STOCKTON EAST WATER DISTRICT
PROVIDING SERVICE SINCE 1948
www.sewd.net

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SPECIAL MEETING NOTICE

The Municipal Operations Committee
of the Stockton East Water District
Board of Directors will meet at
12:30 p.m., Wednesday, April 22, 2026
at the District Office, 6767 East Main Street, Stockton, CA

Assistance for the Disabled: If you are disabled in any way and need accommodation to participate in the meeting, please contact Administrative Staff at (209) 948-0333 for assistance so the necessary arrangements can be made.

Agendas and minutes are located on our website at www.sewd.net.

AGENDA

		Page No.
1.	Roll Call - Chairperson McGurk, Director Panizza, Director Nakaue, Director Atkins (Alternate)	
2.	Public Comment	
3.	Stockton East Water District – Staff Report – Consider Approval of Professional Services Agreement for PLC-SCADA Integration Services for the Bellota Weir Modifications Project	01
4.	Stockton East Water District – Staff Report – Consider Approving a Professional Services Agreement – WTP & WS FY 26/27 SCADA Support Services with Control Point Engineering	05
5.	Stockton East Water District – Staff Report – Consider Approving a Professional Services Agreement for Watershed Sanitary Surveys for Calaveras and Stanislaus Rivers	09
6.	Stockton East Water District – Staff Report – Consider approval of HVAC system modifications and redundant cooling system at High Service Pump Station and Proposed Budget Amendment	63
7.	Adjournment	

Certification of Posting

I hereby certify that on April 17, 2026, I posted a copy of the foregoing agenda in the outside display case at the District Office, 6767 East Main Street, Stockton, California, and said time being at least 72 hours in advance of the Municipal Operations Committee Meeting (Government Code Section 54954.2). Executed at Stockton, California on April 17, 2026.

Priya Ram, Director of Finance & Administration
Stockton East Water District

Any materials related to items on this agenda distributed to the Municipal Operations Committee of the Stockton East Water District less than 72 hours before the public meeting are available for public inspection at the District's office located at the following address: 6767 East Main Street, Stockton, CA 95215. Upon request, these materials may be available in an alternative format to persons with disabilities.

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DATE: **April 22, 2026** **AGENDA ITEM NO. 3**

TITLE: **Bellota Weir Modifications Project PLC-SCADA System Integration Services**

SUBJECT: **Consider Approval of Professional Services Agreement for PLC-SCADA Integration Services for the Bellota Weir Modifications Project**

Executive Summary

Stockton East Water District (District) is advancing the Bellota Weir Modifications Project (Project), which includes installation of a modern fish screen facility and associated infrastructure improvements. As part of the Project, a Supervisory Control and Data Acquisition (SCADA) system and Programmable Logic Controller (PLC) integration is required to automate, monitor, and control project operations.

ControlPoint Engineering, Inc. has submitted a proposal to provide PLC-SCADA System Integration Services for the Project in the amount of $943,760. Their scope includes programming, system configuration, testing, commissioning, and training to ensure full operational functionality of the automated systems.

District Staff recommends the Board of Directors authorize the General Manager to approval of a Professional Services Agreement with ControlPoint Engineering, Inc. for PLC-SCADA Integration Services for $943,760, plus a 10% contingency of $94,376, for a total authorization of $1,038,136, and to make all necessary approvals to proceed with project implementation.

Background

The Bellota Weir Modifications Project is a key component of the District's compliance with the Calaveras River Habitat Conservation Plan (CHCP) and broader Calaveras River Anadromous Fish Protection Program. The Project includes upgrades to diversion infrastructure, fish passage facilities, and intake systems.

A critical component of the Project is the implementation of a modern automation and control system. The PLC-SCADA system will:

- Monitor and control fish screen operations
- Integrate multiple subsystems (weir gates, flow measurement and control, fish screen, debris rack, fish monitoring system)
- Provide real-time system data and alarms
- Improve operational efficiency and reliability
- Support regulatory compliance and reporting

To support this effort, the District solicited a proposal from ControlPoint Engineering, Inc., a firm experienced in the District's facilities and water infrastructure automation and SCADA integration.

Summary

The PLC-SCADA system is a critical component of the Bellota Fish Screen Project, enabling automated control, monitoring, and long-term operational reliability. ControlPoint Engineering, Inc. provides the necessary expertise to successfully implement this system.

ControlPoint Engineering, Inc. will provide comprehensive PLC-SCADA integration services, including:

- Project Management & Coordination
- Process Control Strategy Development
- PLC Programming for approximately 400 I/O points
- SCADA Application Development using Ignition® platform
- SCADA Hardware Configuration (servers, nodes, network equipment)
- Radio/Fiber Communication Coordination & Testing
- Software Testing & Validation
- System Commissioning & Startup Support
- Operator Training

The system will integrate multiple components including:

Flow Control System

- Adjustable Weir System
- Fish Screen System
- Debris Rack System
- Fish Monitoring System

The work will be performed in coordination with the construction contractor, design engineers, and District staff.

Approval of this agreement will allow the District to proceed with detailed system development, coordination with the construction contractor, and timely delivery of the automation system in alignment with the overall project schedule.

Financial Impact

The total cost for PLC-SCADA Integration Services is $943,760 plus a 10% contingency of $94,376, for a total authorization of $1,038,136

This cost includes all labor, coordination, programming, testing, commissioning, and training required to deliver a fully functional automation system.

The cost will be funded as part of the overall Bellota Weir Modifications Project budget. Sufficient funds are available within the Project budget, which includes allocations for instrumentation and control systems.

The Project had an initial total estimated cost/budget (including hard and soft costs) of $80.3 million which is now not expected to exceed $73 million after construction contract award. The District received a $12.3M grant from the California Department of Water Resources. The District has an existing reserve amount for the Project and the rest will be covered by loans and additional private funding as required if no other grants are received.

The District is expected to receive State Revolving Fund (SRF) and Water Infrastructure Finance and Innovation Act (WIFIA) Environmental Protection Agency (EPA) loan in the next few months.

Recommendation

District Staff recommends the Board of Directors authorize the General Manager to approve a Professional Services Agreement with ControlPoint Engineering, Inc. for PLC-SCADA Integration Services for the Bellota Weir Modifications Project in an amount of $943,760; plus a 10% contingency of $94,376, for a total authorization of $1,038,136, and to make all necessary approvals to proceed with project implementation.

Staff Responsible for Report

Manuel Verduzco, Senior Engineer — Date: 04/22/26

Darrel Evensen, District Engineer — Date: 04/22/26

Juan M. Vega, Assistant General Manager — Date: 04/22/26

Justin M. Hopkins, General Manager — Date: 04/22/26

Attachments

None

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DATE: **April 22, 2026** **AGENDA ITEM NO. 4**

TITLE: **WTP & Water Supply (WS) FY26/27 SCADA Support Services**

SUBJECT: **Consider Approving a Professional Services Agreement – WTP & WS FY 26/27 SCADA Support Services with Control Point Engineering**

Executive Summary

Stockton East Water District (District) continues to advance its Supervisory Control and Data Acquisition (SCADA) system to improve operational efficiency, reliability, and regulatory compliance. The proposed Fiscal Year (FY) 2026/2027 SCADA Support Services expands on prior phases by enhancing Water Treatment Plant (WTP) reporting capabilities, integrating Water Supply (WS) facilities, and implementing targeted infrastructure improvements.

The proposed scope includes project management, historian reporting enhancements, SCADA application development and support, Water Supply system integration, procurement of SCADA materials for existing trash rack sites, and communication tower network panel improvements.

Staff identified Control Point Engineering, Inc. as the most favorable consultant since Control Point Engineering, Inc. has completed the multi-year SCADA Implementation project, has a good working relationship with District staff, and a reasonable price. Considering the aforementioned, staff proposes to sole source the engineering services to ControlPoint Engineering, Inc., as allowed by the District's Purchasing Policy.

District Staff recommends the Board of Directors authorize the General Manager to approve a Professional Services Agreement with ControlPoint Engineering, Inc. to provide WTP and WS SCADA Support Services in the amount of $177,440 and make all other necessary approvals.

Background

The District initiated its SCADA modernization efforts as part of its long-term strategy to upgrade aging infrastructure and improve system monitoring and control. Since implementation began, the SCADA system has been expanded in phases to include treatment processes, pumping facilities, and reporting tools.

Recent phases have focused on compliance reporting, process automation, and system standardization across the WTP. As the system matures, continued enhancements are required to expand integration into Water Supply facilities and further develop reporting and operational tools.

The FY 2026/2027 SCADA Support Services represent the next step in optimizing system performance and extending SCADA capabilities to additional District assets.

Water Treatment Plant Support Services include:

1. Historian Reporting - Further development and refinement of compliance reporting within the WTP SCADA system to enhance regulatory tracking and data accessibility.

2. SCADA Application Development and Support - Modifications and improvements to the existing SCADA system, including PLC programming updates, application enhancements, and technical support as directed by the District.
3. WTP Communication Tower Improvement - Upgrades to the WTP communication tower network panel, including power distribution improvements, network hardware installation, labeling, and system integration.

Water Supply Support Services include:

1. Water Supply System Integration - Integration of Water Supply facilities into the SCADA system, including programming, system startup, and operational support.
2. Trash Rack SCADA Materials - Procurement of materials necessary to support SCADA integration for existing trash rack sites.

Summary

The WTP and WS FY 2026/2027 SCADA Support Services continue the District's investment in modernizing its monitoring and control systems. Enhancements to reporting, system integration, and infrastructure will improve operational efficiency, data reliability, and regulatory compliance.

ControlPoint Engineering, Inc. is uniquely qualified to perform this work due to its extensive experience with the District's SCADA system and prior successful project delivery. Sole sourcing this agreement ensures continuity and efficiency in implementation.

Financial Impact

The District's Board of Directors' (Board) approved Fiscal Year (FY) 2026-2027 Budget includes $185,000 for continued WTP and WS SCADA support services.

ControlPoint's proposal to provide WTP and WS SCADA support services in the amount of $177,440 fits within the approved budget of $185,000. As such, the District has sufficient funds within the fiscal year 2026-2027 budgets to cover all costs associated with the proposal.

Recommendation

District Staff recommends the Board of Directors authorize the General Manager to approve a Professional Services Agreement with ControlPoint Engineering, Inc. to provide WTP and WS SCADA Support Services in the amount of $177,440 and make all other necessary approvals.

Staff Responsible for Report

Manuel Verduzco, Senior Engineer — Date: 04/22/26

Darrel Evensen, District Engineer — Date: 04/22/26

Juan Vega, Assistant General Manager — Date: 04/22/26

Justin M. Hopkins, General Manager — Date: 04/22/26

Attachments
None

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DATE: **April 22, 2026** **AGENDA ITEM NO. 5**

TITLE: **Stanislaus and Calaveras Rivers Watersheds Sanitary Surveys**

SUBJECT: **Consider Approving a Professional Services Agreement for Watershed Sanitary Surveys for Calaveras and Stanislaus Rivers**

Executive Summary

State regulations under the Safe Drinking Water Act require the District to complete Watershed Sanitary Surveys (WSSs) every five years to assess potential sources of contamination and evaluate treatment plant vulnerability. The Stockton East Water District's (District) most recent surveys for the Stanislaus and Calaveras River watersheds were completed in 2021, and updated surveys are required in 2026.

To meet this requirement, the District coordinated with regional partners through the Stanislaus/Calaveras River Group (SCRG) to jointly procure consulting services and share costs. A single proposal was received from Hazen and Sawyer, a qualified firm with prior experience completing the District's WSSs. The proposed contract amount is **$187,060**, with a **10% contingency**, for a total of **$205,766**. SCRG partners reviewed the proposal and expressed no opposition.

The District will serve as lead agency, administer the professional services agreement, and facilitate cost sharing among partners. Based on the agreed allocation, the District's share is approximately **45%** (not to exceed **$92,595** after reimbursements). The approved FY budget of **$250,000** is sufficient to cover the total project cost.

Staff respectfully recommend the Board of Directors (Board) authorize the General Manager to execute a Cost Sharing Agreement with the SCRG partners and a Professional Services Agreement with Hazen Sawyer for an amount of **$187,060**, plus a **10%** contingency of **$18,706**, for a total of **$205,766**, and make all other necessary approvals.

Background

One of the water quality protection requirements in Safe Drinking Water Act's regulations is conducting a watershed sanitary survey every five years regardless of a water system's size. WSSs investigate contaminants and contaminating activities in the watershed to evaluate a treatment plant's vulnerability to source water contamination. The last WSSs were completed in 2021 and updated WSSs for the Stanislaus and Calaveras Rivers are due in 2026.

The District's approved surface water sources are the Calaveras River and the Stanislaus River, and therefore, is required to conduct WSSs for both rivers' watersheds. The District partners with upstream surface water treatment plants/systems in both watersheds to cost share and maximize the benefit of the study. The partnership, called the Stanislaus/Calaveras River Group (SCRG) includes: Calaveras County Water District

(CCWD), California Department of Forestry & Fire Protection (CDFFP), City of Angels Camp (COAC), Knights Ferry Community Service District (KFCSD), Pinecrest Permittees Association (PPA), Sierra Conservation Center (SCC), South San Joaquin Irrigation District (SSJID), Tuolumne Utilities District (TUD), and Union Public Utility District (UPUD). The cost split loosely based on previous WSSs and population served by each agency with the District and SSJID bearing the largest percentages.

Summary

District staff went out to bid for proposals to perform the 2026 WSSs updates. The bids were due on March 20, 2026, and only one proposal was received from Hazen and Sawyer (Hazen) which acquired the firm that previously performed the WSSs for the District. Hazen is very experienced at completing WSSs in general. For this work, Hazen's proposed cost is $187,060. A copy of the proposal was shared with SCRG partners with no opposition from the group in proceeding with the consultant. The estimated cost sharing is shown in **Table 1 with a 10% contingency built in**.

The District will act as the lead agency for the WSSs update and maintain the Professional Services Agreement with Hazen. To facilitate the cost sharing amongst the SCRG members, staff will bring a Cost Sharing Agreement back to the Board for approval, as will each of the other SCRG members.

Agency	Percentage	Cost
Stockton East Water District	45%	$ 92,594.70
South San Joaquin Irrigation District	30%	$ 61,729.80
Calaveras County Water District	10%	$ 20,576.60
Tuolumne Utilities District	10%	$ 20,576.60
CalFire Base Camp	1%	$ 2,057.66
City of Angels Camp	1%	$ 2,057.66
Knights Ferry Community Services District	1%	$ 2,057.66
Pinecrest Permittees Association	1%	$ 2,057.66
Union Public Utility District	1%	$ 2,057.66
Total		**$ 205,766.00**

Table1. Cost share of each agency including 10% contingency

Financial Impact
The District's Board approved budget for fiscal year 2026-2027 includes $250,000 for the WSSs and should be sufficient to cover the cost of the work **$187,060** plus a 10% contingency of **$18,706**. After reimbursements from other agencies are received, the District's maximum share expended for this work will not exceed **$92,595**.

Staff Recommendation
Staff respectfully recommend the Board authorize the General Manager to execute a Professional Services Agreement with Hazen Sawyer for an amount of **$187,060**, plus a **10%** contingency of **$18,706**, for a total of **$205,766**, and make all other necessary approvals.

Staff Responsible for Report

Juan M. Vega, Assistant General Manager — Date: 04/22/26

Justin M. Hopkins, General Manager — Date: 04/22/26

Attachments
1. Hazen and Sawyer Proposal
2. Cost Sharing Agreement

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Hazen

STOCKTON EAST WATER DISTRICT

on behalf of

SCRG

STANISLAUS/CALAVERAS RIVER GROUP

Proposal for

2026 Watershed Sanitary Survey Updates

March 20, 2026

Hazen and Sawyer
2151 River Plaza Drive, Suite 270
Sacramento, CA 95833 • 916.571.7958

March 20, 2026

Juan Vega, Assistant General Manager
Darrel Evensen, PE, District Engineer
Stockton East Water District and and Stanislaus/Calaveras River Group
6767 East Main Street
Stockton CA, 95215

Subject: Proposal to Prepare SCRG's 2026 Watershed Sanitary Survey Updates

Dear Mr. Vega and Mr. Evensen:

On behalf of Hazen and Sawyer (Hazen) and Water Resources Planning (WRP), we thank you for the opportunity to submit a proposal to develop the 2026 Calaveras and Stanislaus Watershed Sanitary Survey Updates (WSS or Survey) for the Stanislaus/Calaveras River Group (SCRG). We propose the same team of knowledgeable experts in drinking water watershed and water quality assessments that prepared SCRG's 2016 and 2021 WSSs with Dan Askenaizer (Hazen) as Project Manager and Karen Johnson (WRP) as Lead Planner. Hazen will be the lead contractual firm. In addition, we have an excellent support team of professionals ready to work on this project.

We are committed to meeting the project schedule for delivery of the final 2026 WSS by June 30, 2026 as requested in the Request for Proposal (RFP) with content preferred by the State Division of Drinking Water (DDW). With an anticipated start date of April 15, we can perform this quick turnaround because of our experience preparing the previous two Surveys for SCRG.

We believe the following key factors distinguish our team and ensure a successful WSS:

Specialized Services – WQTS, the specialized team that worked on your previous two Surveys, joined Hazen in January of 2026, and is the same team proposed for this project. Our team members have years of experience with drinking water watershed and water quality projects such as yours with the required specialized skills. Prior to joining WQTS in 2012, Dan Askenaizer was the Water Quality Manager for Glendale Water and Power. While water quality, regulatory compliance assessment, and treatment evaluations are Dan's specialty, watershed source protection is a technical niche of Karen Johnson. Karen Johnson was one of the primary authors of AWWA's California-Nevada Section document titled "Watershed Sanitary Survey Guidance Manual." Issam Najm, in the role as QA/QC, is a nationally recognized expert in water quality and treatment technology evaluations and

serves as technical QA/QC reviewer on numerous complex water quality projects throughout the United States.

Focused Technical Effort – Because of our experience preparing your 2016 and 2021 WSSs and with similar watershed sanitary surveys throughout California, we know where the effort should be focused and how to avoid wasted time following issues that are irrelevant to the purpose of the Survey. We consider this a very important consideration for SCRG because of the areal extent of the watershed and data associated with 13 water treatment plants. The effort for this update will be focused on identifying and addressing items of significance and updating and presenting water quality data, not "reinventing the wheel."

Best Value – Our committed team members of primarily Dan and Karen have extensive drinking water watershed and water quality experience and have prepared WSS together throughout California. This allows us to be efficient with each task to provide SCRG with the best value. In addition, WRP is a small firm with low overhead costs.

A Watershed Sanitary Survey requires specialized skills, a focused technical effort, and efficient production to keep costs down, meet a tight schedule, and produce documents that DDW is satisfied with. This team works well together.

Thank you again for the opportunity to propose on this project. If you have any questions, please do not hesitate to contact Dan at (818) 245-0443 or daskenaizer@hazenandsawyer.com.

Sincerely,

Dan Askenaizer, D.Env
Senior Associate & Project Manager
Hazen and Sawyer

Jerimy Borchardt, P.E.
Associate Vice President & Principal in Charge
Hazen and Sawyer

Near Tulloch Reservoir

Table of Contents

North Fork Calaveras

South Fork Stanislaus

SECTION 2: QUALIFICATIONS AND RELATED EXPERIENCE

COMPANY BACKGROUND

Throughout our 75-year history, Hazen has specialized exclusively in water, wastewater, and stormwater services. All we do is water. Our focus remains constant for a simple reason: it allows us to provide our clients with exceptional service and sensible solutions for their water management challenges.

Since 1951, Hazen has advanced the boundaries in all areas of water-related engineering and science, including: water resource planning and management; potable water supply, treatment, and distribution; and wastewater and stormwater collection, treatment, and reuse. Ranked by Engineering News-Record as one of the top 100 largest engineering firms in the U.S., Hazen has completed thousands of water-related projects around the globe, providing planning, modeling, assessment, design, program and construction management, and operations assistance services. The firm has steadily grown to more than 2,300 professionals nationally, with nearly 200 staff based in California. Hazen has operated in California for 15 years and has been directly engaged in the planning and design of water infrastructure, serving over 20 million residents in the state.

On January 5, 2026, WQTS officially joined Hazen, uniting two firms with deep technical strength and a long history of supporting water agencies' drinking water quality, treatment optimization, and regulatory compliance efforts. Both organizations have contributed to foundational water quality initiatives over the past two decades—ranging from bench and pilot-scale studies, to disinfection byproduct mitigation evaluations, to advanced oxidation and ozonation process assessments that informed key capital decisions. With WQTS's specialized treatment process and water chemistry expertise now integrated into Hazen's full-service planning,


Alpine Lake

engineering, and delivery capabilities, the firm offers SCRG a uniquely comprehensive qualifications package—bringing expanded technical depth, enhanced R&D capacity, and a broader bench of practitioners ready to deliver reliable, defensible, and cost-effective solutions tailored to the water purveyors in the Calaveras and Stanislaus river watersheds.

Provided here is a description of our firm's qualifications, expertise, and experience conducted by WQTS prior to joining Hazen. WQTS provided services to water agencies throughout California and in a number of States across the US. WQTS also worked on several national research projects, funded primarily by the Water Research Foundation (WRF).

WQTS provided a range of services to public and private water agencies including the following:

- Development of source water monitoring plans
- Watershed Sanitary Surveys
- Regulatory compliance planning & review
- Evaluation of water treatment alternatives for various contaminants
- Bench-, pilot-, and full-scale water treatment optimization studies
- Review of water treatment plant design
- Evaluation of distribution system corrosion
- Review and evaluation of water quality programs
- Development of Nitrification Monitoring and Control Plans
- Development of water treatment plant Operation Plans
- Classes on water chemistry and water treatment to operators & water quality staff

Hazen provides SCRG with a highly-qualified and experienced team that can provide water quality and watershed planning professional services to match the needs of your WSSs. Hazen will be the lead firm and will provide project management services, water quality data collection and review, and compliance evaluation.

Karen Johnson, WRP, will be our subcontractor. WRP is a sole proprietorship focusing on strategic planning of water resources; source watershed protection strategies and plans; supply planning for all types of water supplies including rainwater capture; system and supply reliability analyses, including potential climate change impacts; and wastewater flow, recycled water use, and water demand projections.

Our project team members are committed for the duration of the project. Karen and Dan each focus on their area of expertise in their analyses and reports and will provide review of each other's products. This streamlined approach can only be used by relevant, experienced personnel, such as ours, who have worked together on similar projects, including your past surveys.

We have teamed to successfully complete many watershed sanitary surveys in California. These surveys were prepared for Contra Costa Water District, City of Fresno, Serrano Water District, Irvine Ranch Water District, Santa Clara Valley Water District, and Trabuco Canyon Water District, with their own individual characteristics and conditions. We have been retained by each of these agencies over the years to prepare initial surveys and 5-year updates.

Our team is comprised of talented and experienced individuals that can deliver a project that will be acceptable to SCRG and DDW. Our project team brings the following value to this watershed sanitary survey:

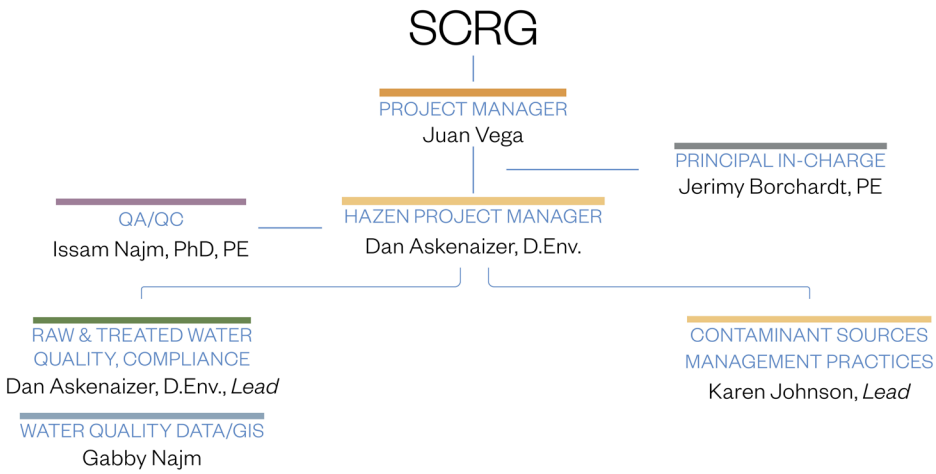
- An understanding of public water agency operations and regulatory requirements
- Experience conducting focused watershed sanitary surveys that satisfies DDW staff
- Extensive experience evaluating water quality trends and treatment plant performance, conducting regulatory compliance audits, and organizing large amounts of data

PROJECT TEAM QUALIFICATIONS AND EXPERIENCE

The key project team members include Dan Askenaizer of Hazen, who will serve as the Project Manager and will lead the water quality evaluation, regulatory assessment, and compliance evaluation, and Karen Johnson of WRP who will focus on potential contaminant

sources, watershed characteristics and infrastructure, and watershed control and management practices. Both will work on findings and recommendations section. Gabby Najm of Hazen will assist with data collection and evaluation, and preparation of data tables and graphs. Dr. Issam Najm of Hazen will provide overall project QA/QC review.

The Hazen project team members and Karen Johnson have years of experience on projects relevant to the Watershed Sanitary Survey updates. As described in this proposal, we have worked with Karen on numerous watershed sanitary surveys, and our team members have successfully managed large, complicated projects that required a great deal of communication, coordination, and managing large amounts of water quality data. Our team has consistently produced quality products that meet our client's needs as well as DDW's.



The following pages provides a more detailed description of our key team members' qualifications and experience. Two-page resumes are attached to this proposal.

DAN ASKENAIZER: PROJECT MANAGER, WATER QUALITY & REGULATORY REVIEW

Hazen and Sawyer

Dan Askenaizer is a Senior Associate with Hazen. He has 40 years of experience helping water agencies navigate the regulatory and permitting waters, starting as a water quality specialist at the Metropolitan Water District of Southern California, and then with MWH Americas and McGuire/Malcolm Pirnie Environmental Consultants. At MWH Americas, Dan was the firm's national regulatory expert providing guidance and assistance to water agencies across the country. From 2006 through August 2012, he served as the Water Quality Manager for Glendale Water and Power. Working with Karen Johnson, Dan was responsible for the water quality and regulatory review for all of the WSSs and Survey updates for the clients identified in this proposal. Dan was project manager for the 2016 and 2021 SCRG WSSs.

For this Survey Update, Dan will be the Project Manager and will be responsible for the analysis of water quality, treatment process requirements, and recommendations. Dan will be assisted by Gabby Najm for the collection and organization of water quality data.

KAREN JOHNSON: POTENTIAL CONTAMINANT SOURCES, WATERSHED MANAGEMENT PRACTICES

Water Resources Planning

Karen Johnson was one of the primary authors of the DDW's *Guidance Manual for Watershed Sanitary Surveys* (WSS) in 1993. She coauthored: *Water and Land Use, Planning Wisely for California's Future,* and taught classes for 17 years at UC Extension at Davis and Berkeley on water supply planning. Karen Johnson has 40 years of experience in source protection, water resources, and infrastructure planning. She has prepared numerous WSSs, including, with Dan Askenaizer, the 2016 and 2021 SCRG WSSs. She was the Project Manager for the $1.2M Upper Mokelumne River Watershed Assessment and Planning Project and managed USBR's New Melones Resource Management Plan. Karen worked for MWH prior to becoming sole proprietor of Water Resources Planning 21 years ago. She brings an excellent track record of successfully managing complex engineering planning projects which provides her the expertise needed to keep the focus on relevant issues.

Karen will be responsible for the preparation of the sections on watershed characteristics, infrastructure, land uses and activities, potential contaminant sources, and watershed management recommendations.

GABBY NAJM: DATA ORGANIZATION AND PRESENTATION

Hazen and Sawyer

Gabby serves as a scientist in Hazen and Sawyer's Canoga Park water quality laboratory. She specializes in the preparation, operation, sample collection, and data analysis of a variety of bench-scale studies including rapid small-scale column testing for contaminant removal, simulated distribution system testing for evaluating the formation of disinfection by-products, jar testing for coagulant and PAC performance, and developing alternative methods for water quality testing. Gabby is experienced in water quality data analysis for regulatory compliance monitoring, watershed sanitary surveys, consumer confidence reports, corrosion control studies, and nitrification control studies.

ISSAM NAJM: QA/QC REVIEW

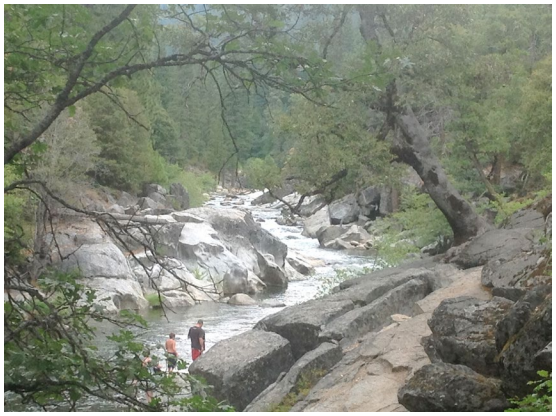
Hazen and Sawyer

Dr. Issam Najm is a Vice President with Hazen and has 35 years of experience in the evaluation and resolution of water quality and water treatment challenges facing water utilities. He is a national expert on water quality and water treatment practice and is often called upon to provide his technical expertise to help resolve water quality and treatment challenges. Issam also provides technical oversight and QA/QC review of projects related to water quality and treatment and will serve in that role on this project. He will review the draft WSS update and participate in internal discussions with Dan Askenaizer and Karen Johnson regarding data analysis and recommendations.

RELEVANT PROJECTS AND CLIENT REFERENCES

STANISLAUS/CALAVERAS RIVER GROUP (SCRG) WSS UPDATES
Stockton East Water District
Completed: June 2021

Team Members: Dan Askenaizer, Karen Johnson



We prepared the 2016 and 2021 WSS updates for SCRG Member Agencies. SCRG is a group of 11 public water systems whose source water supply is derived from the Stanislaus and Calaveras rivers, tributaries to the Sacramento River-San Joaquin River Delta. A particular challenge with this survey is the extent of the 990 square miles in the Stanislaus River watershed, 473 square miles in the Calaveras River watershed, 13 water treatment plants, and 15 primary intakes. The project included site visits, review and evaluation of collected data including five years of water quality data, and research of potential contaminant sources in this extensive and complex watershed. Our experience with your watershed allows us to focus on factors relevant to drinking water quality, not all watershed characteristics, thus remaining cost effective.

Reference for 2021 WSS:

Justin Hopkins, General Manager, Stockton East Water District
(209) 948-0333 jhopkins@sewd.net

WATERSHED SANITARY SURVEY AND UPDATES
Contra Costa Water District (CCWD)
Completed: December 2025

Team Members: Dan Askenaizer, Karen Johnson, Gabby Najm, Issam Najm

In 2025, we prepared the 5-year WSS update for CCWD. WQTS and WRP previously prepared the 2015 and 2020 surveys. About one-third of CCWD's water supply pumped from the Sacramento River – San Joaquin River Delta is treated and delivered to homes and businesses in central and east Contra Costa County. CCWD also sells wholesale treated water to municipal water suppliers and industrial customers. Unique characteristics of this watershed include extensive boating and recreation near the intakes, surface runoff from grazing into the Canal, planned growth near intakes and conveyance facilities, and water quality conditions of stored raw water.

Reference for 2025 WSS:
Ms. Maggie Dutton, P.E.; Senior Engineer; Contra Costa Water District
(925) 688-8132; mdutton@ccwater.com

SANTIAGO CREEK WATERSHED SANITARY SURVEY AND UPDATES
Irvine Ranch Water District and Serrano Water District
Completed: December 2025

Team Members: Dan Askenaizer, Karen Johnson, Gabby Najm, Issam Najm

We prepared the 2009, 2014, 2019, and 2024 Santiago Creek WSS for Serrano Water District (SWD) and Irvine Ranch Water District (IRWD). We also prepared IRWD's WSS for Harding Canyon then recommended they include Harding Canyon WSS in future Santiago Creek updates to reduce IRWD costs. The Santiago Creek watershed conveys local runoff from the Santa Ana Mountains to Santiago Reservoir, where it is augmented by purchased water from MWD. The watershed issues are primarily the risk of septic system failures in this unsewered watershed and runoff from concentrated animal facilities. Invasive species were addressed, including golden mussels. We previously helped develop a methodology for removal of invasive non-native plant species proximate to the reservoir and managed the implementation of the effort.

Reference for 2025 WSS:
Ms. Lori Rigby, Regulatory Compliance Manager, Irvine Ranch Water District
(949) 453-5344 rigby@IRWD.com

LOCAL RESERVOIRS WATERSHED SANITARY SURVEY AND UPDATE
Valley Water (Santa Clara Valley Water District)
2026 update in progress

Team Members: Dan Askenaizer, Karen Johnson, Issam Najm

Our team prepared the 2016 and 2021 WSSs for Santa Clara Valley Water District (Valley Water) and are currently preparing the 2026 update. Valley Water uses water from local reservoirs and imported water from the Delta to serve the District's three surface water treatment plants. Valley Water implements numerous special monitoring programs in the watersheds of the four local reservoirs, such as first flush and wet weather sampling, to maintain high water quality and better understand potential contaminant sources. Key potential contaminant sources addressed include concentrated animal facilities, historic mercury mining, TOC increases during droughts, and septic system failures and sewer overflows.

Reference for 2021 WSS:
Ms. Atlasi Daneshvar, Associate Water Resources Specialist, Valley Water
(408) 630-3219 adaneshvar@valleywater.org

SECTION 3: WORK PLAN

Our approach to this project is to keep the survey focused and relevant on content that the districts are required to submit to DDW every five years in compliance with the Surface Water Treatment Rule (SWTR). The Survey Update will document recent and planned key land use changes and activities within the watersheds that could potentially impact water quality. Water quality data for the previous five years will be summarized and compared with the previous survey to indicate changes and determine significance. The previous set of recommendations will be reviewed and evaluated in terms of implementation and updated as necessary.

PROJECT APPROACH

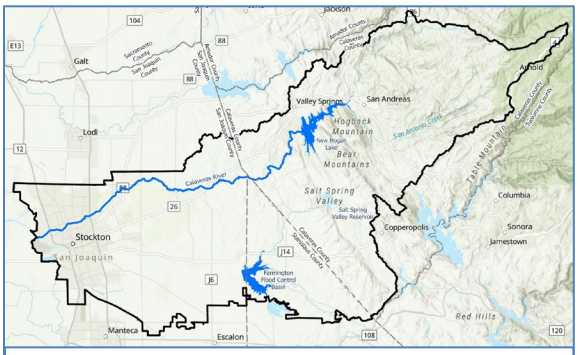
In 1989, the US Environmental Protection Agency published the SWTR, which was then formerly adopted in California. The SWTR was designed to protect public health by providing multi-barrier treatment to achieve a reduction of 3 log *Giardia* and 4-log virus. As part of the objective to provide multi-barrier treatment, the California SWTR required public water systems to conduct a WSS for all surface water systems and update the WSS every five years. The primary objective of a WSS is to review and evaluate five years of water quality data and significant changes to potential contaminant sources to ensure continued protection of surface water and to ensure that public water systems continue to provide safe drinking water to their customers. Title 22, Section 64665(c) requires the WSS to include the following:

- Physical and hydrogeological description of the watershed
- Summary of source water quality monitoring data
- Description of activities and sources of contamination
- Description of any significant changes that have occurred since the last survey which could affect the quality of source water
- Description of watershed control and management practices
- Evaluation of the system's ability to meet surface water treatment requirements
- Recommendations for corrective actions

Our approach is designed to meet the intent of the regulations, satisfy DDW, and address SCRG's Scope of Work requirements. At the start of the project, prior to the kick-off meeting, we will prepare and submit a written data request. The data request will include water quality data from WTPs and other raw water monitoring sources; current monitoring programs; documents or reports on any known changed conditions and member agency management practices within the watersheds; and any modifications to the WTPs or infrastructure relevant to the surface water systems.

Dan will compile, organize, and evaluate available watershed raw and treated water quality data. Dan will conduct statistical evaluations and prepare graphs of the water quality data and begin the assessment of any changed water quality conditions (both over time and locations). Dan's review will include an assessment of the ability of the WTPs to continue to maintain compliance with drinking water regulations. The 2026 WSS will address the Calaveras River watershed, and the Stanislaus River watershed which includes Utica Ditch, Farmington Dam, and Woodward Reservoir.

Following the kick-off meeting, Karen will compile and evaluate watershed land use and activity information and conduct site visits to update information on watershed conditions and potentially significant contaminating activities since the last survey. Karen understands the need to stay focused on potential contaminant sources that could impact and possibly degrade drinking water quality reaching the intakes. We will identify other work conducted in the watershed, such as the Calaveras River Watershed Resiliency Plan with its different watershed borders (see map), that will be documented in the report for DDW.



Calaveras River Resiliency Plan watershed

Dan and Karen will incorporate updates to infrastructure characteristics and will review previous WSS recommendations while carefully evaluating any updated recommendations to maintain the member agencies' high level of water quality protection. Assuming data are provided by the member agencies within two weeks of the data request, we will submit the draft WSS reports within 2.5 months of the Notice to Proceed.

The following sections present our scope of services and a preliminary work plan to accomplish the requirements described in the RFP Scope of Work while addressing the main project objectives:

1. *Satisfy the DDW requirements for a WSS update for each watershed*
2. *Review and analyze water quality data to identify spatial and long-term trends for the study period of 2021 through 2025*

3. *Highlight and focus on key water quality issues and potential contaminant sources for the Calaveras and Stanislaus River watersheds*

4. *Document recently completed and ongoing agency projects designed to protect and enhance water quality*
5. *Evaluate ability of treatment plants to comply with current and anticipated future drinking water regulations*
6. *Develop recommendations to protect and improve water quality over the next five-year period*

Littlejohn Creek

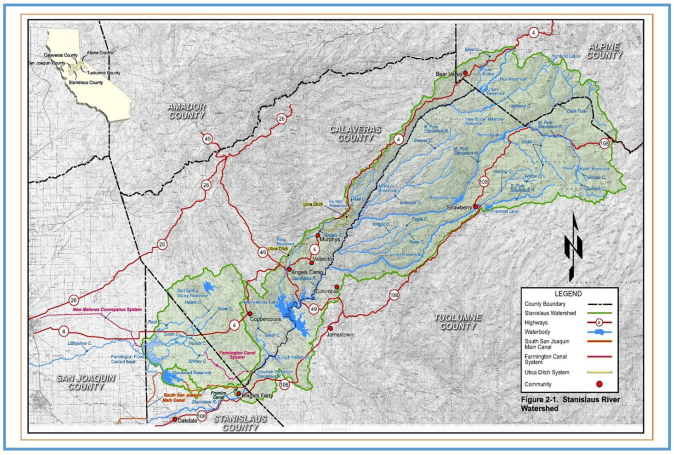
SCOPE OF SERVICES

TASK 1 – DATA REQUEST & KICKOFF MEETING

We will coordinate with the SCRG Project Manager to schedule and hold a kick-off meeting (using video conferencing technology if preferred). A draft agenda and a memorandum listing data needs will be submitted to the SCRG Project Managers for review and comment upon receiving the Notice to Proceed. We intend to provide the data request memorandum to SCWG members prior to the kickoff meeting. During the kickoff meeting we will present our team, project scope, and schedule, and discuss the data request. Draft meeting notes will be prepared following the kick-off meeting. After review by SCRG members, final meeting notes will be prepared and distributed.

TASK 2 – DESCRIBE WATERSHED CHARACTERISTICS AND INFRASTRUCTURE

The watershed study area descriptions in terms of physical and hydrologic characteristics will be updated based on changed conditions, and infrastructure facilities updated as provided by SCWG members. The watershed maps, with key infrastructure facilities and intake locations, will be updated as necessary. Based on the development of the past surveys, our understanding of how the



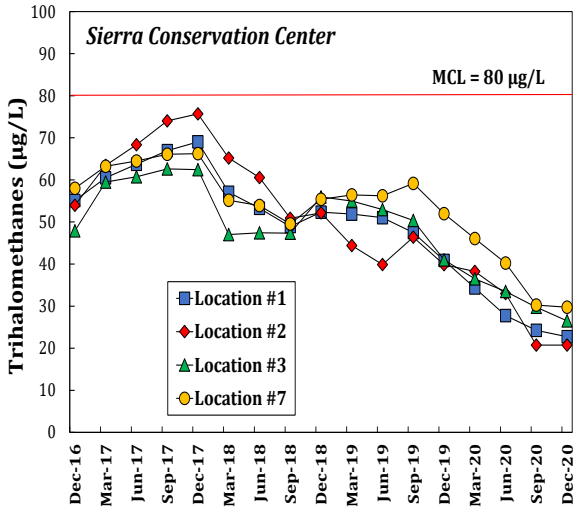
water flows through natural waterbodies and infrastructure facilities in these large watersheds keeps the project team focused only on lands within the drinking water watersheds.

TASK 3 – REVIEW WATER QUALITY AND CONDUCT COMPLIANCE EVALUATIONS

Raw water intake data from SCRG as well as ambient data from other programs, as available, will be analyzed. The analysis will review known constituents including background, occurrence, temporal, and geographic trends; contaminant sources; and treatability issues. Each individual intake will be evaluated for compliance in relation to identified contaminants and include changes since the 2021 update and a summary of treated water and distribution system quality. Data tables will be provided in the appendices of each survey.

Knights Ferry

It is assumed that the water quality data will be provided in electronic (Excel) format. We will work with the SCRG Project Manager to refine the list of parameters to be reviewed, but the anticipated constituents to be reviewed include as available: (a) turbidity, (b) microbiological constituents (including total and fecal coliform, *E. coli*, *Giardia* and *Cryptosporidium*), (c) total organic carbon, (d) pH, (e) alkalinity, (f) bromide, (g) TDS, (h) DBPs including trihalomethanes, haloacetic acids, and bromate (i) volatile and synthetic organic chemicals, (j) metals, nitrate and other inorganics, (k) PFAS and (l) blue-green algae, taste and odor compounds and cyanotoxins. We will include a review of the available results from the fifth Unregulated Contaminant Monitoring Rule (UCMR5) to identify any PFAS contaminants of concern for the future. Using statistical assessments of the data (range, average, mean, and median) and graphical plots of 5-year sets of data, the project team will evaluate for any trends (spatial and historical) in the data for each of the intakes included in the two WSS updates.



Example from 2021 report:
Figure 4-51 SCC WTP THM LRAAs (2016 to 2020)

In October 2024, the Department of Water Resources detected golden mussels in the Delta. This was the first detection of golden mussels in North America. Golden mussels have been identified proximate to New Hogan Reservoir. Activities undertaken to identify and control this and related invasive mussel species, such as monitoring and vessel inspections, will be documented.

High levels or trending of parameters of concern indicated in the data will be reviewed carefully and evaluated with changes in land use in the watershed or changes in potentially contaminating activities that may be related to water quality conditions. For example, the effects of fire and precipitation patterns were evident in historical water quality data with higher levels of turbidity, *E. coli*, and TOC during high precipitation events. Summaries of treated water quality will be presented and discussed for each treatment plant. Raw and treated water results will be assessed in terms of compliance with drinking water regulations and ability of the treatment plants to continue to meet surface water treatment requirements.

TASK 4 – ANALYZE WATERSHED CONTAMINANT SOURCES

White Pines

Watershed contaminant sources and activities within the drinking water watersheds will be researched and updated. These include, but are not limited to, land use and related activities such as recreation, allowed discharges, seasonal patterns such as the dry years of 2020 to 2022, relevant studies, regulations and management (documenting SCWG management and planning activities such as the Calaveras sustainability efforts), and potential future concerns. Actual and potential point and nonpoint contaminant sources in the watershed will be described. The contaminants of concern associated with each source will be described in terms of their known presence in the watershed, water quality parameters of concern, and their significance regarding treatability concerns and ability to control sources. In the past, higher risk contaminants were associated with wildlife and wildfires. For example, some higher levels of turbidity, *E. coli*, and TOC identified in the 2021 surveys were compared with fire and precipitation data to identify the likely conditions that lead to some of these higher levels. Our knowledge of the watersheds and historical conditions allows our team to stay focused on relevant issues.

Significant changes to land uses since the previous surveys will be documented. One of the more interesting changes in land use documented in 2021 was the conversion of rangeland to almond orchards. Planned changes in the watersheds will be identified based on a review of County General Plan land use maps. Federal, State, and local agencies with watershed control and responsibilities related to watershed protection of the watersheds will be updated along with their responsibilities.

To provide the required update of physical conditions and potential contaminant sources within the watersheds, Karen Johnson will conduct watershed site visits. Because of the effort made during the previous WSSs, this will be a focused effort and we do not anticipate a need for SCRG staff to provide tours of watershed infrastructure, unless a SCRG member has a significant change to be documented.

TASK 5 – PROJECT MANAGEMENT AND REPORT PREPARATION

Staffing – Dan Askenaizer will be Project Manager and will be the lead for developing updated water quality data collection and evaluation, regulatory reviews, and compliance assessments. Karen Johnson will provide the lead for the identification of potential watershed contaminant sources. They will each focus on their area of expertise during preparation of the draft WSS Updates and review each other's products. Gabby Najm will assist with compiling and organizing water quality data. Resumes are provided at the end of this proposal.

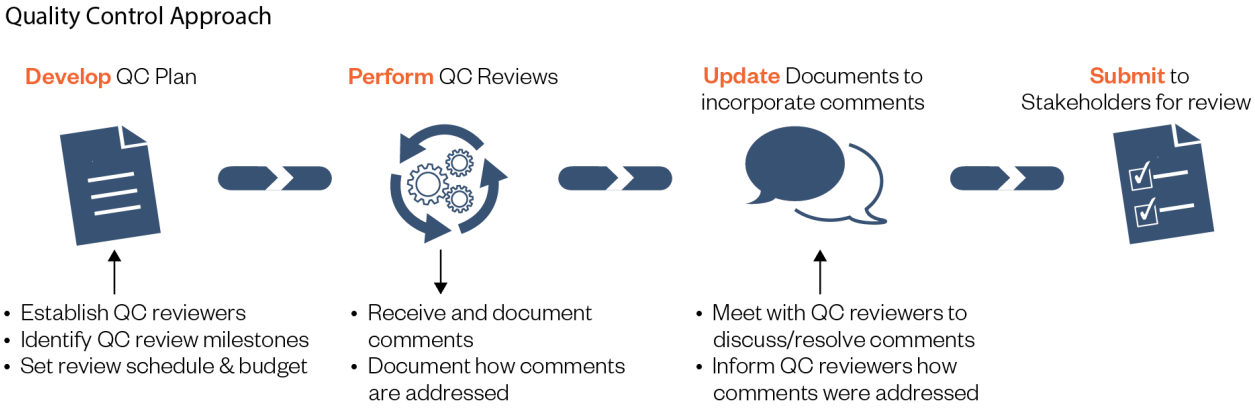
New Hogan Reservoir

Communications – For day-to-day communications and contacts, our team will utilize emails and phone calls. We can use SharePoint public folders to share large files with SCRG members. Dan Askenaizer and the SCRG Project Manager will be the primary points of contact. We will schedule conference calls as needed with SCRG staff to update progress and discuss issues and challenges. We believe the best way to address potential problems is to identify them early and seek resolution immediately to minimize any impacts on schedule and/or budget.

Kick-off Meeting **–** We will coordinate with the Project Manager to hold a project kick-off meeting within one week of the Notice to Proceed. Prior to the kick-off meeting, the data request memorandum will be submitted with the intention of having any questions regarding the data request addressed at the kick-off meeting.

Report Preparation **–** Draft reports for the Calaveras and Stanislaus WSSs will be produced for SCRG review. The draft reports will be submitted electronically in Word format to aid the reviewer in providing comments on the draft documents. Watershed photographs will not be incorporated at this time to maintain smaller documents. Upon addressing comments on the drafts, final WSS updates will be prepared and submitted electronically as pdfs. In addition, four bound hard copies of the final Calaveras River WSS Update and 13 bound hard copies of the final Stanislaus River WSS update will be provided.

Quality Assurance and Control **–** Hazen projects are reviewed for QA/QC at various stages. Our process is reinforced through our training programs for technical competency and QA/AC compliance and is ingrained in our culture – to do the right thing when issues arise. We believe quality is imperative in all that we do, from everyday emails to complex projects.

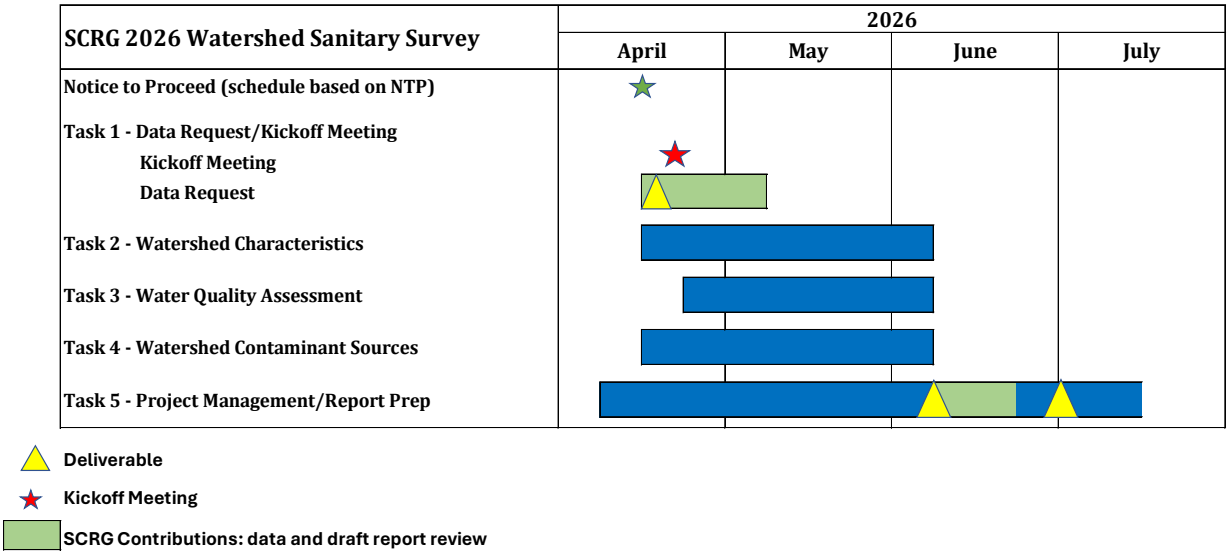


SCHEDULE, DELIVERABLES, COSTS, AND CONTRACT COMMENTS

ANTICIPATED SCHEDULE AND DELIVERABLES

The figure below presents our proposed schedule. We understand the need to complete the work in a timely manner for DDW. As we did with the 2021 WSSs, we prioritized Dan and Karen's time on the project to be able to complete the work as quickly as possible. Because of our understanding of your watershed conditions and availability of data, and our specific WSS experience, we believe the deadline identified in the RFP is tight but achievable. The draft report will be available for review within about eight weeks after the kick-off meeting, assuming data is provided within two weeks upon request.

Proposed Schedule



The deliverables identified in the schedule above include the following:

- Data request memorandum provided in Word and delivered via email
- Draft WSS for Calaveras River watershed in Word and emailed
- Draft WSS for Stanislaus River watershed in Word and emailed
- Final WSS for Calaveras River watershed in pdf format and four (4) hard copies
- Final WSS for Stanislaus River watershed in pdf format and 13 hard copies

COSTS

The table below presents our proposed budget, valid for the term of the project. The total cost is proposed at **$187,060**. All services will be billed on a lump sum basis with costs divided between the two surveys. Because of the core team member's efforts on the 2021 WSS, we can conduct the update efficiently to meet your deadline.

Task	Labor Cost	Non-Labor Cost	Total Cost
1. Data Request/Kick-off Meeting	$8,610	$--	**$8,610**
2. Watershed Characteristics and Infrastructure	$13,880	$--	**$13,880**
3. Water Quality and Evaluations	$45,480	$--	**$45,480**
4. Watershed Contaminant Sources	$32,230	$1,000	**$33,230**
5. Project Management/ Report Preparation	$84,460	$1,400	**$85,860**
Total =	**$184,660**	**$2,400**	**$187,060**

The table below presents the hourly billing rate and total projected hours for each key member of our project team.

Individual	Hourly Rate	Hours	Labor Cost
Askenaizer, Dan	$325	226	$73,450
Borchardt, Jerimy	$325	8	$2,600
Najm, Issam	$395	22	$8,690
Johnson, Karen	$220	300	$66,000
Najm, Gabby	$160	212	$33,920
		Total Labor	$184,660
		Non-Labor Costs	$2,400
		TOTAL =	**$187,060**

CONTRACT COMMENTS

As described in the RFP, should Hazen be selected for your project, we request the opportunity to review and discuss changes to the contract language.

Appendix A – Resumes of Key Personnel

Dan Askenaizer, D.Env.

Project Manager

Dan has more than 35 years of experience in regulatory compliance and water quality, developing RMCPs, distribution system monitoring, source integration, and corrosion and nitrification control.

Education

D. Env., University of California, Los Angeles

MPH, University of California, Los Angeles

BA, Biology, University of California, San Diego

Areas of Expertise

- Regulatory Support
- Nitrification and Corrosion Control Plans
- Monitoring and Compliance Planning

On-Call Regulatory Support, City of Sacramento, Sacramento, CA
Project Lead. The City operates two large surface water treatment plants and 33 wells. Dan prepares an updated Regulatory Monitoring and Compliance Plan. The RMCP presents a review of all Title 22 Drinking Water Regulations and includes calendars that present monthly monitoring requirements for all of the City's sources and the distribution system. Each year Dan works with the City's laboratory staff to review and schedule sample collection for surface water and ground water sources. Dan works with City staff for the preparation of the annual Consumer Confidence Report, the 3-year PHG report, provides as needed review and evaluation of source and treated water quality data, and provides support to staff in developing responses to DDW requests.

Watershed Sanitary Surveys, Various Agencies, CA
Project Manager/Water Quality Lead. Dan's team has been involved in preparing five-year watershed sanitary survey updates for large and small water systems throughout California. These agencies include the Santa Clara Valley Water District, Trabuco Canyon Water District, Irvine Ranch Water District, Contra Costa Water District, City of Fresno, South San Joaquin Irrigation District, Calaveras County Water District, and the Stockton East Water District. Site visits to sources and treatment plants are conducted, five years of water quality data is compiled and reviewed to identify any changes over time and location, identify potential sources of contamination, the final Reports include recommendations for improving water quality over the next five year period.

Evaluation of Distribution System Water Quality & Operation, Mid-Peninsula Water District, Belmont, CA

Project Manager. MPWD is a retail customer of the San Francisco Public Utilities Commission. Dan and his team conducted an assessment of the water quality program. Dan collected and reviewed years of water quality data, reviewed written procedures, spent time with field staff as they conducted their routes. Dan prepared a written assessment, updated SOPs for District staff and provided recommendations for improving the water quality compliance program. The team assisted the District with responding to nitrification in several of their storage tanks, developed a chlorine calculator to assist staff when calculating chlorine needed to boost chlorine residual in targeted storage tanks, prepared an updated Nitrification Monitoring and Control Plan and provided training to staff. After working with MPWD on nitrification issues, the team assisted two other SFPUC customers; Purissima Hills Water District and the Westborough Water District, to provide support in dealing with nitrification in their storage tanks.

Corrosion Control Evaluation, Various Agencies, CA

Project Manager. Dan has conducted corrosion control evaluations dealing with lead and copper and iron and manganese for a number of water agencies in California. Dan has worked with clients including the Los Angeles Department of Water and Power, El Dorado Irrigation District, City of Fort Worth, Lake Arrowhead Community Services District, City of Lakewood, City of Santa Barbara, Las Virgenes Water District, and the Zone 7 Water Agency and its Member Agencies. For each project, water quality data were collected from all sources along with production data, and customer complaint information. The data was organized, reviewed and presented in tables and plots; corrosion indices were calculated using an internal water quality model, corrosion control treatment alternatives were evaluated and final reports with recommendations were prepared. Dan is currently working with agencies as they prepare the Lead Service Line inventory as required by the Lead and Copper Rule Revisions.

Water Quality Manager, Glendale Water and Power, Glendale, CA

Water Quality Manager. The team was responsible for meeting all Title 22 monitoring and reporting requirements, implementing a nitrification monitoring and control program, managing the water Department's two NPDES permits and administering the City's cross connection control program. Under Dan's leadership, the utility conducted a demonstration-scale study on the use of chlorite for nitrification control and conducted a pilot-scale study of biological treatment for the removal of nitrate. Dan managed the effort to obtain two amended operating permits from DDW. One amended operating permit was for a new well and one was for modifications to an existing disinfection process.

Principal Regulatory Specialist, Metropolitan Water District of Southern California, Riverside, CA

Principal Regulatory Specialist. MWD is a large wholesale agency. Dan was responsible for reviewing and evaluating proposed federal and state water quality regulations and legislation, prepared and delivered public comments to regulatory agencies and legislative committees, led teams that developed Action Plans identifying the impacts, resources needed, and the requirements of new regulations, and designed to ensure the utility complied with new drinking water regulations.

KAREN E. JOHNSON
WATER RESOURCES PLANNING
714.838.1627
kejwater@aol.com

Karen Johnson was one of the primary authors of the Division of Drinking Water's (DDW) Guidance Manual for Watershed Sanitary Surveys. She coauthored: "Water and Land Use, Planning Wisely for California's Future" and taught classes for 17 years at UC Extension at Davis and Berkeley on water supply planning. Karen Johnson has 40 years of experience in source protection, water resources, and infrastructure planning. She has been responsible for source watershed protection strategies and plans; identification of drinking water contaminant sources; and drinking water, wastewater, and recycled water system planning including water demand analyses, flow projections, supply planning, system reliability analyses, and alternatives analyses.

EXPERIENCE

Ms. Johnson prepared, with WQTS, Inc., the 2015, 2020, and 2025 Watershed Sanitary Survey (WSS) updates for Contra Costa Water District. These surveys documented existing and changed conditions within the 564 square mile watersheds of the source waters including three Delta intakes and Mallard Slough intake, canal and reservoir conveyance contribution areas, and the Los Vaqueros Reservoir watershed.

Ms. Johnson worked on CCWD projects for over 35 years starting with the initial Los Vaqueros Project which included raw water demand projections used for sizing the reservoir, Permit Handbook for the initial development, historical and current watershed data and monitoring needs TM, and technical quality control of the Watershed Management Plan. In addition to initial Los Vaqueros projects, she was Asst. Project Manager then Project Manager for the Seismic and Reliability Improvements Project; 3 separate system reliability analyses of CCWD retail customer systems; and demand projections for the Treated Water Service Area master plan.

Ms. Johnson prepared, with WQTS, Inc. the 2009, 2014, 2019, and 2025 WSS updates for Irvine Ranch Water District (and Serrano Water District's) 83 square mile Santiago Creek watershed. This watershed conveys local runoff from the Santa Ana Mountains to Santiago Reservoir where it is augmented by MWD supplies. Although the watershed is largely rural, existing residential and commercial land uses are concentrated along streams in Silverado, Modjeska, and other canyons, all on septic systems (OWTS). Within this watershed is Harding Canyon; a separate WSS was prepared in 2017 and then combined into the Santiago Creek WSS.

Karen worked with WQTS on the Stanislaus and Calaveras River Group WSS in 2016 and 2021. The 11 water agencies obtain their supply from these two rivers within a 473 square mile watershed for Calaveras River and 990 square mile Stanislaus River watershed. The supply is treated at 13 WTPs with 15 intakes. Key potential contaminant sources include wildfires, wildlife, and recreation.

Recommended by DDW to contact Water Resources Planning, Trabuco Canyon Water District's first WSS was prepared by Ms. Johnson in association with WQTS. The WSS was updated by the same team in 2018. Trabuco Creek watershed originates at the Santiago and Modjeska peaks of Saddleback Mountain and

conveys flows to the District's groundwater extraction system and new WTP. Extensive hiking trails, USFS leased cabins, rural residential uses on septic systems, equestrian centers, encroaching urban lands, and other unique land uses which pose potential risks to water quality were addressed.

The Santa Clara Valley watershed sanitary surveys, prepared with WQTS in 2017 and 2021, addressed potential contaminant sources in the three 212 combined square mile watersheds. These watersheds contain four reservoirs and one canal. Mercury is a water quality concern along with various recreational activities.

For the City of Fresno, Karen prepared with WQTS the original WSS for the Fresno Canal in 2014. This survey developed and implemented a monitoring program to provide water quality data for the assessment of an alternative conveyance of Kings River water to a new southeast WTP. The Fresno Canal is an historical stream channel with extensive agricultural, rural, and urban development draining a 110 square mile watershed. The WSS was updated in 2019 to reflect the new WTP intake location and watershed delineation. Previously she managed Fresno's first WSS and Water Quality Assessment for the Enterprise Canal conveyance for a new northeast WTP. The Kings River watershed is 1,700 square miles. Water quality monitoring needs were identified and water quality assessments developed to determine the treatment process.

Karen managed the development of the first WSS for San Francisco's five local reservoir watersheds. This document was then used by DDW as an example for other agencies to follow. She was the project manager for the water quality and supply analyses tasks for the San Francisco Watershed Management Plans, including the development of watershed vulnerability zones. In addition, she provided technical review of East Bay Municipal Utility District's first WSS.

As project manager for the New Melones Lake Resource Management Plan, Ms. Johnson managed the development of strategies for accommodating extreme fluctuations in Stanislaus River and reservoir levels due to the severe drought, operational requirements of the CVP, and water quality standards at Vernalis. Potential contaminant sources were factored into the resource plan with BMPs and management actions.

Ms. Johnson managed the Upper Mokelumne River Watershed Assessment and Planning Project. This $1.2m Upper Mokelumne River Watershed Authority project was driven by a PAC, a diverse group of hands-on stakeholders, and included integrating the community at key steps. Baseline water quality was documented, long term water quality and watershed trends were evaluated, a hydrologic simulation model – WARMF – created, resulting in the development of a watershed management plan. Karen supported the Integrated Regional Water Management Plan Update for the Mokelumne/ Amador/Calaveras region which utilized Proposition 84 funds. She also provided peer review of the MokeWISE methodology and results.

EDUCATION

B.A., Environmental Studies and City Planning, Sonoma State University, California

PLACES OF EMPLOYMENT

2004-present	Water Resources Planning
1986-2004	MWH Americas
1983-1986	Reimer Associates Civil Engineering

PROFESSIONAL AFFILIATIONS

American Water Works Association

Gabby Najm

Data Organization and Presentation

Gabby 's expertise includes preparing, operating, collecting samples, managing, and analyzing data for a range of bench-scale studies and projects.

Education

MS, Ecology & Evolutionary Biology, University of California, Los Angeles

BA, Biology, University of California, Santa Barbara

Areas of Expertise

- Drinking Water Quality Bench Testing & Data Analysis
- PFAS Removal
- Water Quality Analysis for Regulatory Compliance Monitoring, Watershed Sanitary Surveys, Consumer Confidence Reports, Corrosion Control Studies
- Simulated Distribution System Testing
- Rapid Small Scale Column Testing

Technical Publications

Najm, Gabby. *Physical and social cues shape nest-site preference and prey capture behavior in social spiders.* Behavioral Ecology, 2020.

Najm, Gabby. *Comparative genomics identifies putative signatures of sociality in spiders.* Genome Biology and Evolution, 2020.

Najm, Gabby. *Experimental evidence of frequency-dependent selection on group behavior.* Nature Ecology & Evolution, 2019.

Pilot Testing of PFAS Removal from Surface Water, Elsinore Valley Municipal Water District, Lake Elsinore, CA

Pilot Plant Operator. Gabby 's team conducted pilot-scale testing in Lake Elsinore to quantify the removal of PFAS chemicals at Canyon Lake Water Treatment Plant (CLWTP) using Granular Activated Carbon, Ion-Exchange (IX) resin, and a specialty clay adsorbent. Gabbywas involved with daily operation and monitoring of the pilot plant, weekly water quality sampling and analysis, as well as data management.

Watershed Sanitary Survey Water Quality Data Analysis, Contra Costa Water District, Concord, CA

Data Management. Gabby's team was tasked with updating CCWD's Watershed Sanitary Survey, which includes the physical and hydrological description of the watershed, summary and evaluation of water quality data, watershed activities and potential sources of contamination, control and management practices, evaluation of the system's ability to meet the SWTR, and any recommendations for corrective actions. Gabbywas involved with water quality data management and analysis.

Bench-Scale Testing of Potential Water Exchange Scenarios Through a Proposed Intertie Pipeline, Water Works Engineers; Casitas Municipal Water District; Carpinteria Valley Water District, CA

Scientist. Conducted bench-scale testing to evaluate the water quality implications of various potential operational scenarios of an intertie pipeline connecting Ventura and Santa Barbara Counties, as one county uses free chlorine and one uses chloramine as disinfectants. Experiments assessed any potential water quality issues that may give insight to the design and operation of the intertie. Responsible for field testing, general water quality testing, sampling, and data analysis.

Evaluation of Bench-Scale Methods to Predict Drinking Water PFAS Removal Performance of Adsorbents at Pilot- and Full-Scale, Orange County Water District, Anaheim, CA
Project Scientist. Gabby's team conducted bench-scale testing under a WRF funded study comparing PFAS removal performance of novel adsorbents at multiple scales. The bench-scale experiments included Rapid Small-Scale Column Tests (RSSCT), Bottle-Point Isotherm (BPI) tests, and Recirculating-Column Isotherm (RCI) tests. Gabbywas involved in project set up, daily monitoring, sampling, upkeep, and data management.

Fish Hatchery Ozone Demand Bench-Scale Testing, Schnabel Engineering, Salida, CO
Project Scientist. Conducted bench-scale testing to evaluate ozone demand and decay using batch ozonation methodology on water samples from a Colorado fish hatchery. Under cold water conditions, several ozone doses were tested on the influent to the hatchery and effluent. For each ozone dose, the ozone residual concentration was measured over time to capture the rate of decay in the samples. Responsible for conducting laboratory testing and data analysis.

Alum and Powdered Activated Carbon (PAC) Bid Jar Testing, Goleta Water District, Goleta, CA
Project Scientist. Conducted bench-scale jar testing to quantify and compare the performance of solicited Alum and Powdered Activated Carbon (PAC) bids for Goleta Water District's (GWD's) Corona Del Mar Water Treatment Plant (CDMWTP). The turbidity, Total Organic Carbon (TOC), and MIB removal results were utilized in selecting the most economical product for the CDMWTP to use over the next 12 months. Responsible for conducting laboratory testing, sampling, and data analysis.

Distribution System Storage Tanks Nitrification Assessment, Los Angeles Department of Water and Power, Los Angeles, CA
Project Scientist. Tasked with assessing water quality challenges in all storage tanks across the LADWP distribution system and identifying tanks with difficulties maintaining chloramine residual. Performed extensive data analysis on total chlorine, free chlorine, total ammonia, free ammonia, and bacteriological levels in storage tanks over a period of several years. Responsible for data management, analysis, visualization, and GIS mapping.

Lead Service Line Inventory Plan and Implementation Support, Montecito Water District, Montecito, CA
Project Scientist. Tasked with preparing a plan for preparation of the service line material inventory for Montecito Water District as required under the federal Lead and Copper Rule Revisions (LCRR). Reviewed internal and external historical data of the District's building records to determine pipe installation dates, locations, and size, which informed the planning and implementation of physical inspections of service lines. Responsible for cataloguing and analyzing historical data and determining inspection locations.

Issam Najm, PhD, PE, BCEE

QA/QC

Issam has more than 30 years experience with bench-scale, pilot-scale, and full-scale testing of water treatment technologies including the removal of trace contaminants from groundwater and surface water supplies.

Education

PhD, Civil & Environmental Engineering, University of Illinois at Urbana-Champaign

MS, Civil & Environmental Engineering, University of Illinois at Urbana-Champaign

BS, Civil Engineering, American University of Beirut, Lebanon

Certification/License

Professional Civil Engineer: CA

Board Certified Environmental Engineer

Areas of Expertise

- Bench-scale Testing
- Pilot-scale Testing
- Full-scale Testing

Technical Publications

Najm, Issam. *Destruction of 1,4-Dioxane and VOCs with UV-H2O2 in a high alkalinity groundwater.* AWWA Water Science, 2022.

Najm, Issam. *Nitrate Removal in an Electrically Charged Granular-Activated Carbon Column.* ACS Publications, 2021.

Bench-Scale Evaluation of PFAS Removal from Groundwater with GAC, Eastern Municipal Water District, Perris, CA

Bench/Pilot Lead. Eastern Municipal Water District serves water to 825,000 people in Riverside County, California. One of the District's wells was found to contain a number of Perfluoroalkyl substances (PFAS) that originated from an upgradient fire-fighting training site at the former March Air Force Base. Issam utilized the Rapid Small-Scale Column Test (RSSCT) method to evaluate PFAS removal with two GAC materials. A large water sample was obtained from the well and transported to Los Angeles. He then used it as the influent to four RSSCT columns containing two different GAC material under two different design configurations. At the completion of the tests, Issam summarized all the results in a Technical Memorandum (TM) and submitted it to the District.

Bench-Scale Testing of PFAS Removal with GAC and Ion-Exchange Resins, Santa Clarita Valley Water Agency, Santa Clarita, CA

Bench/Pilot Lead. After implementing a special monitoring program, the Santa Clarita Valley Water Agency determined that many of its groundwater wells contained perfluoroalkyl substances (PFAS) at levels of concern. All bench-scale testing was conducted in Los Angeles using water samples collected from the Agency's wells. The Rapid Small-Scale Column Test (RSSCT) was used to evaluate the performance of four GAC material, while a modified batch isotherm test procedure was used to assess the performance of two IX resins. Based on the testing results, SCVWA selected IX for full-scale implementation, with the first full-scale system coming online in July 2020.

Bench-Scale Testing of PFAS Removal with GAC and Ion-Exchange Resins, San Jose Water Company, San Jose, California

Bench/Pilot Lead. The San Jose Water Company (SJW) draws water from a number of groundwater wells in San Jose, California. A number of SJW's wells were found to contain detectable PFAS levels. Issam conducted Rapid Small Scale Column Tests (RSSCTs) and Recirculation Column Isotherm (RCI) tests to compare several adsorbents including three GACs, Fluorosorb-200 (FS200), and Ion-Exchange (IX) resins.

Pilot-Scale Testing of PFAS Removal from Surface Water, Elsinore Valley Municipal Water District, Lake Elsinore, California

Bench/Pilot Lead. The Elsinore Valley Municipal Water District treats Canyon Lake water at the 7-MGD Canyon Lake Water Treatment Plant (CLWTP). In 2019, the District shut down the WTP after discovering PFAS in the source water. As part of the project, Issam is conducting a 9-month pilot testing program that is evaluating the application of multiple adsorbents, including GAC, Ion-Exchange resins, and specialty adsorbents at the WTP. Issam set up all pilot equipment, acquired the test media, and operating the pilot plant. The study concluded in April 2022, and the District proceeded with the design of the PFAS treatment modifications to the WTP.

Bench-Scale Testing of PFAS Removal from Groundwater with Ion-Exchange Resins Liberty Utilities, Downey, California

Bench/Pilot Lead. Liberty Utilities (Liberty) operates several water systems in Southern California utilizing local groundwater. One of the wells serving the system is contaminated with PFAS at levels ranging from 2.4 ng/L to 48 ng/L. Issam collected a large sample of groundwater and conducted two Rapid Small Scale Column Tests (RSSCTs) on the two IX resins being considered for the treatment plant. All testing was completed by Issam and reported in a Technical Memorandum to be submitted to the State for approval of the planned treatment system.

Tailored Collaboration Research on PFAS Removal with Ion-Exchange Resins, Orange County Water District, California

Bench/Pilot Lead. Issam worked with the Orange County Water District (OCWD) on a Tailored Collaboration (TC) project funded jointly by the Water Research Found (WRF), OCWD, and various water agencies impacted by PFAS contamination and interested in exploring economic approaches to selecting successful treatment systems. Under this project, Issam conducted bench-scale adsorption isotherm tests as well as Rapid Small-Scale Column Tests (RSSCTs) to evaluate the removal of PFAS from three groundwater sources using a wide range of adsorbents. The bench testing results were then compared to the pilot-scale testing results obtained by OCWD during the last two years of testing across the basin. The study concluded in 2025.

Pilot-Scale Evaluation of Alternative Adsorbents for PFAS Removal from Groundwater, Santa Clarita Valley Water Agency, California

Bench/Pilot Lead. Provided and set up the pilot equipment, installed the adsorbents in the pilot contactors, and started up the system. Issam went to the site every two weeks to collect water quality samples and download operational data from the system's computer. Special tests were conducted on startup to characterize the chemical quality of the rinse water from each adsorbent to ensure there is clear understanding of how it impacts the potential disposal options upon full-scale implementation. Based on the results of the study, SCV Water filed for an amendment to its operating permit to allow the use of the tested adsorbents at its current and future PFAS treatment plants.

Hazen and Sawyer
2151 River Plaza Drive • Suite 270 • Sacramento, CA 95833

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COST SHARING AGREEMENT
REGARDING CONTRACTING AND APPORTIONMENT OF COSTS FOR
CALAVERAS RIVER AND STANISLAUS RIVER
WATERSHED SANITARY SURVEY UPDATE

The COST SHARING AGREEMENT ("Agreement") is made and entered into this ____day of _____, 2026 by and between STOCKTON EAST WATER DISTRICT, a political subdivision of the State of California ("SEWD"); CALAVERAS COUNTY WATER DISTRICT, a California county water district ("CCWD"); California Department of Forestry & Fire Protection ("CDFFP"); CITY OF ANGLES CAMP, a municipal corporation ("COAC"); KNIGHTS FERRY COMMUNITY SERVICE DISTRICT, a California community service district ("KFCSD"); PINECREST PERMITTEES ASSOCIATION, a non-profit utility corporation ("PPA"); SIERRA CONSERVATION CAMP, a California State Prison at Jamestown, ("SCC"); SOUTH SAN JOAQUIN IRRIGATION DISTRICT, a California irrigation district ("SSJID"); TUOLUMNE UTILITIES DISTRICT, a California county water district ("TUD"); and UNION PUBLIC UTILITY DITRICT, a special district under the law of the State of California ("UPUD"), collectively referred to herein as the "parties".

WHEREAS, the parties wish to obtain drinking water from the Calaveras and Stanislaus Rivers, and California law requires a watershed sanitary survey be performed on drinking water supplies ("Survey");

WHEREAS, the Board of Directors of SEWD approved accepting a proposal from Hazen and Sawyer, a California corporation ("Consultant"), in the amount of $187,060 with an 10% Contingency ($18,706), to perform the Survey; and

WHEREAS, the Survey will benefit all the parties to this Agreement and therefore the parties wish to share the costs of the survey as stated herein.

NOW, THEREFORE, THE PARTIES AGREE AS FOLLOWS:

1. Survey. SEWD shall be responsible for the administration of the contract and compensation to the Consultant for the Survey. SEWD shall monitor the progress of the Survey and shall ensure the Consultant provides a final draft of the Survey satisfactory to all the parties hereto on or before June 30th, 2026.

2. Technical Advisory Group ("TAG"). Each agency shall designate a representative to serve on the technical advisory group, and the TAG shall monitor and review the progress of the work undertaken by Consultant to ensure the work is completed in a thorough and timely fashion. The TAG shall have the final authority to direct the Consultant, and such direction shall be implemented by the Consultant and SEWD

pursuant to Section 1 above. The representatives on the TAG shall periodically report back to each of their respective Boards/Agencies. The TAG shall meet informally with the Consultant at a location, time and date determined by the TAG, as required during the course of this work.

3. Reimbursement. SEWD shall deliver the Final report to the remaining parties. Upon receipt of the Final report by each party, SEWD shall be reimbursed by the respective parties as follows:

3.A. CCWD shall reimburse SEWD up to $14,550.59, for portions of the Survey related to the Calaveras River and shall reimburse SEWD up to $6,026.01, for portions of the Survey related to the Stanislaus River, for a total reimbursement to SEWD up to $20,576.50 (10% of total proposal amount including approved contingency).

3.B. CDFFP shall reimburse SEWD up to $2,057.66 for portions of the Survey related to the Stanislaus River, for a total reimbursement to SEWD of up to $2,057.66 (1% of total proposal amount including approved contingency).

3.C. COAC shall reimburse SEWD up to $2,057.66, for portions of the Survey related to the Stanislaus River, for a total reimbursement to SEWD of up to $2,057.66 (1% of total proposal amount including approved contingency).

3.D. KFCSD shall reimburse SEWD up to $2,057.66, for portions of the Survey related to the Stanislaus River, for a total reimbursement to SEWD of up to $2,057.66 (1% of total proposal amount including approved contingency).

3.E. PPA shall reimburse SEWD up to $2,057.66, for portions of the Survey related to the Stanislaus River, for a total reimbursement to SEWD of up to $2,057.66 (1% of total proposal amount including approved contingency).

3.F. SCC shall reimburse SEWD up to $2,057.66, for portions of the Survey related to the Stanislaus River, for a total reimbursement to SEWD of up to $2,057.66, (1% of total proposal amount including approved contingency).

3.G. SSJID shall reimburse SEWD up to $39,083.28, for portions of the Survey related to the Stanislaus River and shall reimburse SEWD up to $22,646.52 for Woodward Reservoir portion of the Survey, for a total reimbursement to SEWD of up to $61,729.80 (30% of total proposal including approved contingency).

3.H. TUD shall reimburse SEWD up to $20,576.50, for portions of the Survey related to the Stanislaus River, for a total reimbursement to SEWD of up to $25,576.50, (10% of total proposal including approved contingency).

3.I. UPUD shall reimburse SEWD up to $2,057.66, for portions of the Survey related to the Stanislaus River, for a total reimbursement to SEWD of up to $2,057.66, (1% of total proposal including approved contingency).

3.J. Total Cost and Contingency

The total cost of the Survey shall be based on the executed agreement between SEWD and the Consultant, including any approved amendments. In addition to the base proposal amount, a contingency amount may be authorized by SEWD to address unforeseen conditions, scope modifications, or additional work as directed by the Technical Advisory Group (TAG).

Each party agrees that its proportional share, as identified in Section 3, shall apply to the total actual cost of the Survey, including any approved contingency expenditures.

Notwithstanding the foregoing, each party's reimbursement obligation shall not exceed its proportional share of a total not-to-exceed amount equal to the Consultant's contract amount plus an authorized contingency of $18,706 (or 10%). Any use of contingency funds shall be documented and subject to review by the TAG.

3.K. Adjustment for Final Costs

The dollar amounts identified in Section 3 are estimates based on the Consultant's proposal. Final reimbursement amounts shall be based on each party's proportional share of the total actual project cost, including any approved contingency, provided that no party shall be invoiced in excess of its proportional share of the total not-to-exceed project cost.

4. Reimbursement Procedure. SEWD shall deliver an invoice to the respective parties for the sums to be paid pursuant to paragraph 3 herein. The invoice shall be due and payable within thirty (30) days of receipt.

5. Notice. Notice of any matter, including reimbursement invoices shall be deemed to have been given if delivered personally to the other party; or if deposited in the United States mail with first class postage affixed, then notice is deemed to have been given seventy-two (72) hours after deposit. Notice shall be sent to the parties at the following addresses:

"SEWD" Justin M. Hopkins, General Manager
Stockton East Water District
P.O. Box 5157
Stockton, CA 95205-0157

"CCWD" Michael Minkler, General Manager
Calaveras County Water District

	120 Toma Court San Andres, CA 95249
"CDFFP"	Nick Casci, Unit Chief California Department of Forestry & Fire Protection Tuolumne-Calaveras Unit 785 Mountain Ranch Rd. San Andreas, CA 95249
"COAC"	Chris O'Flinn, Public Works Superintendent P.O. Box 667 Angels Camp, CA 95222
"KFCSD"	Nancy Patton, Board Member Knights Ferry Community Service District P.O. Box 817 Knights Ferry, CA 95361
"PPA"	Brian Barclay, General Manager Pinecrest Permittees Association P.O. Box 1248 Pinecrest, CA 95364
"SCC"	Joe Borla, Correctional Plant Manager Business Services Sierra Conservation Center 5100 O'Byrnes Ferrry Road Jamestown, CA 95327
"SSJID"	Peter Rietkerk, General Manager South San Joaquin Irrigation District P.O. Box 747 Ripon, CA 95366
"TUD"	Don Perkins, General Manager Tuolumne Utilities District 18885 Nugget Blvd Sonora, CA 95370
"UPUD"	Eric Bottomley, President c/o Gary Ghio Weber, Ghio & Associates P.O. Box 251 San Andres, CA 95249

6. Entire Agreement. This Agreement contains the entire agreement between the parties relating to the matters covered herein. Any oral representations or modifications concerning subsequent modifications shall be made in writing and signed by the respective parties.

7. Attorneys' Fees. In the event of any controversy, claim, or dispute relating to this Agreement or the breach thereof, the prevailing party shall be entitled to recover from the losing party reasonable expenses, attorneys' fees, and costs.

8. Binding Effect. This Agreement shall be binding on and shall insure the benefit of the heirs, executors, administrators, successors, and assigns of the parties to the Agreement.

9. Termination of Agreement. This Agreement shall terminate upon delivery of the Final Report to and payment of reimbursement by the respective parties, or December 2026, whichever is later.

STOCKTON EAST WATER DISTRICT (SEWD)
a special district under the law of the State of California

By: _____ Date: _____
Thomas McGurk, President

ATTEST:

By: _____ Date: _____
Justin M. Hopkins, General Manager

CALAVERAS COUNTY WATER DISTRICT (CCWD)
a California county water district

By: _____ Date: _____
Michael Minkler, General Manager

ATTEST:

By: _____ Date: _____
Rebecca Hitchcock, Clerk of the Board

California Department of Forestry & Fire Protection (CDFFP)

By: Date:

Nick Casci, Unit Chief

CITY OF ANGELS (COAC)
a municipal corporation

By: _____ Date: _____
Chris O'Flinn, Public Works Superintendent

KNIGHTS FERRY COMMUNITY SERVICE DISTRICT (KFCSD)
a special district under the law of the State of California

By: _____ Date: _____
Nancy Patton, Board Member

PINECREST PERMITTEES ASSOCIATION (PPA)

By: _____ Date: _____
Brian Barclay, General Manager

SIERRA CONSERVATION CAMP (SCC)
a California State Prison at Jamestown

By: _____ Date: _____
Joe Borla, Correctional Plant Manager

SOUTH SAN JOAQUIN IRRIGATION DISTRICT (SSJID)
a special district under the law of the State of California

By: _____ Date: _____
Robert Holmes, President

ATTEST:

By: _____ Date: _____
Peter Rietkerk, General Manager

TOULUMNE UTILITIES DISTRICT (TUD)
a special district under the law of the State of California

By: _____ Date: _____
Ron Rigen, President

ATTEST:

By: _____ Date: _____
Don Perkins, General Manager

UNION PUBLIC UTILITY DISTRICT (UPUD)
a special district under the law of the State of California

By: _____ Date: _____
Eric Bottomley, President

ATTEST:

By: _____ Date: _____
Elaine Varsity, Office Manager

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DATE: **April 22, 2026** **AGENDA ITEM NO. 6**

TITLE: **High Service Pump Station HVAC Improvements and Redundant Cooling System**

SUBJECT: **Consider approval of HVAC system modifications and redundant cooling system at High Service Pump Station and Proposed Budget Amendment**

Executive Summary

The Stockton East Water District's (District) High Service Pump Station (HSPS) is a critical facility responsible for delivering water to municipal and industrial customers. Existing HVAC deficiencies have been identified and resulted in elevated room temperatures, inadequate cooling performance, and lack of system redundancy—conditions that pose a significant operational risk to essential equipment and continuous service.

Despite relatively new equipment, the current HVAC system reflects only a partial implementation of the original design and is unable to maintain required temperature thresholds. This has already led to operational impacts, including high-temperature trips, and increases the risk of equipment failure and service disruption.

To address these issues, staff proposes a two-part project: (1) remediation of existing HVAC performance through airflow improvements, upgraded controls, and enhanced air circulation; and (2) installation of a new 20-ton package unit to provide redundant cooling capacity. These improvements will restore system performance, improve reliability, and reduce operational risk at this critical facility.

District staff recommends that the Board of Directors (Board):

1. Authorized the General Manager to proceed with implementing the HVAC system improvements and installation of a redundant cooling system at the High Service Pump Station in the amount of $302,801 plus 10% contingency of $30,280 for a total of $333, 081 and execute all appropriately necessary agreements.

1. Approve the required budget transfer presented in **Table 1**.

Background

The High Service Pump Station is a critical facility supporting continuous water delivery to key M&I customers. Maintaining proper environmental conditions within the building is essential to ensure reliable performance of electrical equipment, motors, drives, and control systems.

The District previously pursued HVAC improvements for this facility in response to increased room temperatures associated with station operations and added heat load. Kennedy/Jenks' 2022 design assistance proposal stated that the District observed a significant increase in room temperature associated with the VFD upgrades and sought recommendations to maintain the room temperature at a maximum of 80 degrees Fahrenheit.

The subsequent design prepared by Keller Associates for the heating and cooling upgrades included three air conditioning units set up so one unit runs first and the others come on as needed, a single thermostat to control the system, communication capability for future connection to the District's monitoring system, insulated ductwork, new wall openings, return air plenum modifications, and required testing and balancing.

The existing HVAC system includes three of the four recommended 20-ton units that are approximately two years old. While the units themselves are relatively new, the overall system is not achieving the desired cooling performance. The current installation reflects only a partial implementation of the broader original design intent. As a result, the facility continues to experience elevated room temperatures.

In addition, the current configuration does not provide sufficient redundancy. If one unit is offline or underperforming, the remaining units cannot maintain adequate cooling throughout the facility. Given the critical nature of HSPS, this represents an elevated operational risk.

Summary

The proposed project consists of two primary components:

1. HVAC Performance Remediation

Improvements will address the root causes of the current cooling deficiencies and include:

- Ductwork modifications and installation of backdraft dampers
- Air balancing and redistribution of supply and return airflow
- Installation of six (6) industrial ceiling fans to improve air circulation
- Replacement of existing thermostats with upgraded digital controls utilizing return air sensing
- Continuous fan operation to better manage internal heat load

These improvements are intended to restore proper airflow, improve temperature control, and increase the effectiveness of the existing HVAC system. American Chiller's remediation proposal specifically includes ductwork modifications, backdraft dampers, air balancing, six industrial ceiling fans, removal of existing thermostats, and new digital temperature controls for continuous fan operation and improved space control.

2. Redundant Cooling System Installation

- Installation of a new 20-ton package unit with economizer
- Reconfiguration of ducting and concrete pad to support equipment layout
- Electrical modifications to allow parallel operation of units
- Installation of backdraft dampers to allow simultaneous and independent unit operation
- Air balance testing, startup, and commissioning

This work will provide redundant cooling capability and improve the facility's ability to maintain acceptable room temperatures if one unit is unavailable or underperforming. American Chiller's installation proposal includes adding a new 20-ton package unit, reconfiguring ducting and concrete pad layout, providing parallel electrical feeds, installing backdraft dampers, and completing startup and air balance testing.

The proposed improvements are generally consistent with the broader intent of the original HVAC upgrade design.

3. Risk Considerations

Failure to address the current HVAC deficiencies will continue to expose the District to the risk of overheating critical equipment at the HSPS.

This risk is already materializing, as evidenced by multiple high-temperature trips of Pump P-29. Continued operation under elevated temperatures increases the likelihood of equipment damage, unplanned outages, and service disruptions.

Because HSPS is the District's only pump station serving M&I customers, any failure at this facility would have immediate and significant impact on water delivery for the City of Stockton and California Water Service.

The lack of redundancy further increases this risk by leaving the facility vulnerable if any single HVAC unit becomes inoperable.

4. Procurement

The District solicited quotes from multiple qualified vendors. Including Comfort Air, McLauglin Air, and American Chiller Service Inc. However, American Chiller Service Air was the only vendor to provide a complete proposal based on field evaluation and job walk.

The proposed scope addresses both the current cooling deficiencies and the need for redundant cooling capacity at this critical facility.

Financial Impact

The District has received proposals for the following work:

- HVAC Performance Remediation: $130,616
- 20-Ton Package Unit Installation: $172,185

Total Project Cost: $302,801 plus 10% contingency of $30,280 for a total of $333,081

The District's Board approved Fiscal Year 2026-2027 budget includes $200,000 for this work, but the estimated cost at budget formulation is short of the received proposals. As such a budget amendment such as the one presented in Table 1. Is necessary to complete the proposed work.

Item	Fund	Account	Purpose	Beginning Balance	Transfer/ Expense	Ending Balance
Transfer From	94	10-5323-0	*WTP M&R HVAC For Low Lift Pump Station Phase I*	$100,000	$(100,000)	$ -
Transfer From	94	10-5323-0	*WTP M&R 120/208V Distribution*	$ 60,000	$ (33,100)	$ 26,900
Transfer To	94	10-5323-0	*WTP M&R HSPS HVAC Improvement*	$200,000	$ 133,100	$333,100

Table1. Proposed Budget Amendment

After analyzing priorities, staff believes that the HSPS temperature issue is much more critical than Phase I of the HVAC work for the Low Lift Pump Station which will be moved to a different fiscal year. The electrical work for the 120/208V distribution and feeder replacements can continue in a more limited scope and can be supplemented if necessary from the general maintenance funds.

Staff Recommendation
District staff recommends that the Board:

2. Authorized the General Manager to proceed with implementing the HVAC system improvements and installation of a redundant cooling system at the High Service Pump Station in the amount of $302,801 plus 10% contingency of $30,280 for a total of $333, 081 and execute all appropriately necessary agreements.
3. Approve the required budget transfer presented in **Table 1**.

Staff Responsible for Report

Darrel Evensen
Darrel Evensen, District Engineer — Date: 04/22/26

David Higares
David Higares, Maintenance Manager — Date: 04/22/26

Juan M. Vega
Juan Vega, Assistant General Manager — Date: 04/22/26

Justin M. Hopkins, General Manager — Date: 04/22/26

Attachments
None