*: Please see Attachment 1.
List Name(s) and contact information of any witness(es) or District employee involved (if any):

DAMAGES CLAIMED: Basis for computation of amounts claimed (include copies of bills, invoices, estimates, receipts, photos, police case # or other documentation.) Note: If your claim is more than $10,000, you need not fill in an amount, but must state whether jurisdiction for the claim would be in the Limited Jurisdiction (up to $25,000) or Unlimited jurisdiction of the Superior Court.

Is the amount of the claim under $10,000? ☐ Yes ☒ No
Court Jurisdiction: (Check One) ☐ Limited Civil ☒ Unlimited Civil

ITEMS	CLAIM AMOUNT
1. Please see Attachment 1.	$
2. Please see Attachment 1.	$
3. Please see Attachment 1.	$
4. Please see Attachment 1.	$
TOTAL AMOUNT	$

WARNING: IT IS A CRIMINAL OFFENSE TO FILE A FALSE OR FRAUDULENT CLAIM (Penal Code Section 72 and 550)

I have read the matters and statements made in the above claim and I know the same to be true of my own knowledge, except to those matters stated upon information and belief and as to such matters I believe the same to be true. I certify under penalty of perjury that the foregoing is TRUE and CORRECT.

Signed this 4 day of May, 2023

Claimant's signature

Government Code Section 945.6 provides that, with limited exceptions, any suit brought against a public entity must be commenced:

(1) If written notice is given of a denial of claim in accordance with **Section 913**, not later than six months after the date such notice is personally delivered or deposited in the mail.
(2) If written notice is not given of a denial of claim in accordance with **Section 913**, within two years from the accrual of the cause of action.

ATTACHMENT 1

Date and time of incident or loss:

On May 10, 2022, SCVWD adopted Resolution No. 22-29, which determined groundwater production charges ("Groundwater Charges") for Fiscal Year 2022-2023. In accordance with the boundaries of Zone W-2 set forth in Resolution No. 20-12 adopted on April 28, 2020[1], the Groundwater Charges for Fiscal Year 2022-2023 apply to Zone W-2 and Stanford University ("Stanford" or "the University").

Pursuant to Resolution Nos. 20-12 and 22-29, SCVWD improperly imposed Groundwater Charges on Stanford in the amounts set forth below. Stanford timely paid (or is in the process of paying) the Groundwater Charges in full under protest and now seeks reimbursement.

Fiscal Year	Groundwater Charges
July 2022	$ 176,819.86
August 2022	$ 106,954.00
September 2022	$ 55,174.93
October 2022	$ 127,908.77
November 2022	$ 10,890.82
December 2022	$ 8,709.21
January 2023	$ 862.08
February 2023	$ 264.13
March 2023	$ TBD[2]
April 2023	$ TBD
May 2023	$ TBD
June 2023	$TBD
Total	**$ TBD**

Describe how the incident or loss happened, and the reason you believe the Santa Clara Valley Water District is responsible for your damages:

For the reasons set forth below, Stanford is entitled to a full refund for the Groundwater Charges because SCVWD's imposition of the Groundwater Charges on Stanford: (1) violates the District Act; (2) violates Proposition 218 (i.e., Article XIII C of the California Constitution [as amended by Proposition 26] and/or Article XIII D of the California Constitution); (3) unlawfully interferes with Stanford's vested groundwater and surface water rights, including but not limited to the unlawful trespass upon and/or taking of those rights; and (4) violates the Sustainable Groundwater Management Act.

[1] Stanford is separately challenging the adoption of Resolution No. 20-12 and the Groundwater Charges for Fiscal Year 2020-2021 (adopted pursuant to Resolution No. 20-31).

[2] Stanford will provide the "TBD" amounts once known, and such amounts shall be deemed included within and part of this Claim.

For decades, and prior to creation of the SCVWD, Stanford has undertaken water management activities and projects in and around the University and within the Santa Clara Subbasin that have stabilized local groundwater levels and augmented the groundwater supplies in the subbasin. Starting in the early 1960s, Stanford (along with others in the Stanford/Palo Alto area) began using surface water supplied by the San Francisco Public Utilities Commission ("SFPUC"), which dramatically reduced groundwater demands in the North County area of the subbasin and resulted in the immediate and significant recovery of groundwater levels in the Stanford/Palo Alto area.

Stanford also diverts surface water from creeks in the San Francisquito Creek watershed pursuant to its very senior appropriative water rights, and uses this surface water in lieu of groundwater underlying University lands. Some of this surface water, such as that diverted to an impoundment known as Lagunita, percolates through the porous soil beneath the reservoir and directly recharges and augments the subbasin in the North County area. Stanford also captures stormwater before that water reaches the area's natural channels and creeks, and Stanford causes that stormwater to collect in Lagunita where it also percolates into the ground and recharges the subbasin. These activities by Stanford provide direct benefits to the subbasin in the Stanford/Palo Alto area. Stanford has demonstrated to SCVWD that it is Stanford's and the City of Palo Alto's groundwater recharge activities in the Stanford/Palo Alto area that are responsible for stable and healthy groundwater conditions in the North County area, not SCVWD's activities in the San Jose area.[3]

Substantial evidence provided to SCVWD demonstrates that the area of the subbasin surrounding Stanford does not benefit from SCVWD's groundwater management activities, including groundwater recharge and distribution of imported water in the southern portion of the subbasin.[4] Stanford is located in a distinct hydrologic area of the basin, and there is no SCVWD water supply infrastructure in the area surrounding Stanford (i.e., the nearest SCVWD recharge facilities are located approximately 10 miles south of Stanford). Stanford does not receive any water deliveries from SCVWD. A technical review of groundwater level fluctuations for wells in the Stanford/Palo Alto area and wells located south of that area in relation to the three major imported water projects[5] for the region substantiates that: (1) SCVWD's activities in the southern portion of the subbasin do not affect or benefit groundwater levels and conditions in the Stanford/Palo Alto area of the subbasin; and (2) the activities of Stanford and Palo Alto in the North County portion of the subbasin are responsible for sustainable and healthy groundwater levels in the Stanford/Palo Alto area.

SCVWD has improperly imposed the Groundwater Charges: (1) on an area of the subbasin that does not benefit from SCVWD's activities; (2) in a manner that, among other things, does not bear a fair or reasonable relationship to Stanford's burdens on the subbasin or the benefits received by

[3] Over many years, Stanford has provided evidence supporting its positions as part of the administrative processes related to SCVWD's groundwater benefit zones and groundwater charges. Stanford's prior claims challenging SCVWD's adoption of groundwater charges for Fiscal Years 2020-2021 and 2021-2022 (attached and incorporated herein by reference) included comments and evidence that Stanford provided to SCVWD.

[4] See Footnote 3.

[5] The imported water projects include: (1) SFPUC surface water imported into the northern portion of the subbasin in 1962; (2) State Water Project surface water imported (by SCVWD) in the southern portion of the subbasin in 1965; and (3) Central Valley Project water imported (by SCVWD) in the southern portion of the subbasin in 1987.

Stanford from SCVWD's activities therein, or to the proportional cost of undertaking the activity as it relates to Stanford's burdens on the subbasin or benefits received by Stanford; (3) in a manner that interferes with and unlawfully regulates Stanford's exercise of its overlying groundwater rights; and (4) in a manner that interferes with and unlawfully regulates Stanford's stormwater recovery activities and surface water rights, including Stanford's right to recapture surface water that Stanford has recharged and stored in the subbasin under senior appropriative surface water rights.

Therefore, Stanford seeks a refund of the Groundwater Charges and demands that SCVWD cease the improper imposition of Groundwater Charges on Stanford.

In detail, describe the damage or injury:

See information above.

Robert E. Donlan
red@eslawfirm.com

May 10, 2022

Clerk of the Board
Santa Clara Valley Water District-HQ
5700 Almaden Expressway
San Jose, CA 95118
Email: clerkoftheboard@valleywater.org

Re: Claim Against the Santa Clara Valley Water District by Stanford University Regarding Fiscal Year 2021-2022 Groundwater Charges

Dear Clerk:

On behalf of Stanford University we hereby submit the enclosed Government Claims Act ("Act") claim ("Claim") challenging groundwater charges improperly imposed by Santa Clara Valley Water District ("SCVWD") for fiscal year ("FY") 2021-2022.

Stanford has been engaged in discussions with SCVWD for many years in an effort to resolve disputes regarding SCVWD's groundwater charges. During this time, Stanford continued to pay SCVWD's groundwater charges under protest. As part of those discussions, Stanford has provided technical information demonstrating that Stanford does not benefit from SCVWD's activities for which the groundwater charge is imposed, and that Stanford's recharge activities pursuant to its surface water rights in the Stanford/Palo Alto area are responsible for stable and healthy groundwater conditions in the North County. Despite this information, SCVWD has continued to include the Stanford area in groundwater benefit zone W-2. SCVWD amended groundwater benefit zone W-2 in 2020, again finding that "all well users [including Stanford] in proposed modified Zone W-2 are benefiting in a reasonably similar way from Valley Water activities." Stanford disputes this finding as lacking factual and technical basis and legal justification. In an effort to resolve its dispute with SCVWD, Stanford submitted a proposal to SCVWD that would benefit both parties and the Santa Clara Subbasin. The parties entered into a tolling agreement to provide time to work towards a potential resolution. However, the tolling agreement did not preclude SCVWD from adopting and imposing additional groundwater charges or preclude Stanford from submitting a Claim challenging additional charges. Accordingly, Stanford now submits the enclosed Claim challenging the groundwater charges SCVWD adopted and imposed for FY 2021-2022.

Notwithstanding the submission of this Claim for groundwater charges imposed for FY 2021-2022, Stanford remains committed to working with SCVWD toward an amicable resolution of these issues.

Thank you for your attention to this matter.

Respectfully,

Robert E. Donlan

Encl.
Cc: Tom Zigterman, Stanford University
Jean McCown, Stanford University
Lincoln Bleveans, Stanford University
Eric Wright, Stanford University

CLAIM AGAINST THE SANTA CLARA VALLEY WATER DISTRICT
California Government Code Sections 900 and following

The completed form can be mailed, sent electronically or hand delivered. Mail or deliver to: Clerk of the Board Santa Clara Valley Water District-HQ 5700 Almaden Expressway San Jose, CA 95118 Or submit the completed form electronically to: **clerkoftheboard@valleywater.org**	Clerk of the Board's Date Stamp **For SCVWD Use Only** Date Received: ☐ Via U.S. Mail: ☐ Hand Delivered: ☐ E-mail: ☐ Other: _____
	ROUTING ☐ CEO: ☐ District Counsel ☐ Risk Management ☐ COB ☐ BOD (District #): _____

With certain exceptions, claims for personal injury or property damage MUST be filed within six months of the incident giving rise to the claim*. Claimant must complete each section. If information is unknown, write "unknown" in the appropriate box. Please use additional pages if necessary. Please attach itemized receipts, witness statements, photos and all other documentation that you believe will be helpful to process your claim. Claimant MUST sign and date the form; see last page.*

Name of Claimant: Tom Zigterman on behalf of The Leland Stanford Junior University			
Address of Claimant: 315 Bonair Siding	City: Stanford	State: CA	Zip: 94305
Mailing Address to Which Notices Should be Sent if Different From Above:	City:	State:	Zip:

Home Phone Number:	Cell Phone Number:	Work Phone Number: 650-725-3400
Is this claim being filed on behalf of a minor? ☐ Yes ☒ No	If so, please indicate minor's date of birth: _____ Relationship to the minor: _____	
Date and time of incident or loss: Please see Attachment 1.	Location of incident or loss (address): Santa Clara Valley Water District	Is there a police report? ☐ Yes If Yes, Police Report #: ☒ No

Describe how the incident or loss happened, and the reason you believe the Santa Clara Valley Water District is responsible for your damages (*Please attach additional sheets if necessary*):

Please see Attachment 1.

Santa Clara Valley Water District

CLAIM AGAINST THE SANTA CLARA VALLEY WATER DISTRICT
California Government Code Sections 900 and following

In detail, describe the damage or injury *(Please attach additional sheets if necessary)*: Please see Attachment 1.

List Name(s) and contact information of any witness(es) or District employee involved (if any):

DAMAGES CLAIMED: Basis for computation of amounts claimed (include copies of bills, invoices, estimates, receipts, photos, police case # or other documentation.) Note: If your claim is more than $10,000, you need not fill in an amount, but must state whether jurisdiction for the claim would be in the Limited Jurisdiction (up to $25,000) or Unlimited jurisdiction of the Superior Court.

Is the amount of the claim under $10,000? ☐ Yes ☒ No

Court Jurisdiction: (Check One) ☐ Limited Civil ☒ Unlimited Civil

ITEMS	CLAIM AMOUNT
1. Please see Attachment 1.	$
2. Please see Attachment 1.	$
3. Please see Attachment 1.	$
4. Please see Attachment 1.	$
TOTAL AMOUNT	$

WARNING: IT IS A CRIMINAL OFFENSE TO FILE A FALSE OR FRAUDULENT CLAIM (Penal Code Section 72 and 550)

I have read the matters and statements made in the above claim and I know the same to be true of my own knowledge, except to those matters stated upon information and belief and as to such matters I believe the same to be true. I certify under penalty of perjury that the foregoing is TRUE and CORRECT.

Signed this 10th day of May, 20 22

Claimant's signature

Government Code Section 945.6 provides that, with limited exceptions, any suit brought against a public entity must be commenced:

(1) If written notice is given of a denial of claim in accordance with **Section 913**, not later than six months after the date such notice is personally delivered or deposited in the mail.
(2) If written notice is not given of a denial of claim in accordance with **Section 913**, within two years from the accrual of the cause of action.

ATTACHMENT 1

Date and time of incident or loss:

On May 11, 2021, SCVWD adopted Resolution No. 21-22, which determined groundwater production charges ("Groundwater Charges") for Fiscal Year 2021-2022. In accordance with the boundaries Zone W-2 set forth in Resolution No. 20-12 adopted on April 28, 2020[1], the Groundwater Charges for Fiscal Year 2021-2022 apply to Zone W-2 and Stanford.

Pursuant to Resolution Nos. 20-12 and 21-22, SCVWD improperly imposed Groundwater Charges on Stanford in the amounts set forth below. Stanford timely paid (or is in the process of paying) the Groundwater Charges in full under protest and now seeks reimbursement.

Fiscal Year	Groundwater Charges
July 2021	$ 148,125.83
August 2021	$ 119,052.60
September 2021	$ 141,156.15
October 2021	$ 48,206.23
November 2021	$ 290.96
December 2021	$ 8,134.20
January 2022	$ 336.95
February 2022	$ 34,327.85
March 2022	$ TBD[2]
April 2022	$ TBD
May 2022	$ TBD
June 2022	$TBD
Total	**$ TBD**

Describe how the incident or loss happened, and the reason you believe the Santa Clara Valley Water District is responsible for your damages:

For the reasons set forth below, Stanford is entitled to a full refund for the Groundwater Charges because SCVWD's imposition of the Groundwater Charges on Stanford: (1) violates the District Act; (2) violates Proposition 218 (i.e., Article XIII C of the California Constitution [as amended by Proposition 26] and/or Article XIII D of the California Constitution); (3) unlawfully interferes with Stanford's vested groundwater and surface water rights, including but not limited to the unlawful trespass upon and/or taking of those rights; and (4) violates the Sustainable Groundwater Management Act.

For decades, and prior to creation of the SCVWD, Stanford has undertaken water management activities and projects in and around the University and within the Santa Clara Subbasin that have

[1] Stanford is separately challenging the adoption of Resolution No. 20-12 and the Groundwater Charges for Fiscal Year 2020-2021 (adopted pursuant to Resolution No. 20-31).

[2] Stanford will provide the "TBD" amounts once known, and such amounts shall be deemed included within this Claim.

stabilized local groundwater levels and augmented the groundwater supplies in the subbasin. Starting in the early 1960s, Stanford (along with others in the Stanford/Palo Alto area) began using surface water supplied by the San Francisco Public Utilities Commission, which dramatically reduced groundwater demands in the North County area of the subbasin and resulted in the immediate and significant recovery of groundwater levels in the Stanford/Palo Alto area.

Stanford also diverts surface water from creeks in the San Francisquito Creek watershed pursuant to its very senior appropriative water rights, and uses this surface water in lieu of groundwater underlying University lands. Some of this surface water, such as that diverted to an impoundment known as Lagunita, percolates through the porous soil beneath the reservoir and directly recharges and augments the subbasin in the North County area. Stanford also captures stormwater before that water reaches the area's natural channels and creeks, and Stanford causes that stormwater to collect in Lagunita where it also percolates into the ground and recharges the subbasin. These activities by Stanford provide direct benefits to the subbasin in the Stanford/Palo Alto area. Stanford has demonstrated to SCVWD that it is Stanford's and the City of Palo Alto's groundwater recharge activities in the Stanford/Palo Alto area that are responsible for stable and healthy groundwater conditions in the North County area, not SCVWD's activities in the San Jose area.[3]

Substantial evidence provided to SCVWD demonstrates that the area of the subbasin surrounding Stanford does not benefit from SCVWD's groundwater management activities, including groundwater recharge and distribution of imported water in the southern portion of the subbasin.[4] Stanford is located in a distinct hydrologic area of the basin, and there is no SCVWD water supply infrastructure in the area surrounding Stanford (i.e., the nearest SCVWD recharge facilities are located approximately 10 miles south of Stanford). Stanford does not receive any water deliveries from SCVWD. A technical review of groundwater level fluctuations for wells in the Stanford/Palo Alto area and wells located south of that area in relation to the three major imported water projects[5] for the region substantiates that: (1) SCVWD's activities in the southern portion of the subbasin do not affect or benefit groundwater levels and conditions in the Stanford/Palo Alto area of the subbasin; and (2) the activities of Stanford and Palo Alto in the North County portion of the subbasin are responsible for sustainable and healthy groundwater levels in the Stanford/Palo Alto area.

SCVWD has improperly imposed the Groundwater Charges: (1) on an area of the subbasin that does not benefit from SCVWD's activities; (2) in a manner that, among other things, does not bear a fair or reasonable relationship to Stanford's burdens on the subbasin or the benefits received by Stanford from SCVWD's activities therein, or to the proportional cost of undertaking the activity as it relates to Stanford's burdens on the subbasin or benefits received by Stanford; (3) in a manner

[3] Over many years, Stanford has provided evidence supporting its positions as part of the administrative processes related to SCVWD's groundwater benefit zones and groundwater charges. Stanford's prior claim challenging the adoption of Resolution No. 20-12, which amended groundwater benefit zone W-2, and the Groundwater Charges for Fiscal Year 2020-2021 ("2020-2021 Claim") included comments and evidence that Stanford provided to SCVWD. The 2020-2021 Claim is attached hereto and incorporated herein by this reference.

[4] See Footnote 3.

[5] The imported water projects include: (1) SFPUC surface water imported into the northern portion of the subbasin in 1962; (2) State Water Project surface water imported (by SCVWD) in the southern portion of the subbasin in 1965; and (3) Central Valley Project water imported (by SCVWD) in the southern portion of the subbasin in 1987.

that interferes with and unlawfully regulates Stanford's exercise of its overlying groundwater rights; and (4) in a manner that interferes with and unlawfully regulates Stanford's stormwater recovery activities and surface water rights, including Stanford's right to recapture surface water that Stanford has recharged and stored in the subbasin under senior appropriative surface water rights.

Therefore, Stanford seeks a refund of the Groundwater Charges and demands that SCVWD cease the improper imposition of Groundwater Charges on Stanford.

In detail, describe the damage or injury:

See information above.

ELLISON SCHNEIDER HARRIS DONLAN

Robert E. Donlan
red@eslawfirm.com

April 23, 2021

Clerk of the Board
Santa Clara Valley Water District-HQ
5700 Almaden Expressway
San Jose, CA 95118
Email: clerkoftheboard@valleywater.org

Re: Claim Against the Santa Clara Valley Water District by Stanford University Regarding 2020-2021 Groundwater Charges

Dear Clerk:

On behalf of Stanford University we hereby submit the attached Government Claims Act ("Act") claim ("Claim") against the Santa Clara Valley Water District ("SCVWD") regarding groundwater charges imposed by SCVWD for fiscal year (FY) 2020-2021. (**See, Attachment A**). Stanford submits the Claim in compliance with the Act to preserve Stanford's legal rights and to seek reimbursement of the amounts specified. (**See, Attachment A**).

Stanford has been engaged in discussions with SCVWD for many years in an effort to resolve a disagreement regarding SCVWD's groundwater charges. During this time Stanford paid SCVWD's groundwater charges under protest. As part of those discussions, Stanford has provided technical information demonstrating that Stanford does not benefit from SCVWD's activities for which the groundwater charge is imposed. Despite this information, SCVWD has continued to include the Stanford area in groundwater benefit zone W-2. SCVWD amended groundwater benefit zone W-2 in 2020, again finding that "all well users [i.e., including Stanford] in proposed modified Zone W-2 are benefiting in a reasonably similar way from Valley Water activities." Stanford disputes this finding as lacking factual and technical basis and legal justification. Further, SCVWD determined groundwater charges for FY 2020-2021 and began unlawfully imposing those charges on Stanford.

Notwithstanding submission of the Claim and Stanford's protest to SCVWD's groundwater benefit zone action, Stanford remains committed to working with SCVWD to resolve this dispute.

Tom Zigterman will be contacting SCVWD soon to set up another meeting to discuss resolving this matter, and I will follow up with your counsel as well.

Respectfully,

Robert E. Donlan

Encl.
Cc: Tom Zigterman, Stanford University
Jean McCown, Stanford University
Joseph Stagner, Stanford University
Eric Wright, Stanford University

CLAIM AGAINST THE SANTA CLARA VALLEY WATER DISTRICT
California Government Code Sections 900 and following

	Clerk of the Board's Date Stamp
The completed form can be mailed, sent electronically or hand delivered. Mail or deliver to: Clerk of the Board Santa Clara Valley Water District-HQ 5700 Almaden Expressway San Jose, CA 95118 Or submit the completed form electronically to: **clerkoftheboard@valleywater.org**	**For SCVWD Use Only** Date Received: ☐ Via U.S. Mail: ☐ Hand Delivered: ☐ E-mail: ☐ Other: _____ **ROUTING** ☐ CEO: ☐ District Counsel ☐ Risk Management ☐ COB ☐ BOD (District #): _____

With certain exceptions, claims for personal injury or property damage MUST be filed within six months of the incident giving rise to the claim*. Claimant must complete each section. If information is unknown, write "unknown" in the appropriate box. Please use additional pages if necessary. Please attach itemized receipts, witness statements, photos and all other documentation that you believe will be helpful to process your claim. Claimant MUST sign and date the form; see last page.*

Name of Claimant: Tom Zigterman on behalf of Stanford University			
Address of Claimant: 315 Bonair Siding	City: Stanford	State: CA	Zip: 94305
Mailing Address to Which Notices Should be Sent if Different From Above:	City:	State:	Zip:

Home Phone Number:	Cell Phone Number:	Work Phone Number: 650-725-3400
Is this claim being filed on behalf of a minor? ☐ Yes ☒ No	If so, please indicate minor's date of birth: _____ Relationship to the minor: _____	
Date and time of incident or loss: Please see attachment.	Location of incident or loss (address): Santa Clara Valley Water District	Is there a police report? ☐ Yes If Yes, Police Report #: ☒ No

Describe how the incident or loss happened, and the reason you believe the Santa Clara Valley Water District is responsible for your damages (*Please attach additional sheets if necessary*):

Please see attachment.

Santa Clara Valley Water District

CLAIM AGAINST THE SANTA CLARA VALLEY WATER DISTRICT
California Government Code Sections 900 and following

In detail, describe the damage or injury *(Please attach additional sheets if necessary)*:

Please see attachment.

List Name(s) and contact information of any witness(es) or District employee involved (if any):

DAMAGES CLAIMED: Basis for computation of amounts claimed (include copies of bills, invoices, estimates, receipts, photos, police case # or other documentation.) Note: If your claim is more than $10,000, you need not fill in an amount, but must state whether jurisdiction for the claim would be in the Limited Jurisdiction (up to $25,000) or Unlimited jurisdiction of the Superior Court.

Is the amount of the claim under $10,000? ☐ Yes ☒ No

Court Jurisdiction: (Check One) ☐ Limited Civil ☒ Unlimited Civil

ITEMS	CLAIM AMOUNT
1. Please see attachment.	$
2. Please see attachment.	$
3. Please see attachment.	$
4. Please see attachment.	$
TOTAL AMOUNT	$

WARNING: IT IS A CRIMINAL OFFENSE TO FILE A FALSE OR FRAUDULENT CLAIM (Penal Code Section 72 and 550)

I have read the matters and statements made in the above claim and I know the same to be true of my own knowledge, except to those matters stated upon information and belief and as to such matters I believe the same to be true. I certify under penalty of perjury that the foregoing is TRUE and CORRECT.

Signed this 22 day of April , 20 21

Tom W. Zigterman

Claimant's signature

Government Code Section 945.6 provides that, with limited exceptions, any suit brought against a public entity must be commenced:

(1) If written notice is given of a denial of claim in accordance with **Section 913**, not later than six months after the date such notice is personally delivered or deposited in the mail.
(2) If written notice is not given of a denial of claim in accordance with **Section 913**, within two years from the accrual of the cause of action.

ATTACHMENT A

ATTACHMENT

Date and time of incident or loss:

On April 28, 2020, the Santa Clara Valley Water District ("SCVWD") adopted Resolution No. 20-12, which amended SCVWD groundwater benefit zone W-2 ("Zone W-2"). As part of Resolution No. 20-12 and in reliance on SCVWD's Groundwater Benefit Zone Study ("Zone Study"), SCVWD found that "that all well users in proposed modified Zone W-2 are benefiting in a reasonably similar way from Valley Water activities to protect and augment groundwater supplies." SCVWD included Stanford University ("Stanford" or "University") in the boundaries of modified Zone W-2.

On May 26, 2020, SCVWD adopted Resolution No. 20-31, which determined groundwater production charges ("Groundwater Charges") for Fiscal Year 2020-2021. In accordance with the new boundaries of Zone W-2 set forth in Resolution No. 20-12, the Groundwater Charges for Fiscal Year 2020-2021 apply to Zone W-2 and Stanford.

In accordance with Resolution Nos. 20-12 and 20-31, SCVWD has improperly imposed Groundwater Charges on Stanford in the amounts set forth below. Stanford timely paid the Groundwater Charges in full under protest and now seeks reimbursement.

Fiscal Year	Groundwater Charge
July 2020	$ 147,952.68
August 2020	$ 132,547.37
September 2020	$ 96,284.82
October 2020	$ 55,172.13
November 2020	$ 74,151.55
December 2020	$ 68,642.64
January 2021	$ 20,030.42
February 2021	$ TBD[1]
March 2021	$ TBD
April 2021	$ TBD
May 2021	$ TBD
June 2021	$TBD
Total	**$ TBD**

Describe how the incident or loss happened, and the reason you believe the Santa Clara Valley Water District is responsible for your damages:

For the reasons set forth below, Stanford is entitled to a full refund for the Groundwater Charges because SCVWD's imposition of the charges on Stanford: (1) violates the District Act; (2) violates Proposition 218 (i.e., Article XIII C of the California Constitution [as amended by Proposition 26] and/or Article XIII D of the California Constitution); (3) unlawfully interferes with Stanford's

[1] Stanford will provide the "TBD" amounts once known.

vested groundwater and surface water rights, including but not limited to the unlawful trespass upon and/or taking of those rights; and (4) violates the Sustainable Groundwater Management Act.

For decades, and prior to creation of the SCVWD, Stanford has undertaken water management activities and projects in and around the University and within the Santa Clara Subbasin that have stabilized local groundwater levels and augmented the groundwater supplies in the subbasin. Starting in the early 1960's, Stanford (along with others in the Stanford/Palo Alto area) began using surface water supplied by the San Francisco Public Utilities Commission, which dramatically reduced groundwater demands in the North County area of the subbasin and resulted in the immediate and significant recovery of groundwater levels in the Stanford/Palo Alto area.

Additionally, Stanford has diverted surface water from creeks in the San Franciscquito Creek watershed pursuant to its very senior appropriative water rights, and has used this surface water in lieu of groundwater underlying University lands. Some of this surface water, such as that diverted to an impoundment known as Lake Lagunita, is caused to percolate through the porous soil beneath the reservoir and directly recharges and augments the subbasin in the North County area. Stanford also captures stormwater before that water reaches the area's natural channels and creeks, and Stanford causes that stormwater to collect in Lake Lagunita where it percolates into the ground and recharges the subbasin. These activities by Stanford provide direct benefits to the subbasin in the Stanford/Palo Alto area. Stanford has demonstrated to SCVWD that Stanford's and Palo Alto's groundwater recharge activities in the Stanford/Palo Alto area are responsible for stable and healthy groundwater conditions in the North County area, not the SCVWD's activities in the San Jose area.[2]

Substantial evidence provided to SCVWD demonstrates that the area of the subbasin surrounding Stanford does not benefit from SCVWD's groundwater management activities, including groundwater recharge and distribution of imported water in the southern portion of the subbasin.[3] Stanford is located in a distinct hydrologic area of the basin, and there is no SCVWD water supply infrastructure in the area surrounding Stanford (i.e., the nearest SCVWD recharge facilities are located approximately 10 miles south of Stanford). Stanford does not receive any water deliveries from SCVWD. A technical review of groundwater level fluctuations for wells in the Stanford/Palo Alto area and wells located south of that area in relation to the three major imported water projects[4] for the region substantiates that: (1) SCVWD's activities in the southern portion of the subbasin do <u>not</u> affect or benefit groundwater levels and conditions in the Stanford/Palo Alto area of the subbasin; and (2) the activities of Stanford and Palo Alto in the North County portion of the

[2] Stanford has provided evidence supporting its positions as part of the administrative process related to the Zone Study and the adoption of Resolution Nos. 20-12 and 20-31. In addition to meeting with SCVWD to discuss the various issues, Stanford provided SCVWD with comments on the Zone Study, comments on SCVWD's amendment of Zone W-2, comments on the Groundwater Charges in general, and a technical memorandum from Stanford's consultant. These documents are attached hereto and incorporated herein by reference.

[3] See Footnote 2.

[4] The imported water projects include: (1) SFPUC surface water imported into the northern portion of the subbasin in 1962; (2) State Water Project surface water imported (by SCVWD) in the southern portion of the subbasin in 1965; and (3) Central Valley Project water imported (by SCVWD) in the southern portion of the subbasin in 1987.

subbasin are responsible for sustainable and healthy groundwater levels in the Stanford/Palo Alto area.

Based on the above, SCVWD has improperly imposed the Groundwater Charges: (1) on an area of the subbasin that does not benefit from SCVWD's activities; (2) in a manner that, among other things, does not bear a fair or reasonable relationship to Stanford's burdens on the subbasin or the benefits received by Stanford from SCVWD's activities therein, or to the proportional cost of undertaking the activity as it relates to Stanford's burdens on the subbasin or benefits received by Stanford; (3) in a manner that interferes with and unlawfully regulates Stanford's exercise of its overlying groundwater rights; and (4) in a manner that interferes with and unlawfully regulates Stanford's stormwater recovery activities and surface water rights, including Stanford's right to recapture surface water that Stanford has recharged and stored in the subbasin under senior appropriative surface water rights.

Therefore, Stanford seeks a refund of the Groundwater Charges and demands that SCVWD cease the improper imposition of Groundwater Charges on Stanford.

In detail, describe the damage or injury:

See information above.

Stanford University

SUSTAINABILITY AND ENERGY MANAGEMENT

Vanessa De La Piedra, P.E. *via email to vdelapiedra@valleywater.org* March 23, 2018
Unit Manager, Groundwater Monitoring and Analysis Unit
SANTA CLARA VALLEY WATER DISTRICT
5750 Almaden Expressway
San Jose, CA 95118

Subject: Zones of Benefit Study

Dear Ms. De La Piedra:

Thank you for the opportunity to review the subject draft Zones of Benefit Study report. Stanford is reviewing the report, and is intending to prepare comments on it. Given the reliance of the study on a groundwater flow model in finding that benefits of SCVWD activities extend to the northern boundary of the Santa Clara Valley Basin, we would appreciate an opportunity to review additional information on the model used to determine Zones of Benefits, including:

1. Documentation of the original CH2MHill groundwater flow model (1991/2), and modifications thereto that were made in preparing the current findings and report;
2. Groundwater model files, along with descriptions of:
   a. The boundary conditions along San Francisquito Creek (the San Mateo – Santa Clara County line), and;
   b. Aquifer parameters.
3. Baseline and scenario assumptions, such as distinctions in the quantity of natural versus managed recharge in stream channels, that were assumed in deriving scenarios related to benefits; and
4. Thresholds of significance that were used in applying model results to Zones of Benefit findings.

Please let me know how we can receive or access this information, in order to complete our review and comments.

Sincerely,

Tom W. Zigterman, P.E., D.DRE
Director, Water Resources & Civil Infrastructure

c: Rob Donlan, Ellison, Schneider, Harris and Donlan
Tom Elson, Luhdorff & Scalmanini
Peter Leffler, Luhdorff & Scalmanini

WATER RESOURCES & CIVIL INFRASTRUCTURE GROUP
327 Bonair Siding, Stanford, CA 94305-7272 T 650-725-8081 F 650-723-3191

Vanessa De La Piedra, P.E., Unit Manager *via email to vdelapiedra@valleywater.org* May 11, 2018
George Cook, Specialist *via email to gcook@valleywater.org*
Groundwater Monitoring and Analysis Unit
SANTA CLARA VALLEY WATER DISTRICT
5750 Almaden Expressway
San Jose, CA 95118

Subject: Zones of Benefit Study – Stanford comments

Dear Ms. De La Piedra and Mr. Cook:

Thank you for the opportunity to review the subject draft Zones of Benefit Study report, and for supplying additional information in response to our March 23 letter. We and our consultants, Luhdorff & Scalmanini Consulting Engineers (LSCE), have prepared technical comments on the study – see the accompanying LSCE Technical Memorandum dated May 7, 2018.

This Technical Memorandum enumerates several major concerns about the study's approach to modeling regional groundwater and particularly the study's conclusion that SCVWD groundwater recharge activities (that are several miles away from Stanford and the San Francisquito Cone) benefit the Stanford area. Stanford has long maintained that no demonstrable benefit from SCVWD groundwater recharge activities exists, and therefore the groundwater pumping fees are unjustified. Notwithstanding the flawed modeling approach, the Zone of Benefit Study fails to substantiate any material benefit from SCVWD's groundwater augmentation and management activities.

We would welcome an opportunity to discuss our comments in more detail with you and your consultant, particularly because several SCVWD groundwater staff are new and were not involved in Stanford's prior discussions with SCVWD on these matters several years ago. In light of the identified flaws with the Study and modeling approach, we urge SCVWD to hold off on finalizing the Study or using the Study to support decisions regarding groundwater management or pumping fees until these significant comments are addressed.

Please let me know some dates and times that we can meet. We look forward to continuing our discussions and reaching appropriate conclusions on this important issue.

Sincerely,

Tom W. Zigterman, P.E., D.DRE
Director, Water Resources & Civil Infrastructure

c: Rob Donlan, Ellison, Schneider, Harris and Donlan
Tom Elson and Peter Leffler, Luhdorff & Scalmanini Consulting Engineers
Karla Daily, Palo Alto

WATER RESOURCES & CIVIL INFRASTRUCTURE GROUP
327 Bonair Siding, Stanford, CA 94305-7272 T 650-725-8081 F 650-723-3191

Technical Memorandum

DATE: May 7, 2018 PROJECT: 14-2-067

TO: Tom Zigterman
Stanford University

FROM: Peter Leffler and Tom Elson

SUBJECT: **PRELIMINARY REVIEW COMMENTS ON SCVWD ZONE OF BENEFITS STUDY**

Luhdorff & Scalmanini Consulting Engineers (LSCE) was requested by Stanford University to review the Santa Clara Valley Water District (SCVWD) Draft Zone of Benefits (ZOB) study dated October 2017. Our review of the ZOB study included a request of selected supporting documents and model files from SCVWD. The requested model reports were subsequently provided to Stanford University along with a portion of the requested model files. Our review comments provided below relate to the ZOB study, the referenced supporting model documentation, and the subset of model files that were provided in response to Stanford's data request.

1) It is important to note that the Zone of Benefits (ZOB) study provides for inclusion of the Stanford area in the ZOB based primarily on groundwater model simulation results. The groundwater level data analysis method, utilizing data only from a 2011 to 2013 time period, was clearly of insufficient duration to prove a benefit to the Stanford area. Due to lack of evidence from the groundwater level analysis, it is very important to evaluate model characteristics and consider likely accuracy of groundwater model predictions in the Stanford area.

2) Our review of all available groundwater level data for the five Stanford wells (the ZOB study only uses three wells) shows a net stable to decreasing trend in water levels during the one evaluation period (2011-2013) used in the study. This is in contrast to the ZOB study claim of stable groundwater levels in the Stanford area during this time (page 68). Furthermore, there was a decreasing water level trend in the adjacent Palo Alto area (Table 8, page 67 of ZOB study) for the 2011-2013 evaluation period. Stanford and Palo Alto overlie a distinct physiographic area in the Santa Clara Valley known as the San Francisquito Cone. Thus, groundwater level trends in Palo Alto and Stanford should be interpreted together as being representative of the Cone, as such, groundwater level trends indicate a definite lack of benefit from District recharge and management activities.

3) The model uses no-flow boundaries along San Francisquito Creek, which also represents the County line and a jurisdictional boundary between Santa Clara Valley Groundwater Basin and San Mateo Plain Groundwater Basin. The justification provided in the Hydrogeologic Interpretation TM for using a no-flow boundary here is it represents a groundwater divide. However, this is poor justification for use of a no-flow boundary condition at this location because it artificially increases model-predicted changes in groundwater levels in the Stanford area from SCVWD recharge activities to the south. This is because the induced stress cannot be dissipated across the County line as will happen in reality (i.e., some of the change in groundwater levels will occur north of the County line and result in less change in groundwater levels in the Stanford area). In summary, the accuracy of model predictions will tend to be poor along model boundaries (especially along no-flow boundaries) compared to locations in the interior of the model domain and this is especially germane to conclusions of benefits in the Stanford-Palo Alto area.

4) The Model Hydrogeologic Interpretation TM states the groundwater model project area includes the southern half of the San Francisquito Cone/Subarea (pages 4-1 to 4-4), which is an area that includes Stanford University. DWR Bulletin 118 describes the Stanford area as part of the San Francisquito alluvial cone. San Francisquito Creek flows through the middle of the alluvial cone and is underlain by the most permeable sediments in the cone, which suggest this location is a poor choice for a model boundary location for the stated purposes of the ZOB study. Given the distinct hydrogeologic features of the San Francisquito Cone and Subarea, the model domain should have included the full extent of the San Francisquito Cone (extending north to Redwood City) and utilized different boundary conditions, such as general head, along the northern boundary of the model to more accurately represent the Stanford area and provide more accurate and reliable model predictions in this area. The incorporation of only half of San Francisquito Cone in the model domain and installation of a no-flow boundary through the middle of the Cone results in poor model simulation results in the Stanford area for the ZOB study.

5) Review of model files relative to horizontal hydraulic conductivity (K) in the Stanford area indicate values in the range of 5 to 10 feet/day. These K values are relatively low compared to site-specific studies and data evaluated by LSCE. Available data for the main portion of San Francisquito Cone indicate hydraulic conductivity values on the order of 10 to 85 feet/day for sediments in the depth range of 150 to 600 feet below ground surface. Use of lower than actual K values in the model will tend to result in overestimation of changes in groundwater levels in the Stanford area, thus over estimating effects from SCVWD recharge activities to the south.

6) Review of model files relative to specific yield (Sy) and storage coefficient (S) values in the Stanford area indicate a uniform Sy value of 0.07 and a uniform S value of 0.0001. These aquifer storage properties represent relatively low values and will tend to result in overestimation of changes in groundwater levels in the Stanford area, thus over estimating effects from SCVWD recharge activities to the south.

7) Based on review of model documentation reports, it does not appear that the model incorporates any stream percolation from San Francisquito Creek where there is a connection to the unconfined aquifer. Given the permeable nature of surficial sediments along upper reaches of San Francisquito Creek, it is expected that natural stream percolation may be a substantial source of water for the Stanford area. It is also not clear if the model accounted for artificial recharge in Lake Lagunita on the Stanford University Campus and irrigation return flows from application of SFPUC system surface water. The apparent lack of accounting for these sources of

recharge to the Stanford area would tend to result in overprediction of the effects of SCVWD recharge activities to the south. The model files provided to us did not include recharge inputs to the model, so this aspect of the model could not be verified.

8) Based on review of model documentation reports, there were no wells in the Stanford area used in model calibration. In addition, the model calibration period began in 1970, and does not capture the maximum period of basin stress in the early 1960's. Stanford area groundwater levels had already recovered approximately 100 feet due to import of SFPUC system water by Palo Alto and Stanford by the beginning of the model calibration period in 1970. These factors result in greater uncertainty regarding the validity of model predictions in the Stanford area.

9) The nearest SCVWD recharge facility is approximately nine and a half miles south of the Stanford area. There was an inability to fully document benefits to Stanford University from review of groundwater level data in the SCVWD ZOB study, and there were small model-predicted changes in groundwater levels in the Stanford area from District activities. Given the various factors cited above, model-predicted changes in groundwater levels are almost certainly over-estimated and not reliable as a basis for determining whether or not Stanford University is within the Zone of Benefits.

10) Non-facility recharge is not well documented in the model report. It is not clear what assumptions are used in terms of natural streambed percolation recharge that would occur without SCWVD facilities vs. the amounts attributed to being related to SCVWD facilities.

11) The discussion and summary of non-facility recharge (page 4-62 of Hydrogeologic Interpretation TM) are acknowledged as being too low, including an apparent estimate of zero recharge attributed to non-facility streams. This does not even consider how much natural recharge would occur on facility streams in the absence of District facilities (i.e., some stream recharge attributed to SCVWD facilities would likely occur naturally in the absence of SCVWD facilities).

12) Recharge from precipitation is quite low (0 – 1.5 inches) relative to total precipitation (14 to 37 inches) throughout the model domain and amounts to only about five percent of total precipitation. As with the apparent underestimation of natural stream recharge cited above in Comments 7, 10, and 11, underestimation of rainfall recharge tends to place greater importance on SCVWD recharge activities (i.e., SCVWD artificial recharge constitutes a greater than actual proportion of the total basin recharge) than likely occurs in reality for the groundwater basin.

13) The model results figures in the ZOB study (e.g., Figures 38 and 39 on pages 78 and 79) do not specify what model layer is being represented by results displayed in the figure. Model results will almost certainly vary by model layer. Appendix H of the ZOB study refers to some additional model files (e.g., GIS shapefiles related to model assumptions, output head files) that may be useful in better understanding these model results; however, these and other important model files were not included in the model files provided to us. The intent of our original model file data request was to obtain all relevant model files; however, we only received a subset of the model files utilized in the ZOB study.

14) The ZOB study did not establish a threshold of significance for a District benefit to a given area. While the minimum model-determined benefit determined in the study was stated to be 3.9 feet (and appears to occur in the Stanford area based on Figure 39 of the ZOB study), the actual benefit in the Stanford area is likely much less than 4 feet due to reasons cited above. It is not clear how the Stanford area experiences any significant benefit from groundwater level increases that are likely to be less than two feet from District-related activities.

15) The ZOB study fails to establish a proportionate range of benefits to acknowledge large benefits in some areas versus minimal to negligible benefits in other areas. It is not reasonable for pumping tax fees to be similar for areas experiencing more than 100 feet of groundwater level increase benefits versus areas experiencing less than 2 to 4 feet of groundwater level increase from District activities.

16) Inasmuch as the model appears to simulate minor benefits that are arguably unrealistic, it should be noted that the siting and construction of SCVWD facilities was based on historic cost benefit analyses in which no benefit (such as up to 4 feet of water level increase as in the model result) was allocated or even described as a project objective for northern areas including the Stanford campus. In fact, records indicate that chronic water level declines due to over pumping in the northern areas were addressed by importing water from the San Francisco regional supply system. This measure was a solution distinct from the recharge facilities now evaluated in the ZOB study.

Overall, there are four major points to summarize from our review of the ZOB study. First, the groundwater level data analysis performed for the Stanford area utilized only one short evaluation period from 2011 to 2013, and our review of a more comprehensive data set indicates stable to decreasing water levels in contrast to ZOB study conclusions. Regardless, the Stanford/Palo Alto area is so distant from the nearest SCVWD recharge facility that it would be essentially impossible to distinguish a small SCVWD benefit in local groundwater level data from the likely more prominent effects of local recharge and pumping.

Second, there are several characteristics of the SCVWD groundwater model in the Stanford area that will tend to cause the model to incorrectly predict greater groundwater level changes attributed to District recharge activities than would be expected to occur in reality. Given that the groundwater model is the primary method applied in the SCVWD ZOB study to conclude that Stanford is within the zone of benefits, modifications to the groundwater model are needed to provide valid and more reliable predictions of groundwater level changes in the Stanford area.

Third, there is a need to establish a level of significance (with sufficient justification for the selected threshold) to estimated groundwater level changes in a given area for which a true benefit is derived from District recharge activities.

Fourth, to the extent that some areas may be shown to exceed the threshold of significance for deriving benefits, there needs to be a sliding scale of pumping assessment rates such that areas receiving only minimal benefits (e.g., less than five feet of groundwater level increase) pay lower rates than areas receiving maximum benefits (e.g., over 100 feet of groundwater level increase) from District recharge activities. While this final point is a matter of fair allocation, the District's study does not provide compelling evidence of even a minimal benefit to the Stanford and Palo Alto area.

Stanford University

SUSTAINABILITY AND ENERGY MANAGEMENT

Vanessa De La Piedra, P.E., Unit Manager *via email to vdelapiedra@valleywater.org* July 16, 2019
George Cook, Specialist *via email to gcook@valleywater.org*
Groundwater Monitoring and Analysis Unit
SANTA CLARA VALLEY WATER DISTRICT
5750 Almaden Expressway
San Jose, CA 95118

Subject: Zones of Benefit Study – Stanford comments on SCVWD's response to previous Stanford comments

Dear Ms. De La Piedra and Mr. Cook:

We have reviewed the responses to our 2018 May comments on the subject report, and our technical consultant, Pete Leffler at Luhdorff & Scalmanini Consulting Engineers, has prepared the accompanying Technical Memorandum with our comments on the responses. We continue to have a much different perspective on the benefits to the far north county area from the District's recharge activities, and still see no evidence of any benefits to this area in the information provided. Moreover, we continue to question whether the Zone of Benefit Study supports the basis for the District's groundwater fee.

We would welcome an opportunity to discuss our comments with you and your consultant, and I will work with George to schedule that meeting. We look forward to continuing our discussions and reaching appropriate conclusions on this important issue.

Sincerely,

Tom W. Zigterman

Tom W. Zigterman, P.E., D.DRE
Director, Water Resources & Civil Infrastructure

c: Rob Donlan, Ellison, Schneider, Harris and Donlan
Tom Elson and Peter Leffler, Luhdorff & Scalmanini Consulting Engineers
Karla Daily, Palo Alto

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327 Bonair Siding, Stanford, CA 94305-7272 T 650-725-8081 F 650-723-3191

Luhdorff & Scalmanini
Consulting Engineers

Technical Memorandum

DATE: June 28, 2019 PROJECT: 14-2-067

TO: Tom Zigterman
Stanford University

FROM: Peter Leffler

SUBJECT: **LSCE RESPONSES TO LETTER FROM SCVWD AND MONTGOMERY & ASSOCIATES, DATED NOVEMBER 20, 2018 (SCVWD) AND OCTOBER 26, 2018 (MONTGOMERY & ASSOCIATES) AND LSCE COMMENTS ON REVISED DRAFT REPORT DATED APRIL 2019**

INTRODUCTION

Santa Clara Valley Water District (SCVWD) provided a draft report entitled, "Preliminary Zones of Benefit Study, Santa Clara County, California," prepared by HydroMetrics and dated October 2017. Stanford University and Luhdorff & Scalmanini Consulting Engineers (LSCE) reviewed this study and provided comments in a letter dated May 11, 2018 from Stanford University (with attachment from LSCE dated May 7, 2018). SCVWD responded to Stanford/LSCE draft report study comments in a letter dated November 20, 2018 (with Montgomery & Associates (Montgomery) attachment dated October 26, 2018). SCVWD and Montgomery also prepared a revised draft report entitled, "Preliminary Groundwater Benefit Zones Study, Santa Clara County, California," dated April 2019. This Technical Memorandum (TM) provides LSCE responses to the November 20, 2018 letter from SCVWD (which includes the October 26, 2018 letter from Montgomery) and LSCE's comments on the revised draft report dated April 2019.

LSCE RESPONSES TO SCVWD LETTER DATED NOVEMBER 20, 2018 (WITH ATTACHMENT FROM MONTGOMERY DATED OCTOBER 26, 2018)

1. LSCE's Comment Number 1 stated in part,"…utilizing data only from a 2011 to 2013 time period, was clearly of insufficient duration to prove a benefit to the Stanford area." While not specifically stating it was in response to this comment, SCVWD/Montgomery stated that they are now also using data for the 1978 to 1982 and 1998 to 2004 time periods in their groundwater level data analysis. SCVWD/Montgomery state that Stanford Well 1 data from 1978 to 1982 shows a stable trend, and Stanford Well 1 and Well 2 data from 1998 to 2004 time period shows an increasing trend.

   LSCE Response: *The water level data from 1978 to 1982 cannot be used in this analysis because the regional trend of increasing groundwater levels from 1963 to 1984 derives from greatly*

decreased pumping by Palo Alto/Stanford between 1962 (in excess of 8,000 AFY) and 1974 (less than 1,000 AFY). Thus, the stable to increasing trend from 1978 to 1982 is clearly due to an extended recovery period from reduced local pumping, as is clearly obvious in all Palo Alto and Stanford wells with data from this time period. The Stanford Well 1 water level dataset is missing data from 1997 to 2000, making it essentially impossible to draw conclusions regarding trends from 1998 to 2004. The Stanford Well 2 dataset is similarly compromised by not having data from 1999 to 2001.

2. LSCE's Comment Number 2 stated in part that there was a net stable to decreasing trend in water levels during the 2011 to 2013 evaluation period, and that this observation/conclusion is in contrast to the ZOB study claim of stable groundwater levels in Stanford wells during this time. The SCVWD/Montgomery response did not address this comment or make any further observations regarding the Stanford groundwater level data trends over the 2011 to 2013 time period.

   LSCE Response: *SCVWD/Montgomery apparently do not dispute LSCE's observation of the 2011 to 2013 time period being stable to decreasing in water level trends as opposed to their own statements to the contrary in the ZOB study. Instead, the SCVWD/Montgomery Response turns to two other time periods (1978 to 1982 and 1998 to 2004) in an attempt to support their claims regarding use of groundwater level data trends to support inclusion of the Stanford area in the ZOB. Our review of these two new time periods being added to the analysis is included in our response item 1, which indicate these data periods cannot be used in the analysis. Thus, there remains only the potentially valid time period of 2011 to 2013 as stated in the original ZOB study report, and one can only conclude these data do not support inclusion of the Stanford area in the ZOB.*

3. LSCE's review of groundwater level data for three different time periods as summarized above in items 1 and 2 further supports another statement in LSCE's original Comment 1 on the ZOB study, "It is important to note that the Zone of Benefits (ZOB) study provides for inclusion of the Stanford area in the ZOB based primarily on groundwater model simulation results." In contrast, SCVWD/Montgomery Response letter states, "Groundwater model simulation results are not the primary basis for inclusion of the Stanford area in the ZOB. The primary bases for inclusion of the Stanford area in the ZOB are the groundwater level trend evaluation and information about hydrogeologic connections."

   LSCE Response*: As stated above, it is clear that the groundwater level trend evaluation does not support inclusion of the Stanford area in the ZOB. Elsewhere in the SCVWD/Montgomery Response they acknowledge that, "…there are limitations in the data from, and modeling of, the Stanford area used in the study." The SCVWD/Montgomery Response makes no attempt to address or rebut the numerous comments made by LSCE regarding the model and its inadequacies to be used in the ZOB study for the Stanford area. Specifically, no responses are provided to LSCE comments 3 through 13 regarding the groundwater model used in the ZOB study.*

4. The SCVWD/Montgomery Response includes a section entitled, "Hydrogeological Connection with District Activities" that is based on their assumption that, "…benefits from a District activity extend to all areas that are connected by groundwater flow (hydrogeologically connected) to the activity." Essentially, this assumption states that whether or not an area is 0.1 miles, 1 mile, 10 miles, or 50 miles away from a District activity, it can be claimed to be within the ZOB if there is continuously mapped alluvium within that area.

   LSCE Response: *The fact that the ZOB study adopted this hydrogeological connection assumption does not make it correct or valid. A hydrogeologic connection as defined by SCVWD/Montgomery does nothing to prove a benefit is derived by a given area from District activities, it merely indicates a benefit is possible. Thus, it is not a valid assumption to state all that is required is a hydrogeologic connection, rather a hydrogeologic connection is one of multiple requirements to demonstrate a benefit from District activities. The other requirements to demonstrate a benefit are discussed above and in LSCE's original comment letter, and these other requirements are not met.*

5. The SCVWD/Montgomery Response includes a section entitled, "Concept of Proportional Benefit" that states it is not possible to developed tiered zones relative to actual benefits derived from District activities.

   LSCE Response: *Historical data demonstrate that water levels in the Stanford area are closely tied to local groundwater pumping and development of a surface water supply from SFPUC. Any potential benefits from SCVWD activities are essentially irrelevant to local groundwater levels compared to the impacts of local pumping and use of the SFPUC surface water supply. In fact, development and use of the SFPUC surface water supply by Palo Alto and Stanford (and others in the area) has greatly benefited the groundwater basin managed by SCVWD (by effectively eliminating or greatly reducing pumping from many entities) and providing a source of additional groundwater recharge from outside the basin (e.g., excess irrigation recharge). One could reasonably argue that non-SFPUC water users in the groundwater basin receive an equal or greater benefit from SFPUC water users (including Stanford and Palo Alto) compared any potential benefits received by Palo Alto/Stanford from SCVWD activities. SCVWD would have to expend considerably more money and develop new facilities closer to the Palo Alto/Stanford area were it not for development and use of SFPUC surface water by these North County entities.*

LSCE COMMENTS ON REVISED DRAFT PRELIMINARY GROUNDWATER BENEFIT ZONES STUDY, MONTGOMERY & ASSOCIATES, DATED APRIL 2019

1. Executive Summary, page 15: The revised report text refers to evaluation of water budgets for the subbasin showing the benefits of District groundwater replenishment activities, including managed recharge and in-lieu recharge, and that without these activities pumping would exceed recharge. Thus, the report claims that District activities improve groundwater levels, thereby providing benefits related to groundwater supply reliability and avoidance of land subsidence and seawater intrusion.

LSCE Comment: *The water balance discussion does not consider the significant benefits of SFPUC surface water, and associated in-lieu and other recharge, to Stanford, Palo Alto, and other North County cities. Also, no details are provided of the various components of natural recharge and District activities to allow for peer review and validation of the summarized water balance in the revised draft report.*

2. Section 2.2, pages 27-28: The revised report text describes the history of SCVWD activities and associated rise/fall of groundwater levels in the basin. This discussion includes a statement that SFPUC water was delivered to north Santa Clara County in the 1950's, but groundwater pumping continued to increase and groundwater levels continued to fall. This discussion implies that delivery of SFPUC water to the Stanford/Palo Alto area did not resolve groundwater level issues in this area.

   LSCE Comment: *Significant deliveries of SFPUC surface water to the Stanford/Palo Alto area did not start until the early 1960's (approximately 1962). There was an immediate and dramatic response (recovery) in groundwater levels when Stanford/Palo Alto (and others) switched from groundwater pumping to SFPUC surface water supplies in the early 1960's. This recovery lasted at least through the 1980's, clearly correlated to onset of surface water supply use (instead of groundwater pumping) from the SFPUC RWS system. It is clear that the groundwater system budget deficit in the north Santa Clara County area was solved by SFPUC system surface water.*

3. Section 2.3, page 29: The report text states that, "Benefits from a District activity extend to all areas that are connected by groundwater flow (hydrogeologically connected) to the activity."

   LSCE Comment: *This statement/criteria effectively makes all other analyses conducted to show benefits from SCVWD activities for the study unnecessary (e.g., groundwater level evaluation, groundwater modeling). This statement/criteria says that in areas of interconnected alluvium (which could be argued to extend north at least to the northern end of San Mateo Plain west of the Bay and incorporate Niles Cone and possibly East Bay Plain east of the Bay), groundwater pumpers are receiving benefits from District activities that are significant enough to warrant a charge/fee from SCVWD for groundwater pumping. The cut-off of charging for this fee at the San Mateo -Santa Clara County line is a jurisdictional boundary and not a hydrogeologic boundary per this statement. Stanford is located approximately 10 miles north of any SCVWD recharge activity in an area shown to be dramatically influenced by SFPUC surface water use. If not for use of SFPUC surface water in the early 1960's by Stanford, Palo Alto, and others, SCVWD would have had to invest in several additional recharge facilities in this area to provide the recovery in groundwater levels brought about by the SFPUC surface water use in the North County area.*

4. Section 3.2, page 31: The revised report text states, "Natural recharge is insufficient to support groundwater pumping in the subbasin…"; and

Section 3.3, page 32: The revised report text states, "Current groundwater pumping exceeds natural recharge…"

***LSCE Comment**: Natural recharge in the North County area (e.g., San Francisquito Creek, rainfall recharge, bedrock inflow, etc.), Stanford Lake Lagunita recharge, and other sources of recharge are likely more than sufficient to support current/recent groundwater pumping by Stanford and Palo Alto.*

5. Section 4, page 35: The report text provides a high level water budget summary for the year 2013.

   ***LSCE Comment**: 2013 represents the second year of a severe drought and is not representative of average conditions for natural recharge.*

6. Section 4.1, page 35: The report text states, "On average, groundwater accounts for forty percent of the water used in Santa Clara County. Groundwater pumping (approximately 150,000 acre-feet in 2013) far exceeds natural recharge."

   ***LSCE Comment**: These statements do not apply to Stanford (or Palo Alto) and likely others in the North County area.*

7. Section 4.2, page 37: The report text states, "…additional evaluation is required to associate the subsidence benefits to specific sets of District activities and account for other sources of recharge such as rainfall or in-lieu supplies of surface water from San Francisco Public Utilities Commission (SFPUC) Regional Water System (RWS)." A similar statement is made with regard to salt water intrusion on page 39 of the revised draft report.

   ***LSCE Comment**: It is not clear where in the revised draft report this additional analysis was conducted, and results provided related to accounting for recharge/in-lieu supplies from SFPUC RWS.*

8. Section 5.1.2, page 45: The revised draft report text states, "Unconsolidated Alluvium is mapped from the northern to the southern boundary of Santa Clara County." Section 5.4 (page 53) of the revised draft report states, "The 2015 USGS report (Wentworth et al., 2015) identifies continuous sedimentary stratigraphy from San Jose to the Palo Alto area." Section 6 (page 59) of the revised draft text states, "Water budgets for potentially hydrogeologically connected areas demonstrate the benefits form the District's groundwater replenishment activities."

   ***LSCE Comment**: Unconsolidated Alluvium essentially extends all around (East Bay north to Richmond, South Bay, West Bay up to at least Foster City) and beneath San Francisco Bay. Thus, the concept of demonstrating that a given area benefits from SCVWD activities as solely demonstrated by hydrogeologic connection of continuous alluvium is effectively meaningless. If this were true, then the Zone of Benefits Study would have only needed to provide a geologic map of alluvium and no other work needs to be done to prove a benefit from SCVWD activities. All the other evaluations and discussions in the report related to groundwater levels and*

groundwater modeling are unnecessary, because regardless of the outcome of those analyses the report will conclude a benefit exists for all areas within the study area simply because they are underlain by alluvium. In fact, this reasoning/rationale means that benefits from SCVWD activities would extend to a given area no matter how far away it is from SCVWD recharge facilities, including well beyond the boundaries of Santa Clara Valley Water District. While a hydrogeological connection is part of the requirements to prove a benefit from SCVWD activities, other requirements must also be met to prove a benefit.

9. Section 6.1 page 59: The revised draft report states, "Natural recharge is not sufficient to support groundwater pumping in the subbasin…Groundwater replenishment activities are needed to balance groundwater pumping with total recharge…If groundwater pumping were to exceed recharge, groundwater levels would decline, resulting in…increased risk of land subsidence and saltwater intrusion. The plots show that groundwater replenishment activities are needed in all years."

   ***LSCE Comment**: This water budget analysis completely ignores vast differences in local water budgets compared to the District-wide water budget and ignores the use of SFPUC surface water in the Stanford/Palo Alto and surrounding North County region. Given the minimal groundwater pumping, the water budget in the Stanford/Palo Alto area likely even has recharge in excess on groundwater pumping, thereby providing benefits to the rest of the basin. Groundwater level declines in the Stanford/Palo Alto area are prevented by use of SFPUC surface water in the area. If SFPUC surface water were not used, the SCVWD would have to install very expensive managed recharge facilities in the Stanford/Palo Alto area to prevent groundwater declines and reduce potential for land subsidence and sea water intrusion.*

10. Section 6.3, page 66: The revised draft report text states, "Recycled water deliveries by the Palo Alto…Water Recycling systems supported by the District that reduces groundwater pumping…" and Section 7.3, page 73 states recycled water deliveries, "…are a relatively small part of the overall budget and therefore the effect is not expected to be observed in the groundwater level evaluation."

    ***LSCE Comment**: What groundwater pumping in the Stanford/Palo Alto area is being reduced by this activity, where SFPUC surface water is the primary source of supply? Furthermore, the report essentially says these recycled water deliveries are insignificant and local basin benefits cannot be quantified.*

11. Section 8, page 77: The revised draft report text item 2.b states that the groundwater level evaluation conducted for the report looked at time periods where groundwater levels would be expected to decline without SCVWD activities and, if groundwater levels during these time period were instead stable or increasing, a benefit from SCVWD activities is demonstrated. However, it goes on to say that even if groundwater levels show a declining trend during these selected time periods, it, "…does not indicate lack of benefit from District activities as the District activity may still be benefitting by limiting the decline in groundwater levels." In

addition, under Section 8.1 on page 77, the revised draft report text states, "Decreasing groundwater level trends are likely to be observed in many evaluation periods even with benefits from District activities occurring due to the rainfall and area pumping conditions."

***LSCE Comment**: Effectively, this report text states that no matter whether the trend in groundwater levels in these specially selected time periods is increasing, stable, or decreasing, a benefit from SCVWD activities is demonstrated. Why bother to do this analysis because the report derives the same conclusion (any given area benefits from SCVWD activities) regardless of the outcome of the analysis?*

12. Section 8.1.2.1, page 79: The report text states, "…the Study maps retailer areas receiving water from San Francisco Public Utilities Commission's RWS supplies…" and shows a map of these areas in Figure 26 on page 80.

    ***LSCE Comment**: The map shows a very large area of SFPUC RWS water supplies for the region from Stanford/Palo Alto extending south and east to San Jose Water Company's service area and east to the east bay hills. The report does not address the benefits derived from SFPUC RWS water to the area in its evaluation of groundwater level trends and other analyses.*

13. Section 8.1.3, page 89: The report text states, "The Study does not evaluate managed recharge of imported water separately from managed recharge of local runoff because all managed recharge systems in Santa Clara Subbasin are connected to imported water supplies."

    ***LSCE Comment**: The Study does not quantify (and subtract) the amount of local runoff that would recharge the basin anyway without SCVWD facilities, but rather assumes all that natural recharge from stream infiltration is due to SCVWD facilities.*

14. Section 8.2.4, page 111: The report text describes various time periods for Palo Alto and Stanford where the Study claims groundwater level trends show benefits from SCVWD activities.

    ***LSCE Comment**: The time periods 1975-1982 and 1978-1982 are greatly impacted by the ongoing long-term groundwater level recovery trend from the region converting from primarily groundwater use to SFPUC RWS supply in the 1960's and cannot be used for groundwater level evaluation in the Study. The 1998-2002 time period represents part of a longer-term recovery from increased groundwater pumping during the drought in the late 1980's/early 1990's and cannot be used for groundwater level evaluation in the Study. The 2011-2013 time period actually shows stable to decreasing groundwater level trends and does not support the Study conclusion of demonstrating benefits from SCVWD activities. Overall, none to the selected time periods for the Stanford and Palo Alto groundwater level evaluation support the Study conclusion of demonstrating benefits from SCVWD activities in this North County region.*

Robert Donlan

From: Pete Leffler <pleffler@lsce.com>
Sent: Friday, September 13, 2019 2:31 PM
To: Vanessa De La Piedra; George Cook; Cameron Tana (ctana@elmontgomery.com); Tom W Zigterman; Julia Nussbaum; Dailey, Karla; Anthony Fulcher; Derrik Williams; Robert Donlan; Tim Guster Great Oaks Water Company; Chanie Abuye; Darin Taylor
Cc: Garth Hall
Subject: RE: Agenda for Groundwater Benefit Zone Study Mtg 9/16
Attachments: TECH MEMO_LSCE Responses to SCVWD_Sept132019_Final.pdf

Hi Vanessa,

Attached is a response TM to help facilitate our technical discussion on Monday for the North County area.

Thanks!

Peter Leffler
Principal Hydrogeologist
Luhdorff & Scalmanini, Consulting Engineers
505 14th Street, Suite 945
Oakland, CA 94612
Office (530) 661-0109
Direct (530) 207-5761
pleffler@lsce.com
www.lsce.com

From: Vanessa De La Piedra <vdelapiedra@valleywater.org>
Sent: Thursday, September 12, 2019 5:22 PM
To: George Cook <GCook@valleywater.org>; Cameron Tana (ctana@elmontgomery.com) <ctana@elmontgomery.com>; Tom W Zigterman <twz@stanford.edu>; Julia Nussbaum <juliann@stanford.edu>; Dailey, Karla <Karla.Dailey@CityofPaloAlto.org>; Adam W. Hofmann <AHofmann@hansonbridgett.com>; Anthony Fulcher <AFulcher@valleywater.org>; Derrik Williams <dwilliams@elmontgomery.com>; Charles@CatalystGroupCA.com; Pete Leffler <pleffler@lsce.com>; red@eslawfirm.com; jroeder@greatoakswater.com; Tim Guster Great Oaks Water Company <tguster@greatoakswater.com>; Chanie Abuye <CAbuye@valleywater.org>; Darin Taylor <DTaylor@valleywater.org>
Cc: Garth Hall <ghall@valleywater.org>
Subject: Agenda for Groundwater Benefit Zone Study Mtg 9/16

Hello,

Attached is the proposed agenda for our meeting Monday 9/16 beginning at 1 pm. Please let us know if you have any suggested edits or additions.

Thanks,
Vanessa

VANESSA DE LA PIEDRA, P.E.
GROUNDWATER MANAGEMENT UNIT MANAGER
Water Supply Division
Tel. (408) 630-2788

Santa Clara Valley Water District is now known as:

Valley Water

Clean Water • Healthy Environment • Flood Protection

5750 Almaden Expressway, San Jose CA 95118
www.valleywater.org

-----Original Appointment-----
From: George Cook
Sent: Tuesday, September 3, 2019 3:11 PM
To: George Cook; Vanessa De La Piedra; Cameron Tana (ctana@elmontgomery.com); Tom W Zigterman; Julia Nussbaum; Dailey, Karla; Adam W. Hofmann; Anthony Fulcher; Derrik Williams; Charles@CatalystGroupCA.com; pleffler@lsce.com; red@eslawfirm.com; jroeder@greatoakswater.com; Tim Guster Great Oaks Water Company
Cc: Garth Hall
Subject: Groundwater Benefit Zone Study
When: Monday, September 16, 2019 1:00 PM-5:00 PM (UTC-08:00) Pacific Time (US & Canada).
Where: Headquarters Rm A-143

Hi Everyone,

The date has been changed to Monday September 16 as everyone is available that day. Thank you for your patience and quick response.

George

Luhdorff & Scalmanini
Consulting Engineers

Technical Memorandum

DATE: September 13, 2019 PROJECT: 14-2-067

TO: Tom Zigterman
Stanford University

FROM: Peter Leffler

SUBJECT: **PRELIMINARY RESPONSES TO SCVWD LETTER DATED AUGUST 21, 2019 AND MONTGOMERY ASSOCIATES LETTER DATED AUGUST 16, 2019**

INTRODUCTION

This Technical Memorandum (TM) provides our preliminary responses to letters from the Santa Clara Valley Water District (SCVWD) dated August 21, 2019 and Montgomery Associates (MA) dated August 16, 2019. The SCVWD and MA letters provide responses to a Stanford letter dated July 16, 2019 and Luhdorff & Scalmanini Consulting Engineers (LSCE) TM dated June 28, 2019. LSCE had originally provided comments dated May 7, 2018 on the Draft Zone of Benefits (ZOB) Study for SCVWD (prepared by MA). This response is preliminary and not comprehensive due to limited time available for review and introduction of new modeling results by SCVWD/MA that were not previously referenced or made available for our review. Thus, the comments below attempt to address the primary issues from our initial review and may be supplemented with additional review comments at a later date.

PRELIMINARY REVIEW COMMENTS

1. The District states that groundwater modeling results are not needed to support District claims; and that groundwater level evaluation and hydrogeologic connection analysis results are sufficient by themselves to support District claims (District Letter, Page 1, 2nd Paragraph).

   LSCE Response:

   a. *Despite the statement above, Montgomery Associates (MA) responses refer to support from groundwater modeling results on numerous occasions; some examples include M&A responses to LSCE comments B-4, B-6, and B-7 (page 8 of M&A letter), M&A response to LSCE comment B-9 (page 9 of M&A letter), M&A response to LSCE comment B-10 (page 11 of M&A letter), and M&A response to LSCE comment B-12 (page 12 of M&A letter).*

   b. *As described elsewhere in this TM, groundwater level evaluation conducted for the Zone of Benefits study does not support District claims with respect to the Stanford/Palo Alto area.*

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c. The District/MA switch from use of the District groundwater model to claims based on a new Todd model for City of Palo Alto Indirect Potable Reuse (IPR) study.

1) MA cite claim of 2,300 acre-feet per year (AFY) of groundwater inflow from the south (Santa Clara Plain) into the model domain from a future baseline (2015-2044) Todd model run (MA Letter, Page 10).

a) The Todd Report review/assessment of historic and current water balances shows no groundwater inflow from the south. This is based in part and confirmed by observed groundwater level data and groundwater elevation contours showing a groundwater flow direction that is parallel to southern model boundary. Thus, the cited future scenario model results do not agree with historic/current observed data.

b) Inflow across the southern model domain of the Todd model is strictly dependent on the specific assumptions made and incorporated in the general head boundary condition at this location. The details of the model baseline run and assumptions are not described in the City of Palo Alto IPR report. LSCE requested to obtain additional details on this topic, including model files, from SCVWD but has not yet been provided this information for review.

c) A local model, such as prepared by Todd for the IPR study, is not an adequate tool/method for evaluating potential benefits from Valley Water activities in the Stanford area. The use of a groundwater model for the Zone of Benefits study should be a regional scale model of the Santa Clara Plain and surrounding areas (e.g., San Mateo Plain) that address previous LSCE comments on the regional-scale model originally cited in the Zone of Benefits study.

2. District cites text in a Geomatrix (1992) report purported to demonstrate that connection between water levels in the Stanford area and conditions in the larger Santa Clara Subbasin (District Letter, Page 1, 3rd Paragraph).

LSCE Response:

a. The Geomatrix report text cited by the District is very general and non-specific as to location of pumping, and there was no detailed analysis conducted by Geomatrix in support of the cited text.

b. The Geomatrix report text also notes in reference to Stanford well water levels that, "The recovery of groundwater levels in both wells appears to have continued into the 1980s."

c. One of the Geomatrix report conclusions is, "Groundwater pumping likely will be limited by SCVWD's restrictive fee schedule rather than by hydrogeologic constraints."

d. A Geomatrix report conclusion states, "Groundwater levels must be allowed to recover…during the next wet period, so that the groundwater reservoir will be recharged for

use during the next dry period." This statement supports LSCE contention that the initial portion of the 1998-2004 evaluation period was influenced by recovery of groundwater levels from pumping by Palo Alto/Stanford (and perhaps others) during the late 1980s/early 1990s drought period.

3. The District states, "Stanford and others have also questioned the accounting for the benefits of SFPUC. Valley Water acknowledges that SFPUC deliveries benefit the Santa Clara Subbasin by reducing pumping (also called in-lieu recharge). (District Letter, Page 1, 4th Paragraph).

LSCE Response:

a. *It is important to note that SFPUC deliveries provide more than just in-lieu recharge. SFPUC deliveries also provide direct recharge to the subbasin from a water source outside the subbasin via recharge of excess irrigation water at residences, parks, and other irrigated lands, and also provide opportunities for use of recycled water derived from SFPUC deliveries within the subbasin.*

4. The District states, "While the study is conservative in accounting for the effects of SFPUC deliveries, it focuses only on the benefits from Valley Water activities…" (District Letter, Page 1, 4th Paragraph).

LSCE Response:

a. *It remains unclear how the Zone of Benefits study accounted for effects of SFPUC deliveries in any fashion (much less being "conservative" in this regard), other than by acknowledging that SFPUC deliveries have and do occur (resulting in reduced basin groundwater demand).*

5. The District argues that basinwide water budget components overwhelm SFPUC RWS water budget components, "While the basin benefits from the delivery of SFPUC supplies, the recharge volumes provided by Valley Water managed and in-lieu recharge are far greater." (District Letter, Pages 1 and 2, 4th Paragraph).

LSCE Response:

a. *The key issue here is the groundwater basin is very large and it is very important to consider local water budget components that have a much larger and overriding influence on individual well water levels compared to regional water budget components located much further away.*

6. The District states that it is impossible to implement a gradual change in pumping fees based on distance away from District activities and that all users should pay the same amount for the shared resource (District Letter, Page 2, 2nd Paragraph; MA Letter, Pages 5 and 6).

LSCE Response:

a. *Given that there is no threshold of significance for "benefits" from District activities, as it stands right now the District is arguing that an area that receives 0.1 foot of water level*

benefit should pay the same amount as an area that receives 100 feet of water level benefit from District activities.

b. *One alternative is to establish a reasonable significance threshold for District benefits (e.g., 5 feet), plus discounting of the fee for areas that contribute to the basin water balance by bringing in non-SCVWD surface water sources for in-lieu and direct uses and for other mechanisms of subbasin recharge (e.g., Lake Lagunita).*

7. MA states that the time period from 1975/1978 to 1982 is not part of the extended recovery period as stated by LSCE; therefore, increasing groundwater levels during this time period support District benefit claims (MA Letter, Pages 1 and 2).

LSCE Response:

a. *Despite the statement above (and while two Palo Alto wells have one or two data points that might be interpreted to suggest temporary stabilization of water levels between 1970 and 1972), water levels from two other Palo Alto wells plus the overall trend from Stanford wells do not show stabilization of water levels until the early 1980's and later.*

b. *While City of Palo Alto groundwater pumping essentially went to 0 immediately after 1962 (until 1988), Stanford groundwater pumping continued at over 1,000 AFY (to as much as 2,100 AF in 1968) from 1960 to 1973. After 1973, Stanford groundwater pumping was less than 500 AFY except in 1988, 1990, 2001, and 2007-2008. Thus, it is not possible for stabilization in the Stanford/Palo Alto area to have occurred in 1970-72 as suggested by MA, because the Stanford area had to recover from abrupt reductions in local pumping after 1973 along with the continuation of ongoing recovery from reductions in local pumping after 1962.*

c. *Groundwater elevations in Palo Alto Rinconada and Seale wells (the two wells with slight indication of stabilization in 1970-72) were -20 to -40 feet MSL in 1970-72, whereas groundwater elevations ultimately recovered in these wells to +20 to +30 feet MSL by the late 1980's. Again, it is clear these two wells were in recovery during the 1970s and early 1980s during the proposed groundwater level evaluation period.*

8. With regard to the 1978 to 1982 groundwater level evaluation period, MA states, "Annual precipitation increases are another possible explanation for this increase, so this period is not included as an evaluation period for Valley Water benefits." (MA Letter, Page 2).

LSCE Response:

a. *We note that MA states here that they disqualified the 1975/78 to 1982 period as a groundwater evaluation period for Valley Water benefits due to increasing precipitation over this period, even though the following sentence incorrectly cites the groundwater level trend from 1975 to 1982 as demonstrating a benefit from Valley Water.*

9. MA states that the 2001 to 2004 period can be used as a groundwater level evaluation period to show District benefits, and show stable/increasing levels at Stanford Wells 1 and 2 (MA Letter,

Pages 2 and 3).

LSCE Response:

a. *For the period from 1998 to 2004, Stanford groundwater pumping peaked in 2001 and the minimum occurred in 2003. This pumping pattern would cause stabilization of groundwater levels in the Stanford area over the proposed 2001 to 2004 evaluation period due to changes in local pumping rates alone; thus, this period cannot be used by the District to evaluate benefits.*

10. MA states, "We do not dispute LSCE's observation of the 2011 to 2013 time period being stable to decreasing in water level trends, which is consistent with the evaluation of trends during this time period in the Palo Alto area in the study report." (MA Letter, Page 3).

LSCE Response:

a. *We note that MA concurs with LSCE that the 2011 to 2013 evaluation period for groundwater levels, which was the only groundwater level evaluation time period used in the original draft ZOB study, and cannot be used to prove a benefit from SCVWD activities.*

11. Under LSCE Response A-4, LSCE essentially argues that MA needs to provide more evidence of a District benefit to Stanford that just saying there is a hydrogeologic connection. MA's response is that LSCE mischaracterized the ZOB study and cites the following quote from the ZOB report, "If data and modeling are insufficient to assess whether an area benefits from District activities, the following assumptions are made: Benefits from a District activity extend to all areas that are connected by groundwater flow (hydrogeologically connected) to the activity." (MA Letter, Page 4).

LSCE Response:

a. *The response by MA confirms LSCE's comment that if a benefit cannot be proved by groundwater level evaluation or modeling, having a hydrogeologic connection is adequate evidence (by itself) to conclude the area receives a District benefit. LSCE has demonstrated through previous and current comments that the groundwater level evaluation and groundwater modeling are not sufficient to prove a benefit to the Stanford (and Palo Alto) area. Thus, the only remaining argument for a benefit is hydrogeologic connection; however, this is not sufficient in and of itself to prove a benefit (but rather is one of multiple requirements to demonstrate a benefit).*

12. MA states that evaluation of benefits from SFPUC RWS water were not included in ZOB study because they are trying to isolate the benefits of District water, and it would be a separate policy discussion to potentially assign credits for basin recharge from other water sources such as SFPUC RWS water (MA Letter, Pages 5 and 8).

LSCE Response:

a. These points should be clarified in the ZOB study report: that the ZOB evaluation does not actually account for SFPUC RWS water other than acknowledging it exists, and that any such claims of credits from SFPUC RWS would have to be considered by the District as a separate policy decision.

13. MA states, "We added recognition to this discussion of recovery that occurred in the 1960s after SFPUC surface water supplies replaced Stanford/Palo Alto groundwater pumping." (MA Letter, Page 7).

LSCE Response:

a. It is important to note that Stanford pumping was not reduced until after 1973. This should be stated in the ZOB study report, and the ramifications of this fact should be incorporate in the assessment of groundwater level evaluation periods.

14. In referring to how SFPUC water deliveries were accounted for in the analysis, MA states, "This methodology addresses benefits from in-lieu recharge by SFPUC surface water deliveries to the Stanford/Palo Alto area by limiting evaluation periods to when pumping from the areas are stable or increasing." (MA Letter, Page 9).

LSCE Response:

a. It is not clear how this selection of evaluation periods incorporates or addresses the multiple benefits of SFPUC surface water deliveries.

b. LSCE describes elsewhere in this TM that Stanford pumping was decreasing during the 2001 to 2004 evaluation period; thus, this time period is disqualified from use as an evaluation period per the criteria cited by MA above.

15. MA states, "While there would be natural recharge through streams without Valley Water's managed recharge, it would be far less without our infrastructure, water supplies, and water management." (MA Letter, Page 12).

LSCE Response:

a. The District/MA somewhat acknowledge but make no attempt to quantify how much stream percolation would/did occur naturally independent of District activities. Natural stream recharge should be quantified and included in the basin water balance as non-District water (i.e., included as part of natural basin recharge).

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Sustainability and Energy Management
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315 Bonair Siding, 2nd Floor
Stanford, CA 94305-7272

Valley Water - Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118-3686

October 8, 2019

Subject: Zones of Benefit Study – Stanford comments on Valley Water's letter dated September 24, 2019

Dear George:

This letter transmits our responses to your September 24 letter. Hopefully, this technical review information will substantiate our contention that the Study does not demonstrate the benefit of Valley Water's recharge activities to the north county area. We had already agreed that two of the three event periods that were initially used to conclude benefit to the north county are actually inconclusive; and the third period is also inconclusive if you look at pumping and rainfall data, as described in our review comments. Further, the Study did not identify and evaluate other significant factors and activities that affect changes in groundwater levels, such as fluctuations in annual rainfall and impoundment of stormwater runoff and diverted surface water and managed percolation of that water in an unconfined zone. You are therefore left with a Study that does not consider all relevant factors, and is inconclusive at best about benefit in the north county from Valley Water's activities.

As was stated by Valley Water staff at our meeting last month, the Study was structured to look at only Valley Water activities, and to only look at whether there could be any benefit at all from Valley Water's activities; in short, the Study concluded that there is benefit if the area overlies the groundwater basin. Further, no attempt was made to recognize even order-of-magnitude differences in extent of benefit from District activities, which becomes starkly evident as you move into the north county area. Notwithstanding staff's defense of the Study, a gradation of benefits analysis is both feasible and fair, and has been performed by other water districts in California. The Study should be expanded to take into account the relative extent and magnitude of benefits from other factors and activities that account for groundwater recharge and recovery, besides just Valley Water's activities. These factors and activities must be recognized in the mapping of benefit zones. Stanford is willing to work with Valley Water to evaluate the technical information to substantiate and quantify these other factors and activities.

We also encourage staff to recognize the benefits to the groundwater basin that result from recharge activities by others, including Stanford, such as use of imported water and local groundwater recharge and conjunctive use activities, and consider development of a mechanism and policy to account for them in the determination of groundwater pumping charges, possibly as a credit or offset to Valley Water's groundwater fee. For example, Stanford causes groundwater recharge through its investments in infrastructure to capture foothills runoff in Lagunita and to divert surface water and lake water filter backwash water to Lagunita, which percolates directly into the San Francisquito Creek Cone and groundwater basin. The staff report identifies challenges to such a process, but acknowledges that this is a viable concept and requests Board direction. We believe such groundwater recharge activities should be encouraged and recognized through a mechanism of analysis and quantification and offsets to groundwater pumping charges.

We hope that the Board will provide direction to staff to work further with stakeholders on:

1. A comprehensive determination of benefit considering all factors and others' activities;
2. Recognizing and developing a gradation of benefits approach;
3. Developing a methodology for offsets or credits to recognize local investment in groundwater recharge activities which, incidentally, is precisely what Valley Water funds through its groundwater fee.

We look forward to continuing to work with you on these important issues.

Sincerely,

Tom W. Zigterman

Tom W. Zigterman
Director – Water Resources & Civil Infrastructure

c: Rob Donlan, Ellison, Schneider, Harris and Donlan
Pete Leffler, LSCE

Luhdorff & Scalmanini
Consulting Engineers

Technical Memorandum

DATE: October 7, 2019 PROJECT: 14-2-067

TO: Tom Zigterman
Stanford University

FROM: Peter Leffler

SUBJECT: **PRELIMINARY RESPONSES TO VALLEY WATER LETTER DATED SEPTEMBER 24, 2019**

INTRODUCTION

This Technical Memorandum (TM) provides our preliminary responses to a letter from Valley Water dated September 24, 2019, which is responding to a LSCE TM dated September 13, 2019. The comments below are not comprehensive and only attempt to address the primary issues raised in the Valley Water letter.

SUMMARY

The Zone of Benefits study purports to rely on three lines of evidence to demonstrate a benefit in the Stanford/Palo Alto area from Valley Water activities: 1) groundwater modeling: 2) groundwater level evaluation: and 3) hydrogeologic connection. Stanford/LSCE provided several comments on the groundwater modeling conducted for the draft ZOB study in our May 2018 letter/TM, which have not been responded to by Valley Water (because the model is not relied upon to demonstrate a benefit). Thus, the groundwater model used in the ZOB study is inadequate for demonstrating benefits. The draft ZOB study started out with one groundwater level evaluation time period to demonstrate benefits (2011-2013) in the Stanford area, but then a subsequent draft added two additional groundwater level evaluation periods (1978-1982 and 2001-2004) after Stanford/LSCE demonstrated that 2011-2013 was not a valid evaluation period. It has subsequently been demonstrated in Stanford/LSCE letters/TMs (including this one) that neither the 1978-1982 nor the 2001-2004 time periods are valid for groundwater level evaluation, which is likely why these two time periods were not selected in the original draft report. Valley Water subsequently agreed 2001-2004 is not a valid evaluation period, and this TM further demonstrates that 1978-1982 is not a valid period. Thus, the groundwater level evaluation analysis for the Stanford/Palo Alto is inconclusive at best and clearly is insufficient to demonstrate benefits. Hydrogeologic connection, which should be considered a requirement along with an additional line of evidence to demonstrate a benefit, was not fully evaluated for the Stanford/Palo Alto area. If hydrogeologic connection alone were sufficient, the ZOB study served no purpose.

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PRELIMINARY REVIEW COMMENTS

1. In response to LSCE Comment 1, Valley Water states that groundwater modeling provides additional support for the benefits demonstrated by the groundwater level evaluation. Valley Water also cites acknowledgement by LSCE at our September 16, 2019 meeting that, "…if Valley Water activities ceased to occur, groundwater levels in the Stanford area would be lower."

   LSCE Response:
   The current letter from Valley Water is in conflict with the previous letter from Valley Water (August 16, 2019), which states groundwater model results are not being relied upon to demonstrate a benefit in the Stanford area. Regardless, Valley Water has not responded to numerous comments and concerns expressed by Stanford/LSCE in our previous review comments (May 2018) regarding the groundwater modeling tool described in the ZOB study. With regard to the note about water levels being lower in the Stanford area without Valley Water activities, Stanford/LSCE recall this conversation somewhat differently. Stanford stated that ceasing Valley Water recharge activities would have no detrimental effect on the Stanford area. LSCE commented that ceasing Valley Water recharge activities may result in a groundwater flow direction towards the south assuming groundwater pumping in the middle to southern portion of the county was at pre-1970 levels and Stanford/Palo Alto had essentially no pumping in the north county area (this statement also assumes hydrogeologic connection exists, which is not fully evaluated in the ZOB study). Regardless, this Valley Water comment is taken out of context of the primary themes of our discussions at the meeting. The context of the discussion was really about why Stanford/Palo Alto, whose benefit from Valley Water activities (if it exists at all) is so small that it could not be demonstrated in the Zone of Benefits study, should pay the same fee as others who receive benefits of 100 feet or more? There are multiple orders of magnitude difference in benefits (assuming a benefit even exists), which was not denied by Valley Water or its consultants at the meeting, and the benefits received by Stanford/Palo Alto effectively have no benefit to their respective well operations. In fact, any incremental benefit of Valley Water activities, if it does exist, is likely detrimental in the Palo Alto area where dewatering operations are common due to shallow groundwater levels.

2. In response to LSCE Comment 1, Valley Water states, "The Todd model is not a local model. It is based on Valley Water's Santa Clara Plain groundwater model…"

   LSCE Response:
   Stanford/LSCE has previously commented extensively (in May 2018) on Valley Water's Santa Clara Plain groundwater model. Valley Water has elected not to respond to those comments, and noted in its letter dated August 21, 2019 that the groundwater model is not being relied upon to demonstrate a benefit in the Stanford/Palo Alto area. Given that the Todd Model is just a slightly revised version of the Santa Clara Plain groundwater model, those previous comments remain applicable and unaddressed. Thus, the groundwater model cannot be relied upon to demonstrate a benefit in the Stanford/Palo Alto area.

3. In response to LSCE Comment 2, Valley Water attempts to cite a rationale for why the water level recovery from 1962 until the mid-1980s is no longer influenced after the mid-1970s by reductions in pumping by Palo Alto and Stanford that occurred from 1962 to 1973.

LSCE Response:
There are a couple key points of clarification here. While Valley Water cites a decrease in Stanford pumping from "1,000 AFY to less than 500 AFY", the reality is that pumping declines from as much as 2,100 AFY to less than 500 AFY after 1973. The average Stanford pumping from 1963 to 1973 was 1,700 AFY, whereas the average Stanford pumping from 1974 to 1982 was 130 AFY. Thus, the abrupt decline in Stanford groundwater pumping amounted to more than 1,500 AFY of decreased groundwater pumping after 1973. Furthermore, this amount of pumping by Stanford extended back in time to the late 1940s, or a time period of approximately 25 years. Basic hydrogeologic principles dictate that it is not reasonable to expect full recovery of local groundwater levels from 25 years of significant pumping in less than five years. The second point is that LSCE was not saying all recovery after 1973 was due to Stanford pumping reductions alone; but rather a combination of even greater pumping reductions by Palo Alto that started in the 1960s plus reductions in pumping by Stanford that started in the 1970s. The combined total pumping reductions by Palo Alto and Stanford amounted to approximately 7,500 AFY during the 1960s and 1970s, a major change in the local pumping regime that was still causing local groundwater level recovery after 1977.

4. In response to LSCE Comment 5, Valley Water states, "The District does not believe it is possible with the data and tools currently available to determine the comparative benefit…" Valley Water makes this same argument in response to LSCE Comment 6.

LSCE Response:
If Valley Water were to address previous comments (and make appropriate model revisions) made by Stanford/LSCE in May 2018 on the groundwater model described in the ZOB study, the necessary tools and data would exist to delineate comparative benefits.

5. In response to LSCE Comment 7, Valley Water argues that increasing groundwater levels in the late 1970s to early 1980s are due to Valley Water activities. In response to LSCE Comment 8, Valley Water notes that increases in precipitation result in a period not being valid for groundwater level evaluation in the ZOB study.

LSCE Response:
While Stanford/LSCE strongly disagree with Valley Water conclusions regarding the cause of local water level recoveries in the Stanford/Palo Alto area with respect to changes in local pumping vs. Valley Water activities, there are other important data relevant to this discussion not previously addressed in the ZOB study. The attached figures (Figures 1 through 10) demonstrate that there was a severe drought in the three years immediately preceding 1978 (approximately 60% of normal rainfall), and then the 1978-1982 period had well above normal rainfall (approximately 120% of normal rainfall). These dramatic differences in rainfall would be expected to have significant effects on water levels during the 1978-82 period, and make this

time period invalid for ZOB study groundwater level evaluation. Overall, it is clear that dramatic declines in groundwater pumping by Palo Alto/Stanford in the 1960s/1970s and dramatic increases in rainfall from before to after 1978 account for the increases in groundwater levels in the Palo Alto/Stanford area from 1978 to 1982. Thus, the 1978-1982 time period cannot be used to demonstrate benefits from Valley Water activities in the Palo Alto/Stanford area.

6. Valley Water's response to LSCE Comment 7 also states, "The contention that this period represents extended recovery conflicts with the observed rapid rise in groundwater levels in the early 1960s followed by flattening out of the recovery curve that occurred after the cessation of pumping in Palo Alto."

   LSCE Response:
   Valley Water is referring to the 1970-72 period when they reference flattening out of the recovery curve in this statement. However, the attached figures (Figures 1 through 10) clearly demonstrate 1970-72 was a very dry period with 60% of normal rainfall, which would account for any temporary flattening of water levels claimed by Valley Water. While temporary/intermittent fluctuations in groundwater levels may coincide with short-term fluctuations in rainfall, the overall trend of water levels in all the wells clearly shows no flattening of the trend from 1962 through 1983.

7. In response to LSCE Comments 9 and 10, Valley Water acknowledges that the 2001-2004 and 2011-2013 time periods previously used for groundwater level evaluation in the Stanford/Palo Alto area are not valid periods for such an evaluation.

   LSCE Response:
   Stanford/LSCE concur with these updated findings/conclusions by Valley Water.

8. In response to LSCE Comment 11, Valley Water states that hydrogeologic connection alone is sufficient to include Stanford/Palo Alto in the Zone of Benefits, and that the groundwater level evaluation and groundwater modeling efforts in the ZOB study go beyond what is necessary.

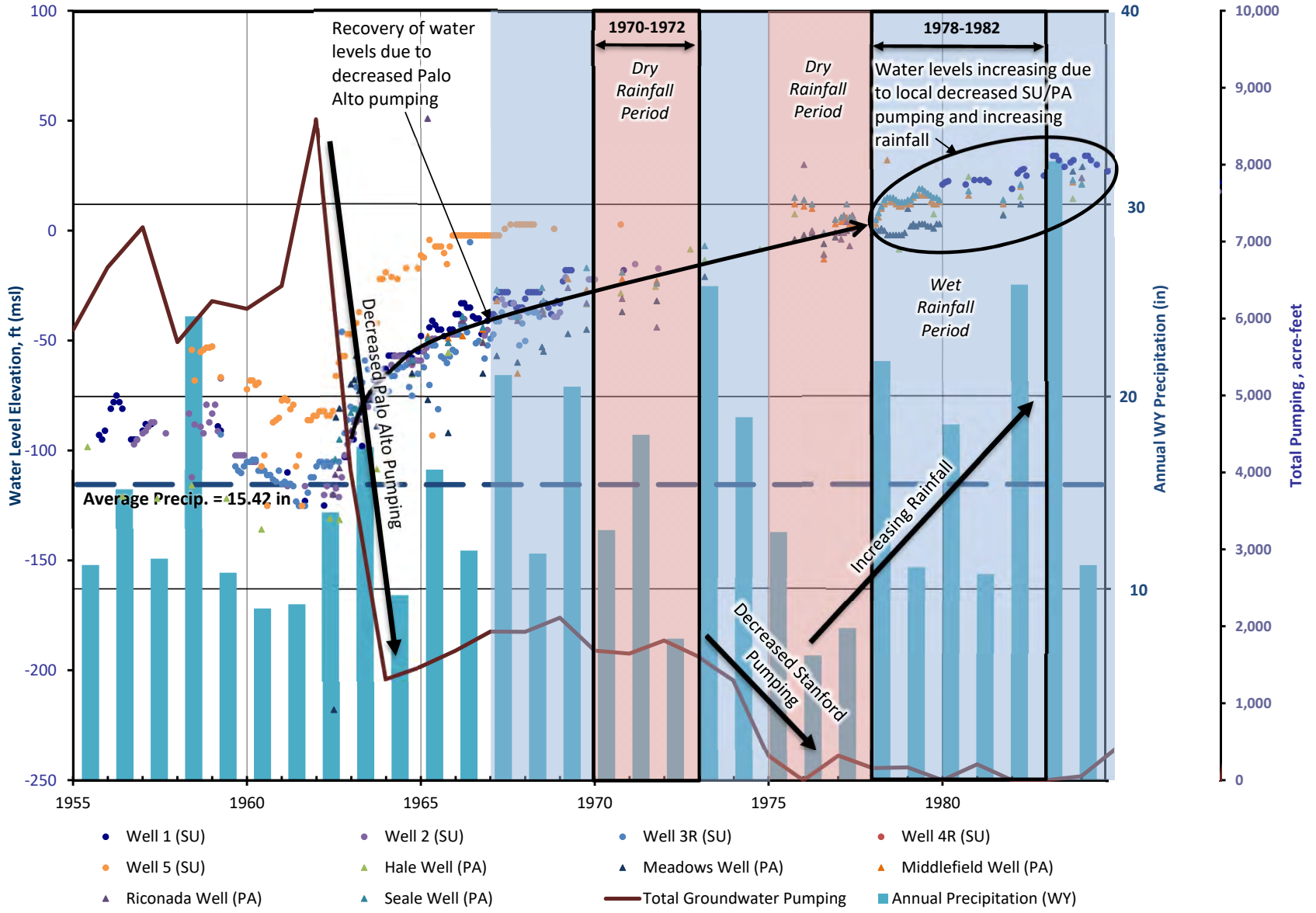
   LSCE Response:
   Valley Water has not evaluated the important characteristics of the San Francisquito Cone with regard to hydrogeologic connection. There are key geologic and hydrogeologic features of this alluvial cone relative to the discussion of hydrogeologic connection, most importantly the occurrence of abundant coarse-grained alluvial deposits that do not occur to the north or south of the San Francisquito Cone. In addition, this Valley Water response leads to a question posed in previous LSCE comments: what is the purpose of all the analyses related to groundwater modeling and groundwater level evaluation periods in the ZOB study if all that is needed to demonstrate a benefit is hydrogeologic connection?

9. In response to LSCE Comment 15, Valley Water states that natural recharge from stream infiltration (in the absence of Valley Water activities) is accounted for in Chapter 6 of the report.

LSCE Response:

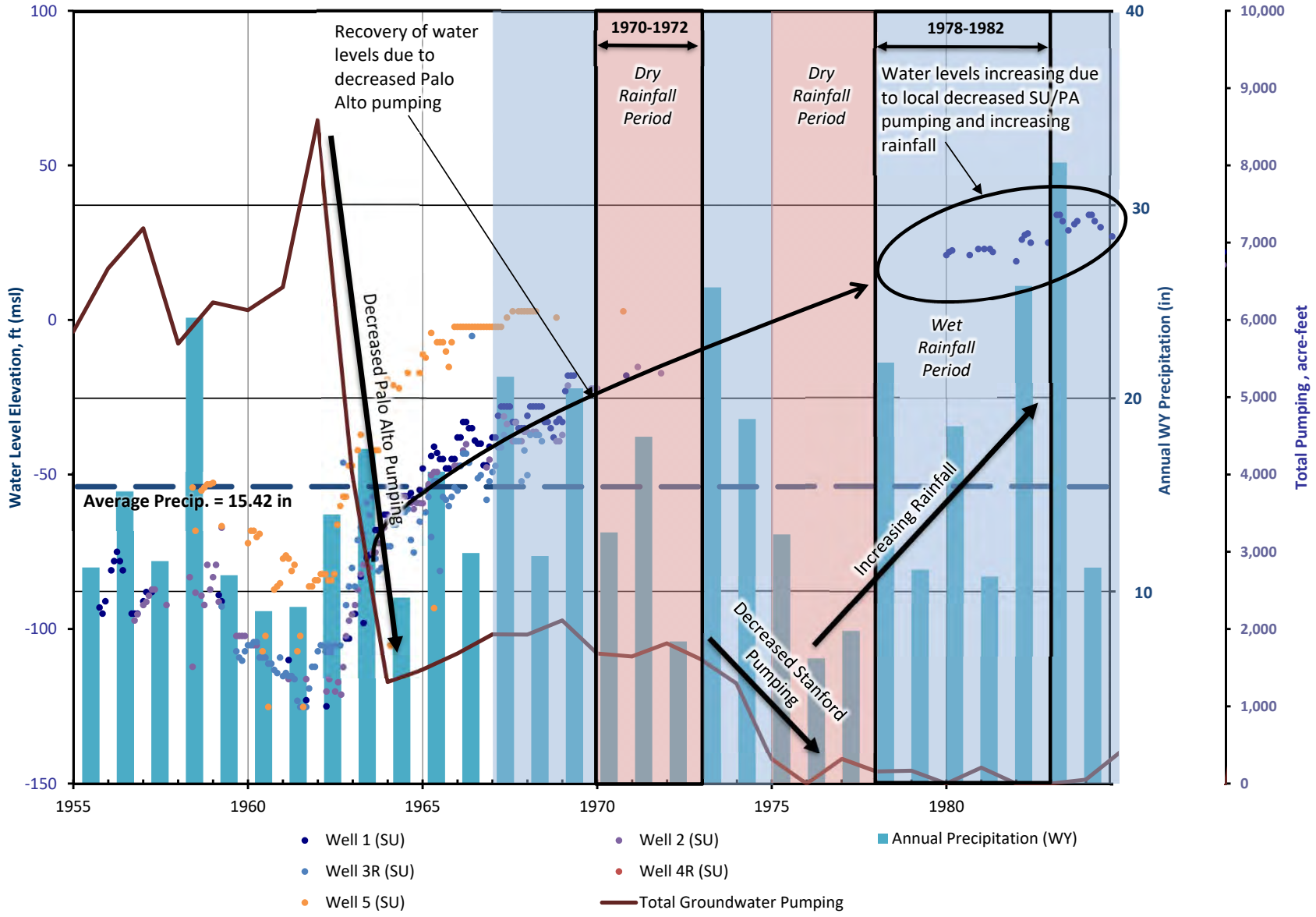
Chapter 6 of the ZOB study provides no details as to how the natural recharge from streamflow infiltration was calculated. The primary recharge component during pre-development conditions in the Santa Clara Plain Subbasin was likely streamflow infiltration. If Valley Water managed recharge activities did not occur today, there would still be substantial natural recharge along the many streams flowing into Santa Clara Plain from the surrounding hills. While Valley Water activities certainly increase the amount of natural streamflow infiltration that would otherwise occur, it is likely that natural streamflow recharge is greater than what may be accounted for in the gross water budget numbers reported in Chapter 6 of the ZOB study.

Attachments: Figures 1 through 10



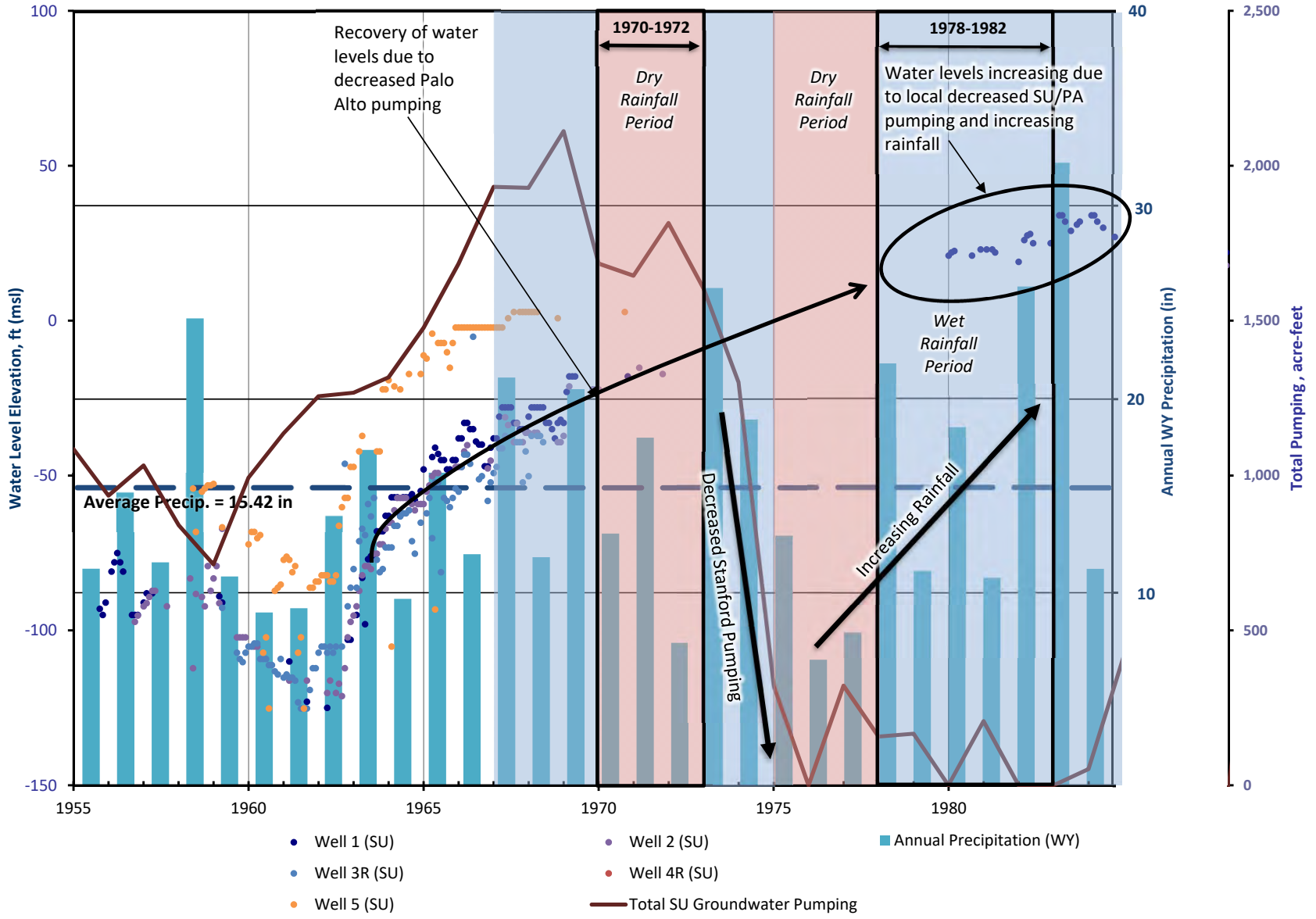
LUHDORFF & SCALMANINI CONSULTING ENGINEERS

Combined Wells Groundwater Level Elevations
Combined Stanford and Palo Alto Pumping
Figure 1



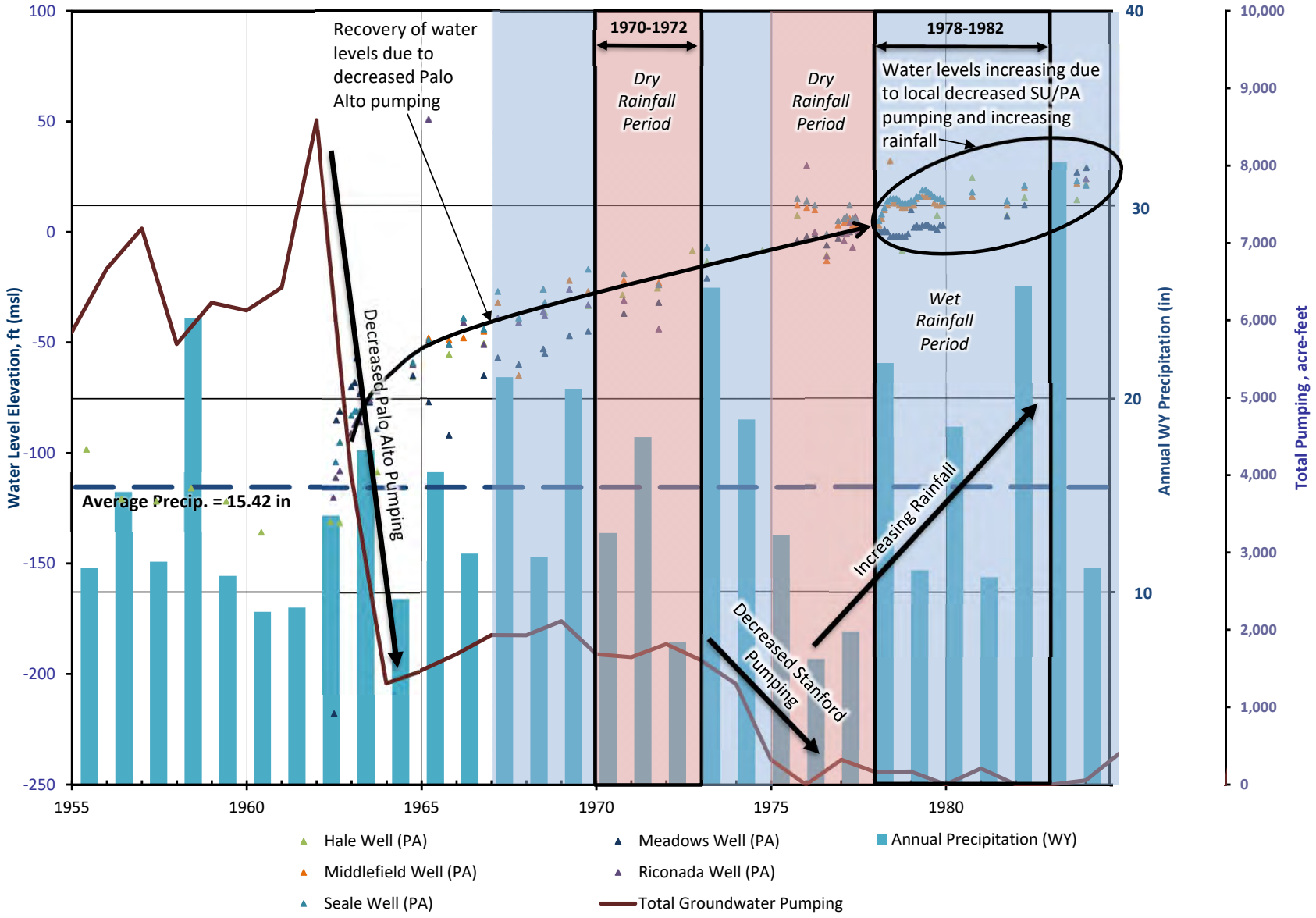
LUHDORFF & SCALMANINI CONSULTING ENGINEERS

Stanford Well Groundwater Level Elevations
Combined Stanford and Palo Alto Pumping
Figure 2



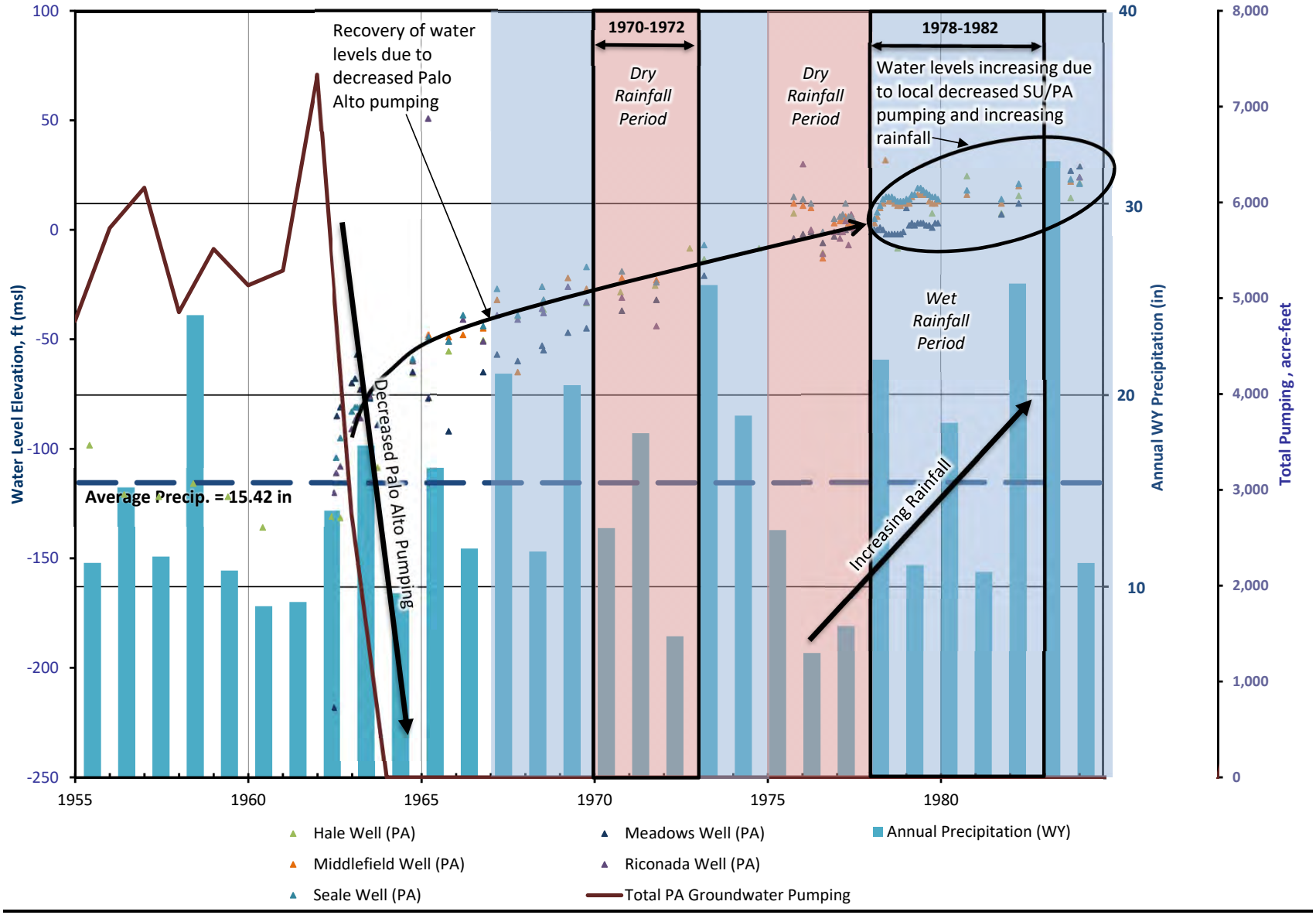
LUHDORFF & SCALMANINI CONSULTING ENGINEERS

Stanford Well Groundwater Level Elevations
Stanford Pumping
Figure 3



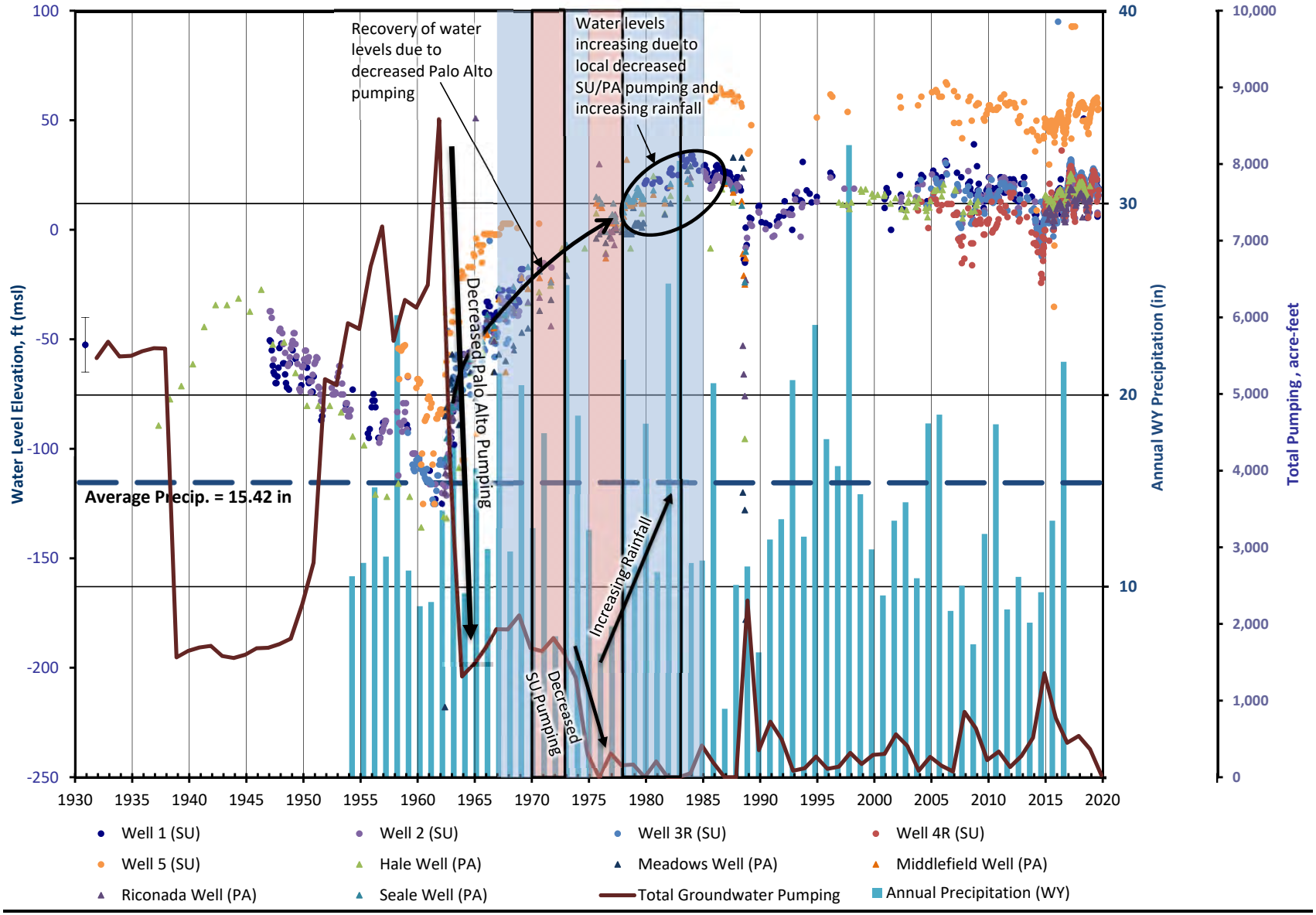
LUHDORFF & SCALMANINI CONSULTING ENGINEERS

Palo Alto Well Groundwater Level Elevations
Combined Stanford and Palo Alto Pumping
Figure 4



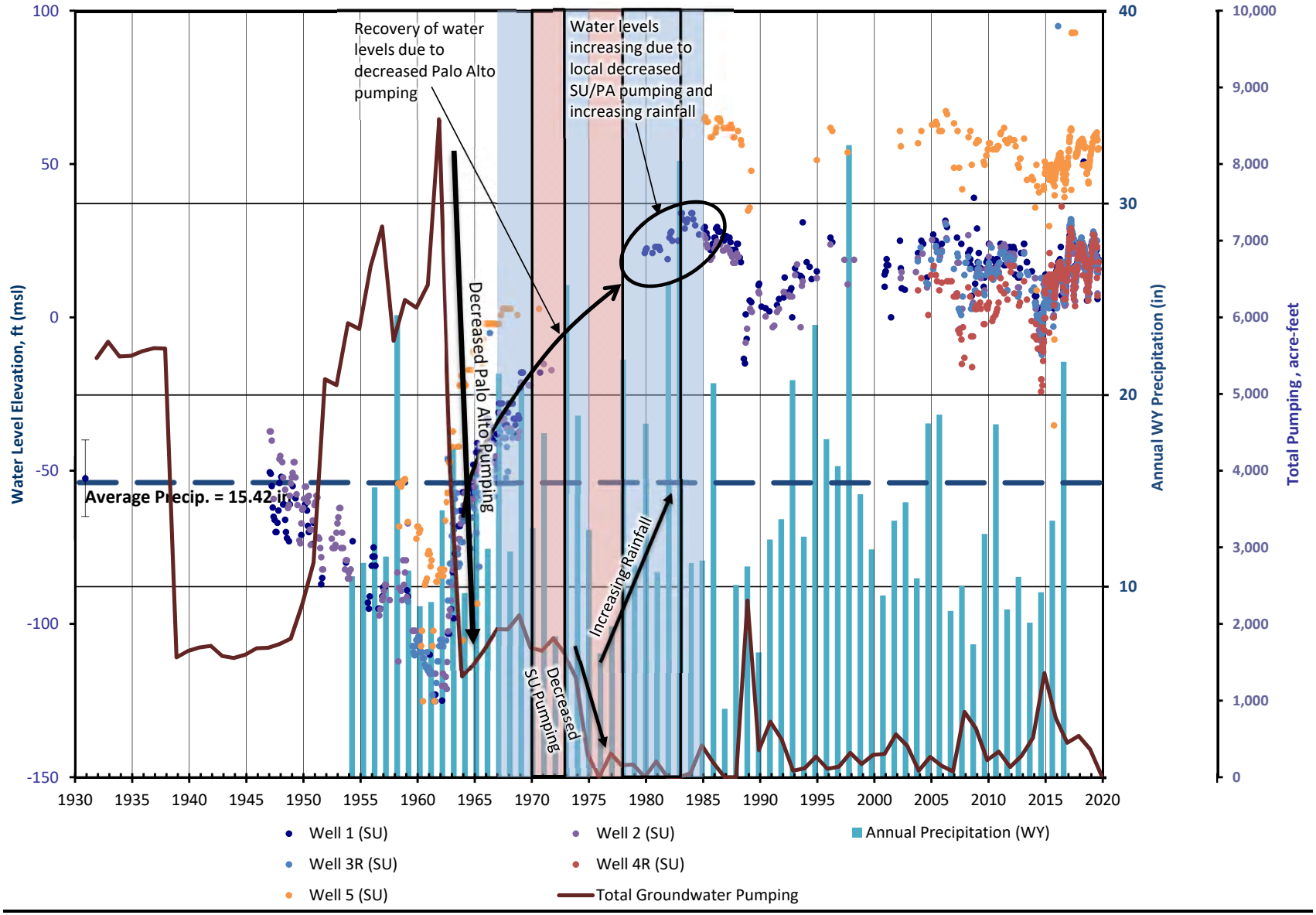
LUHDORFF & SCALMANINI CONSULTING ENGINEERS

Palo Alto Well Groundwater Level Elevations
Palo Alto Pumping
Figure 5



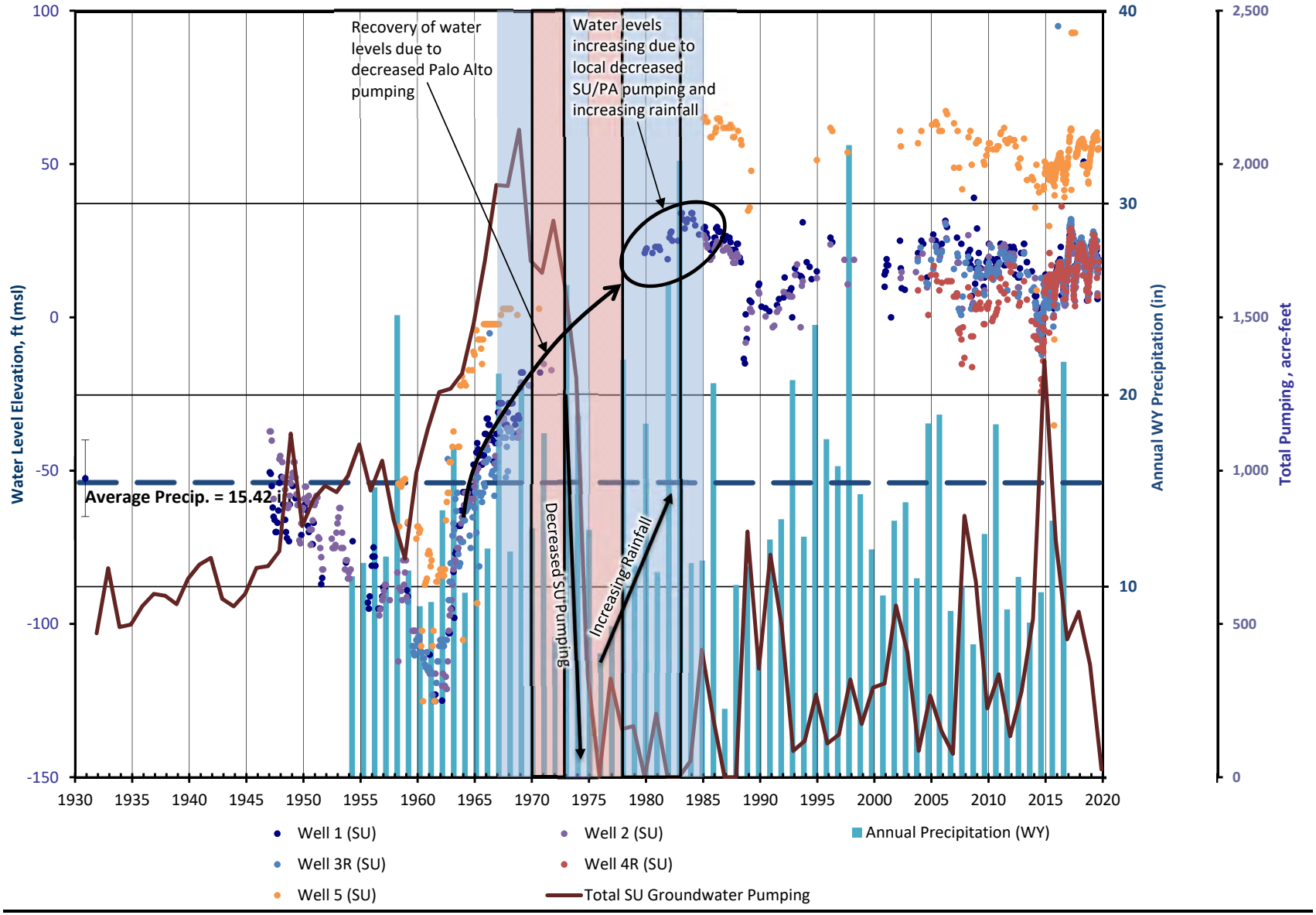
LUHDORFF & SCALMANINI CONSULTING ENGINEERS

Combined Wells Groundwater Level Elevations
Combined Stanford and Palo Alto Pumping
Figure 6



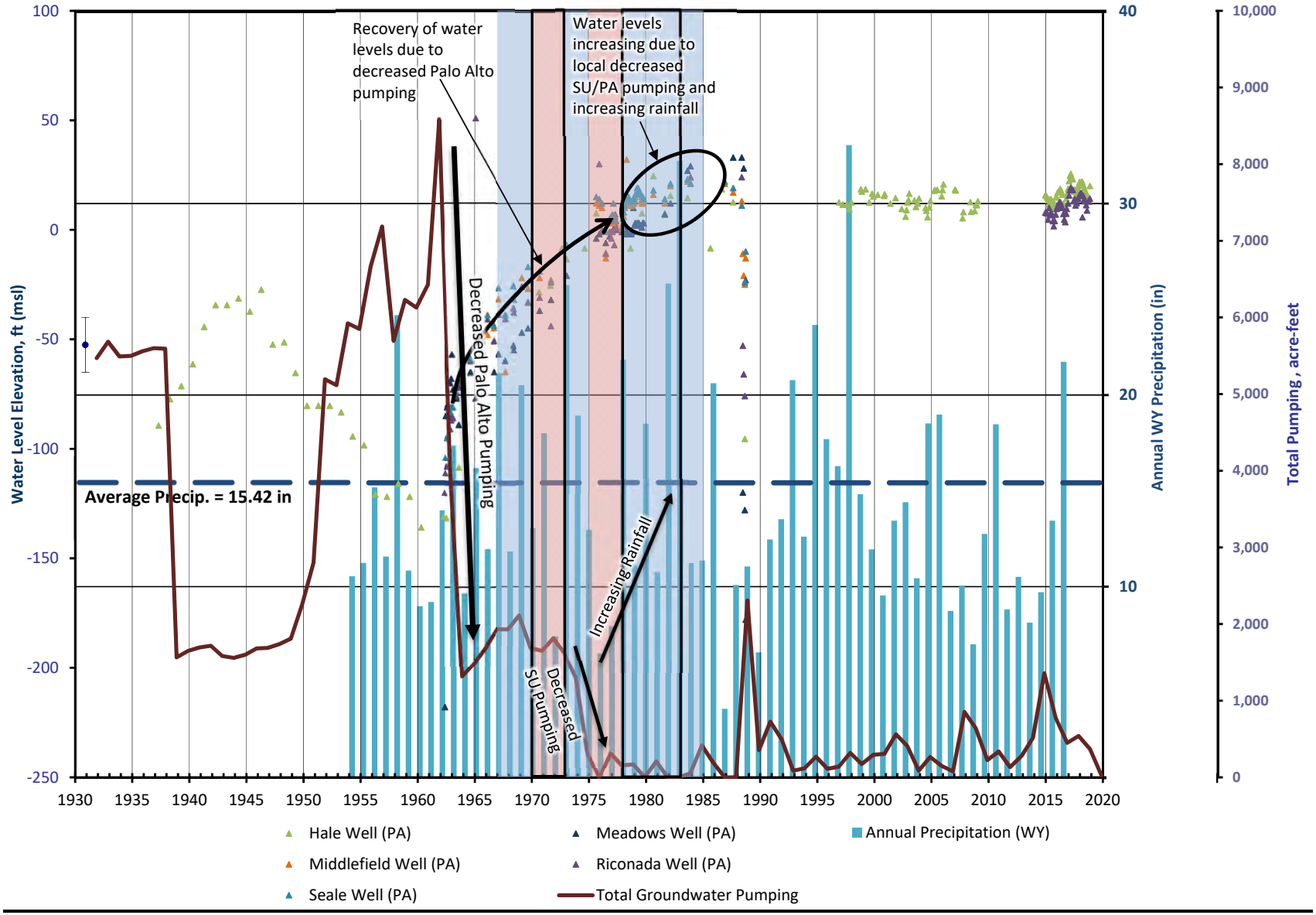
LUHDORFF & SCALMANINI CONSULTING ENGINEERS

Stanford Well Groundwater Level Elevations
Combined Stanford and Palo Alto Pumping
Figure 7



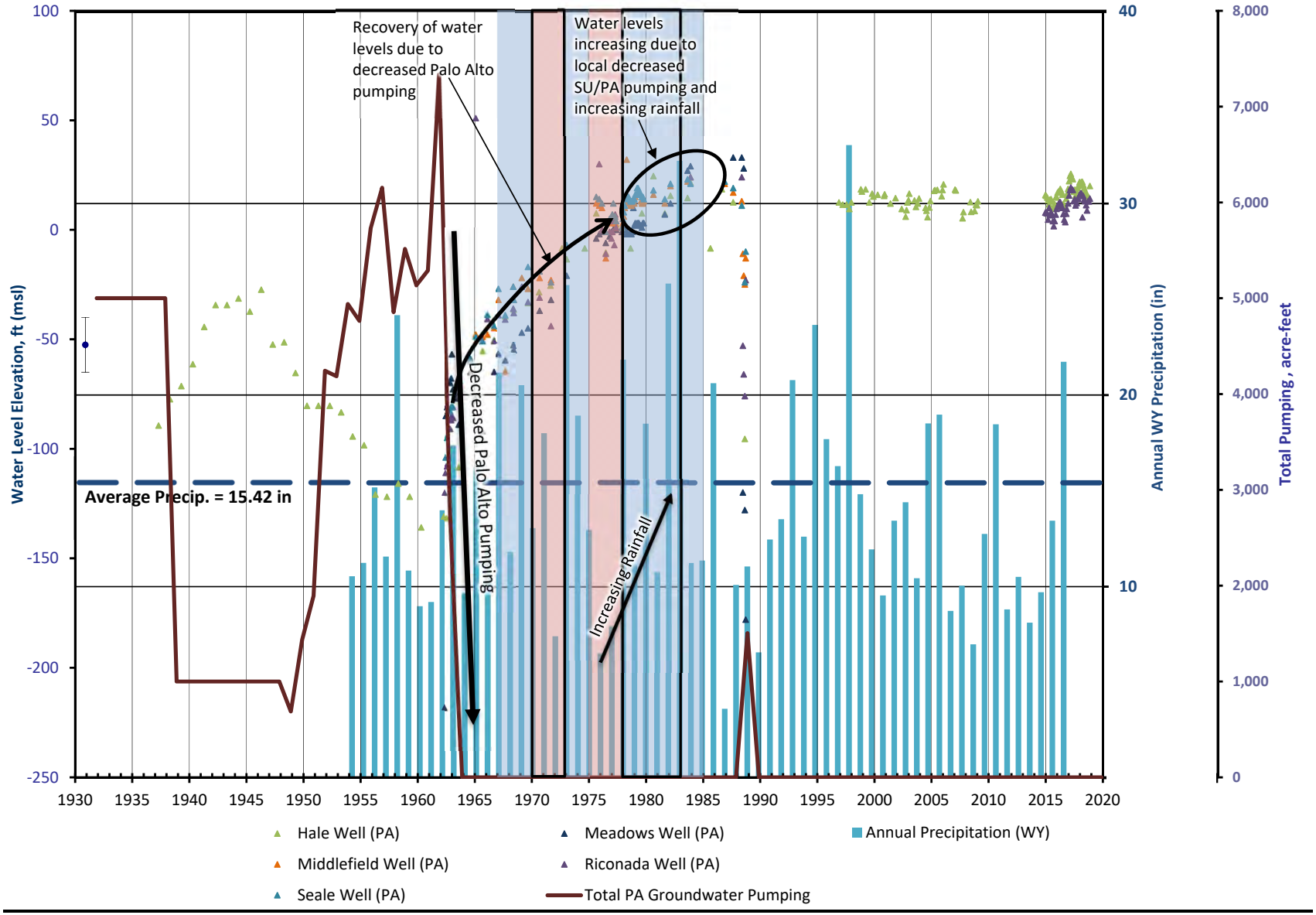
LUHDORFF & SCALMANINI CONSULTING ENGINEERS

Stanford Well Groundwater Level Elevations
Stanford Pumping
Figure 8



LUHDORFF & SCALMANINI CONSULTING ENGINEERS

Palo Alto Well Groundwater Level Elevations
Combined Stanford and Palo Alto Pumping
Figure 9



LUHDORFF & SCALMANINI CONSULTING ENGINEERS

Palo Alto Well Groundwater Level Elevations
Palo Alto Pumping
Figure 10

Stanford University

SUSTAINABILITY AND ENERGY MANAGEMENT

Vanessa De La Piedra, P.E., Unit Manager *via email to vdelapiedra@valleywater.org* April 24, 2020
Groundwater Monitoring and Analysis Unit
SANTA CLARA VALLEY WATER DISTRICT
5750 Almaden Expressway
San Jose, CA 95118

Subject: April 28, 2020 Board of Directors Meeting – Agenda Items 2.3 and 2.4

Dear Ms. De La Piedra:

Stanford University ("Stanford") offers these summary comments on agenda items 2.3 and 2.4 for the April 28, 2020 meeting of the Board of Directors ("Board") of the Santa Clara Valley Water District ("District"). As detailed in the staff reports and supporting documents for agenda items 2.3 and 2.4, those matters relate to the District's groundwater benefit zones and the Groundwater Benefit Zone Study ("Benefit Study") conducted by the District. For many years now Stanford and the District have been engaged in an ongoing discussion regarding the relative benefits to the Stanford and North County area from the District's activities in the Santa Clara Subbasin ("Subbasin"). As evidenced in Stanford's previously submitted comments and correspondence regarding the Benefit Study, Stanford disputes the District's position that the Stanford area benefits from District activities in the Subbasin and that Stanford is properly included in the District's Zone W-2. The technical evidence demonstrates that: (1) District activities in the southern portion of the Subbasin do not benefit groundwater conditions in the Stanford area; and (2) the activities and actions of Stanford and others in the northern portion of the Subbasin (e.g., importation of surface water from the San Francisco Public Utilities Commission and reduced groundwater pumping) are responsible for maintaining and protecting groundwater conditions in the Stanford area. (See, Attachment A – hydrograph showing the impact of imported water projects on groundwater levels in the Subbasin.) With respect to the latter point, the technical evidence shows that total groundwater recharge in the Stanford area far exceeds the amount of groundwater supply pumping in the area (by Stanford and others). Stanford intends to meet with District staff to provide and discuss additional technical analysis related to the points noted above.

Stanford respectfully requests that the Board remove the Stanford area from District groundwater benefit zones and terminate groundwater production charges in the Stanford area. Further, Stanford requests that any resolution adopting the boundaries of a groundwater benefit zone include language providing for the future review and revision of the boundaries in accordance with hydrogeologic data supporting such review and revision.

Thank you for your consideration of this matter.

Sincerely,

Tom W. Zigterman

Tom W. Zigterman, P.E., D.DRE
Director, Water Resources & Civil Infrastructure

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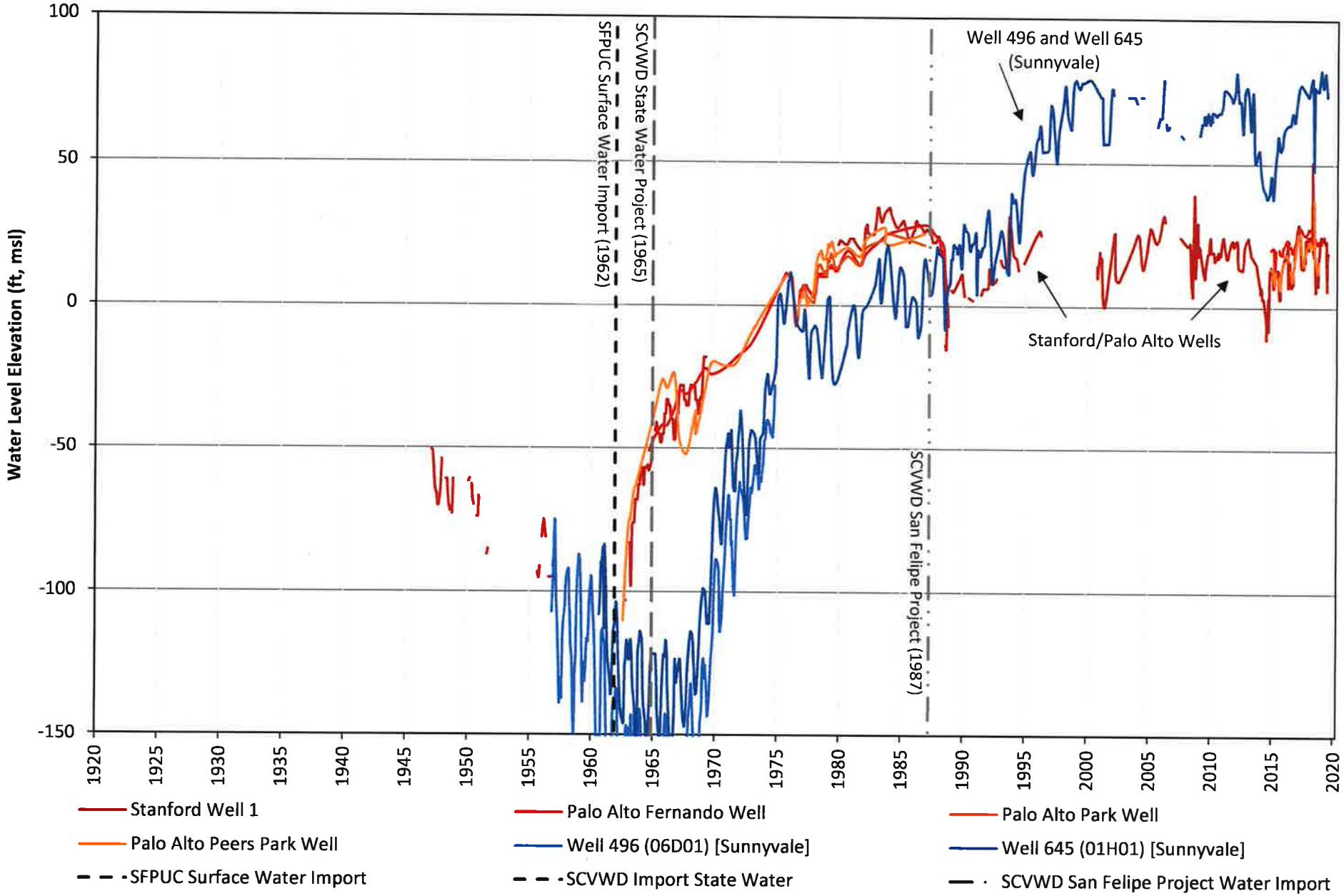
315 Bonair Siding, Stanford, CA 94305-7272 T 650-725-8081 F 650-723-3191

Attachment A: Impact of Imported Water Projects on Groundwater Levels



Handout 2.3-A & 2.4.A
04/2820

Robert Donlan

From: Tom W Zigterman <twz@stanford.edu>
Sent: Thursday, May 7, 2020 2:01 PM
To: Vanessa De La Piedra; George Cook; Cameron Tana
Cc: 'Pete Leffler'; Julia Nussbaum
Subject: FW: Final TM
Attachments: TECH MEMO_May052020_Complete.pdf; SCVWD Grdwater fees PP May 5, 2020.pdf

Hi Vanessa, George and Cameron:
Thanks for meeting with us. Here are the Powerpoint and Technical Memo.
Look forward to continuing our discussions toward resolution.
-Tom

From: Pete Leffler <pleffler@lsce.com>
Sent: Thursday, May 7, 2020 1:29 PM
To: Tom W Zigterman <twz@stanford.edu>
Subject: Final TM

Hi Tom,

FYI…

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Luhdorff & Scalmanini
Consulting Engineers

Technical Memorandum

DATE: May 5, 2020 PROJECT: 19-6-130

TO: Rob Donlan
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FROM: Peter Leffler

SUBJECT: **EVALUATION OF LOCAL WATER BALANCE AND GROUNDWATER LEVEL FLUCTUATIONS, STANFORD UNIVERSITY**

INTRODUCTION

Santa Clara Valley Water District's (SCVWD or District) recent update to their Zones of Benefit study incorporates Stanford University and the North County area. Stanford University and Palo Alto, which rely on San Francisco Public Utilities Commission (SFPUC) for their water supplies, are charged the same pumping fees as other groundwater users located farther to the south near SCVWD facilities. Our review of and comments on multiple drafts of the Zones of Benefit (ZOB) study indicated the benefits to the North County area were not properly characterized. Since the ZOB report preparers have not adequately addressed our review comments in revisions to the ZOB study, this Technical Memorandum (TM) provides detailed information that was not included in the SCVWD ZOB study and which supports the finding that benefits from District activities do not extend to the Stanford area.

BACKGROUND AND PURPOSE

Santa Clara Valley Water District issued a draft report entitled, "Preliminary Zones of Benefit Study, Santa Clara County, California," prepared by HydroMetrics/Montgomery & Associates and dated October 2017. The Zones of Benefit study concluded that the Stanford and Palo Alto areas in the northernmost portion of Santa Clara County receive benefits from SCVWD activities that warrant imposition of a pumping fee, or a fee that is equal to the pumping fee charged to others located farther to the south (e.g., pumpers in Santa Clara and San Jose). Stanford University and Luhdorff & Scalmanini Consulting Engineers (LSCE) reviewed this study and provided comments in a letter dated May 11, 2018 from Stanford University (with attachment from LSCE dated May 7, 2018). LSCE disagreed with the technical conclusions reached in the ZOB study regarding groundwater benefits accruing to the North County area from SCVWD activities, which largely occur much farther to the south (i.e., on the order of ten or more miles away). A meeting was held between SCVWD and Stanford University representatives to further discuss Stanford's concerns and comments. SCVWD responded to the Stanford/LSCE draft

ZOB study report study comments in a letter dated November 20, 2018 (with Montgomery & Associates (Montgomery) attachment dated October 26, 2018). SCVWD and Montgomery also prepared a revised draft report entitled, "Preliminary Groundwater Benefit Zones Study, Santa Clara County, California," dated April 2019. A LSCE TM dated June 28, 2019 provided responses to the November 20, 2018 letter from SCVWD (which includes the October 26, 2018 letter from Montgomery) and LSCE's comments on the revised draft report dated April 2019.

At the SCVWD August 27, 2019 Board Meeting, SCVWD Staff was directed to meet with Stanford, Palo Alto, and Great Oaks Water Company to further discuss their respective concerns with the ZOB study. This meeting took place on September 16, 2019; however, the technical and policy concerns expressed by Stanford University representatives (including LSCE) and others (along with suggested alternatives to define zones of benefit) were dismissed by SCVWD Staff and Montgomery. SCVWD Staff reported back to the SCVWD Board on October 8, 2019 and recommended that the zones of benefit as defined in the Montgomery ZOB study should move forward; the Board concurred with Staff recommendations.

As a result of SCVWD Staff and Board actions, the study documented in this TM was conducted to provide more detail regarding historical and current groundwater conditions in the north county area. The results provide more clarity and demonstrate more definitively that SCVWD activities in the southern portion of the groundwater basin do not accrue to the north county area in general and at Stanford in particular This is demonstrated in two ways. First, through a disaggregation of water balance components in the Stanford/Palo Alto area, it is shown that Stanford's pumping is well within the sustainable yield using local recharge sources. And second, historical fluctuations in groundwater levels in relation to the three major historical surface water importation events in the Santa Clara Plain Groundwater Subbasin show that Stanford University/Palo Alto and other northern cities recovered from over pumping solely through their use of SFPUC system water made first available in 1962. The ZOB study does not incorporate these relevant factors contradicting conclusions that District activities provide benefits throughout the basin including in the Stanford/Palo Alto area.

EVALUATION OF THE WATER BALANCE

As an initial step in evaluating the water balance for the Stanford/Palo Alto area, previous studies were reviewed. It was determined that a detailed water balance study had recently been conducted for the City of Palo Alto and SCVWD (now known as Valley Water) for an area encompassing from the southern portion of Redwood City on the north to the southern boundary of the City of Mountain View on the south (**Figure 1**). The water balance study was completed in November 2018 and encompassed the area of interest for this TM; this TM reviewed that study as described below.

City of Palo Alto (2018) Indirect Potable Reuse Study – Contemporary Water Balance

A contemporary water balance is presented in the City of Palo Alto/SCVWD study entitled, Groundwater Assessment, and Indirect Potable Reuse Feasibility Evaluation and Implementation Strategy, Northwest County Recycled Water Strategic Plan, dated November 2018 (referred to hereafter as Palo Alto IPR Study or IPR Study). The water balance represents annual flows under, "…*land and water use conditions*

of the past decade and averaged over a series of years when average rainfall equaled the long-term average." The study period of 1985 through 2014 was selected based on analysis of cumulative departure plots for annual rainfall at Redwood City and San Jose. A recharge simulation model was used to calculate certain components (rainfall and irrigation percolation) of the water balance. A total of 740 individual recharge zones were delineated based on intersection of the following variables: groundwater basins, watersheds, city boundaries, water purveyor service areas, wastewater collection areas, land use categories, and rainfall zones. Various other methods were used to calculate water balance components not estimated by the recharge simulation model (e.g., streamflow percolation, pipe leaks, bedrock inflow, groundwater pumping).

The following sections summarize water inflows and outflows from the Palo Alto IPR Study, which are then employed to evaluate the water balance components in the Stanford/Palo Alto study area that is the subject of this TM.

Inflows

Average annual inflows to the study area were estimated to be a total of 17,400 acre-feet per year (AFY) for the various recharge components. This estimate incorporates inflows from deep percolation, pipe leaks, stream percolation, and subsurface inflow.

Rainfall Percolation

Three land cover categories were mapped for rainfall percolation analysis: impervious, irrigated, non-irrigated. Rainfall infiltration into the soil was calculated by subtracting interception and runoff losses from rainfall. Impervious areas can either be "connected" – if runoff flows to a drainage system that removes it from the study area with little to no opportunity for infiltration – or "disconnected" – if runoff flows to adjacent pervious soils and largely infiltrates. Connected impervious areas decrease groundwater recharge, while disconnected impervious areas increase groundwater recharge. The Palo Alto IPR report stated, "*When simulated soil moisture exceeds the soil moisture storage capacity, the excess is assumed to become deep percolation, and all of the deep percolation was assumed to become groundwater recharge."* Average annual rainfall recharge on non-irrigated lands and from disconnected impervious areas was estimated to be 3,800 AFY. Recharge on irrigated lands within the Palo Alto IPR Study Area averaged 5,800 AFY, which derived from a combination of rainfall infiltration and deep percolation of irrigation water (described further below).

Irrigation Deep Percolation

An irrigation event is triggered in the recharge model when simulated soil moisture falls below a specified percentage. Irrigation efficiency was assumed to be 75% for residential and commercial land uses, and the other 25% of applied water was assumed to become deep percolation (10%) and runoff into storm drains (15%). Average annual irrigation was estimated to be 13,300 AFY, with approximately 2,000 AFY becoming deep percolation. Deep percolation is included in the 5,800 AFY of irrigated lands recharge described in the previous section.

Water and Sewer Pipe Leaks

Water system distribution system leakage was estimated based on recent updates to local Urban Water Management Plans (UWMPs). For those purveyors whose service areas intersected the Palo Alto IPR Study Area, estimated system leakage ranged from 0.5% to 4.4% of delivered water. Trees were assumed to intercept one-third of annual leakage, while the remainder became groundwater recharge. Average annual groundwater recharge from water pipe leaks in the Palo Alto IPR Study Area was estimated to be 1,800 AFY.

Sewer pipe leakage was estimated by first calculating indoor water use, where only 2% is consumed and the rest leaves as wastewater in drains. The rate of sewer pipe leakage was assumed to be half the water pipe leak rate. Average annual groundwater recharge from sewer pipe leaks in the Palo Alto IPR Study Area was estimated to be 400 AFY.

Streamflow Percolation

San Francisquito Creek has received the most study of all streams and creeks located in the water balance study area. Flow losses calculated along San Francisquito Creek in 2017 suggest that percolation conditions have not changed substantially over the past 20 years (since the US Geological Survey (USGS) 2002 study encompassing data from 1996-1997). As a result, the USGS estimated annual groundwater recharge from percolation along San Francisquito Creek was used in the water balance.

The amount of percolation for the remaining creeks in the Palo Alto IPR study area were estimated based on various methods depending on available data for each stream. Steven's Creek infiltration was estimated based on the SCVWD facility recharge database. Infiltration in other creeks was based on infiltration equaling the lesser of daily stream flow and percolation capacity. Percolation capacity rates for smaller streams were assumed to be 0.3 to 0.4 cubic feet per second (cfs) per mile based on previous SCVWD studies. The overall groundwater recharge from stream percolation was estimated to be 4,300 AFY.

Subsurface Inflow

Subsurface inflow was considered along the northwest, northeast, southeast, and southwest sides of the water balance study area. After a review of fall 2010 shallow and deep groundwater elevation contours, it was determined that there was little to no flow across the northwest boundary of the study area. A review of recent groundwater elevation contours determined that flow across the southeast study area boundary was close to zero. Shallow and deep groundwater level contours indicate flow along the northeast boundary is to the Bay. The southwest boundary of the study area is the contact between the unconsolidated alluvial deposits or semi-consolidated Santa Clara Formation and bedrock units, for which groundwater inflow (i.e., bedrock inflow) was estimated to be 900 AFY from fractured bedrock.

Table 1: Summary of Palo Alto IPR Study Area Recharge Components

Inflows	Average Annual (AFY)	Proportion of Total Recharge	Comments
Precipitation and Irrigation Recharge	9,600	55%	Based on soil moisture balance model. Results summarized in Figure 3-40 of IPR Report.
Stream Recharge	4,300	25%	Includes stream infiltration from 10 Creeks summarized in Table 3-11 of IPR Report.
Water Pipe Leaks	1,800	10%	Based on water pipe leak calculations summarized in Table 3-7 or IPR Report.
Sewer Pipe Leaks	400	2%	Based on sewer pipe leak calculations summarized in Table 3-8 or IPR Report.
Lake Lagunita Recharge	400	2%	Based on estimated recharge in Table 3-5 of IPR Report (uses data since 2002 only).
Bedrock Inflow	900	5%	Average annual total recharge (from recharge simulation model) in zones adjacent to basin but not near creeks.
Groundwater Inflow from Santa Clara Plain	0	0%	Based on groundwater elevation contour maps.
Groundwater Inflow from San Mateo Plain	0	0%	Based on groundwater elevation contour maps.
Recharge Total	17,400		

Outflows

Average outflows from the Palo Alto IRP Study area were estimated to be 17,400 AFY. This estimate incorporated groundwater discharges related to groundwater extraction, groundwater seepage, and subsurface outflow.

Groundwater Supply Pumping

In the Santa Clara Plain Subbasin, all groundwater pumpers are required to report their pumping amounts to the SCVWD. In the San Mateo Plain, groundwater pumping was estimated based on simulated annual applied irrigation water and estimates from previous studies. Estimates for groundwater supply pumping were provided in Table 3-12 with well locations shown in Figure 3-42 of the Palo Alto IPR Study. Review of IPR Figure 3-42 indicates irrigation pumping in the San Mateo Plain north of San Francisquito Creek and within the Stanford University area south of San Francisquito Creek, concentrated areas of domestic/irrigation pumping north of San Francisquito Creek with a significant number but sparser distribution of domestic irrigation wells south of San Francisquito Creek, and municipal/industrial pumping with two major pumpers in San Mateo Plain and numerous smaller pumpers in the Santa Clara Plain.

Groundwater supply pumping is divided into irrigation, domestic/irrigation, and municipal/industrial categories. Major individual groundwater supply pumpers for the San Mateo Plain portion of the IPR study area (i.e., north of San Francisquito Creek) included Palo Alto Park Mutual Water Company (523

AFY) and O'Connor Tract Cooperative Water Company (325 AFY) in the municipal/industrial category. Some of the major irrigation pumpers include: Menlo College (80 AFY), U.S. Veterans Administration Hospital (64 AFY), St. Patrick's Seminary (19 AFY), and USGS (11 AFY). Various user groups include Atherton homeowners' landscape irrigation (545 AFY), irrigation by residents near Atherton (190 AFY), landscape/athletic field irrigation for various institutions in Atherton (120 AFY), irrigation by cities or individuals in Santa Clara County by 19 wells (739 AFY), domestic/irrigation use by Santa Clara County homeowners from 191 wells (176 AFY), and municipal pumping by cities, purveyors, and remediation sites in Santa Clara County from 380 wells (2,715 AFY). Average annual groundwater supply pumping was estimated to be 5,500 AFY under current land use and water supply conditions.

Groundwater Remediation System Pumping

In the Santa Clara Plain Subbasin, remediation pumping is provided in the SCVWD's production data. In the San Mateo Plain Subbasin, remediation pumping was estimated from information on discharge permits. The total average annual groundwater remediation pumping was estimated to be 1,100 AFY, with the majority occurring within Santa Clara Subbasin.

Dewatering Pumping

Documentation of dewatering appeared to be more systematic and quantitative in Palo Alto than in other areas, where it appeared that dewatering was being underreported. As a result, dewatering pumping in San Mateo County and Mountain View was estimated as half the reported value in Palo Alto. Average annual dewatering pumping for the water balance study area was estimated to be 1,600 AFY.

Use of Groundwater by Riparian and Wetland Vegetation

The area of tree canopy along stream channels in the water balance study area was estimated based on review of aerial imagery. Consumptive use of groundwater was estimated based on the difference in simulated actual evapotranspiration (ET) under two hypothetical model scenarios: one in which the zone is completely non-irrigated and one in which the zone is completely irrigated. The average annual use of groundwater by riparian vegetation was estimated to be 500 AFY. ET needs of tidal wetlands are assumed to be met by Bay water.

Groundwater Discharge to Surface Waters

Groundwater in the water balance study area generally flows toward the Bay where the water table becomes increasingly shallow. Near the Bay, groundwater may seep into creek channels, sewers, and storm drains. While groundwater seepage into sanitary sewers can be estimated from available data, few data are available to quantify seepage to other pathways. The report stated that, "*Groundwater outflow to creeks, storm drains, tidal wetlands and subsurface flow toward Niles Cone were collectively estimated as the residual in the water balance Two-thirds of the estimate was assigned to discharge to creeks and storm drains, with the remaining third assigned to tidal wetlands and Niles Cone.*" Groundwater discharge to sewers was estimated as 2,000 AFY, while discharge to creeks and storm drains was estimated as 4,500 AFY.

Subsurface Outflow

As described previously, there is little to no subsurface flow along the northwest and southeast boundaries of the subbasin. There is no groundwater outflow along the southwest boundary as gradients are from the bedrock uplands toward the groundwater subbasins. Subsurface outflow probably occurs along the northeast boundary, and this outflow was assigned one-third of the residual in the water balance (2,200 AFY), while the remaining two-thirds was assigned to groundwater discharge into creeks and storm drains.

Table 2: Summary of Palo Alto IPR Study Area Discharge Components

Inflows	Average Annual (AFY)	Proportion of Total Discharge	Comments
Water Supply Well Pumping	5,500	32%	Based upon estimated domestic/irrigation and municipal/industrial pumping summarized on Figure 3-42 and Table 3-12 of IPR Report. .
Remediation Well Pumping	1,100	6%	Estimate from Santa Clara County pumping records (1,027 AFY) and small amount for San Mateo Plain area.
Dewatering Well Pumping	1,600	9%	Calculated from detailed City of Palo records with proportional estimates for remaining areas.
Riparian/Wetland ET	500	3%	Includes riparian ET from 10 Creeks listed in Table 3-13 of IPR Report.
Seepage to Sanitary Sewers	2,000	11.5%	Estimates for three wastewater treatment plants/pump stations summarized in Figure 3-44 of IPR Report.
Seepage to Creeks/Storm Drains	4,500	26%	Two-thirds of water balance residual per IPR Report.
Outflow to SF Bay	2,200	12.5%	One-third of water balance residual per IPR Report.
Discharge Total	17,400		

Change in Storage

Average annual change in storage is assumed to be zero in the water balance. This conclusion is supported by groundwater levels, as levels in the water balance study area have not exhibited long-term upward or downward trends in the past 20 years.

Water Balance Summary, Uncertainty, and Variability

The Palo Alto IPR Study indicates the major sources of recharge are dispersed recharge from rainfall and irrigation (55% of total recharge), percolation from creeks (25%), and pipe leaks (13%). The major outflows are pumping at wells (47% of total discharge), seepage into creeks and storm drains (26%), subsurface flow to San Francisco Bay and Niles Cone (13 %), and seepage into sanitary sewers (11%). Certain water balance parameters (such as those dependent on rainfall) can vary dramatically from year to year. There is uncertainty in the estimates for most water budget items; in some cases, the estimated

value may have an uncertainty as large as +/- 50 percent. These uncertainties are consistent with the current state of the art and standard hydrogeologic practice. Given that the water balance study period had relatively steady water levels and no significant change in storage; uncertainties tend to be reduced in that individual uncertainties in recharge components would likely offset one another. Since discharge must equal recharge (since groundwater storage change is zero) and groundwater pumping in this water balance generally has less uncertainty than most other water balance components, the overall uncertainty in this water balance is likely less than may typically be the case.

Stanford/Palo Alto Area Water Balance

The water balance from the Palo Alto IPR Study provides a sound basis for quantifying the water balance for the Stanford/Palo Alto area as examined in this TM (TM Study Area). The service areas for Stanford University and City of Palo Alto comprise the TM Study Area for the water balance discussed below (**Figure 2**). The larger Palo Alto IPR Study covered the area from the southern portion of Redwood City in the north to the southern edge of Mountain View in the south, which includes the southernmost portion of the San Mateo Plain Groundwater Subbasin and the northernmost portion of the Santa Clara Plain Groundwater Subbasin. This TM Study Area includes approximately the middle one-third of the Palo Alto IPR Study area, with San Francisquito Creek (and the County line) as the northern boundary and the southern edge of the City of Palo Alto service area as the southern boundary (**Figure 2**). Quantification of the recharge and discharge components of the water balance for this TM were primarily based upon information provided in the Palo Alto IPR report and are discussed below in the context of past, current, and future scenarios of groundwater pumping by Stanford.

Recharge Components

One of the major recharge components is deep percolation through soils, which includes three components: rainfall-runoff on impervious areas, rainfall on nonirrigated areas, and irrigated areas. The total amount of recharge from these three components in the Palo Alto IPR report was 9,600 AFY, of which 2,600 AFY occurs within the Stanford/Palo Alto TM Study Area. The amount allocated for the TM Study Area was determined by evaluation of the dispersed recharge occurring within the Stanford University and Palo Alto areas as shown on Palo Alto IPR report Figure 3-40. This information is presented for the Stanford/Palo Alto Study Area in **Figure 3**.

A second major component of recharge is stream percolation, which includes a total of 4,300 AFY in the Palo Alto IPR Study area. The total amount of stream percolation occurring within the TM Study Area is estimated to be 1,400 AFY out of the 4,300 AFY estimated for the larger IPR area. The amount of stream percolation within the TM Study Area was calculated as half of the San Francisquito Creek recharge (northern boundary of TM Study Area, 100% of the stream percolation from Matadero and Barron Creeks (within the TM Study Area), and half of the stream percolation from Adobe Creek (on southern boundary of TM Study Area). The locations of the creeks occurring within the Stanford/Palo Alto TM Study Area are shown in **Figure 4**.

A third major component of recharge is leaks from water and sewer pipes. The total amount of pipe leaks estimated for the Palo Alto IPR Study area is 2,200 AFY. Based on Table 3-11 of the IPR report, the

total amount of water pipe leakage for Stanford and City of Palo Alto is approximately 650 AFY and total sewer pipe leakage is about 150 AFY; thus, a total pipe leakage of 800 AFY was estimated for the TM Study Area.

A fourth component of recharge specific to the Stanford portion of the TM Study Area is recharge from Lake Lagunita. The IPR report estimated 400 AFY of recharge from Lake Lagunita based on data since 2002. Available data from Stanford University indicates this value is too high, and that a more representative value for Lake Lagunita recharge is likely on the order of 200 AFY.

A fifth component of recharge is inflow to the TM Study Area from fractured bedrock adjacent to the west of the TM Study Area. A total estimate of 250 AFY is occurring into the TM Study Area out of a total of 900 AFY for the entire IPR area provided in Table 3-5 of the IPR report. The estimate of 250 AFY was obtained based on the length of the mountain front bordering the Stanford/Palo Alto TM Study Area relative to the length of the mountain from bordering the IPR area. The estimate of inflow from fractured bedrock in the Palo Alto IPR Study (and therefore, the TM Study area as well) may be an underestimate; however, it is utilized as a conservative estimate for the purposes of the TM Study Area water balance.

Overall, the recharge components to the Stanford/Palo Alto TM Study Area amount to 5,250 AFY as summarized in **Table 3**.

Table 3: Summary of Stanford/Palo Alto Study Area Recharge Components

Inflows	Average Annual	Proportion of IPR Amount	Comments
Precipitation and Irrigation Recharge	2,600	27%	Based on soil moisture balance model used in Palo Alto IPR Study. Includes dispersed recharge for Stanford/Palo Alto service areas from Figure 3-40 of IPR Report.
Stream Recharge	1,400	33%	Includes 50% of stream infiltration from San Francisquito and Adobe Creeks, and 100% of stream infiltration from Matadero and Barron Creeks from Table 3-11 of IPR Report.
Water Pipe Leaks	650	36%	Based on water pipe leak calculations for Stanford and Palo Alto in Table 3-7 or IPR Report.
Sewer Pipe Leaks	150	37.5%	Based on sewer pipe leak calculations for Stanford and Palo Alto in Table 3-8 of IPR Report.
Lake Lagunita Recharge	200	50%	Based on estimated recharge in Table 3-5 of IPR Report, corrected using Stanford data for minimum lake recharge.
Bedrock Inflow	250	28%	Based on the amount estimate in Table 3-5 of IPR Report (900 AFY) prorated to the distance along the western boundary of the Stanford/Palo Alto study area.
Recharge Total	5,250	30%	

Discharge Components

The groundwater pumping components are divided into three categories: water supply pumping, remediation well pumping, and dewatering well pumping. The locations and amounts of water supply pumping were provided in the IPR report, and pumping well locations for the Stanford/Palo Alto TM Study Area are summarized in **Figure 5**. The information provided in **Figure 5** was used to estimate groundwater pumping in the TM Study Area. The map information is summarized in **Table 4** using the mid-point of each pumping range. The results summarized in **Table 4** indicate 550 AFY of domestic/irrigation pumping and 500 AFY of municipal/industrial pumping. The irrigation pumping at Stanford University was estimated to be 800 AFY for the 2005-2014 time period based on information provided in the Palo Alto IPR Report; however, specific information available from Stanford University indicates the actual pumping over this time period averaged 450 AFY. Thus, the total irrigation pumping was adjusted to include actual Stanford University well pumping amounts, resulting in total irrigation pumping of 500 AFY. Based upon review of this information, the total water supply pumping within the Stanford University and City of Palo Alto area is estimated to be 1,550 AFY.

Table 4: Groundwater Supply Pumping for Stanford/Palo Alto Study Area

Individual Well Pumping Amount (AFY)	Domestic / Irrigation Pumping (AFY)	Municipal / Industrial Pumping (AFY)	Palo Alto Irrigation Pumping (AFY)	Stanford Irrigation Pumping[1] (AFY)	Total Pumping (AFY)
0-8	515	250	15	NA	NA
9-56	35	130	35	NA	NA
57-187	0	120	0	NA	NA
Total	550	500	50	450	1,550

[1] The IPR Report appears to overestimate total Stanford pumping, and meter records from Stanford were used instead of information provided n the IPR Report.

The IPR report estimates about 1,000 AFY of remediation pumping in the Santa Clara County portion of the IPR area, of which 500 AFY is estimated to occur within the Stanford University and City of Palo Alto TM Study Area. Pumping for dewatering is well quantified in the City of Palo Alto at 800 AFY, and dewatering well locations derived from the Palo Alto IPR report are shown in **Figure 6**.

Riparian/wetland ET was quantified in the IPR Report for the various creeks in the IPR Study area. Review of this information included in Figure 3-43 of the IPR report indicates that an estimated 250 AFY occurs within the TM Study Area. Seepage to sanitary sewers is quantified in Figure 3-44 of the IPR report; the total occurring within the TM Study Area was estimated at 1,450 AFY. The residual of the water balance (i.e., recharge – discharge = 0) is 700 AFY, which is proportioned as 450 AFY for seepage to creeks/storm drains and 250 AFY as outflow to San Francisco Bay.

Overall, the discharge components to the Stanford/Palo Alto TM Study Area amount to 5,250 AFY as summarized in **Table 5**.

Table 5: Summary of Stanford/Palo Alto TM Study Area Discharge Components

Inflows	Average Annual	Proportion of IPR Amount	Comments
Water Supply Well Pumping	1,550	28%	Based upon estimated domestic/irrigation and municipal/industrial pumping within Stanford/Palo Alto TM Study Area shown on Figure 3-42 of IPR Report. Stanford Irrigation pumping based on actual 2005-2014 records.
Remediation Well Pumping	500	45%	Assumed to be approximately 50% of total remediation pumping in Santa Clara Plain.
Dewatering Well Pumping	800	50%	Based on data collected for 2016 in Palo Alto, as shown on Figure 3-43 of IPR Report.
Riparian/Wetland ET	250	50%	Includes 50% of riparian ET from San Francisquito and Adobe Creeks, and 100% of riparian ET from Matadero and Barron Creeks from Table 3-13 of IPR Report.
Seepage to Sanitary Sewers	1,450	73%	Includes Palo Alto portion from Figure 3-44 of IPR Report.
Seepage to Creeks/Storm Drains	450	10%	Two-thirds of water balance residual per IPR Report.
Outflow to SF Bay	250	11%	One-third of water balance residual per IPR Report.
Discharge Totals	5,250	30%	

Review of the water balance for the Stanford/Palo Alto TM Study Area indicates that water supply pumping constitutes only about 30% of local recharge sources. Excess water in the TM Study Area is discharged primarily through dewatering pumping, seepage of sanitary sewers, and seepage to creeks/storm drains. The combined discharges of excess recharge water amount to 2,700 AFY, which equals 51% of the 5,250 AFY recharge total. Notably, the current study incudes no water balance contributions from Valley Water recharge facilities because there are no hydraulic relationships to Valley Water recharge facility areas as indicated through the groundwater level fluctuations analysis discussed below. Thus, the local water balance shows no deficit that might otherwise be allocated to Valley Water recharge activities.

The water balance for the Stanford/Palo Alto area demonstrates that water supply pumping could likely increase from current levels and remain within the sustainable pumping amount based on local recharge sources. An increase in water supply pumping would be balanced by corresponding reductions in groundwater discharges to dewatering pumping, seepage of sanitary sewers, and seepage to creeks/storm drains, thereby providing ancillary benefits in terms of less need for dewatering pumping and less inflow to wastewater treatment plants. There would likely be no measurable impact outside of the area since pumping in this area simply intercepts local recharge while reducing discharge components that ultimately reach the Bay.

EVALUATION OF GROUNDWATER LEVEL FLUCTUATIONS

Groundwater level fluctuations were evaluated for several wells with relatively long periods of records to identify the extent of influences from historic water supply measures to alleviate over pumping in the Santa Clara Valley. The locations of these wells range from the Stanford University/City of Palo Alto TM Study Area on the north to the City of San Jose on the south (**Figure 7**). In the area of Stanford University and City of Palo Alto, there was a regional trend of increasing groundwater levels from 1962 to 1984 that resulted from greatly decreased pumping by Palo Alto/Stanford between 1962 (in excess of 8,000 AFY) and 1974 (less than 1,000 AFY) as a result of importation and use of SFPUC surface water as the primary source of water supply to northern Santa Clara County. More regionally (south of Stanford/Palo Alto to San Jose), importation of surface water supplies by Valley Water starting in 1965 (State Water Project) and then additional imported surface water supplies by Valley Water starting in 1987 (San Felipe Project) resulted in recovery of groundwater levels, particularly in areas centered around San Jose where over pumping induced significant subsidence and seawater intrusion up to the 1960s.

Groundwater hydrographs provide demonstrable evidence of recovery in specific locations in response to surface water availability at initiation of the three major imported water projects: 1) SFPUC Hetch Hetchy surface water in the northern portion of the subbasin in 1962, 2) State Water Project (SWP) surface water for the southern portion of the basin in 1965, and 3) Central Valley Project (CVP) San Felipe Division surface water for the southern portion of the subbasin beginning in 1987. These projects were implemented to address chronic water shortages throughout the Bay Area dating from the early 1900s. Notably, declining water levels due to over pumping in northern Santa Clara County, including the Stanford/Palo Alto area, were reversed after connecting to the Hetch Hetchy source when other options, such as a cross-valley pipeline, were not undertaken by Santa Clara Valley Water District.

Hydrographs

Figures 8 and **9** present groundwater level hydrographs and well locations to interpret and distinguish changes in groundwater conditions in response to the water importation events cited above. The base map shows geologic units of the Santa Clara Plain Groundwater Basin, which consist of an unconfined zone in the western portion of the basin, where natural recharge most readily enters the aquifer system, and a confined unit that occurs in the central portion of the basin. In the western unconfined zone, the base map shows where natural recharge is augmented through instream and artificial (e.g., via ponds and channels) recharge activities by Valley Water. These District activities occur several miles south of the Stanford/Palo Alto area.

Figure 8 shows that these wells in the Stanford/Palo Alto area (Stanford/Palo Alto shown in red/orange lines; 7D10 and 19G1 shown in blue lines) responded quickly in terms of rising groundwater levels to a significant increase in the use of SFPUC surface water in the area as of 1962. These wells did not show any response to Valley Water importation of surface water from the SWP in 1965 or from Valley Water importation of surface water from the Federal CVP San Felipe Division in 1987. Referring to **Figure 8**, four wells in the Santa Clara/San Jose area (6D01/1H01/2G01/9G11 shown in blue lines) do not show a response to importation/use of SFPUC surface water in 1962, but do show a response to Valley Water's importation of SWP water after 1965. There are also notable differences in responses of the various

wells to the beginning of importation and use of CVP (San Felipe) water in 1987. Wells 6D01 and 1H01 show an elevation increase of about 50 feet for seasonal highs after start of the San Felipe project in 1987. Wells 2G01 and 9G11 show an elevation increase of about 25 feet for seasonal highs after start of the San Felipe project in 1987. The Stanford/Palo Alto wells (red/orange lines) show no response to San Felipe surface water while the Santa Clara/San Jose wells show a significant response to San Felipe water.

Referring to **Figure 8** showing two wells in the Sunnyvale area (29Q02/23Q02), there is a clear difference in response to SFPUC water importation starting in 1962 vs. SWP water importation starting in 1965. The two Sunnyvale area wells show a response only after initiation of SWP water importation, whereas Stanford/Palo Alto wells show an immediate response to SFPUC water importation. Wells 21A01 and 29F02 (located about six miles southeast of Stanford) show a response to San Felipe water importation in the early 1990s after the drought ended. There is a net gain of approximately 25 feet for seasonal highs in wells 21A01 and 29F02 after initiation of the San Felipe project.

Hydrographs for additional CASGEM wells are displayed in **Figure 9**. This set of wells shows similar responses to water importation events to the wells displayed in **Figure 8**. Wells 5F05 and 18J01 (blue lines) and Stanford/Palo Alto wells (red/orange lines) in the northern portion of the subbasin show no response to SCVWD surface water importation events, whereas wells further to the south (e.g., 24C09, 34B06, 26P02, and 35L01 shown in blue lines) do show responses to SCVWD surface water importation events.

Review of these hydrographs clearly show significant differences in groundwater level responses to three different surface water importation projects. Wells in the Stanford/Palo Alto TM Study Area only show responses to the 1962 SFPUC surface water importation event, and not the 1965 or 1987 SCVWD surface water importation event. Alternatively, hydrographs for wells to the south of Stanford/Palo Alto show water level responses to the SCVWD surface water importation events of 1965 and 1987, but these wells show no response to the SFPUC surface water importation event of 1962.

DISCUSSION

The ZOB study prepared by Montgomery for Valley Water utilizes the overall Santa Clara Plain Subbasin water balance and an evaluation of local groundwater level fluctuations as the primary justification for including Stanford University within the ZOB (Montgomery & Associates, August 2019). LSCE commented previously on our concerns with the lack of technical justification for including Stanford University within the ZOB from SCVWD activities (e.g., Stanford University, May 11, 2018; LSCE, June 28, 2019 and October 7, 2019). Therefore, this current study was undertaken to evaluate the local water balance for the Stanford area (not done in the Valley Water ZOB Study) and to evaluate groundwater level fluctuations in a manner that reflects the impact of the three primary surface water importation projects conducted in the groundwater basin since the 1960s.

The water balance evaluation presented in this TM relies on detailed water balance data specific to the Stanford University/City of Palo Alto TM Study Area from a recent report prepared for Valley Water and

the City of Palo Alto (Woodard & Curran and Todd Groundwater, November 2018). Information from this report was previously cited by Valley Water/Montgomery in response to one of our comment letters on the ZOB study. As described in this TM, the sources and overall amount of groundwater recharge to the Stanford/Palo Alto TM Study Area far exceed the amount of groundwater supply pumping conducted by Stanford and Palo Alto (and others). Groundwater recharge from local sources alone totals 5,250 AFY on an average annual basis, while total groundwater supply pumping within the Stanford/Palo Alto TM Study Area (this includes pumping by Stanford University, City of Palo Alto, and all other water supply pumping sources) amounts to 1,545 AFY (see Water Supply Pumping in **Table 5**). The amount of recharge in the TM Study Area, combined with the use of SFPUC surface water supplies in the TM Study Area, have resulted in a local water balance that supports past and potentially greater groundwater pumping by Stanford University.

The groundwater level fluctuation analysis conducted for the Stanford/Palo Alto area in the Valley Water ZOB study is flawed for the reasons outlined in our previous comment letters. In summary, the analysis in the ZOB study relied on time periods that were either impacted by ongoing residual recovery in groundwater levels from major historical changes (reductions) in local groundwater pumping, or utilizes time periods with insufficient groundwater level data. A different and more useful type of groundwater level fluctuation analysis was conducted for this TM by reviewing patterns of groundwater level fluctuations for a number of wells with long-term records compared to the implementation of the three major surface water importation events in the groundwater basin. Groundwater level fluctuations in a series of wells spanning from Stanford/Palo Alto in the north to San Jose in the south were examined relative to importation of SFPUC surface water in the North County in 1962, importation of State Project water by Valley Water in 1965, and importation of Federal San Felipe water by Valley Water in 1987.

As described in this TM, the North County (i.e., Stanford University and City of Palo Alto) wells already responded to the 1962 SFPUC event while recovery of groundwater levels in wells farther south did not begin until the 1965 Valley Water surface water importation event. In addition, while North County wells showed no response to the 1987 Valley Water importation event, wells farther south showed a distinct response to the 1987 event. Therefore, the groundwater level fluctuation analysis presented in this TM demonstrates that the North County area is not receiving benefits from Valley Water recharge facilities/activities. Furthermore, the issue of low groundwater levels that existed in the Stanford/Palo Alto area prior to 1962 was mitigated and solved solely by additional surface water supplies obtained from SFPUC beginning in 1962.

Stanford and Palo Alto overlie the San Francisquito Creek alluvial fan physiographic unit, also termed the San Francisquito Cone. The alluvial fan is comprised of distinct coarse-grained deposits that have been historically tapped by Stanford University and City of Palo Alto to develop high-yielding water supply wells. Up to the 1960s, groundwater levels declined to nearly 150 feet below sea level in response to greater pumping demand due to population growth in the post-World War II period. Despite groundwater level declines that were similar to those in the south around San Jose, the San Francisquito fan experienced no seawater intrusion nor was there significant measured subsidence, further

demonstrating the distinct hydrogeology in the area. Wells drilled on the southern margins of the San Francisquito Creek alluvial fan, and farther from the present-day San Francisquito Creek alignment, exhibit significantly lower well yields and poor groundwater quality indicating a transition to less favorable aquifer and groundwater conditions. Further south along the peninsula to San Jose, alluvial fans containing permeable coarse-grained deposits are derived from other creeks that are distinct from the San Francisquito unit both in their historical groundwater level fluctuations and the occurrence of seawater intrusion and subsidence. The distinct hydrogeology of the San Francisquito fan and its intervening zone of lower permeability materials to the south is demonstrated through the groundwater level fluctuation analysis described in this TM. In particular, the intervening zone of lower permeability aquifer sediments (located in between major alluvial fans) that occurs between the locations of Valley Water facilities to the south and the Stanford area to the north, along with the distance between them, hydraulically isolates Valley Water activities from the Stanford area.

The information presented in this TM clearly demonstrates that the Stanford/Palo Alto area does not benefit from Valley Water activities and does not need benefits from Valley Water activities because the Stanford/Palo Alto area addressed groundwater replenishment through the use of SFPUC surface water. Furthermore, the use of SFPUC surface water by the North County area is an unrecognized benefit to the groundwater basin. If North County water purveyors had not paid to bring in and serve SFPUC surface water as of 1962, Valley Water would have needed to construct additional facilities to sustain groundwater levels in the North County area. It should be pointed out that no component from recharge activities to the south is required to produce a reasonable water budget for the Stanford/Palo Alto area, nor is there support from the groundwater level fluctuation analysis for Valley Water benefits to the north county area. This is contrary to the conclusions put forth by Montgomery & Associates in their ZOB Study that the Stanford/Palo Alto area receives a benefit from Valley Water activities.

CONCLUSIONS

The North County area solved its water supply needs and groundwater replenishment concerns in 1962 when it made arrangements with SFPUC to have virtually all of its water supply provided by surface water imported from the Hetch Hetchy reservoir. Furthermore, this TM clearly demonstrates, based on the local North County water balance and local vs. regional groundwater level fluctuations, that the Stanford/Palo Alto area does not benefit from SCVWD activities in any meaningful or discernable way. The north county agencies, which have incorporated the Hetch Hetchy source to mitigate historic water level declines, would benefit through autonomous groundwater management and pumping strategies that provide local resource conservation. This approach is impeded by the financial burden of the District fees for benefits that do not accrue in the North County area.

REFERENCES

City of Palo Alto, July 20, 2019, Letter to Mr. George Cook of Valley Water.

Hydrometrics, October 2017, *Draft Preliminary Groundwater Zones of Benefit Study, Santa Clara County*, California, prepared for Santa Clara Valley Water District.

Montgomery & Associates, April 2019, *Draft Preliminary Groundwater Benefit Zones Study, Santa Clara County, California*, prepared for Santa Clara Valley Water District.

Montgomery & Associates, August 2019, *Draft Preliminary Groundwater Benefit Zone Study, Santa Clara County, California*, prepared for Santa Clara Valley Water District.

Stanford University, March 23, 2018, *Zones of Benefit Study* (letter to SCVWD requesting model documentation/files and other information related to Zones of Benefit Study).

Stanford University, May 11, 2018, *Zones of Benefit Study – Stanford Comments* (includes LSCE, May 7, 2018, *Preliminary Review Comments on SCVWD Zone of Benefits Study*, prepared for Stanford University.

LSCE, June 28, 2019, *LSCE Responses to Letter from SCVWD and Montgomery & Associates, Dated November 20, 2018 (SCVWD) and October 26, Montgomery & Associates) and LSCE Comments on Revised Draft Report Dated April 2019*, prepared for Stanford University.

LSCE, October 7, 2019, *Preliminary Responses to Valley Water Letter Dated September 24, 2019*, prepared for Stanford University.

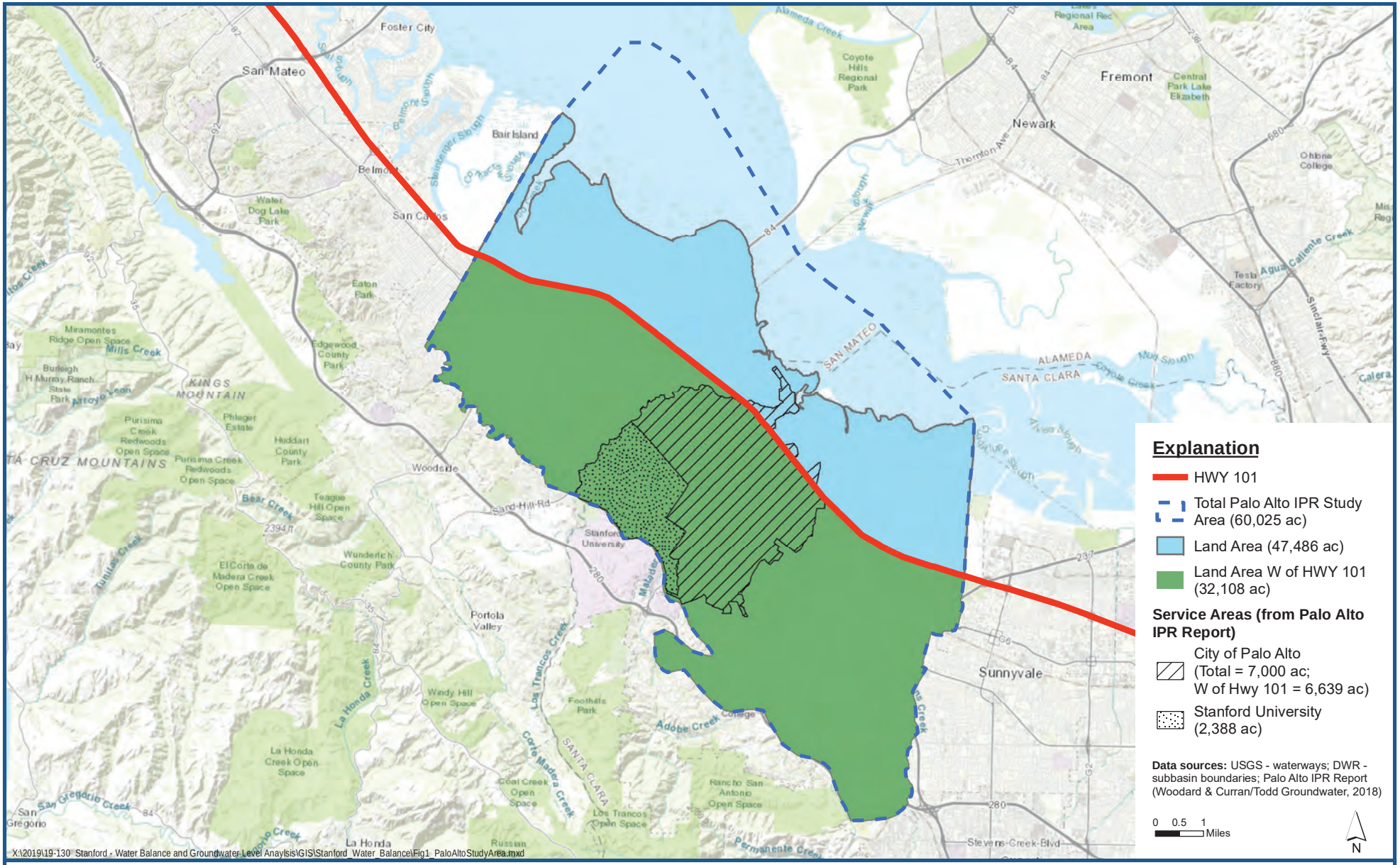
Valley Water, November 20, 2018, *Response to Stanford Comments on Preliminary Groundwater Benefit Zone Study Report* (includes Montgomery & Associates, October 26, 2018, *Stanford University Comments on Preliminary Groundwater Zone of Benefit Study for Santa Clara Valley Water District*).

Valley Water, August 21, 2019, *Response to Stanford Comments on Preliminary Groundwater Benefit Zone Study Report* (includes Montgomery & Associates, August 16, 2019, *Stanford University Responses and Comments Re: Groundwater Benefit Zone Study for Santa Clara Valley Water District*).

Woodard & Curran and Todd Groundwater, November 2018, *Final, Groundwater Assessment, and Indirect Potable Reuse Feasibility Evaluation and Implementation Strategy, Northwest County recycled Water Strategic Plan*, prepared for City of Palo Alto and Santa Clara Valley Water District.

List of Tables

List of Figures

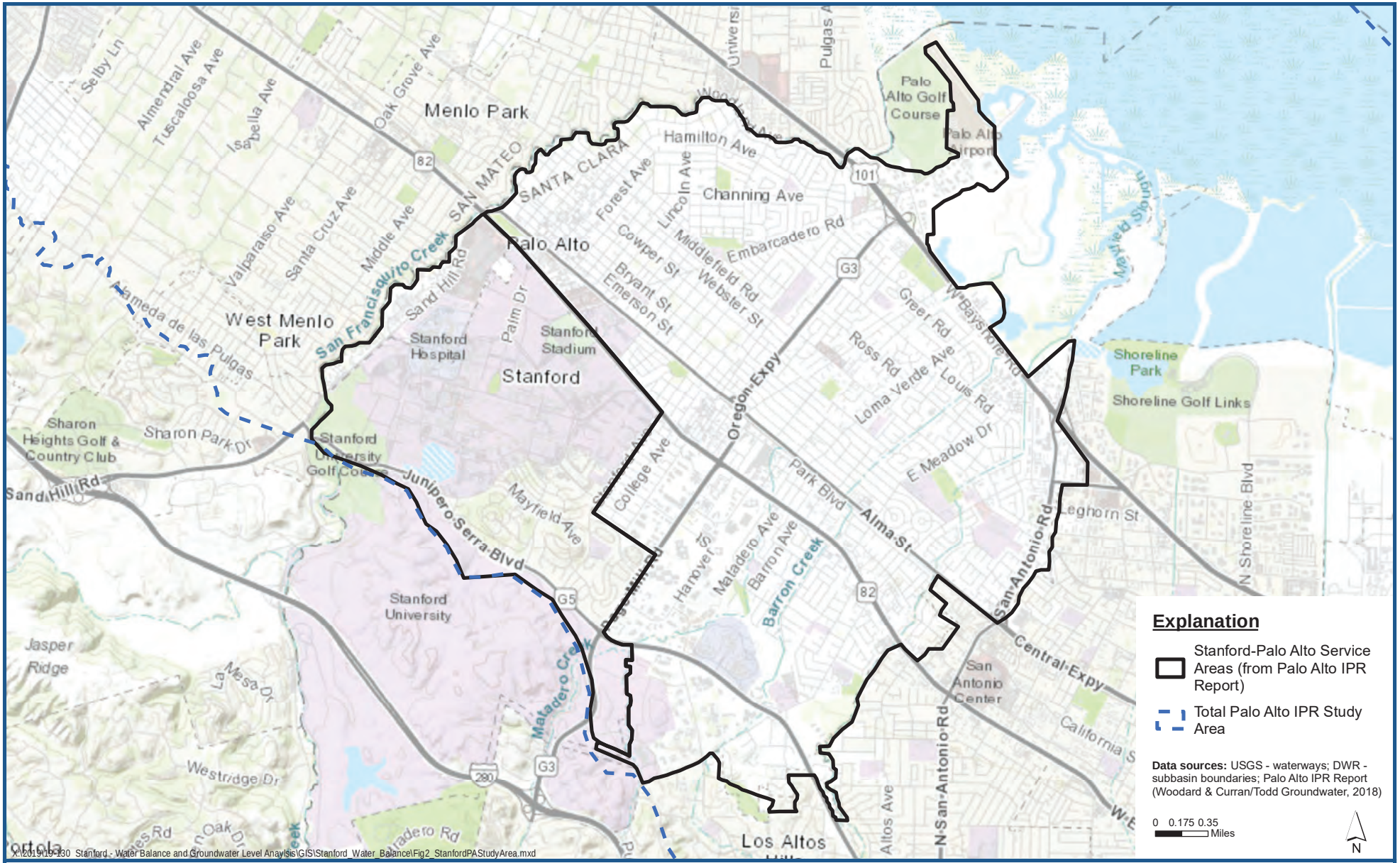


Luhdorff & Scalmanini
Consulting Engineers

Palo Alto IPR Report Study Area

Stanford Water Balance and Groundwater Level Analysis

Figure 1



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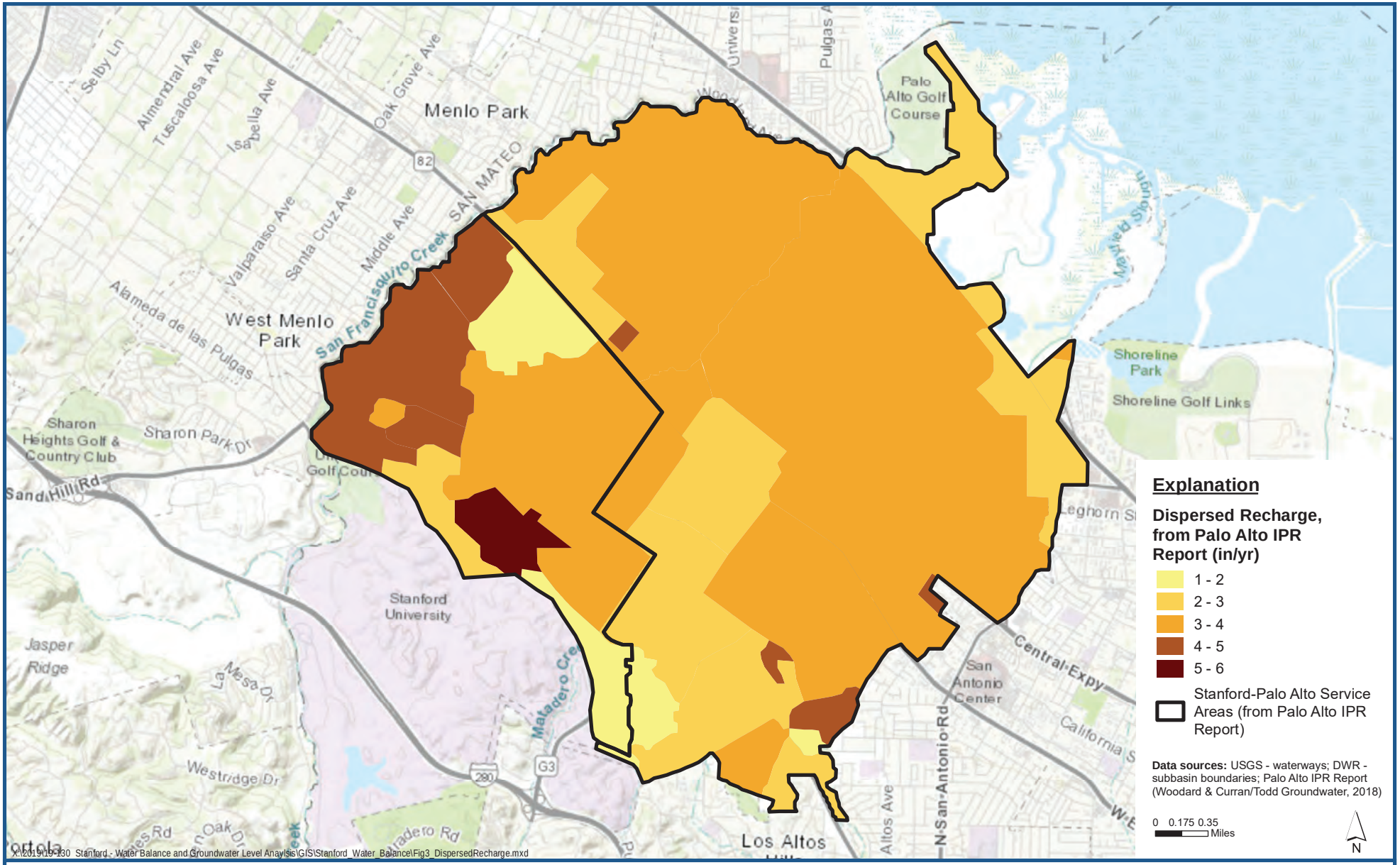
Luhdorff & Scalmanini
Consulting Engineers

Stanford & Palo Alto Study Area

Stanford Water Balance and Groundwater Level Analysis

Figure 2

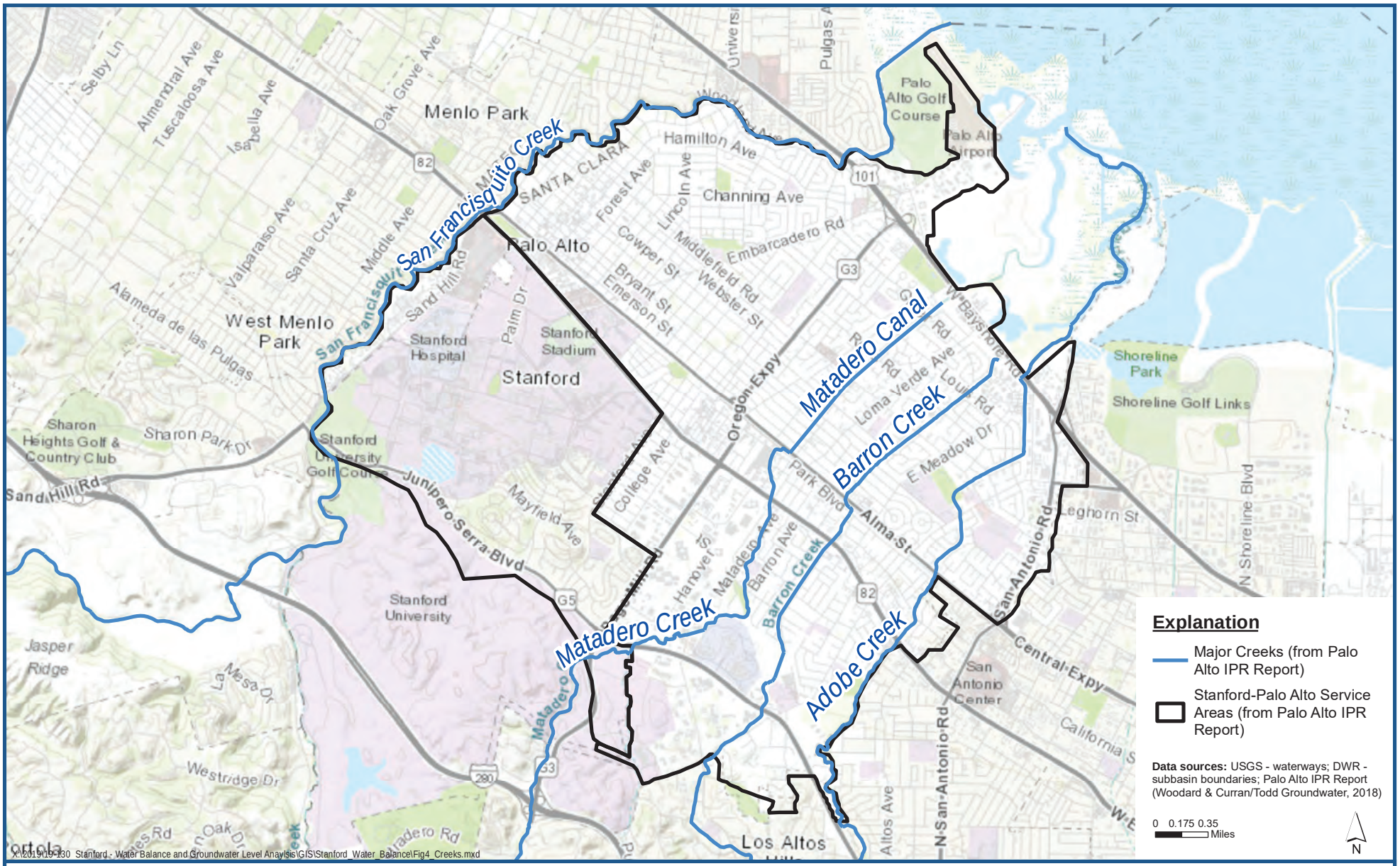


Luhdorff & Scalmanini
Consulting Engineers

Dispersed Recharge (in/yr)

Stanford Water Balance and Groundwater Level Analysis

Figure 3



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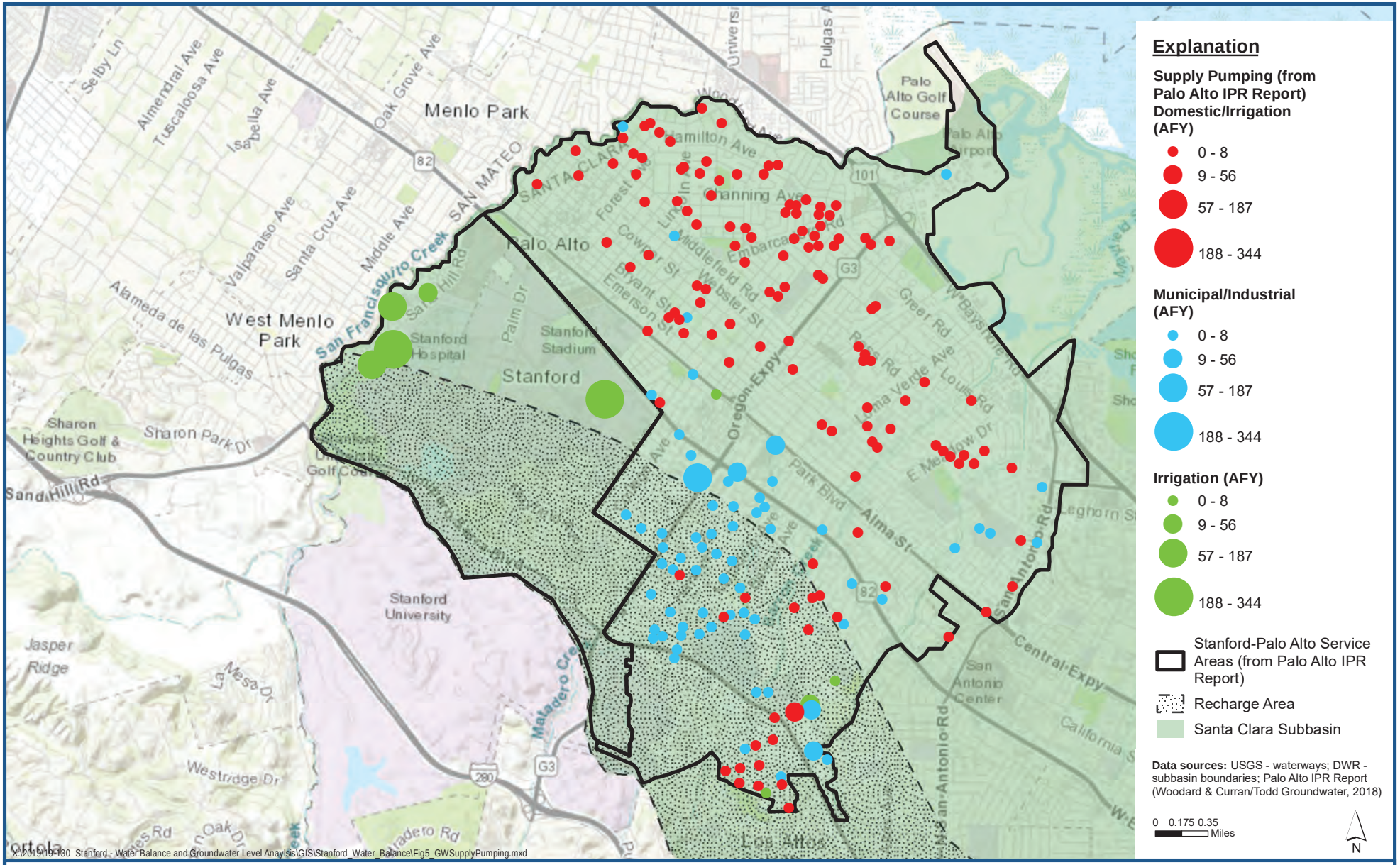
Consulting Engineers

Creeks with Stream Infiltration Estimates

Stanford Water Balance
and Groundwater Level Analysis

Figure 4

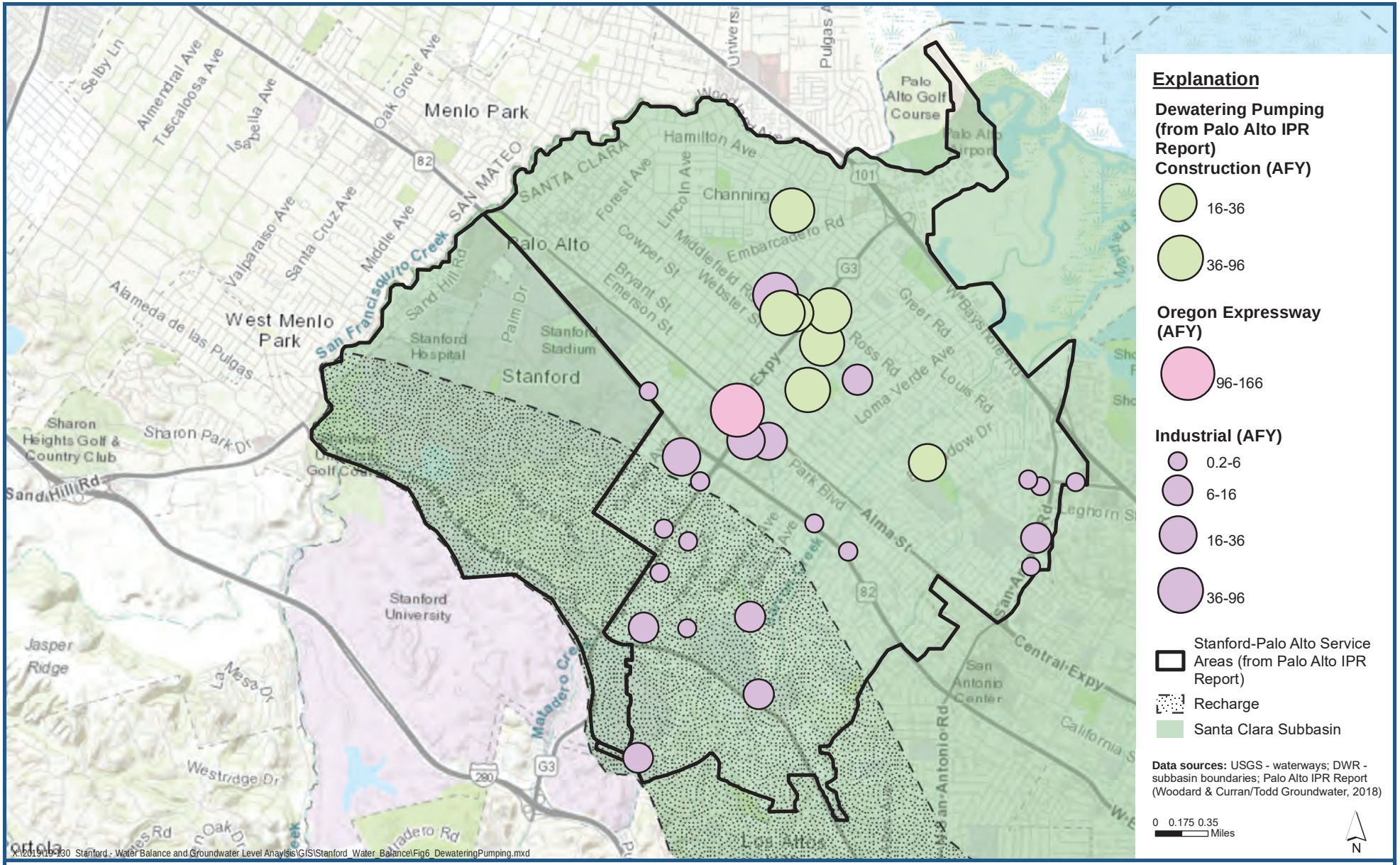


Luhdorff & Scalmanini
Consulting Engineers

Water Supply Pumping, 2005-2014

Stanford Water Balance and Groundwater Level Analysis

Figure 5



Luhdorff & Scalmanini
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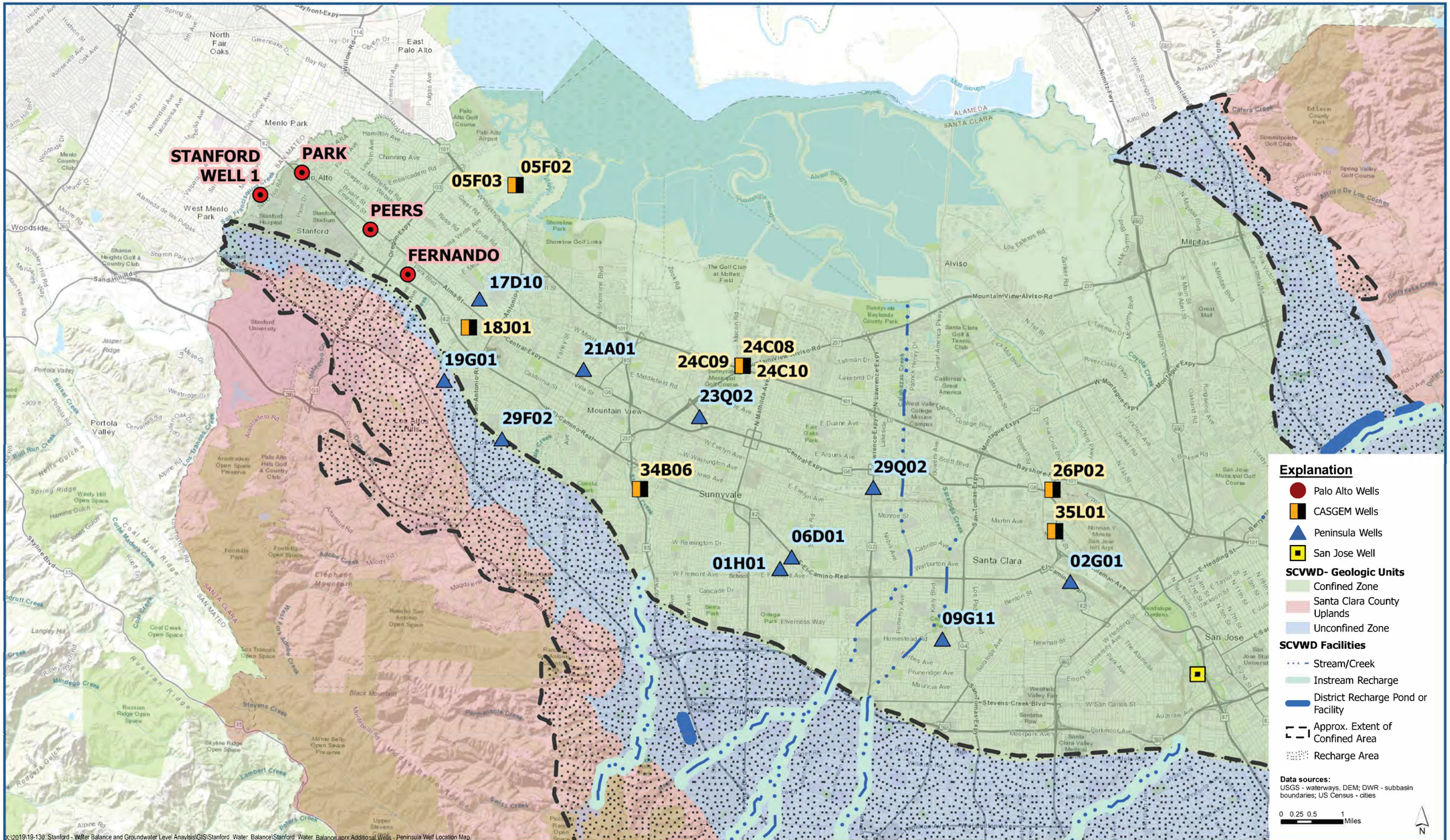
Dewatering Pumping, 2016

Stanford Water Balance and Groundwater Level Analysis

Figure 6



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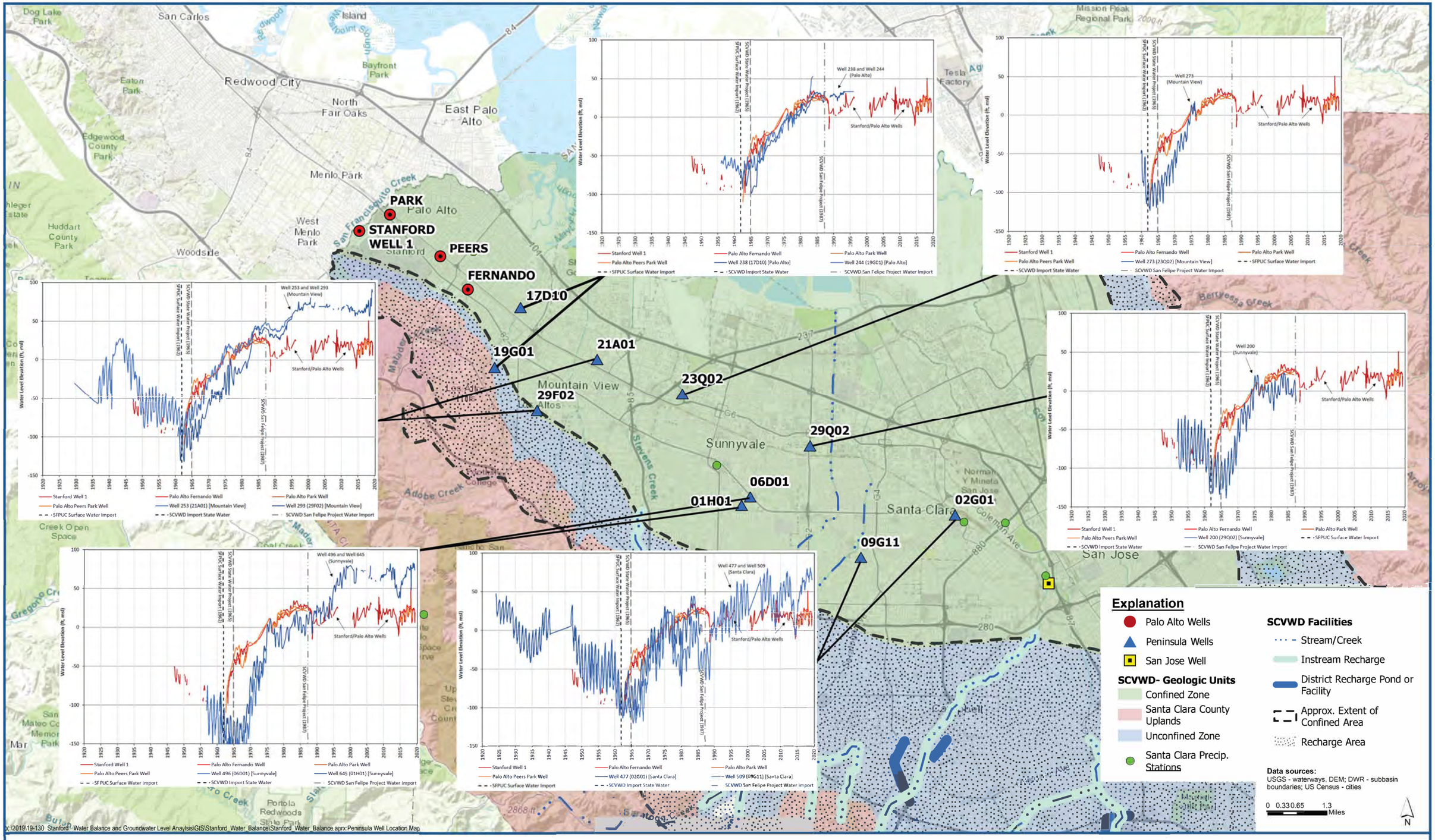
Peninsula Well Location Map with Hydrographs (Including CASGEM Wells)

Figure 7

Stanford Water Balance and Groundwater Level Analysis



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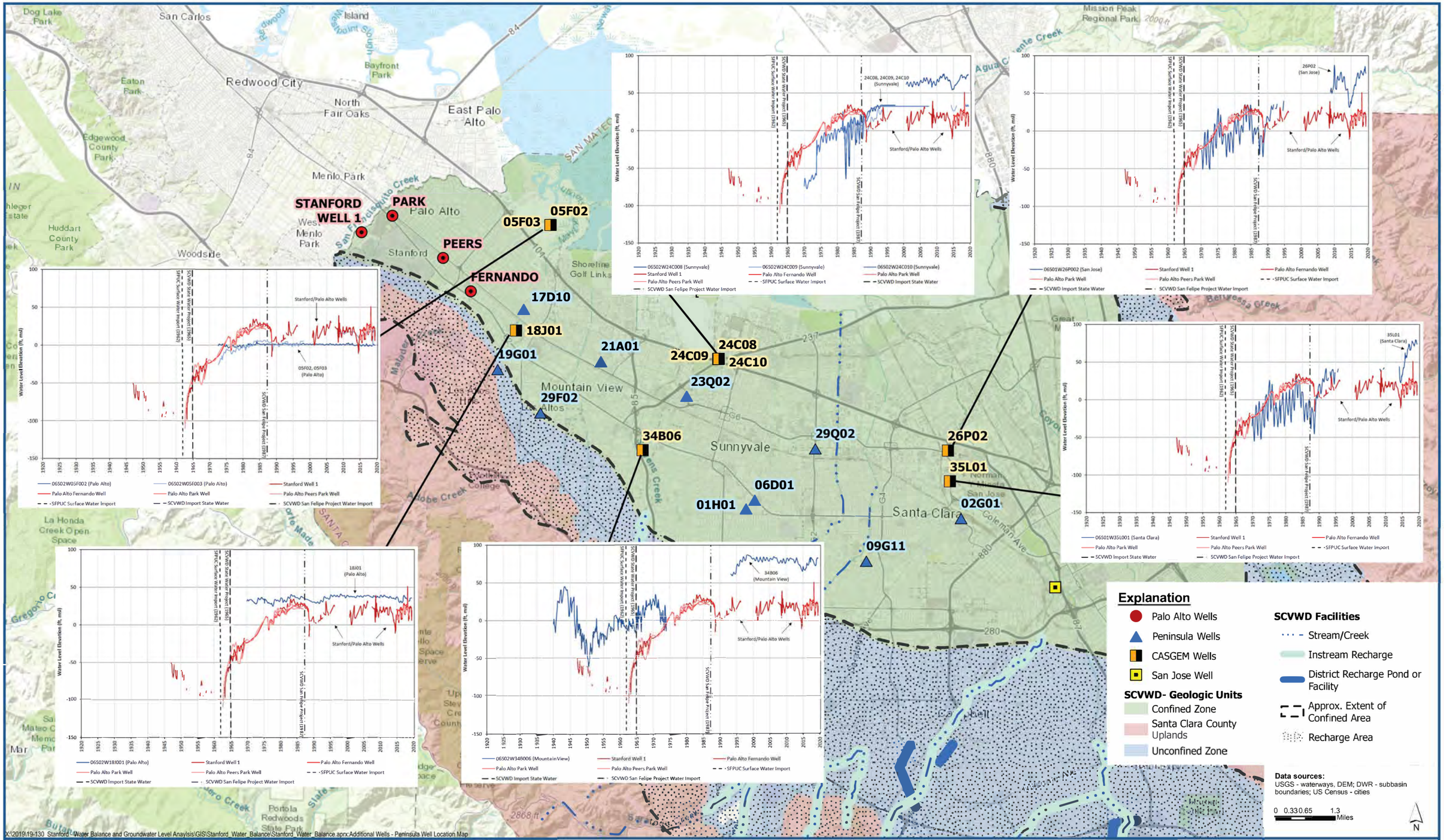
Peninsula Well Location Map with Hydrographs

Figure 8

Stanford Water Balance
and Groundwater Level Analysis



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Consulting Engineers

CASGEM Well Location Map with Hydrographs

Stanford Water Balance
and Groundwater Level Analysis

Figure 9

SCVWD Groundwater Pumping Fees

Recharge Activities and Benefit in the Stanford University Area

May 5, 2020

Topics of Discussion

1. Stanford claim history and status overview
2. Previous review of Stanford area hydrologic conditions and pumping history
3. Unanswered issues with the SCVWD ZoB Study
4. Recent study of regional groundwater levels history and findings
5. Intended next actions for resolution

1. Stanford Claim history and status overview

- Initially filed a claim challenging 2009-2010 groundwater pumping charges in April 2010
- Entered tolling agreement shortly after filing 2010 claim
- Conducted meetings with SCVWD staff 2009 to 2019
- Considering next actions, but hope to continue resolution process

2. Previous review of Stanford area SF Cone hydrologic conditions and pumping history

- San Francisquito Creek Cone and Stanford's unique hydrogeologic context
- Lagunita impoundment of hundreds of acres of foothills runoff and creek diversions (local recharge)
- Stanford connected to SFPUC imported water
- Distance from SCVWD recharge facilities and lack of demonstrated recovery therefrom

3. Unanswered issues with ZoB Study

- ZoB Study scope excluded consideration of recharge by others or other factors contributing to recharge
- Groundwater model **results and groundwater level fluctuation analysis were inadequate to support inclusion of Stanford in Benefit area**:
  - Concerns about time periods used for groundwater level fluctuation analysis (e.g., ongoing recovery from major local pumping regime changes) were not fully addressed
  - Comments on model structure, inputs, and calibration were not addressed
  - Water balance information in the ZoB Study was basin-wide and not specific to Stanford
- The unsubstantiated claim of hydrogeologic connection was the sole basis of including the Stanford area in the Benefits Zone

4. Recent study of regional groundwater levels history and findings

- Local and regional groundwater level fluctuation analysis demonstrates that Stanford/Palo Alto area ONLY benefitted from SFPUC surface water importation event and not SCVWD surface water importation events
- Local water balance supports recent historical and current local groundwater pumping (and potentially greater future local pumping) without need for SCVWD activities

5. Intended next actions and proposed resolution

- Meet with SCVWD staff and review findings of most recent analyses in a Technical Memo;
- Discuss process for revising Zones in response to Stanford comments and other means for resolution;
- Stanford to preserve rights to challenge 2011-2019 fees and contest 2020 Zone amendments and groundwater fees.

Summary of Water Balance and Groundwater Level Fluctuations, Stanford University

Peter Leffler
Principal Hydrogeologist
Luhdorff & Scalmanini, Consulting Engineers

May 6, 2020

Topics of Discussion

- Background
- Local Water Balance
- Local and Regional Groundwater Level Fluctuations
- Conclusions

1. Background

- Santa Clara Valley Water District (SCVWD)/Valley Water (VW) published a draft Zone of Benefits (ZOB) Study in October 2017 and a revised draft in April 2019, .
- Stanford University/LSCE reviewed and provided comments in May 2018, June 2019, and October 2019
- Meetings between Stanford reps and VW reps in July 2018 and September 2019
- VW Board of Directors Meeting to adopt revised zones of benefit in October 2019

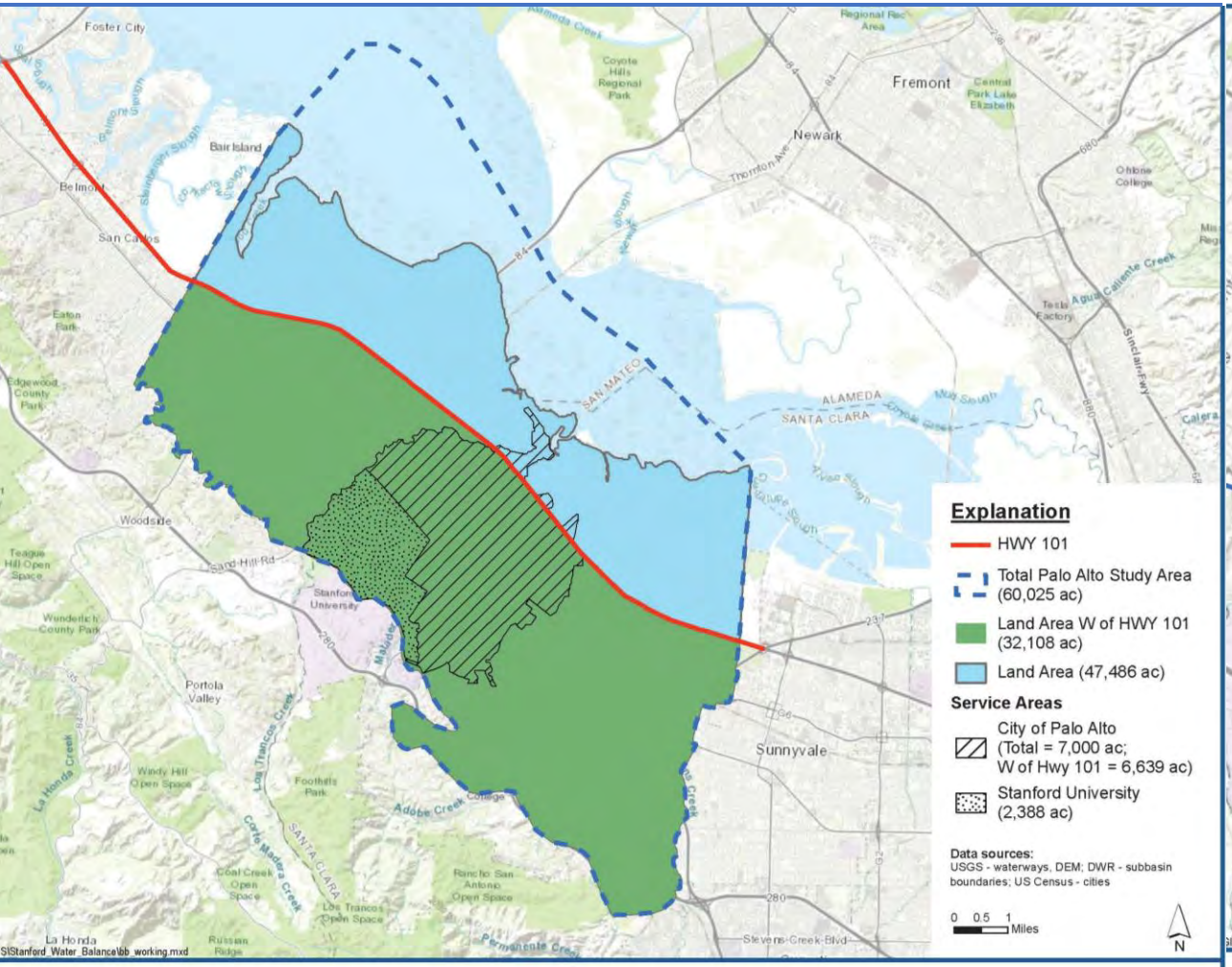
2. Water Balance

- VW and City of Palo Alto conducted Indirect Potable Reuse (IPR) Study (November 2018)
- IPR Study included detailed water balance covering area from southern Redwood City of southern boundary of Mountain View
- IPR water balance quantified individual components of recharge and discharge
- Current TM Study Area includes middle portion of IPR water balance study area and includes service areas of Stanford University and City of Palo Alto
- Current TM Water Balance evaluated each recharge and discharge component within the TM Study Area

2. Water Balance (continued)

- Primary recharge components:
  - Dispersed Recharge (infiltration from rainfall and irrigation)
  - Stream Infiltration
  - Bedrock Inflow
  - Pipe leakage
  - Lake Lagunita
- Primary Discharge Components:
  - Groundwater Pumping (water supply, dewatering, remediation)
  - Riparian/Wetland ET
  - Seepage to Sanitary Sewers
  - Seepage to Creeks/Storm Drains
  - Outflow to San Francisco Bay

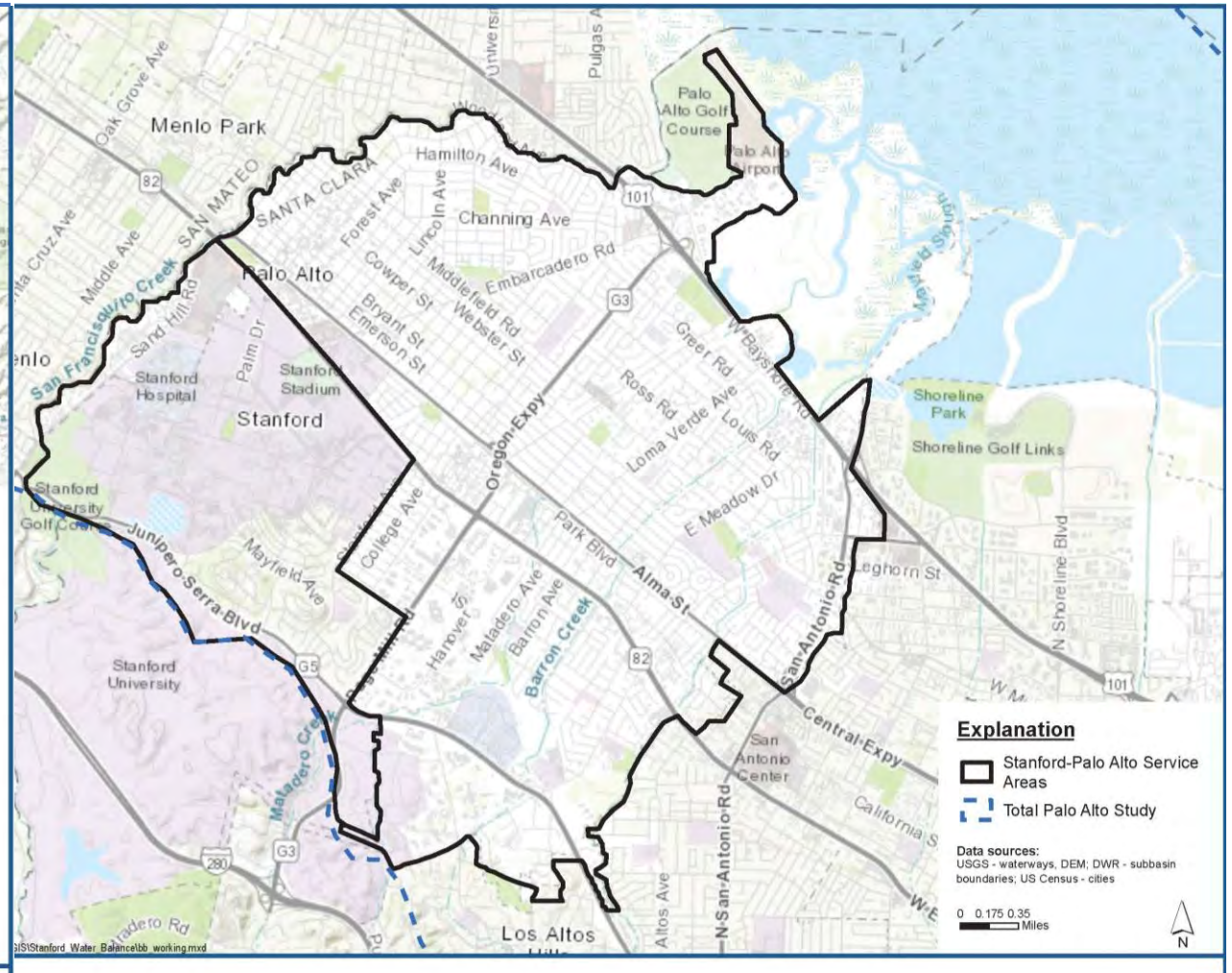
2. IPR and Local Water Balance Study Areas



Palo Alto Study Area

Stanford Water Balance and Groundwater Level Analysis

Figure 1



Stanford & Palo Alto Study Area

Stanford Water Balance and Groundwater Level Analysis

Figure 2

2. Water Balance – Recharge Components

Inflows	Average Annual	Proportion of IPR Amount	Comments
Precipitation and Irrigation Recharge	2,600	27%	Based on soil moisture balance model used in Palo Alto IPR Study. Includes dispersed recharge for Stanford/Palo Alto service areas from Figure 3-40 of IPR Report.
Stream Recharge	1,400	33%	Includes 50% of stream infiltration from San Francisquito and Adobe Creeks, and 100% of stream infiltration from Matadero and Barron Creeks from Table 3-11 of IPR Report.
Water Pipe Leaks	650	36%	Based on water pipe leak calculations for Stanford and Palo Alto in Table 3-7 of IPR Report.
Sewer Pipe Leaks	150	37.5%	Based on sewer pipe leak calculations for Stanford and Palo Alto in Table 3-8 or IPR Report.
Lake Lagunita Recharge	200	50%	Based on estimated recharge in Table 3-5 of IPR Report; corrected using Stanford data.
Bedrock Inflow	250	28%	Based on the amount estimate in Table 3-5 of IPR Report (900 AFY) prorated to the distance along the western boundary of the Stanford/Palo Alto study area.
Recharge Total	5,250	30%	

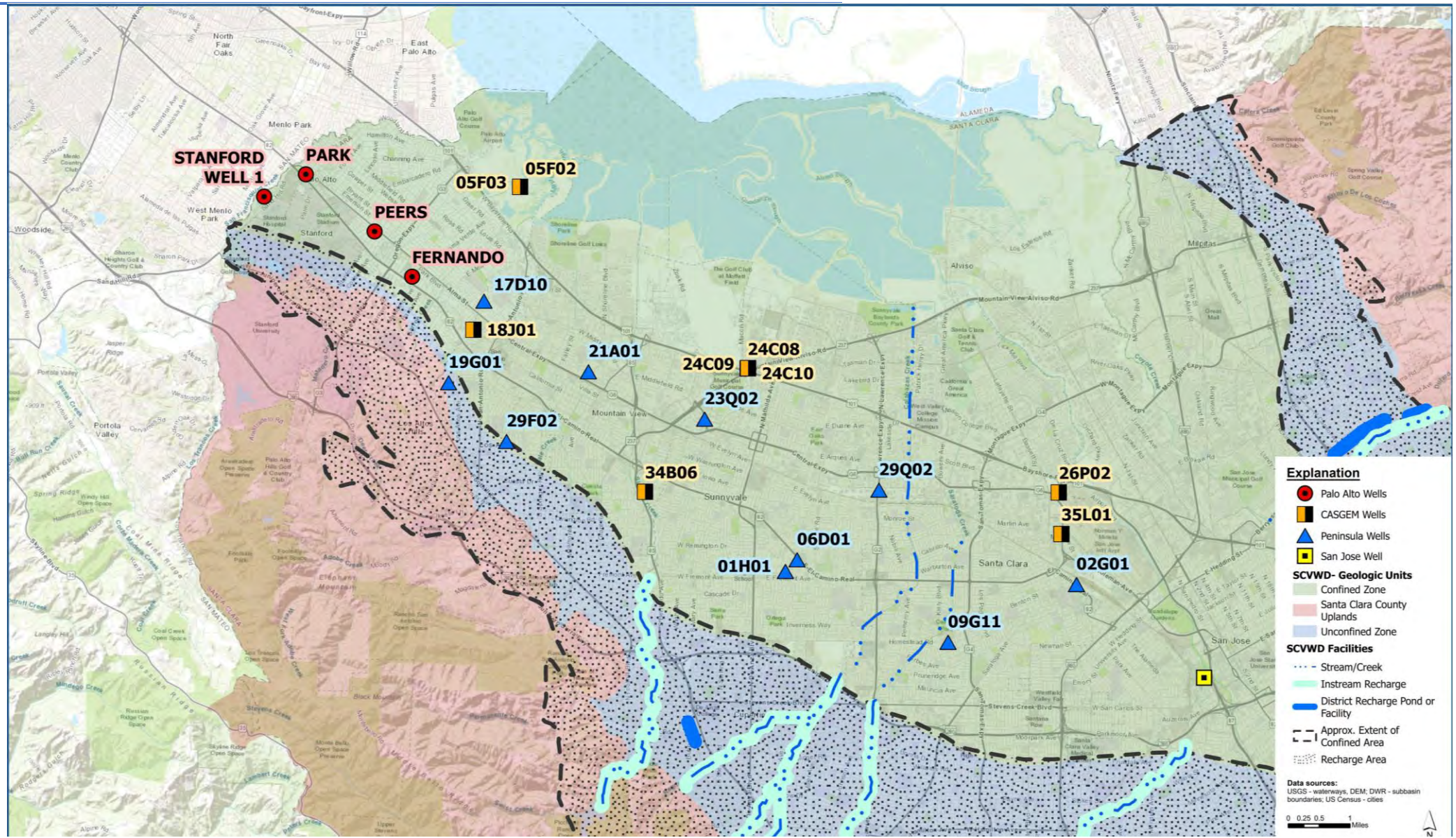
2. Water Balance – Discharge Components

Inflows	Average Annual	Proportion of IPR Amount	Comments
Water Supply Well Pumping	1,550	28%	Based upon estimated domestic/irrigation and municipal/industrial pumping within Stanford/Palo Alto TM Study Area shown on Figure 3-42 of IPR Report. Stanford Irrigation pumping based on actual 2005-2014 records.
Remediation Well Pumping	500	45%	Assumed to be approximately 50% of total remediation pumping in Santa Clara Plain.
Dewatering Well Pumping	800	50%	Based on data collected for 2016 in Palo Alto, as shown on Figure 3-43 of IPR Report.
Riparian/Wetland ET	250	50%	Includes 50% of riparian ET from San Francisquito and Adobe Creeks, and 100% of riparian ET from Matadero and Barron Creeks from Table 3-13 of IPR Report.
Seepage to Sanitary Sewers	1,450	73%	Includes Palo Alto portion from Figure 3-44 of IPR Report.
Seepage to Creeks/Storm Drains	450	10%	Two-thirds of water balance residual per IPR Report.
Outflow to SF Bay	250	11%	One-third of water balance residual per IPR Report.
Discharge Totals	5,250	30%	

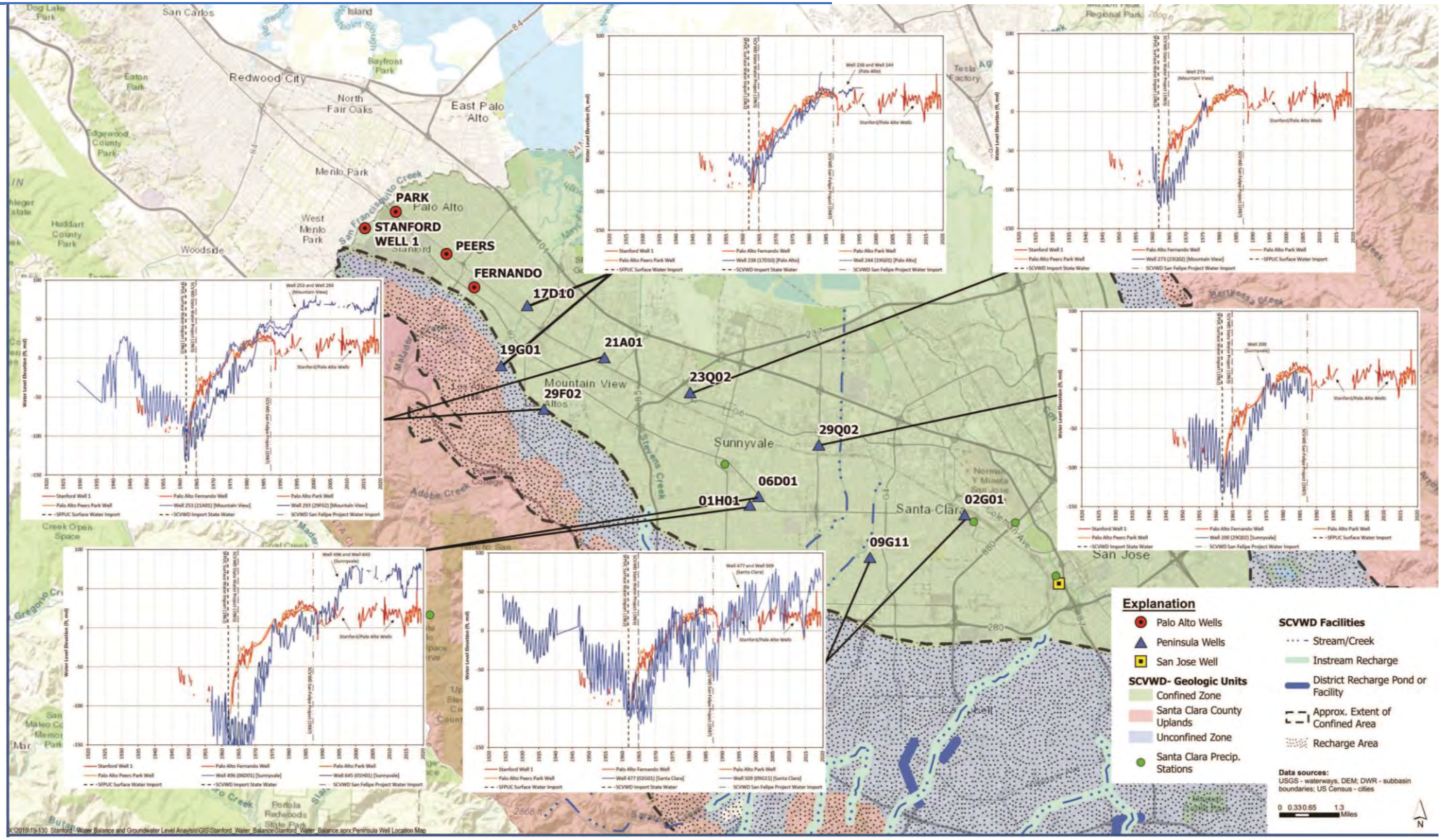
2. Discharge Components – Groundwater Pumping

Individual Well Pumping Amount (AFY)	Domestic / Irrigation Pumping (AFY)	Municipal / Industrial Pumping (AFY)	Palo Alto Irrigation Pumping (AFY)	Stanford Irrigation Pumping[1] (AFY)	Total Pumping (AFY)
0-8	515	250	15	NA	NA
9-56	35	130	35	NA	NA
57-187	0	120	0	NA	NA
Total	550	500	50	450	1,550

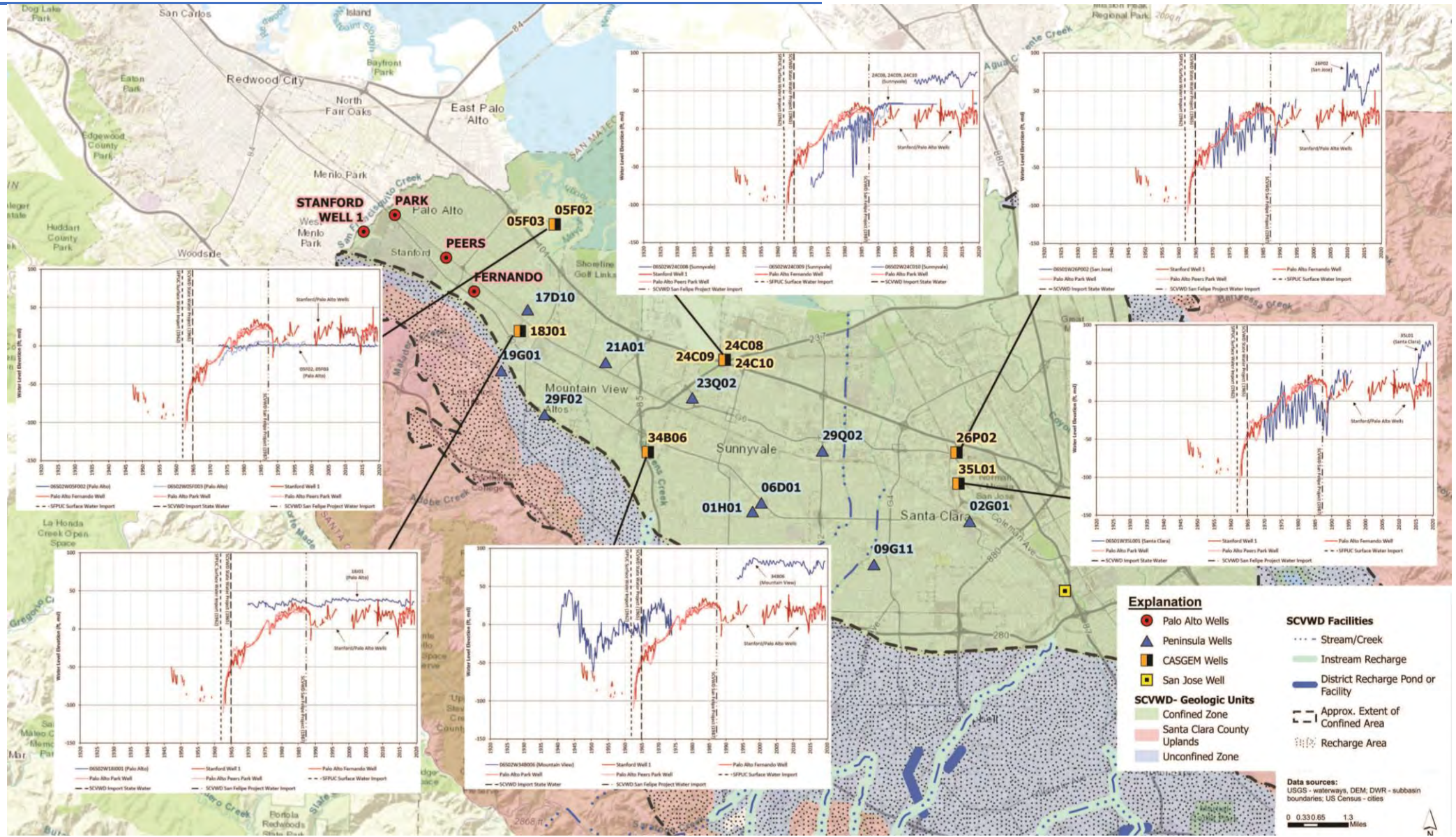
3. Groundwater Level Fluctuations



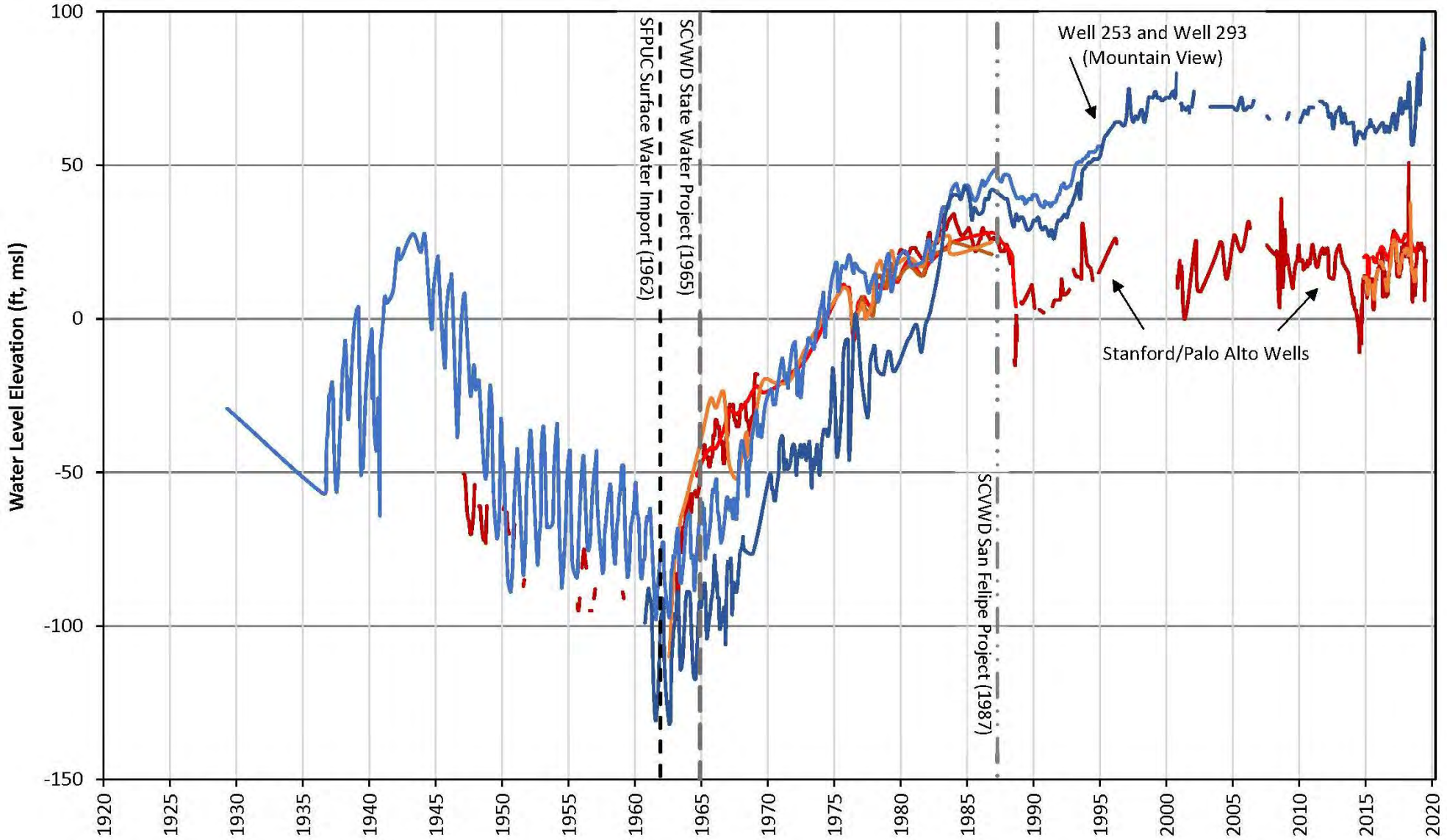
3. Groundwater Level Fluctuations



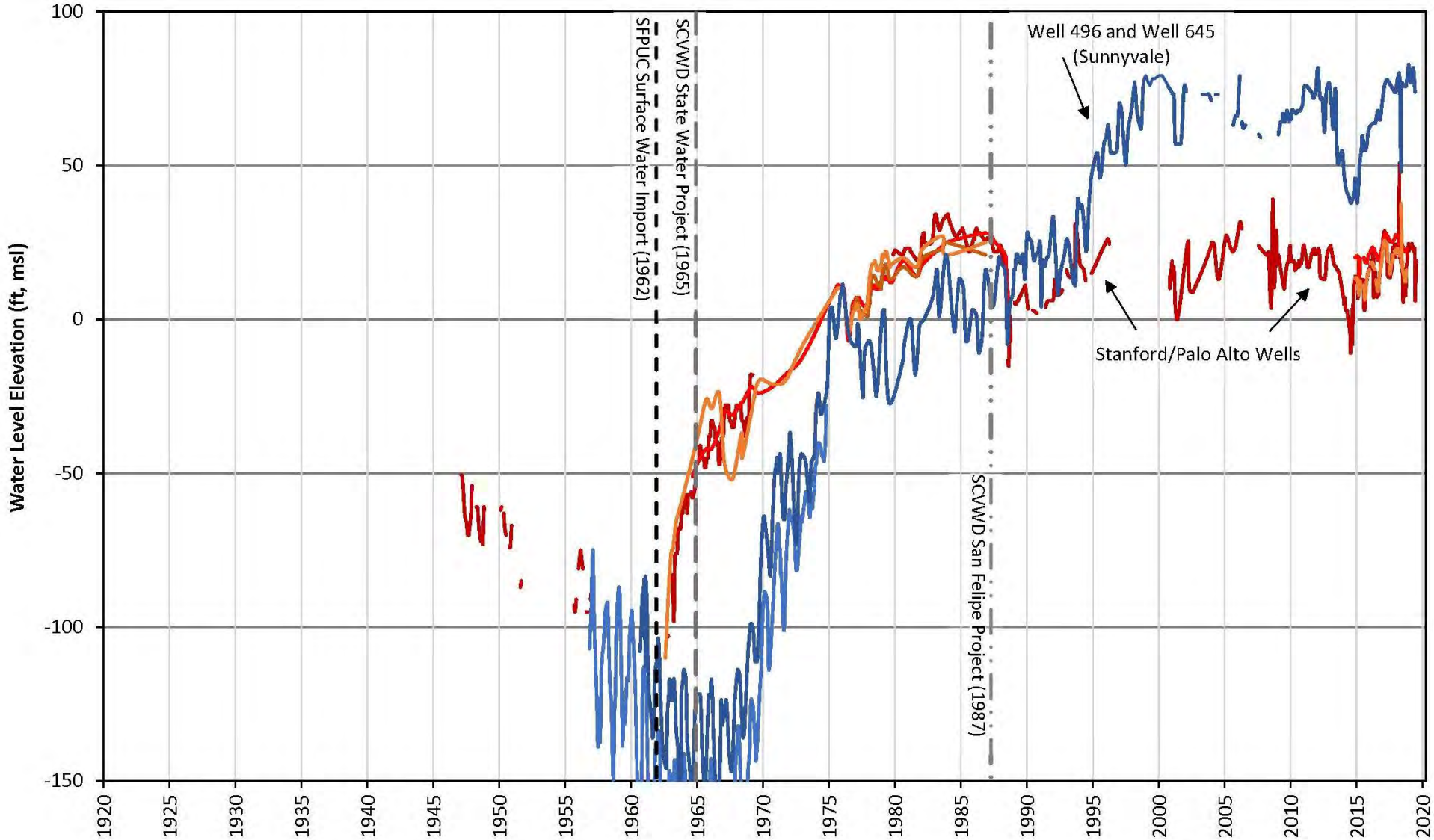
3. Groundwater Level Fluctuations



Stanford Wells Respond Only to SFPUC Water Imports



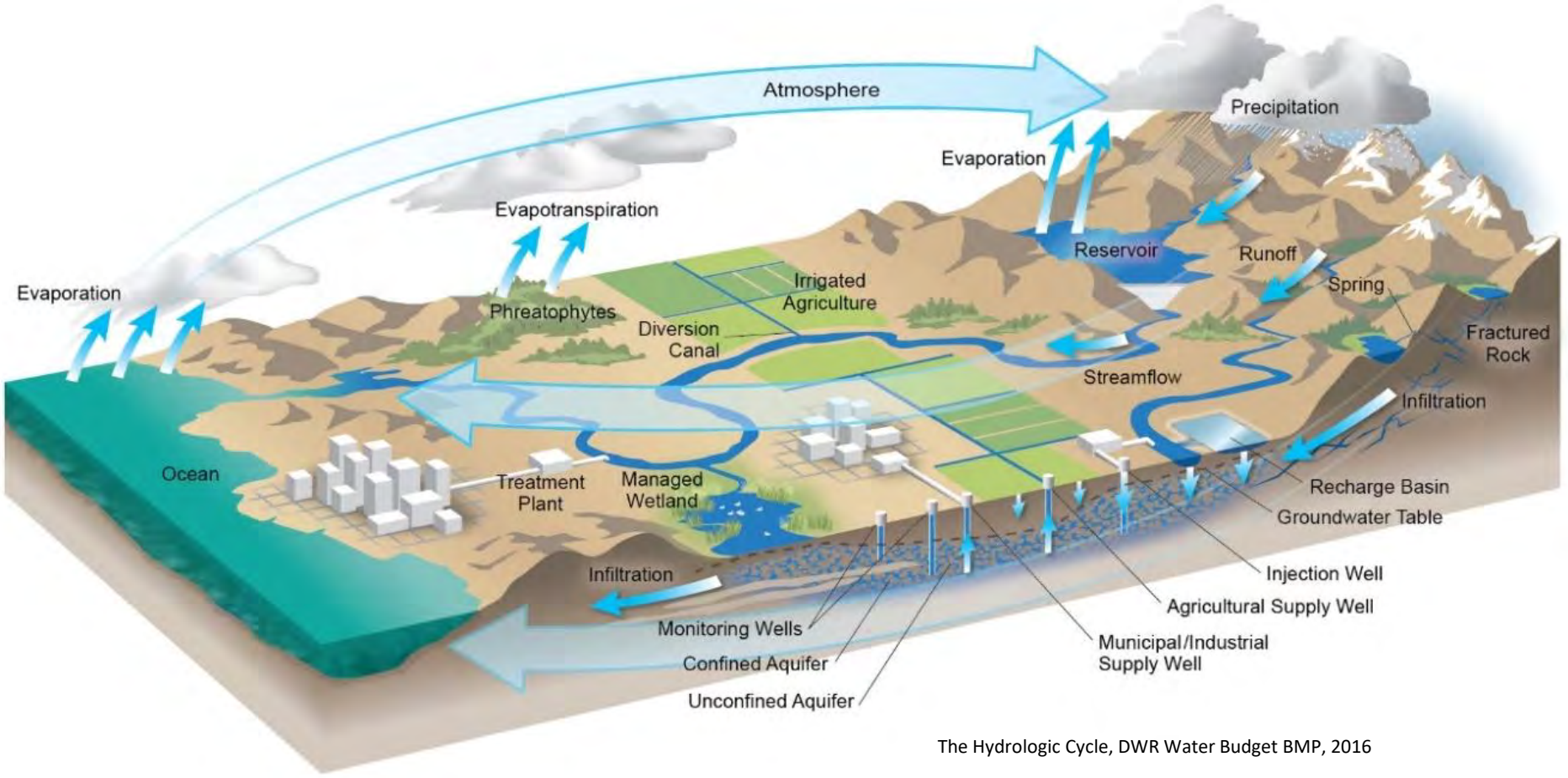
Stanford Wells Respond Only to SFPUC Water Imports



4. Conclusions

- Groundwater pumping in Stanford/Palo Alto area is only about 30% of total local recharge
- Local recharge sources more than adequate to maintain local historical/current pumping with potential capacity for future increases in pumping
- Groundwater level fluctuation analysis demonstrates Stanford/Palo Alto wells responded only to SFPUC surface water importation event and not Valley Water surface water importation events
- There are no demonstrated benefits to Stanford University from Valley Water facilities/activities

Any Questions?



The Hydrologic Cycle, DWR Water Budget BMP, 2016

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Santa Clara Valley Water District

File No.: 24-0176

Agenda Date: 7/9/2024
Item No.: 13.1.

BOARD AGENDA MEMORANDUM

Government Code Section 84308 Applies: Yes ☐ No ☒
(If "YES" Complete Attachment A)

SUBJECT:
Approve the Fiscal Year 2024-2025 Board Policy Planning Calendar.

RECOMMENDATION:
Approve the Fiscal Year 2024-2025 Board Policy Planning Calendar.

SUMMARY:
This item provides the Board an opportunity to approve the Fiscal Year 2024-25 Board Policy Planning Calendar (FY24-25 Board Calendar) and identify appropriate items for Board Committee work plans for discussion and feedback to the Board.

The current FY 24-25 Board Calendar containing the Board work plan items is attached for Board review.

ENVIRONMENTAL JUSTICE AND EQUITY IMPACT:
There is no environmental impact associated with this item.

FINANCIAL IMPACT:
There is no financial impact associated with this item.

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

ATTACHMENTS:
Attachment 1: FY 24-25 Board Calendar

UNCLASSIFIED MANAGER:
Michele King, 408-630-2711

Fiscal Year 2024-2025 VALLEY WATER BOARD POLICY PLANNING CALENDAR

Fiscal Year 2024-2025 Board Work Plan			``	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
1.	Protect and maintain existing assets and infrastructure and advance new projects.														
2.	Improve internal capability to negotiate and acquire regulatory permits.														
3.	Educate the community, elected officials and external stakeholders on our management of water resources in Santa Clara County.														
4.	Pursue new, diversified and cost-effective water supply and storage opportunities.														
5.	Secure existing water supplies and water supply infrastructure.														
6.	Lead Purified Water Efforts with committed partners.														
7.	Complete the Anderson Dam Seismic Retrofit Project.														
8.	Make water conservation a California way of life in Santa Clara County.														
9.	Protect people and property from flooding equitably in all regions of the County, prioritizing disadvantaged communities, by applying a comprehensive, integrated watershed management approach that balances environmental quality, environmental justice impacts, sustainability, and cost.														
10.	Plan and design projects with multiple benefits, including protecting ecosystem functions, enhancing habitat, and improving connectivity, equitably in all regions of the County.														
11.	Protect creeks, bay, and other aquatic ecosystems from threats of pollution and degradation.														
12.	Complete and implement the Fisheries and Aquatic Habitat Collaborative Effort (FAHCE) agreement.														

Board Meetings
R = Regular
S = Special
SE = Special Evening
C = Committee
X = Closed

Fiscal Year 2024-2025 VALLEY WATER BOARD POLICY PLANNING CALENDAR

Fiscal Year 2024-2025 Board Work Plan			``	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
13.	Collaborate with agencies and other service providers to address the challenges posed by encampments and their impacts to waterways, water supply and flood risk reduction facilities, including supporting the provision of outreach, counseling, transitional or affordable housing, or other services by these agencies and service providers.														
14.	Collaborate with the County and municipal partners to secure the safety of unsheltered people living on Valley Water lands along waterways and at water supply and flood risk reduction facilities, as well as secure the safety of residential neighbors and Valley Water staff.														
15.	Address future impacts of climate change to Valley Water's mission and operations.														
16.	Incorporate racial equity, diversity, and inclusion throughout Valley Water as a core value.														
17.	Maintain budgeted staffing levels and expertise, prioritize the safety of our staff, and build and sustain an inclusive and equitable working environment for all staff and partners while ensuring fair employment.														
18.	Provide affordable and cost-effective level of services.														
19.	Other Notable Policy and Board Actions														

Board Meetings
R = Regular
S = Special
SE = Special Evening
C = Committee
X = Closed

Fiscal Year 2024-2025 VALLEY WATER BOARD POLICY PLANNING CALENDAR

	Items Regularly Monitored by Board	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
1.	BAO Performance												
2.	BAO Compensation												
3.	Board Expense Report												
4.	Board Performance Report												

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