

BOARD OF DIRECTORS
Regular Meeting Agenda
March 4th, 2025, 6:30 p.m.
Board Room
19039 Bay Street, El Verano
(707) 996-1037

Board of Directors
Gary Bryant, President
Steven Caniglia, Vice President
Colleen Yudin-Cowan
Steve Rogers
Jon Foreman

PUBLIC NOTICE

Members of the public may participate in this open, public meeting in person.

Time will be provided for public comment. Any member of the public wishing to speak will be allowed 3 minutes to make a statement. Board President will call for comments prior to the Board deliberating on pending action. However, please note that no action can be taken on any item unless printed on the agenda and included with the meeting notice. Therefore, any item discussed by members of the public and not shown on the agenda will only be received for information. The Board of directors may choose to set such item for future discussion and staff report. A full agenda packet is available at the District office for public view. A fee may be charged for copies. During the meeting, information and supporting materials are available in the Boardroom. District facilities and meetings comply with the Americans with Disabilities Act. If special accommodations are needed, please contact the District as soon as possible, but at least two days prior to the meeting.

All open meetings are recorded. Recordings for each meeting are retained for a minimum of 90 calendar days and may be heard upon request, at no cost. Please contact a member of the District staff for assistance. ITEMS ON THIS AGENDA MAY BE TAKEN OUT OF THE ORDER SHOWN.

Any writings or documents provided to a majority of the Board regarding any item on this agenda will be made available for public inspection in the VOMWD office located at the above address during normal business hours.

1. CALL TO ORDER – PLEDGE – ROLL CALL

2. PUBLIC COMMENTS:

This section of the agenda is provided so that the public may express comments on any item within the District's jurisdiction not listed on the agenda. Board members can ask questions for clarification, respond to statements or questions from members of the public, refer a matter to staff, or follow Board procedures to direct staff to place a matter of business on a future agenda. The public may express comments on agenda items at the time of Board consideration.

3. CONSENT CALENDAR

It is recommended by the General Manager that these items, which are expected to be routine in nature and without controversy, be received and acted upon by the Board without discussion. If any Board member or interested party requests that an item be removed from the Consent Agenda for discussion, it will be considered separately. The consent calendar may be approved by a single motion.

Item 3.A Minutes of the February 4th 2025, Board of Directors Regular Meeting

4. PUBLIC PRESENTATION, HEARING OR WORKSHOP

Item 4.A Sonoma County Water Agency FY 2025-2026 Budget Update

Sonoma County Water Agency staff will present at the meeting and be available for questions.

5. FINANCE, ADMINISTRATIVE & OPERATIONAL REPORTS

Item 5.A Monthly Financial Reports & Disbursements

Staff Recommendation: Receive and approve by roll call vote the monthly financial reports & disbursements for the month of January 2025 in the amount of \$923,169.26.

Item 5.B Administrative Report

Item 5.C Water Source Report

Item 5.D Operational Updates

6. DIRECTORS' & COMMITTEE REPORTS

7. GENERAL MANAGER'S AND DISTRICT COUNSEL'S REPORTS

Item 7.A March 3rd Technical Advisory Committee (TAC) Meeting Update

Item 7.B Update on Cross Connection Control Manual and Effects on District Operations

8. DISCUSSION AND ACTION (GENERAL BUSINESS)

Item 8.A Consider Adoption of Resolution No. 250301, Ratifying the General Manager's Emergency Declaration Related to the Flooding and Related Repair Work at the District's Main Office

Item 8.B Consider Authorizing the Continuation of the District's Emergency Status Declared Under Resolution No. 250201 Related to the Main Break and Emergency Main Replacement on Orange Avenue

Item 8.C Consider Award of Agreement to EKI Environment and Water for the Water System Evaluation, Preliminary Design Recommendations, and OPC Figures at the Former SDC Campus (CIP #3060)

9. CLOSED SESSION

10. REQUEST FOR FUTURE AGENDA ITEMS

11. ADJOURNMENT

The next scheduled Board meeting is a regular meeting at 6:30 p.m. April 1st, 2025. Posted this 28th day of February, online and in three public places.

Amanda Hudson

Amanda Hudson, Board Secretary

VALLEY OF THE MOON WATER DISTRICT
BOARD OF DIRECTORS
REGULAR MEETING MINUTES
February 4, 2025

A Regular Meeting of the Board of Directors of the Valley of the Moon Water District was held on February 4, 2025. **Members of the public were provided the opportunity to participate in this open, public meeting in person.**

1. CALL TO ORDER - PLEDGE OF ALLEGIANCE - ROLL CALL

President Bryant called the meeting to order at 6:32 P.M. PST.

Roll Call by **Secretary Hudson** noted the following present:

- | | |
|---------------------|--|
| Directors: | Gary Bryant Steve Caniglia Jon Foreman Steve Rogers Colleen Yudin-Cowan |
| District Personnel: | Clayton Church, Water System Manager Matthew Fullner, General Manager Amanda Hudson, Administration Manager Oscar Madrigal, Finance Manager |
| District Counsel: | Leah Castella |
| Presenter: | Kent Gylfe, Director of Engineering at Sonoma Water |
| Public: | See sign-in sheet |

Item 1.A A Moment of Silence in Memory of Former Director Bruce Adams, Who Passed Away on December 29th, 2024

2. PUBLIC COMMENTS

None

3. CONSENT CALENDAR

Item 3.A Minutes of the December 10th, 2024, Board of Directors Regular Meeting

February 4, 2025 - Draft Minutes until signed
by Board President & Secretary

Item 3.B Minutes of the January 28th, 2025, Board of Directors Special Meeting

Director Rogers made a motion to approve the Consent Calendar.

The motion passed unanimously by voice vote.

4. PUBLIC PRESENTATION, HEARING OR WORKSHOP

Item 4.A Sonoma Water Update on Capital Planning and Capital Projects

Sonoma Water staff will present at the meeting and be available for questions

Kent Gylfe, Director of Engineering from Sonoma Water presented.

Director Rogers asked if Ralphine and Sonoma tanks are being worked on. He asked if they would be empty at the same time. He recommends not having more than one tank empty at one time on the District's aqueduct. With SDC non-operational, the District needs additional water available for emergencies. Kent Gylfe said Sonoma Water will coordinate with VOMWD operations staff.

Director Rogers asked if the wells being completed on the west side are part of the capital assessment that goes against the Sonoma aqueduct. Kent Gylfe said that they're common facilities in the restructured agreement. Director Rogers said that they don't benefit the District. Kent Gylfe said he speculates as he wasn't part of determining the elements that would be considered common; but in a drought for example, having the production capabilities would provide benefits even in the valley. He said he imagines that's the thinking that went into considering them common facilities.

Director Yudin-Cowan asked if Sonoma Water is testing for microplastics. Kent Gylfe said Sonoma Water is part of a select group chosen by the state to test for microplastics. Sonoma Water will be participating in testing.

Director Rogers said that Sonoma Water is a class outfit; they have good plans and organizationally the place is run really well.

5. FINANCE, ADMINISTRATIVE & OPERATIONAL REPORTS

Item 5.A Monthly Financial Reports & Disbursements

Staff Recommendation: Receive, and approve by roll call vote, the monthly financial reports & disbursements for the months of November 2024, and December 2024, in the amount of \$889,462.67 and \$675,121.99 respectively.

Finance Manager Madrigal said that staff are in the process of developing a table to show what projects are under, over, and predict what will be done.

General Manager Fullner said a good example is the wells retrofitting funds that rolled over from last year, they will roll through this year and into next year. We know we won't expend all the funds in this fiscal year; the report will show that we know we aren't going to expend these funds and show that to the Board as well.

Finance Manager Madrigal said there are some projects that have been done and are significantly under budget.

Director Foreman made a motion, seconded by **Director Caniglia**, to receive and approve by roll call vote, the monthly financial reports & disbursements for the months of November 2024, and December 2024, in the amount of \$889,462.67 and \$675,121.99 respectively.

A roll call vote was taken:

| | |
|----------------------|-----|
| Director Bryant | Aye |
| Director Caniglia | Aye |
| Director Foreman | Aye |
| Director Rogers | Aye |
| Director Yudin-Cowan | Aye |

Ayes 5 Noes 0 Absent 0 Abstain 0

Item 5.B Administrative Report

Director Rogers said he would like to know what real losses look like over the course of a year, not just gallons per connection per day. **Administration Manager Hudson** said this information is in the Validated Water Loss Audit and can be provided for Board members.

Item 5.C Water Source Report

Item 5.D Operational Updates

Director Rogers asked how the Pedroncelli well is doing. **Water System Manager Church** said the parts are in, and now staff is going to put it together and test it.

| |
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| 6. DIRECTORS' COMMITTEE REPORTS |
|--|

Item 6.A Appointment of Board Representatives

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|---|
| 7. GENERAL MANAGER'S AND DISTRICT COUNSEL'S REPORTS |
|---|

Item 7.A Legal Services Cost Update

Legal Counsel Castella said that hours have gone up this year, this is partly due to returned attendance in person, but hours have gone up in general with all clients.

Director Foreman asked if legal counsel is required to be here at every meeting. **Legal Counsel Castella** said it's up to the Board; legally legal can attend remotely. Six to seven months ago the tech at the District was bad, legal couldn't hear the Board and the Board couldn't hear legal. But the tech is improved now.

President Bryant asked if the tech is good enough now. **General Manager Fullner** said yes.

Director Yudin-Cowan said if the Board allows legal to join remotely, the District saves \$6,000 over the course of a year. **Director Rogers** said to give that a try. **President Bryant** agreed.

Legal Counsel Castella asked if the \$6,000 to \$6,500 monthly increase and updating the special counsel rates as listed in the PowerPoint is acceptable. The switch would take place July 1.

Director Rogers said we've seen price increases in every area. **Director Yudin-Cowan** asked if there is room to negotiate. **Legal Counsel Castella** said the Board can discuss it; it would have to be in a public meeting but the budget subcommittee could discuss it as well.

Item 7.B February 3rd Water Advisory Committee (WAC) and Technical Advisory Committee (TAC) Meeting Update

General Manager Fullner provided the following update from the February 3rd 2025 WAC/TAC Meeting:

New WAC Member Orientation:

- Grant Davis welcomed new members of the WAC and informed them that SCWA would supply informational binders for their review/edification.

Water Supply Conditions and Temporary Urgency Change Order:

- Both lake Sonoma and Mendocino are in great shape. Sonoma is already above the deviation pool and Mendocino is expected to be by the end of the week.
- Don Seymore (SCWA) believes it is likely that SCWA will apply for a Temporary Urgency Change Order in May, and pointed out that the watershed is still classified as being in a "Normal" water supply year condition.

Sonoma Marin Saving Water Partnership (TAC):

- a) 2024 Water Production Relative to 2013 Benchmark

SMSWP members for the month of December: -25%, VOMWD: -29%

SMSWP members YTD: -23%, VOMWD: -30%

b) Water Use Efficiency Messaging

Update to the “Winter Campaign”: the Dye-Tab Challenge is on now (between February 3rd and March 31st).

TAC Finance Subcommittee Update - FY2025-26 Draft SCWA Water Transmission System Budget (TAC):

- The TAC Finance Subcommittee has been meeting, including once with SCWA where Lynne Rosselli gave a talk on SCWA’s sub-funds. The committee has reviewed and commented on the first draft of the SCWA budget and expects to see a second draft in mid-February.

Biological Opinion Status Update:

- The new Biological Opinion is expected to be released in May of this year and will be in place for a ten-year period.

Eel Russian Project Authority and Potter Valley Project Update:

- PG&E released its draft PVP License Surrender on Friday. SCWA is reviewing currently, but it is looking great and includes the expected language regarding the New Eel Russian Facility (NERF), that will allow continued water transfers.
- \$15 million was earmarked from the Inflation Reduction Act to facilitate the design and construction of NERF.

Business Services and External Affairs Division Update:

A series of updates were supplied by SCWA staff on various areas of operations as follows: a. Communications Update, b. Community and Employee Engagement Update, c. Finance and Grant Funded Programs Update, d. Information Technology Update, e. Government Affairs Update

Integrated Regional Water Management Plan(s) Update:

Grant Davis spoke about the partnerships that SCWA has developed with the North Coast Resource Partnership and Bay Area Integrated Regional Water Management Plan to share ideas and build water supply reliability regionally, including through seeking grants and earmarks. These efforts have brought in “a lot of money” for projects including Advanced Quantitative Precipitation Information (AQPI) and associated radar equipment. This helps the Army Corps of Engineers operate under FIRO with maximum efficiency.

Item 7.C After Action Report on the January 23rd Orange Avenue Main Break and Boil Water Notice

Director Rogers said the messaging via email was good and prompt.

| |
|--|
| 8. DISCUSSION AND ACTION (GENERAL BUSINESS) |
|--|

Item 8.A Consider Adoption of Resolution No. 250201, Ratifying the General Manager’s Emergency Declaration Related to the Main Break and Water Outage in the District’s Zone 1A

Director Rogers asked if the main replacement has begun. **General Manager Fullner** said that yes, planning and permitting has started and assuming the Board approves this resolution, the physical replacement will begin. Staff has started getting quotes on materials, and working on permitting and plans and we are moving full steam ahead. That is a weak part of the main and there is a lot reliant on that main.

Director Yudin-Cowan made a motion, seconded by **Director Bryant**, to adopt Resolution No. 250201 confirming and declaring a continued emergency and the need for the emergency expenditure of funds to replace the defective water main.

A roll call vote was taken:

| | |
|----------------------|-----|
| Director Bryant | Aye |
| Director Caniglia | Aye |
| Director Foreman | Aye |
| Director Rogers | Aye |
| Director Yudin-Cowan | Aye |

Ayes 5 Noes 0 Absent 0 Abstain 0

District Counsel Castella said that this will come back at every Board meeting until the emergency is complete. An affirmation is needed at each meeting then a declaration that the emergency is over when it is over.

Item 8.B Consider Adoption of Resolution No. 250202, 2025 Employee Handbook Update

Director Yudin-Cowan made a motion, seconded by **Director Caniglia**, to adopt Resolution No. 250202 approving the above-outlined updates to the District's Employee Handbook

A roll call vote was taken:

| | |
|----------------------|-----|
| Director Bryant | Aye |
| Director Caniglia | Aye |
| Director Foreman | Aye |
| Director Rogers | Aye |
| Director Yudin-Cowan | Aye |

Ayes 5 Noes 0 Absent 0 Abstain 0

Item 8.C Consider Adopting Resolution No. 250203 Amending the District's Drug and Alcohol Policy Consistent with California Labor Code

Director Rogers asked why is there a DOT section if there aren't any DOT employees. **General Manager Fullner** said there is a high likelihood that there will be DOT employees in the future. The Union had to weigh in. It took almost a year to pass because the Union had to review it.

Director Rogers asked why would we have a DOT employee. **General Manager Fullner** said if the District had to have a Class A license for any equipment in the future.

Director Foreman made a motion, seconded by **Director Rogers**, to adopt Resolution No. 250203 approving the above-outlined updates to the Drug and Alcohol Policy.

A roll call vote was taken:

| | |
|----------------------|-----|
| Director Bryant | Aye |
| Director Caniglia | Aye |
| Director Foreman | Aye |
| Director Rogers | Aye |
| Director Yudin-Cowan | Aye |

Ayes 5 Noes 0 Absent 0 Abstain 0

9. CLOSED SESSION

10. REQUEST FOR FUTURE AGENDA ITEMS

None

11. ADJOURNMENT

President Bryant adjourned the meeting at 8:16 P.M. PST.

Amanda Hudson, Board Secretary

Gary Bryant, Board President

MEMORANDUM

TO: Valley of the Moon Water District Board of Directors

FROM: Matt Fullner, General Manager

SUBJECT: Sonoma Water FY25/26 Water Transmission Budget Presentation

Sonoma Water will present on their FY25/26 Water Transmission Budget.

Attachment:
FY25/26 Water Transmission Budget Presentation



Sonoma Water

Clean. Reliable. Essential. Every day.

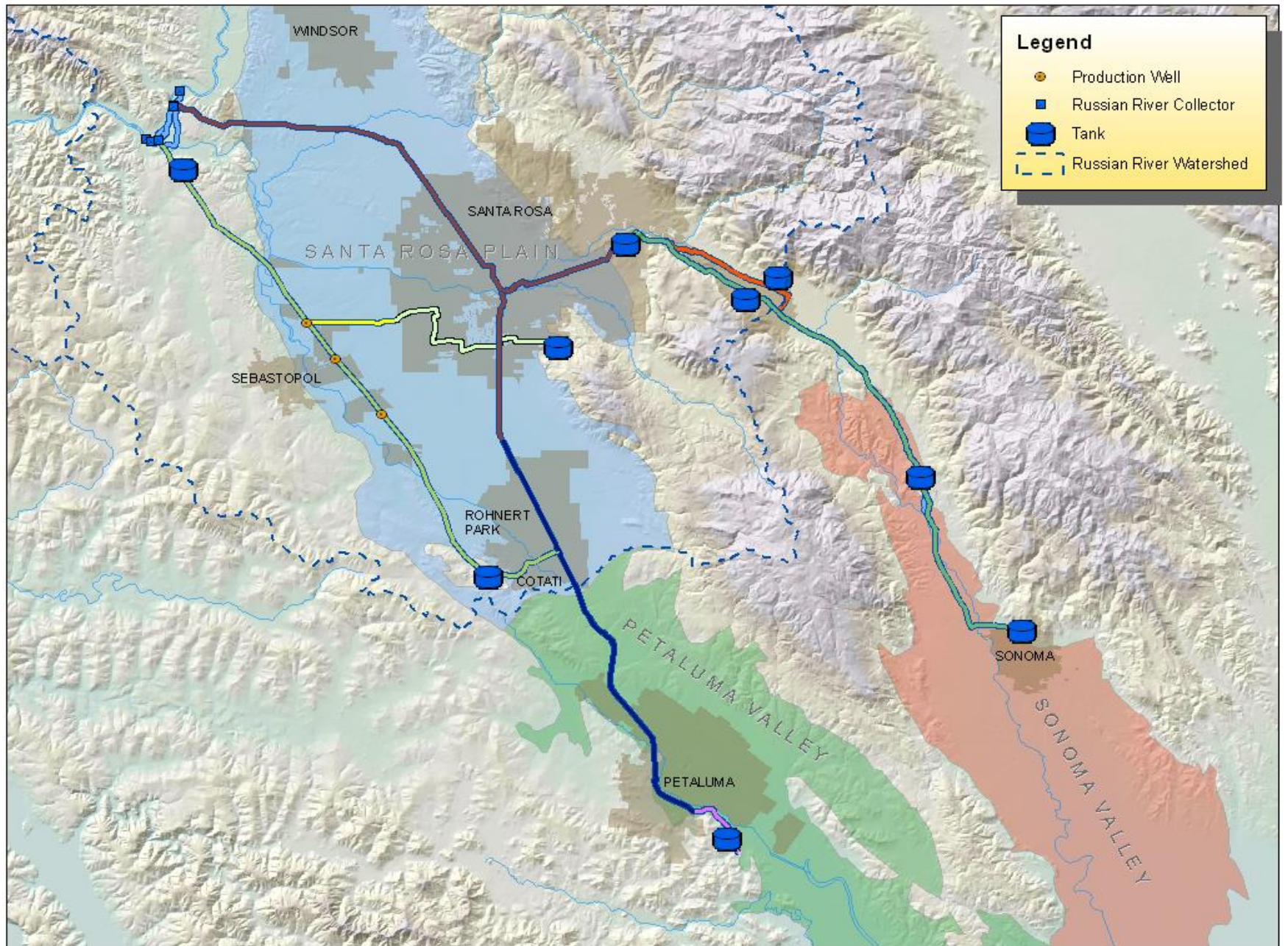
FY 2025-2026 Proposed Budget and Rates Water Transmission System

Lynne Rosselli
FINANCIAL SERVICES
DIVISION MANAGER
Lynne.Rosselli@scwa.ca.gov

Jake Spaulding
FINANCE MANAGER
Jake.Spaulding@scwa.ca.gov

    sonomawater.org





Transparent and collaborative process to bring rates to Board of Directors by end of April

Technical
Advisory
Committee
(Jan-March)

Water
Contractor
Boards &
Councils
(March)

Water
Advisory
Committee
(April)

Sonoma
Water Board
of Directors
(April)



Budget includes multiple water transmission system activities and funds

- Operations and Maintenance
- Four Subfunds
- Five Capital Funds
- Debt Service Funds



Asset Condition Assessment

- majority of facilities are now 45-65 years old
- 40% of our infrastructure assets currently have only 10 – 20% of their useful life remaining
- Consequence of failure is high



Highlights of Sonoma Water and Water Contractor Achievements and Collaborations

- Santa Rosa Plain Wells
- Regional Water Supply Resiliency
- Hazard Mitigation Projects
- Sonoma-Marin Saving Water Partnership – Drought Resiliency
- Water Education Program
- Dry Creek Habitat Enhancement



Highlights of Programs Funded from Other Sources

- Forecast Informed Reservoir Operations
- Advanced Quantitative Precipitation Information Systems
- Quagga and Zebra Mussels



\$8.31 million budgeted for hazard mitigation projects to reduce risks

Ely BPS Flood Control & Electrical Upgrade

River Diversion Structure (RDS) Upgrade Project

Santa Rosa Creek Crossing

Seismic Retrofit of Storage Tanks

Wilfred Booster Station



\$9.97 million budgeted for other capital projects to increase resiliency

Kawana-Ralphine SBS Pipeline

Mirabel Collector Wells Pump Hoist Upgrades

Mirabel/Wohler Storage Building

Occidental Road and Sebastopol Road Wells

Ralphine Tanks Flow Thru Conversion

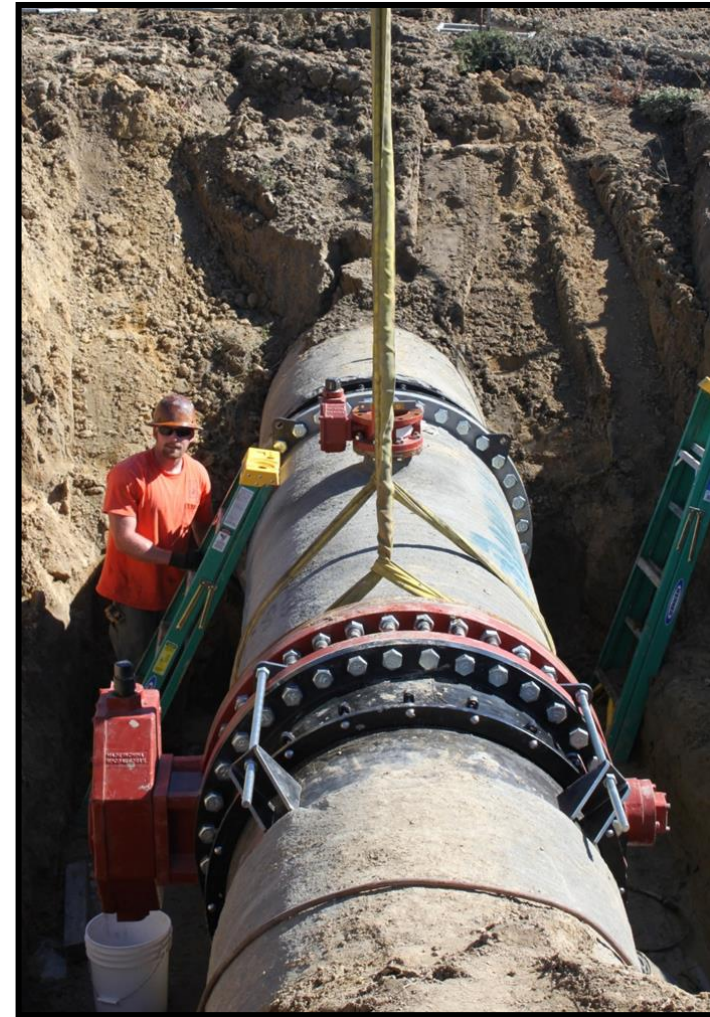
Todd Rd Well Discharge Connection

Warm Springs Dam Hydropower Retrofit

Water Treatment System Modernization Phase 1

Water Treatment System Modernization Phase 3

Total FY25-26 Capital Budget
including Hazard Mitigation Projects:
\$18.28M



\$45.87 million budgeted for operations and maintenance to protect, improve and maintain system reliability

Projects

Aqueduct Cathodic Protection

Pump 9 Replacement

Emergency Inventory Procurement

SCADA Improvements

Tank Recoats & Tank Maintenance Programs

Studies

Arc Flash Studies

Asset Management Plan

Cathodic Protection Assessment

Regional Water Supply Resiliency Implementation

Transmission System Master Plan, Modeling & Condition Assessments Programs



\$8.80 million for Biological Opinion, Water Supply Planning and Water Conservation



**IS YOUR TOILET RUNNING?
BETTER CATCH IT!**

A leaky toilet is no joke and could cost you a lot of \$\$\$

TAKE THE DYE TAB CHALLENGE

Test your toilet(s) to see if you have a sneaky leak.

SHARE YOUR RESULTS

Visit us online to enter your toilet test results and be entered to win a \$25 gift card.



SavingWaterPartnership.org/challenge



Expenditures compared to FY 24-25

| | FY24-25 | FY25-26 | |
|---|-------------------------|-------------------------|-------------------------|
| | Budget (in Millions) | Budget (in Millions) | Change (in Millions) |
| Operations and Maintenance | \$45.41 | \$45.87 | \$.46 |
| Capital Projects | \$15.66 | \$18.28 | \$2.62 |
| BO Compliance, Water Supply Planning, Water Conservation | \$7.53 | \$8.80 | \$1.27 |
| Debt Service | \$5.83 | \$9.07 | \$3.25 |
| Totals | \$74.43 | \$82.02 | \$7.60 |

Grants, Use of Fund Balance,
and Bond Proceeds

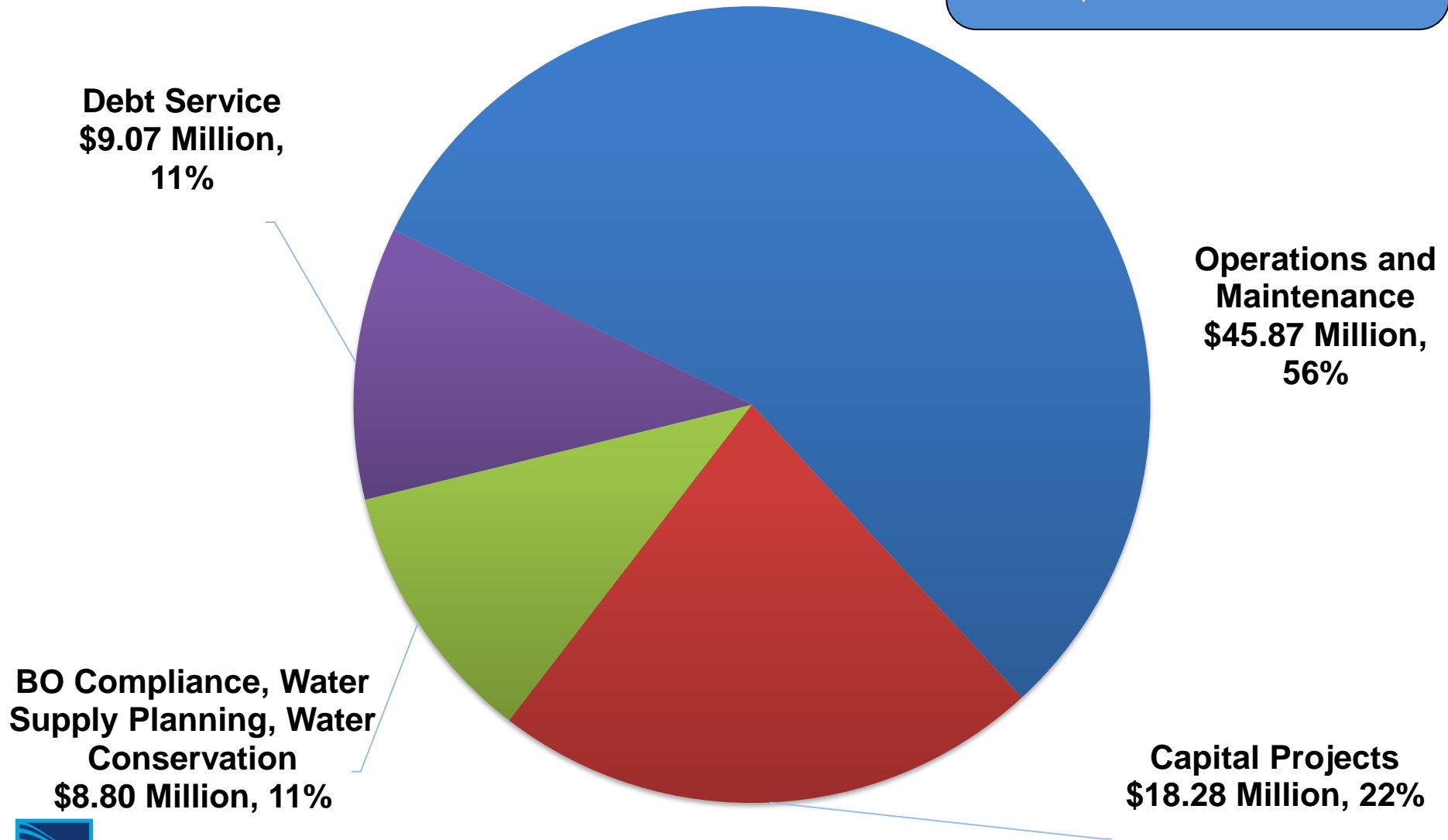
\$18.13

\$21.22

\$3.09

FY 25-26 Budgeted Expenditures

Grants, Bond Proceeds,
and Use of Fund Balance
\$21.22 Million



Example of how rates are calculated

$$\frac{\$59,370,000}{42,407 \text{ AF}} = \$1,400/\text{Acre Foot}$$

↑ Water Sold: Restructured Agreement requires use of the Lesser of:

42,407 AF

or

44,530 AF



Deliveries and Rates

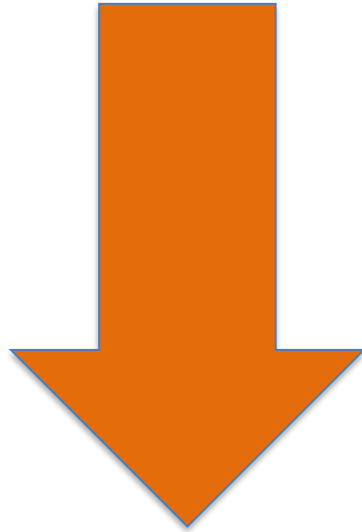
Due to the prescribed fully volumetric rate, budgeted deliveries have a significant impact on rate increases.

| Scenario | Deliveries | Rate Increase (SR AQ) | Rate Increase (PET AQ) | Rate Increase (SON AQ) |
|------------------------------------|------------|-----------------------|------------------------|------------------------|
| 3-Year Annual Ave (FY25/26 Budget) | 42,407 | 8.68% | 10.76% | 7.60% |

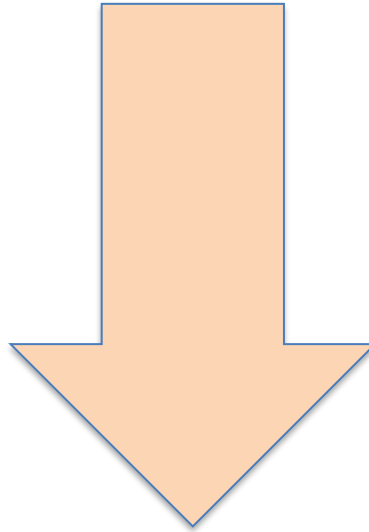
500 AF of deliveries = ~ 1.3% change to rate increase



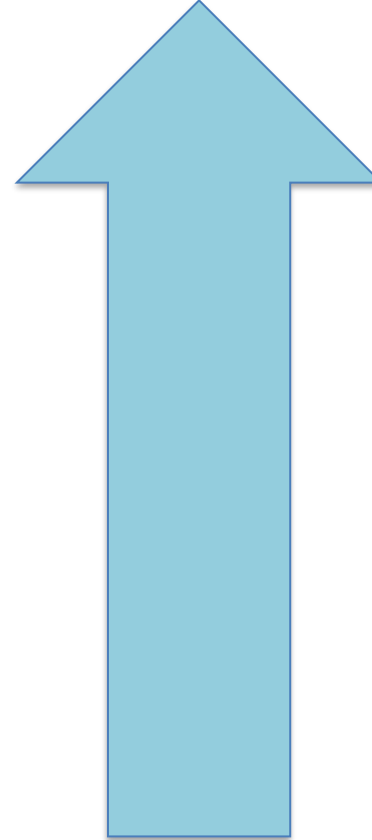
Steps taken to reduce budget and rate



Deferred or reduced budget year non-routine maintenance projects by \$11.31 million



Deferred budget year capital projects by \$5.37 million and \$87.93 million in capital costs originally scheduled for FY26/27 and FY27/28.



Use of grants, bond proceeds, and fund balance = \$21.34 million

Result:

Rate increase dropped from over 40% to:

SR AQ - 8.68%

Pet AQ – 10.76%

Son AQ - 7.60%

Total cost per gallon is \$0.004

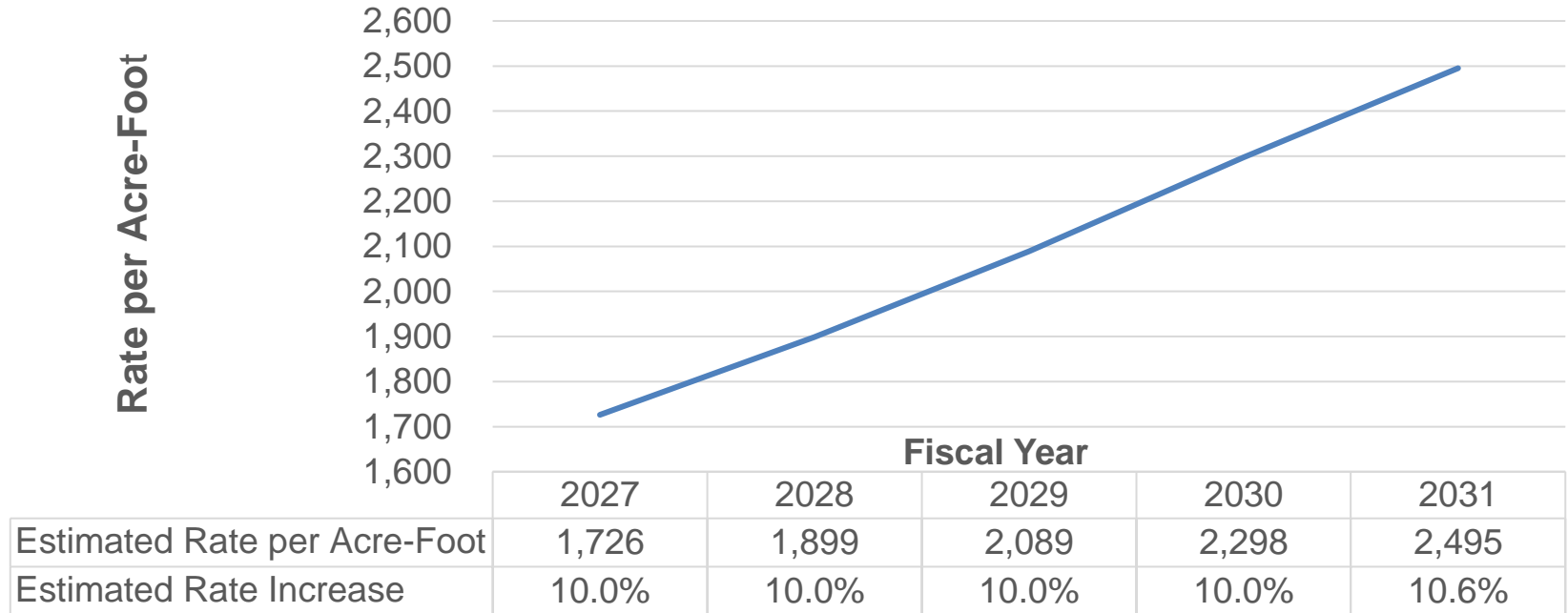


Proposed Rates for FY 25-26

| Charge / Aqueduct | Santa Rosa | Petaluma | Sonoma |
|---|-------------------|-------------------|-------------------|
| Deliveries (Acre-Feet) | 42,407 | | |
| O&M | \$1,029.16 | \$1,029.16 | \$1,029.16 |
| Water Management Planning | \$4.57 | \$4.57 | \$4.57 |
| Watershed Planning & Restoration | \$45.71 | \$45.71 | \$45.71 |
| Recycled Water and Local Supply | \$0.14 | \$0.14 | \$0.14 |
| Water Conservation | \$63.83 | \$63.83 | \$63.83 |
| Total O&M | \$1,143.41 | \$1,143.41 | \$1,143.41 |
| Storage & Common Bond/Loan Charges | \$246.45 | \$246.45 | \$246.45 |
| Petaluma Aqueduct Bond/Loan Charge | | \$15.66 | |
| Sonoma Aqueduct Bond/Loan Charge | | | \$144.56 |
| <i>Prime Contractors</i> | \$1,389.86 | \$1,405.52 | \$1,534.42 |
| <u><i>Discretionary Charges</i></u> | | | |
| Capital Charges - to build fund balance for future projects | \$11.00 | \$10.00 | \$34.90 |
| <i>Prime Contractors</i> | \$11.00 | \$10.00 | \$34.90 |
| <i>Total Prime Contractors</i> | \$1,400.86 | \$1,415.52 | \$1,569.32 |
| Total Overall Increase: | 8.68% | 10.76% | 7.60% |

Long Range Financial Plan

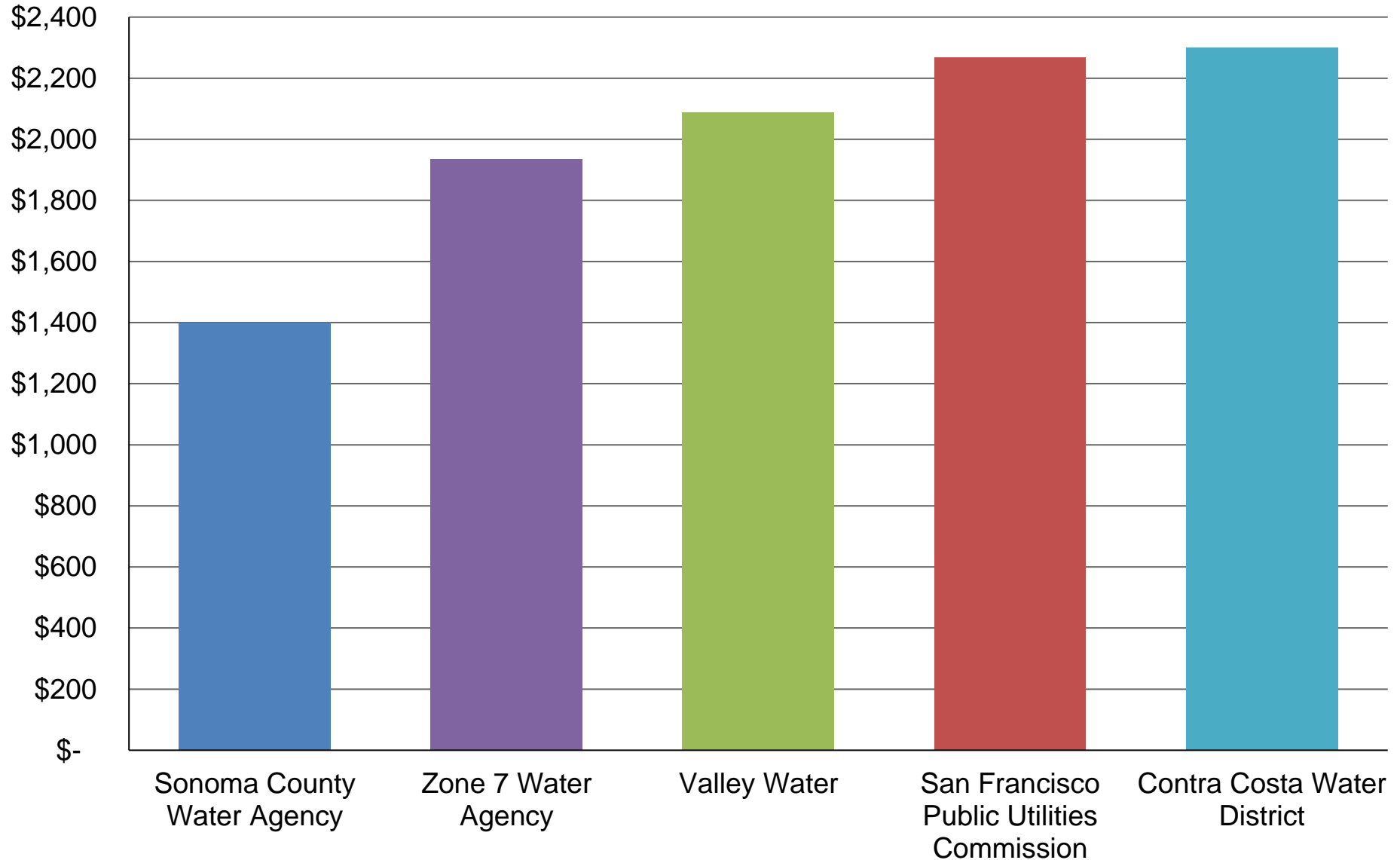
Example Sonoma Aqueduct Rate Scenario



- Assumes Water Demand Growth of 1% based on FY 2025 Budgeted Deliveries of 42,407 AF. Sonoma AQ Deliveries: 3,600 AF to 3,730 AF. Higher Deliveries would reduce rates.
- Estimated 5% growth in O&M Expenses and 4% growth in capital project costs.
- Estimated FY 2028-2029 Financing: \$123.5 Million.



2025 wholesale water rates per Acre-Foot



Next steps

- Technical Advisory Committee Vote – March 3
- Water Advisory Committee Vote – April 7
- Adoption by Sonoma Water's Board – April 22



Sonoma Water Videos

Investing in our infrastructure

Available in English and Spanish at
www.youtube.com/@sonomawater/videos

[Value of water: A brief video on the value of our water supply](#)

[We are Sonoma Water: Where your water comes from](#)

[Water storage tank maintenance: A brief video on how we are working to keep our water storage facilities upgraded, reliable for today and future generations](#)

[Maintaining the Sonoma booster station: Keeping the drinking water flowing to Sonoma, Valley of the Moon Water District one booster station at a time!](#)

[Aqueduct corrosion protection program: A brief video on work to combat corrosion in our aqueduct](#)

[Russian River Aqueduct Crossing: Ensuring safe delivery of drinking water](#)

[Dry Creek habitat restoration: Protecting our natural pipeline, habitat](#)





**Sonoma
Water**

Lynne Rosselli

Financial Services Division Manager

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Jake Spaulding

Finance Manager

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MEMORANDUM

TO: Valley of the Moon Water District Board of Directors

FROM: Oscar Madrigal, Finance Manager

SUBJECT: Monthly Financial Reports & Disbursements for January 2025

Revenue

- January's operating revenue was \$542,892, which was under budget by \$9,961 when periodized and under budget by \$160,174 when using a straight-line average. January operating revenue was \$44,202 more than last fiscal year.
- Water deliveries continue to trend downward and have aligned with recovery projections for the last couple of months.
- Through January, revenue is over projected figures by \$323,928.

Salaries

- Salaries were under budget by 4% through January. Salaries are periodized and consider employees' step increases and other earnings paid at specific times during the year.

Purchased Water

- Purchased water for January was over budget by \$45,046 when periodized.
- Purchased water through January is \$329,626 over budget.
- Water deliveries and agency-purchased water continued to decrease in January, which included some production from wells.

Transfer to/from reserves

- The annual O&M allocation to CIP is \$2,069,401. Year to date, the District has transferred \$1,207,151 to CIP.
- There is no annual budgeted transfer amount from undesignated reserves to O&M this fiscal year.
- O&M is anticipated to have a budget surplus of \$209,804 at the end of the fiscal year. The surplus will help fund the next fiscal year's capital plan.

CIP

- YTD expenditures for CIP as of January 31, 2025, are \$732,097. This includes \$33,128 in expenditures for rollover CIP projects from FY 2023/24.
- We are including a CIP year-end projection report for FY2024-25. We estimate \$439,770 in project savings, \$1,107,000 in roll-over projects, and \$44,798 in over-budget projects. We estimate \$1,906,774 in total CIP for FY2024-25.

Report of Investment

- The Undesignated Reserves are positive at \$936,689; this includes a cash outflow of grant-funded CIP projects.
- The Undesignated Reserves are positive \$1,252,635 when adjusted for pending grant reimbursements.
- The District started its investment portfolio with Time Value Investments (TVI) two years ago. Since its inception in January 2023, it has earned \$152,434.27 in interest, with \$250,158.09 in interest due to maturity for the rest of the portfolio. This does not include interest income from LAIF or Sonoma County Investment Pool.

Expenses

- Expenses without purchased water were under budget by 11%. Some expense accounts are over budget due to unforeseen expenses and purchasing budgeted items early in the fiscal year. Total expenses are over budget by 5%.

Audit Update

- Worked with Auditors to submit the District's 2023-24 Special District Financial Transaction Report to the State Controller's Office. The report was completed and submitted in January 2025.
- The auditors provided an updated list of requests for the FY 2021-2022 audit. The District is working on fulfilling the requests as quickly as possible.
- The District is thoroughly assessing all components of the financial closing and reporting processes to ensure accuracy and develop strong internal controls where deficiencies are found.

Recommendation:

Receive and approve, by roll call vote, the monthly financial reports and disbursements in the amount of \$923,169.26 for the month of January.

Attachments:

Monthly Financial Disbursements

Board of Directors Disbursements

Monthly Revenue & Expense Comparison Report

Report of Investments

Capital Improvement Project Summary

Capital Improvement Project – ASR Well Reports

Capital Improvement Project – FY2024-25 Year-End Projections

VALLEY OF THE MOON WATER DISTRICT

Monthly Financial Disbursements

January 2025

The following demands made against the District are listed for approval and authorization to pay, in accordance with Section 31302 of the California Water Code, being a part of the County Water District Law:

| CK # | Vendor Name | Invoice Description | Amount |
|-------------|--------------------------------|--|---------------|
| 41650 | ACCURATE FORKLIFT, INC. | FORKLIFT MAINTENANCE | 548.25 |
| 41651 | ACWA | 2025 ANNUAL AGENCY DUES | 17,200.00 |
| 41652 | AFLAC | AFLAC PREMIUM (DEC) | 1,276.14 |
| 41653 | AT&T | TELEPHONE - ADMIN OFFICES 11/22/24-12/21/24 | 63.69 |
| 41654 | AUTOMATIONDIRECT.COM, INC. | PUMP STATION BATTERY WALL - RELAYS; PUMPING - PRESSURE TRANSDUCER | 179.59 |
| 41655 | CINTAS | SERVICES TO REPLENISH EMERGENCY SERVICES; AED LEASE AGREEMENT | 392.42 |
| 41656 | CORBIN WILLITS SYSTEMS, INC. | MONTHLY ACCOUNTING & BILLING SOFTWARE (JAN) | 1,051.66 |
| 41657 | SWRCB ACCOUNTING OFFICE | SYSTEM 4910013-CONNECTIONS 0-15,000 7/1/24-6/30/25 | 45,500.48 |
| 41658 | EKI ENVIRONMENT & WATER | PROJ#C40120.00 - WATER MASTER PLAN | 15,085.98 |
| 41659 | INFOSEND, INC | DECEMBER STATEMENT : POSTAGE & BILL PROCESSING | 2,410.54 |
| 41660 | LEETE GENERATORS | GENERATOR - REPAIR/MAINTENANCE | 340.00 |
| 41661 | PACE SUPPLY CORP. | NEW SERVICES, VALVE REPLACE, MAIN REPAIRS, LARBRE WELL(ADD SCADA)-PRTS/MTRLS; INVENTORY SUPPLIES | 5,256.17 |
| 41662 | PARSONS LUMBER & HARDWARE | SMALL TOOLS & EQUIPMENT; SERVICE, VALVE REPLACE, BUILDING MTNC-PARTS/MATERIALS, PROPANE | 168.87 |
| 41663 | PACIFIC GAS & ELECTRIC CO | UTILITIES (DEC) | 8,068.20 |
| 41664 | QUINONEZ CLEANING SERVICE | JANITORIAL SERVICES : NOVEMBER 2024 | 400.00 |
| 41665 | SONOMA VALLEY PEST CONT. | OUTSIDE SERVICES - PEST CONTROL | 105.00 |
| 41666 | SONOMA MATERIALS | VALVE REPLACEMENT PROGRAM - CONCRETE KICKER & PARTS/MATERIALS | 273.05 |
| 41667 | STANDARD INSURANCE CO. | GROUP INSURANCES LTD (DEC) | 368.31 |
| 41668 | STATIONARY ENGINEERS, LOCAL 39 | UNION DUES FOR O&M (DEC) | 944.27 |
| 41669 | STAPLES BUSINESS ADVANTAGE | OFFICE SUPPLIES | 30.15 |
| 41670 | TNEMEC CO INC | DONALD HYDRO COATING | 212.28 |
| 41671 | U.S. BANK EQUIPMENT FINANCE | EQUIPMENT REPLACEMENT - SHARP COPIER | 104.42 |
| 41672 | VERIZON WIRELESS | MACHINE TO MACHINE 11/13/24-12/12/24 | 190.92 |
| 41673 | WHITE OAK ENVIRONMENTAL SAFETY | VERANO & PARK WELL ASR - RENTALS & PARTS/MATERIALS | 3,760.00 |
| 41674 | RICK GOODSSELL | CUSTOMER REFUND | 114.83 |
| 41675 | NORDIN EXCAVATION | CUSTOMER REFUND | 574.40 |
| 41676 | PAUL WATTS | CUSTOMER REFUND | 50.05 |
| 41677 | ACWA/JPIA | GROUP INSURANCES (FEB) | 2,933.43 |
| 41678 | ACWA/JOINT POWERS INS. | WORKERS' COMPENSATION 10/01/24-12/31/24 | 11,836.10 |
| 41679 | AUTOMATIONDIRECT.COM, INC. | WELLS - PARTS AND MATERIALS | 166.99 |
| 41680 | BAY AREA AIR QUALITY | INV#T176948 AIR QUALITY PERMIT - DONALD BOOSTER | 1,604.00 |
| 41681 | BURKE, WILLIAMS & SORENSEN, LL | ATTORNEY FEES (DEC) & HR EXPENSES (DEC) & LABOR NEGOTIATIONS (DEC) | 6,750.15 |
| 41682 | B.W.S. DISTRIBUTORS, INC | CALIBRATION INSTRUMENT/LABOR RATE | 140.51 |
| 41683 | CALIFORNIA WATER EFFICIENCY PA | MD-2025-353 CALWEP & AWE DUES 2025 | 3,390.70 |
| 41684 | CERVANTES LANDSCAPE, LLC | LANDSCAPING SERVICES (DEC) | 250.00 |
| 41685 | CHECKRITE BACKFLOW SVC. | G.E. FORUM AGREEMENT - BF TESTING | 120.00 |
| 41686 | COMPLETE WELDERS SUPPLY | VERANO WELL ASR - NITROGEN FOR SAMPLE PUMPS | 31.91 |
| 41687 | COMCAST | INTERNET SERVICES (JAN) | 392.50 |
| 41688 | CORE UTILITIES, INC. | CONSULTING SERVICES (DEC) | 330.00 |
| 41689 | EKI ENVIRONMENT & WATER | PROJ C20169.00 PARK & VERANO WELL ASR & WELL NO. 11 | 32,380.64 |
| 41690 | FRIEDMAN'S HOME IMPROVEMENT | BUILDING MTNC - PRTS/MTRLS; SMALL TOOLS & EQUIP- RAKES, BARB WIRE REPAIRS; VALVE REPLACE PROG-PRTS/MTRLS | 419.07 |
| 41691 | GARY'S POOL SERVICE | CHLORINE THROUGH 09/29/24 | 4,459.99 |
| 41692 | AMANDA HUDSON | REIM: COFFEE FOR CITY OF PETALUMA VISITORS | 30.95 |
| 41693 | JD STRAND TRUCKING, INC. | HAULING SERVICES | 1,232.50 |
| 41694 | KEVIN LOPEZ | CELLPHONE REIMBURSEMENT : JULY24-DEC24 | 180.00 |
| 41695 | M. MASELLI & SONS, INC | EQUIPMENT & VEHICLE MTNC & PUMPING - PARTS AND MATERIALS | 207.07 |
| 41696 | NICK BARBIERI TRUCKING, LLC | FUEL | 1,692.66 |
| 41697 | PRES TECH | EXHAUST HOSE | 912.78 |
| 41698 | RECOLOGY SONOMA MARIN | TRASH DISPOSAL (DEC) | 554.35 |
| 41699 | SAN TIMOTEO ENERGY ASSOCIATES | IPMHG ASSESSMENT - FEASIBILITY STUDIES | 875.00 |
| 41700 | NEW ANSWERNET, INC. | MONTHLY ANSWERING SERVICES (DEC) | 137.00 |
| 41701 | SONOMA CO. WATER AGENCY | WATER PURCHASES 11/26/24-12/30/24 | 238,703.39 |
| 41702 | COUNTY OF SONOMA/PERMIT & | ENC25-0004 VOMWD ANNUAL BLANKET PERMIT | 1,384.77 |
| 41703 | STAPLES BUSINESS ADVANTAGE | OFFICE SUPPLIES | 252.48 |
| 41704 | USA BLUEBOOK | WELLS-PARTS AND MATERIALS; REPLACEMENT HOSES FOR VAC TRUCKS; PRESSURE TRANSMITTER | 2,414.56 |
| 41705 | VERIZON WIRELESS | CELLPHONE SERVICE 12/04/24-01/03/25 | 566.37 |
| 41706 | AFLAC | AFLAC PREMIUM (JAN) | 1,276.14 |
| 41707 | AT&T | TELEPHONE - ADMIN OFFICES 12/22/24-01/21/25 | 61.51 |
| 41708 | AUTOMATIONDIRECT.COM, INC. | TEMELEC TANK RECOATING - ENCLOSURES; PUMPING - PANEL HEATER AND THERMOSTAT | 1,057.22 |
| 41709 | BLUE-WHITE INDUSTRIES | WELLS - PARTS AND MATERIALS | 77.39 |
| 41710 | CALTEST LABORATORY | ROUTINE WATER TESTING; PARK & VERANO WELL ASR PILOT TESTING; VALVE REPLACE. PROG. TESTING; MCI TESTING | 32,117.60 |
| 41711 | CHECKRITE BACKFLOW SVC. | INV#33198 ANNUAL BACKFLOW TESTING - CREEKSIDE HOA | 3,024.00 |
| 41712 | CINTAS | SERVICE TO REPLENISH EMERGENCY SUPPLIES | 34.14 |
| 41713 | CITY OF SANTA ROSA | UWMP DEMAND & CONSERVATION ANALYSIS - VOMWD SHARE | 16,428.00 |

VALLEY OF THE MOON WATER DISTRICT

Monthly Financial Disbursements

January 2025

| CK # Vendor Name | Invoice Description | Amount |
|---------------------------------------|--|---------------|
| 41714 CORBIN WILLITS SYSTEMS, INC. | MONTHLY ACCOUNTING & BILLING SOFTWARE (FEB) | 1,051.66 |
| 41715 EKI ENVIRONMENT & WATER | PROJ#C40276.00 - 2024 URBAN WATER USE OBJECTIVE | 8,000.00 |
| 41716 FEDEX | RENTAL RETURN TO WHITE OAK | 49.14 |
| 41717 NICK BARBIERI TRUCKING, LLC | FUEL | 694.58 |
| 41718 PACE SUPPLY CORP. | PED WELL, LARBRE WELL (ADD SCADA), WELLS,GE FORUM, VALVE REPLACEMENT PROG-PARTS & MATERIALS, INVENTORY | 5,018.98 |
| 41719 GABRIEL PEREZ | REIMBURSEMENT FOR PLUMBING - ORANGE AVE MAIN BREAK | 185.00 |
| 41720 PLATT ELECTRIC SUPPLY | LARBRE WELL (ADD SCADA) - PARTS AND MATERIALS; BOARD ROOM UPDATES - PARTS AND MATERIALS | 277.73 |
| 41721 QUALITY PAINTING & SANDBLASTING | TEMELEC 1M TANK RECOAT- INTERIOR BLAST 50% | 167,970.00 |
| 41722 SAFETY-KLEEN CORP. | 30G PART WASHER MAINTENANCE | 594.64 |
| 41723 SMILE BUSINESS PRODUCTS | MONTHLY PRINTER LEASE 01/10/25-02/09/25 | 36.36 |
| 41724 NAPA AUTO PARTS | BATTERY FOR TRUCK #31 | 303.82 |
| 41725 STANDARD INSURANCE CO. | GROUP INSURANCES LTD (JAN) | 368.31 |
| 41726 STATIONARY ENGINEERS, LOCAL 39 | UNION DUES FOR O&M (JAN) | 944.27 |
| 41727 STAPLES BUSINESS ADVANTAGE | OFFICE SUPPLIES | 101.81 |
| 41728 ULINE, INC | MARKING PAINT & WAND | 203.41 |
| 41729 USA BLUEBOOK | WELLS-INJECTION QUILL; DONALD WELL PUMP REPLACE & LARBRE WELL (ADD SCADA) - PARTS AND MATERIALS | 1,734.85 |
| 41730 U.S. BANK EQUIPMENT FINANCE | EQUIPMENT REPLACEMENT - SHARP COPIER | 104.42 |
| 41731 VERIZON WIRELESS | MACHINE TO MACHINE 12/13/24-01/12/25 | 186.13 |
| 41732 WEEKS DRILLING & PUMP CO | DONALD WELL PUMP REPLACEMENT - ELECTRICAL UPDATE | 20,428.10 |
| 41733 WHITE OAK ENVIRONMENTAL SAFETY | PARK WELL ASR - RENTALS | 140.00 |
| 41734 WEBSOFT DEVELOPERS, INC. | MMS ANNUAL SOFTWARE SUBSCRIPTION 7/1/24-6/30/25 | 20,072.00 |
| ACH RETIREES | RETIREEES BENEFITS (JAN) | 3,381.50 |
| ACH CALIFORNIA EMPLOYMENT DEVELOPMENT | STATE PAYROLL TAXES 01/09/25 | 3,728.34 |
| ACH CALIFORNIA EMPLOYMENT DEVELOPMENT | STATE ADMIN TIME PAYOUT PAYROLL TAXES 01/10/25 | 643.36 |
| ACH CALIFORNIA EMPLOYMENT DEVELOPMENT | STATE PAYROLL TAXES 01/23/25 | 3,803.45 |
| ACH EFTPS FEDERAL TAX WITHHOLDING | FEDERAL PAYROLL TAXES 01/09/25 | 17,824.50 |
| ACH EFTPS FEDERAL TAX WITHHOLDING | FEDERAL ADMIN TIME PAYOUT PAYROLL TAXES 01/10/25 | 3,076.59 |
| ACH EFTPS FEDERAL TAX WITHHOLDING | FEDERAL PAYROLL TAXES 01/23/25 | 18,054.94 |
| ACH EXPERTPAY.COM | PERSONNEL-RELATED DISBURSEMENT PAYROLL 01/09/25 & PAYMENT FEE | 472.73 |
| ACH EXPERTPAY.COM | PERSONNEL-RELATED DISBURSEMENT PAYROLL 01/23/25 & PAYMENT FEE | 472.73 |
| ACH FIRST BANKCARD CENTER | BOARD ROOM UPDATES; ACWA CONFERENCE : MEAL EXPENSES | 2,718.57 |
| ACH PERS | CLASSIC RETIREMENT CONTRIBUTION PAYROLL 01/09/25 | 1,759.47 |
| ACH PERS | DEFERRED COMP CONTRIBUTION PAYROLL 01/09/25 | 2,150.00 |
| ACH PERS | PEPRA RETIREMENT CONTRIBUTION PAYROLL 01/09/25 | 9,579.35 |
| ACH PERS | HEALTH INSURANCE PREMIUM (JAN) | 33,544.00 |
| ACH PERS | CLASSIC RETIREMENT CONTRIBUTION PAYROLL 01/23/25 | 1,759.47 |
| ACH PERS | DEFERRED COMP CONTRIBUTION PAYROLL 01/23/25 | 2,150.00 |
| ACH PERS | PEPRA RETIREMENT CONTRIBUTION PAYROLL 01/23/25 | 9,692.72 |
| ACH VALIC | DEFERRED COMP CONTRIBUTION PAYROLL 01/09/25 | 700.00 |
| ACH VALIC | 401A CONTRIBUTION PAYROLL 01/09/25 | 250.00 |
| ACH VALIC | DEFERRED COMP CONTRIBUTION PAYROLL 01/23/25 | 700.00 |
| ACH VALIC | 401A CONTRIBUTION PAYROLL 01/23/25 | 250.00 |
| ACH WESTAMERICA BANK | BANK CHARGES (DEC 2024) | 531.97 |
| ACH WESTAMERICA BANK | EE RELATIONS, ACWA CONFERENCE EXPEN.,OFFICE DUES&SUBS,OFFICE&SAFETY SUPPLIES,BOARD ROOM UPDATES | 7,590.27 |

Net Payroll (After Deductions) 96,774.55

BOARD PRESIDENT

923,169.26

GENERAL MANAGER

Board of Directors
January Disbursement

| Pay Date | Bryant | Foreman | Caniglia | Rogers | Yudin-Cowan |
|----------|--------|---------|----------|--------|-------------|
|----------|--------|---------|----------|--------|-------------|

| | | | | | |
|-------|------|------|------|------|------|
| Total | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
|-------|------|------|------|------|------|

VALLEY OF THE MOON WATER DISTRICT
MONTHLY REVENUE AND EXPENSE COMPARISON
PERIOD ENDING JANUARY 31, 2025

42% of year remaining

| | Actual | Actual | Approved Budget | Approved Budget (Monthly) | Current Month Actual | Variance (Mo) | Budget (YTD) | Fiscal Year To Date Actual | Variance (YTD) | Budget Remaining | % Remaining | Forecasting Notes & Significant Changes for 2024-2025 |
|---|------------------|------------------|------------------|---------------------------|----------------------|----------------|------------------|----------------------------|-----------------|------------------|-------------|---|
| | 22-23 | 23-24 | 24-25 | JANUARY | JANUARY | JANUARY | 07/24-06/25 | 07/24-06/25 | 07/24-06/25 | 24-25 | 24-25 | |
| Revenues | | | | | | | | | | | | |
| Interest Income | \$ 71,846 | \$ 173,071 | \$ 155,805 | \$ 12,984 | 49,361 | 36,377 | \$ 90,886 | \$ 149,343 | \$ 58,457 | \$ 6,462 | 4% | |
| Gain on Sale of Assets | - | - | - | \$ - | - | - | \$ - | \$ - | \$ - | - | - | |
| Operating Revenue | 6,362,546 | 7,593,965 | 8,436,790 | \$ 552,853 | 542,892 | (9,961) | \$ 5,421,801 | 5,745,729 | \$ 323,928 | 2,691,061 | 32% | |
| Backflow Testing Revenue | 45,681 | 46,341 | 51,596 | \$ 4,300 | 2,199 | (2,101) | \$ 30,098 | 25,362 | \$ (4,736) | 26,234 | 51% | This account offsets the backflow outside service expense account |
| Customer Penalties & Fees | 63,987 | 64,715 | 23,640 | \$ 1,970 | 5,398 | 3,428 | \$ 13,790 | 36,247 | \$ 22,457 | (12,607) | -53% | |
| Misc. Income | 31,884 | 129,803 | 12,000 | \$ 1,000 | 904 | (96) | \$ 7,000 | 19,734 | \$ 12,734 | (7,734) | -64% | |
| Leak Adjustments | (8,393) | (7,923) | (9,613) | \$ (630) | (434) | 196 | \$ (6,178) | (5,605) | \$ 573 | (4,008) | 42% | |
| Total Revenue | 6,567,551 | 7,999,972 | 8,670,218 | 572,477 | 600,320 | 27,843 | 5,557,397 | 5,970,810 | 413,413 | 2,699,407 | 31% | |
| Expenses | | | | | | | | | | | | |
| Salaries: | | | | | | | | | | | | |
| O&M - Operating Wages | 962,035 | 1,016,310 | 1,105,430 | \$ 85,055 | 77,956 | (7,099) | \$ 634,569 | 584,771 | (49,798) | 520,659 | 47% | |
| Stand-By | 32,103 | 32,150 | 35,371 | \$ 2,948 | 2,830 | (118) | \$ 20,633 | 20,460 | (173) | 14,911 | 42% | |
| Net O&M Operating Wages | 994,138 | 1,048,460 | 1,140,801 | 88,003 | 80,786 | (7,217) | 655,202 | 605,231 | (49,970) | 535,569 | 47% | |
| Administration | 613,051 | 705,553 | 768,149 | 57,617 | 65,933 | 8,316 | \$ 448,534 | 440,673 | (7,861) | 327,476 | 43% | |
| Temporary Employees | - | - | - | - | - | - | \$ - | - | - | - | - | |
| Total Salaries | 1,607,189 | 1,754,013 | 1,908,949 | 145,619 | 146,719 | 1,100 | 1,103,736 | 1,045,904 | (57,831) | 863,045 | 45% | |
| Weighted Wages Transferred to Capital Projects | (601,892) | (438,503) | (477,237) | (36,339) | (36,680) | (341) | (275,900) | (261,476) | 14,424 | (215,761) | 45% | |
| Net Operating Wages | 1,005,297 | 1,315,510 | 1,431,712 | 109,280 | 110,039 | 759 | 827,836 | 784,428 | (43,408) | 647,284 | 45% | Net Wages used to calculate Net Position |

VALLEY OF THE MOON WATER DISTRICT
MONTHLY REVENUE AND EXPENSE COMPARISON
PERIOD ENDING JANUARY 31, 2025

42% of year remaining

| | Actual | Actual | Approved Budget | Approved Budget (Monthly) | Current Month Actual | Variance (Mo) | Budget (YTD) | Fiscal Year To Date Actual | Variance (YTD) | Budget Remaining | % Remaining | Forecasting Notes & Significant Changes for 2024-2025 |
|--|---------------------|---------------------|---------------------|---------------------------|----------------------|------------------|---------------------|----------------------------|-------------------|-------------------|-------------|---|
| | 22-23 | 23-24 | 24-25 | JANUARY | JANUARY | JANUARY | 07/24-06/25 | 07/24-06/25 | 07/24-06/25 | 24-25 | 24-25 | |
| Benefits: | | | | | | | | | | | | |
| O&M - Operating & Maintenance Administration | 195,575 | 232,769 | 243,149 | 20,262 | 21,256 | 994 | \$ 141,837 | 143,133 | 1,296 | 100,016 | 41% | |
| Retirees | 122,828 | 125,741 | 128,662 | 10,722 | 11,415 | 693 | \$ 75,053 | 74,305 | (748) | 54,357 | 42% | |
| Total Benefits | 62,324 | 49,141 | 65,917 | 5,493 | 6,962 | 1,469 | \$ 38,451 | 37,714 | (737) | 28,203 | 43% | |
| Mandatory Costs | | | | | | | | | | | | |
| Workers Comp: | | | | | | | | | | | | |
| Operating & Maintenance Acct/Administration | 50,657 | 50,116 | 39,683 | 3,307 | - | (3,307) | \$ 23,148 | 18,894 | (4,254) | 20,789 | 52% | |
| FICA/Medicare: | 6,814 | 7,329 | 5,774 | 481 | - | (481) | \$ 3,368 | 2,863 | (505) | 2,911 | 50% | |
| Operating & Maintenance Administration | 76,190 | 79,679 | 86,353 | 7,196 | 6,451 | (745) | \$ 50,373 | 48,657 | (1,716) | 37,696 | 44% | |
| District Portion/Retirement: | 41,731 | 48,139 | 54,759 | 4,563 | 4,645 | 82 | \$ 31,943 | 29,178 | (2,765) | 25,581 | 47% | |
| Operating & Maintenance Administration | 88,765 | 97,007 | 96,880 | 8,073 | 7,490 | (583) | \$ 56,513 | 55,516 | (997) | 41,364 | 43% | |
| CalPERS Accrued Liability | 65,275 | 77,011 | 83,438 | 6,953 | 6,529 | (424) | \$ 48,672 | 48,264 | (408) | 35,174 | 42% | |
| Total Mandatory Costs | 241,836 | 229,834 | 272,276 | 22,690 | 22,634 | (55) | \$ 158,828 | 158,441 | (387) | 113,835 | 42% | |
| Travel & Training | | | | | | | | | | | | |
| Operating & Maintenance Administration | 4,066 | 13,239 | 13,985 | 1,165 | 491 | (674) | \$ 8,158 | 12,971 | 4,813 | 1,014 | 7% | ACWA Conference |
| Total Travel & Training | 3,547 | 6,629 | 11,007 | 917 | 2,169 | 1,252 | \$ 6,421 | 10,217 | 3,796 | 790 | 7% | ACWA Conference |
| Board of Directors: | | | | | | | | | | | | |
| Meeting Compensation | 19,235 | 16,276 | 24,109 | 2,009 | - | (2,009) | \$ 14,064 | 8,564 | (5,500) | 15,545 | 64% | |
| Travel & Training | 3,334 | 1,887 | 4,111 | 343 | 32 | (311) | \$ 2,398 | 193 | (2,205) | 3,918 | 95% | |
| Total Board Expenses | \$ 22,569 | \$ 18,163 | \$ 28,220 | \$ 2,352 | 32 | (2,320) | 16,462 | 8,757 | (7,705) | 19,463 | 69% | |
| Purchased Water | | | | | | | | | | | | |
| Purchased Water | \$ 1,900,631 | \$ 2,247,293 | \$ 2,488,078 | 148,720 | 193,766 | 45,046 | \$ 1,663,499 | 1,993,125 | 329,626 | 494,953 | 20% | Water Deliveries Increased |
| GSA Fee | 7,393 | 7,465 | 15,000 | 1,250 | 1,282 | 32 | \$ 8,750 | 8,974 | 224 | 6,026 | 40% | |
| Total Purchased Water | \$ 1,908,024 | \$ 2,254,758 | \$ 2,503,078 | \$ 149,970 | \$ 195,048 | \$ 45,078 | \$ 1,672,249 | \$ 2,002,099 | \$ 329,850 | \$ 500,979 | 20% | |

VALLEY OF THE MOON WATER DISTRICT
MONTHLY REVENUE AND EXPENSE COMPARISON
PERIOD ENDING JANUARY 31, 2025

42% of year remaining

| | Actual | Actual | Approved Budget | Approved Budget (Monthly) | Current Month Actual | Variance (Mo) | Budget (YTD) | Fiscal Year To Date Actual | Variance (YTD) | Budget Remaining | % Remaining | Forecasting Notes & Significant Changes for 2024-2025 |
|---|---------------------|---------------------|--------------------|---------------------------|----------------------|-----------------|--------------------|----------------------------|------------------|---------------------|--------------|---|
| | 22-23 | 23-24 | 24-25 | JANUARY | JANUARY | JANUARY | 07/24-06/25 | 07/24-06/25 | 07/24-06/25 | 24-25 | 24-25 | |
| Services & Supplies | | | | | | | | | | | | |
| Safety & Clothing Allowance | 16,522 | 19,960 | 12,534 | 1,045 | - | (1,045) | \$ 7,312 | 6,455 | (857) | 6,079 | 49% | |
| COVID-19 Response | 593 | - | - | - | - | - | \$ - | - | - | - | - | |
| Vehicle Maintenance | 18,608 | 22,279 | 16,099 | 1,342 | 309 | (1,033) | \$ 9,391 | 7,388 | (2,003) | 8,711 | 54% | Radiator Replacement - Truck #44 |
| Election Costs | 25,854 | - | 62,203 | 5,184 | - | (5,184) | \$ 36,285 | - | (36,285) | 62,203 | 99% | |
| Employee Relations | 3,956 | 4,229 | 5,493 | 458 | 544 | 86 | \$ 3,204 | 2,739 | (465) | 2,754 | 50% | |
| Legal Fees | 114,012 | 106,375 | 73,935 | 6,161 | - | (6,161) | \$ 43,129 | 41,826 | (1,303) | 32,109 | 43% | |
| SDC Expenses | - | 14,559 | 30,000 | 2,500 | - | (2,500) | \$ 17,500 | 365 | (17,135) | 29,635 | 99% | |
| HR Expenses | - | 3,605 | 5,163 | 430 | - | (430) | \$ 3,012 | 2,365 | (647) | 2,798 | 54% | |
| Engineering General Support | 2,045 | 7,275 | 3,955 | 330 | - | (330) | \$ 2,307 | - | (2,307) | 3,955 | 100% | |
| Advertising | 732 | 6,834 | 1,033 | 86 | - | (86) | \$ 603 | - | (603) | 1,033 | 100% | |
| Outside Services | 32,992 | 24,837 | 35,025 | 2,919 | 2,507 | (412) | \$ 20,431 | 16,973 | (3,458) | 18,052 | 52% | |
| Outside Services Backflow | 23,374 | 57,429 | 51,596 | 4,300 | 3,024 | (1,276) | \$ 30,098 | 23,423 | (6,675) | 28,173 | 55% | This account offsets the backflow testig revenue account |
| Annual Audit | - | - | 21,323 | 1,777 | - | (1,777) | \$ 12,438 | 8,274 | (4,164) | 13,049 | 61% | |
| Bad Debts/Collections | 26,950 | 8,135 | 13,788 | 1,149 | 3,455 | 2,306 | \$ 8,043 | 12,037 | 3,994 | 1,751 | 13% | |
| Building MTNC. | 8,573 | 21,195 | 9,825 | 819 | 336 | (483) | \$ 5,731 | 3,691 | (2,040) | 6,134 | 62% | |
| Dues and Subscriptions | 24,984 | 25,991 | 29,206 | 2,434 | 5,162 | 2,728 | \$ 17,037 | 16,896 | (141) | 12,310 | 42% | |
| Equipment MTNC./Repairs | 23,795 | 25,162 | 25,157 | 2,096 | 2,574 | 478 | \$ 14,675 | 18,917 | 4,242 | 6,240 | 25% | Generator Retrofit/Repair |
| Fees (County/State) | 63,441 | 66,595 | 74,975 | 6,248 | 1,562 | (4,686) | \$ 43,735 | 67,912 | 24,177 | 7,063 | 9% | LAFCO |
| Fuel | 33,775 | 36,475 | 38,550 | 3,213 | 2,421 | (792) | \$ 22,488 | 18,529 | (3,959) | 20,021 | 52% | |
| Bank Charges | 11,297 | 19,072 | 18,585 | 1,549 | 1,359 | (190) | \$ 10,841 | 11,769 | 928 | 6,816 | 37% | |
| Liability Ins. (Incl. Losses) | 70,079 | 88,758 | 104,280 | 8,690 | 8,390 | (300) | \$ 60,830 | 57,967 | (2,863) | 46,313 | 44% | |
| Postage | 20,663 | 22,666 | 26,600 | 2,217 | 1,907 | (310) | \$ 15,517 | 13,613 | (1,904) | 12,987 | 49% | |
| Public Information | 6,324 | 4,346 | 5,567 | 464 | - | (464) | \$ 3,247 | 256 | (2,991) | 5,311 | 95% | |
| Service Contracts | 68,448 | 64,458 | 82,124 | 6,844 | 6,030 | (814) | \$ 47,906 | 42,258 | (5,648) | 39,866 | 49% | |
| Office Supplies | 12,563 | 6,630 | 9,043 | 754 | 492 | (262) | \$ 5,275 | 3,453 | (1,822) | 5,590 | 62% | |
| Telephone-Internet | 16,243 | 16,720 | 18,444 | 1,537 | 1,698 | 161 | \$ 10,759 | 12,911 | 2,152 | 5,533 | 30% | |
| Small Tools & Equipment | 19,590 | 30,869 | 28,612 | 2,384 | 50 | (2,334) | \$ 16,690 | 19,380 | 2,690 | 9,232 | 32% | Budgeted items purchased early in the fiscal year. New locators |
| Trash Disposal | 6,133 | 7,025 | 7,046 | 587 | 554 | (33) | \$ 4,110 | 4,233 | 123 | 2,813 | 40% | |
| Utilities - PG&E | 181,618 | 200,358 | 210,044 | 17,504 | 7,537 | (9,967) | \$ 122,526 | 103,900 | (18,626) | 106,144 | 51% | |
| Professional Services | 124,312 | 47,093 | 111,060 | 9,255 | 16,698 | 7,443 | \$ 64,785 | 23,278 | (41,507) | 87,782 | 79% | |
| Water Testing | 46,360 | 36,787 | 46,271 | 3,856 | 3,382 | (474) | \$ 26,991 | 31,963 | 4,972 | 14,308 | 31% | UCMRS |
| Water Main Maintenance | 5,142 | 7,525 | 51,162 | 4,264 | (1,645) | (5,909) | \$ 29,845 | 10,411 | (19,434) | 40,751 | 80% | |
| Service Line Maintenance | 6,190 | 3,957 | 11,315 | 943 | 909 | (34) | \$ 6,600 | 3,452 | (3,148) | 7,863 | 69% | |
| Hydrant Repairs | 1,414 | 175 | 4,394 | 366 | - | (366) | \$ 2,563 | 219 | (2,344) | 4,175 | 95% | |
| Misc. System Maintenance | 6,243 | 21,542 | 5,525 | 460 | 924 | 464 | \$ 3,223 | 4,047 | 824 | 1,478 | 27% | |
| Wells Maintenance | 12,305 | 9,598 | 20,777 | 1,731 | 2,845 | 1,114 | \$ 12,120 | 7,536 | (4,584) | 13,241 | 64% | |
| Pump Maintenance | 9,224 | 21,306 | 11,364 | 947 | 251 | (696) | \$ 6,629 | 7,628 | 999 | 3,736 | 33% | Heaven Hill pump replacement |
| Storage Tank Maintenance | 8,930 | 12,909 | 12,906 | 1,076 | - | (1,076) | \$ 7,529 | 5,212 | (2,317) | 7,694 | 60% | Annual Tank Inspections |
| Water Conservation Program | 18,486 | 6,599 | 28,084 | 2,340 | 8,215 | 5,875 | \$ 16,382 | 10,951 | (5,431) | 17,133 | 61% | |
| Interest Expense | (38) | - | 0 | 0 | - | - | \$ - | - | - | - | 0% | |
| Equipment Replacement | 3,020 | 1,373 | 3,057 | 255 | 104 | (151) | \$ 1,783 | 1,665 | (118) | 1,392 | 46% | Budgeted items purchased early in the fiscal year. Laptop |
| Total Services & Supplies | 1,074,752 | 1,080,700 | 1,326,120 | 110,510 | 81,594 | (28,916) | 773,570 | 623,892 | (149,678) | 702,228 | 53% | |
| Total Expenses | 4,970,250 | 5,685,765 | 6,391,013 | 463,936 | 476,756 | 12,820 | 3,932,882 | 4,059,329 | 126,447 | 2,331,684 | 36% | |
| Revenues Less Expenses | 1,597,301 | 2,314,207 | 2,279,205 | 108,541 | 123,564 | 15,023 | 1,624,515 | 1,911,481 | 286,966 | 367,723 | 16% | |
| O&M Allocation to CIP | (2,494,894) | (682,323) | (2,069,401) | (172,450) | (172,450) | - | (1,207,151) | (1,207,151) | - | (862,250) | 42% | |
| Transfer to/from Undesignated Reserves | \$ (897,592) | \$ 1,631,884 | \$ 209,804 | \$ (63,909) | \$ (48,886) | \$ - | \$ 417,365 | \$ 704,331 | \$ - | \$ (494,527) | -236% | |

VALLEY OF THE MOON WATER DISTRICT
 REPORT OF INVESTMENTS AND RESERVES
 For the Month Ended January 2025

Start of Fiscal Year

| | | | |
|--------------------------------------|------|----|-------------------------|
| | LAIF | \$ | 2,268,168 |
| | SCIP | | 128,889 |
| | TVI | | 2,090,097 |
| Westamerica Bank Checking/Petty Cash | | | <u>1,061,092</u> |
| Total Beginning Cash | \$ | | <u><u>5,548,245</u></u> |

Average Rate of Interest

| <u>Year To Date</u> | | | |
|--------------------------------------|------|----|-------------------------|
| | LAIF | \$ | 3,629,294 |
| | SCIP | | 131,398 |
| | TVI | | 2,137,758 |
| Westamerica Bank Checking/Petty Cash | | | <u>410,952</u> |
| Total ending Cash | \$ | | <u><u>6,309,403</u></u> |

| | | | |
|---|----------------------------------|----|--------------------|
| | Outstanding Payments | \$ | (287,323) |
| | Adjusted Cash/Investment Balance | | <u>6,022,079</u> |
| <hr/> | | | |
| (1) Board Designated Reserves (Board Approved with 24/25 Budget) | | | |
| (a) Operations & Maintenance Reserve (3 Months Operations) | | | (1,597,753) |
| (b) Rate Stabilization Reserve | | | (722,518) |
| (c) Capital Improvement Program | | | (930,000) |
| Total Board Designated Reserves | | | <u>(3,250,271)</u> |
| Remaining Cash/Investment Balance | \$ | | 2,771,808 |
| <hr/> | | | |
| Previous Capacity Fees Balance | | | (254,435) |
| (2) Year To Date Capacity Fees Collected FY 24/25 | | | (339,450) |
| Capacity Fees to CIP FY 24/25 | | | 360,000 |
| Total Capacity Fees Restricted Funds | | | <u>(233,885)</u> |
| <hr/> | | | |
| (3) FY 2023-2024 Board Approved Capital Projects | | | (2,580,997) |
| Year to Date Capital Project Disbursements | | | 698,970 |
| Remaining Transfer of Current Year Revenues to Capital Project Fund | | | 1,075,415 |
| Rollover Projects FY23-24 | | | (827,750) |
| Year to Date Rollover Projects Disbursements | | | 33,128 |
| YTD Capital Project Unexpended funds | | | <u>(1,601,234)</u> |
| <hr/> | | | |
| Undesignated Reserves- funding for remaining 5-Year Capital Plan | \$ | | <u>936,689</u> |
| <hr/> | | | |
| Pending Grant Expense Reimbursements | \$ | | 315,946 |
| Adjusted Undesignated Reserves | \$ | | <u>1,252,635</u> |
| <hr/> | | | |
| Remaining 5-Year Capital Plan | \$ | | <u>13,960,731</u> |

| Project # | Project | Improvement Description | CIP Roll Over | Current CIP Budget | Total CIP Budget | Current Month - JAN | YTD Expenditures | Budget Remaining | % Remaining |
|--|--|---|----------------|--------------------|------------------|---------------------|------------------|------------------|-------------|
| | | | 2023/24 | 2024/25 | 2024/25 | | | | |
| Facilities and Maintenance Projects | | | | | | | | | |
| CIP-3015 | Caltrans Project on Hwy 12 | Work done by Caltrans affecting District facilities. | 50,000 | - | 50,000 | - | - | 50,000 | 100% |
| CIP-6001 | New Services | Customer pays 100%. | - | - | - | - | 13,825 | | |
| CIP-6004 | All Service Replacements | All service replacements combined. | - | 59,000 | 59,000 | 106 | 58,419 | 581 | 1% |
| CIP-8100 | Valve Replacement Program | Valve replacement for system reliability and control. | - | 59,000 | 59,000 | 5,245 | 31,238 | 27,762 | 47% |
| CIP-3047 | Seismic Vulnerability Assessment (LHMP) | From LHMP. District to pay 100% of assessment. District will seek FEMA grant funds for resulting projects. | 21,758 | 228,242 | 250,000 | 908 | 1,369 | 248,631 | 99% |
| CIP-3050 | Lead Service Line Inventory | LCRR - Required by federal EPA. | - | 73,010 | 73,010 | - | 15,848 | 57,162 | 78% |
| CIP-3053 | Spare Generator purchase | In case of failure in generator (The District operates many older generators that may fail at any time). | - | 109,007 | 109,007 | - | 108 | 108,899 | 100% |
| CIP-3054 | IPMHG Assessment | Assess the value of installing inpipe micro hydro generators at specific locations in the distribution system. This may lead to further engineering and equipment purchases. | - | 8,000 | 8,000 | 4,963 | 5,911 | 2,089 | 26% |
| CIP-2991 | GPS Facilities | Finish GPSing the meters and valves. Assumes \$50 per location. | - | 59,000 | 59,000 | 3,351 | 17,375 | 41,625 | 71% |
| CIP-3055 | District Device upgrade | Equipment upgrades needed to facilitate mobile workorder systems. Includes mounting, software, 3 laptops, 1 desktop, 2 ipads. | - | 21,384 | 21,384 | 60 | 23,242 | (1,858) | -9% |
| CIP-3056 | Temelec Area Irrigation service line abandonment | Re-evaluate after first year for future funding. | - | 59,000 | 59,000 | - | 32,034 | 26,966 | 46% |
| CIP-3057 | 1-1/2 & 2" PB service line replacement | Re-evaluate after first year for future funding. | - | 59,000 | 59,000 | - | 44,314 | 14,686 | 25% |
| CIP-3058 | Boardroom Upgrade | | - | 40,436 | 40,436 | 3,643 | 9,308 | 31,128 | 77% |
| CIP-3059 | Roof Repair on Main Office Building | Leaking roof caused framing damage. | - | 44,929 | 44,929 | - | 10,362 | 34,567 | 77% |
| CIP-3060 | SDC Evaluation | Evaluate water treatment plant and transmission systems for needed upgrades and provide OPC for construction. | - | 280,809 | 280,809 | 359 | 446 | 280,363 | 100% |
| CIP-3065 | Water Master Plan - Prioritized CIP List | Develop and updated WMP prioritized CIP List | - | 151,597 | 151,597 | 24,584 | 54,188 | 97,409 | 64% |
| Total Facilities and Maintenance Projects | | | 71,758 | 1,252,414 | 1,324,172 | 43,219 | 317,986 | 1,006,186 | 76% |
| Pipeline Projects | | | | | | | | | |
| CIP-3022 | WMP: P-7. Altamira Middle School Fire Flow Improvement | Replace existing 6-inch and 8-inch PVC and ACP water mains with new 12-inch PVC water mains along Arnold Drive, replace existing 6-inch pipe with new 8 and 12-inch pipe adjacent to Altamira Middle School, replace 15 existing service connections, and replace three existing fire hydrants. | 136,236 | - | 136,236 | - | 15,087 | 121,149 | 89% |
| Total Pipeline Projects | | | 136,236 | - | 136,236 | - | 15,087 | 121,149 | 89% |

| Project # | Project | Improvement Description | CIP Roll Over | Current CIP Budget | Total CIP Budget | Current Month - JAN | YTD Expenditures | Budget Remaining | % Remaining | |
|---|---|--|-------------------|---------------------|---------------------|---------------------|----------------------------|-------------------------|-------------------------|--------------------|
| | | | 2023/24 | 2024/25 | 2024/25 | | | | | |
| Wells, Pumping, & Supply | | | | | | | | | | |
| CIP-2989 | Redrill Park | Drilled next to & operated with existing well. Develop a minimum 100gpm District owned Well. | 575,906 | - | 575,906 | - | 7,043 | 568,863 | 99% | |
| CIP-3046 | Pump Station Battery Wall | A battery wall would operate the remote site during power outages unless a large power demand occurs (i.e. water pumps are called by SCADA) in which case the existing generator would turn on and supply the needed power. This would reduce the number of fuel deliveries needed in an emergency , increasing the District's staff time to respond to the emergency in other ways (i.e. leak response/system inspections etc.) | 43,850 | - | 43,850 | - | 9,628 | 34,222 | 78% | |
| CIP-3061 | Recommended in Energy Eval report 2024 - Donald well pump replacement | Replace well pump with high efficiency, add VFD, video well, replace column pipe & add sounding tube. | - | 77,300 | 77,300 | 21,924 | 22,611 | 54,689 | 71% | |
| CIP-3062 | Recommended in Energy Eval report 2024 - Hannah BPS | Replace both pumps with high efficiency, (In house staff). Includes \$7K for two Badger meters that will allow SCADA and AML data. | - | 32,574 | 32,574 | - | 134 | 32,439 | 100% | |
| CIP-3063 | Add SCADA to Larbre well | Improve data and controllability. | - | 16,849 | 16,849 | 5,089 | 25,473 | (8,625) | -51% | |
| Total Wells | | | 619,756 | 126,722 | 746,478 | 27,013 | 64,889 | 681,589 | 91% | |
| Tanks | | | | | | | | | | |
| CIP-3031 | Temelec 1M Tanks Recoating & Railing | This is the last tank in the system with the old "cold-tar" interior coating. The coating is cracked and no longer providing protection to the steel tank. This is a good time to add the required railing, solar mounting brackets, and new mag rod cathodic protection in both Temelec tanks and Chestnut tank. Includes \$200K for road paving at Temelec. | - | 1,185,012 | 1,185,012 | 169,506 | 330,315 | 854,697 | 72% | |
| CIP-3064 | Replace section Sobre Vista 30K roof. | | - | 16,849 | 16,849 | - | 3,820 | 13,029 | 77% | |
| Total Tanks | | | - | 1,201,860 | 1,201,860 | 169,506 | 334,135 | 867,725 | 72% | |
| | | | Total | FY 23-24 | FY 24-25 | FY 24-25 | Current Month - JAN | YTD Expenditures | Budget Remaining | % Remaining |
| Total Water System Improvements: | | | \$ 827,750 | \$ 2,580,997 | \$ 3,408,747 | \$ 239,738 | \$ 732,097 | \$ 2,676,650 | 79% | |
| ASR Projects | | | | | | | | | | |
| CIP-3038 | Park Well ASR | Grant Funded Projects | - | - | - | 13,195 | 154,880 | - | - | |
| CIP-3039 | Verano Well ASR | Grant Funded Projects | - | - | - | 22,677 | 161,066 | - | - | |
| Total ASR Projects | | | - | - | - | 35,872 | 315,946 | - | - | |

MONTHLY REVENUE AND EXPENSE COMPARISON
PERIOD ENDING JANUARY 31, 2025

Current Month Actual Project To Date Actual

PARK WELL ASR - CIP 3038

Jan-25

Jun 2022 - Jan 2025

Notes

Revenues

| | | |
|----------------------|----------|----------------|
| Grant Revenue | - | 807,932 |
| Total Revenue | - | 807,932 |

Expenses

Salaries:

| | | |
|-----------------------|--------------|---------------|
| O&M - Operating Wages | 1,663 | 24,041 |
| Administration | 55 | 2,862 |
| Total Salaries | 1,718 | 26,902 |

Services & Supplies

| | | |
|--------------------------------------|-----------------|------------------|
| Services & Supplies | 11,478 | 935,910 |
| Total Services & Supplies | 11,478 | 935,910 |
| Total Expenses | 13,195 | 962,813 |
| Revenues Less Expenses | (13,195) | (154,880) |

MONTHLY REVENUE AND EXPENSE COMPARISON
PERIOD ENDING JANUARY 31, 2025

Current Month Actual Project To Date Actual

VERANO WELL ASR - CIP 3039

Jan-25

Jun 2022 - Jan 2025

Notes

Revenues

| | | | |
|----------------------|---|----------------|--|
| Grant Revenue | - | 431,799 | |
| Total Revenue | - | 431,799 | |

Expenses

Salaries:

| | | | |
|-----------------------|--------------|---------------|--|
| O&M - Operating Wages | 1,350 | 23,496 | |
| Administration | 55 | 4,942 | |
| Total Salaries | 1,405 | 28,438 | |

Services & Supplies

| | | | |
|--------------------------------------|-----------------|------------------|--|
| Services & Supplies | 21,272 | 564,427 | |
| Total Services & Supplies | 21,272 | 564,427 | |
| Total Expenses | 22,677 | 592,865 | |
| Revenues Less Expenses | (22,677) | (161,066) | |

| Project # | Project | Improvement Description | Total CIP Budget | FY2024/25 Year-End Projections | | | | |
|--|--|---|------------------|--------------------------------|----------------|----------------|---------------|-------------------|
| | | | 2024/25 | Completion Status | Savings | Roll Over | Over Budget | Year-End Est. CIP |
| Facilities and Maintenance Projects | | | | | | | | |
| CIP-3015 | Caltrans Project on Hwy 12 | Work done by Caltrans affecting District facilities. | 50,000 | Roll Over | | 50,000 | | - |
| CIP-6001 | New Services | Customer pays 100%. | - | | | | | |
| CIP-6004 | All Service Replacements | All service replacements combined. | 59,000 | Will Complete in FY | | | 30,000 | 89,000 |
| CIP-8100 | Valve Replacement Program | Valve replacement for system reliability and control. | 59,000 | Will Complete in FY | 5,000 | | | 54,000 |
| CIP-3047 | Seismic Vulnerability Assessment (LHMP) | From LHMP. District to pay 100% of assessment. District will seek FEMA grant funds for resulting projects. | 250,000 | Roll Over | | 170,000 | | 80,000 |
| CIP-3050 | Lead Service Line Inventory | LCRR - Required by federal EPA. | 73,010 | Complete | 57,162 | | | 15,848 |
| CIP-3053 | Spare Generator purchase | In case of failure in generator (The District operates many older generators that may fail at any time). | 109,007 | Will Complete in FY | - | | | 109,007 |
| CIP-3054 | IPMHG Assessment | Assess the value of installing inpipe micro hydro generators at specific locations in the distribution system. This may lead to further engineering and equipment purchases. | 8,000 | Will Complete in FY | - | | | 8,000 |
| CIP-2991 | GPS Facilities | Finish GPSing the meters and valves. Assumes \$50 per location. | 59,000 | Roll Over | | 35,000 | | 24,000 |
| CIP-3055 | District Device upgrade | Equipment upgrades needed to facilitate mobile workorder systems. Includes mounting, software, 3 laptops, 1 desktop, 2 ipads. | 21,384 | Complete | | | 1,798 | 23,182 |
| CIP-3056 | Temelec Area Irrigation service line abandonment | Re-evaluate after first year for future funding. | 59,000 | Roll Over | | 7,000 | | 52,000 |
| CIP-3057 | 1-1/2 & 2" PB service line replacement | Re-evaluate after first year for future funding. | 59,000 | Roll Over | | | | 59,000 |
| CIP-3058 | Boardroom Upgrade | | 40,436 | Will Complete in FY | 20,000 | | | 20,436 |
| CIP-3059 | Roof Repair on Main Office Building | Leaking roof caused framing damage. | 44,929 | Complete | 34,567 | | | 10,362 |
| CIP-3060 | SDC Evaluation | Evaluate water treatment plant and transmission systems for needed upgrades and provide OPC for construction. | 280,809 | Roll Over | | 260,000 | | 20,809 |
| CIP-3065 | Water Master Plan - Prioritized CIP List | Develop and updated WMP prioritized CIP List | 151,597 | Will Complete in FY | 40,000 | | | 111,597 |
| Total Facilities and Maintenance Projects | | | 1,324,172 | | 156,730 | 522,000 | 31,798 | 677,240 |
| Pipeline Projects | | | | | | | | |
| CIP-3022 | WMP: P-7. Altamira Middle School Fire Flow Improvement | Replace existing 6-inch and 8-inch PVC and ACP water mains with new 12-inch PVC water mains along Arnold Drive, replace existing 6-inch pipe with new 8 and 12-inch pipe adjacent to Altamira Middle School, replace 15 existing service connections, and replace three existing fire hydrants. | 136,236 | Roll Over | | 40,000 | | 96,236 |
| Total Pipeline Projects | | | 136,236 | | - | 40,000 | - | 96,236 |

| Project # | Project | Improvement Description | Total CIP Budget | FY2024/25 Year-End Projections | | | | |
|-------------------------------------|---|--|---------------------|--------------------------------|-------------------|------------------|--------------------|--------------------------|
| | | | | 2024/25 | Completion Status | Savings | Roll Over | Over Budget |
| Wells, Pumping, & Supply | | | | | | | | |
| CIP-2989 | Redrill Park | Drilled next to & operated with existing well. Develop a minimum 100gpm District owned Well. | 575,906 | Roll Over | | 520,000 | | 55,906 |
| CIP-3046 | Pump Station Battery Wall | A battery wall would operate the remote site during power outages unless a large power demand occurs (i.e. water pumps are called by SCADA) in which case the existing generator would turn on and supply the needed power. This would reduce the number of fuel deliveries needed in an emergency , increasing the District's staff time to respond to the emergency in other ways (i.e. leak response/system inspections etc.) | 43,850 | Roll Over | | 25,000 | | 18,850 |
| CIP-3061 | Recommended in Energy Eval report 2024 - Donald well pump replacement | Replace well pump with high efficiency, add VFD, video well, replace column pipe & add sounding tube. | 77,300 | Will Complete in FY | 10,000 | | | 67,300 |
| CIP-3062 | Recommended in Energy Eval report 2024 - Hannah BPS | Replace both pumps with high efficiency, (In house staff). Includes \$7K for two Badger meters that will allow SCADA and AMI data. | 32,574 | Will Complete in FY | - | | | 32,574 |
| CIP-3063 | Add SCADA to Larbre well | Improve data and controllability. | 16,849 | Will Complete in FY | | | 13,000 | 29,849 |
| Total Wells | | | 746,478 | | 10,000 | 545,000 | 13,000 | 204,478 |
| Tanks | | | | | | | | |
| CIP-3031 | Temelec 1M Tanks Recoating & Railing | This is the last tank in the system with the old "cold-tar" interior coating. The coating is cracked and no longer providing protection to the steel tank. This is a good time to add the required railing, solar mounting brackets, and new mag rod cathodic protection in both Temelec tanks and Chestnut tank. Includes \$200K for road paving at Temelec. | 1,185,012 | Will Complete in FY | 260,012 | | | 925,000 |
| CIP-3064 | Replace section Sobre Vista 30K roof. | | 16,849 | Complete | 13,029 | | | 3,820 |
| Total Tanks | | | 1,201,860 | | 273,041 | - | - | 928,820 |
| | | Total | FY 24-25 | | Savings | Roll Over | Over Budget | Year-End Est. CIP |
| | | Total Water System Improvements: | \$ 3,408,747 | | 439,770 | 1,107,000 | 44,798 | 1,906,774 |

MEMORANDUM

TO: Valley of the Moon Water District Board of Directors

FROM: Amanda Hudson, Administration Manager

SUBJECT: Administrative Report

The following are some areas the Administrative Department has been focusing on:

Regulation

Conservation Framework

Billing Analysis

- The first round of data has been submitted to eSource for billing analysis.
- Projecting completion of billing analysis project (and proration of water use to appropriate period) in June 2025

Spatial Analysis

- The Sonoma Marin Saving Water Partnership (SMSWP) coordinated a regional spatial analysis program to meet the Conservation Framework requirements around landscape measurements for Commercial, Industrial, and Institutional (CII) accounts. The District will participate in this program to benefit from a regional, cost-effective method for meeting state regulations.

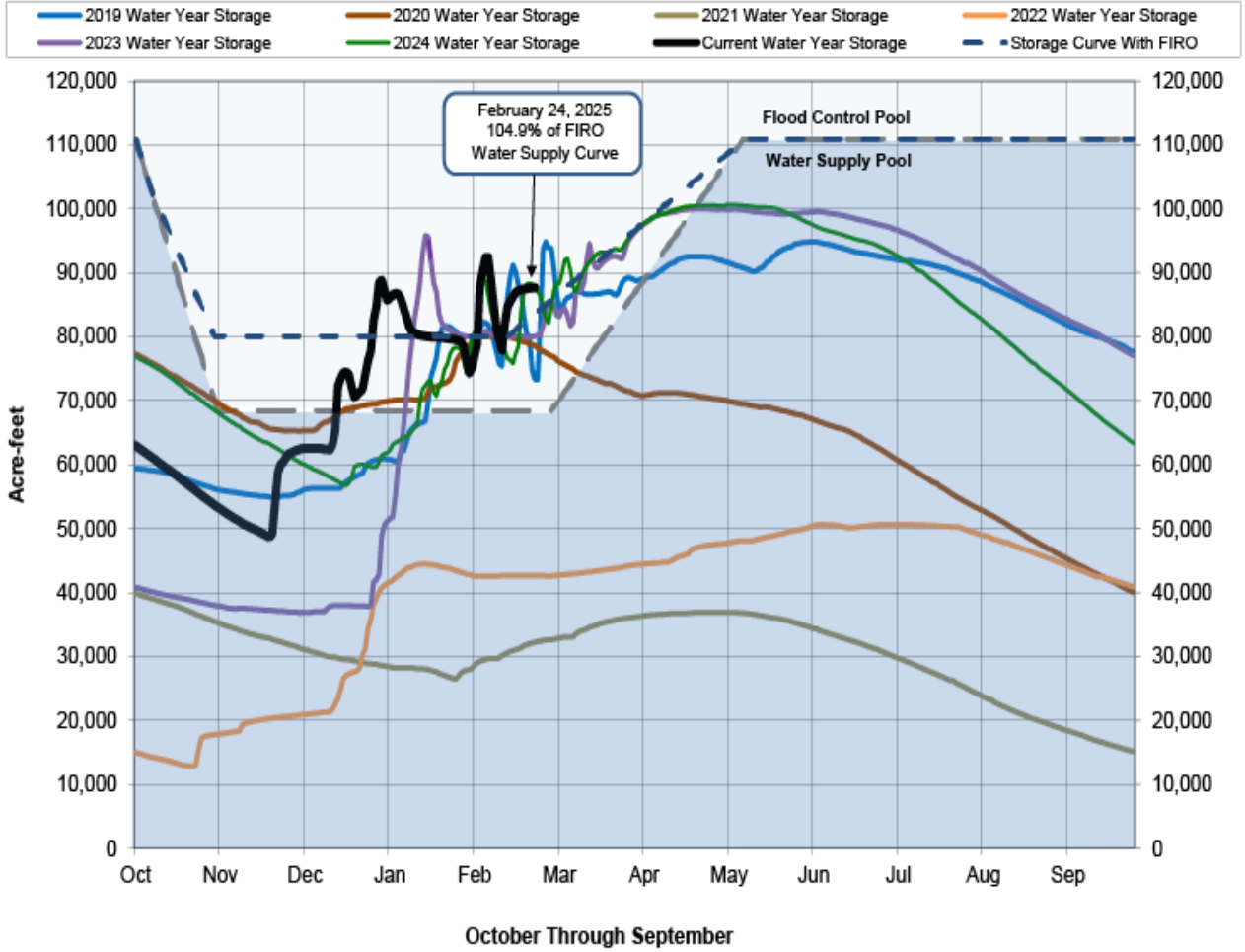
Grants

FEMA

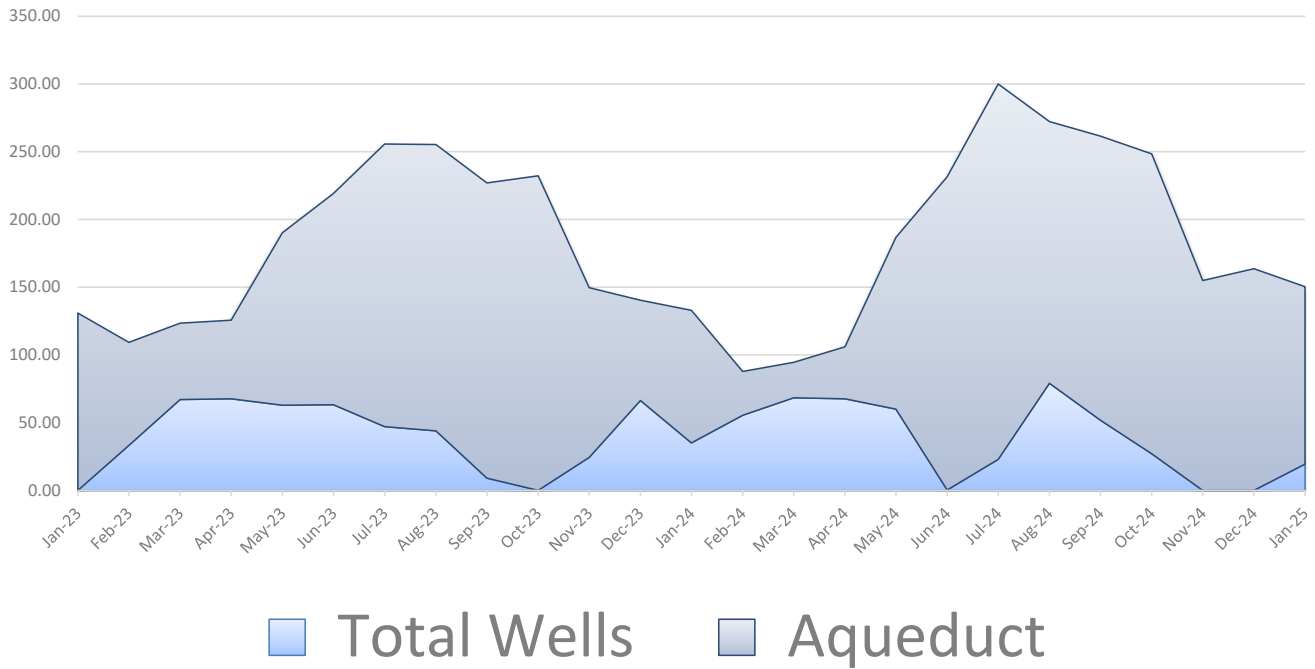
Saddle Tank project \$659,422 / Admin time toward FEMA projects \$16,892

- All information requested by CalOES for the Saddle Tank project has been submitted.
- Our CalOES Closeout Specialist believes our package has moved on from CalOES to FEMA
- As of February 21, 2025, our Closeout Specialist has no new information.

Lake Mendocino Storage

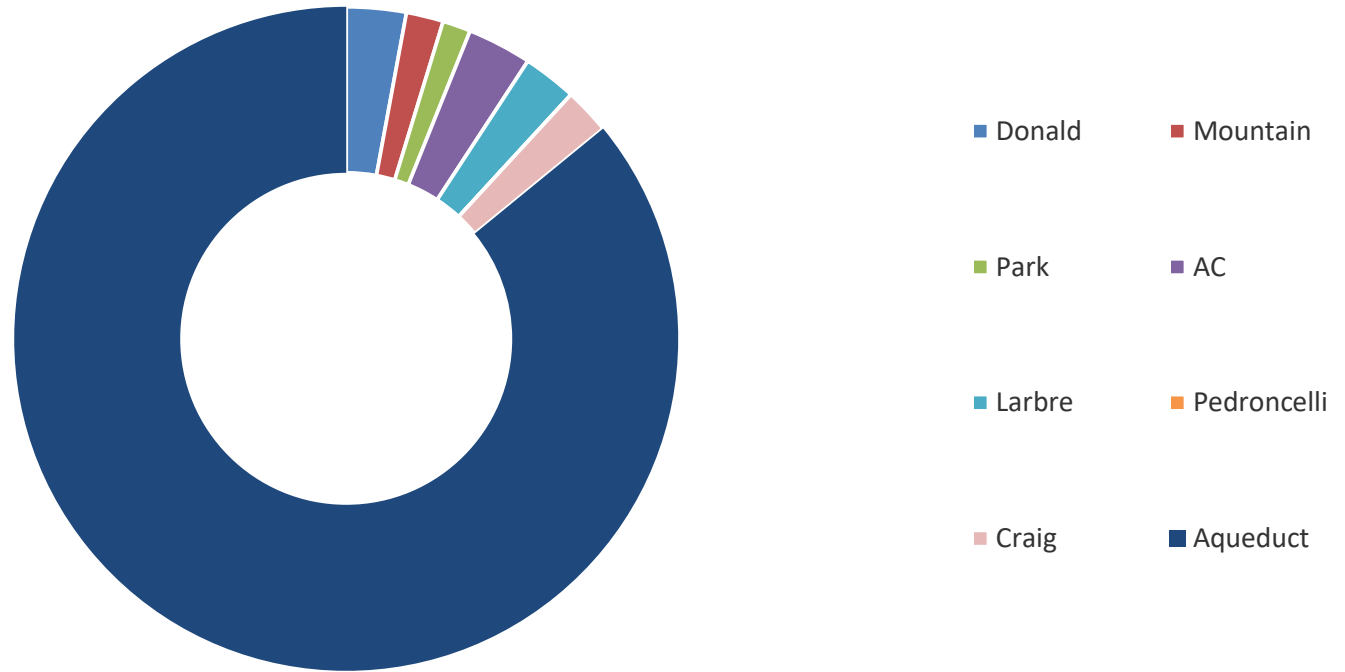


Water Supply Sources - Valley of the Moon Water District Acre Feet Per Month



| Month | Donald | Mt Ave | Park Ave | Agua Cal | Larbre | Pedroncelli | Craig | Aqueduct | Total Wells | Wells % | Total AF Produced | Total AF Deliveries |
|---------------------------|--------|--------|----------|----------|--------|-------------|-------|----------|-------------|---------|-------------------|---------------------|
| Jan-23 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 130.94 | 0.00 | 0.00% | 130.94 | 114.47 |
| Feb-23 | 8.75 | 3.14 | 1.36 | 7.33 | 7.48 | 0.00 | 5.22 | 76.00 | 33.28 | 30.45% | 109.28 | 101.69 |
| Mar-23 | 14.89 | 8.92 | 6.51 | 9.68 | 15.46 | 0.00 | 11.64 | 56.32 | 67.10 | 54.37% | 123.41 | 107.96 |
| Apr-23 | 13.76 | 7.43 | 5.10 | 13.73 | 13.34 | 0.00 | 14.15 | 58.18 | 67.52 | 53.72% | 125.69 | 108.20 |
| May-23 | 13.87 | 7.11 | 0.00 | 13.64 | 14.22 | 0.00 | 13.97 | 127.30 | 62.82 | 33.04% | 190.11 | 120.92 |
| Jun-23 | 17.14 | 1.06 | 0.00 | 15.53 | 15.34 | 0.00 | 14.24 | 155.84 | 63.31 | 28.89% | 219.15 | 179.91 |
| Jul-23 | 13.62 | 3.25 | 0.00 | 12.33 | 10.66 | 0.00 | 7.14 | 208.67 | 47.00 | 18.38% | 255.66 | 183.25 |
| Aug-23 | 13.33 | 7.69 | 0.00 | 9.59 | 4.31 | 0.00 | 8.99 | 211.39 | 43.91 | 17.20% | 255.31 | 244.45 |
| Sep-23 | 2.92 | 1.72 | 0.00 | 2.36 | 0.00 | 0.00 | 2.02 | 217.91 | 9.02 | 3.98% | 226.94 | 218.98 |
| Oct-23 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 232.29 | 0.00 | 0.00% | 232.29 | 245.00 |
| Nov-23 | 7.06 | 2.54 | 0.00 | 6.21 | 3.43 | 0.00 | 4.98 | 125.39 | 24.22 | 16.19% | 149.61 | 170.32 |
| Dec-23 | 17.11 | 7.73 | 1.70 | 14.38 | 15.12 | 0.00 | 10.25 | 74.10 | 66.29 | 47.22% | 140.40 | 168.50 |
| Jan-24 | 9.74 | 0.85 | 3.03 | 8.00 | 7.64 | 0.00 | 5.75 | 97.91 | 35.02 | 26.35% | 132.93 | 120.81 |
| Feb-24 | 14.28 | 7.27 | 5.29 | 9.97 | 9.49 | 0.00 | 9.03 | 32.39 | 55.33 | 63.07% | 87.73 | 119.04 |
| Mar-24 | 9.49 | 5.28 | 7.82 | 14.75 | 15.94 | 0.00 | 15.11 | 26.06 | 68.39 | 72.41% | 94.45 | 104.05 |
| Apr-24 | 14.18 | 7.70 | 6.75 | 11.60 | 13.91 | 0.00 | 13.44 | 38.38 | 67.57 | 63.78% | 105.95 | 111.99 |
| May-24 | 11.33 | 8.34 | 6.14 | 9.90 | 13.02 | 0.00 | 11.28 | 126.64 | 60.02 | 32.15% | 186.67 | 127.34 |
| Jun-24 | 0.22 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 231.19 | 0.23 | 0.10% | 231.42 | 207.41 |
| Jul-24 | 4.94 | 2.58 | 2.51 | 6.03 | 6.82 | 0.00 | 0.01 | 277.11 | 22.89 | 7.63% | 300.00 | 210.69 |
| Aug-24 | 17.10 | 10.17 | 7.84 | 14.06 | 15.35 | 0.00 | 14.56 | 193.17 | 79.08 | 29.05% | 272.25 | 295.04 |
| Sep-24 | 12.97 | 4.15 | 5.74 | 10.95 | 10.43 | 0.00 | 7.52 | 209.67 | 51.76 | 19.80% | 261.43 | 231.01 |
| Oct-24 | 6.32 | 3.86 | 3.37 | 5.41 | 4.64 | 0.00 | 3.35 | 221.38 | 26.96 | 10.86% | 248.33 | 262.02 |
| Nov-24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 154.90 | 0.00 | 0.00% | 154.90 | 195.76 |
| Dec-24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 163.67 | 0.00 | 0.00% | 163.67 | 172.44 |
| Jan-25 | 0.00 | 4.93 | 0.00 | 7.97 | 0.00 | 0.00 | 6.42 | 131.10 | 19.32 | 12.84% | 150.42 | 119.90 |
| FY to date (Acre Feet) | 41.33 | 25.68 | 19.46 | 44.43 | 37.24 | - | 31.86 | 1,351.00 | 200.00 | 12.90% | 1,551.01 | 1,486.85 |

Water Production



| Actual Month | Wells | | | | | | | Total | Aqueduct | Total | Wells % | Aqueduct flow rate* |
|-----------------|--------|----------|------|-------|--------|-------------|-------|-------|----------|-------|---------|------------------------|
| | Donald | Mountain | Park | AC | Larbre | Pedroncelli | Craig | | | | | |
| Jul-24 | 4.94 | 2.58 | 2.51 | 6.03 | 6.82 | 0.00 | 0.01 | 23 | 277.11 | 300 | 8% | 2.91 |
| Aug-24 | 17.10 | 10.17 | 7.84 | 14.06 | 15.35 | 0.00 | 14.56 | 79 | 193.17 | 272 | 29% | 2.03 |
| Sep-24 | 12.97 | 4.15 | 5.74 | 10.95 | 10.43 | 0.00 | 7.52 | 52 | 209.67 | 261 | 20% | 2.28 |
| Oct-24 | 6.32 | 3.86 | 3.37 | 5.41 | 4.64 | 0.00 | 3.35 | 27 | 221.38 | 248 | 11% | 2.33 |
| Nov-24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 | 154.90 | 155 | 0% | 1.68 |
| Dec-24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 | 163.67 | 164 | 0% | 1.72 |
| Jan-25 | 0.00 | 4.93 | 0.00 | 7.97 | 0.00 | 0.00 | 6.42 | 19 | 0.00 | 19 | 100% | 0.00 |
| Feb-25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 | 0.00 | 0 | 0% | 0.00 |
| Mar-25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 | 0.00 | 0 | 0% | 0.00 |
| Apr-25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 | 0.00 | 0 | 0% | 0.00 |
| May-25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 | 0.00 | 0 | 0% | 0.00 |
| Jun-25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 | 0.00 | 0 | 0% | 0.00 |
| Sub-Total | 41 | 26 | 19 | 44 | 37 | 0 | 32 | 200 | 1,220 | 1,420 | 14% | |

* Average daily rate of flow during the month (in millions of gallons per day)

| | | | | | | | | | | | |
|---------------|-----|-----|---|-----|-----|---|-----|-----|-------|-------|-----|
| Annual Target | 94 | 55 | 0 | 89 | 65 | 0 | 60 | 363 | 1,856 | 2,219 | 16% |
| % of Target | 44% | 47% | | 50% | 58% | | 53% | 55% | 66% | 64% | |

MEMORANDUM

TO: Valley of the Moon Water District Board of Directors

FROM: Clayton Church, Water System Manager

SUBJECT: Operations Update

- **Sewer Trunkline Replacement**

Staff continues to coordinate with SCWA for the replacement of the sewer main in close proximity to VOMWD water mains. This project has had multiple delays due to weather. Staff continues to coordinate with SCWA and their contractor to ensure security of the water system. Staff has been coordinating with SCWA and the contractor for paving and continued coordination with the contractor working around water infrastructure while tying in existing system and sewer laterals.

- **UCMR5 (Fifth Unregulated Contaminant Monitoring Rule)**

The first round of UCMR 5 sampling has been completed. Staff plans to take the second and final round of sampling in the second week of April to meet the requirements of UCMR 5.

- **Source Monitoring**

Staff have reviewed the systems monitoring schedule and developed a spreadsheet that captures all source monitoring requirements for 2025. Staff then pursued quotes from three different labs and decided to move forward with CalTest for this year's source monitoring. Staff has started source monitoring in concurrence with operations at the District's two ASR Pilot study sites. Source Monitoring for the calendar year 2025 will be completed in the first week of April.

- **CIP 3056: Temelec Irrigation Service Line Abandonment**

Staff have completed excavating and abandoning 12 of the 17 old irrigation lines. The five remaining are 3" connections and will need to be budgeted in a future fiscal year. Paving for the first 12 sites has been completed.

- **CIP 3057: 1 ½ & 2" PB Service Line replacement**

Staff have completed the first round of PB replacements and the paving for all sites has been completed or is scheduled for completion. Staff is reviewing the residual budget and making a plan for the remaining services this spring.

- **CIP 2991: GPS Facilities**

The integration with iPads was a success and staff are now able to GPS meters and valves in real time. Staff are now able to generate new icons for hydrants, valves, and blow-offs. In coordination with MMS staff, VOMWD staff have been trained on utilizing ESRI software to align mains as assets are GPS'd. Staff have also solidified an SOP for GPSing system assets and will be training staff to GPS system assets. Color coordination of main sizes has been

completed. Staff are preparing a presentation for the Board on facility GPSing, with a plan to share it at the April 2025 Regular Board Meeting.

- **CIP 3046: Pump Station Battery Bank**

Staff is coordinating with IT for integration to Hanna BPS. After the completion of the integration, various controls will be tested for proper performance as well as testing of all alarms.

- **CIP 3062: Hanna BPS pump replacement**

Staff continue coordinating with Grundfos pump vendor to spec high-efficiency booster pumps for in-house installation at Hanna BPS, staff has also started to reach out to other vendors for competitive cost. Staff plans to pull pump to confirm the nomenclature on existing pump to assist in answering vendor inquiries and verify existing District records.

- **CIP 3063: Add SCADA Labre Well**

The new SCADA panel is complete and installed. The main line power has been moved to an adjacent wall and plumbing the existing wellhead to create more operations space within the well house is complete. Next steps include SCADA programming and installation of cellular module to upgrade to cellular-based telemetry for the site. This will relay Craig well, Verano well, Pedroncelli well, and Labre well to the main SCADA platform at the shop. Thus, repairing the broken communications that occur at this site during storm and wind events. Staff have the cellular modem on hand, licensing for cellular service, and time scheduled with Core IT onsite 02-29-2025.

- **CIP 3064: Replace Section of Sobre Vista 30K Roof**

Staff removed and replaced the failing section of the Sobre Vista 30k tank roof. This project is now complete, and staff had a good opportunity to inspect the work for leaks during the heavy rain we received in late November.

- **CIP 3031: Temelec 1M Recoating and Railing**

The handrailing work is complete. All parts and materials are mobilized to the site and materials have been staged in the Corporation Yard for quick transport to the tank site. Currently, the finish coat on the shell and the ceiling is being completed. Aside from the contract work on the interior and exterior of the tank, staff has sourced new altitude valve, level transducer, and has received updated scope and quotes for the upgrade to the cathodic protection system for the tank.

- **CIP 3038 and 3039: ASR Pilot Study Verano and Park Wells**

Cycle #2 for the ASR Pilot Study is nearing completion. The 56-day storage cycle at each well has been completed; Park well concluded the storage cycle 02/24 and Verano well will conclude the storage cycle 2/28. Staff will continue monitoring and sampling as required by the study schedule. Staff has reported all the necessary reporting per our MS4 permit to the Regional Water Board.

- **CIP 3061: Donald Well Pump Replacement**

Video of the well casing did not show any severe deficiencies; the contractor recommends no further action with regard to the casing. The column and 15HP pump have been replaced. As well new VFD and Transfer switch have been installed.

- **CIP 3065: Water Master Plan Update**
Staff has conducted its review of the update to the Water Master Plan. The updated Water Master Plan is complete.
- **CIP 3047 Seismic Vulnerability Assessment (LHMP)**
Staff have compiled and sent the first round of data to InfraTerra for review. As well staff worked to give temporary access to the MMS Asset Management platform for ease of access to District Data. Staff continue to work with InfrTerra on filling any data gaps needed for the completion of the assessment.
- **Project 3053: Spare Generator Purchase**
Staff has obtained and reviewed quotes for the spare generator. A PO was issued in February for the purchase and delivery of the new generator.
- **CIP 8100 Valve Replacement Program**
Staff have begun replacing inoperable valves throughout the system. In total four inoperable valves have been replaced. As staff move through the system flushing and operating valves a list will be generated as inoperable valves are identified.
- **CIP 5185 Orange Ave Emergency Main Replacement**
Staff have begun the installation of main on Orange Ave. A 10" T was installed at the intersection of Orange Ave + Solano Ave, including the installation of a branch valve to minimize impact on customers for future shutdowns related to the project. Approximately 120' of the total 2000' of main has been installed. Next steps include installation of T for tie into the existing system at Arnold Dr + Orange Ave, installation of 10" main, and continued coordination with Sonoma County and the District's contractor for paving to determine limits of paving for the project.

Other Operational Updates:

- Staff have put a hold on annually valve turning in light of the recent emergency adoption for the Orange Ave Emergency Main Replacement. Valve turning will be rediscovered moving into Spring at the completion of emergency main replacement.
- Staff attended the bimonthly water contractors meeting held by SCWA.
- Water leak on Riverside Dr between Verano Ave and Arbor St. A section of 8" AC main failed requiring a brief shut down, repairs to the main have been completed with limited service interruption.
- Work at the Verano Hotel and Housing Project has begun. Staff has been in close contact with contractor as install new 12" water main on Verano Ave, coordinating shutdowns for tie-ins, and inspection of new main.

The table below shows a subjective percentage completed for each of the CIP projects based on an estimate of the time requirement remaining. The percentage will not match the one shown on the CIP budget update, because that number accounts only for the budget remaining.

| Project Number and Description | Percent Complete |
|--|-------------------------|
| Project 2987-1: Chestnut Exploratory Well Drill and Develop well | N/A |
| Project 2989: Park Well Drilling (on hold for ASR Pilot) | 60% |
| Project 2991- GPS Facilities | 45% |
| Project 3015: Cal Trans Hwy 12 Project | 100% |
| Project 3022: Altimira School Fire Flow Engineering | 50% |
| Project 3031: Temelec 1M Tank Recoating & Railing | 55% |
| Project 3046: Pump Station Battery Bank | 70% |
| Project 3047: Seismic Vulnerability | 30% |
| Project 3050: Lead Service Inventory | 100% |
| Project 3053: Spare Generator Purchase | 85% |
| Project 3054: IPMHG Assessment | 15% |
| Project 3055: District Device Upgrade | 100% |
| Project 3056: Temelec Irrigation service line abandonment | 100% |
| Project 3057: 1 ½" & 2" PB Service Line Replacement | 75% |
| Project 3058: Boardroom Upgrade | 95% |
| Project 3059: Roof Repair on Main Office Building | 100% |
| Project 3060: SDC Evaluation | 5% |
| Project 3061: Donald Well Pump Replacement | 100% |
| Project 3062: Hannah BPS pump replacement | 15% |
| Project 3063: Add SCADA Labre Well | 75% |
| Project 3064: Replace Section of Sobre Vista 30K Roof | 100% |
| Project 6004: All Service Line Replacements | 0% |
| Project 8100: Valve Replacement Program | 25% |
| Average Percent Complete | 64% |



Temelec 1 MG interior 02/20/2025 (provided by Quality Painting and Coating)



Orange Ave Emergency Main Replacement 02/27/2025

MEMORANDUM

TO: Valley of the Moon Water District Board of Directors

FROM: Matt Fullner, General Manager

SUBJECT: March 3rd Technical Advisory Committee (TAC) Meeting Update

Highlights:

A verbal update will be provided at the Board Meeting.

MEMORANDUM

TO: Valley of the Moon Water District Board of Directors

FROM: Matt Fullner, General Manager and Clayton Church, Water System Manager

SUBJECT: Update on Cross Connection Control Policy Handbook and Effects on District Operations

Staff has begun the development of the updated Cross Connection Control Plan per the newly adopted Cross Connection Control Policy Handbook (CCCPH). The CCCPH was adopted by the State Water Board on July 1, 2024. All water systems must submit a draft Cross Connection Control Plan (CCC Plan) by July 1, 2025. The CCCPH lays out 10 key elements that each program must contain. Currently, staff is reviewing current practices, proposed future implementations, and drafting the 10 key elements required of the plan. Staff is planning to bring forward a CCC Plan that would be containment-based; this will be the most effective way to satisfy the requirements of the program while minimizing the impact on staff time and District budget. Although staff is taking the most efficient and effective measures to satisfy the requirements of the CCCPH and minimize budgetary impacts on the District, it is expected that there will be a need for increased staff time and funds allocated to successfully adhere to all requirements of the CCCPH.

Notably, the most significant change from past practice under California Code of Regulations (CCR) Title 17 to newly adopted CCCPH is the requirement of initial and follow-up Hazard Assessments per sec 3.2.1 of the CCCPH. This means that the District must conduct initial hazard assessments of user premises (approximately 7,200 connections) within its service area and follow-up hazard assessments under the following criteria:

1. If a user premises changes account holder, excluding single-family residences.
2. If a user premises is newly or re-connected to the Public Water System (PWS);
3. If evidence exists of changes in the activities or materials on a user's premises;
4. If backflow from a user's premises occurs;
5. Periodically, as identified in the PWS's Cross-Connection Control Plan required pursuant to CCCPH section 3.1.4.;
6. If the State Water Board requests a hazard assessment of a user's premises; and
7. If the PWS concludes an existing hazard assessment may no longer accurately represent the degree of hazard.

The District has already taken steps to minimize budgetary impacts by taking on coordination and development of the CCC Plan in-house. Per the CCCPH the District will be required to have a Cross Connection Control Specialist on staff, which it already has based on past practice.

Staff have started researching the current District Code and will be coming forward with suggested and required edits, thus establishing the legal authority to implement corrective actions in the event that a water user fails to comply in a timely manner with the provisions of the District's CCC Plan.

The District has resources already in use that have been optimized to prepare the District to achieve and maintain compliance with the CCCPH. The District's asset management platform, MMS, will be vital

in recordkeeping for both tracking pertinent information for Backflow Protection Assemblies (BPAs) and information collected during hazard assessments. The recent standardization of process and implementation of GPSing assets will play a key role in tracking devices. The District's current RFP process for testing of BPAs in the District service area and tracking credentials of testers employed by the District to conduct testing will be optimized to satisfy the requirements of the CCCPH.

The District is in a good position to take on the new requirements, thanks in part to the work we have done over the years to comply with the requirements under CCR Title 17. The District has already been through the process of requiring the installation of BPAs in several large Homeowner's Associations with auxiliary sources of water for irrigation, has been requiring BPAs at any service connection with a known auxiliary source for many years, and requires a BPA for any new or existing service connection where a fire suppression system exists. This includes the work we have done to ensure approved assemblies were installed and maintained at all dedicated fire services, including the replacement of all existing non-testable devices. The District has also been very proactive in tracking BPAs and their required annual maintenance in our MMS system, which further serves to ensure the completeness, accuracy and accessibility of the required data. All of this means that the District is in a strong position to meet the new requirements and will not have to play catch-up in several time-consuming and expensive areas.

As mentioned above, the CCC Plan for the District must be submitted to the State Water Board by July 1, 2025. Therefore, staff will be bringing updates and items to the Board for informational and approval purposes in the coming months.

MEMORANDUM

TO: Valley of the Moon Water District Board of Directors

FROM: Matt Fullner, General Manager

SUBJECT: Consider Adoption of Resolution No. 250301, Ratifying the General Manager's Emergency Declaration Related to the Flooding and Related Repair Work at the District's Main Office

Background:

As the Board was made aware in an email from the General Manager the morning of February 24th, 2025, the office building including the Board Room, atrium (large common space), hallway and the Finance Manager's office were impacted by flooding caused by a leak in the water cooler earlier that same morning. Fortunately, the lobby, Administration Manager's office, Accounting Specialist's area, and General Manager's office (including the adjacent meeting room) were unaffected. This allowed staff to move key equipment and personnel and keep operating nearly as usual, including keeping the doors open for customers.

Emergency cleanup and dehumidification actions were also taken immediately to limit the water damage as much as possible and reduce the risk of growing mold in walls and under cabinets. Given the immediacy of the need, there was no time to follow normal procurement procedures, so the General Manager declared an emergency and began the cleanup immediately.

Section 11(A)(8) of the District's duly enacted Board of Directors Policies and Procedures Manual delegates to the General Manager the authority to determine that an emergency exists, expend non-budgeted funds to meet the emergency, inform the Board, by the most expeditious method available, of the emergency, and seek Board ratification of the emergency.

Recommendation:

Adopt Resolution No. 250301 Confirming and Declaring a Continued Emergency and the Need for the Emergency Expenditure of Funds to Make Immediate Repairs to the District's Office Building.

Attached:

- Resolution No. 250301

RESOLUTION NO. 250301
**A RESOLUTION OF THE VALLEY OF THE MOON WATER DISTRICT (“DISTRICT”) CONFIRMING AND
DECLARING A CONTINUED EMERGENCY AND THE NEED FOR THE EMERGENCY EXPENDITURE OF
FUNDS TO MAKE IMMEDIATE REPAIRS TO THE DISTRICT’S OFFICE BUILDING**

WHEREAS, on February 24th, 2025, the water cooler in the District’s main office developed a leak, which caused flooding and water damage to the office building and other District property; and

WHEREAS, given the potential for the damage to the office building and other District property to worsen, and potentially affect the health and safety of District staff and the community (due to the potential for mold growth), it was determined that an emergency existed and the necessary steps were taken to meet the emergency, conduct immediate initial cleanup, and start the repair process; and

WHEREAS, compliance with competitive bidding procedures typically takes a number of months and would not allow prompt action to be taken, as required to safeguard District facilities, staff, and the public; and

WHEREAS, section 22050 of the California Public Contract Code authorizes the Board to delegate the authority to declare an emergency to the General Manager; and

WHEREAS, Section 11(A)(8) of the District’s duly enacted Board of Directors Policies and Procedures Manual delegates to the General Manager the authority to determine that an emergency exists, expend non-budgeted funds to meet the emergency, inform the Board, by the most expeditious method available, of the emergency, and seek Board ratification of the emergency; and

WHEREAS, in order to stabilize the situation, the General Manager determined that an emergency existed and took steps and expended funds to meet the emergency by conducting immediate cleanup and dewatering with force account labor and a restoration service; and

WHEREAS, the California Environmental Quality Act establishes a statutory exemption for emergency repairs to public service facilities necessary to maintain service, and other specific actions necessary to prevent or mitigate an emergency; and

WHEREAS, this situation has arisen suddenly and unexpectedly and involves a clear and imminent threat, demanding immediate action to prevent or mitigate loss of, or damage to, life, health, property, and essential public services.

NOW, THEREFORE, BE IT HEREBY RESOLVED by the Board of Directors of the District, that, pursuant to Section 11(A)(8) of the Board Policies and Procedures Manual, the Board has reviewed the actions taken by the General Manager and finds, pursuant to Public Contract Code section 22050(a), that based on substantial evidence presented before the Board, the emergency did not permit a delay resulting from competitive solicitation for bids for the cleanup and repair of the office building, and that the General Manager’s actions were necessary to respond to the emergency and further finds that an emergency continues to exist and there is a need to continue the action; and

BE IT FURTHER RESOLVED that the Board authorizes staff to continue to proceed with the repair of the office building and other property damaged by the flooding event, and procurement of the

necessary equipment, services, and supplies for that purpose without giving notice for bids to let contracts; and

BE IT FURTHER RESOLVED that staff will proceed to obtain all necessary regulatory authorizations for the repair on an expedited basis using all available emergency procedures; and

BE IT FURTHER RESOLVED that the District will request all governmental entities with authority over this repair to expedite their consideration of the matter and to use available emergency procedures to ensure that this repair is completed in a timely manner so as to avoid the harms that would result from a delay in the needed repair work; and

BE IT FURTHER RESOLVED that the Board will review the status of the emergency at each subsequent meeting of the Board of Directors and vote to authorize the continuation of this resolution until the emergency action is completed.

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of Valley of the Moon Water District finds the foregoing true and complete.

THIS RESOLUTION PASSED AND ADOPTED THIS 4TH DAY OF March 2025, by the following votes:

Director Bryant _____

Director Caniglia _____

By _____
President

Director Foreman _____

Director Rogers _____

By _____
Secretary

Director Yudin-Cowan _____

AYES _____

NOES _____

ABSTAIN _____

ABSENT _____

I HEREBY CERTIFY that the foregoing Resolution was duly adopted at a regular meeting of the Board of Directors of Valley of the Moon Water District, held on the 4th day of March, of which meeting all Directors were duly notified and at which meeting a quorum was present at all times and acting.

By _____
Secretary

MEMORANDUM

TO: Valley of the Moon Water District Board of Directors

FROM: Matt Fullner, General Manager

SUBJECT: Consider Authorizing the Continuation of the District's Emergency Status Declared Under Resolution No. 250201 Related to the Main Break and Emergency Main Replacement on Orange Avenue

Background:

The Orange Avenue main break and resulting water outage and Boil Water Notice which occurred at the end of January this year, represents an ongoing emergency for the District. It has been noted by staff that this same section of main has had repeated breaks and service interruptions recently and has a long track record of breaks over the years. The two most recent breaks have been larger than average, and have taken longer to isolate and repair as a result. Given that this section of main is the only means of transporting water from greater Zone 1 to Zone 1A, this weakness represents a significant threat to the reliability of the water service of the roughly 1,200 service connections located in Zone 1A. This situation is compounded by the fact that the majority of the storage capacity in Zone 1A is currently out of service for recoating, meaning that the District's operations staff has very little time to react and isolate leaks before the area becomes dewatered.

Unplanned dewatering of mains in a distribution system is extremely risky for several reasons, including high potential for back-siphonage (a form of cross-connection that can introduce contamination to the water system), collapsing mains under vacuum conditions, and no water availability for firefighting or basic health and sanitation. As a result of the above, the General Manager declared an emergency, which was ratified by the Board at the regular February Board meeting, and directed the District's operations staff to begin immediately replacing the defective main. As discussed at that time, the emergency declaration approved by the Board by Resolution No. 250201 would need to be reaffirmed at each regular meeting until the emergency work on Orange Avenue is complete. Staff is making good progress on that work, however, it is currently ongoing and incomplete.

Recommendation:

By rollcall vote, affirm that the emergency declared under Resolution No. 250201 still exists and that the need to expend emergency funds to finalize the replacement of the defective water main continues.

Attached:

- Adopted and Executed Resolution No. 250201

RESOLUTION NO. 250201
A RESOLUTION OF THE VALLEY OF THE MOON WATER DISTRICT ("DISTRICT") CONFIRMING AND
DECLARING A CONTINUED EMERGENCY AND THE NEED FOR THE EMERGENCY EXPENDITURE OF
FUNDS TO REPLACE THE DEFECTIVE WATER MAIN ON ORANGE AVENUE

WHEREAS, on January 23rd, 2025, the main on the section of Orange Avenue between Solano and Arnold experienced its second catastrophic failure within the past several months. These events caused damage to the property of nearby residents, caused low to no water pressure in Zone 1A of the District's distribution system, and caused a water outage that resulted in direction from the State Water Resource Control Board Division of Drinking Water to issue a Boil Water Notice to 400 District customers; and

WHEREAS, given the potential for this break to affect the health and safety of the community and the possible impact on District facilities, it was determined that an emergency existed and the necessary steps were taken to meet the emergency, secure the site, and start the repair process; and

WHEREAS, compliance with competitive bidding procedures typically takes a number of months and will not allow prompt action to be taken, as required to safeguard the public and District facilities; and

WHEREAS, section 22050 of the California Public Contract Code authorizes the Board to delegate the authority to declare an emergency to the General Manager; and

WHEREAS, Section 11(A)(8) of the District's duly enacted Board of Directors Policies and Procedures Manual delegates to the General Manager the authority to determine that an emergency exists, expend non-budgeted funds to meet the emergency, inform the Board, by the most expeditious method available, of the emergency, and seek Board ratification of the emergency; and

WHEREAS, in order to stabilize the situation, the General Manager determined that an emergency existed and took steps and expended funds to meet the emergency by making temporary repairs with force account labor; and

WHEREAS, the California Environmental Quality Act establishes a statutory exemption for emergency repairs to public service facilities necessary to maintain service, and other specific actions necessary to prevent or mitigate an emergency; and

WHEREAS, this situation has arisen suddenly and unexpectedly and involves a clear and imminent threat, demanding immediate action to prevent or mitigate loss of, or damage to, life, health, property, and essential public services.

NOW, THEREFORE, BE IT HEREBY RESOLVED by the Board of Directors of the District, that, pursuant to Section 11(A)(8) of the Board Policies and Procedures Manual, the Board has reviewed the actions taken by the General Manager and finds, pursuant to Public Contract Code section 22050(a), that based on substantial evidence presented before the Board, the emergency did not permit a delay resulting from competitive solicitation for bids for the repair of the main, and that the General Manager's actions were necessary to respond to the emergency and further finds that an emergency continues to exist and there is a need to continue the action; and

BE IT FURTHER RESOLVED that the Board authorizes staff to continue to proceed with the replacement of the water main located on Orange Avenue between Solano Avenue and Arnold Drive, including all appurtenance thereto and procurement of the necessary equipment, services, and supplies for that purpose without giving notice for bids to let contracts; and

BE IT FURTHER RESOLVED that staff will proceed to obtain all necessary regulatory authorizations for the repair on an expedited basis using all available emergency procedures; and

BE IT FURTHER RESOLVED that the District will request all governmental entities with authority over this repair to expedite their consideration of the matter and to use available emergency procedures to ensure that this repair is completed in a timely manner so as to avoid the harms that would result from a catastrophic failure of the pipeline; and

BE IT FURTHER RESOLVED that the Board will review the status of the emergency at each subsequent meeting of the Board of Directors and vote to authorize continuation of this resolution until the emergency action is completed.

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of Valley of the Moon Water District finds the foregoing true and complete.

THIS RESOLUTION PASSED AND ADOPTED THIS 4TH DAY OF February 2025, by the following votes:

| | | |
|----------------------|------------|------------------------------------|
| Director Bryant | <u>Aye</u> | |
| Director Caniglia | <u>Aye</u> | By <u>[Signature]</u> President |
| Director Foreman | <u>Aye</u> | |
| Director Rogers | <u>Aye</u> | By <u>[Signature]</u> Secretary |
| Director Yudin-Cowan | <u>Aye</u> | |

AYES 5 NOES 0 ABSTAIN 0 ABSENT 0

I HEREBY CERTIFY that the foregoing Resolution was duly adopted at a regular meeting of the Board of Directors of Valley of the Moon Water District, held on the 4th day of February, of which meeting all Directors were duly notified and at which meeting a quorum was present at all times and acting.

By [Signature]
Secretary

MEMORANDUM

TO: Valley of the Moon Water District Board of Directors

FROM: Matt Fullner, General Manager

SUBJECT: Consider Award of Agreement to EKI Environment and Water for the Water System Evaluation, Preliminary Design Recommendations, and OPC Figures at the Former SDC Campus (CIP #3060)

Background

In its capital improvement plan this year, the District anticipated conducting an assessment of the water system at the former SDC campus from diversion through treatment, and the development of initial design recommendations accompanied by opinion of probable cost (OPC) figures for those needed projects. This proposed study stems from the need to have a greater degree of understanding of the impacts of the pending redevelopment at the site, so the District can make sound, long-term plans for taking on the operations and management of the former SDC water system.

Following a lengthy process including the issuance of a request for proposals (RFP) where three responsive proposals were received, and a proposal evaluation which included members of the SDC subcommittee and management staff, the following final average scores were produced (showing EKI as the top scorer):

Final Scores:

| Water Works | EKI | Sherwood |
|-------------|-------------|-------------|
| 84.1 | 87.6 | 86.6 |

After the initial review of proposals and scoring, negotiations were conducted with EKI per the process outlined in the RFP, to help focus the scope of work and find any areas for possible savings. The EKI team was very receptive to the District's input and was able to make changes to both scope and cost. EKI made changes to the proposal based on District input and submitted it in late February. Page 32 of the revised proposal outlines the following:

"EKI values the long-term relationship that we have with the District and understands the District's financial constraints. As such, we propose that compensation for consulting services by EKI be on a time and expense reimbursement basis in accordance with our attached 2025 Schedule of Charges, which includes a 2.5% discount for the District and waving our standard 4% communications fee. EKI also proposes reducing our standard 15% markup on direct expenses including subconsultants to 5%. Based on the proposed Scope of Work described above, we estimate a fee of **\$270,019 without optional tasks** as summarized in **Table 2 below.**"

Table 2. Proposed Fee by Task

| Task | Description | Task Total |
|-------------|--|-------------------|
| 1 | Document Review and Field Investigations | \$100,588 |
| 2 | Design and Document Preparation | \$139,376 |
| 3 | Additional Project Identification (Optional) | \$33,196 |
| 4 | Optional Tasks (Optional) | \$225,882 |
| 5 | Schedule and Project Tracking | \$30,056 |
| | Total Estimated Cost (Without Optional Tasks) | \$270,019 |

The total cost for this project is higher than had been anticipated in the FY 2024-2025 budget, however, there are sufficient funds in that line item to carry out the work that would be scheduled for this fiscal year. The work occurring in next fiscal year would require the allocation of additional funds to make up the difference. As outlined above, there are “optional tasks” included in the proposed scope of work that may or may not be needed depending upon certain factors. For example, please see the flow chart on page 23 of the revised proposal from EKI for the approach to the optional task of conducting a full evaluation of the existing treatment plant. Therefore, it is requested that the Board authorize the highest potential amount of funding for the project, though it is likely that there could be savings depending on whether the entire scope is ultimately needed. Any funds allocated to the project, but not used during the course of the work would be made available for the subsequent CIP budget cycle.

Because the total to conduct the needed analysis and development of accurate OPC figures will likely come in somewhere between \$270,019, and \$529,098, with the possibility that all funds would be needed, staff is requesting that the Board approve an agreement with a not-to-exceed cost of the maximum figure.

Recommendation:

Authorize the General Manager to execute an agreement with EKI Environment & Water, Inc. to carry out the Water System Evaluation, Preliminary Design Recommendations, and Development of OPC Figures at the Former SDC Campus (CIP #3060), per the attached revised proposal, for a total not-to-exceed amount of \$529,098.

Attachments:

- Draft Valley of the Moon Water District Agreement No. 3060-01
- Valley of the Moon Water District Request for Proposals to conduct a Water System Evaluation, Preliminary Design Recommendations, and OPC Figures at the Former SDC Campus
- Revised EKI Environment & Water Inc. Proposal

Example Contract:

**Valley of the Moon Water District
P.O. Box 280, El Verano, CA 95433
Phone (707) 996-1037**

Some of the important terms of this agreement are printed on Pages 2 - 4. For your protection, make sure that you read and understand all provisions before signing. The terms on the following pages are incorporated in this document and will constitute a part of the agreement between the parties when signed.

TO: EKI Environment & Water Inc. DATE: March 4, 2025

2001 Junipero Serra Agreement No. 3060-01
Boulevard, Suite 300

Daly City, California 94014

The undersigned Consultant offers to furnish the following:
Services outlined in the attached revised proposal dated February 26th, 2025, from EKI Environment & Water, received by the District via email, for a total negotiated cost of \$270,019 for services outlined as non-optional under the scope, and \$529,098 for all items including "optional tasks".

Contract price \$ Not to Exceed: \$529,098

Completion date Per Proposed Schedule

Instructions: Sign and return original. Upon acceptance by Valley of the Moon Water District, a copy will be signed by its authorized representative and promptly returned to you. Insert below, the names of your authorized representative(s).

Accepted Valley of the Moon Consultant:
Water District

EKI Environment & Water, Inc.
(Business Name)

By _____ By _____

Title General Manager Title _____

Other authorized representative(s):

Model 2 – Professional Services

Indemnification – To the extent permitted by law, Consultant shall hold harmless, defend at its own expense, and indemnify Valley of the Moon Water District (District), its directors, officers, employees, and authorized volunteers, against any and all liability, claims, losses, damages, or expenses, including reasonable attorney's fees and costs, arising from all acts or omissions of Consultant or its officers, agents, or employees in rendering services under this contract; excluding, however, such liability, claims, losses, damages or expenses arising from the District's sole negligence or willful acts.

Minimum Insurance Requirements: Consultant shall procure and maintain for the duration of the contract insurance against claims for injuries or death to persons or damages to property which may arise from or in connection with the performance of the work hereunder and the results of that work by the Consultant, his agents, representatives, employees or sub-contractors.

Coverage - Coverage shall be at least as broad as the following:

1. **Commercial General Liability (CGL)** - Insurance Services Office (ISO) Commercial General Liability Coverage (Occurrence Form CG 00 01) including products and completed operations, property damage, bodily injury, personal and advertising injury with limit of at least two million dollars (\$2,000,000) per occurrence or the full per occurrence limits of the policies available, whichever is greater. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location (coverage as broad as the ISO CG 25 03, or ISO CG 25 04 endorsement provided to the District) or the general aggregate limit shall be twice the required occurrence limit.
2. **Automobile Liability** – (if necessary) Insurance Services Office (ISO) Business Auto Coverage (Form CA 00 01), covering Symbol 1 (any auto) or if Consultant has no owned autos, Symbol 8 (hired) and 9 (non-owned) with limit of one million dollars (\$1,000,000) for bodily injury and property damage each accident.
3. **Workers' Compensation Insurance** - as required by the State of California, with Statutory Limits, and Employer's Liability Insurance with limit of no less than \$1,000,000 per accident for bodily injury or disease. **Waiver of Subrogation:** The insurer(s) named above agree to waive all rights of subrogation against the District, its elected or appointed officers, officials, agents, authorized volunteers and employees for losses paid under the terms of this policy which arise from work performed by the Named Insured for the Agency; but this provision applies regardless of whether or not the District has received a waiver of subrogation from the insurer.
4. **Professional Liability** - (Also known as Errors & Omission – *Technology Exposure – see pg. 3 Other Considerations) Insurance appropriate to the Consultant profession, with limits no less than \$1,000,000 per occurrence or claim, and \$2,000,000 policy aggregate.

If Claims Made Policies:

1. The Retroactive Date must be shown and must be before the date of the contract or the beginning of contract work.

2. Insurance must be maintained and evidence of insurance must be provided **for at least five (5) years after completion of the contract of work.**
3. If coverage is canceled or non-renewed, and not **replaced with another claims-made policy form with a Retroactive Date** prior to the contract effective date, the Consultant must purchase “extended reporting” coverage for a minimum of **five (5) years** after completion of contract work.

If the Consultant maintains broader coverage and/or higher limits than the minimums shown above, the District requires and shall be entitled to the broader coverage and/or higher limits maintained by the Consultant. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the District.

Other Required Provisions - The general liability policy must contain, or be endorsed to contain, the following provisions:

1. **Additional Insured Status:** The District, its directors, officers, employees, and authorized volunteers are to be given insured status (at least as broad as ISO Form CG 20 10 10 01), with respect to liability arising out of work or operations performed by or on behalf of the Consultant including materials, parts, or equipment furnished in connection with such work or operations.
2. **Primary Coverage:** For any claims related to this project, the Consultant’s insurance coverage shall be primary at least as broad as ISO CG 20 01 04 13 as respects to the District, its directors, officers, employees and authorized volunteers. Any insurance or self-insurance maintained by the Member Water Agency its directors, officers, employees and authorized volunteers shall be excess of the Consultant’s insurance and shall not contribute with it.

Notice of Cancellation: Each insurance policy required above shall provide that coverage shall not be canceled, except with notice to the District.

Self-Insured Retentions - Self-insured retentions must be declared to and approved by the District. The District may require the Consultant to provide proof of ability to pay losses and related investigations, claim administration, and defense expenses within the retention. The policy language shall provide, or be endorsed to provide, that the self-insured retention may be satisfied by either the named insured or the District.

Acceptability of Insurers - Insurance is to be placed with insurers having a current A.M. Best rating of no less than A: VII or as otherwise approved by the District.

Verification of Coverage – Consultant shall furnish the District with certificates and amendatory endorsements or copies of the applicable policy language effecting coverage required by this clause. All certificates and endorsements are to be received and approved by the District before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive the Consultant’s obligation to provide them. The District reserves the right to require complete, certified copies of all required insurance policies, including policy Declaration pages and Endorsement pages.

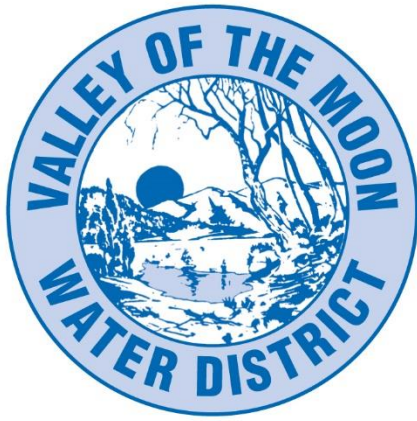
Sub-contractors - Consultant shall require and verify that all sub-contractor maintain insurance meeting all the requirements stated herein, and Consultant shall ensure that the District, its directors, officers, employees, and authorized volunteers are an additional insured are an additional insured on Commercial General Liability Coverage.

Other Contractual considerations:

Professional Services – Professional Liability coverage is normally required if the Consultant is providing a professional service regulated by the state (Examples of service providers regulated by the state are insurance agents, doctors, certified public accountants, lawyers, etc.). However, other professional Consultants, such as computer or software designers, and services providers such as claims administrators, should also have professional liability. If in doubt, consult with your risk management or JPIA Member Services.

If Technology Vendor Provider - include:

Cyber Liability Insurance (Technology Professional Liability – Errors and Omissions), with limits not less than \$2,000,000 per occurrence or claim, and \$2,000,000 aggregate or the full per occurrence limits of the policies available, whichever is greater. Coverage shall be sufficiently broad to respond to the duties and obligations as is undertaken by Vendor in this Agreement and shall include, but not be limited to, claims involving infringement of intellectual property, including but not limited to infringement of copyright, trademark, trade dress, invasion of privacy violations, information theft, damage to or destruction of electronic information, release of private information, alteration of electronic information, extortion and network security. The policy shall provide coverage for breach response costs as well as regulatory fines and penalties as well as credit monitoring expenses with limits sufficient to respond to these obligations.



VALLEY OF THE MOON WATER DISTRICT

A Public Agency Established in 1962
19039 Bay Street · P.O. Box 280
El Verano, CA 95433-0280
Phone: (707) 996-1037
Fax: (707) 996-7615

October 7, 2024

To: Engineering Firms/Consultants

Sent via email

Re: Request for Proposals (RFP) for Water System Evaluation, Preliminary Design Recommendations, and OPC Figures at the Former SDC Campus

Proposals from interested parties are due by 2:00 PM December 16th, 2024.

Dear Consultant,

Valley of the Moon Water District (District) will be responsible for the operation of multiple diversions, two lakes, raw and treated water transmission systems, a water treatment plant, and distribution system at the former Sonoma Developmental Center (SDC), after the redevelopment of the site. The system components range widely in age, with the oldest parts of the system above 100 years old. Much of the system, namely the water treatment facility, has been offline since the SDC Campus went into a “warm shutdown” in 2019. In preparation for taking on the operation of these facilities, the District is requesting proposals from engineering firms, to evaluate the water system facilities at SDC and make recommendations on needed repairs, upgrades, process changes, etc., and provide an opinion of probable cost (OPC) for the recommended work. For the purposes of this RFP, it is assumed that the distribution system will be replaced concurrent with development including all design work. Therefore, the scope of this evaluation will focus on the diversions, lakes/dams, and raw and treated water transmission systems including storage tanks. The OPC figures will help inform both the District and the Developer of the likely scope and total cost of bringing the water system back online. The SDC campus is located at 15000 Arnold Drive Eldridge, CA 95431.

If you/your company is interested in supplying a proposal to the District, please read below for further information and instructions:

Facilities Descriptions:

Water Diversions:

DIRECTORS:
OFFICERS:

Gary Bryant – Jon Foreman – Steve Caniglia – Steve Rogers – Colleen Yudin-Cowan
Matt Fullner, General Manager – Burke, Williams & Sorensen, LLP, District Counsel

- Hill Creek: includes a diversion structure, raw water conveyance (enclosed pipe and open channel) to Fern Lake
- Asbury Creek: includes a diversion structure, raw water conveyance (enclosed pipe and open channel) to Fern Lake
- Roulette Springs: includes collection piping, a spring box, and conveyance pipe to the water treatment plant (WTP) head box
- Sonoma Creek: includes collection piping and pumps to transfer water from Sonoma Creek to Suttonfield Lake via a raw water transmission line. This site also had a dam to make water diversions possible for a greater portion of the year until the 1980's. It is possible that this could be reconstructed.

Lakes:

- Fern Lake: this is the smaller of the two lakes consisting of 240 acre-feet of storage, and includes two earthen dams, a spillway, and a draw-off tower with multiple intake depths. This lake's elevation is above the WTP allowing for gravity feed to the headbox via a raw water transmission line.
- Suttonfield Lake: this is the larger of the two lakes consisting of 600 acre-feet of storage, and includes two earthen dams, a spillway, and a draw-off tower with multiple intake depths. This lake's elevation is lower than the WTP, necessitating pumping the raw water to the WTP headbox via a raw water transmission line.

Raw Water Transmission:

- Water can be transferred by gravity from Fern Lake to Suttonfield Lake via a raw water transmission line and "breaker tank", which breaks the head pressure at roughly the elevation of the WTP.
- The water flow can be reversed in the line by the use of a raw water booster station located at the Sonoma Creek Diversion. These pumps can pull water from Suttonfield Lake and deliver it to the WTP.

Notes:

The District has included a link to a "Water System Condition Assessment", a "Conceptual Transition Plan" and a "Water Supply Assessment" for the SDC property in these documents. It is likely that additional assessments and field investigations will be required under the scope of this work; the chosen consultant will coordinate those site visits, if needed, with the California Department of General Services (DGS) and the District.

The RFP process:

1. The District will release and advertise this RFP
2. Qualified firms may respond to the RFP by supplying the requested information as well as any other information they deem necessary or pertinent by the deadline
3. Responses to the RFP will be scored based on the below scoring matrix and placed in order of highest to lowest
4. Contract negotiations can then commence with the firm receiving the highest score
5. Upon successful negotiation, a contract will be executed between the District and the chosen firm

RFP Sections:

The RFP is broken into the following sections: Qualifications, Tasks, and Cost Estimate.

Qualifications:

Please provide the following in the Qualifications section of your RFP:

- A list of successful projects that your firm has completed (need not be comprehensive)
- At least three references from satisfied customers – ideally with similar projects
- The full legal name and address of your company
- Acknowledgment of insurance requirements (actual certificates will follow a signed contract)
- Optional: List of personnel that will be assigned to this project and their background/expertise

Tasks:

Task 1 Document Review and Field Investigations

- Review of maps, plans, and assessments (attached and linked below)
- Interview District and SDC staff to gather information on operational parameters, etc.
- Develop a request for information (RFI) list for additional information if needed
- Develop a list of additional condition assessments that will be needed in addition to, or with more specificity than, those done in the Water System Assessment Report Prepared by Wood Rodgers
- Carry out those assessments and use the data gathered to inform each of the possible projects identified
- For the purposes of this proposal, please assume each project identified in Section VI “Summary of Existing Deficiencies - Urgent” and VII “Summary of Existing Deficiencies – Mid Tier” of the Water System Assessment Report Prepared by Wood Rodgers will be needed with the exception of projects related to groundwater wells and the distribution system.
 - In addition to these projects, consider methods and process changes that could be implemented to reduce or eliminate the production of DBPs from the WTP as this had been an issue in the past.
- Prepare a list of capital improvements that will likely be needed to bring the former SDC treatment plant online, meeting or exceeding all current applicable water quality standards

Task 2 Design and Document Preparation

- Develop 10% “conceptual” or “preliminary” plans for each of the needed projects identified in Task 1
- Develop OPC figures for each of the needed projects

DIRECTORS:
OFFICERS:

Gary Bryant – Jon Foreman – Steve Caniglia – Steve Rogers – Colleen Yudin-Cowan
Matt Fullner, General Manager – Burke, Williams & Sorensen, LLP, District Counsel

Task 3 Additional Project identification

- Provide a cost for each additional project that may be identified in this process – i.e. projects not identified in the Water System Assessment Report, but that you/your firm may determine should take place. This should be done by category. For example, provide a cost estimate for each of the additional projects that will be brought to a 10% design in the areas of:
 - Raw water diversion or transmission
 - Treatment system addition or retrofit
 - Computer system or telemetry upgrade or retrofit
 - Pipeline replacement
 - Storage tank retrofit
 - Dam maintenance or retrofit
 - Draw-off tower retrofit or replacement
 - Etc.

Task 4 Other

- Evaluate the instructions, descriptions, and notes above and provide possible additional tasks that you/your firm feel would help attain the District’s goals as outlined if needed.

Task 5 Schedule and Project Tracking

- Propose a timeline for completion, ideally in Gantt chart form
- Provide a cost estimate for each meeting with District and/or SDC staff. Assume 5 meetings
- Upon project completion, attend a District Board meeting to present your findings and final report

Cost Estimate:

Please provide a cost estimate for each task in your proposal as well as a “total” cost for all items described.

Scoring of proposals:

Proposals will be ranked based on the following scoring matrix:

| Scoring Category | Possible Score |
|--|----------------|
| Expertise and qualifications of firm/project manager | 30 |
| Cost | 30 |
| Response to RFP scope of work | 40 |

Total Possible: 100

If interested in providing the District with a proposal, please do so by 2:00 PM December 16th, 2024 via email to Matt Fullner (mfullner@vomwd.org). Staff is available to answer any questions you may have and will issue an addendum to all on the email list for relevant questions. No addendum will be issued later than December 9th, 2024. We look forward to receiving and reviewing your proposal.

DIRECTORS:
OFFICERS:

Gary Bryant – Jon Foreman – Steve Caniglia – Steve Rogers – Colleen Yudin-Cowan
Matt Fullner, General Manager – Burke, Williams & Sorensen, LLP, District Counsel

Sincerely,



Matt Fullner – General Manager

mfullner@vomwd.org

Attached:

- Example Contract
- 2019 Water Master Plan, Zone 1F Booster Pump Station and Eldridge PRV Replacement Project (P-10) Project Description Sheet, prepared by EKI

Please find the following materials here: <https://www.vomwd.org/bids>:

- Conceptual Transition Plan for Sonoma Development Center Valley of the Moon Water District, Sonoma County, California, prepared by EKI
- Sonoma Development Center Water System Assessment Report, prepared by Wood Rodgers
- SDC Water Supply Assessment, prepared by EKI

DIRECTORS:
OFFICERS:

Gary Bryant – Jon Foreman – Steve Caniglia – Steve Rogers – Colleen Yudin-Cowan
Matt Fullner, General Manager – Burke, Williams & Sorensen, LLP, District Counsel

Example Contract:

**Valley of the Moon Water District
P.O. Box 280, El Verano, CA 95433
Phone (707) 996-1037**

Some of the important terms of this agreement are printed on Pages 2 - 4. For your protection, make sure that you read and understand all provisions before signing. The terms on the following pages are incorporated in this document and will constitute a part of the agreement between the parties when signed.

TO: _____ DATE: _____

Agreement No. **XXXX-XX**

The undersigned Consultant offers to furnish the following:
(Negotiated Services per [reference document])

Contract price \$ _____

Completion date _____

Instructions: Sign and return original. Upon acceptance by Valley of the Moon Water District, a copy will be signed by its authorized representative and promptly returned to you. Insert below, the names of your authorized representative(s).

Accepted Valley of the Moon Consultant:
: Water District

(Business Name)

By _____ By _____

Title General Manager Title _____

Other authorized representative(s):

Model 2 – Professional Services

Indemnification – To the extent permitted by law, Consultant shall hold harmless, defend at its own expense, and indemnify Valley of the Moon Water District (District), its directors, officers, employees, and authorized volunteers, against any and all liability, claims, losses, damages, or expenses, including reasonable attorney's fees and costs, arising from all acts or omissions of Consultant or its officers, agents, or employees in rendering services under this contract; excluding, however, such liability, claims, losses, damages or expenses arising from the District's sole negligence or willful acts.

Minimum Insurance Requirements: Consultant shall procure and maintain for the duration of the contract insurance against claims for injuries or death to persons or damages to property which may arise from or in connection with the performance of the work hereunder and the results of that work by the Consultant, his agents, representatives, employees or sub-contractors.

Coverage - Coverage shall be at least as broad as the following:

1. **Commercial General Liability (CGL)** - Insurance Services Office (ISO) Commercial General Liability Coverage (Occurrence Form CG 00 01) including products and completed operations, property damage, bodily injury, personal and advertising injury with limit of at least two million dollars (\$2,000,000) per occurrence or the full per occurrence limits of the policies available, whichever is greater. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location (coverage as broad as the ISO CG 25 03, or ISO CG 25 04 endorsement provided to the District) or the general aggregate limit shall be twice the required occurrence limit.
2. **Automobile Liability** – (if necessary) Insurance Services Office (ISO) Business Auto Coverage (Form CA 00 01), covering Symbol 1 (any auto) or if Consultant has no owned autos, Symbol 8 (hired) and 9 (non-owned) with limit of one million dollars (\$1,000,000) for bodily injury and property damage each accident.
3. **Workers' Compensation Insurance** - as required by the State of California, with Statutory Limits, and Employer's Liability Insurance with limit of no less than \$1,000,000 per accident for bodily injury or disease. **Waiver of Subrogation:** The insurer(s) named above agree to waive all rights of subrogation against the District, its elected or appointed officers, officials, agents, authorized volunteers and employees for losses paid under the terms of this policy which arise from work performed by the Named Insured for the Agency; but this provision applies regardless of whether or not the District has received a waiver of subrogation from the insurer.
4. **Professional Liability** - (Also known as Errors & Omission – *Technology Exposure – see pg. 3 Other Considerations) Insurance appropriate to the Consultant profession, with limits no less than \$1,000,000 per occurrence or claim, and \$2,000,000 policy aggregate.

If Claims Made Policies:

1. The Retroactive Date must be shown and must be before the date of the contract or the beginning of contract work.
2. Insurance must be maintained and evidence of insurance must be provided **for at least five (5) years after completion of the contract of work.**

DIRECTORS:
OFFICERS:

Gary Bryant – Jon Foreman – Steve Caniglia – Steve Rogers – Colleen Yudin-Cowan
Matt Fullner, General Manager – Burke, Williams & Sorensen, LLP, District Counsel

3. If coverage is canceled or non-renewed, and not **replaced with another claims-made policy form with a Retroactive Date** prior to the contract effective date, the Consultant must purchase “extended reporting” coverage for a minimum of **five (5)** years after completion of contract work.

If the Consultant maintains broader coverage and/or higher limits than the minimums shown above, the District requires and shall be entitled to the broader coverage and/or higher limits maintained by the Consultant. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the District.

Other Required Provisions - The general liability policy must contain, or be endorsed to contain, the following provisions:

1. **Additional Insured Status:** The District, its directors, officers, employees, and authorized volunteers are to be given insured status (at least as broad as ISO Form CG 20 10 10 01), with respect to liability arising out of work or operations performed by or on behalf of the Consultant including materials, parts, or equipment furnished in connection with such work or operations.
2. **Primary Coverage:** For any claims related to this project, the Consultant’s insurance coverage shall be primary at least as broad as ISO CG 20 01 04 13 as respects to the District, its directors, officers, employees and authorized volunteers. Any insurance or self-insurance maintained by the Member Water Agency its directors, officers, employees and authorized volunteers shall be excess of the Consultant’s insurance and shall not contribute with it.

Notice of Cancellation: Each insurance policy required above shall provide that coverage shall not be canceled, except with notice to the District.

Self-Insured Retentions - Self-insured retentions must be declared to and approved by the District. The District may require the Consultant to provide proof of ability to pay losses and related investigations, claim administration, and defense expenses within the retention. The policy language shall provide, or be endorsed to provide, that the self-insured retention may be satisfied by either the named insured or the District.

Acceptability of Insurers - Insurance is to be placed with insurers having a current A.M. Best rating of no less than A: VII or as otherwise approved by the District.

Verification of Coverage – Consultant shall furnish the District with certificates and amendatory endorsements or copies of the applicable policy language effecting coverage required by this clause. All certificates and endorsements are to be received and approved by the District before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive the Consultant’s obligation to provide them. The District reserves the right to require complete, certified copies of all required insurance policies, including policy Declaration pages and Endorsement pages.

Sub-contractors - Consultant shall require and verify that all sub-contractor maintain insurance meeting all the requirements stated herein, and Consultant shall ensure that the District, its directors, officers, employees, and authorized volunteers are an additional insured are an additional insured on Commercial General Liability Coverage.

DIRECTORS:
OFFICERS:

Gary Bryant – Jon Foreman – Steve Caniglia – Steve Rogers – Colleen Yudin-Cowan
Matt Fullner, General Manager – Burke, Williams & Sorensen, LLP, District Counsel

Other Contractual considerations:

Professional Services – Professional Liability coverage is normally required if the Consultant is providing a professional service regulated by the state (Examples of service providers regulated by the state are insurance agents, doctors, certified public accountants, lawyers, etc.). However, other professional Consultants, such as computer or software designers, and services providers such as claims administrators, should also have professional liability. If in doubt, consult with your risk management or JPIA Member Services.

If Technology Vendor Provider - include:

Cyber Liability Insurance (Technology Professional Liability – Errors and Omissions), with limits not less than \$2,000,000 per occurrence or claim, and \$2,000,000 aggregate or the full per occurrence limits of the policies available, whichever is greater. Coverage shall be sufficiently broad to respond to the duties and obligations as is undertaken by Vendor in this Agreement and shall include, but not be limited to, claims involving infringement of intellectual property, including but not limited to infringement of copyright, trademark, trade dress, invasion of privacy violations, information theft, damage to or destruction of electronic information, release of private information, alteration of electronic information, extortion and network security. The policy shall provide coverage for breach response costs as well as regulatory fines and penalties as well as credit monitoring expenses with limits sufficient to respond to these obligations.

P-10 Project Description Sheet:

Valley of the Moon Water District
 Water Master Plan
 CAPITAL IMPROVEMENT PROJECT P-10



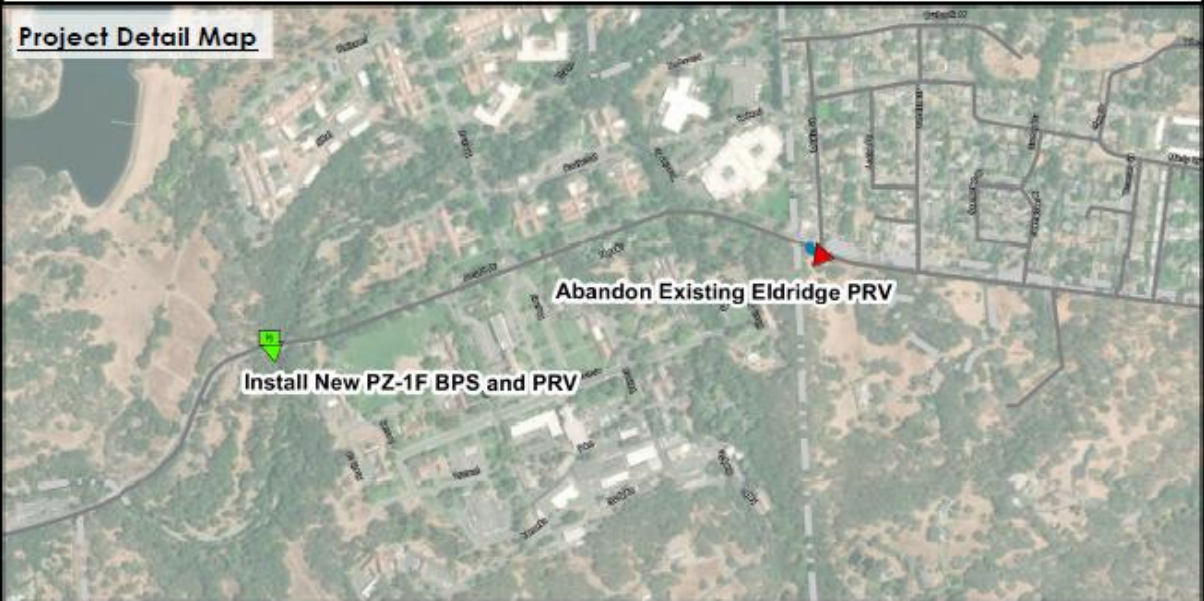
Project ID: P-10 **Project Priority Level:** 2

Description: Zone 1F Booster Pump Station and Eldridge PRV Replacement Project

Location: Near 14500 Arnold Dr.

Improvement Details: Install new PRV and BPS with a firm capacity of 450 gpm at 275 ft TDH. Abandon existing Eldridge PRV.

Justification: Addresses supply deficiency and fire flow deficiencies in PZ-1F and improves system redundancy.



Total Opinion of Probable Cost

| Improvement Type | Recommended Diameter | Quantity | Construction by District | | Construction by Contractor | | |
|--|----------------------|----------|--------------------------|------------|----------------------------|------------|--|
| | | | Unit Cost | Total Cost | Cost Factor | Total Cost | |
| <i>Zone 1F Booster Pump Station and Eldridge PRV Replacement Project</i> | | | | | | | |
| BPS Improvement - Fire Pump Replacement | -- | 1 LS | -- | -- | \$988,000 | \$988,000 | |
| PRV Installation | -- | 1 EA | -- | -- | \$100,000 | \$100,000 | |
| Main Tie-ins | -- | 2 EA | -- | -- | \$7,500 | \$15,000 | |
| Abandonment of Existing PRV | -- | 1 EA | -- | -- | \$10,000 | \$10,000 | |
| Construction Contingency (25%) | | | | -- | \$278,300 | | |
| Construction OPC | | | | -- | \$1,391,300 | | |
| Engineering, Administration, and Permitting Costs (25%) | | | | -- | \$278,300 | | |
| Total OPC | | | | -- | \$1,670,000 | | |

DIRECTORS:
 OFFICERS:

Gary Bryant – Jon Foreman – Steve Caniglia – Steve Rogers – Colleen Yudin-Cowan
 Matt Fullner, General Manager – Burke, Williams & Sorensen, LLP, District Counsel

26 February 2025

Matt Fullner, General Manager
Valley of the Moon Water District
19039 Bay Street, P.O. Box 280
El Verano, California 95433

Subject: Proposal for Water System Evaluation, Preliminary Design Recommendations, and OPC Figures at the Former SDC Campus Project (EKI C40294.00)

Dear Mr. Fullner:

EKI Environment & Water, Inc. (EKI) is pleased to submit our proposal to the Valley of the Moon Water District (District) to provide engineering services for the Water System Evaluation, Preliminary Design Recommendations, and OPC Figures for the Former Sonoma Developmental Center (SDC) Campus (Project). Understanding the nature of this project, EKI has assembled a specialized team to provide a full set of services for this project to the District. We are teamed with local structural engineering firm TJC and Associates, Inc. (TJCAA); water quality and treatment specialists Corona Environmental Consulting, LLC (Corona); and reservoir/dam condition assessment specialists Water Resources Engineering, Inc. (WRE). Our highly-qualified team has the experience and expertise required to successfully deliver the timely and cost-effective consulting services requested by the District. We believe that the EKI team has the necessary qualifications to deliver a successful project based on these factors:

- **Local Team with Knowledge of District's and SDC's Infrastructure:** The EKI team is local and will staff this Project from our offices and our subconsultants' offices in in Daly City, Oakland, and San Francisco. EKI has worked closely with the District over the last nine years on numerous infrastructure and water supply planning and design projects. Our Project Manager, Jonathan Sutter, PE, has been providing engineering services to the District since 2018 and is closely familiar with the District's facilities and system operations through his work leading the development of the District's Water Master Plan (WMP) and ongoing engineering support. Mr. Sutter also led a water supply assessment for the SDC project and a hydraulic evaluation for integrating the SDC development and water supply infrastructure into the District's system. Through these work efforts, Mr. Sutter has gained familiarity with the SDC water supply infrastructure.
- **Technical Understanding and Experience:** Our team understands the importance of having strong technical skills and knowledge of the SDC's operation and functionality is critical to this project's success. Having worked on the documenting steps for the transition of the SDC Site property and its water-related infrastructure to the District's water system will leverage into providing optimal recommendations on improvements needed to bring SDC's water system facilities back online and developing 10% designs and cost estimates for the recommended improvements.
- **Ability to Support Efficiency and Coordination Across Multiple Related District's Work Efforts.** Through our work on the recently-awarded WMP Update project, EKI recognizes the interconnections between various projects, as well as the need for an efficient overall process for the District. The EKI team is uniquely able to provide a programmatic approach to managing these related efforts to maximize efficiencies in project management, minimize staff level of effort, and reduce costs, while ensuring consistency across these related planning efforts.

- **Responsiveness:** The EKI team is ready to begin work on this Project immediately. We bring a responsive team of local, highly qualified professionals to focus on the project needs. Team members are located about an hour's drive away from the District and are therefore able to respond quickly to meet your needs.

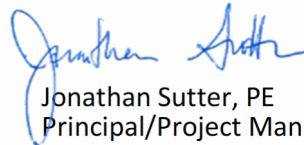
EKI is excited to continue our long association with the District and help the District make an informed decision regarding the needed repairs, upgrades, process changes at SDC. The nature of this project will require fresh approaches to meet the District's expectations, and we look forward to assisting you to deliver a useful evaluation with implementable recommendations. Our staff experience, firm background, approach, and proposed scope of services are detailed in our proposal. Should you have any questions or require any further information, please contact our project manager, Jon Sutter, at (650) 292-9099 or by e-mail at jsutter@ekiconsult.com.

Very truly yours,

EKI ENVIRONMENT & WATER, INC.



C. David Umezaki, PE
Principal-In-Charge



Jonathan Sutter, PE
Principal/Project Manager

QUALIFICATIONS

About EKI

EKI Environment & Water, Inc. (EKI) is an employee-owned company that has provided comprehensive water resources and engineering services to public and private sector clients since our founding in 1989. Our staff includes over 120 civil engineers, environmental engineers, chemical engineers, chemists, geologists, hydrogeologists, environmental scientists, computer-aided designers, geographic information system (GIS) and database specialists, and support staff in offices throughout California and the United States. This project will be mainly conducted out of our Daly City office.



Ability to Commit Resources and Meet Insurance Requirements

EKI understands that the continuity of key personnel assigned to a project is a key factor in project success. We are committed to the success of the District's project and will dedicate the staff and technical resources needed for successful tasks completion under this contract.



EKI will be able to meet the insurance requirements as identified in the Sample Contract attached with the RFP. We will be able to provide an actual certificate of insurance upon signing the contract.

Our Subconsultants

To support our work as the prime consultant, EKI has included **TJC and Associates, Inc. (TJCAA)** to provide **Structural and Electrical Engineering; Corona Environmental Consulting, LLC (Corona)** for **water quality and treatment; and Water Resources engineering, Inc. (WRE)** to provide **reservoir/dam condition assessment** as subconsultants on our team. EKI has worked successfully as the prime consultant on numerous multi-disciplinary design projects. Our proposed team has effectively completed a wide range of water projects for public agency clients for over a decade. Relevant project experience that demonstrates our ability to coordinate work between disciplines is presented in the 'References' section of this proposal.

ABOUT TJC AND ASSOCIATES, INC. (TJCAA)



TJC and Associates, Inc. (TJCAA) is a certified small business enterprise providing engineering services to local Bay Area clients, as well as clients in the state of California and throughout the United States. Originally founded as a structural engineering firm in 1998, TJCAA expanded in 2006 to offer multidiscipline design solutions in structural engineering, electrical engineering, instrumentation and controls, and control systems programming. TJCAA provides expertise in design of infrastructure for water and wastewater treatment plants, pump stations, reservoirs/tanks, flood control structures, bridges, and support facilities.

TJCAA's senior staff engineers each provide on average 25 years of experience in delivering creative solutions for special districts, municipalities, and commercial/industrial clients.

Contact Information:

Hernando J. Montoya, PE
Project Manager
hernando@tjcaa.com

TJCAA is a small business enterprise providing engineering services to local Bay Area clients, as well as clients throughout the United States.

TJCAA operates from two fully equipped Northern California design offices in Concord and Oakland. They have twenty-two permanent staff members consisting of licensed Professional Electrical, Control System, and Structural Engineers, Designers, CAD, and administrative personnel.

CORONA Corona Environmental Consulting, LLC (Corona) is a nationally recognized leader in addressing issues related to the drinking water community. Since its inception in June 2013, Corona has provided consulting services to hundreds of drinking water utilities, federal and state agencies, and have participated in numerous research projects funded by utilities, the Water Research Foundation, and other research organizations.

Corona team members identify and solve challenging drinking water problems through the application of state-of-the-art engineering, science, and technology to deliver high quality, safe drinking water. Their multidisciplinary team of drinking water professionals has **expertise in source water and treated water evaluations, treatment optimization, regulatory support, and distribution system evaluations.** Corona has performed existing water system evaluation leading to either rehabilitation of treatment processes or complete replacement of water treatment plants (WTPs) for the Town of Gilbert (Arizona), Suisun Solano Water Authority (California), Illinois American Water (Lincoln, IL), and several other utilities in California and across the country within the past five years.

Contact Information:

Amlan Ghosh, PhD, PE
Partner
aghosh@coronaenv.com

Corona is a leader in water quality analysis and water treatment systems.

WRE WATER RESOURCES ENGINEERING, INC. **Water Resources Engineering, Inc. (WRE)** Based in San Francisco and incorporated in California in 1989, WRE has been providing planning, analysis, design, operation, and maintenance of water systems and structures for 35 years. Since its founding, WRE has had the same corporate management and completed projects for local, state, and federal water agencies, always providing a high level of expertise using the most up-to-date technology. This consistency has given the firm a well-deserved reputation for dependability and technical excellence. Most WRE clients are repeat clients. WRE's relevant experience includes:

- Water supply, storage, delivery, and transport services
- Water quality services
- Engineering planning services
- Operations and maintenance services

Contact Information:

Gustavo Arboleda, PE
garboleda@wrewater.com

Certified Small Business, State of California. Certified Small Business, US Small Business Administration. Certified Minority-Owned San Francisco Local Business Enterprise.

EKI's Long-Standing Relationship with District and District Experience

EKI values its long-standing relationship with the District. EKl has worked closely with the District over the last nine years on numerous infrastructure and water supply projects. ***For example, EKl continues to assist the District with design of several groundwater supply projects, a major pipeline project, and updating the District's Water System Master and Hydraulic Model.*** EKl previously prepared the District's 2019 Water System Master Plan, its 2015 and 2020 Urban Water Management Plans (UWMPs), and its 2022, 2023, and 2024 Annual Water Supply and Demand Assessments (AWSAs).

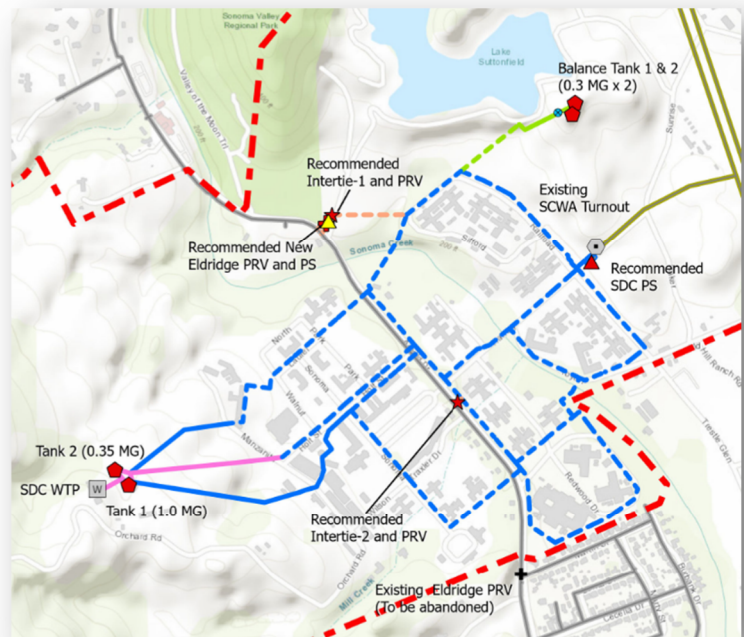


SDC Sedimentation Basin

EKI recently supported the District’s planning efforts related to serving the SDC Project. In 2022 and 2023, EKI prepared the following planning documents in support of the SDC Project:

1. The Water Supply Assessment for the SDC Specific Plan;
2. A hydraulic assessment that evaluated how the SDC water supply infrastructure could be integrated with the District’s water system; and
3. A conceptual transition plan that outlined steps to transition control of SDC water rights, facilities, and operations to the District.

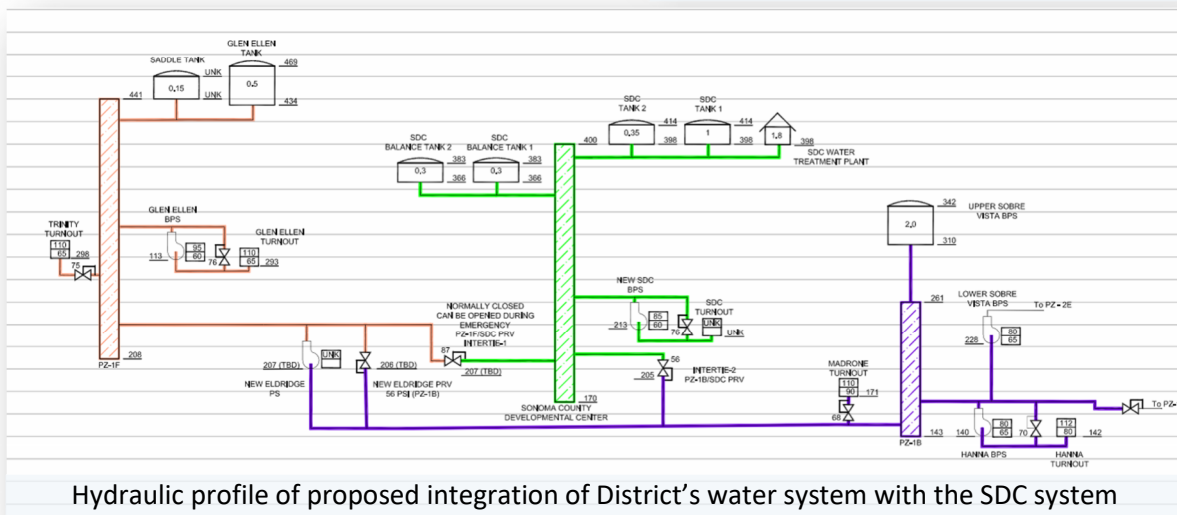
EKI also supported and provided a peer review of the *Sonoma Developmental Center Water System Assessment Report* prepared by Wood Rodgers and dated April 2023. As part of these efforts, EKI participated in a site tour of the SDC raw and potable water facilities; reviewed the SDC water rights and historical water use; developed a water supply model to evaluate the reliability of the SDC water supplies and the projected availability of supplies to support demands outside of the SDC; and incorporated the SDC water transmission system into the District’s hydraulic model to assess the integration with the District’s existing system and necessary system improvements. Through these efforts, EKI gained familiarity with the SDC water facilities and the District’s planned approach for assuming operations of these facilities.



Recommended SDC treated water transmission system capacity improvements from hydraulic evaluation prepared by EKI



Fern Lake and its intake structure



Hydraulic profile of proposed integration of District’s water system with the SDC system

Successful Projects with References

NORTH COAST COUNTY WATER DISTRICT - DISTRICT ENGINEERING SERVICES

EKI has worked closely with the North Coast County Water District staff and management since 2020 to provide District Engineering services which include:

- **CIP Programming and Budgeting:** EKI assisted in the preparation of the Fiscal year CIP budgets for 2020-2021 and 2021-2022. Near-term projects were prioritized and the budgets and cash flows for each project were updated.
- **Park Pacific Tank Recoating and Pump Station Upgrades Design.** The District identified the need to recoat and rehabilitate Park Pacifica Tank. Park Pacifica Tank, originally designed and built in the late 1960s, is a 1.0 million gallon (MG) welded steel tank. EKI performed a pre-design condition assessment and coatings inspection of the exterior and interior and exterior of the tank. Based on the assessment, EKI recommended and developed opinion of probable cost for the recoating and necessary modifications to rehabilitate the tank. Additionally, EKI provided a pre-design analysis to evaluate the modifications necessary at the either Park Pacifica Pump Station or Royce Pump Station to continuously serve an upper zone while a separate tank is taken out of service for construction of a new replacement tank. EKI considered installation of new variable frequency drive (VFD) pumps or the installation of a new or permanent hydropneumatic tank. Based on the evaluation EKI recommended a VFD pump skid to be installed at the Royce Pump Station and is supporting the installation of this pump skid.
- **Emergency Response Planning:** EKI led the District staff in an emergency exercise in March 2023. The emergency exercise merged tabletop and functional methods to simulate a nearby earthquake. EKI completed an Emergency Exercise After Action Report (AAR) that identified areas of strength and potential improvement and included an improvement plan. EKI also completed an emergency fuel storage evaluation that showed that the District has sufficient fuel storage to keep its system operational for three days under normal, average day demand conditions, with the ability to transfer fuel between fuel storage facilities and recommended that the District pursue options to increase storage at its Main Pump Station located at the San Francisco Public Utility Commission's (SFPUC) Harry Tracy Water Treatment Plant (HTWTP).
- **Hydraulic Modeling and Storage Evaluations:** Our engineers constructed and calibrated a new hydraulic model for the District. This required updates to the District's water system GIS by merging multiple datasets and incorporating recent projects. At the same time, a storage evaluation was completed in conjunction with this modeling effort that identified the required volume and location of future storage projects.
- **Pipeline Design:** We are the lead engineering designers with the District on the following projects:
 - Multi-phase water main loop at Everglades Drive that will create a loop in the southeast areas of the District's system and allow abandoning the inaccessible aging pipes.
 - Emergency installation of a new main at Frances Avenue to replace a leaking pipe located behind homes.

Client Details

North Coast County Water District
80 Eureka Square Suite #219
Pacifica, CA 94044

Project Dates: 2020-Ongoing

Reference

Adrienne Carr, PhD
General Manager
North Coast County Water District
Ph: (650) 355-3462
acarr@nccwd.com

EKI Role & Team Members: As-Needed Prime Engineering Consultant

Jonathan Sutter, PE
David Umezaki, PE

Subconsultants:

Electrical and Structural - TJCAA
Survey and Mapping



- **Groundwater Supply System Design:** Based on the groundwater supply study recently completed by EKI which secured a grant of \$6.6 million. Our team is initiating design, CEQA compliance, bid support, engineering services, construction management and grant administration support for the installation of up to three new groundwater wells, conveyance piping and pumping and treatment.
- **Construction Inspection:** Our engineers provided construction inspection services on behalf of the District for the City of Pacifica’s Balboa Way water main replacement project, and we are currently teaming with Tanner Pacific to provide inspection services for the Loop at Everglades Drive Project.
- **Third-Party Engineering Reviews:** EKI has provided third-party peer reviews for several projects with the District such as Sheila Tank Project Design, Fassler Tank Replacement Siting Study, Manor Drive Overpass Feasibility Study, and Hinton Ranch Pipeline Project Feasibility Study.
- **Urban Water Management Plan (UWMP):** EKI prepared the District’s 2020 UWMP and Water Shortage Contingency Plan and developed an understanding of the District’s water supply and water demand projections.

ALAMEDA COUNTY WATER DISTRICT ALAMEDA & DECOTO RESERVOIRS IMPROVEMENT PROJECTS

EKI provided engineering design and construction support services to TJCAA as a subconsultant for the Alameda County Water District’s (ACWD) Alameda and Decoto Reservoirs Improvement Projects. Both reservoirs are concrete lined earthen basins and are located close to the Hayward Fault. These projects aimed to implement a seismic upgrade and replace the roofs of the two reservoirs. EKI was hired to evaluate alternatives, provide recommendations, and prepare contract documents for improvements to the reservoirs piping and valves for increased reliability, maintainability, and safety, with a lifecycle of 30 years or greater.

- **Alameda Reservoir:** Alameda Reservoir is a 16.25 million gallon reservoir built in 1972. EKI prepared design documents for site demolition and improvements, replacing an 8” drain valve, the inlet/outlet valve stem extension, and overflow drain piping. The construction was completed in July of 2024. As part of this project, EKI worked with District staff to prepare specifications that included an outage plan for the reservoir during construction.
- **Decoto Reservoir:** Decoto Reservoir is a 14.55 million gallon reservoir built in 1964. EKI prepared preliminary design documents for site demolition and improvements, replacement of the 30” inlet/outlet valve and valve stem extension (located in a concrete vault at the bottom of the reservoir), 8” drain valve, and several 30” valves to replace an old altitude valve (located in the Valve Pit) need replacement. The project also included the replacement of the Ethylene Propylene Diene Monomer (EPDM) liner with a chlorosulfinated polyethylene (CSPE) liner. A reservoir outage plan for the construction phase was also prepared. The project is nearing final design and bidding.

Client Details

TJC and Associates, Inc.
1111 Broadway, Suite 300
Oakland, CA 94607-4167

Project Dates: 2020-2024

Reference

Hernando J. Montoya, P.E.
Ph: (925) 357-2676
hernando@tjcaa.com

EKI Role & Team Members:

Civil and Mechanical Engineering Subconsultant to TJCAA
Tyler Colyer, PE
Dave Umezaki, PE
Subconsultant:
Survey Engineer



CITY OF EAST PALO ALTO – WELL INSTALLATION, TESTING, AND DESIGN, 2014 – PRESENT

EKI has supported the City of East Palo Alto on multiple projects over the last several years related to water system planning and design. Specifically, EKI has completed the following projects that are relevant to the services requested in the RFQ:

- **Gloria Way Well Facility:** EKI provided planning, design, permitting, and start up support for the Gloria Way Iron and Manganese Groundwater Treatment System, which included the installation of new iron and manganese treatment chloramination systems, blending with high-quality SFPUC Hetch-Hetchy water to address high chloride and total dissolved solids levels, and a new high service pumping and surge tank. EKI also conducted a hydrogeologic investigation and installation of a test well at the Pad D site, which included test well design and construction, aquifer testing, water quality sampling, groundwater modeling, preliminary design, and cost estimation. To support these groundwater projects, EKI assisted the City to secure \$3 million in Prop 84 grant funding.
- **Pad D Well:** EKI performed design services for the construction of a new municipal supply well and above-ground disinfection and distribution components at the Pad D well site. The system is anticipated to be used primarily for emergency purposes and will include a submersible well pump, chemical amendments, and a hydropneumatic tank. The footprint for the system was optimized due to the very small parcel and room must be reserved for potential future treatment units.
- **Water System Master Plan and CIP Development:** EKI recently prepared the City's 2022 Water System Master Plan, which will serve as the basis for the City's 20-year capital improvement program.

Client Details

City of East Palo Alto
2415 University Ave.
East Palo Alto, CA 94303

Project Dates: 2020-Ongoing

Reference

Humza Javed
City Engineer
City of East Palo Alto
Ph: (650) 853-3179
hjaved@cityofepa.org

EKI Role & Team Members: As-Needed Prime Engineering Consultant

Tyler Colyer, PE
Jonathan Sutter, PE
David Umezaki, PE
Chris Pittner, PE, QISP
Yuqing Gao, EIT

Subconsultants:

Electrical and Structural - TJCAA
Survey and Mapping



COASTSIDE COUNTY WATER DISTRICT – ON-CALL CAPITAL IMPROVEMENT PROJECTS AND ENGINEERING SERVICES

EKI has assisted various public and private Coastside County Water District in managing and implementing its 10-year CIP since November 2018. EKI has helped the District prioritize, program, manage, plan, design and oversee the construction of its near-term capital improvement projects. Recently, EKI has expanded its role with the District to review development applications for new water services and mainline extensions. Specifically, EKI has completed the following projects:

- **CIP Management:** Our engineering experts conducted a detailed review of the District’s 10-year CIP budget and prepared implementation schedules for 2-years and 10-years along with cash flow analyses for both terms.
- **Hydraulic Modeling:** EKI has updated the District’s water system hydraulic model to incorporate recent system improvements, current demand conditions and recent pump curves and settings. Our engineers also performed an extended period of simulation calibration.
- **Systemwide Storage Evaluation:** EKI prepared a systemwide storage evaluation to assess the District’s existing storage tanks and prioritize future storage improvement projects in the District.
- **Project Management:** We provided project management services that included preparation of RFPs, selection and management of consultants, and review of work project deliverables for projects. EKI performed the seismic evaluation of the District’s welded-steel water storage tanks.
- **Water Distribution System Design and Construction Management:** Our engineers have designed and managed 29,000 linear feet (LF) of new water mains for the District, ranging in size from 2-in to 20-in. Several projects have included trenchless construction, including several horizontal directional drilling (HDD) installations under creeks with sensitive habitats and bore and jack across Highway 1. Projects have also included the installation of new pressure regulating valve (PRV) stations. In addition to the design, bid support and construction management, EKI has been responsible for easement support, environmental compliance, permitting and construction inspection for several projects. EKI is currently designing a pipeline rehabilitation using a flexible reinforced fabric liner (Primus Line).

Client Details

Coastside County Water District
766 Main Street
Half Moon Bay, CA 94019

Project Dates: 2011-Ongoing

Reference

Mary Rogren
General Manager
Ph: (650) 726-4405
mrogren@coastsidewater.org

EKI Role & Team Members: As-Needed Prime Engineering Consultant

Jonathan Sutter, PE
David Umezaki, PE
Chris Pittner, PE
Yuqing Gao, EIT

Subconsultants:

Electrical and Structural - TJCAA
Geotechnical



CITY OF MILLBRAE, LA PRENDA WATER TANK STRUCTURAL EVALUATION, STRUCTURAL ENGINEERING SERVICES

TJCAA was retained was retained by Woodard and Curran (W&C) on behalf of the City of Millbrae to provide a preliminary structural assessment of an existing water storage tank, located at 450 Skyline Boulevard.

Structural Engineering Assessment:

TJCAA conducted a comprehensive review of the available background documentation for the water tank, including geotechnical reports, as-built drawings, and records of relevant upgrades. Following this, a TJCAA structural engineer performed a site visit, carrying out a visual assessment of both the tank's interior and exterior. Confined space entry was required for the interior inspections.

Upon completing the document review and site visit, TJCAA performed a structural evaluation of the water tank in accordance with AWWA D100 standards. This evaluation assessed the tank's structural integrity under current code-level seismic conditions, factoring in all applicable loads and hydrodynamic forces. Details regarding the tank's ringwall foundation, as well as the shell and roof plate thickness, were provided by a third party. It was assumed that the original design complied with industry standards at the time of construction and that necessary. Seismic design parameters were based on ASCE 7-16 accelerations specific to the tank's location.

TJCAA compiled the findings into a detailed technical memorandum that documented existing conditions, identified potential seismic deficiencies, and outlined recommended remediation strategies. The memorandum also included qualitative descriptions of conceptual seismic rehabilitation measures, accompanied by rough order-of-magnitude construction costs. Additionally, it provided an analysis of the option to replace the tank, with a preliminary cost estimate for such a replacement.

Client Details

Woodard & Curran, Inc.
2175 N. California Blvd, Ste 315
Walnut Creek, CA 94596

Project Dates: 2024- Ongoing

Reference

Xavier Irias
Ph: (925) 627-4131
XIrias@woodardcurran.com

TJCAA Role & Team Members:

Structural Engineers

Ronald Migdal, SE
Hernando Montoya, PE



CITY OF PASADENA, PASADENA WATER DIVISION, ROSS BOOSTER STATION UPGRADES, STRUCTURAL ENGINEERING SERVICES

TJCAA was retained by Stylo Group on behalf of the City of Pasadena to provide alternatives for upgrading the Ross Pump Station, located at 7700 North Figueroa Street, Los Angeles.

Structural, Instrumentation, Controls, and Electrical Engineering Design and Construction Services: TJCAA partnered with Stylo Group to explore and evaluate various alternatives for upgrading the Ross Pump Station. This comprehensive analysis led to the development of specific recommendations, which were subsequently presented to Pasadena Water and Power (PWP) for consideration. As a result, PWP approved and implemented the following upgrades for the pump station:

- **Roofing Improvements:** A new roofing membrane, combined with tapered insulation, was installed over the existing concrete roof. This solution enhances both the thermal performance and durability of the roof while maintaining the structural integrity of the underlying concrete.
- **Equipment and Foundation Replacement:** All existing equipment, including the floor slab and equipment foundations within the pump station, were completely removed and replaced with upgraded, modern equipment to support improved operational efficiency and structural stability.
- **Transformer Installation:** A new transformer was installed at the southern end of the site, providing a more reliable and efficient power supply for the upgraded pump station.
- **Standby Power Connection:** An external generator connection was integrated into the design to accommodate, when required, a temporary, trailer-mounted generator. This connection ensures the availability of stand-by power during emergencies or power outages, enhancing the pump station's resilience.
- **Ventilation and Access Enhancements:** The existing wall fans, wall vents, and door were replaced, utilizing the original openings. In addition, provisions for additional roof fans were made, requiring new openings fitted with curbs and flashing, to meet modern ventilation standards and improve airflow.
- **Transformer and Roof Modifications:** During construction, the existing transformer and roof curbs were removed, and new metal studs and concrete curbs were incorporated into the new layout, improving structural support and functionality.

These improvements modernizes the pump station, enhances its operational reliability and long-term performance, all while ensuring it meets current standards and future demands.

Client Details

Stylo Group, LLP
2121 Pinecrest Drive
Altadena, CA 91001

Project Dates: 2021- Ongoing

Reference:

Richard Bichette, PE
Ph: (626) 557-3057
rbrichette@stylo-group.com

TJCAA Role & Team Members:

Structural Engineers

Terry Cavanagh, SE
Ronald Migdal, SE
Hernando Montoya, PE

Electrical Engineers

Anne Broughton, PE
Qiyang Huang, PE

Subconsultants:

Sigerson Architects



SUISUN-SOLANO WATER AUTHORITY (SSWA) DISINFECTION BYPRODUCT (DBP) MITIGATION

SSWA operates the 10 million gallon per day (MGD) Cement Hill WTP, which uses a conventional treatment process to treat surface water from the Putah South Canal. The WTP pre-chlorinates the water for removal of iron and manganese, and for algal control. However, this results in formation of high total trihalomethanes (TTHMs) through the up-flow clarifiers, in the treated water storage tanks, and in the distribution system. In 2023, three of the four Stage 2 DBPR compliance locations of exceeded the TTHM Locational Running Annual Average (LRAA) MCL of 80 µg/L.

As part of response to this exceedance, Corona was engaged by SSWA to perform a comprehensive DBP mitigation study that would identify the potential causes of water quality excursions and develop recommendations for capital and operational improvements for DBP mitigation. Water quality and DBP profiling performed through the WTP indicated that pre-chlorination with diluted sodium hypochlorite was one of the primary contributors to the DBP formation. However, pre-chlorination could not be discontinued immediately, as the three up-flow solids contact clarifiers within the WTP grow significant algal biomass and biofilms along the side walls in the absence of a pre-oxidant. Ultrasonication has been successfully used for over a decade as an algal mitigation technology in surface water bodies such as lakes and reservoirs. Ultrasonication devices were pilot tested and successfully deployed to control algae, reduce pre-chlorination and subsequent DBP formation, thus allowing SSWA to return to Stage 2 DBPR compliance within two quarters of sampling. Other capital improvements currently being evaluated include implementation of potassium permanganate for pre-oxidation, implementation of baffles and aeration systems in finished water storage tanks, etc.

KEY PROJECT FEATURES:

- Replacement of raw water pre-chlorination with potassium permanganate pre-oxidation
- Implementation of ultrasonication within clarifiers for algal mitigation (first of its kind application in the USA)
- Incorporation of geomembrane baffles in the finished water storage tank for improved disinfection CT credits

Client Details:

Suisun-Solano Water Authority
1090 Aviation Drive, Vacaville, CA 95688

Project Dates:

February 2024 – Ongoing (anticipated completion: March 2025)

Reference:

Paul Fuchslin, P.E.
Director of Engineering
Ph: (707) 455-4020
pfuchslin@sidwater.org

Corona Role & Team Members:

Chad Seidel: Principal in Charge
Amlan Ghosh: Project Manager



TOWN OF GILBERT NORTH WTP LONG TERM WATER QUALITY STRATEGIES

The Town of Gilbert engaged Corona as the technical advisor for the design of a new water treatment facility to replace their existing North Water Treatment Plant (NWTP). The primary drivers for the new plant include existing infrastructure deficiencies identified in the Water Quality Master Plan (2019), high disinfection byproduct (DBP) formation from their SRP surface water sources, along with the need for flexible processes to treat highly variable source waters. Corona planned and executed a 15-month pilot study where data from the pilot was used to confirm the design of treatment processes and to optimize the operation of the selected treatment processes with the chemical dose sequencing and amounts. As a part of this effort, a performance model for TOC removal and O&M cost predictions was developed to aid in decisions of which treatment processes to lean on more than others to achieve water quality goals and minimize costs. The data analysis for the pilot included compiling approximately 10 million data points that were collected during the 15 months of piloting from field sampling, analytical laboratory results, and online analyzers into a central database. Corona worked closely with ADEQ and MCESD and modified the test plan to collect data that was specifically requested and has continued to work with ADEQ and MCESD to aid the Town of Gilbert in receiving permits for the full-scale processes. Ongoing work as technical advisor includes supporting the Town of Gilbert through design and construction of the new treatment facilities. Once the new facility is operational it is expected Corona will assist in start-up and operations with a specific focus on process optimization.

Client Details:

Town of Gilbert
900 E. Juniper Avenue, Gilbert, AZ 85234

Project Dates:

January 2018 – August 2023

Reference:

Rebecca Hamel
Water Manager
Ph: (480) 503-6387

Rebecca.hamel@gilbertaz.gov

Corona Role & Team Members:

Chad Seidel: Principal in Charge
Craig Gorman: Project Manager
Amlan Ghosh: Project Engineer



KEY PROJECT FEATURES:

- Design and construction of a new WTP to replace the existing infrastructure
- Advanced treatment processes such as ozonation and GAC filtration were included as part of a robust treatment train
- Incorporation of treatment process flexibility to address highly variable source water quality

SAN FRANCISCO PUBLIC UTILITIES COMMISSION DAM SAFETY PROGRAM FOR WATER SUPPLY AND TREATMENT DIVISION, SAN FRANCISCO PUBLIC UTILITIES COMMISSION

The San Francisco Public Utilities Commission (SFPUC) owns and operates several dams in Alameda and San Mateo counties, operated by the Water Supply and Treatment Division (WSTD). AECOM/WRE are developing a Dam Safety Program for five of these dams:

- Calaveras
- Turner
- Lower Crystal Springs
- San Andreas
- Pilarcitos

The program will be modeled after a similar program developed by WRE for Hetch Hetchy Water and Power Dams, also owned and operated by SFPUC.

The work involves visiting each site and documenting the location and characteristics of appurtenant structures and monitoring instruments, preparing Surveillance Monitoring Plans for the five dams, and developing the Dam Safety report. The report will outline the organization and responsibility for dam safety, communication protocols, training requirements, and record-keeping procedures.

WRE has primary responsibility for the work, with support and quality control from AECOM.

Client Details:

AECOM

Project Dates:

2024 – 2025

Reference:

Stacie Feng, PE
Senior Engineer, Water System Improvement Program, SFPUC
Ph: (650) 871-2037
SFeng@sflower.org

WRE Role & Team Members:

Gustavo Arboleda, PE - Principal Engineer
Cynthia Cano - Project Manager
Stephanie Knott, PG, CHG - QA/QC Officer



SAN FRANCISCO PUBLIC UTILITIES COMMISSION HYDRAULIC ANALYSIS OF DAMS AND SPILLWAYS FOR HETCH HETCHY WATER AND POWER DAMS

The San Francisco Public Utilities Commission (SFPUC) owns and operates several dams in Tuolumne County, all of which are operated by Hetch Hetchy Water and Power (HHWP). WRE has been a hydraulics/hydrology consultant to HHWP since the 1980s, and as such was asked to examine dams classified by the California Division of Safety of Dams (DSOD) as presenting “extremely high” or “high” hazard levels. These include O’Shaughnessy, Cherry Valley, Moccasin, and Priest dams. Eleanor Dam, which presents a “low” hazard level, was also analyzed.

WRE engineers prepared inundation maps corresponding to potential failures of dams or spillways. The results were reviewed by DSOD engineers, who suggested that the terminus of the inundation areas be carried downstream of New Don

Client Details:

Hetch Hetchy Water and Power

Project Dates:

2019 – 2021

Reference:

Chris Graham, PhD
Water and Power Planning Manager for HHWP
Ph: (541) 224-4593
CGraham@sflower.org

WRE Role & Team Members:

Gustavo Arboleda, PE - Principal Engineer
Amir Javaheri, PhD, PE - Project Engineer
Stephanie Knott, PG, CHG - QA/QC Officer

Pedro Dam. Although the New Don Pedro Reservoir would be able to accommodate flood flows from upstream HHWP dams, its spillway would discharge significant volumes of water. The analysis was carried out to DSOD's satisfaction, with inundated areas extending all the way to Stockton, California.

The project was completed to the client's satisfaction, on time and within budget.



EAST BAY MUNICIPAL UTILITY DISTRICT ASSESSMENT OF FOUR EAST BAY MUD SPILLWAYS: BRIONES, CHABOT, SAN PABLO, UPPER SAN LEANDRO

WRE was part of a team of engineers that provided a detailed condition assessment of existing concrete spillways at the District's terminal dams: Briones, Chabot, San Pablo, and Upper San Leandro. These dams are regulated by the Division of Safety of Dams (DSOD) and DSOD has established requirements for the detailed condition of assessment of the spillways that were followed in this project.

Work included: detailed review of available design, construction, and monitoring data on each spillway; detailed visual inspections of the spillways; geologic assessment of spillway foundation material and associated geologic and seismic hazards/conditions underlying and adjacent to each spillway; supplemental investigations and testing as necessary; engineering analyses and assessment of potential failure modes; development of remedial measures if necessary; and preparation of detailed spillway assessment reports.

Based on its analysis, WRE concluded that:

- At Briones and San Pablo dams, a larger PMP would reduce freeboard but not threaten dam overtopping.
- The main Chabot and Upper San Leandro spillways would not be able to handle discharges from a PMP event without dam overtopping.
- While subdrain systems conform to current design standards, several improvements were required.

Client Details:

Terra Engineers, Inc.

Project Dates:

2017 – 2018

Reference:

Robert Kirby, PE

Terra Engineers, Inc.

Ph: (415) 265-6618

bobkirby@terraengineers.com

WRE Role & Team Members:

Gustavo Arboleda, PE - Principal Engineer

Amir Javaheri, PhD, PE - Project Engineer

Stephanie Knott, PG, CHG - QA/QC Officer



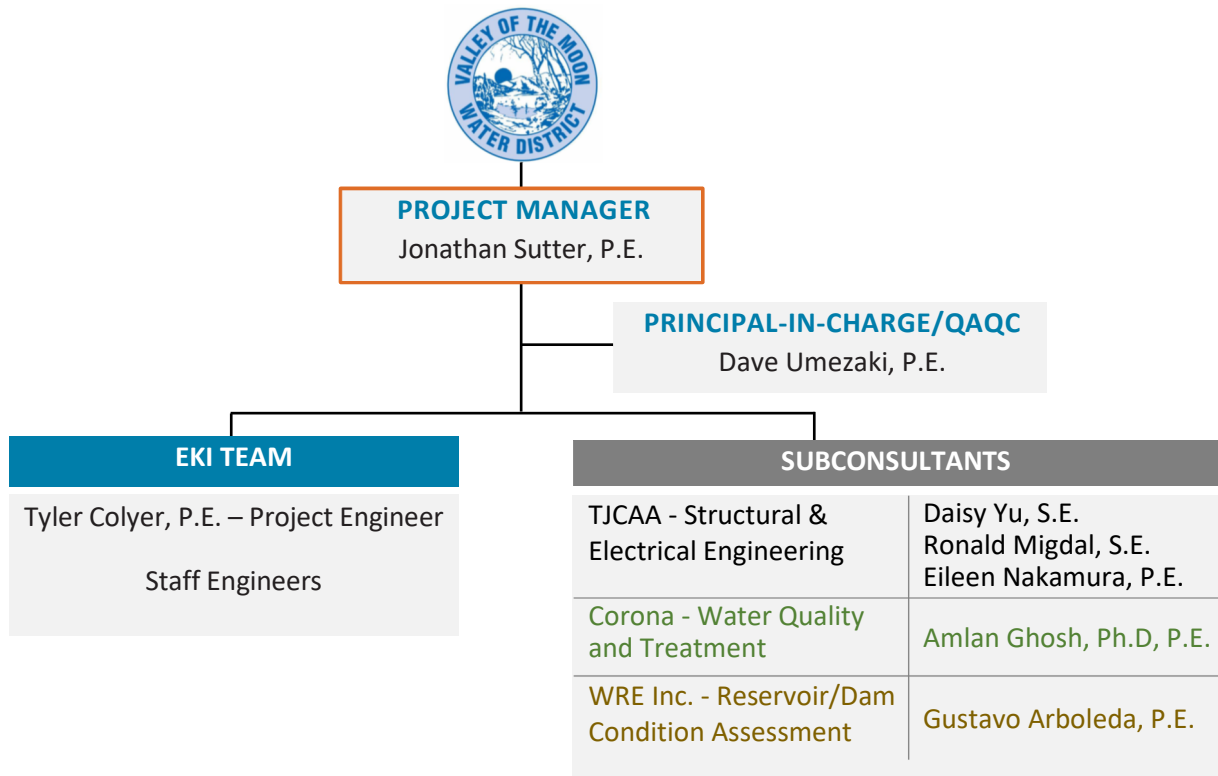
Key Team Members

EKI has assembled a highly qualified team of dedicated professionals to address the full scope of the District’s requirements needed for the evaluation of the water system facilities at SDC and recommending needed repairs, upgrades, process changes, etc., to develop the opinion of probable cost (OPC) to bring the water system back online. EKI recognizes that a dynamic mix of management proficiency, civil engineering, structural engineering, water quality and treatment process evaluations, and reservoir/dam condition assessment engineering is required to complete a project of this nature successfully.

We are aware of the importance our clients place on the selection of a capable Project Manager supported by technical specialists to effectively guide their projects to completion. EKI understands the successful completion of a project is founded on the performance of key individuals. **EKI’s Project Manager, Jonathan Sutter, PE, will provide day-to-day oversight of the project and will be the main Point of Contact (POC) for the District and responsible for overall team coordination, communication, and deliverables.** He will coordinate with the team members and subconsultants to make sure all deliverables are completed as scheduled. Dave Umezaki, PE will be the Principal-in-Charge and QA/QC Manager and provide strategic and technical direction for overall project contract management and will be responsible for reviewing EKI deliverables. TJCAA’s Daisy Yu, SE will be the lead structural engineer and manage the deliverables from TJCAA for this project. Corona’s Amlan Ghosh, PhD, PE will be the lead water quality and treatment specialist and will manage the deliverables from Corona for this project. Gustavo Arboleda of WRE Inc. will be the reservoir/dam condition assessment specialist and will manage the deliverables from WRE for this project.

An Organization Chart below shows our team’s organization and workflow. Biographies for our proposed key personnel are provided after the organization chart. Detailed resumes are included as **Attachment A**.

Project Team Organization Chart



JONATHAN SUTTER, PE – PROJECT MANAGER



- Professional Civil Engineer in California (C #81606)
- M.S., Civil and Environmental Engineering, Stanford University, 2012
- B.S., Civil Engineering, Columbia University, 2008

Mr. Sutter, Supervising Civil Engineer at EKI, has over fifteen (15) years of project experience with potable water, wastewater, storm water, and recycled water systems. He has extensive knowledge of utility design, master planning, construction management, and water resources planning. He has developed capital improvement programs, managed, and performed water demand and supply evaluations, and managed and performed water distribution system hydraulic modeling efforts to assess system performance and recommend operational improvements. His value adding utility design engineering experience helps prioritize improvements. Mr. Sutter is closely familiar with the District's facilities and operations and the SDC facilities through leading the 2019 Water Master, on-call hydraulic modeling, SDC Water Supply Assessment, SDC integration hydraulic evaluation, SDC transition plan, and other planning efforts for the District. Mr. Sutter is an efficient project manager and provides day-to-day project management as well as leading technical analyses with minimal errors.

As Project Manager, Mr. Sutter will serve as the primary client contact, deliver the technical and staff resources to respond to the District when requested, coordinate the team's work efforts, track budgets and project schedules, develop project goals and technical approaches, and provide senior technical and engineering leadership.

DAVID UMEZAKI, PE – PRINCIPAL IN CHARGE/QAQC



- Professional Civil Engineer in California (C #57697)
- M.S., Civil (Environmental) Engineering, Stanford University, 1995
- B.S., Civil Engineering, Stanford University, 1994

Mr. Umezaki, Principal Engineer at EKI, has 29 years of wastewater, water, and recycled water project experience. He has held key roles and provided program management, engineering design, design review, construction review, operation and maintenance, construction management, and contract administration services for water, wastewater, and groundwater treatment and collection system projects to a number of public and private agency clients in Northern California. He has managed several permitting, design, and construction efforts for major improvements to water and wastewater treatment plants. Dave has worked closely with the District on its 2020 Urban Water Management Plan and 2022, 2023, and 2024 Annual Water Supply and Demand Assessments, as well as other planning efforts, including the SDC transition plan.

As Principal in Charge, Mr. Umezaki will provide strategic and technical direction, support communication and coordination efforts, and ensure that appropriate staff resources are made available to meet project needs. Mr. Umezaki will also serve as the Quality Assurance and Quality Control Manager and be responsible for reviewing EKI deliverables.

TYLER COLYER, PE – TECHNICAL LEAD



- Professional Civil Engineer, CA (C#80141)
- M.S., Civil and Environmental Engineering, University of California, Berkeley, 2010
- B.S., Environmental Engineering, University of California, Riverside, 2009

Mr. Colyer of EKI has over 14 years of project experience in water and wastewater infrastructure planning, design and water quality engineering, and environmental

engineering. He has prepared and managed potable water infrastructure planning and design projects and has provided construction management and construction observation services for these projects. Mr. Colyer has also provided support for drinking water system permitting and prepared detailed studies evaluating the feasibility of developing of new water sources including recycled water, potable reuse water, desalinated water, and municipal stormwater. He has worked with the District for the past eight years on numerous projects, and is currently leading the District's Aquifer Storage and Recovery project.

As Technical Lead, Mr. Colyer will be responsible for all tasks included in our scope of work and preparation of all Technical Memoranda and deliverables to the District. He will also coordinate with our subconsultants, for their deliverables to support SDC's infrastructure, water quality, and usability assessment and subsequently provide services to develop 10% designs and cost estimates to inform District's future decisions.

DAISY M. YU, S.E., LEED AP –STRUCTURAL ENGINEER LEAD



- Professional Structural Engineer, CA (S#4872)
- Professional Civil Engineer, CA (C#57044)
- M.S., Structural Engineering, University of California, Berkeley, 1999
- B.S., Civil Engineering, University of California, Berkeley, 1994

Ms. Yu of TJCAA has extensive experience in seismic evaluation and retrofit design and in the design of large, multistory, steel-framed structures. Her design experience also includes water and wastewater treatment facilities such as reinforced concrete reservoirs, reinforced masonry pump stations, and chemical storage facilities. As a LEED accredited professional, she is recognized as having a background and understanding of the principles that go into designing structures with a minimal impact on the environment, and that promote energy efficiency and a healthy environment for their occupants. Ms. Yu is not only an experienced structural engineer, but also a proven project manager.

As Lead Structural Engineer, Ms. Yu will be responsible for leading the structural engineering team to conduct on-site inspections of all critical infrastructure. She will also lead the structural vulnerability assessments as well as deliverables from TJCAA.

AMLAN GHOSH, PHD, PE – WATER QUALITY AND TREATMENT LEAD



- Ph.D., Environmental Engineering, University of Arizona, 2005
- M.S., Environmental Engineering, University of Arizona, 2002
- BTech Mining Engineering, Indian Institute of Technology, Kharagpur, 2000

Dr. Amlan Ghosh of Corona Environmental Consulting, has 23 years of experience in all aspects of drinking water quality and treatment, including process selection and evaluation, design, infrastructure master planning, and bench- and pilot-scale testing studies. Specifically, Dr. Ghosh's expertise lies in the areas of enhanced powdered and granular activated carbon processes, membrane filtration, and the use of alternative and advanced disinfectants such as permanganate, chlorine dioxide, ozone, and ultraviolet light. In the past five years, Dr. Ghosh has performed water quality evaluation and treatment process optimization at more than 20 water utilities in California, Arizona, Texas, Georgia, Louisiana, New York, and New Jersey.

As Water Quality and Treatment Lead, Mr. Ghosh will be responsible for leading the water quality and treatment team and preparing the treatment assessment report under Optional Task 4.

GUSTAVO ARBOLEDA, PE - RESERVOIR/DAM CONDITION ASSESSMENT LEAD



- Professional Civil Engineer, CA (C#34296)
- BS, Civil Engineering, Massachusetts Institute of Technology, 1974

Mr. Arboleda of WRE, Inc. is an experienced civil engineer and water resources specialist. He has a broad base of experience in consulting, project management, teaching, and research. His experience includes planning, analysis and design of water supply and distribution, stormwater management, and wastewater handling systems; recycled water and alternate water supplies; and environmental assessments. Mr. Arboleda has developed a likely dam breach scenario and has prepared computing outflow hydrographs for “sunny day” failures and failures occurring during a PMP event for several dams in California. Mr. Arboleda has managed over 500 projects of different size and complexity, all related to water/wastewater infrastructure. He has experience leading multi-disciplinary groups and developing goals and policies related to resource management. He also has experience dealing with multiple oversight and regulatory agencies, and with public involvement issues.

As Reservoir/Dam Condition Assessment Lead, Mr. Arboleda will be responsible for leading the reservoir and dam condition assessment and deliverables by WRE.

TASKS

Project Understanding

Planning is underway to redevelop the former SDC Site, a 133-year-old former state health care campus that went into a “warm shutdown” in 2019. The SDC property includes rights and access to local surface water supplies and associated treatment, storage, and distribution infrastructure. The SDC water system was previously permitted and operated as a public water system, but its permit lapsed when portions of the system, including the water treatment plant, were shut down in 2019. The SDC Site is located within the District’s Sphere of Influence, and the District plans to annex the SDC property into its service area and incorporate the SDC water system into its system.

After the redevelopment of the site, the District would be responsible for the operation and maintenance of the SDC water facilities, which include multiple surface water diversions, two water reservoirs, raw and treated water storage and transmission systems, a water treatment plant, and a distribution system. The system components range widely in age, with portions of the system being more than 100 years old. Prior studies have been conducted to assess the condition of the water system facilities, including the *Sonoma Developmental Center Water System Assessment Report* prepared by Wood Rodgers dated April 2023, and the SDC hydraulic evaluation prepared by EKI in 2023.

This Project will build on previous studies to evaluate the water system facilities at SDC and make recommendations on needed repairs, upgrades, and process and operational changes, and provide 10% designs and opinions of probable cost (OPCs) for the recommended work. It is assumed that the distribution system will be replaced by the Developer, with all design work being performed under contract to the Developer, and as such an evaluation of the distribution system is not included in this Project. The scope of this evaluation will focus on the raw water supply system (diversions, reservoir/dams, conveyance), water treatment plant, and the treated water storage and transmission systems. The 10% designs and OPCs developed for this Project will help inform both the District and the Developer of the likely scope and the total cost of bringing the water system back online.

Our Project Approach and Scope of Work

Our detailed Project approach and scope of work are summarized in the following sections. EKI’s approach will build upon prior studies and provide a more detailed assessment of the improvements needed to bring the SDC system online and integrate it with the District’s water system. We have assembled a team that includes structural, electrical and controls, and treatment process specialists (as an optional task) to more comprehensively assess the needs and costs.

Given our understanding of the budget that the District has currently allocated for the Project, EKI has developed a base scope which assumes full replacement of certain facilities, including the water treatment plant, without the need to perform additional condition assessments. This approach is intended to provide a conservative estimate of necessary improvements and associated OPCs for budgeting purposes under the base scope.

Additionally, by assuming replacement of certain facilities, this approach would reduce the Districts exposure to potentially costly future replacements of older components of the water system (particularly at the treatment facility), for which the need may not be apparent at the time of the condition assessment. Assumed replacement of the treatment facility would provide the District with a long-term reliable facility, rather than a facility that may require frequent retrofits due to age of components.

EKI has included optional tasks for additional project identification, development of a treatment strategy based on a detailed assessment of water quality data, and a full condition assessment of the treatment facility, including

electrical and structural, to determine which components of the treatment plant could be retained or retrofitted based on the treatment strategy and physical condition, in lieu of a full replacement of the plant. If feasible, EKI highly recommends the District perform these optional tasks to better assess and optimize the recommended treatment process, ensure compliance with existing and upcoming water quality regulations, and potentially identify ways to salvage existing infrastructure, which could save costs and accelerate the implementation schedule.

Table 1 below lists the assumptions for each facility included in the base scope as well as optional tasks.

Table 1 – Planned Approach for Each SDC Facility

| Facility | Components | Base Scope | Optional Scope |
|-------------------------|-------------------------|--|----------------|
| Water Diversions | | | |
| Hill Creek | | | |
| | Diversion structure | No replacement. Include site visit | -- |
| | Pipeline | Partial replacement | -- |
| Asbury Creek | | | |
| | Diversion structure | No replacement | -- |
| | Pipeline | Partial replacement | -- |
| Roulette Springs | | | |
| | Spring box | Replace | -- |
| | Pipelines | Replace | -- |
| Sonoma Creek | | | |
| | Intake Structure | Perform condition assessment | |
| | Pumps and Piping | Perform condition assessment | -- |
| | Electrical and controls | Replace pump controls/VFDs. Electrical panels installed 2019; Assume they are useable. | -- |
| | SCADA | No existing SCADA. Assume new install. | |
| | Building/structure | Perform condition assessment | -- |
| | Pipeline to WTP | Replace | -- |
| Lakes/Reservoirs | | | |
| Fern Lake | | | |
| | Dam | Perform condition assessment | -- |
| | Spillway | Perform condition assessment | -- |
| | Intake Tower | Perform condition assessment | -- |
| | Pipeline to WTP | Replace | -- |
| Suttonfield Lake | | | |
| | Dam | Perform condition assessment | -- |
| | Spillway | Perform condition assessment | -- |
| | Intake Tower | Perform condition assessment | -- |
| | Pipeline to WTP | Replace | -- |

Table 1 – Planned Approach for Each SDC Facility (Continued)

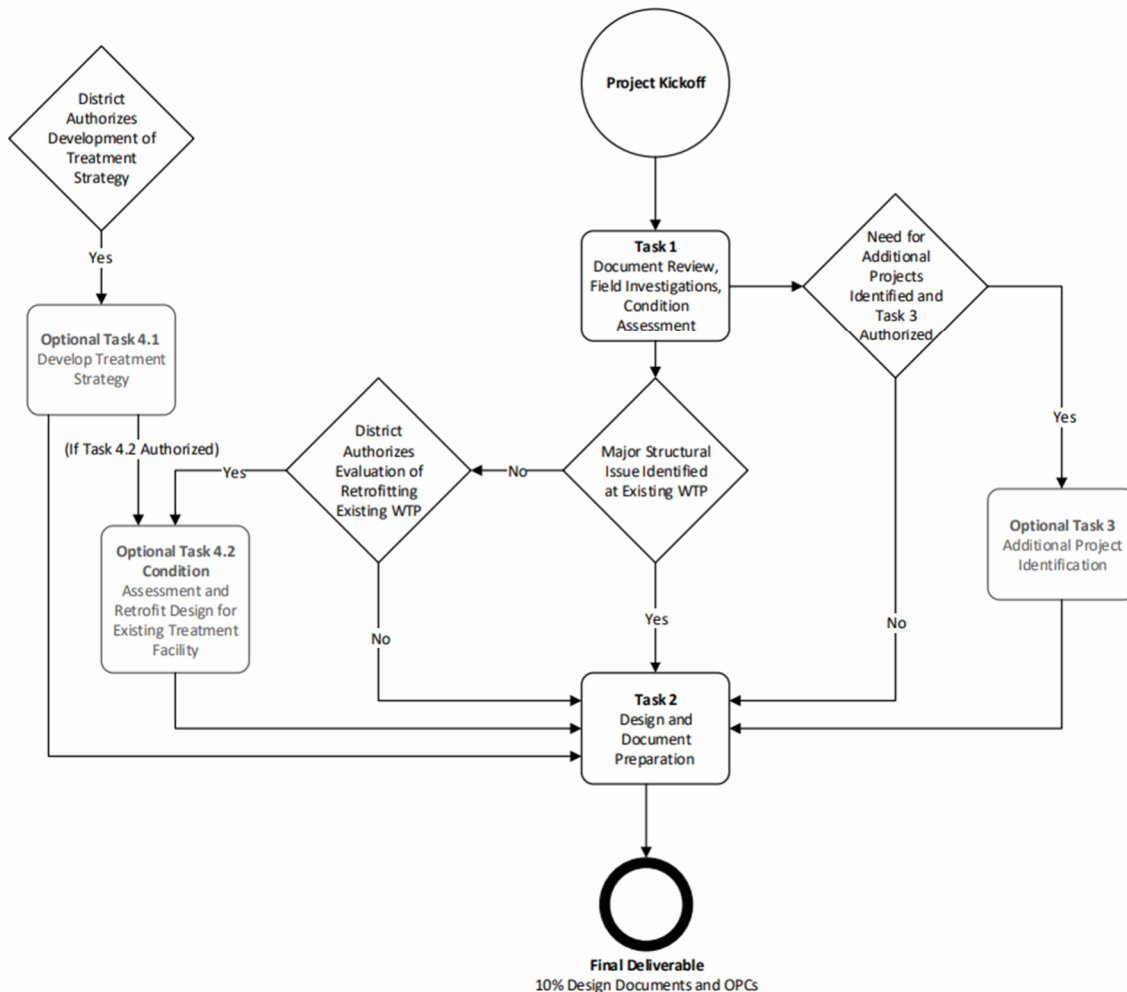
| Facility | Components | Base Scope | Optional Scope |
|---|------------------------------------|---|--------------------------------------|
| Water Treatment Facility, Tanks, and Treated Transmission System | | | |
| Treatment Facility | | | Perform Treatment Strategy Analysis. |
| | Intake Structure | Replace | Replace |
| | Intake Piping | Replace | Replace |
| | Site Piping | Replace | Perform condition assessment |
| | Clarifier Structure | Replace with packaged system | Perform condition assessment |
| | Sedimentation Basin Structure | | Perform condition assessment |
| | Filter Basin Structure | | Perform condition assessment |
| | Controls | | Perform condition assessment |
| | Chemical storage and dosing system | | Replace |
| | Building and laboratory | Replace | Perform condition assessment |
| | SCADA and controls | Replace | Perform condition assessment |
| | Sludge ponds | Replace | Perform condition assessment |
| Tanks | | | |
| | Tank 1 - Treated Water Storage | Perform condition assessment | -- |
| | Tank 2 - Treated Water Storage | Perform condition assessment | -- |
| | Balance tanks (two) | Perform condition assessment | -- |
| | Backwash settling tanks (two) | Replace | -- |
| | Backwash storage tank | Perform condition assessment | -- |
| | Backwash pump station | Perform condition assessment | -- |
| | Breaker tank | Replace | -- |
| | Breaker tank pump station | Replace | -- |
| | Tank valves and piping | Replace | -- |
| Treated Water Transmission System | | | |
| | Piping | Replace in accordance with hydraulic evaluation recommendations | -- |
| | Valves and appurtenances | Replace where replacing mains | -- |

Anticipated Decision Points for Optional Tasks

The figure below shows anticipated decision points that would allow the District to authorize optional tasks. The base scope includes the completion of Task 1 and Task 2, which would result in conditions assessments, 10% design documents, and opinion of probable construction costs for upgrading or replacing existing infrastructure that make up the SDC water system, assuming complete replacement of the treatment facility. Portions of Optional Task 3 may be needed for additional projects identified during Task 1 and would be authorized prior to the start of Task 2.

When performing the condition assessments as part of Task 1, the existing treatment facility will be assessed for major structural issues. If any are identified, EKI recommends proceeding with the design of the base scope, i.e., a new treatment facility. If no major structural issues are found, the District may decide whether to authorize Optional Task 4.2 (condition assessment of the existing treatment facility and associated retrofit design).

Optional Task 4.1 would be performed concurrently with Task 1 and be the basis of design for the treatment facility included in Task 2 and Optional Task 4.2. This task would be used to better define treatment needs and preferred treatment processes based on water quality data (existing and recommended new samples), new and upcoming regulations, and other operational considerations. EKI recommends performing Optional Task 4.1, as it would provide a strong basis for long-term compliance with drinking water standards, provide a required basis of design for future design and permitting purposes, and be used to provide the District with a more reliable estimate of potential costs for the treatment facility. If this optional task is not authorized, treatment processes included in the design would be based on existing data only.



TASK 1 – DOCUMENT REVIEW, FIELD INVESTIGATIONS, AND CONDITION ASSESSMENT

Task 1.1 – Document Review

The EKI team will prepare a request for information for the District and will compile and review the obtained data. Data and information are expected to include but are not necessarily limited to:

- As-built records, including structural design and construction details of facilities, that illustrate both the original construction and any upgrades;
- Historical operations and maintenance records provided by the District and SDC staff; and
- Water quality data for each raw water source, treatment facility process samples, and treated water.

Following review of the obtained documents, the EKI team will participate in an interview with District and SDC staff to gather additional information on operational parameters, service requirements, and interaction with regulatory agencies. One interview session is assumed to be sufficient to gather information pertinent to all facilities.

Task 1.2 – Condition Assessments

Based on the document review described in Task 1.1 above, the EKI team will refine the list of condition assessments to be performed. The EKI team will then perform field inspections of each facility shown in Table 1 above. The site visits will be performed by team members from EKI (civil), TJCAA (structural and electrical), and WRE (dams and related infrastructure).

During the inspections, each facility will be visually assessed for physical condition (e.g., condition of surfaces, equipment, wiring, coatings, etc.), apparent structural integrity consistent with American Society of Civil Engineers (ASCE) Standard 41, Tier 1 or American Water Works Association (AWWA) Standard D100, and ability of controls to integrate into the District’s existing Supervisory Control And Data Acquisition (SCADA) system (for Sonoma Creek Pump Station only). The visual assessment of tanks will include inspection of their interiors; however, it is assumed that the District will coordinate all confined space entry permits and safety precautions. No testing (destructive or non-destructive) will be performed on any of the infrastructure to determine their condition or compliance with current codes.

As described under our project approach, based on our understanding of the available budget for this project, this scope of work assumes that the treatment facility will be replaced with a packaged treatment system, so only a brief walkthrough is planned.

Task 1.3 – Condition Assessment and Recommendations Memorandum

The EKI team will prepare a summary memorandum that documents the findings of the document review and condition assessments, and provide general recommendations for improvements or replacement, as well as potential next steps (e.g., further testing of structures). The final assessment of each facility will generally be based on factors such as age, life expectancy, current condition, and frequency of maintenance. The memorandum will include a list of capital improvement projects associated with each facility and be the basis for development of 10% design documents and cost estimates (Task 2).

Deliverables:

- Request for Information
- List of condition assessments to be performed
- Condition Assessment Memorandum

Key Assumptions:

- Level of effort for document review is assumed and may require adjustment depending on actual documents received.
- One joint interview session with EKI and its subconsultant(s) (as needed) is assumed to be sufficient to gather information pertinent to all facilities. EKI assumes this interview will be conducted concurrently with the site visit.
- The site inspections under Task 1.2 will be completed over two days. Certain sub consultants will only be in attendance for one day.
- The District will provide access to all sites.
- Confined space entry will be coordinated by District.
- There will be no testing of structures.
- Condition assessment for the structures other than the steel tanks will be based on ASCE 41, Tier 1.
- Steel tank structural evaluation will be based on AWWA D100.
- No geotechnical evaluations of the facilities are included. It is assumed that geotechnical information is available for the project area and will be provided to EKI team before commencement of the work. If geotechnical or structural data are unavailable, EKI team will recommend reasonable assumptions or suggest further testing to gather required information.

TASK 2 – DESIGN AND DOCUMENT PREPARATION

Upon completion of Task 2, the EKI team will produce draft and final 10% design documents, which would consist of preliminary design drawings, project descriptions, and/or guidelines for civil/mechanical and structural components. Under this base scope, electrical design will only be prepared for the Sonoma Creek Pump Station, as it is assumed that the treatment facility will be a new packaged treatment system that includes electrical and controls. For each facility an engineering opinion of probable construction cost (OPC) will also be prepared. For purposes of this scope of work, EKI assumes that design documents will be prepared for all facilities described in the project approach, which include the following:

- Hill Creek Diversion Structure and Pipeline
- Asbury Creek Pipeline
- Roulette Springs Box and Pipelines
- Sonoma Creek Pump Station, Intake Structure, and Pipeline
- Fern Lake Intake Screens, Monitoring Well, and Pipeline
- Suttonfield Lake Intake Screens and Pipeline
- Water Treatment Facility (assumed to be new packaged system)
- Sludge Ponds (or other treatment residuals handling)
- Backwash Settling Tanks (2)
- Breaker Tank (if needed)
- Valves and Piping for All Tanks (as needed)

Following the District’s review of the draft 10% design, the EKI team and the District will hold a design review meeting to discuss District comments (meeting included under Task 5).

Deliverables:

- Draft and final 10% design documents and OPC’s

Key Assumptions:

- Electrical design will only be prepared for the Sonoma Creek Pump Station as it is assumed the treatment facility will be a new packaged treatment system that includes electrical and controls. Evaluation of the existing treatment facility electrical and controls is included under Optional Task 4.2.
- Approximately twenty (20) design sheets will be prepared.

OPTIONAL TASK 3 – ADDITIONAL PROJECT IDENTIFICATION

This task is a placeholder for additional projects or facilities that may require 10% design based on the condition assessment included in Task 1. Because the type or number of additional projects is not known at this time, the task is included as “optional”. The budgets are included as placeholders for individual projects under the following categories:

- Raw water diversion or transmission
- Treatment system addition or retrofit
- Computer system or telemetry upgrade or retrofit
- Pipeline replacement
- Storage tank retrofit
- Dam and draw-off tower retrofit or replacement

Depending on the exact nature of the project(s), these budgets may require adjustment once the projects are better defined; however, these budgets are meant to be “order of magnitude” estimates of the costs to develop 10% design documents and OPCs.

Deliverables:

- 10% design documents and OPC’s for individual projects

Key Assumptions:

- Same general assumptions as listed in Tasks 1 and 2.

OPTIONAL TASK 4 – OPTIONAL TASKS

EKI has included several optional tasks related to the treatment facility that would enhance the assessment and design being completed under the previously presented tasks.

Task 4.1 – Develop Treatment Strategy

In order to determine the optimal treatment process for the mix of raw water sources being treated at the SDC treatment facility, the EKI team recommends that a focused effort be used to develop a treatment strategy to ensure that the facility (whether new or retrofitted) can meet current and upcoming regulatory requirements.

Subtask 4.1.1 - Review Existing Documentation

To develop a treatment strategy, EKI and Corona will attend an in-person site visit that focuses on the treatment facility to gain insights on system operations through discussions with District personnel and former SDC operators. Following the study, Corona will review historical operational and water quality data, including daily raw water contribution from each source to the WTP, daily chemical doses and application locations, clarifier and

filter operational details. Available water quality data on raw water, treated water, and distribution system water will also be requested and reviewed. Given that the SDC WTP has been offline since 2019, it is anticipated that some data gaps will be identified, and additional sampling and analysis will be necessary. Corona will develop the necessary sampling plans to fill data gaps, including discussion of water quality parameters, sampling locations, analytical methods, and reporting levels. District staff will be responsible for sample collection and analysis through a District-contracted laboratory.

Subtask 4.1.2 - Develop Treated Water Quality Goals through Water Quality Evaluation

Based on review of historical water quality data as well as data collected through additional sampling as part of Subtask 4.1.1, water quality parameters that may pose challenges to treatment, or may compromise treated water quality will be identified. Several current drinking water regulations may be revised in the near future, including regulations related to disinfectants and disinfection byproducts (DBPs), perfluoroalkyl and polyfluoroalkyl substances (PFAS), cyanotoxins, and lead and copper corrosion control. As such, the water quality review will be comprehensive, and will aim to identify any compliance challenges with both current and potential future regulations. Water quality for each of the SDC WTP's raw water sources will be reviewed to determine (a) if certain sources have better or poorer water quality relative to others, and as such, may be preferentially used, and (b) if blending of raw water from different sources may pose any unintended treatment challenges. The relative contributions (by volume) from each source, as well as seasonal water quality variations within each source will also be reviewed as part of this analysis. The outcome of this task will be to develop treated water quality goals for the SDC WTP. Distribution system water quality goals will also be developed through this task to ensure that desired water quality with respect to disinfectant residuals, DBPs, corrosivity, and aesthetics can be maintained throughout the distribution system up to customer premises. Treatment alternatives (evaluated in Task 4.1.3) will be screened based on their ability to achieve the treated water quality goals established through this task.

Subtask 4.1.3 - Evaluate Treatment Alternatives for the SDC WTP

The approach to the treatment technology evaluation will be to identify the most appropriate treatment process train assuming a new WTP will be constructed. A multi-criteria decision modeling approach will be adopted for the SDC WTP to identify unit processes that achieve long-term treated water quality goals, while simultaneously being operationally simple and cost-effective to implement. While the rated capacity of the SDC WTP is 1.7 MGD, according to the Wood Rodgers (2023) report, the average daily production at the WTP was only 0.2 MGD prior to its shutdown in 2019. The capacity of the new WTP will be determined based on the water system demand forecasts for the near-term and long-term. The desired design capacity of the WTP may also influence the evaluation and selection of the treatment processes for optimal performance.

For conventional surface water treatment, typical unit processes include pre-treatment (pre-oxidation), clarification, filtration, disinfection, and corrosion control. Multiple technologies can be used for each of these processes (e.g. chlorine, chlorine dioxide, or permanganate for pre-oxidation, granular media or membranes for filtration, etc.), and each of these technologies will be evaluated based on water quality and site constraints such as space availability, hydraulics, residuals disposal, etc. Based on water quality drivers and treatment needs, advanced treatment processes beyond conventional treatment, such as granular activated carbon (GAC) filtration, ozone oxidation, or ultraviolet (UV) light disinfection, etc. may need to be considered.

For each unit process, technologies will be evaluated based on their effectiveness to achieve desired treated water quality, process robustness and reliability, operational simplicity, and capital and operational costs. Discussion with, and feedback from District operational staff will be critical for this task to ensure that the selected treatment processes meet District needs. It is possible that the desktop evaluation alone will not be able to identify the most appropriate treatment process train, and limited bench-scale testing may be necessary to (a) identify the most appropriate treatment technology, and (b) validate process design criteria and operational

constraints. Bench-scale testing is not included in the current scope of work but can be developed during this study. The outcome of this task will be to develop the recommended treatment process train for the SDC WTP and to develop the preliminary design criteria for each unit process included in the process train.

Subtask 4.1.4 - Develop Treatability Assessment Report with Treatment Recommendations

This final deliverable of this subtask will be a treatability assessment report that summarizes the water quality and operational observations, presents the recommended treatment process train, and outlines the design criteria and operational conditions for each unit process at the SDC WTP. Any additional observations, and/ or recommended next steps such as need for bench-scale or pilot-scale testing to validate treatment process performance will also be included in this report. A draft report will be submitted for review followed by a review meeting to discuss any comments on the recommendations. Any comments received on the draft report will be addressed prior to finalizing the treatability assessment report.

Deliverables:

- Sampling recommendations
- Draft and Final Treatability Assessment Report

Key Assumptions:

- This task assumes that a new WTP will be constructed. Task 4.2 includes scope for evaluating whether the existing facility can be used in the treatment train recommend under this task.
- District will provide engineering reports, as-built drawings, site photos, and detailed process description of the existing facilities at the SDC WTP.
- District personnel will perform collection and analysis of samples through a District-contracted laboratory. District will be responsible for laboratory analytical costs.
- Bench- or pilot-testing are not included in this scope of work.
- One full-day, in-person site visit has been planned for this task. Two Corona staff and one EKI staff will attend this site visit.

Task 4.2 – Condition Assessment and Retrofit Design for Treatment Facility

As discussed above, the scopes for Tasks 1 and 2 assume that the treatment facility will be replaced due to its age. While the EKI team will visit the treatment facility as part of Task 1, a site visit focused on the feasibility of retrofitting or repairing the existing treatment facility can be performed under this task, if requested by the District. Specifically, the following structures and components will be evaluated:

- Intake Structure
- Clarifier Structure
- Sedimentation Basin Structure
- Filter Basin Structure
- Treatment Building and Laboratory Structure

As with Tasks 1.3 and 2, the EKI team will prepare a technical memorandum summarizing existing conditions of the assessed structures, structural evaluations, including potential seismic deficiencies and recommendations for remediation strategies.

Following the condition assessment, 10% design documents and OPCs will be prepared for the retrofit and repair of the treatment facility components.

Subtask 4.2.1 - Determine Feasibility of Retrofitting Existing Infrastructure within Recommended Treatment Process

If both Optional Task 4.1 and Optional Task 4.2 are authorized by the District, this task will include evaluating whether the existing SDC WTP facilities and processes can be incorporated into the process train recommended under Optional Task 4.1. Results of this task would be incorporated into the report developed as part of Optional Task 4.1.4.

Deliverables:

- Existing Treatment Facility Assessment Memorandum
- 10% design documents and OPC's for retrofit of existing treatment facility

Key Assumptions:

- Condition assessment for the structures other than the steel tanks is based on ASCE 41, Tier 1.
- Steel tank evaluation will be based on AWWA D100.
- Confined space entry/protocols to be provided by EKI and the District.
- TJCAA assumes that geotechnical information is available for the project area and will be provided to TJCAA before commencement of the work. If geotechnical or structural data are unavailable, TJCAA will recommend reasonable assumptions or suggest further testing to fill required information.

TASK 5 – SCHEDULE AND PROJECT TRACKING

EKI will provide project management and general consultation services to the District. This task includes coordination and communications with District staff, general consultation, and technical project management services.

Specific tasks include:

- **Kickoff Meeting:** At the kickoff meeting, the EKI team and District staff will discuss project goals, opportunities, constraints, information needs, roles, responsibilities, the schedule, and expectations. EKI will be responsible for preparing and distributing meeting notices, agendas, and minutes, and will prepare and present a PowerPoint presentation at the meeting.
- **Workshops/Progress Meetings:** EKI will schedule and attend up to five (5) workshops or progress meetings with District staff and other stakeholders to review project status, discuss preliminary results, and solicit feedback for key project decisions. For all meetings, EKI will be responsible for preparing and distributing meeting notices, agendas, and minutes.
- **Project Schedule:** EKI will prepare the project schedule and will provide the District with schedule updates as needed.
- **Attend and Present at District Board Meeting:** EKI will be available to present the findings of the condition assessments and 10% design at a District Bo. For purposes of this proposal, one (1) Board presentation is assumed.
- **Project Communications and Project Management Tasks:** EKI will perform other project management tasks including as-needed communications and general consulting services, budget tracking, and invoicing. We will provide a budget and progress summary reports to the District with each invoice.

Deliverables:

- Meeting agendas, presentations, and minutes.
- Monthly budget and progress summary reports.

- Project schedule, updated periodically.
- Board Presentation

Key Assumptions:

- Kickoff and progress meetings will be held remotely over video conference.
- Board meeting will be attended remotely over video conference.

SCHEDULE

EKI will be able to provide timely deliverables identified in our Scope of Work per the preliminary schedule provided below.

At the start of the project, EKI will develop a detailed schedule based on the District’s proposed timeline. Establishing the baseline schedule will provide a means to (1) track project milestones/development; (2) allow all involved parties to be aware of project deadlines; and (3) help in the identification of schedule variances. If schedule variances are identified, mitigation plans will be developed in conjunction with the District staff to help ensure the variance minimizes impacts to the overall project schedule. EKI will update the project schedule on approximately a monthly basis.

| TASK | 2025 | | | | | | | | | | | |
|---|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
| Task 1 - Document Review and Field Investigations | | | | | | | | | | | | |
| Task 1.1 – Document Review | | | ■ | ■ | | | | | | | | |
| Task 1.2 – Condition Assessments | | | | ■ | ■ | ■ | ■ | ■ | | | | |
| Task 2 - Design and Document Preparation | | | | | | | ■ | ■ | ■ | ■ | ■ | ■ |
| Optional Task 3 - Additional Project Identification (Not shown. Schedule to be determined) | | | | | | | | | | | | |
| Optional Task 4 - Optional Tasks | | | | | | | | | | | | |
| Optional Task 4.1 - Develop Treatment Strategy (Not shown. Approximately 7 month duration) | | | | | | | | | | | | |
| Optional Task 4.2 - Condition Assessment and Retrofit Design for Treatment Facility (Not shown. Approximately 2-3 month duration) | | | | | | | | | | | | |
| Task 5 - Schedule and Project Tracking | | | | | | | | | | | | |
| Kickoff Meeting | | | ◆ | | | | | | | | | |
| Check in or Deliverable Review Meetings (5) | | | | | ◆ | ◆ | ◆ | ◆ | | ◆ | ◆ | |
| Present at District Board Meeting | | | | | | | | | | | | ◆ |

LEGEND

◆ Deadline or deliverable

■ Task duration

COST ESTIMATE

EKI values the long-term relationship that we have with the District and understands the District’s financial constraints. As such, we propose that compensation for consulting services by EKl be on a time and expense reimbursement basis in accordance with our attached 2025 Schedule of Charges, which includes a 2.5% discount for the District and waving our standard 4% communications fee. EKl also proposes reducing our standard 15% markup on direct expenses including subconsultants to 5%. Based on the proposed Scope of Work described above, we estimate a fee of **\$270,019 without optional tasks** as summarized in **Table 2** below.

Table 2. Proposed Fee by Task

| Task | Description | Task Total |
|------|--|------------------|
| 1 | Document Review and Field Investigations | \$100,588 |
| 2 | Design and Document Preparation | \$139,376 |
| 3 | Additional Project Identification (Optional) | \$33,196 |
| 4 | Optional Tasks (Optional) | \$225,882 |
| 5 | Schedule and Project Tracking | \$30,056 |
| | Total Estimated Cost (Without Optional Tasks) | \$270,019 |

For a detailed fee breakdown of the base scope, see **Attachment B**. This Attachment contains hours by task and personnel proposed to work on the project and fees for subconsultants. EKl will be responsible for the project management of the team and the project.

| PERSONNEL CLASSIFICATION | HOURLY RATE | 2.5% DISCOUNTED HOURLY RATE |
|--------------------------------------|--------------------|------------------------------------|
| Officer and Chief Engineer-Scientist | 355 | 346 |
| Principal Engineer-Scientist | 343 | 334 |
| Supervising I, Engineer-Scientist | 333 | 325 |
| Supervising II, Engineer-Scientist | 319 | 311 |
| Senior I, Engineer-Scientist | 306 | 298 |
| Senior II, Engineer-Scientist | 295 | 288 |
| Associate I, Engineer-Scientist | 283 | 276 |
| Associate II, Engineer-Scientist | 267 | 260 |
| Engineer-Scientist, Grade 1 | 248 | 242 |
| Engineer-Scientist, Grade 2 | 234 | 228 |
| Engineer-Scientist, Grade 3 | 215 | 210 |
| Engineer-Scientist, Grade 4 | 193 | 188 |
| Engineer-Scientist, Grade 5 | 170 | 166 |
| Engineer-Scientist, Grade 6 | 148 | 144 |
| Project Assistant | 139 | 136 |
| Technician | 133 | 130 |
| Senior GIS / Database Analyst | 175 | 171 |
| CADD Operator / GIS Analyst | 152 | 148 |
| Senior Administrative Assistant | 167 | 163 |
| Administrative Assistant | 132 | 129 |
| Secretary | 111 | 108 |

DIRECT EXPENSES

Reimbursement for direct expenses, as listed below, incurred in connection with the work will be at cost plus ~~fifteen percent (15%)~~ **five percent (5%)** for items such as:

- a. Maps, photographs, reproductions, printing, equipment rental, and special supplies related to the work.
- b. Consultants, soils engineers, surveyors, drillers, laboratories, and contractors.
- c. Rented vehicles, local public transportation and taxis, travel, and subsistence.
- d. Special fees, insurance, permits, and licenses applicable to the work.
- e. Outside computer processing, computation, and proprietary programs purchased for the work.

~~A Communication charge for e-mail access, web conferencing, cellphone calls, messaging and data access, file sharing, local and long distance telephone calls and conferences, facsimile transmittals, standard delivery U.S. postage, and incidental in-house copying will be charged at a rate of 4% of labor charges. Large volume copying of project documents, e.g., bound reports for distribution or project-specific reference files, will be charged as a project expense as described above.~~

Reimbursement for company-owned automobiles, except trucks and four-wheel drive vehicles, used in connection with the work will be at the rate of sixty cents (\$0.60) per mile. The rate for company-owned trucks and four-wheel drive vehicles will be seventy-five cents (\$0.75) per mile. There will be an additional charge of thirty dollars (\$30.00) per day for vehicles used for field work. Reimbursement for use of personal vehicles will be at the federally allowed rate plus fifteen percent (15%).

CADD and other specialized software computer time will be charged at twenty dollars (\$20.00) per hour. In-house material and equipment charges will be in accordance with the current rate schedule or special quotation. Excise taxes, if any, will be added as a direct expense.

Rate for professional staff for legal proceedings or as expert witnesses will be at a rate of one and one-half times the Hourly Rates specified above.

The foregoing Schedule of Charges is incorporated into the Agreement for the Services of EKI Environment & Water, Inc. and may be updated annually.

ATTACHMENT A: RESUMES

Jonathan P. N. Sutter, PE

Supervising Engineer

Mr. Sutter has fifteen (15) years of project experience in potable water, wastewater, stormwater and recycled water utility design, master planning, construction management and water resources planning. For several municipal stormwater, sanitary sewer, and potable water projects he has been responsible for all phases of design, cost estimation, project management, construction management, budgeting, scheduling and coordinating with and on behalf of clients. As part of his master planning work, he created and managed hydraulic models for potable and recycled water distribution and wastewater collection systems. Mr. Sutter currently serves as District Engineer for Coastside County Water District and North Coast County Water District.



Relevant Experience

- **Valley of the Moon Water District, Sonoma Developmental Center (SDC) Transition Plan.** Sonoma County, CA. Project Manager. Mr. Sutter led the preparation of Senate Bill 610-compliant Water Supply Assessment in support of the proposed SDC Specific Plan and conducted an engineering evaluation to integrate the SDC water system into the VOMWD water system. The engineering evaluation confirms whether improvements are needed to increase the supply capacity between the SDC and VOMWD systems and how integration of the systems can improve the water supply reliability and system resiliency in the region.
- **Valley of the Moon Water District, Water Master Plan and On-Call Hydraulic Modeling.** El Verano, CA. Project Manager/Lead Modeler. EKI prepared the District's Water Master Plan, which will serve as the basis for the District's 25-year capital improvement program. Mr. Sutter managed the development of a zone analysis of demands; storage and supply capacity assessment; construction, calibration, and analysis of a new hydraulic model; the development of a recommended capital improvement program; and preparation of the Final Master Plan Report. Mr. Sutter also managed the evaluation of a potential site on Richards Boulevard for a new storage tank, including a hydraulic modeling evaluation and preparation of a conceptual site plan, constructability review, and opinion of costs. Mr. Sutter is currently managing on-call hydraulic modeling tasks. On-call modeling tasks have included siting and modeling assessments of potential new tanks in Glen Ellen.

Education

- M.S., Civil and Environmental Engineering, Stanford University, 2012
- B.S., Civil Engineering, Columbia University, 2008

Registrations/Certifications

- Professional Civil Engineer, CA (#81606)
- 40-hour OSHA HAZWOPER Training Course

Technical Expertise

- Water System Modelling and Master Planning
- Water and Wastewater Water Infrastructure Design
- Integrated Water Resources Master Planning
- Urban Water Management Planning (UWMPs)
- Water Supply Assessments (WSAs)

- **Valley of the Moon Water District, *Altimira Fire Flow Improvements Design*.** El Verano, CA: Project Manager. Mr. Sutter is leading the preparation of plans, specifications, and cost estimates to replace approximately 5,000 LF of existing 6-inch and 8-inch water mains with new 12-inch PVC water mains to improve fire flows. The project includes relocating portions of the water main along with a pressure reducing valve.
- **City of East Palo Alto, *Water System Master Plan, Hydraulic Model Construction and Analysis*.** East Palo Alto, CA. Lead Modeler/Technical Lead. Mr. Sutter served as Technical Lead for the preparation of the City of East Palo Alto Water System Master Plan Update. EKI is assisting the City to update its Water System Master Plan, which will guide the next 20 years of water system reliability and related capital improvement program (CIP) projects that will support the City to improve the current system and plan for the anticipated development. Mr. Sutter led the construction of a new hydraulic model, water demand projections, and a recycled water feasibility evaluation. He also led the development of a risk-based capital improvement plan. As part of the master plan, EKI assessed storage needs and potential locations of new storage tanks.
- **Coastside County Water District, *On-Call Water System Hydraulic Modeling*.** Half Moon Bay, CA. Project Manager/District Engineer/Lead Modeler. EKI is currently supporting the District to prioritize, program, manage, and design its near-term capital improvement projects. Mr. Sutter led efforts to update the District's hydraulic model and used the model to support alternatives analysis and other studies on an on-call basis. Mr. Sutter managed consultants for the District's welded-steel water storage tank seismic evaluation. Based in part on information gathered as part of a welded-steel water storage tank seismic evaluation managed by Mr. Sutter, he prepared a systemwide storage evaluation that identified system storage needs and recommended storage projects. The analyses included an extended period simulation (EPS) model calibration to analyze District's operation during a Public Safety Power Shutoff (PSPS) or other major supply outage. EKI also performed analyses to evaluate the installation of new PRVs to create a new pressure zone; and the abandonment of an existing storage tank and required pump station modifications.
- **El Granada No. 1 Tank Demo & Booster Pump Station Upgrades.** *Coastside County Water District El Granada, CA.* Project Manager. The District's EG-1 tank will be removed from service due to seismic concerns and thus, the EG-1 booster pump station will need to be modified to pump directly from the former tank feed line. The District is currently reviewing the draft pre-design study which includes recommendations for tank and pump station demolition, pump selection (standard above grade or below grade pitless boosters), conceptual site layouts, construction sequencing, and opinion of probable cost.
- **North Coast County Water District, *Water System Hydraulic Modeling*,** Pacifica, CA. Project Manager/Lead Modeler. Mr. Sutter led the construction of a new hydraulic model for the District that incorporated updates to and integration the District's GIS data, fire flow calibration testing, updated demands data, and updated operational settings. Mr. Sutter also managed a storage and zone supply analysis that considered new demand trends and recommended performance criteria. Based on the results of the evaluations, EKI developed recommending supply, storage, and fire flow related capital improvement projects. EKI has performed several on-call hydraulic modeling analyses, including

assessments of operating levels and maximum fill rates for two tank replacement projects, as well as operational considerations for taking an existing tank out of service.

- **Park Pacific Tank Recoating and Pump Station Upgrades Design.** *North Coast County Water District, Pacifica, CA.* Project Manager. The District's Park Pacifica Tank requires several improvements to remain in service. Additionally, the District will be upgrading the upstream Fassler Tank. This project will provide a pre-design analysis to evaluate the modifications necessary to the Park Pacifica Pump Station to service the upper zone during the construction of the Fassler Tank, including consideration of installation of new variable frequency drive pumps, or the installation of a new or permanent hydropneumatic tank. Currently, the Park Pacifica Tank is being drained for follow up structural analysis due to the poor condition of the tank rafters found during the initial coatings assessment.
- **Richards Tank Siting Evaluation.** *Valley of the Moon Water District, El Verano, CA.* Project Manager. Based on the findings of the 2019 Water Master Plan prepared by EKI, the District was considering purchasing a property to construct a new storage tank to help address emergency storage deficits and fire flow deficiencies. Mr. Pittner led the tank siting evaluation which included a hydraulic evaluation of the tank on operations and fire flow availability, preparation of conceptual site layouts, and a preliminary opinion of total project cost. While the project would have eliminated the need for two other capital improvement projects(\$2M), the total project cost (\$4M) was unable to fit within the District's capital improvement program budget.
- **City of Lathrop, Integrated Water Resources Master Plan and On-Call Hydraulic Modeling.** Lathrop, CA. Project Manager. Mr. Sutter served as project manager for the preparation of the City of Lathrop's Integrated Water Resources Master Plan, which included comprehensive updates to the Water System, Wastewater System, and Recycled Water System Master Plans. Mr. Sutter led efforts to update the City's infrastructure and land use GIS databases to develop new GIS-integrated hydraulic models, evaluate the City's potable and recycled water demands and wastewater flows projections, evaluate the City's future water supply and reliability, and develop recommended Capital Improvement Programs for each utility. Mr. Sutter led coordination efforts with the City staff and participated in the outreach efforts with the project stakeholders, including the City's development community. Mr. Sutter is currently serving as project manager for on-call hydraulic modeling for the City of Lathrop. Mr. Sutter has managed hydraulic modeling analyses to evaluate required water, sewer, and recycled water infrastructure needed to support new major developments. Potable water system analysis included fire flow and storage evaluations and modeling of developmental phasing to identify required infrastructure construction trigger points. Recycled water hydraulic analyses were conducted on multiple recycled water transmission main improvement alternatives to identify the most cost-effective solution for meeting City design requirements.
- **City of Brisbane, Water and Sewer System Master Plan Update and On-Call Hydraulic Modeling.** Brisbane, CA. Project Engineer/Deputy Project Manager. Mr. Sutter served as project engineer/deputy project manager for the City of Brisbane's Sewer System Master Plan Update and Water System Master Plan Update. Based on his analysis of the City's sewer system infrastructure needs review of the City's sewer system condition assessment, EKI has refined the City's sewer system capital improvement program. Mr. Sutter also assisted with development of the updated water system capital improvement program. Through strategic analysis of fire flows, EKI shaved pipeline projects from the

original water system CIP program – while still fulfilling the hydraulic design criteria – through recommending the efficient use of interties and pressure reducing valves between pressure zones. Mr. Sutter is currently serving as the Project Manager for on-call water system hydraulic modeling the City of Brisbane. Mr. Sutter has managed the hydraulic analysis of a new Humboldt Road PRV and has identified recommended PRV sizing to increase fire flow availability to a lower pressure zone. Under Mr. Sutter’s management, EKI has also provided hydraulic modeling to support design efforts such as the Annis Road PRV and Fire Main Improvement Project and the Glen Park Pump Station Project.

- **City of Burlingame, *On-Call Water System Hydraulic Modeling***. Burlingame, CA. Project Manager. Mr. Sutter serves as project manager for on-call water system hydraulic modeling for the City of Burlingame. At the City’s request, Mr. Sutter has managed updates to the hydraulic model to reflect the City’s updated geodatabase and hydraulic model analyses to evaluate improvement alternatives for multiple projects, including rehabilitation of a welded steel bridge crossing and a failing pipe located under a home. Hydraulic modeling analyses indicated that the City could slip line the bridge crossing and safely abandon the pipeline under the home in-place without significant reductions in fire flow availability in the area. These alternatives represented a significant cost savings compared to replacement. Additionally, based on these analyses, EKI recommended replacement of a nearby aging water line to increase fire flow.
- **City of Brisbane, *Annis Pressure-Reducing Valve Station and Fire Main Replacement***. Brisbane, CA. Project Manager/Construction Manager. Mr. Sutter served as project manager for design of the City of Brisbane’s Annis Pressure Reducing Valve (PRV) Station and Fire Main Replacement Project, which will replace approximately 6,500 linear feet (LF) of water main and install a new pressure reducing valve (PRV) station to improve the potable water system’s capacity to supply fire flows in a residential area. Project replaced existing 6-in water mains with new 8-in to 10-in ductile iron water mains and crossed two, large concrete pipelines owned by the San Francisco Public Utilities Commission (SFPUC). The new PRV station will connect two of the City’s pressure zones to supply fire flows from the upper zone to the lower zone when needed. All work is within residential areas characterized by narrow streets, hilly terrain with extensive bedrock, and existing utilities that cover a significant footprint in the project area. To minimize impacts, Mr. Sutter developed a temporary bypass and sequencing plan so that the new main could be installed in the existing water main trench. Mr. Sutter was responsible for coordination of the design team, coordination with SFPUC and residents. Mr. Sutter also served as the construction manager for the project.

C. David Umezaki, PE

Principal Engineer

Mr. Umezaki has performed water, wastewater and recycled water program management for a number of cities in Northern California. In this role, he has managed several permitting, design, and construction efforts for major improvements to water and wastewater treatment plants. As part of his program management efforts, he has prepared technical evaluations, interfaced with regulatory agencies, and managed the efforts of numerous consultant teams and stakeholders on behalf of cities.

For twenty-nine years, Mr. Umezaki has also held key roles on several engineering projects, including engineering design and design review, construction review, and operation and maintenance of water, wastewater, and groundwater treatment systems. He has provided construction observation services for soil and groundwater remediation and is experienced with construction management and contract administration. Mr. Umezaki has prepared engineering documents for submittal to regulatory agencies such as the United States Environmental Protection Agency and several California Regional Water Quality Control Boards. Mr. Umezaki also evaluates technologies as part of feasibility studies, preparing cost estimates, and designing groundwater treatment systems.

Relevant Experience

- **Valley of the Moon Water District, Sonoma Developmental Center (SDC) Transition Plan.** Sonoma County, CA. Project Engineer. Mr. Umezaki managed the preparation of a technical memorandum documenting steps required for the transition of the Sonoma Development Center (SDC) property and its water-related infrastructure to the District's water system. For this technical memorandum, Mr. Umezaki evaluated administrative, permitting, engineering and construction tasks needed to incorporate SDC facilities into the District's existing system and to transfer the associated water rights.
- **2020 Urban Water Management Plan.** *Valley of the Moon Water District, CA.* Project Manager. Mr. Umezaki worked with water District to develop their 2020 Urban Water Management Plan (UWMP). This document serves as an update to the 2015 UWMP and revises the content as per the requirements of the Department of Water Resources' (DWRs) 2020 UWMP guidelines. As part of that effort, he compiled historical water use information,



Education

- M.S., Civil (Environmental) Engineering, Stanford University, 1995
- B.S., Civil Engineering, Stanford University, 1994

Registrations/Certifications

- Professional Civil Engineer, CA (#57697)
- Forty-hour OSHA HAZWOPER Training Course
- 8-hour Health and Safety Training Course for Supervisors

Technical Expertise

- Water, Wastewater, and Groundwater Treatment Systems Design and Construction Support
- Water Supply Reliability Studies
- Recycled Water Feasibility Studies
- Integrated Water Planning and Management
- UWMPs and AWSDAs
- Construction Management and Contract Administration
- Regulatory Agency Coordination

projecting future demands based on population growth and water conservation assumptions, and assessing recycled water supplies.

- **WQCP Wet Weather and Digester Improvements Project.** *City of South San Francisco.* South San Francisco, CA. Deputy Program Manager. Mr. Umezaki provided program management services for the design and construction of a \$50 million improvement project at the City's Water Quality Control Plant, acting as the City representative through the design and construction phases, facilitating project decision making throughout the bidding and construction phases. As part of his program management responsibilities, assisted the City and design engineer in formulating an approach to bidding a proprietary digester equipment/process which includes a process warranty from the manufacturer. Mr. Umezaki also acted as the City's liaison to the State Water Resources Control Board and its Drinking Water State Revolving Fund (SRF) program staff during the construction phase.
- **Consolidated Treatment Facility.** *City of Lathrop.* Lathrop, CA. Project Engineer. Mr. Umezaki performed performing program management for the City of Lathrop's wastewater and recycled water programs for over a decade. He was the Project Engineer responsible for management of the permitting and design of the Phase 2 expansion of City of Lathrop's Consolidated Treatment Facility, which have a capacity of approximately 2.5 million gallons per day. His work on this project has included preparation and maintenance of detailed project schedules, technical review of engineering documents, and oversight of numerous permit-related strategic, managerial, and technical tasks for the City. He was the Project Engineer responsible for management and coordination of efforts of eight consulting firms and fifteen developers as the City underwent a complex Waste Discharge Requirements (WDR) permit compliance process for its newly constructed wastewater and recycled water facilities. For this project, Mr. Umezaki successfully coordinated efforts among many parties to meet an extremely aggressive compliance schedule. In addition, Mr. Umezaki performed a detailed evaluation of the sources of high salinity detected in the City's wastewater collection system, including a mass balance for all major sources of salinity. Based on the findings of this evaluation, he developed a salt control implementation plan that included a ban on self-regenerating water softeners and measures to control infiltration of high-salinity groundwater into the wastewater collection system. Mr. Umezaki also assisted the City with the implementation of the self-regenerating water softener ban and developed modifications to the City standards aimed at reducing groundwater infiltration.
- **Clean Water Program.** *City of Foster City, CA.* Mr. Umezaki is serving as Foster City's representative in its participation with the City of San Mateo in their Clean Water Program. The Clean Water Program is a comprehensive plan to upgrade the aging wastewater collection and treatment system with advanced infrastructure that will provide reliable services for years to come. The Wastewater Treatment Plant components of the Clean Water Program are a joint effort between the City of San Mateo and City of Foster City/Estero Municipal Improvement District (EMID). The City of Foster City is a partial owner of the Wastewater Treatment Plant. The Goals of the Clean Water Program are to: replace aging infrastructure and facilities, build wet weather sewer system capacity assurance, and meet current and future regulatory requirements, align with the City of San Mateo and Foster City's sustainability goals. As Foster City's representative, Mr. Umezaki participates in the selection of consultants and contractors, review of technical reports, assisting with the evaluation of Foster City's

C. David Umezaki, PE

share of the cost for the Clean Water Program, as well making presentations to the Foster City Council regarding the progress of the program.

- **Capital Improvements Program.** *City of San Bruno.* San Bruno, CA. Program Manager. Mr. Umezaki served as program manager for a series of capital improvements program (“CIP”) projects for the City of San Bruno. As program manager, Mr. Umezaki monitored design budgets and schedule, manages design and construction team members, performs technical review of consultant designs, and coordinates design workshops with City staff to discuss major design issues. The projects include over 3,000 feet of water and sewer main replacement, seismic retrofits of one prestressed concrete water storage tank and one welded steel tank, storm drain improvements, and streetlight replacements.
- **On-Call Engineering Services.** *City of Daly City,* CA. Project Manager and Principal-In-Charge. Performed on-call engineering services related to sanitary sewer and storm drain systems. Currently, principal-in-charge on two design projects - a water main and a sewer main. Managed on-call work including evaluation of proposal for a new discharge to sanitary sewer or storm drain system at a site located at the Serramonte Center. Project involved evaluation of potential impacts to the wastewater treatment plant if hydrocarbon containing groundwater were discharged to the plant, and later an evaluation of potential options for discharge to the storm drain under existing General Permits.
- **On-Call Wastewater Projects.** *City of Pacifica.* Pacifica, CA. Project Manager. Mr. Umezaki served as project manager for a series of on-call services contract projects at the City’s Calera Creek Water Recycling Plant (CCWRP). For the CCWRP ultraviolet disinfection system replacement project, Mr. Umezaki prepared the RFP and related RFP addenda for engineering design services and assisted with the management and coordination of the associated pre-bid site meeting. Mr. Umezaki also assisted with the planning and initial design of the upcoming headworks channel corrosion improvement project, including developing a workplan outlining the steps for the installation of new coatings in the concrete channel and vertical concrete box downstream of the Parshall flume and upstream of the sequencing batch reactor (SBR) influent pipeline. Mr. Umezaki’s work included the initial preliminary design services and cost estimation on bypass components such as an inflatable plug, FRP bypass piping, and a sluice gate, and preliminary work sequencing. Mr. Umezaki also prepared an RFP for design services for the Arc Flash Study and Electrical Condition Assessment Project.
- **Recycled Water Feasibility Study.** *Diablo Water District and Ironhouse Sanitary District.* Oakley, CA. Project Manager. Mr. Umezaki managed a project team that evaluates alternatives for use of recycled water produced by ISD’s Water Recycling Facility (WRF). The recycled water projects are aimed at diversifying DWD’s water supply portfolio to make it more drought-resilient. For this study, EKI prepared a recycled water market evaluation identifying and quantifying potential recycled water users within the study area, then prepared a screening assessment of sixteen conceptual alternatives against five screening criteria developed during meetings with DWD and ISD staff. Based on the results of the screening assessment, six alternatives were retained for detailed analysis. The detailed analysis included an evaluation of permitting requirements, water quality impacts, achievement of recycled water goals, costs, and energy use. The alternatives evaluated as part of this detailed analysis included park irrigation, groundwater infiltration using a spreading basin, indirect potable reuse (IPR) via deep well injection of advanced-treated recycled water, and direct potable reuse (DPR) of advanced-treated recycled water by blending with groundwater.

Tyler F. Colyer, PE

Civil and Environmental Engineer

Mr. Colyer is a Professional Civil Engineer with (14) fourteen years of experience in design, planning, and construction management of potable water, wastewater, stormwater and recycled water infrastructure, as well as experience in water quality and water resources planning. He has developed and managed all phases of design, project management, construction management, budgeting, scheduling, permitting, and coordinating with and on behalf of, private clients and municipalities.

Relevant Experience

- Aquifer Storage and Recovery Project.** *Valley of the Moon Water District, El Verano, CA.* Project Manager. Mr. Colyer is overseeing the implementation of the District's Aquifer Storage and Recovery (ASR) project at two well sites. The project includes studies to determine the feasibility of ASR at the two sites, performing pilot studies at each site, and the design and construction of ASR infrastructure including a new ASR well, conversion of another existing supply well to an ASR Well, and construction of monitoring wells at each site. The drilling portion of the ASR project was recently completed and Mr. Colyer provided construction and testing oversight. Mr. Colyer recently completed the preparation of a feasibility study to determine whether the Park Avenue Well and Well 5A are suitable for ASR operations and is overseeing implementation of pilot studies at each site. Additionally, EKI assisted the District in obtaining approximately \$3 million of drought-relief funding from the Department of Water Resources to support the ASR project.
- Mechanical Design for a New Supply Well.** *Valley of the Moon Water District, El Verano, CA.* Project Manager and Project Engineer. Mr. Colyer prepared the mechanical design for the construction of a new supply well, which included a new submersible well pump, piping, and appurtenances, and rehabilitation of an existing iron and manganese filtration system. Mr. Colyer oversaw the project's construction management services and worked with the District to develop and implement a zone testing program to identify the source of hydrogen sulfide odors in the well.
- Mechanical Design of a Ferric Chloride Chemical System.** *Valley of the Moon Water District, El Verano, CA.* Project Manager. Mr. Colyer served as Project Manager for the mechanical design of a ferric chloride chemical storage and injection system at the District's Well 5A for removal of Arsenic. Project components include a packaged



Education

- M.S., Civil and Environmental Engineering, University of California, Berkeley, 2010
- B.S., Environmental Engineering, University of California, Riverside, 2009

Registrations/Certifications

- Professional Engineer, CA (C #80141)
- Professional Civil Engineer AZ (#64179)
- 40-hour OSHA HAZWOPER Training Course

Technical Expertise

- Infrastructure Design and Construction Engineering
- Water Master Planning
- Water Augmentation Studies
- Recycled Water Feasibility Studies
- Well and Monitoring Well Design and Engineering services
- Recharge Aquifer Design and Construction Support

dosing pump skid, chemical tote containment, chemical feed piping, shower/eyewash combination unit, and modifications to the existing process piping to facilitate chemical injection. To support District operations at the well, Mr. Colyer also prepared a handling and disposal alternatives analysis for the water treatment residuals that will contain arsenic removed by the ferric chloride chemical feed system. This analysis evaluated cost, maintenance, and operations factors for concrete drying beds, cartridge filtration, and direct disposal of the liquid residuals, and found that disposal of the liquid residuals was the most cost-effective method to handle the residuals.

- **Saddle Tank Replacement Study.** *Valley of the Moon Water District, El Verano, CA.* Project Engineer/Manager. Mr. Colyer served as Project Engineer and Project Manager for preparation of a site alternatives study for replacement of a fire damaged tank. The study evaluated three potential sites for a new tank, based on estimated construction cost, maintenance access, constructability, and construction duration, and determines the maximum tank capacity that can feasibly fit at each site. Additionally, Mr. Colyer assisted the District with a Federal Emergency Management Agency (“FEMA”) grant application by providing technical documentation of the district’s current water needs in the damaged tank’s pressure zone. This documentation included evaluation of future water demands, fire flow requirements, and emergency storage needs, which determined that the District has a need for a 600,000-gallon storage tank to meet future demands in the pressure Zone.
- **Water System Master Plan.** *City of East Palo Alto, CA.* Project Manager. Mr. Colyer oversaw the preparation of the City of East Palo Alto’s Water System Master Plan Update. The project included construction of a new all-pipe hydraulic model, water demand projections, a risk-based capital improvement plan and a recycled water feasibility evaluation. Cost estimates and schedules were prepared for each recommended capital improvement project.
- **Gloria Way Well Treatment System.** *City of East Palo Alto, CA.* Project Engineer. Mr. Colyer prepared engineering plans and specifications for the construction of a groundwater treatment system for potable water use at the City of East Palo Alto’s Gloria Way Well. The system includes a submersible well pump, iron and manganese treatment system, chemical amendments, Hetch-Hetchy blending system with booster pump station, and a surge tank. Mr. Colyer also assisted the City with the reactivation and permitting of the existing Gloria Way Well, as well as provided engineering services during construction for the Project. In addition, Mr. Colyer worked closely with the City to secure \$3 million of Proposition 84 grant funding to support the City’s groundwater development efforts and incorporated terms of two additional grants into the construction contract documents.
- **Reservoir Improvement Projects.** *Alameda County Water District, Fremont, CA.* Project Manager. Mr. Colyer is currently preparing the civil and mechanical design for the structural rehabilitation of two large reservoirs (over 14 million gallons each) for the District. The project involves replacement of key valves, valve stem extensions and operators, the liner for one of the reservoirs, and general site civil work to facilitate the structural work.
- **Pad D Well and Water Storage Tank.** *City of East Palo Alto, CA.* Project Engineer. Mr. Colyer prepared engineering plans and specifications for the construction of a new well and groundwater treatment system for potable water use at the future Pad D Well site. The system is anticipated to be used primarily for emergency purposes and will include a submersible well pump, chemical amendments, and a hydropneumatic tank. The City is working with a developer to install a fire water storage tank

on the Site until the City moves forward with the Pad D Well project. The water storage tank is anticipated to be transferred to the City once additional water system improvements are made to the area near the tank. Mr. Colyer reviewed tank plans and a transfer memorandum prepared by the developer, and advised the City on incorporating the tank into its water distribution system.

- **Water Storage Tanks Recoating Project.** *City of Burlingame, CA.* Project Engineer. Mr. Colyer served as project engineer during EKI's construction management of the stripping and recoating of key water storage tanks in Burlingame. He also provided field observation for this project, including responsibility for project logs and tracking. During tank interior recoating work, unknown extensive corrosion was found on the roof structure in two of the tanks, which required complete re building of the roofs. Mr. Colyer reviewed all structural roof re-building drawings and plans, prior to construction. Additionally, due to the presence of lead paint on the tanks, all work was completed in a sealed, negative-pressure tent in order to protect the residences directly adjacent to the tank sites.
- **Installation of Pressure Reducing Valve Stations.** *Coastside County Water District.* Half Moon Bay, CA. Project Engineer. This project involved installation of (1) two new pressure reducing valve (PRV) stations, at Wave Avenue and Frontage Road and at Casa Del Mar Drive and Frontage Road, and approximately 520 linear feet (LF) of new 8-inch ductile iron pipe (DIP) between Beach Avenue and Casa Del Mar Drive to create a new pressure zone in the Casa Del Mar neighborhood and (2) installation of a new PRV station on at Grand Boulevard and approximately 140 (LF) of new 6-inch DIP along Grand Boulevard to add a new connection from the District's main transmission main to downtown Half Moon Bay. Mr. Colyer oversaw preparation of the design documents for this project.
- **Ferdinand Avenue Water Main Replacement.** *Coastside County Water District.* Half Moon Bay, CA. Mr. Colyer was the Project Engineer and oversaw the design documents for this project. Specifically, the project was for the installation of approximately 1,590 LF of 6-in ductile iron (DI) pipe to replace existing 4-in welded steel (WS) water mains on residential sections of Avenue Balboa, Carmel Avenue, Ferdinand Avenue and Vallejo Street. The project included the abandonment of a portion of the WS pipeline that crossed above Deer Creek that was susceptible to failure. The project replaced existing service connections, meter boxes, and hydrants along the pipeline alignment.



Daisy M. Yu, S.E., LEED AP

Senior Structural Engineer

Experience

Daisy Yu has extensive experience in seismic evaluation and retrofit design and in the design of large, multistory, steel-framed structures. Her design experience also includes water and wastewater treatment facilities such as reinforced concrete reservoirs, reinforced masonry pump stations, and chemical storage facilities. As a LEED accredited professional, she is recognized as having a background and understanding of the principles that go into designing structures with a minimal impact on the environment, and that promote energy efficiency and a healthy environment for their occupants. Ms. Yu is not only an experienced structural engineer, but also a proven project manager. Her specific experience includes the following:

- **Water Treatment Filter Rehabilitation Project, City of Pittsburg, Pittsburg, CA; Structural Engineer of Record.** The City of Pittsburg is replacing pipes and valves at the existing gallery of the filter structure, in their water treatment plant located on Olympia Drive. Rehabilitating the existing pipes without shutting down the entire filter system for a long time is not feasible. However, by bringing a new filter online, the City will be able to maintain a significant level of water production. To design this new filter to work independently from the existing one, TJCAA is providing structural engineering design and construction services.
- **Canyon Heights Booster Station Upgrade; Alameda County Water District, Fremont, CA; Structural Engineer of Record.** Structural design as part of a project to increase personnel safety and reliable operation of a booster pump station built in 1953 and upgraded in 1979. Provided structural design for an elevated pad, supported on a pier foundation, for new electrical equipment. Provided ESDC.
- **Curtner Road Booster Station Upgrade; Alameda County Water District, Fremont, CA; Structural Engineer of Record.** Structural design as part of a project to improve performance and reliability of a booster pump station built in 1972 and modified in 1985. The existing structure is approximately 12 by 12 feet and approximately 37 feet deep. Providing structural design to raise the top of the booster station by 2 feet to accommodate new vertical pumps, as well as design of an addition to the first floor to house new electrical equipment. To improve access to the pump station, TJCAA is designing new concrete stairs and intermediate concrete floors to replace an existing interior spiral staircase. Design challenges include fitting in a set of new stairs while maintaining access to the new vertical pumps in a very tight space, as well as providing a means to remove and replace equipment parts through a series of removable grating sections that are integrated into the floor designs. Providing ESDC.
- **Rinconada WTP Reliability Improvement Project; Valley Water, Los Gatos, CA; Project Engineer.** Provided structural design for a new ozone generation building, LOX facility, flocculation/sedimentation basins, filters, washwater recovery facility, chlorine contact basin, and an elevated concrete platform to support electrical equipment. The structures are part of this major project to improve reliability at the Rinconada WTP, which is the main WTP serving the western service area for the District. Providing ESDC.
- **WWTP Expansion; City of Brentwood, CA; Project Engineer.** Structural design for expansion of a WWTP originally designed by TJCAA in 2000. This design includes new aeration basins, a blower building, a maintenance shop, a secondary clarifier, a return activated sludge pump station, a waste activated sludge storage basin, a 5,000-square-foot biosolids drying facility, and a 15,000-square-foot biosolids storage facility. The design addresses soils that are subject to liquefaction. Providing ESDC.

Education

MS, Structural Engineering;
University of CA, Berkeley; 1999

BS, Civil Engineering;
University of CA, Berkeley; 1994

Professional Registrations

Structural: CA 4872
Civil: CA 57044

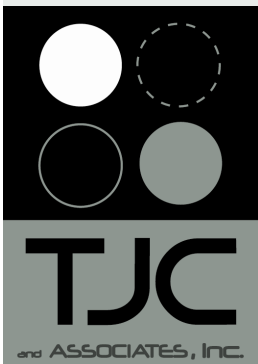
LEED Accredited Professional

Professional Memberships

- Structural Engineers Association of Northern California
- American Concrete Institute
- American Institute of Steel Construction

Office Address

1111 Broadway
Suite 300
Oakland, CA 94607



- **Lift Stations 6 and 8 Rehabilitation Design; Port of Oakland, CA; Structural Engineer of Record.** Structural engineering for improvements to two lift stations at Gates 6 and 8 of the Oakland International Airport. Design included two new buried concrete vaults and new access hatches with fall protection grating for the two existing wet wells.
- **White Slough Water Pollution Control Facility, Electrical Building and Related Improvements Project; City of Lodi, CA; TJCAA Structural Engineer of Record.** Structural design of a new 40 by 60-foot building to house electrical equipment and a communications room as part of upgrades to the electrical and plant-wide control system for the majority of plant processes. The new electrical building is a split-face masonry building with clerestory windows and steel roof deck on steel joists, supported on concrete spread footings. The structural design included design of continuous trenches beneath the motor control centers and switchgear to facilitate the installation of the electrical cables to the equipment. TJCAA will provide ESDC.
- **Pump Station M Upgrades; East Bay Municipal Utility District; Alameda, CA; Project Engineer.** Structural evaluation and design services for rehabilitation of a wastewater pump station constructed in 1977, including a wet well, dry well with four centrifugal pumps, control building, and a hypochlorite storage and pumping system. Provided seismic evaluation of the 25 ½ x 25 ½ x 30-foot-deep, below-grade concrete wet and dry well structure.
- **WWTP Immediate Action Projects Package II; City of San Mateo, CA; Project Manager/Structural Engineer of Record.** Performed structural analysis of existing sludge hopper platform, originally designed in the 1980s, for its ability to hold a second hopper and withstand seismic forces according to current Code. Provided structural design of a steel access platform for the new hopper.
- **Folsom Zone 6 Pump Station; City of Folsom, CA; Project Manager.** Provided structural design of a 26 x 94-foot booster pump station housing five vertical pumps and an electrical room. The single-story, CMU building has a prefabricated wood truss roof. Produced final designs and specifications under an aggressive schedule.
- **RP-1 Headworks, Primary and Secondary Upgrades; Inland Empire Utilities Agency, Ontario, CA; Project Manager/Structural Engineer of Record.** Provided structural design for rehabilitation of deteriorating structures at a WWTP headworks. The design addressed severely degraded concrete structures, metal covers that had been compromised by field modifications, and modifications to the plant scum well to support mechanical upgrades.
- **RP-1 Mixed Liquor Return Pumps Project; Inland Empire Utilities Agency, Ontario, CA; Project Engineer.** Structural design of 12 x 20-foot foundations for two motor control center buildings and structural pipe supports for the addition of six 200-foot lengths of 36-inch-diameter high-density polyethylene pipe. The pipe support elements were required to have flexibility to accommodate longitudinal expansion and contraction of the pipe while supporting the pipe and anchoring it to resist significant seismic and hydrodynamic forces.
- **Pump Station Q Force Main/Gravity Interceptor Reverse Flow Upgrades; East Bay Municipal Utility District, Berkeley, CA; QA/QC.** Performed QA/QC of design engineering for five cast-in-place, below-grade vaults. These vaults provide locations for metering and diversion of flows, and pipe sizes accommodated by the vault designs ranged from 36 to 96 inches in diameter.
- **California Water Tank, Pump Station, and Transmission Main Project; City of Redwood City, CA; Project Manager/Structural Engineer of Record.** Provided structural design of a 26 x 19-foot CMU building with a steel truss roof, housing three vertical-turbine pumps, electrical equipment, and an emergency generator.
- **Rinconada WTP Residuals Management Project; Valley Water, Los Gatos, CA; Structural Engineer of Record.** Responsible for the structural design of new gravity thickeners, a two-story concrete building housing new centrifuges and electrical equipment, and a steel frame load-out structure. Provided ESDC.
- **Glen Park Pump Station Rehabilitation; City of Brisbane, CA; TJCAA Project Engineer.** Structural design services for station rehabilitation including a new standby engine-generator. Structural designs for a 17 x 18-foot CMU pump station building, equipment foundations, and a soldier pile retaining wall.



Ronald J. Migdal, S.E.

Structural Engineer

Experience

Ronald Migdal is a structural engineer with more than 20 years of design and management experience. His work has included large-scale residential and educational building projects, including a 135,000 sq. ft. community college library. He has also completed structural evaluations and designs for storm water conveyance structures, pump stations, and wastewater treatment plant expansions. Recent, relevant experience includes the following:

- **Randall-Bold WTP Communications Room Improvements, Contra Costa Water District, Oakley, CA; Project Manager.** Design and rehabilitation services to mitigate temperature fluctuations and ventilation and dust issues related to a failing HVAC system. Structural design details included improved insulation for door and room penetrations as well as providing data to help size the new HVAC system.
- **Santa Anita Booster Pump Station Upgrades, Pasadena Water and Power, Pasadena, CA; Project Manager.** Comprehensive evaluation of structural elements for a pump station built in 1930. Evaluation included physical observations and documentation of existing conditions and structural repair and rehabilitation recommendations. The evaluation was part of a technical memo to PWP listing recommendations and conceptual design data.
- **Eagle Rock Pump Station Upgrades Conceptual Design, Pasadena Water and Power, Pasadena, CA; Project Manager.** Comprehensive evaluation of structural elements for a 100-year-old pump station, which included a visual inspection of the station and documentation of observations needed to determine whether the pump station should be replaced or upgraded and expanded.
- **Upper Llagas Creek Flood Protection Project; Valley Water, Morgan Hill, CA; QA/QC.** This project included the design of wing walls, box culverts, 72-inch-diameter tunnel sections, bifurcation structures, culvert access structures, inlet weirs, outlet structures, bridges, and head walls to protect nearby businesses and residences from flooding from Upper Llagas Creek. Mr. Migdal performed the QA/QC of design engineering drawings and calculations for these new structures. This included calculation modifications to meet code and NRCS requirements. He also provided bid support and related engineering services.
- **Lift Station Condition Assessment Project; Valley Sanitary District, Indio, CA; Project Engineer.** This project involved structural evaluations for multiple lift stations across VSD's service area as part of the District's lift station upgrade program. Mr. Migdal completed structural condition and seismic risk assessments following Tier 1 and Tier 2 screening per ASCE/SEI 41. He also reviewed construction documents, identified structural vulnerabilities, and developed remediation and upgrade recommendations.
- **Facility Planning Services First Aqueduct Bifurcation Structures; San Diego County Water Authority, CA; Structural Engineer.** Provided structural evaluation focusing on 11 structures on the First Aqueduct containing 6-foot-diameter tunnel sections with associated bifurcation structures. Provided evaluations for representative structures, including computer modeling with RISA-3D, to identify structural improvements required to ensure that all bifurcations will meet the applied loading requirements of the California Building Code. Developed recommendations and conceptual plans for modifying each of the structures to withstand the anticipated loads.

Education

MS, Civil Engineering;
University of Illinois,
Urbana; 1990

BS, Civil Engineering;
University of Illinois,
Urbana; 1989

Professional Registrations

Structural: CA 4439
Civil: CA 54389

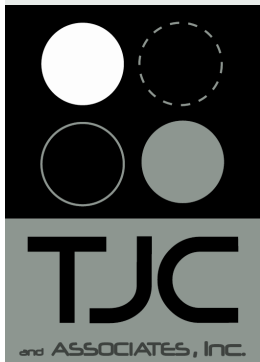
Professional Memberships

Structural Engineers
Association of
Northern California

San Francisco
Planning and Urban
Research Association

Office Address

1111 Broadway
Suite 300
Oakland, CA 94607



- **Cabrillo College Water Storage Tank Condition Assessment Project; Cabrillo College, Aptos, CA; Project Manager.** For this structural evaluation of the Cabrillo College water storage tank, Mr. Migdal focused the assessment on the condition of the roofing structural support system (rafters) and cover plates. He performed analyses using AWWA D100-11 design criteria and ASCE 7-16 parameters and then identified structural vulnerabilities and developed plans for remedial actions and upgrades.
- **Santa Clarita Valley Water Agency Pump Stations Peer Review, Stylo Group LLC, Santa Clarita, CA. Project Manager.** This project involved a peer review of structural drawings, calculations, and specifications for several pump stations under the Santa Clarita Valley Water Agency's jurisdiction. The Agency had concerns that several of the stations were out of compliance with current codes. Mr. Migdal completed the peer review and submitted findings to the Agency's engineer of record for incorporation into their design.
- **Crest Marin County Flood Control, Crest Marin Pump Station Condition Assessment Project, Marin County Flood Control & Water Conservation District, Marin County, CA; Project Manager.** This project involved the condition assessment of a pump station built and in operation since 1978, used primarily for storm water drainage, in Mill Valley, California. Mr. Migdal conducted an inspection of all structural support and bracing systems of the wet well, pump station, and outfall structures. His inspection and evaluation followed the guidelines presented in ASTM E2026, with the additional requirements of Tier 1 Screening per ASCE/SEI 41, and the Level 2 Rapid Visual Screening of Buildings for Potential Seismic Hazard per FEMA P-154. The condition assessment also used ASCE Standard 24 to identify potential flood-related deficiencies within the pump station.
- **Training Tower Condition Assessment, City of South San Francisco, South San Francisco, CA. Project Manager.** This project involved the structural evaluation of a five-story firefighter training facility, including catwalks, floor and roof framing, and balconies. Mr. Migdal developed a technical memorandum that identified critical structural elements that had experienced accelerated deterioration due to their regular exposure to water and extreme heat during training exercises. The memo also provided alternatives to repair and remediate the current degradation as well as prevent future damage to the structure.
- **Water Treatment Filter Rehabilitation Project, City of Pittsburg, Pittsburg, CA; Structural Designer.** This project involved a comprehensive structural survey of one of the city's water treatment plants to identify deficiencies and develop recommendations for repairing, rehabilitating, or replacing damaged structures. Mr. Migdal developed a technical memorandum that identified critical structural elements that will require mitigation, replacement, or further investigation

Prior Experience

Mr. Migdal's previous experience includes the following:

RJMSE – Private Consulting; 2004–2023

- Provided structural engineering consulting services to architects, contractors, and commercial clients. This consisted of forensic investigations of single-family homes and the repair/reconstruction of fire damaged buildings.
- Extensive experience in wood framed residential and commercial construction, and in producing structural calculations and drawings related to solar power production – often as the primary design professional.

ZFA Structural Engineers – Project Engineer; 2002–2004

Performed the complete set of analysis and design tasks, in addition to interfacing with clients and other design professionals. Projects included:

- The structural design of a very large library (145,000 sq ft) for a community college client.
- A library building for a new high school.
- A new high school classroom building.

- A new wood framed multi-purpose building for an elementary school Post-processed ETABS loads into excel to superimpose with RAM gravity loads for sizing members.

DASSE Design, Inc. – Project Engineer; 1995–2001

Managed staff engineers and also required significant interaction and coordination with other design professionals. Projects included:

- The structural design of a new local theatre building.
- A series of large new commercial buildings for a national client.
- Numerous seismic retrofits of school buildings in the San Francisco Bay Area.
- A number of seismic retrofit projects for high tech firms.



Eileen A. Nakamura, P.E.
Senior Electrical Engineer

Experience

Eileen Nakamura is an electrical engineer with design experience in the areas of electrical power distribution, electrical industrial applications, control systems, and instrumentation. Her specific experience includes design of medium and low-voltage electrical distribution systems for water, wastewater, and industrial waste treatment facilities; plant instrumentation; and SCADA systems for in-plant and telemetry-based systems. She also has experience in construction services during facility startup for design-build projects:

- **RTP Medium-Low Voltage Upgrade; Monterey One Water; Marina, CA; Project Engineer.** Electrical engineering design services for electrical equipment improvements at the Regional Treatment Plant. The project includes replacing the existing 21 kV distribution system and installing a new PG&E main service. Electrical elements include electrical integrated power assembly enclosures, main utility service and metering, 21 kV switchgear, protective devices, feeders 21 kV–480 V pad-mounted transformers, and 480 V secondary cables and bus duct. Design includes coordination with the power utility and electrical equipment distributor for procurement.
- **Reservoir 1 Pump Station Rehabilitation; Stanford University; Palo Alto, CA; Project Engineer/Project Manager.** Electrical and instrumentation and controls engineering design and construction support services for new electrical distribution, variable speed drives, lighting, modified electrical power utility service, and other electrical infrastructure improvements to address outdated mechanical, electrical, and control equipment. The design included a new SCADA/RTU system based on Stanford's XIO cloud-based SCADA/telemetry to be integrated with the University's SCADA Central and communications infrastructure. Construction support services included power utility coordination and coordination with the county and utility commission for approval.
- **Compressed Natural Gas Stations Upgrades; Pacific Gas and Electric Company; Redding, Vallejo, Fremont, and Antioch, CA; Project Engineer/Project Manager.** Electrical and I&C designs for compressed natural gas fueling facilities at PG&E Service Centers: new station at Vallejo Service Center and upgrades to Redding, Fremont, and Antioch Service Centers, with designs for new electrical services and distribution, station instrumentation, control system monitoring, and lighting. Projects included developing issued-for-construction and as-found drawing sets.
- **Lift Station Condition Assessment; Valley Sanitary District; Indio, CA; Project Manager/Project Engineer.** Electrical and control systems engineering services for site condition assessments for four sanitary sewer lift stations. Project included performing site investigations, reviewing documentation, and developing electrical, instrumentation, and controls recommendations for developing a technical memorandum.
- **Denniston Standby Generators; Coastside County Water District; Half Moon Bay, CA; Project Engineer.** Electrical engineering services for replacement of aged equipment and provision of a local source of standby power to maintain operations during a utility outage at the Water Treatment Plant and Pump Station. The pre-design technical memorandum identified generator sizing, locations, features, and requirements resulting in a 150 kW, 120/240 VAC, 3-phase generator for the WTP and a 250 kW, 480 V, 3-phase generator for the Pump Station, as well as transfer switches rated 600 A and 400 A. A procurement technical package was developed for the standby generator equipment. The project included coordination with the District for equipment status monitoring selective demolition of outdated and abandoned equipment.

Education

BS, Electrical Engineering;
 California Polytechnic State University, San Luis Obispo; 1994

Professional Registration

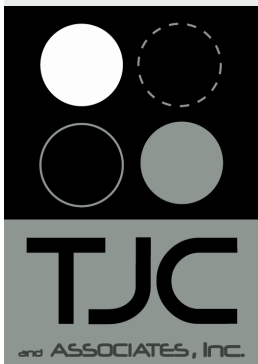
Electrical:
 CA 15573

Professional Affiliation

Institute of Electrical and Electronics Engineers

Office Address

2300 Clayton Road
 Suite 1450
 Concord, CA 94520



- **Navajo Booster Station Upgrade; Golden State Water Company, Morongo Valley, CA; Project Manager/Project Engineer.** Instrumentation and controls and electrical engineering design for pump station improvements including a new electrical system, permanent Southern California Edison electrical service, site exterior and building interior lighting, stationary diesel-engine-driven generator with automatic transfer switch, VFDs for motor control, upgrade of remote monitoring and controls (SCADA) and development of P&IDs. The existing system will be required to remain online until the new system is fully operational. TJCAA will provide bid phase support and ESDC.
- **Lake Marie Plant Replace Booster C and Install Generator Project; Golden State Water Company, Santa Barbara County, CA; Project Manager/Project Engineer.** Electrical and control systems engineering design for plant improvements including a standby engine-generator, VFD-driven booster pump, SCADA integration, and development of plant-wide P&IDs for the facility in Santa Barbara County, CA. Performed a site investigation, reviewed documentation, and developed plans and specifications for electrical, instrumentation, and controls. Assisted with procurement of the generator and VFD and managed the project. Project included engineering support during construction.
- **Rinconada WTP Reliability Improvement Project; Valley Water, Los Gatos, CA; Project Engineer.** Electrical engineering and control systems design work for a \$180 million WTP modernization. This project incorporates capacity increases to raise plant output to 100 mgd and incorporates new ozone treatment trains, multiple new and retrofitted chemical systems, filters, and floc-sed basins. The design was developed to maintain the plant in operation throughout the estimated 5-year construction period. Design included new 12 kV distribution, arc flash protection strategies, a new 3 MW diesel standby generator, and new distributed motor control centers with smart motor starters and VFD equipment. I&C design incorporated a new distributed PLC architecture, using six process area-based, hot-standby PLC pairs coordinated with construction phasing and new processes. Final design included over 400 electrical, instrumentation, and controls design drawings. Providing ESDC.
- **Preliminary Design of WWTP Improvements; Mt. View Sanitary District; Martinez, CA; Project Engineer.** Predesign Engineering efforts to establish, define, and develop design criteria in a Preliminary Design Report for plant-wide improvements at a WWTP. The improvements will focus on replacing aging equipment, installing new equipment, and upgrading some electrical and SCADA systems in the following areas: headworks, centrifuge, digester, influent pump station, and other areas with ongoing issues.
- **Rainbow Municipal Water District, Fallbrook, CA; Project Manager.** Electrical design services for installation of manual transfer switches at Morro Pump Station (150 hp pump), Rainbow Hills Pump Station (75 hp pump and 150 hp pump), and Vallecitos Pump Station (75 hp pump).
- **Membrane Pilot Plant Service; Central Contra Costa Sanitary District, Martinez, CA; Project Manager.** Electrical engineering design services to supply power to a new 240 V, 1-phase membrane pilot plant. Load calculation review, field investigations, and design of 480 V feeder in an existing MCC, transformer primary disconnecting means, combination transformer and panel board, conduit, conductors, grounding, handholes, and associated materials.
- **FBP Building Floodproofing; City of Livermore, CA; Project Manager/Project Engineer.** Electrical design services for raising an outdoor transformer on a new equipment pad and sealing electrical conduits for a building potentially subject to flooding.
- **Resource Recovery Facility; City of Santa Cruz, CA; Project Manager/Project Engineer.** Electrical engineering design for improvements including a stormwater detention basin, pump station, conveyance piping, and associated appurtenances. Provided preliminary and draft design, including identification of a power source, documentation of basic design criteria, and development of a single-line diagram. Design also included a conceptual control strategy for pump station operation, and specification of a NEMA-rated enclosure for electrical equipment.



Dr. Amlan Ghosh has 23 years of experience in all aspects of drinking water quality and treatment, including process selection and evaluation, design, infrastructure master planning, and bench- and pilot scale testing studies. Specifically, Dr. Ghosh's expertise lies in the areas of enhanced powdered and granular activated carbon processes, membrane filtration, and the use of alternative and advanced disinfectants such as permanganate, chlorine dioxide, ozone, and ultraviolet light. Dr. Ghosh is a past Chair of the American Water Works Association (AWWA) Inorganic Contaminants Research Committee and is a current AWWA trustee in the Distribution and Plant Operations Division.

Education

Ph.D., Environmental Engineering, University of Arizona, 2005

M.S., Environmental Engineering, University of Arizona, 2002

BTech Mining Engineering, Indian Institute of Technology, Kharagpur, 2000

Licenses

Arizona Professional Engineer #49361

Texas Professional Engineer #106866

Representative Projects

Suisun Solano Water Authority (SSWA) DBP Mitigation Study Phase 1 and Phase 2, Vacaville, CA: Project Manager: SSWA operates the 10 MGD Cement Hill WTP, which uses a conventional treatment process to treat surface water from the Putah South Canal. The WTP pre-chlorinates the water for removal of iron and manganese, and for algal control. However, this results in formation of high total trihalomethanes (TTHMs) through the up-flow clarifiers, in the treated water storage tanks, and in the distribution system. In 2023, three of the four Stage 2 DBPR compliance locations of the water utility exceeded the TTHM Locational Running Annual Average (LRAA) MCL of 80 µg/L. This triggered a comprehensive mitigation study to determine the causes of, and to identify strategies to mitigate DBP formation. The first objective of the study was to perform operational optimization with the WTP and the distribution system such that TTHM formation can be reduced. Water quality and DBP profiling performed through the WTP indicated that pre-chlorination with diluted sodium hypochlorite was one of the primary contributors to the DBP formation. However, pre-chlorination could not be discontinued immediately, as the three up-flow solids contact clarifiers within the WTP grow significant algal biomass and biofilms along the side walls in the absence

of a pre-oxidant. Ultrasonication has been successfully used for over a decade as an algal mitigation technology in surface water bodies such as lakes and reservoirs. They disrupt the buoyancy of the algal cells, thereby sinking them to the bottom of the water column, where they cannot survive in the absence of sunlight. Ultrasonication devices were pilot tested and successfully deployed to control algae, reduce pre-chlorination and subsequent DBP formation, thus allowing SSWA to return to compliance within two quarters of sampling.

Chaparral WTP Process Optimization Study, City of Scottsdale, AZ: Project Manager: The Scottsdale Chaparral WTP is a nominal 30 million gallon per day (MGD) capacity direct filtration treatment plant utilizing preliminary screening at the canal intake, raw water pump station, mechanical strainers, ferric sulfate addition for arsenic removal, membrane filtration, granular activated carbon (GAC) for total organic carbon (TOC) and microconstituents removal to control disinfection byproduct (DBP) precursors, and achieve desired treated water quality. The focus of this project was to investigate membrane fouling issues and use prechlorination prior to GAC to pre-form and remove DBPs with the GAC process, thereby reducing treated water DBP formation potential. The pre-chlorination, unregulated DBP formation, and GAC operations were evaluated in greater detail with a Water Research Foundation tailored collaboration project (WRF 4607).

Southeast Morris County Municipal Utilities Authority (SMCMUA) Comprehensive Water Quality Study, Cedar Knoll, NJ: Project Manager: SMCMUA operates the 2.5 MGD Clyde Potts WTP (CPWTP) that draws its source water from the Clyde Potts Reservoir (Reservoir). The CPWTP treatment processes include membrane ultrafiltration, and post-filter GAC contactors, followed by free chlorine disinfection. Due to worsening water quality in the Reservoir in recent years, SMCMUA has experienced more frequent and increasing algal blooms, T&O episodes in their raw and treated waters, and detection of cyanotoxins (specifically microcystins) in the raw water. Raw and treated water TOC has also increased

which resulted in exceedance of TTHM LRAA MCL levels at two different locations in the distribution system. This project performed a comprehensive review of both water quality and operations of the Reservoir and the CPWTP. Additional sampling and process data collection was included as part of this project. This effort identified both near-term and long-term improvements that need to be made within the Reservoir and the CPWTP in order to achieve desired treated water quality targets. Recommended improvements included diffused hypolimnetic aeration in the Reservoir and providing additional empty bed contact time (EBCT) to the GAC contactors at CPWTP. A second-phase effort was performed that developed design criteria for the recommended treatment improvements that were identified through the first phase effort.

Lafourche Parish Water District (District) Taste and Odor and Cyanotoxins Management, Lockport, LA: Project Manager: Managed a three-phase study for the District that initiated their annual taste & monitoring at their source waters and through the treatment processes at their two plants. In addition to measuring T&O compounds, a comprehensive water quality monitoring plan was developed to catalog surrogate water quality parameters that may serve as indicators of T&O and cyanotoxin events. Alert levels and action levels based on individual parameter thresholds were developed that would initiate response actions such as increased monitoring, or real time treatment process changes. The second phase of this study evaluated optimal taste & odor removal strategies including the use of different types of powdered activated carbon (PAC), dose, and application locations. Full-scale demonstration testing of the recommended PAC implementation strategy was performed in 2016. Cyanotoxins management, including treatability of all ten UCMR4 cyanotoxins with PAC, and development of dose-response curves was performed during the third phase of the study.

City of Gainesville Water Treatment Plant Master Plan, Gainesville, GA: Project Manager: The City of Gainesville draws source water for its 25 MGD Riverside WTP and 10 MGD Lakeside WTP from Lake Lanier, which is one of the largest lakes in the Southeast. In recent years water quality changes in Lake Lanier has caused increases in turbidity and TOC at both WTPs, along with intermittent taste and odor episodes. A comprehensive master planning effort was performed for both WTPs that developed target treated water qualities while considering both current and potential future regulations. Recommendations were developed for infrastructure improvements – including optimization of existing treatment processes, as well as implementation of new processes such as advanced clarification using plate settlers, ozone pre-oxidation, and biological filtration using granular activated carbon (GAC).

City of Loveland Algal Mitigation Study, Loveland, CO: Lead Project Engineer: During a historic T&O event caused by an algal bloom in the Green Ridge Glade Reservoir, Corona was engaged by the City of Loveland to conduct an algal mitigation evaluation. This evaluation entailed a comprehensive review of the City's source water and treatment facilities to identify a T&O management strategy. The assessment resulted in a series of recommended improvements in both the reservoir and the treatment plant. Suggested reservoir improvements included modifying their chemical application procedures, exercising different intake gates based on water quality, and enhancing monitoring, while in plant recommendations included modifying the chlorine dioxide feed strategy and identifying better performing PAC products. The City moved forward with many of these suggestions which to date have limited significant algal blooms and associated T&O events.

Relevant Publications and Presentations

- Ghosh, A., Medina, M., Stinson, G., "Evaluating Multiple Treatment Changes to Return to Stage 2 DBPR Compliance", California-Nevada AWWA Annual Fall Conference, October 24, 2024.
- Ghosh, A., Seidel, C., Talabi, B., Lyons, G., Fischer, N., Westerhoff, P. "Reduce Both DBPs and Dollars: Optimizing Chlorine-GAC Operations for Dual Benefits", AWWA Water Quality Technology Conference, Portland, OR, November 15, 2017.
- Fischer, N., Ghosh, A., Talabi, B., Seidel, C., Westerhoff, P. 2019. "Chlorine addition prior to granular activated carbon contactors improves trihalomethane control", AWWA Water Science, 2019: e1119.



Dr. Chad Seidel is President at Corona Environmental Consulting, LLC where he brings more than 26 years of consulting experience serving the drinking water community. Chad is a recognized drinking water quality and treatment expert providing small and large drinking water utilities with process engineering services, from optimization of existing conventional treatment processes to the application of advanced treatment processes for controlling emerging contaminants. Chad has an extensive background addressing inorganic contaminants and disinfection byproducts, particularly in distribution system environments. He has chaired the AWWA Inorganic Contaminants Research Committee and addressed disinfectant residuals and disinfection byproducts (DBPs) for his entire career. Chad has also been directly involved with several regulatory development and response efforts.

Education

Ph.D., Civil and Environmental Engineering, University of Colorado Boulder, 2006

M.S. Civil and Environmental Engineering, University of Colorado Boulder, 2000

B.S. Environmental Engineering, Montana Tech of the University of Montana, 1998: Valedictorian

Licenses

Registered Professional Engineer

AZ: PE Environmental 71732

CO: PE Environmental 37707

GA: PE PE046404

IL: PE 062.072702

MA: PE Environmental 55961

NJ: PE 24GE05510500

NY: PE 102725

PA: PE PE091441

TX: PE 139264

WA: PE Environmental 21037815

Representative Projects

Suisun Solano Water Authority (SSWA) DBP Mitigation Study Phase 1 and Phase 2, Vacaville, CA: Principal-in-Charge: SSWA operates the 10 MGD Cement Hill WTP, which uses a conventional treatment process to treat surface water from the Putah South Canal. The WTP pre-chlorinates the water for removal of iron and manganese, and for algal control. However, this results in formation of high total trihalomethanes (TTHMs) through the up-flow clarifiers, in the treated water storage tanks, and in the distribution system. In 2023, three of the four Stage 2 DBPR compliance locations of the water utility exceeded the TTHM Locational Running Annual Average (LRAA) MCL of 80 µg/L. This triggered a comprehensive mitigation study to determine the causes of, and to identify strategies to mitigate DBP formation. The first objective of the study was to perform operational optimization with the WTP and the distribution system such that TTHM formation can be reduced. Water quality and DBP profiling performed through the WTP indicated that pre-chlorination with diluted sodium hypochlorite was one of the primary contributors to the DBP formation. However, pre-chlorination could not be discontinued immediately, as the three up-flow solids contact clarifiers within the WTP grow significant algal biomass and biofilms along the side walls in the absence of a pre-oxidant. Ultrasonication has been successfully used for over a decade as an algal mitigation technology in surface water bodies such as lakes and reservoirs. They disrupt the buoyancy of the algal cells, thereby sinking them to the bottom of the water column, where they cannot survive in the absence of sunlight. Ultrasonication devices were pilot tested and successfully deployed to control algae, reduce pre-chlorination and subsequent DBP formation, thus allowing SSWA to return to compliance within two quarters of sampling.

North Water Treatment Plant Technical Advisor, Town of Gilbert, AZ: Dr. Seidel serves as Principal-in-Charge for this project as Gilbert looks to replace an existing treatment plant with a new 60 MGD treatment plant on the same site. Corona is in the Technical Advisor role and leads the development of the treatment process train. The accelerated project requires working with other firms who lead the plant design and construction management.

Water Quality Master Plan, Town of Gilbert, AZ: Dr. Seidel served as the Principal-in-Charge for this project that developed a comprehensive water quality master plan (WQMP) for the Town of Gilbert which is one of the fastest growing communities in the USA. The WQMP included performance review of water sources and treatment facilities' processes, distribution system infrastructure and water quality assessment, current and future regulatory audit, and development and prioritization of alternatives for capital improvements.

State of California Drinking Water State-Wide Needs Assessment, CA: The California State Water Board engaged the University of California-Los Angeles (UCLA), Corona Environmental Consulting, LLC, and others to conduct the first State-Wide Needs Assessment. Dr. Seidel acted as Co-Principal Investigator and directed the development of cost methodologies for long-term solutions for struggling public water systems, state small water systems, and domestic

wells. Water systems issues have been identified, along with potential solutions and costs. Some examples of solutions evaluated to solve water supplier challenges include: physical consolidation; managerial consolidation, blending water sources, drilling new wells; treatment of groundwater or surface water to address contaminants that exceed water quality standards including nitrate, arsenic, uranium, 1,2,3-trichloropropane, and others; providing point-of-use or point-of-entry treatment to customers in an affected water system with less than 200 connections to address contaminants that exceed water quality standards; and installation of other needed infrastructure such as storage tanks, back-up generators, booster pumps and/or supervisory control and data acquisition (SCADA) systems.

Louisville Marshall Fire Response, City of Louisville, CO: On December 30, 2021, the most destructive fire in Colorado history destroyed over 1,000 buildings and displaced over 40,000 people in Boulder County. Due to extreme winds, the fire moved rapidly through the City of Louisville, the Town of Superior, and unincorporated Boulder County. Both Louisville and Superior experienced significant infrastructure damage, including power loss and water pressure reductions. Most destroyed structures were losing water through service lines, with estimates ranging from 50% to 90% of produced water being lost through destroyed structures. Recent post-wildfire studies have shown that drinking water is often contaminated by organic compounds that leach from burnt plastic plumbing and ash that can enter service lines following a wildfire. For example, benzene, a carcinogen, and other volatile organic compounds (VOCs) have been commonly detected in residential drinking water in fire-affected areas. Dr. Seidel served as Corona's Principal-in-Charge for this project that developed sampling and flushing plans for the distribution system, standing homes, and burned homes to ensure safe drinking water for the residents. Collaborating with State health officials and national experts, information from recent post-wildfire studies was incorporated into these sampling plans. The objective was to return water service as quickly and safely as possible to families in standing homes, as well as determine what contaminants were present in the fire-impacted drinking water. Corona mobilized within days of the fire occurring to carry out the sampling and flushing plans and is still clearing new construction in areas that are being rebuilt.

Superior Marshall Fire Response, Town of Superior, CO: The Marshall Fire deposited significant amounts of fire-related debris in and around the Town of Superior's terminal drinking water reservoir. As a result, a smoky taste and odor was imparted on Superior's drinking water supply. In response to customer complaints, Dr. Seidel served as Corona's Principal-in-Charge in performing bench-scale testing to evaluate taste and odor compound removal using chlorine dioxide oxidation, powdered activated carbon adsorption, and granular activated carbon adsorption. Treatments were primarily evaluated using sensory analysis because specific organic compounds causing smoky taste and odor were largely unknown, despite some investigative analyses in collaboration with the Center for Environmental Mass Spectrometry at the University of Colorado Boulder. Bench-scale work led to the selection of a full-scale granular activated carbon system with rapid design, construction, and implementation. Collaboration between the Town of Superior, Evoqua Water Technologies, LLC, Corona, and Dewberry consulting engineers was key to making this emergency project successful. Following construction Corona sampled the full-scale granular activated carbon adsorbers for taste and odor breakthrough to help Superior decide when to initiate the first granular activated carbon replacement. The sampling to determine breakthrough in the granular activated carbon adsorbers is still ongoing.

Publications and Presentations

1. Samson, C. C., Seidel, C. J., Summers, R. S. and Bartrand, T. (2017), Assessment of HAA9 Occurrence and THM, HAA Speciation in the United States. *Journal - American Water Works Association*, 109: E288–E301. doi:10.5942/jawwa.2017.109.0083
2. Seidel, C. J., Samson, C. C., Bartrand, T., Ergul, A. and Summers, R. S. (2017), Disinfection Byproduct Occurrence at Large Water Systems After Stage 2 DBPR. *Journal - American Water Works Association*, 109: 17–30. doi:10.5942/jawwa.2017.109.0082
3. Alfredo, K., Seidel, C., Roberson, J., Reviewing the occurrence data used in the revised Arsenic Rule. *Journal - American Water Works Association*, 106:3, March, 2014.

Available upon request. Dr. Seidel has authored or co-authored 28 peer reviewed journal manuscripts and delivered over 100 national and regional presentations within the water community.



Craig is the Director of Water Quality and Treatment and Principal at Corona Environmental Consulting, LLC, (Corona) and has more than 19 years of experience as a consulting engineer. Over the last several years, Craig has been active locally serving as project manager for both the Town of Gilbert's Water Quality Master Plan and Technical Advisor for the North Water Treatment Plant Reconstruction and Corona's efforts underway in Glendale. Additionally, Craig has focused much of his career on the management of disinfection byproducts (DBPs). Craig has led technology selections, bench- and pilot-scale evaluations, cost estimating and process design efforts for inorganic contaminants including arsenic, nitrate, fluoride, iron, manganese, hexavalent chromium, boron, and uranium.

Education

M.S. Civil Engineering,
University of Colorado at
Boulder, Boulder, CO, August
2005

B.S. Environmental Science,
State University of New York
at Plattsburgh, Plattsburgh,
NY, December 1999

Licenses

*Registered Professional
Engineer – Colorado PE 43422*

Representative Projects

NWTP Reconstruction, Town of Gilbert, AZ – Project Manager:

The Town of Gilbert engaged Corona as the technical advisor for the design of a new water treatment facility to replace their existing North Water Treatment Plant. The primary drivers for the new plant include existing infrastructure deficiencies, high disinfection byproduct (DBP) formation from the surface water sources, along with the need for flexible processes to treat highly variable source water. Corona's primary role is advocating for the Town ensuring the treatment design will meet the Town's future needs, and that the Town will remain in compliance during the design and construction of the new facility. To this end, Corona led a 13-month pilot testing effort that simulated the operations of the future plant to confirm and validate design decisions, an effort that identified millions of dollars in potential cost savings. Craig is acting as the Project Manager for Corona overseeing all aspects of the project and is expected to be engaged through start-up and

optimization of the new facility.

Town of Gilbert Wells Program: Town of Gilbert, AZ – Project Manager:

Currently the Town of Gilbert is undergoing an aggressive program to add resilience to their water supply portfolio in light of potential Colorado River water shortages. The program entails developing nearly 20 mgd of capacity from up to 7 new groundwater sources in the southern portion of Gilbert's service area. Corona is part of Kennedy Jenk's PM/CM team that is supporting the Town. Specifically, Corona is providing an independent review of the water quality for each new groundwater source, supporting treatment evaluations for wells where regulated contaminants are detected, and developing MCESD required corrosivity assessments to facilitate permitting requirements which are critical to maintain the project's schedule. Craig is currently acting as Project Manager for this effort.

Development of a Water Quality Master Plan, Town of Gilbert, Gilbert, AZ – Project Manager:

One of the Town of Gilbert's strategic water infrastructure initiatives is to develop "a comprehensive and holistic understanding of water quality options available to the water utility that allows for the most efficient and effective use of funds, staff, and technology." To this end, the Town engaged Corona Environmental Consulting (Corona) in January 2018 to develop a comprehensive water quality master plan (WQMP), to complement the Town's integrated water resources master plan (IWRMP). The WQMP addressed current water quality and supply needs while being flexible enough to allow for unforeseen changes in source water quality or shifts in the regulatory landscape. The comprehensive WQMP evaluated the Town's water quality from source through treatment and ultimately in the distribution system. Craig acted as the Project Manager overseeing all aspects of the project.

Hazen and Sawyer, Town of Gilbert Ozone Replacement Study, Gilbert, AZ– Project Manager:

Corona supported Hazen and Sawyer (Hazen) in evaluating the ozone system replacement strategy for the Town of Gilbert's North Water Treatment Plant. For this effort Corona assisted Hazen develop the bench-scale test plan with the benefit of the knowledge gained through the development of the Water Quality Master Plan. Corona also led the

Rapid Small-Scale Column Testing (RSSCT) for granular activated carbon (GAC). This part of the study evaluated the impacts of source water (e.g. Salt and Verde) and preoxidants (ozone and free chlorine) on the efficacy of the GAC's ability to remove total trihalomethane (TTHM) precursors, namely total organic carbon (TOC). The results of this portion of the study confirmed that both preoxidants can provide a significant benefit with respect to TOC removal and TTHM formation. Craig acted as Corona's Project Manager.

Algal Mitigation Evaluation and On Call Services, City of Loveland Water and Power, CO – Project Manager: During a historic taste and odor event in 2016 caused by an algal bloom in the Green Ridge Glade Reservoir, Corona was engaged by the City of Loveland to conduct an algal mitigation evaluation. This evaluation entailed a comprehensive review of the City's source water and treatment facilities to identify a taste and odor management strategy. The assessment resulted in a series of recommended improvements in both the reservoir and the treatment plant. In addition to algal blooms and taste & odor, the Reservoir water also routinely has high manganese, and the treatment plant assessment included considerations of manganese treatment. Suggested reservoir improvements included modifying their chemical application procedures, exercising different intake gates based on water quality, and enhanced monitoring. In plant recommendations included modifying the chlorine dioxide feed strategy and identifying better performing powder activated carbon products. The City moved forward with many of these suggestions which to date have limited significant algal blooms and associated taste and odor events.

Oasis Ion Exchange Facility Optimization, City of Glendale, AZ – Project Manager: As a subcontractor to J.R. Filanc Construction Company, Corona was engaged to evaluate and optimize the performance of the City of Glendale's Oasis Ion Exchange (IX) Treatment Facility. The IX facility is rated to treat up to 10 MGD of nitrate and arsenic laden groundwater from five different wells. Glendale has concerns regarding the facility's performance and reliability, especially in light of potential Colorado River water supply shortages and increased utilization of the IX facility. As part of the analysis, historical operational and water quality data were assessed to evaluate alternatives to improve and optimize the performance of the IX treatment facility like addressing alternate source blending scenarios and improving standard operations and maintenance procedures. Additionally, the treated and distribution system water quality were evaluated with respect to corrosion potential in-light of the Lead and Copper Rule Revisions (LCRR) and Lead and Copper Rule Improvements (LCRI). Ultimately, this project will culminate in a series of operational and capital improvements that will be evaluated at full-scale in 2025. Craig continues to lead all aspects of this project as Corona's Project Manager.

Lead and Copper Rule Revisions: Compliance Support, Town of Gilbert, AZ – Project Manager:

The Town of Gilbert engaged Corona in partnership with HDR to develop a lead service line inventory and fulfill communications requirements as required under the Lead and Copper Rule Revisions. Corona led the development of the inventory, including collating the available data, working with Town staff to develop the online inventory, and developing methods for clearly identifying and tracking material information in the future. A memorandum summarizing the inventory development, records review and proposed inventory validation methodology was prepared for approval by ADEQ, the primacy agency enforcing the LCRR. This project ultimately provided an opportunity to update the Town's assets in GIS and re-engage the public and strengthen public trust in the Town's water treatment facilities.



Juliette Kaplan is a Water Process Engineer with experience in drinking water quality including process selection and evaluation, bench- and pilot-scale studies, and water quality modeling. She has evaluated treatment processes at bench-, pilot-, and full-scale for optimization of existing processes, as well as design of new systems. Other areas of experience include corrosion studies at desktop, bench, and pilot, as well as master planning assessments.

Relevant Experience

NWTP Long Term Water Quality Strategies, Town of Gilbert, AZ – Project Engineer:

The Town of Gilbert engaged Corona as the technical advisor for the design of a new water treatment facility to replace their existing North Water Treatment Plant (NWTP). The primary drivers for the new plant include existing infrastructure deficiencies, high disinfection byproduct (DBP) formation from their surface water sources, along with the need for flexible processes to treat highly variable source waters. Juliette helped plan and execute a 15-month pilot study where data from the pilot was used to optimize the selected treatment processes, calibrate the performance model, and confirm the treatment changes would not result in the need for additional corrosion studies with the local regulators. As part of the data analysis for the pilot, Juliette compiled approximately 10 million data points that were collected during these 15 months from field sampling, analytical laboratory results, and online analyzers into a central database and performed quality control checks on these data. Juliette then performed a novel modeling approach for granular activated carbon (GAC) use that predicted the change out frequency of GAC contactors being beneficially operated in a blending scenario to get the most use possible out of them while achieving finished water total organic carbon (TOC) goals. Juliette also evaluated the effectiveness of current and potential future surface aerators in the existing clearwells at the NWTP for reduction of total trihalomethane (TTHM).

San Koty Water Treatment Plant Water Quality and Chemical Use Evaluation, San Koty, IL – Project Engineer: Corona was contracted by Illinois American Water (ILAW) to evaluate water quality and treatment processes at ILAW’s San Koty water treatment plant (San Koty). San Koty currently utilizes gaseous chlorine; however, San Koty will be switching from gaseous chlorine to bulk delivery of sodium hypochlorite. In a previous study, Corona determined that due to a high chlorine demand in raw water, San Koty will likely exceed the sodium hypochlorite max use limit (MUL) established in NSF 60. Juliette developed a sampling plan for the six raw water wells and the pressure filters at San Koty and executed the sampling during a site visit. Using this data, Juliette provided a sampling plan for San Koty to gain additional information on the chlorine demand of the wells. Using this information, Juliette provided recommendations for full-scale implementation and further testing of the potential full-sale options. These recommendations have since been implemented at full scale.

Marshall Fire Water System Response, City of Louisville, CO – Project Engineer: Corona assisted the City of Louisville with water system restoration in the aftermath of the Marshall Fire that occurred at the end of 2021. This included developing guidance for returning water service to damaged areas, sampling for contaminants of concern, and recommending next steps based on results. Juliette helped develop sampling plans and implemented them in the field. Juliette also helped with compiling results for reporting to the city and the public.

EDUCATION

BS, Civil
Engineering,
Massachusetts
Institute of
Technology, 1974

LICENSES/ REGISTRATIONS

Professional
Engineer – CA

Mr. Arboleda is an experienced civil engineer and water resources specialist. He has a broad base of experience in consulting, project management, teaching, and research. His experience includes planning, analysis and design of water supply and distribution, stormwater management, and wastewater handling systems; recycled water and alternate water supplies; and environmental assessments. Mr. Arboleda has managed over 500 projects of different size and complexity, all related to water/wastewater infrastructure. He has experience leading multi-disciplinary groups and developing goals and policies related to resource management. He also has experience dealing with multiple oversight and regulatory agencies, and with public involvement issues.

RELEVANT PROJECT EXPERIENCE

Dam Safety Program for Hetch Hetchy Dams, SFPUC, San Francisco, CA

Developed a dam safety program for the O’Shaughnessy, Eleanor, Cherry, Early Intake, Priest, and Moccasin dams. Work included dam inspections, review of available records, development of annual schedule of inspections and inspection checklists, preparation of Surveillance and Monitoring, document control, and instrument inspection/calibration plans.

Hazard Classification and Inundation Study for Lake Mary Dam, Mammoth Community Water District, Mammoth Lakes, CA

Directed a hazard classification and inundation study for three dams that included: conducting a hydrologic analysis of the appropriate watersheds; developing a likely dam breach scenario and computing outflow hydrographs for “sunny day” failures and failures occurring during a PMP event; routing the outflow through downstream reservoirs and channels, which included evaluating one spillway and two outlets; and developing inundation maps for the resulting floods.

Dam Break Studies for Hetch Hetchy Reservoirs, SFPUC, San Francisco, CA

Conducted field assessments, developed unsteady flow models, and evaluated the potential inundation areas due to the failure of Hetch Hetchy system dams. Structures analyzed included O’Shaughnessy, Cherry, Eleanor, Priest, Moccasin, and Early Intake dams.

Dam Bypass Pipeline Capacity Evaluation and Retrofit Design, SFPUC, San Francisco, CA

Used physical model studies to assess the causes of limited pipe capacity on the 9-foot-diameter Moccasin Bypass Pipe, part of the Hetch Hetchy Water and Power system. Installation of recommended air vents doubled the pipe’s capacity.

Design of Pamo Dam Spillway, San Diego

Used a physical model study to design a 300-foot-high spillway with convergent chute and flip-bucket energy dissipater.

Design of River Diversion Structures for the Freeman Diversion Improvement project, Ventura County, CA

Participated in the design of a run-of-the-river dam, energy dissipater, and diversion canal with fish ladder.

Modifications to Anderson Dam Spillway, Santa Clara Valley Water District, CA

Used a physical model study to design modifications to the Anderson Dam spillway to accommodate higher discharges.

Modifications to Conn Dam, Napa, CA

Used a physical model study to design modifications to a flip-bucket-type spillway.

Hydraulic Design of Modifications to the Calaveras Dam Outlet, SFPUC, San Francisco CA

Assessed operating problems at the outlet tower and re-designed one of the adits to increase its capacity.

Other Dam/Spillway/Outlet Modification Studies

- Abiquiu Dam Outlet, Abiquiu, New Mexico
- Beaver Falls Outlet, Beaver, PA
- Briones Dam Spillway, Contra Costa County, CA
- Camanche Dam Outlet Structure, Calaveras County, CA
- Chabot Dam Spillway and Energy Dissipater, Alameda County, CA
- Crystal Springs Dam Outlet Structure, San Mateo County, CA
- Fort Miller Outlet, Fort Miller, NY
- Lake Hogan Outlet Structure, Calaveras County, CA
- Murray Lake, Lock and Dam No. 7, Little Rock, AR
- San Andreas Dam Outlet Structure, San Mateo County CA
- Swan Falls Outlet, Snake River, ID
- Twin Falls Outlet, Snoqualmie, WA

Hydrologic Study of the Alameda Creek Watershed, SFPUC, San Francisco, CA

Conducted a comprehensive hydrologic analysis of the Alameda Creek watershed and developed reservoir operation models for the SFPUC's Calaveras and San Antonio reservoirs.

Hydrologic Study of the Pilarcitos Creek Watershed, SFPUC, San Francisco, CA

Prepared a hydrologic analysis of the Pilarcitos Creek watershed and analyzed interactions with Stone Dam and San Andreas Reservoir.

Hydrologic/Hydraulic/Scour Analysis of Alameda Creek Crossings, SFPUC, San Francisco, CA

Analyzed three potential bridge sites and evaluated hydrology, hydraulics, and potential scour to develop recommendations on bridge location, span, width, deck elevation, pier configuration, and scour protection.

Right-of-Way Management Plan for Hetch Hetchy Water and Power, SFPUC, San Francisco, CA

Developed the ROW plan needed to obtain long term maintenance permits with state and federal agencies that regulate environmental resources. The Plan included ROW management activities and their constraints, vegetation and road/drainage facilities maintenance activities, monitoring and quality control practices, documentation procedures, reporting and work tracking, and a 5-year work plan for ROW maintenance.

EDUCATION

BS, Civil Engineering, University of California at Davis, 2003

Ms. Cano is a project manager and civil engineer with special expertise in hydrologic and hydraulic modeling and analysis, as well as in the design and operation of water/stormwater/wastewater infrastructure. She has managed several watershed assessments and sanitary surveys, developed plans and specifications for major water projects, and provided modeling support for inundation mapping, reservoir operation, and emergency action planning

RELEVANT PROJECT EXPERIENCE

Preparation of Emergency Action Plans for Multiple Dams, San Francisco Public Utilities Commission, Water Supply and Treatment Division, San Francisco, CA

Project Manager for the preparation of EAPs for the City of San Francisco's Peninsula and East Bay reservoirs, including: San Andreas, Lower Crystal Springs, Pilarcitos, and San Antonio. EAPs were prepared in accordance with DSOD guidelines.

Preparation of Emergency Action Plans for Multiple Dams, San Francisco Public Utilities Commission, City Distribution Division, San Francisco, CA

Project Manager for the updating of EAPs for the City of San Francisco's in-city reservoirs, including: Summit, Sunset, Stanford Heights, Sutro, and University Mound reservoirs. EAPs were prepared in accordance with DSOD guidelines.

Watershed Sanitary Survey 2022 Update for City of Cloverdale, CA

Project Manager on the 2022 update to the City of Cloverdale Watershed Sanitary Survey. The update focused on approximately 384 square miles of the Russian River watershed between Ukiah and Cloverdale, including portions of southern Mendocino and northern Sonoma counties within the Anderson Valley.

Watershed Assessment and Inundation Study for US Forest Dams in Mono County, Mammoth Community Water District, Mammoth Lakes, CA

Project Manager for a hazard classification and inundation study for three dams that included: conducting a hydrologic analysis of the appropriate watersheds; developing a likely dam breach scenario and computing outflow hydrographs for "sunny day" failures and failures occurring during a PMP event; routing the outflow through downstream reservoirs and channels, which included evaluating one spillway and two outlets; and developing inundation maps for the resulting floods.

Sanitary Survey of Treasure Island Drinking Water System, San Francisco Public Utilities Commission (SFPUC), CA

Project Manager for a sanitary survey of the Treasure Island/Yerba Buena Island drinking water system to comply with permit requirements from the State of California. Developed operating procedures for cross-connection control based on similar procedures he had developed earlier for the City of San Francisco.

Engineering Services to Support the Recycled Water Program's Westside and Eastside Projects, SFPUC, San Francisco, CA

Developed a hydraulic model of Golden Gate Park's irrigation system, which

includes several pump stations, reservoirs, pressure-reducing stations, and miles of pipe serving sprinklers and lake fills throughout the park. Led project team in a field data acquisition effort that provided information for model calibration. Managed the preparation of paving and grading drawings for the recycled water pump station at the Oceanside Pollution Control Plant that will supply irrigation water for Golden Gate Park, Presidio, and Lincoln Park.

Town of Sunol Water System, SFPUC, San Francisco, CA

Developed a hydraulic model of the transmission and distribution piping serving the Town of Sunol. The model included storage tanks, booster pumps, and a number of hydrants, blowoffs, and other valves. Used the model to simulate various improvement alternatives. Recommendations were implemented and constructed and are now in operation.

Evaluation of Folsom Pump Station Raw Water Delivery System, US Bureau of Reclamation, Mid-Pacific Region, CA

Developed a hydraulic model of the Folsom Dam raw water delivery system, which provides water from Folsom Reservoir to the City of Folsom, Folsom Prison, the City of Roseville and the San Juan Water District. The model included several pipelines ranging in diameter from 42 to 84 inches; eight pumps, three surge protection towers and 80 valves of various types and sizes, both manual- and motor-operated and some with throttling capabilities.

Combined Sewer System Stormwater Design Guidelines, SFPUC, San Francisco, CA

The Green Building Ordinance requires new and redevelopment projects to meet Leadership in Energy & Environmental Design (LEED) standards. Ms. Cano conducted hydraulic model simulations to evaluate whether the LEED Sustainable Sites 6.1 Stormwater Quantity Credit (LEED 6.1) met the needs and goals of the combined sewer system. Her work supported recommendations regarding whether the credit should be adopted as the stormwater performance measure for new and redevelopment projects in the area served by the combined sewer system.

Wastewater Enterprise Sewer System Improvement Program – Level of Service Model Simulations, SFPUC, San Francisco, CA

Ms. Cano conducted the hydrologic and hydraulic model simulations that provided estimates of average annual volumes and frequencies of combined sewer discharge and flooding performance improvements associated with Level of Service (LOS) options II and III. Each of the LOS options included a combination of planning level projects compared to existing conditions. The sewer system modeled included the combined sewer system and the separate sewer system.

Madera Canal Capacity Restoration Feasibility Study, Fresno, CA

Participated in the preparation of drawings for several projects: \$12M retrofit of Madera Lake Dam; \$7M construction of a new diversion on the Fresno River to pump river water into the Madera Canal; and \$4.5M design of irrigation system upgrades that include upgrading several detention basins and constructing a new one.

Hydrologic, Hydraulic, and Scour Analysis of Alameda Creek Crossings in the Sunol Wilderness Area, San Francisco Public Utilities Commission (SFPUC), San Francisco, CA

Ms. Cano developed hydrologic and hydraulic models of a segment of Alameda Creek between the Diversion Dam and the Calaveras Road Bridge to analyze new crossing options. When the option at Geary Road was selected, she simulated 100-year flow conditions based on releases from the new Calaveras Dam spillway, currently under construction. The hydraulic model simulations included analysis of scour. Embankment protection and bottom of bridge deck elevations were selected based on her modeling work. She also simulated creek bypass options which were adopted during construction. Bridge construction has now been completed.

EDUCATION

BS, Environmental Resources Engineering, Humboldt State University, 2018

Mr. Hassett is an environmental engineer with experience in the analysis, design, and assessment of water treatment, distribution, and storage facilities. He has an Online Geospatial Certificate and has worked in numerical modeling, with proficiency in models/platforms such as ArcGIS, QGIS, EPANET, SWMM, HEC-HMS and HEC-SSP.

RECENT RELEVANT PROJECT EXPERIENCE

Engineering Services During Construction for Irrigation System Improvements and Retrofit Modifications, San Francisco Public Utilities Commission (SFPUC), San Francisco, CA

Staff engineer coordinating construction submittal reviews and reviews of requests for information and requests for substitutions for a 12-month construction project at Golden Gate Park and Lincoln Park in San Francisco.

Engineering Services During Construction for Recycled Water Treatment Facility, SFPUC, San Francisco, CA

Staff engineer coordinating construction submittal reviews and reviews of requests for information and requests for substitutions for the last part of a 2-year construction project at San Francisco's Oceanside Water Pollution Control Plant.

Watershed Sanitary Survey 2022 Update, City of Cloverdale, CA

Staff engineer participating in the analysis of approximately 384 square miles of the Russian River watershed between Ukiah and Cloverdale to assess surface water supply sources and their vulnerability to contamination.

Development of Emergency Action Plans for Four Alameda County Water District Dams, Fremont, CA

Staff engineer participating in the preparation of Emergency Action Plans (EAPs) for four dams: Quarry Pits, Patterson, Shinn Pond, and Rubber Dam 3. The EAPs comply with state requirements and follow Division of Safety of Dams guidelines.

Cross-Connection Control Testing at Golden Gate Park, San Francisco Public Utilities Commission (SFPUC), San Francisco, CA

Staff engineer participating in the field testing at Golden Gate Park to ensure the potable water system is not interconnected with the non-potable irrigation system.

State Water Resources Control Board, Division of Drinking Water, Santa Rosa, CA

Water Resources Control Engineer responsible for implementing state drinking water regulations for public water systems in Lake, Mendocino, and Napa counties. Completed physical inspections of drinking water treatment, distribution, and storage facilities for sanitary and operation compliance. Drafted and issued permits and permit amendments as necessary. Issued enforcement actions for water quality violations.

EDUCATION

MS, Geology,
Stanford
University

LICENSES/ REGISTRATIONS

Professional
Geologist – CA

Certified
Hydrogeologist,
CA

Ms. Knott has over 25 years of experience in the planning, design, and operation of water systems and structures. She is a professional geologist and certified hydrogeologist in California, with significant storm drain system experience. She has managed a wide range of engineering and environmental projects including regulatory assessment/ compliance/ permitting work, water delivery planning, right-of-way management, source and discharge water assessment, water supply and treatment, water use and conservation analysis.

RELEVANT PROJECT EXPERIENCE

As-Needed Technical Services for the Water Enterprise, San Francisco Public Utilities Commission (SFPUC), CA

Ms. Knott was both a QA/QC Officer and Project Manager for \$1.6M three-year and \$2.25M and \$4M five-year contracts to provide operations and engineering support to the Water Quality Division and others. Tasks included the writing and upkeep of San Francisco's Cross-Connection Control Manual.

Engineering Services to Support the Recycled Water Program's Westside and Eastside Projects, SFPUC, San Francisco, CA

Project Manager on 10-year, \$9.9M contract to provide specialized engineering services to support the Recycled Water Program Westside and Eastside Projects, including needs assessment, alternatives analysis, technical review/support, regulatory permitting services, and operations support services, as well as related engineering support services.

As-Needed Technical Services for the SFPUC Wastewater Enterprise, San Francisco, CA

Ms. Knott was both a QA/QC Officer and Project Manager for \$1M three-year and \$3M and \$4M five-year on-call contracts to provide services related to operation and management of storm drain/sewer collection, storage, and treatment systems, as well as maintenance, asset management, and regulatory compliance work.

Development of Rainwater Harvesting Manual and Graywater Design Manual, SFPUC, San Francisco, CA

Developed a technical guide to rainwater harvesting for homeowners and businesses in San Francisco. Subsequently prepared a manual that gives an overview of the design, construction, permitting, and operation of graywater systems for outdoor irrigation, including laundry-to-landscape, branched-drain, and pumped systems.

General Environmental Services, Port of Oakland, Oakland, CA

Ms. Knott managed an environmental services contract with the Port of Oakland and served as project manager on many of the projects. Projects included UST removals, site contamination assessment, management of a bioremediation site for petroleum-contaminated soils, agency liaison, storm water compliance and sampling, and groundwater monitoring at various locations.

Right-of-Way Management Plan for Hetch Hetchy Water and Power, SFPUC, San Francisco, CA

Provided quality control and quality assurance services for the development of the ROW plan needed to obtain long term maintenance permits with state and federal agencies that regulate environmental resources. The Plan included ROW management activities and their constraints, vegetation and road/drainage facilities maintenance activities, monitoring and quality control practices, documentation procedures, reporting and work tracking.

Bay Division Pipeline Crossovers Facility Environmental Analysis, SFPUC, Bay Area, CA

Project Manager for environmental analysis work performed for the Bureau of Environmental Management. She directed the work of several environmental professionals who conducted background studies, assisted the SFPUC with CEQA public involvement, prepared a Negative Declaration and Initial Study for the proposed facilities, and developed Mitigation, Monitoring, and Reporting plans. Ms. Knott was responsible for authoring several sections of the Initial Study, including utilities and service systems, hydrology and water quality, geology and soils, and hazards and hazardous materials.

Modifications to Town of Sunol Water System, SFPUC, San Francisco, CA

Provided quality assurance and quality control for the preparation of needs assessment and alternatives analysis reports. Participated in the preparation of a conceptual engineering report.

Programmatic Environmental Impact Report (PEIR) for the Water System Improvement Program (WISP), SFPUC, San Francisco, CA

WRE participated in the preparation of the PEIR for the WSIP. Ms. Knott managed WRE's participation and prepared sections of the document dealing with operation and impacts of facilities in the Alameda Creek watershed. She also reviewed other sections of the eight-volume environmental compliance document.

Franks Tract Project: Salinity Intrusion Barrier in Sacramento/San Joaquin River Delta

Provided QA/QC for deliverables in the feasibility-level design of 35-foot-high, 600-foot-wide gates on Threemile Slough, for the US Bureau of Reclamation. Deliverables included design reports and plans for the gates and ancillary facilities.

Asbestos Services, Corps of Engineers, Sacramento District, Sacramento, CA

Ms. Knott managed numerous projects providing asbestos services at military facilities. Projects involved developing work, sampling, and operation and maintenance plans; preparing asbestos abatement specifications; inspecting and sampling various structures to identify asbestos-containing building materials; and completing Navy-specified reporting forms. The military facilities included FISC Point Loma, NAS Miramar, NADEP North Island, Naval Facility Point Sur, NCEL Port Hueneme, and MCLB Barstow. Ms. Knott also directed asbestos and lead-based paint projects for various San Francisco Bay Area developments.

ATTACHMENT B: DETAILED PROJECT ESTIMATE

Table 1 - Budget Estimate for Proposed Scope of Work
Consulting Engineering Services for Water System Evaluation, Preliminary Design Recommendations, and
OPC Figures at the Former SDC Campus
Valley of the Moon Water District
(EKI C40294.00)

| TASKS | EKI Labor | | | | | | Subconsultant Labor | | | | | | Expenses | | TOTAL |
|---|-------------|-------------|--------------------|-----------------------|--------------------|------------------|---------------------|-----------------|-----------------------------|--------------------|-------------------------------|-------------------------------|------------------------|----------------|------------------|
| | G5 Engineer | G2 Engineer | Tyler Colyer, P.E. | Jonathan Sutter, P.E. | Dave Umezaki, P.E. | TOTAL EKI Labor | Corona | WRE | TJCAA - Electrical/Controls | TJCAA - Structural | MARKUP ON SUBCONSULTANT COSTS | TOTAL SUBCONSULTANT COSTS (2) | OTHER DIRECT COSTS (2) | TOTAL EXPENSES | TOTAL |
| | | | | | | | | | | | | | | | |
| Task 1 - Document Review, Field Investigations, and Condition Assessment | | | | | | | | | | | | | | | |
| Task 1.1 - Document Review | | | | | | | | | | | | | | | |
| Develop request for information | 4 | | 2 | 1 | | \$1,648 | | | | | \$0 | \$0 | | \$0 | \$1,648 |
| Review existing documentation, operational and water quality data | 8 | 8 | 8 | 2 | | \$6,420 | | \$5,296 | \$5,000 | \$5,000 | \$765 | \$16,061 | | \$0 | \$22,481 |
| Interview District and SDC staff | 4 | | | 2 | | \$1,332 | | \$2,736 | | | \$137 | \$2,873 | | \$0 | \$4,205 |
| Task 1.2 - Condition Assessments | | | | | | | | | | | | | | | |
| Develop/Refine List of Condition Assessments | 4 | 2 | | 2 | 1 | \$2,122 | | | | | \$0 | \$0 | | \$0 | \$2,122 |
| Perform Inspections of Infrastructure and Facilities (2 days) | | 20 | 20 | | | \$11,060 | | \$3,680 | \$5,000 | \$5,000 | \$684 | \$14,364 | \$400 | \$440 | \$25,864 |
| Task 1.3 - Condition Assessment and Recommendations Memorandum | | | | | | | | | | | | | | | |
| Prepare condition assessment memorandum and list of capital improvements | 40 | 20 | 8 | 8 | 4 | \$17,808 | | \$5,600 | | \$19,600 | \$1,260 | \$26,460 | | \$0 | \$44,268 |
| Subtotal | 60 | 50 | 38 | 15 | 5 | \$40,390 | \$0 | \$17,312 | \$10,000 | \$29,600 | \$2,846 | \$59,758 | \$400 | \$440 | \$100,588 |
| Task 2 - Design and Document Preparation | | | | | | | | | | | | | | | |
| Prepare draft and final 10% design documents and OPCs | 168 | 112 | 28 | 28 | 14 | \$76,552 | | \$13,632 | \$18,400 | \$27,800 | \$2,992 | \$62,824 | | \$0 | \$139,376 |
| Subtotal | 168 | 112 | 28 | 28 | 14 | \$76,552 | \$0 | \$13,632 | \$18,400 | \$27,800 | \$2,992 | \$62,824 | \$0 | \$0 | \$139,376 |
| Optional Task 3 - Additional Project Identification | | | | | | | | | | | | | | | |
| Allowance for 10% design and cost estimates for each additional project | | | | | | | | | | | | | | | |
| Raw Water Diversion or transmission | 10 | 6 | | 2 | | \$3,696 | | | | | \$0 | \$0 | | \$0 | \$3,696 |
| Treatment system addition or retrofit | 14 | 6 | 4 | 1 | | \$5,326 | | | | | \$0 | \$0 | | \$0 | \$5,326 |
| Computer system or telemetry upgrade or retrofit | | 2 | 2 | | | \$1,106 | | | \$4,000 | | \$200 | \$4,200 | | \$0 | \$5,306 |
| Pipeline replacement | 12 | 8 | | 2 | | \$4,484 | | | | | \$0 | \$0 | | \$0 | \$4,484 |
| Storage tank retrofit | | 2 | 2 | | | \$1,106 | | | | \$3,000 | \$150 | \$3,150 | | \$0 | \$4,256 |
| Dam and Draw-off tower retrofit or replacement | | 2 | 2 | | | \$1,106 | | \$8,592 | | | \$430 | \$9,022 | | \$0 | \$10,128 |
| Subtotal (Assuming all additional projects) | 36 | 26 | 10 | 5 | 0 | \$16,824 | \$0 | \$8,592 | \$4,000 | \$3,000 | \$780 | \$16,372 | \$0 | \$0 | \$33,196 |
| Optional Task 4 - Optional Tasks | | | | | | | | | | | | | | | |
| Optional Task 4.1 - Develop Treatment Strategy | | | | | | | | | | | | | | | |
| Review existing documentation, operational and water quality data (includes site visit) | | | 8 | | | \$2,600 | \$30,620 | | | | \$1,531 | \$32,151 | | \$0 | \$34,751 |
| Develop Treated Water Quality Goals through Water Quality Evaluation | | 2 | 2 | 2 | | \$1,774 | \$13,460 | | | | \$673 | \$14,133 | | \$0 | \$15,907 |
| Evaluate Treatment Alternatives for the SDC WTP | | 4 | 4 | 2 | | \$2,880 | \$27,520 | | | | \$1,376 | \$28,896 | | \$0 | \$31,776 |
| Develop Treatability Assessment Report with Treatment Recommendations | | 4 | 4 | 2 | | \$2,880 | \$22,140 | | | | \$1,107 | \$23,247 | | \$0 | \$26,127 |
| Optional Task 4.2 - Condition Assessment and Retrofit Design for Treatment Facility | | | | | | | | | | | | | | | |
| Facility Condition Assessment | | 10 | 10 | | | \$5,530 | | | \$32,500 | \$34,800 | \$3,365 | \$70,665 | | \$0 | \$76,195 |
| Update Memorandum | | 20 | 10 | 4 | 4 | 2 | \$8,904 | | | | \$0 | \$0 | | \$0 | \$8,904 |
| Prepare 10% design and OPC for Retrofit | | 50 | 24 | 12 | 8 | 4 | \$21,680 | | | | \$0 | \$0 | | \$0 | \$21,680 |
| Subtask 4.2.1 - Incorporate Existing Treatment Process within Recommended Process | | | | | | \$0 | \$10,040 | | | | \$502 | \$10,542 | | \$0 | \$10,542 |
| Subtotal | 70 | 54 | 44 | 18 | 6 | \$46,248 | \$103,780 | \$0 | \$32,500 | \$34,800 | \$8,554 | \$179,634 | \$0 | \$0 | \$225,882 |
| Task 5 - Schedule and Project Tracking | | | | | | | | | | | | | | | |
| Kickoff Meeting | | 4 | 2 | 1 | | \$1,896 | | | | | \$0 | \$0 | | \$0 | \$1,896 |
| Prepare and maintain project schedule | | 8 | | 4 | | \$2,664 | | | | | \$0 | \$0 | | \$0 | \$2,664 |
| Meet with District (assume 5 meetings) | | 15 | 10 | 5 | | \$8,340 | | | | | \$0 | \$0 | | \$0 | \$8,340 |
| Attend and present at District Board Meeting | | 6 | | 4 | | \$2,332 | | | | | \$0 | \$0 | | \$0 | \$2,332 |
| General Project Management | | 24 | | 24 | 4 | \$14,824 | | | | | \$0 | \$0 | | \$0 | \$14,824 |
| Subtotal | 14 | 43 | 12 | 38 | 4 | \$30,056 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$30,056 |
| TOTAL WITHOUT OPTIONAL TASKS: | 242 | 205 | 78 | 81 | 23 | \$146,998 | \$0 | \$30,944 | \$28,400 | \$57,400 | \$5,837 | \$122,581 | \$400 | \$440 | \$270,019 |

Notes:

- (1) "Other Direct Costs" includes direct expenses, as listed below, incurred in connection with the work and will be reimbursed at cost plus five percent (5%) for items such as:
- Maps, photographs, reproductions, printing, equipment rental, and special supplies related to the work.
 - Consultants, soils engineers, surveyors, drillers, laboratories, and contractors.
 - Rented vehicles, local public transportation and taxis, travel and subsistence.
 - Special fees, insurance, permits, and licenses applicable to the work.
 - Outside computer processing, computation, and proprietary programs purchased for the work.