



Lake Don Pedro Community Services District

Statement of Qualifications to Provide District Engineering Services

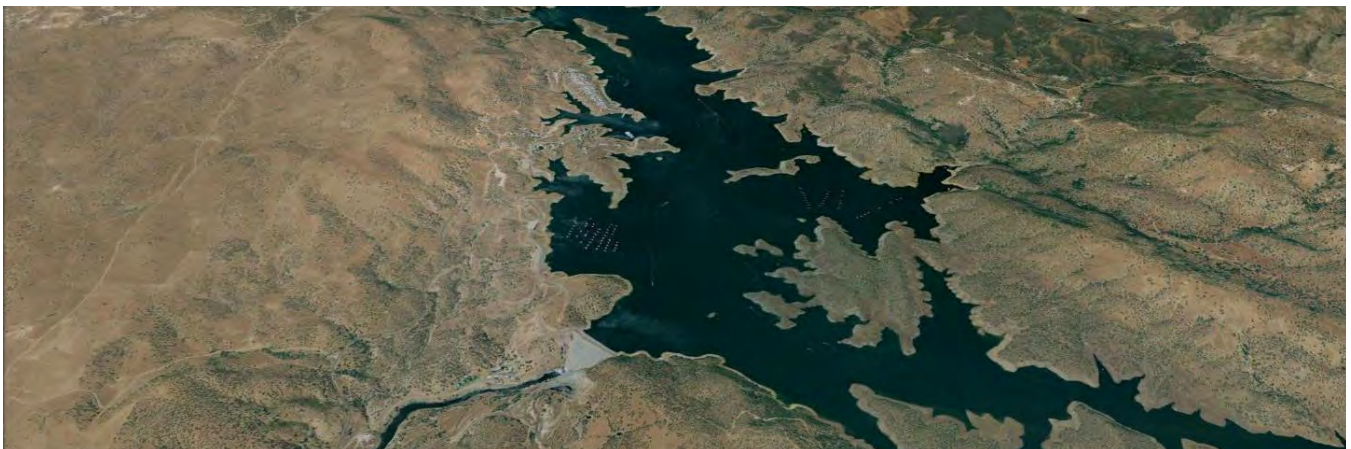


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1. EXECUTIVE SUMMARY

DELIVERING TECHNICAL EXCELLENCE AND RESPONSIBLE CLIENT SERVICE

This section includes a brief overview of Kennedy/Jenks' background, specialization, and responsible local office and subconsultants that will assume all contract responsibilities. Kennedy/Jenks' team brings an extensive experience and a history of providing on-call and as-needed engineering services.



FIRM OVERVIEW

Kennedy/Jenks Consultants (Kennedy/Jenks) is a full-service, multidiscipline engineering consulting firm with a strong Northern California-based proposed District Engineering Team. Our Sacramento office will be the hub of water resource professional services. This full-service office hosts a staff of 22 professionals providing civil, mechanical, structural, electrical, and environmental engineering disciplines. In Northern California, our firm has a professional staff of over 100 located in five offices, all less than a few hours drive from the District's office at La Grange, California. Nationally, Kennedy/Jenks has nearly 400 professionals in 27 offices throughout the United States to support any water project challenge, no matter how large or small, or how complex. Our primary focus is to provide you personalized engineering service.



SPECIALIZING IN WATER RESOURCES MANAGEMENT AND ENGINEERING

Kennedy/Jenks' has specialized in water resource management and engineering for more than 99 years. We offer our clients expertise in water resource management and engineering through planning, design, and construction. We excel in tried and true water conveyance and treatment approaches to innovative treatment and construction methods, including infrastructure design and rehabilitation, and energy management, while also providing other services supporting the water industry.

We are currently executing work on 21 on-call engineering assignments in Northern California, including the cities of Davis, Sacramento and Modesto, Carmichael WD, Linda County WD, Twain Harte CSD, and Tuolumne Utilities District. Our clients trust us to collaborate to acquire just the right amount of information to work independently, and take that knowledge to develop solutions to their challenges.

HISTORY WORKING WITH THE DISTRICT

Since 2015, we have been able to assist the Lake Don Pedro Community Services District (District) in leveraging \$379,000 to obtain an additional \$2.9 million in grant funding for new wells, water system efficiency improvements, and water service line replacements. Kennedy/Jenks was contracted by the District on January 31, 2015 to prepare funding applications, a feasibility study, design, bidding and construction for three new wells to address an emergency water shortage during the drought. In addition, Kennedy/Jenks has assisted in the preparation of both the 2013 Tuolumne-Stanislaus and the 2014 Yosemite-Mariposa Integrated Regional Water Management Plans which involved District projects, completed a design for the existing intake barge modification project, and successfully completed and

submitted another grant proposal to fund the replacement of leaking water service lines. We are currently working to complete another grant application for funding assistance to address three District priorities: (1) replacement of the District’s intake pumps, pipeline and system controls; (2) evaluation of the water treatment plant control systems, pipes, valves, and fittings; and (3) evaluation of the distribution system.

LOCAL EXPERIENCE

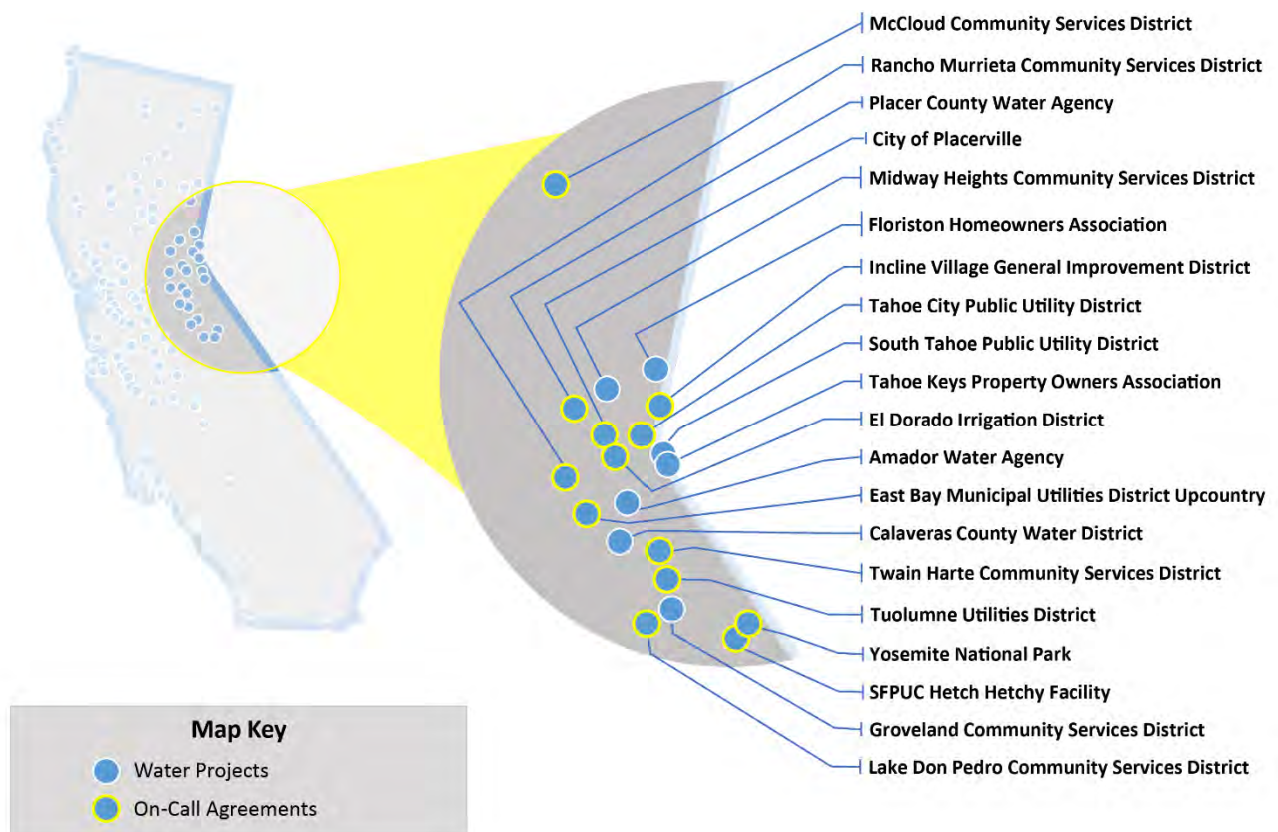
We have completed a significant number of projects for smaller rural utility clients like the District located within the foothills and High Sierra (e.g., TUD, Twain Harte CSD, Calaveras County WD, Amador WA, Groveland CSD, El Dorado ID, Yosemite National Park, South Tahoe PUD, EID, and many others as shown in the figure below) that must address the challenges of limited funds, hilly terrain, utility conflicts, challenging construction like rock excavation, narrow corridors, and sensitive environments requiring permitting and Environmental Non-Government Organizations (ENGO) coordination, a mixture of surface water and groundwater supply sources, and construction cost estimating nuances such as limited contractor competition and increased distance to deliver equipment and materials.

SUBCONSULTANTS

Kennedy/Jenks typically uses subconsultants for specialties we do not have in-house, including services related to obtaining environmental clearance and documentation, geotechnical services, and surveying services. Therefore, we propose the following subconsultants to supplement our District Engineering Team who are all located close to the District’s office:

- > Augustine Planning Associates, Inc. – Environmental Documentation and Clearance (Sonora, CA)
- > Condor Earth – Geotechnical and Materials Testing Engineering Services (Sonora and Merced, CA)
- > O’Dell Engineering – Land Survey Services (Modesto, CA)

Kennedy/Jenks’ Foothills and High Sierra Experience



2. PROJECT TEAM

OUR DISTRICT ENGINEERING TEAM WILL SERVE AS AN EXTENSION OF YOUR STAFF

Kennedy/Jenks Consultants will serve as the District’s Engineer utilizing a team of talent, knowledgeable and local staff that have worked with the District, and have a long standing and trusted working relationship with the District’s General Manager, which will make working as an extension of the District’s staff seamless. We have utilized three key steps to create a successful project team including: identifying the best possible members, organizing those members into an efficient operating unit, and obtaining team commitment. This team development and team district engineering approach has worked successfully on our long-standing District Engineering contract with Linda County Water District.

PROJECT TEAM

Kennedy/Jenks has assembled a Northern California based team with outstanding qualifications and experience capable of serving all the District’s engineering needs from general engineering support, map and plan review and approvals, and project planning, design, bid, and construction services. Our District Engineering Team includes civil, structural, architectural, electrical and mechanical engineers, and specialists in cost estimation, condition assessment, construction management and inspection, planning, compliance and funding. This team has the right mix of capabilities, resources, and talents to meet the District’s on-call engineering needs. Our project team members are shown on the following organizational chart.



AS-NEEDED TECHNICAL SERVICES

Electrical	Surveying
- Sandy Schuler, P.E.	- Dylan Crawford, P.L.S. ⁽¹⁾
Structural	- Scott Roberts, P.L.S. ⁽¹⁾
- Aaron Taylor, P.E., S.E.	Geotechnical
Building Mechanical	- Ron Skaggs, P.E., G.E. ⁽²⁾
- Zac Harris, P.E., LEED® AP	- Narciso Garnica, E.I.T. ⁽²⁾
Architect	Environmental
- Mark Preston, R.A.	- Amy Augustine, A.I.C.P. ⁽³⁾
Cost Estimating	
- Janet Hoffman, P.E.	

SUBCONSULTANTS

⁽¹⁾ O'Dell Engineering • ⁽²⁾ Condor Earth, Geotechnical Engineering • ⁽³⁾ Augustine Planning Associates, Inc.

KEY PROJECT STAFF

Our key team members were selected based on wide breath of engineering experience required to support the engineering work anticipated by the District, expertise in their area of practice, prior work with the District and within the surrounding foothill communities, availability, and team commitment. Brief summaries of the roles, responsibilities, and qualifications of key personnel follow, and resumes of all staff identified in the organization chart are included in Appendix A.



Tracie Mueller, P.E. – District Engineering Team Leader | Tracie brings over 20 years of experience in water engineering industry, and has served as Project Manager on more than 25 projects, including the District’s Barrett Cove Barge Rehabilitation Project. Tracie has extensive experience coordinating with clients, subconsultants, multi-discipline teams, regulators, permit agencies, and the general public. Her people skills and communication strengths, as well as the fact that she grew up on Lake Don Pedro, play well into Tracie’s capabilities as a District Engineering Team Leader, allowing for an increased ability to confidently, coordinate with the team, District and the community every step of the way. With the accessibility of over 350 specialists within Kennedy/Jenks, as well as her background with the District’s and the local foothill community, Tracie will provide the District responsive and high-quality district engineering services.



Tim Williams, P.E. – Technical Advisor/Quality Control Lead | Serving as Technical Advisor and Quality Control Lead, Tim offers over 41 years of overall experience in the water industry and has served as Quality Control Reviewer on over 20 projects. Tim will be able to use his extensive experience working on water projects within the Sierra Foothill Community as the technical advisor on this team. Tim and Tracie have a long and strong working relationship having worked together for over 18 years. This relationship will provide a through approach to every District Engineering task while maintaining schedule and budget to exceed the District’s expectations.



Jennifer Lau Larsen – Project Engineer and Planning/Compliance Lead | Jennifer will serve as Project Engineer and Planning/Compliance lead for any requested services, with 9 years of experience in water resources compliance, planning, design, and engineering services during construction. Jennifer has worked with both Tracie and Tim on multiple projects as Project Engineer and project team coordinator, supporting her Project Managers to maintain project budget and schedule.

SUBCONTRACTORS



O’Dell Engineering was founded in 1994 and offers civil engineering, land surveying, landscape architecture, and land use entitlement & land planning services. They are located in Modesto, CA and are highly experienced in providing professional services in Tuolumne and Mariposa Counties. O’Dell specializes in survey support public infrastructure projects and has over 20 highly skilled surveyors who specialize in similar assignments.



Condor Earth (Condor) is a multi-disciplinary organization of geologists, environmental scientists, geotechnical and civil engineers, materials and engineering technicians, special inspectors, and other specialists located in Sonora and Merced, CA. Their laboratory is accepted and approved by the Division of the State Architect (DSA), Structural Safety Section, as qualified to perform geotechnical and construction materials testing services for government facilities.



Augustine Planning Associates, Inc. (APA), was established in 1994 in Sonora, Tuolumne County, CA, and is an association of small firms that has worked together for no less than three and in some cases more than 25 years. This alliance allows APA to provide a broad range of highly experienced technicians with low overhead costs and maximum flexibility.

3. TECHNOLOGICAL ABILITY

FACILITATING THE WORK WITH PROJECT RESOURCES AND TOOLS

In addition to the project team resources and abilities described in Sections 2 and 4, Kennedy/Jenks has a wealth of technological tools to facilitate project work and provide certainty that work tasks are completed in an efficient and quality-controlled manner. Our team has the technological ability and tools needed to support our civil, structural, mechanical, electrical and geotechnical engineering designs, as well as, architectural, surveying and construction management, inspection and support services.

PROJECT TECHNOLOGICAL RESOURCES

To provide quick turnaround times and efficient engineering services to meet the needs of the District, the Kennedy/Jenks District Engineering Team is equipped with and available to offer in-house technological skills and abilities. Our project resources and tools span a variety of categories, including field equipment, communication resources, computer software and online platforms, and quality assurance/quality control (QA/QC) templates, procedures, and personnel. A summary of our software resources and tools that may be used on for the District Engineering Services are indicated in the table below.

DESIGN & DRAFTING SOFTWARE	ADDITIONAL SOFTWARE	WATER MODELING SOFTWARE
<ul style="list-style-type: none"> > AutoCAD > Autodesk Revit > ESRI ArcGIS > ProjectWise Explorer > AutoTURN > Visual Lighting Design > SKM Arc Flash > Various Generator Sizing Software 	<ul style="list-style-type: none"> > Microsoft Excel > Microsoft Word (including communication templates) > Microsoft PowerPoint > Microsoft Access > Adobe Illustrator > Bluebeam > CostWorks > Cost Estimating Templates > Google SketchUp > Google Earth Pro 	<ul style="list-style-type: none"> > WaterCAD > InfoWater > H2O Map > H2O Net Analyzer

4. INDIVIDUAL QUALIFICATIONS AND EXPERIENCE

OUR TEAM'S EXPERTISE PROVIDES FOR FLEXIBILITY WHILE MEETING YOUR DELIVERY GOALS

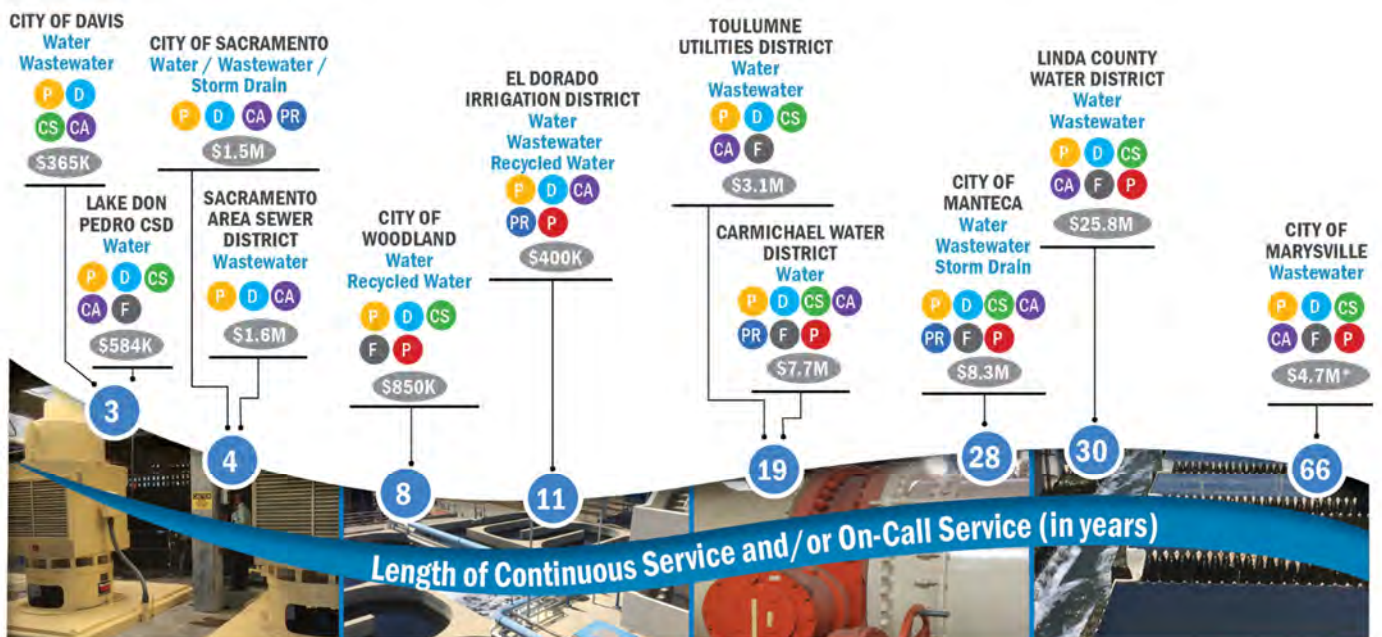
This section includes our team's expertise through three examples of recent projects. This experience includes a small sampling of the projects that provide our team with the knowledge of the District's water system, the typically issues faced by foothill systems, and required District Engineering services. The projects below also demonstrated our proposed team's expertise working on a wide range of projects that will help our team be responsive to the District's needs. Tailored resumes for staff included within our District Engineering Team are included in Appendix A.

DISTRICT ENGINEERING TEAM MEMBER EXPERIENCE AND REFERENCES

Kennedy/Jenks' ongoing success with similar assignments in rural Northern California communities foster:

- > **INCREASED RESPONSIVENESS:** Our experience with local on-call contracts enables us to quickly assess your needs, make collaborative decisions, and execute appropriate actions.
- > **BETTER FLEXIBILITY:** Our core, local team regularly works together on water systems like yours and knows how to shift resources to align staff with project and service needs.
- > **PEACE OF MIND:** We have identified an experienced and responsive team to provide you with tested solutions for local challenges.

The three project descriptions on the following pages summarize a small sampling of Kennedy/Jenks' representative experience and have been selected to demonstrate our team's relevant experience addressing similar needs and challenges to yours. We invite you to contact the references listed at the end of this section to verify our responsiveness and quality of service on similar projects. The graphic below illustrates Kennedy/Jenks' relevant continuous service and/or on-call contracts with local, Northern California municipalities.



LEGEND:

- P Planning
- D Design
- CS Construction Services
- CA Condition Assessment
- PR Peer Review
- F Funding
- P Permitting

GENERAL AND WATER SYSTEM DISTRICT ENGINEERING SERVICES

Linda County Water District, Marysville, CA

Firm's Role: District Engineer for General, Planning, Design, Construction, Grant, and As-Directed Services

Project Description: In 2017, Kennedy/Jenks renewed its contract for General Engineering Services with Linda County Water District (LCWD) to provide District Engineering services such as initial planning, permitting assistance, grant applications, design of new and or upgrades of existing water and wastewater infrastructure and facilities, and follow-on engineering services during construction. Kennedy/Jenks has been LCWD's District Engineer for over 30 years.

Current water system assignments under this Kennedy/Jenks' District Engineering contract include:

- > Groundwater wellhead treatment, storage, and conveyance facilities design, permit coordination, and bidding and construction support services. Kennedy/Jenks previously prepared an approved grant application through DWR Proposition 1 SGWP for \$1M in construction for the new water storage tank.
- > Valve replacement design, bid and construction services funded through DWR Construction Grant Funding Program based on Kennedy/Jenks grant application.
- > Hydraulic water model development and analysis for the water distribution system.
- > Water System Master Plan development.
- > Potable Water Audit funded through Clean Water SRF based on prior grant application prepared by Kennedy/Jenks.

Team Members:

- Tracie Mueller: Principal in Charge/Quality Control
- Tim Williams: Quality Control
- Javier Rios: Project Manager/District Engineer
- Jennifer Larsen: Project Engineer
- Chantelle Garvin: Staff Engineer
- Zoe Wu: Staff Engineer
- Jake Hanson: Staff Engineer
- Aaron Taylor: Project Structural Engineer
- Janet Hoffman: Cost Estimator
- Zachary Harris: Mechanical Engineer
- Mark Preston: Project Architect
- Sandy Schuler: Project Electrical Engineer
- O'Dell Engineering: Surveying

General Engineering and Water Systems Contract Amount: \$2.4M

Completion Date: On-going

Client Reference: Brian Davis, General Manager, (530) 743-2482



"Kennedy/Jenks Consultants has been the Linda County Water District's District Engineer for more than 30 years. In recent years, I have been impressed with the Kennedy/Jenks team under Tracie Mueller's leadership. Their thoroughness, responsiveness, and dedication help to assure that our needs are met. They are always courteous, professional, and willing to work with us so that our requirements, both contractually and regulatory, are met. I would not hesitate to recommend Kennedy/Jenks."

–Brian Davis, District Manager, Linda County Water District)

DROUGHT EMERGENCY SERVICES

Lake Don Pedro Community Services District, La Grange, CA

Firm's Role: Consulting Engineer for Design, Construction and Grant Services

Project Description: Kennedy/Jenks worked closely with the District General Manager to find a supplemental water supply during the 2015 drought emergency. Together we procured \$2M in project grant funding from six different funding sources, prepared preliminary designs, found three suitable groundwater well locations out of drilling 15 test holes, performed water quality and 10-day water capacity pump tests, prepared drilling and site equipping designs for each new well, and oversaw construction. The project was completed to the point where the wells were operational and connected to the District's raw water system within the 9-month emergency schedule. The project was completed within the contract budget.



Team Members:

- Tracie Mueller: Principal-in-Charge
- Tim William: Quality Control Reviewer
- Javier Rios: Project Engineer (Design)
- Jake Hanson: Staff Engineer
- Jennifer Lau Larsen: Project Engineer (Grant Applications)
- Zoe Wu: Staff Engineer

Contract Amount: \$484,231

Completion Date: July 6, 2018

Client Reference: Pete Kampa, General Manager, (209) 591-7100

TREATED WATER SYSTEM OPTIMIZATION PLAN (TWSOP)

Tuolumne Utilities District, Sonora, CA

Firm's Role: Extension of Staff for Engineering Planning Services

Project Description: Kennedy/Jenks is currently supporting Tuolumne Utilities District (TUD) with the completion of a water treatment consolidation plan as part of their overall Treated Water System Optimization Plan (TWSOP) to evaluate solutions for TUD to optimize and consolidate 11 separate treated water systems. Currently the work consists of reviewing existing information and reports including the partially completed 2012 TWSOP previously developed by TUD and Kennedy/Jenks (work halted in January 2012 due to TUD's economic concerns), refining six alternatives, completing an alternatives analysis and evaluation, and site screening and selection assistance. Newly executed project is on time and within budget.



Team Members:

- Tim Williams: Project Manager
- Tracie Mueller: Project Engineer
- Zoe Wu: Staff Engineer
- Janet Hoffman: Cost Estimating Engineer

Contract Amount: \$421,957 (\$351,851 paid in original contract and \$108,874 contract for 2018 work)

Completion Date: In progress – 95% complete

Client Reference: Erik Johnson, District Engineer, (209) 532-5536 ext. 520

Kennedy/Jenks Consultants

5. STATEMENT OF UNDERSTANDING AND SCOPE OF WORK

UNDERSTANDING YOUR DISTRICT ENGINEERING NEEDS

Kennedy/Jenks understands that the District is looking to select a District Engineer to perform long term, responsive, and appropriate professional engineering services to support continual operations, upkeep and repair/replacement of the District's public water system to fulfill the District's customers' needs and regulatory requirements. We also understand that the role of District Engineer includes being representative of the District, providing continuity through possible changes in the District employees and board members, and securing and documenting water system records.

STATEMENT OF UNDERSTANDING

The District's water system is supplied through a combination of groundwater wells and surface water from Lake McClure which all feed into the raw water pipeline and flows through a water treatment plant to the water distribution system, which ultimately serves potable water to a rural residential subdivision of approximately 3,300 parcels. Approximately 1,500 of these parcels are currently active meter customers.

The original water system is aging, as it was built in the mid to late 1960's and has been minimally improved to meet updated regulatory compliance and to address failing components or system capacity issues. The District has limited project funds and has and will continue to rely on grant and loan funding to make necessary improvements.

The District is currently working to improve water supply reliability and optimizing the efficiency of its water system. As the District Engineer we will help to assess the water system's needs, develop an updated water system capital improvement plan, and work with the operations staff to address deferred or required routine maintenance to help the District improve water system reliability and efficiency.

We understand that, in addition to identifying and implementing critical maintenance, repairs, and upgrades, it is imperative to identify and secure funding for these improvements, in which we have been assisting the District in the past, and continue to do so currently. Based on prior work performed by the District, the District's prior District Engineer, and Kennedy/Jenks, the following have been identified as some of the District's priority existing water system needs:

- Barrett Cove Surface Water Intake Facility replacement, including development of funding sources, evaluation, planning, design, bidding and construction. The existing intake system is unreliable and currently is operating with a single pump that is aging and has electrical and control issues. Our proposed District Engineering Team is currently preparing a \$500,000 State Water Resources Control Board (SWRCB) Drinking Water State Revolving Fund (DWSRF) Program Planning Grant application to help fund the evaluation and planning of the replacement of the intake system.
- Barrett Cove Barge upgrade or replacement which is needed if the existing Barrett Cove Surface Water Intake Facility cannot draw water out of Lake McClure at lower water elevations, and currently more importantly, the barge would serve as necessary backup to the existing intake facility. Kennedy/Jenks has developed plans for upgrades to the existing District barge, and has reviewed a proposal for a new aluminum barge. We will work with the District to develop a plan to move this necessary project forward.
- Surface Water Treatment Plant Upgrades, giving priority to evaluating and upgrading control systems, and addressing pipeline and valve corrosion issues. A portion of the \$500,000 SWRCB DWSRF Program Planning Grant discussed above is for evaluation and planning of this project.
- Water system upgrades to reduce water system losses. District water loss data indicates water loss averages over 30 percent of production, the majority of which is assumed to be caused by leaking water service lines that were improperly installed. In recent years, the District has made a significant effort in trying to mitigate water loss by applying for funding and has started replacing the high priority leaking water service lines. The

District has existing grants to replace additional water service lines, but time is running out and the District needs to move fast to use the remaining funds. Our proposed District Engineering Team has submitted a proposal to the District to help facilitate the procurement of a contractor to complete this work based on a design initiated by the District's prior District Engineer. We would like to help move this project forward as quickly as possible to assure the District can utilize the existing grant funds to replace the water laterals and repave the laterals that have already been replaced.

- Water Treatment Plant Effluent Meter replacement to accurately monitor production and estimate water loss. The District suspects that some of the 30% water loss experienced throughout the system may be due to inaccurate water meters readings. This replacement project includes installation of a new vault and sump to eliminate flooding of the meter during wet weather. This replacement project design was included in the proposed District Engineering Team's proposal discussed above for replacement of the water laterals and we would like to help the District to move this project forward as well to assure the grant funds are completely utilized.
- Master Meters evaluation to determine if meters need to be calibrated or if they need to be replaced in order to collect accurate data and calculate the District's actual water loss. The District Engineering Team can use the prior quotes that the District has received from Aqua Sierra Controls, Inc to review the site. Then the District Engineering Team can request additional quotes to evaluate the overall needed improvements and work to implement the recommended improvements with the appropriate parties.
- Raw Water Main replacement is rated as a high priority project for 2018 in the District's preliminary 5 Year Capital Improvement Plan and is a project that needs to be further evaluated by the District's Engineering Team. The District Engineering Team can start with a review of existing documentation and conduct a condition assessment of the pipeline if this has not been done previously.

Our knowledge of the above list of projects and their urgency is based on discussions with District staff during our previous and current efforts to obtain funding for the District. Many of these have already received funding or are in the process of applying for funding, but there may be other priority improvements developed based on further review of the Preliminary 5 Year Capital Improvement Plan dated 2 August 2018, review of other documents prepared by the prior District Engineer, and additional discussions with District staff. As part of the District Engineering first steps, we propose scheduling a face-to-face meeting with the District's prior District Engineer, Elizabeth Binkley, to get a complete transfer of knowledge, data and documents. We understand that Ms. Binkley has a long history with the District and that part of the new District Engineering Team's job will be to preserve knowledge and documentation transferred as to no lose any momentum and hopefully increase it with our dedicated District Engineering Team.

SCOPE OF WORK

Below is a summary of our proposed District Engineering Scope of Work which is based on the District's list included in the request for qualifications. Our proposed District Engineering Team is committed, qualified and experienced to the District with the following scope of work on an as needed basis:

- A. Preparing engineering calculations, plans, specifications, schedules and cost estimates for water infrastructure and capital improvement projects that have been identified as necessary and have an established funding plan.
- B. Monitoring project schedules and budgets to ensure projects stay within established guidelines.
- C. Keeping District staff apprised of project status and notifying the District should significant issues arise, both verbally and in written form.
- D. Functioning as project manager and managing contracts with District contractors. District contracts will be signed by the District's General Manager.
- E. Providing construction management and/or inspection services on District projects as assigned.

- F. Creating reports in accordance with District requirements for actions to be taken by the Board of Directors, including, but not limited to, approval of plans and specifications, authorization to advertise for bids, recommendations for award of construction contracts, and notices of completion.
- G. Assisting in the review, modification and/or creation of ordinances and resolutions as necessary.
- H. Presenting information to the Board of Directors and/or other groups, as requested by the District's General Manager.
- I. Providing technical engineering review and recommendations in matters related to District's provision of public works services to the populace.
- J. Providing engineering review of legal documents, such as rights of entry, right-of-way legal descriptions, construction contracts, and professional services agreements and submitting recommendations to District Counsel for review.
- K. Composing correspondence required as part of any assigned project, from planning and development through construction and closeout.
- L. Working cooperatively with other District staff and/or other contractors to deliver projects on schedule and within budget.
- M. Coordinating with other agencies/jurisdictions to ensure that environmental and funding requirements for assigned projects are met.
- N. Ensuring environmental (e.g. – NEPA/CEQA) clearance and applicable permits are obtained prior to construction of projects.
- O. Supplying other engineering services as deemed necessary by the District's General Manager and within standard engineering practices.

Additional services that our District Engineering Team has experience in to support our execution of water resources project assignments or to support the District in executing a project include the follow as needed:

- Funding assistance including grant writing and administration.
- Development and update of the District's Capital Improvement Plan including development of planning level cost estimates and project assumptions and summaries.
- Geotechnical investigations and development of engineering recommendations.
- Surveying support for project improvements.
- Development of regulatory compliance reports.

APPROACH TO ADDRESSING YOUR KEY ISSUES

We understand the challenges of working in the foothill/high sierra environment and have gained our experience and expertise by providing water resource engineering services not only for the District, but also for similar foothill/high sierra water agencies including Calaveras County WD, Twain Harte CSD, Groveland CSD, Yosemite National Park, El Dorado Irrigation District, Tahoe City PUD, South Tahoe PUD, Tahoe Keys and Floriston HOAs, Lake Don Pedro CSD, Nevada Irrigation District, Amador Water Agency, SFPUC Hetch Hetchy, EBMUD upcountry facilities, and McCloud CSD.

Kennedy/Jenks' philosophy is to take advantage of our multiple decades-long experience by:

- > **Developing a Cohesive Team** – We assemble our team, including subconsultants, with individuals who have successfully worked together on numerous projects, so we can efficiently and effectively complete project design, bid, and construction.

- > **Listening to Staff** – Kennedy/Jenks is known for our strength and ability to work across the board with District staff to develop design solutions that meet the District’s needs. A critical part of every project is to listen to the operators as they often know the District’s facilities the best. Our goal is to design facilities that promote ease of use and maintenance for the operations staff.
- > **Keeping the Public in Mind** – Our strategy for successful project execution includes considering how facility location, design, and construction may affect the public, trying to minimize disruptions, and educating customers as to why improvements are necessary.
- > **Agency Coordination and Communication** – Our team will communicate early and often with affected agencies (i.e., California Department of Water Resources, State Water Resources Control Board, Central Valley Regional Water Board, Tuolumne and Mariposa Counties, Corps of Engineers, etc.) so requirements are understood and implemented early into the design.
- > **Utilizing Tools Developed In-house** – Our team will utilize tools, such as our Condition Assessment standardized form, and our Civil Design Standard Checklist, to promote efficiency, accuracy, and consistency.
- > **Developing Accurate Cost Estimates** – Accurate cost estimates allow the District to confidently budget for the project. Cost estimates for the planning phases (i.e. District budgeting, Capital Improvement Planning) through the bidding and construction phases.
- > **Early Contractor Meetings** – Meeting on-site with Contractors early on during the design process allows for the discussion of constructability, site constraints, appropriate materials, and costs.

KENNEDY/JENKS INTEREST AND COMMITMENT TO THE DISTRICT

Being local to and experienced within the region, our team knows the District and we recognize the significant role you have in providing, maintaining, and operating water services and facilities for approximately 3,300 rural residential parcels. We understand the magnitude of your mission to safeguard the health and well-being of the public by providing a reliable source of water that is conveyed to the customers through a reliable, safe and properly maintained raw water, treatment, and distribution systems. We are in alignment with your mission, understand the challenges you are faced with, and we have the capabilities and the desire to work with you as a committed partner to help you fulfill your mission.

APPENDIX A

Team Resumes

Tracie R. Mueller, P.E.

District Engineer/Project Manager

Education

BS, Environmental Engineering, Summa Cum Laude, California State Polytechnic University, San Luis Obispo, 1998
MS, Water Resources Engineering, California State University, Sacramento, 2007

Registrations

Professional Civil Engineer, California (63295)

Professional Summary

Tracie Mueller brings extensive planning, design, and construction management services for treatment plants, storage tanks, pump and metering stations, large-and small diameter pipelines, and site utilities. Her experience also includes condition evaluation of existing water systems, and preparation of repair and facility improvement recommendations. She is also proficient in water system hydraulic modeling and development of master plans and capital improvement plans, as well as, development of regulatory related plans such as Urban Water Management Plans and Water Supply Assessments. Tracie has helped clients plan, design and construct projects using millions of dollars in grant and loan funding from multiple agencies, and has been involved from project inception through startup on many of these projects.

Tracie works on a variety of projects and teams in multiple roles including principal in charge, project manager, project engineer, design manager and quality control reviewer. She has extensive experience coordinating with client management, operations, administration and public officials, as well as, other consultants, multi-discipline teams, regulators, permit agencies, and the general public.

Water Resource Project Experience

2018 DWSRF Planning Application Funding Services, Lake Don Pedro CSD, La Grange, CA – Project Manager – Currently preparing a planning grant application for the Drinking Water State Revolving Fund (DWSRF) Program to plan for future improvements to the LDPCSD water system. The grant funds would be used to cover the costs of completing planning and design-related work to improve the LDPCSD surface water supply reliability and evaluate the LDPCSD surface water treatment plant’s control systems and the plant’s pipeline and valve corrosion issues.

Lake Don Pedro Barrett Cove Pump Barge Rehabilitation Project, Lake Don Pedro CSD, La Grange, CA – Project Manager and Quality Control Reviewer - Provided project management and quality control review of as-built drawings, structural calculations, and value-engineered drawing modifications based on manufacturer and District input for existing floating barge pumping unit to provide a sustainable and reliable emergency surface water supply system.

Lake Don Pedro Drought Emergency Services, Lake Don Pedro CSD, La Grange, CA – Quality Control Reviewer and Principal in Charge - The District was tasked to find and implement a new water supply within a 9-month period to comply with minimum pool pumping restrictions and dry intake conditions at Lake McClure during a drought emergency. A feasibility study was prepared and the drilling of groundwater wells was selected as the best fit. The project was funded with \$2M in project grant funding from six different funding sources. Services included preparation of preliminary, drilling and site equipping designs for each new well, and construction oversight.

2010 and 2015 Urban Water Management Plans, Tuolumne Utilities District, Sonora, CA *Project Manager* Responsible for the completion of the 2015 and 2010 Tuolumne Utilities District (TUD) Urban Water Management Plan (UWMP) required by the Urban Water Management Planning Act. This project involved close coordination and collaboration with District staff to evaluate water supply reliability conditions, evaluation of SBX7-7 water use reduction targets, and development of a conservation plan reflecting the strategy that will be employed by District staff over the next decade to meet the targets. Primary issue with the 2010 UWMP project was meeting the tight schedule to demonstrate compliance with the UWMP Act to support the District's IRWM planning grant. The 2010 UWMP was approved by the Department of Water Resources (DWR) without revision meeting the planning grant requirements and schedule. The 2015 UWMP has been documented by DWR as meeting the requirements; however, it is still under their review.

Treated Water System Optimization Plan, Tuolumne Utilities District, Sonora, CA - *Design Engineer and Quality Control Review (2018)* - Kennedy/Jenks Consultants worked as an extension of TUD's staff to develop a Treated Water System Optimization Plan (TWSOP) to map out a vision to consolidate and improve the existing 19 separate water systems into the most optimal overall water system(s) to operate and maintain. The work included completing a condition assessment of the existing WTPs and water infrastructure; developing of consolidation alternatives to optimize the water system for the next 50-year planning period; completing hydraulic modeling updates of the existing model and overseeing the development of the consolidation alternative models and review of the results; developing an initial CIP for the necessary improvements over the next 20 years; and beginning the draft TWSOP. Tracie lead the update and consolidate the TUD's 7 hydraulic water models into one model and development of future water system consolidation scenarios. This TWSOP project has reconvened in 2018 and is almost complete with Tracie performing quality control services for the project team.

Tuolumne-Stanislaus Integrated Regional Water Management (IRWM) Planning Grant Application, Tuolumne Utilities District, Sonora, CA - *Project Manager* - Responsible for completion of the fast-track Tuolumne-Stanislaus IRWM Proposition 84 Planning Grant Application in a little over one month. Tracie was responsible for coordinating over 20 stakeholder and preparation all required grant application components to meet Department of Water Resource requirements. Although this grant application was prepared under a very tight schedule with a high level of completion from other IRWM regions for available funding, the high scoring application allowed the Tuolumne-Stanislaus Region to receive the full grant request of \$636,380. Tracie also provided stakeholder and technical support for the development of Tuolumne-Stanislaus IRWM Plan.

TUD-Grand Yosemite National Water Supply Assessment Update, Tuolumne Utilities District, Tuolumne, CA - *Project Manager* - Provided technical assistance to the District in evaluating the SB610 Water Supply Assessment (WSA), required for CEQA documentation, for the Grand Yosemite National Golf and Wetland Preserve (development). Services included review and update of District water supply assumptions, calculation, and analysis of availability; review of developer-revised demand projections for the new development; and evaluation of the adequacy of water supply to meet the needs of the development. Work was documented in a WSA report and submitted to TUD.

Water System Transmission Pipeline, Amador Water Agency, Amador, CA - *Project Engineer/Project Manager* - As Project Engineer, Tracie provided services for 30-inch diameter raw water transmission pipeline design, bid and construction. She prepared preliminary design report, design drawings, specifications, cost estimates, and permitting and coordinated easement acquisition for the new 9-mile long welded steel pipe transmission main. As the Project Engineer, Tracie lead the onstruction

management administration of this project included preparation of bid addendum documents, response to requests for information, submittals review, preparation of change orders, and oversight of the development of record drawings.

Intake Spring Water System Replacement Project, McCloud Community Services District, McCloud, CA - *Project Engineer* - Provided funding acquisition, design, bid, and construction administration support services. Assisted in the development of a pre-design report that evaluated the District's existing water supply systems, design of 19,000 LF of new 14-inch and 16-inch ductile iron transmission main to replace an old and deteriorated 10-inch redwood pipeline, and design of a 1.2-mg steel water storage tank.

Jamieson Canyon Water Treatment Plant Upgrade and Expansion, City of Napa, Napa, CA - *Project Engineer* – Ms. Mueller developed an open channel hydraulic analysis of existing facilities for planned capacity increase of the City's existing 35-year-old water treatment plant. Also developed treatment process hydraulic model using Microsoft® Excel which was used to analyze new facilities to increase capacity from 12-mgd to 30-mgd, which was later fully designed by the Kennedy/Jenks Consultant team.

East Elk Grove Groundwater Treatment Plant and Storage Tank, Sacramento County Water Agency, Sacramento, CA - *Project Engineer* - Prepared plans, specifications and cost estimates for the design of two water wells, a groundwater treatment plant, 3.5-mg steel storage reservoir, booster pumping plant, and 20-inch to 24-inch diameter offsite raw and treated water ductile iron pipelines. Ms. Mueller also provided support during bidding and construction. The initial plant capacity was approximately 4.3 mgd with an ultimate capacity of 11 mgd.

Ebbetts Pass Water System Analysis, Calaveras County Water District, San Andreas, CA - *Design Engineer* - Modeled and helped analyze the Ebbetts Pass potable water transmission and distribution system. Services included data collection, H2ONet® computer modeling and simulation of the system, and recommendations for improvements to increase pressure and flow capacity throughout the system, which included 64 pressure zones in a rural area of the Sierra Nevada Mountains.

Water System Master Plan, City of Placerville, Placerville, CA - *Project Engineer* - Developed a new WaterCAD® water system model for the Master Plan. The model was developed to be incorporated into the City's GIS. Specific project tasks included building the water model, assessing water demands, performing hydrant flow testing, calibrating the water model, developing appropriate alternatives and scenarios, evaluating existing facilities, and proposing facility improvements. Also developed a modeling report and assisted in the development of the master plan report. Following the development of the master plan, continued to analyze scenarios for the City based on multiple proposed developments improvements.

San Jose-Santa Clara Regional Wastewater Facility (RWF)'s Facility Wide Water System Improvements, City of San Jose, Water Pollution Control, San Jose, CA - *Design Manager* - The Facility-Wide Water Systems includes condition assessment and development of four hydraulic water system models and analysis, alternative analysis, design, bid and construction support services. Replacing and optimizing aging pipes, valves, meters, and other ancillary equipment and expanding existing infrastructure.

Freeport Pipeline Facilities, Freeport Regional Water Authority, Sacramento, CA - *Project Engineer* - Led the design of the Segment 1 design consisting of 5.1 miles of 84-inch diameter raw water pipeline and including 5 underground tunnels, 2 main drain structures, and over 25 easements. Led utility coordination, and permitting effort for entire four-phase pipeline consisting of 17 miles of 84-inch to 66-inch diameter pipe requiring 23 permits for installation.

Tim Williams, P.E.

QC Reviewer and Technical Advisor

Education

BS, Engineering, University of California, Davis,
1976

Registrations

Professional Civil Engineer, California (39104)
Professional Civil Engineer, Oregon (11847)
Professional Civil Engineer, Arizona (28340)

Memberships/Affiliations

American Water Works Association
CA/NV AWWA, Past Chair
CA/NV AWWA Engineering & Construction
Committee
CA/NV AWWA Pipeline Rehabilitation Committee
CA/NV AWWA Water Well Technology Committee
CA/NV AWWA Student Chapter Committee
Central Valley Clean Water Association - Collection
System Committee

Professional Summary

Tim Williams has extensive experience as a project manager, quality control reviewer, and project engineer for the planning, design, and construction management of water and wastewater systems. He has completed extensive work in the foothills for various water and wastewater public agencies. These projects have included planning projects including master plans, facility plans, regional plans, condition assessment and asset management of infrastructure; design and construction management of treatment, pump and lift stations, storage, and pipelines; and securing and managing multiple sources of grant and loan funding.

Project Experience

Water Treatment Consolidation Study, Tuolumne Utilities District, Sonora, CA – *Project Manager*
– Managed the project team that worked with the District staff and board to select the preferred regional water treatment consolidation alternative. Working as an extension of the District’s staff developed seven potential consolidation alternatives to take the District’s current 11 water treatment plants down to four regional water treatment plants. The study included developing and evaluating the seven alternatives and conducting an initial screening workshop to select the four most viable alternatives. This was followed up by conducting site visits, workshops, preliminary construction cost estimates, and a final screening of these four alternatives to select the preferred water treatment consolidation alternative.

Twain Harte Interceptor Condition Assessment Work Plan, Tuolumne Utilities District, Sonora, CA – *Technical Advisor/QC Reviewer* – Providing technical advisor and QC review to develop the Twain Harte Interceptor Condition Assessment Work Plan. The District was proceeding with conducting a condition assessment of the Twain Harte Interceptor, but realized they needed outside resources to be able to safely conduct the assessment field work. The 6.9 mile long 12” and 10” AC interceptor has 14 inverted siphons along the alignment. In addition, it was originally planned to only convey primary treated wastewater from the Twain Harte WWTP. Over the years as septic systems failed along the alignment the District allowed 350 direct connections by gravity (290 each) or pressure (60 each) to the interceptor. The age and type of pipe, no bypass system in place, and inverted siphons caused the District to pause. That is where Kennedy/Jenks entered as we will develop a plan for cleaning the interceptor and conduct a condition assessment of the interceptor assets (inverted siphons and gravity pipelines, manholes, air release valves, and blow offs). We are developing a detailed work plan to accomplish the District’s goals in a safe, cost effective, and

adequate manner. The District plans to contract out for the condition assessment work. The data will then be used to determine what improvements will be needed to provide an adequate, reliable, and long-term wastewater conveyance system.

Tuolumne County Law and Justice Center (L&J) Wastewater Screening Facility, Tuolumne Utilities District, Sonora, CA – *Technical Advisor and QC* – Providing technical advice on the basis of design/selection and field visit to locate a new wastewater screening/compactor and possibly grinding station upstream of TUDs sewer lift station. The County jail/juvenile hall is part of the L&J, which has caused failure of the lift station due to excessive debris. Also providing QC review of the design documents.

Wastewater Treatment and Disposal System Feasibility Study, Tuolumne Utilities District, Sonora, CA - *Project Manager* - Developed a plan for expansion and improvements of existing regional wastewater treatment and reuse facilities for meeting current and projected growth and wastewater compliance regulations over the next 40 years in compliance with SWRCB small community grant requirements. An evaluation of the TUD Regional WWTP condition, operational and capacity challenges by process and recommendation for improvements was completed. Alternatives for improving the regional wastewater reuse and disposal facilities were developed, which included both land application and surface water discharge, evaluated and recommended a \$32 million, phased improvement alternative to continue with all land disposal will be the plan for moving forward over the next 40 years. These alternatives included improvements at the WWTP, a new 600 acre-ft reclamation storage reservoir, expansion of the reclamation system with 400 acres of land application sites, relining of existing storage, and adding deadpool pumping to an existing Quartz reclaimed storage reservoir. The developed various alternatives for treatment, disposal and reuse including partial surface discharge with land application and full land application of treated wastewater. He conducted collaboration events between the other regional members, Jamestown Sanitary District (JSD) and Twain Harte Community Services District (THCSD). This included collaboration and coordination with key staff members and board members, including public meetings and a joint meeting between all three boards to obtain approval of the Feasibility Study. In addition, he completed a California Municipal Financial Report for TUD, JSD, and THCSD to evaluate long-term cost impacts to rate payers for funding the improvements.

Copper and Zinc Compliance Extension Request, Tuolumne Utilities District, Sonora, CA - *Project Manager* - Completed a successful justification and request to the RWQCB for a four-year compliance time extension for compliance with copper and zinc CTR regulations.

Treated Water System Optimization Plan, Tuolumne Utilities District, Sonora, CA - *Project Manager* - Kennedy/Jenks Consultants is working as an extension of TUD's staff to develop a Treated Water System Optimization Plan to map out a vision to consolidate and improve the existing 19 separate water systems into the most optimal overall water system(s) to operate and maintain. Managed Kennedy/Jenks efforts including completing a condition assessment of the existing WTPs and water distribution pump stations, hydropneumatic stations, and storage tanks; developing of consolidation alternatives to optimize the water system for the next 50 year planning period, completing hydraulic modeling updates of the existing model and overseeing the development of the consolidation alternative models and review of the results; developing a CIP for the necessary improvements over the next 20 years; and producing the Treated Water System Optimization Plan. Tim was also responsible for presenting the findings to the TUD Board and Committees to obtain their input and buy-in.

2010 Tuolumne-Stanislaus Integrated Regional Management Planning Grant Application, Tuolumne Utilities District, Sonora, CA - *Principal-In-Charge* - Completed the fast-track grant application for the Tuolumne-Stanislaus IRWM Group in a little over a one-month period. As PIC attended coordination meetings and weekly conference calls to present the progress of the application, identified data gaps and generated creative means to fill those gaps, and reviewed the draft application to produce a comprehensive application that the 20 stakeholders unanimously approved. In addition, reviewed, updated and finalized the cost sharing estimates to support the \$1 million grant request and in-kind contribution. He is continuing as PIC for the IRWM Plan development attending stakeholder meetings and reviewing the Plan to ensure that the Group's expectations are met.

Tuolumne-Stanislaus Integrated Regional Water Management Plan, Tuolumne Utilities District, Sonora, CA - *Technical Reviewer* - Completed the fast-track grant application for the Tuolumne-Stanislaus Integrated Regional Water Management Group in a little over a one-month period. As PIC attended coordination meetings and weekly conference to present the progress of the application, identify data gaps and generated creative means to fill those gaps, and reviewed the draft application to produce a comprehensive application that the 20 stakeholders unanimously approved. In addition, reviewed, updated and finalized the cost sharing estimates to support the \$1 million grant request and in-kind contribution. Currently continuing as PIC as the Plan is being developed over the next two years.

Cr6 Compliance Water System Improvements, City of Newman, Newman, CA - *Project Manager* – Managing the preliminary design and design of the City's SWRCB SRF planning grant to replace a City well that is exceeding Cr6 MCL by drilling and equipping a new 2,000 gpm Well #10, 1.5 MG water storage tank, 3,500 gpm booster pump station, disinfection system, and 8- to 16-inch water transmission main extension. The site improvements include site grading and paving, fencing, electrical service, and landscaping.

North Orchard Upper Pressure Zone Reservoir Project, City of Vacaville, Vacaville, CA - *Project Manager* – Managing the preliminary design of the City's optimization of three upper pressure zones and the Main Zone configuration to improve water service supply and pressure to established service area in the northwest section of the City. The preliminary design report evaluates the consolidation of the North Orchard, Hidden Valley, and Tranquility pressure zones into one Upper Pressure Zone to be served by a consolidation and upsizing of water storage facilities. Water storage will consist of two 1.0 MG prestressed concrete reservoirs that will replace three small bolted steel tanks and the existing Wykoff booster pump station will be modified to deliver water up to the higher in elevation storage reservoirs and increase capacity to meet the increased water demands and fire flow. Pressure reducing/sustaining valves will be added to intertie the new Upper Pressure Zone and Main Zone.

2000 Sewer Master Plan, McCloud Community Services District, McCloud, CA - *Project Engineer* - Main author of the sewer master plan report, completed in association with Schlumpberger Consulting Engineers, to evaluate upgrading the sewer system to modern industry standards. Conducted a public hearing on the report results. The report recommended replacement of about 55,000 LF of existing sewer with new sewer, rehabilitating about 6,000 LF of existing sewer, and reconnecting all 700 existing businesses and residences to the new sewer system. Also responsible for designing and evaluating results of an infiltration/inflow study, evaluating improvements to the existing 60,000-LF wastewater collection system, recommending improvements to the sewer system, and developing a preliminary design and Capital Improvement Plan.

Sewer System Replacement, McCloud Community Services District, McCloud, CA - *Project Manager / Project Engineer* - Design, bid, and construction management of the \$11 million project. Responsible for completing the preliminary design report, directing and overseeing design of 55,000 LF of 6- to 15-inch sewer system improvements in three Phases, and directing and overseeing the bid and construction management of the project, including full time resident inspection/engineering. Completed Master Plan to evaluate aged, very poor condition of existing 60,000-LF wastewater system. Master Plan included infiltration/exfiltration/inflow study, condition assessment (CCTV inspection), capacity assessment, new sewer system alignment, and CIP. Also assisted the District in securing grant and loan funding from multiple sources (e.g., State Water Resources Control Board, Rural Development, Economic Development Department, and County Community Development Block Grant Program), especially legislative grant funding of \$1 million to pay for the replacement of private sewer lateral construction not eligible for agency funding assistance. Organized and conducted two very successful public hearings. He was responsible for design of the sewer system replacement project including conventional open cut excavation for a majority of the system, and also jack and bore at two creek crossings and under a detached garage. Also responsible for developing bid documents and overseeing construction of private sewer laterals to serve buildings on private property.

Intake Spring Water System Replacement Project, McCloud Community Services District, McCloud, CA - *Project Manager* - Managed the preliminary design, design, and construction management for 18,000 LF of 14 and 16-inch transmission main to replace a deteriorated 10-inch redwood pipeline. The project included environmental documents and mitigation measures, permitting, structural improvements for spring water source protection, replacement of an open water storage tank with a new 1.2-MG steel ground level water storage tank, three new flow meters, vaults, and a telemetry monitoring system. Also conducted a study with Kleinschmidt Consulting for the feasibility to add in-line energy recovery system. The preliminary design included site layout and facilities along with over 1 mile of power transmission system to connect to the high voltage grid. The pipeline design included turnouts for the future energy recovery system. Also instrumental in obtaining \$4.5 million in DWR grant funds for the project.

Water Master Plan and Water and Sewer Construction Standards, McCloud Community Services District, McCloud, CA - *Technical Advisor* - responsible for review of the District's first water system master plan, which includes the projection of future development, comparison of water supply and demand, evaluation of the existing water system, and development of a water system model, capital improvement plan and water connection fees.

Elk Springs Improvement Project, McCloud Community Services District, McCloud, CA – *QC Reviewer and Technical Advisor* - Preliminary design and technical review of the final design. Project included capping the spring water source, replacing piping and valving, improving security, and adding flow monitoring. Also instrumental in obtaining \$300,000 in DWR grant funds for this project.

Jennifer (Lau) Larsen, P.E.

Civil Engineer/Planning/Compliance

Education

BS, Civil Engineering, University of California,
Davis, 2009

Registrations

Professional Civil Engineer, California (81220)

Professional Summary

Jennifer Larsen is a registered civil engineer with a range of experience in water resources planning and design, increasing in responsibility through quality control reviewer, project engineer, deputy project manager, and project manager. Throughout her career she has worked on projects through planning, preliminary design, permitting, and design phases for municipal clients through California. Projects include grant applications and grant management, water supply assessments, regional water plans and master plans, design of treatment and storage facilities, and groundwater supply.

Project Experience

Drought Emergency Services, Lake Don Pedro Community Services District, CA – *Project Engineer*
– Jennifer assisted in the successful development and submittal of an application for the 2015 Proposition 84 IRWM 2015 Implementation Grant in support of District activities to ensure water supply reliability. The District was awarded \$1,001,547 for water service line replacement, a water use efficiency program, and construction of two new wells. Responsibilities included coordinating communication between project proponents as well as internal team coordination, developing content for application (project justifications, workplans, schedules, and budgets), and ensuring application completeness.

Sewer System Management Plan Review, Twain Harte Community Services District, CA – *Project Engineer/Deputy Project Manager*
– Responsibilities include reviewing the current SSMP for compliance with the Statewide General Waste Discharge Requirements for Sanitary Sewer Systems and the State Water Resources Control Board Monitoring and Reporting Program requirements. Based on the review, recommendations to update the SSMP will be documented in a technical memorandum.

Yosemite-Mariposa Integrated Regional Water Management Plan Preparation, Mariposa County Resource Conservatory, Mariposa, CA – *Staff Engineer*
– Participated in site visits and documented the needs and conditions of 6 separate small water systems within the IRWM Plan boundary. Technical memorandums were developed for each participating small water system documenting existing conditions, recommended projects and technical justification, and preliminary implementation schedules and budgets for the purposes of developing the information needed to submit for future funding applications.

Grand Yosemite National Water Supply Assessment Update, Tuolumne Utilities District, Tuolumne, CA – *Project Engineer*
– Provided technical assistance to the District in evaluating the water supply assessment, required for CEQA documentation, for the Grand Yosemite National Golf and Wetland Preserve (development). Services included review and update of District water supply assumptions, calculation, and analysis of availability; review of developer-revised demand projections for the new development; and evaluation of the adequacy of water supply to meet the needs of the development.

Kennedy/Jenks Consultants

2015 UWMP Update, Tuolumne Utilities District, Tuolumne, CA – *Project Engineer* - Worked alongside District staff to prepare the 2015 Update to the District's existing 2010 UWMP. Tasks included updating population, demand and supply projections, SBX7-7 baseline and target water demands, and demand management measure implementation reporting.

South Y Feasibility Study of Remedial Alternatives, South Tahoe Public Utility District, CA – *Deputy Project Manager* – Assisting in the coordination of project team and subconsultants to conduct a field investigation involving the design and construction of a test well in the South Y area of South Lake Tahoe. The test well will inform a groundwater model and a feasibility study that will evaluate alternatives to address PCE impacting the groundwater supply. This project is grant funded, therefore additional responsibilities include ensuring that subconsultant contracts meet grant terms, preparing workplans and other deliverables for review by the grant manager, and submitting invoices and progress reports for grant quarterly reporting.

West Lake Tahoe Regional Water Treatment Plant Phase 2, Tahoe City Public Utility District, Tahoe City, CA - *Project Engineer* – Assisting in the design of the WTP building, coordinating and reviewing data from the bag filter pilot test, and assisting in permitting documents. Additional responsibilities include assisting the project manager with project budget and schedule updates, as well as document management. The project design includes submersible lake intake pump station and controls with standby power generator, lake intake raw water pipeline, pre- and post-chlorination with contact tank, membrane filtration, UV disinfection, bag filter backwash treatment process, and treated water storage underground clearwell and pump station.

Cr6 Compliance Water System Improvements, City of Newman, Newman, CA - *Project Engineer* – Assisting in the development of the preliminary design and 30% design of a well to replace an existing well that is exceeding Cr6 MCL. Preliminary design consisted of evaluating the City's water supply and demands, existing infrastructure, and potential project phasing. The design includes drilling and equipping a new 2,000 gpm Well #10, 1.5 MG water storage tank, 3,500 gpm booster pump station, disinfection system, and 8- to 16-inch water transmission main extension.

Water System Master Plan, Linda County Water District, CA – *Project Engineer* – The Water System Master Plan will provide the District with a road map and Capital Improvement Plan (CIP) for the next 10 years. The work in this project includes the development of a water distribution system hydraulic computer model as a tool for analysis. Jennifer developed the current and projected demand estimates for the Master Planning period.

North Orchard Upper Pressure Zone Reservoir Preliminary Design – *Deputy Project Manager/Project Engineer* – Project involves providing preliminary design (30%) services to the City of Vacaville to optimize the City's existing water pressure zones to more efficiently and effectively provide high quality water at a reasonable pressure to all customers. The intent is to be able to eliminate the use of three existing reservoirs and associated pump stations by identifying a new location for water storage tanks, upgrading existing pump stations, new transmission mains, and new pressure reducing stations. Jennifer serves as the internal project manager for the project with duties that include managing budget, schedule, and invoicing, and assisting in client and subconsultant coordination. Other duties include assisting in the preliminary design of the new reservoirs and modification of existing pressure zones and pump station to optimize the water service area as well as contributing to the preliminary design report.

Chantelle Garvin, EIT

Staff Engineer

Education

BS, Civil Engineering, California State University,
Sacramento, 2016
AS, Engineering, American River College, 2014

Registrations/Certifications

Engineer-in-Training, California
Construction Document Technologist, CSI

Professional Summary

Chantelle has experience throughout Sacramento, Yolo, and Calaveras Counties. She spent three years as an engineering intern for Sacramento Suburban Water District where her responsibilities primarily focused on water main replacement projects. Her experience with local water and wastewater systems will be invaluable to the team in various aspects of GSP Preparation.

Chantelle Garvin has a Bachelor's degree in civil engineering along with hands-on experience in water resources engineering including the preparation of multiple GSP planning grant applications and IRWM Plan updates. Prior to joining Kennedy/ Jenks, she held an internship for a public water utility working on projects involving water system planning, specifications, design, and construction. Chantelle has worked on a variety of projects, including wastewater system planning, design, condition assessment, and grant writing.

Project Experience

Facilities Condition Assessment , Delta Diablo Sanitation District, Antioch, CA – Staff Engineer – for review of background data to support the desktop analysis and prepare for the field condition assessment effort. Site visits to photograph and inspect above-ground assets and identify challenging access points for CCTV. Assisted in evaluating the District's wastewater conveyance facilities, including specific gravity sewer mains and interceptors and sewer manholes.

Hydraulic Water Model, Linda County Water District, Linda, CA – Staff Engineer – Assisted in the development of a new hydraulic model using InfoWater software, including a geometric network model of the District's water distribution system, development and allocation of average annual demands, elevations, and other pipeline and facility attributes.

Water System Master Plan, Linda County Water District, Linda, CA – Staff Engineer – for development of a comprehensive plan that enables the District to accommodate future growth and continue to cost effectively provide a reliable supply of water to its customers. Current water usage rates and growth planning data was used to evaluate the distribution system , identify deficiencies and make recommendations for incorporation into the Water System Master Plan Capital Improvement Plan. The work in this project includes the development of a hydraulic computer model that was used as a tool to analyze existing system vulnerabilities and evaluate potential mitigation measures to reduce or eliminate them.

Pure Water Monterey System Expansion-CEQA Support Services, Monterey One Water, Marina, CA – Hydraulic Modeler – Assisted in the development of the expanded system using WaterCAD software and performed a hydraulic modeling analysis of the expanded system to understand if there are any constraints to maintaining adequate pressure and flow for injection capacity when the recycled water irrigation system is also operating at peak flow rates.

Facilities Condition Assessment , Delta Diablo Sanitation District, Antioch, CA – *Staff Engineer* – for preparation of a work plan to guide contractor in cleaning and inspection of the District’s inverted siphon segments. Preparation of the work plan includes a two-day joint field inspection of the inverted siphon segments to review terrain and accessibility for construction and staging, access, potential bypass opportunities, current operational capabilities, traffic control needs, proximity to residents, and locations, number and types of direct connections and estimated flow for each connection to the interceptor.

Westside IRWM Plan Update, Solano County Water Agency, Vacaville, CA – *Staff Engineer* – for preparation of IRWM Plan Update compliant with 2016 IRWM Plan standards in preparation for Proposition 1 IRWM Implementation grant application. The IRWM Plan Update specifically included current climate change content, confirmed groundwater quality data, updated project lists, and included new water planning documents including the Yolo County Storm Water Resources Plan. Drafted updated plan sections including planning area, land use and water plans, water quality and prepared updated IRWM standards checklist.

Proposition 1 – Groundwater Sustainability Plan (GSP) Grant Application, Solano Collaborative, Solano County Water Agency, Vacaville, CA – *Staff Engineer* - for preparation of the Work Plan detailing of 16 tasks, integrating the Stakeholder Coordination and Engagement with Technical Data and Analysis to develop a compliant GSP and Section 5. Budget; coordinated with other consultant partners and Solano Collaborative Technical Advisory Committee. The Solano Collaborative was awarded \$1 million grant to prepare to prepare a compliant GSP for the basin by 2022.

Prop. 1 Storm Water Resource Plan for Yolo County, Yolo County Flood Control and Water Conservation District/Yolo Water Resources Association, Woodland, CA – *Staff Engineer* – Part of the development team for the Storm Water Resource Plan for Yolo County in conformance with Proposition 1 Guidelines. Duties include preparing materials for and participating in Stakeholder/Outreach meetings, drafting sections, and assisting in project development/benefits quantification.

La Contenta and Copper Cove Wastewater Master Plan Updates, Calaveras County Water District, San Andreas, CA - *Staff Engineer* - Assisted in the assessment of existing wastewater treatment system processes and analysis of collection, treatment, and disposal alternatives to meet projected demands.

Pleasant Grove Wastewater Treatment Plant Expansion, City of Roseville, Roseville, CA - *Staff Engineer* - Assisted in completing the CWSRF Financial Assistance Application for the City of Roseville’s Expansion and Energy Recovery Project. The application includes a Technical Package, Environmental Package, Financial Security Package and a Financial Budget Approval Package. Assisted in drainage calculations to size storm drain infrastructure in compliance with City of Roseville Design Standards.

12-inch Sewer Force Main Condition Assessment, Rancho Murieta Community Services District, Rancho Murieta, CA - *Staff Engineer* - Assisted in initial risk assessment, condition assessment, useful life calculations, and rehabilitation plan of an existing 12-inch sewer forcemain to plan and budget for future recycled water production.

Jake Hanson, E.I.T.

Staff Engineer

Education

BS, General Engineering, Degree Institution,
California Polytechnic State University, San
Luis Obispo, 2015

Registrations

Engineer-In-Training, California

Professional Summary

Jake Hanson is an E.I.T. and holds a Bachelor degree in General Engineering from California Polytechnic University, San Luis Obispo. Jake brings experience from a variety of areas including well equipping and design, water treatment plant design, and hexavalent chromium treatment research.

Project Experience

Final Design of Centralia Booster Pumps C and D, Golden State Water Company, Centralia, CA – *Project Team Member* - Aided in the design of a new booster pump station. Developed an engineering cost estimate for the project.

Final Design of Centralia Well 7, Golden State Water Company, Centralia, CA – *Project Team Member* - Aided in the design and development of a new well. Completed an engineering cost estimate for the entire project.

Hexavalent Chromium Management Study, City of Dixon, Dixon, CA – *Project Team Member* - Researched various hexavalent chromium treatment processes. Provided a 20-page report detailing various treatment options.

Design and Construction Support Services for Equipping of the Madison Well, Fair Oaks Water District, Fair Oaks, CA – *Project Team Member* - Designed the layout for the chlorine room. Provided assistance in designing the entire well site.

Design Support Services for Hexavalent Chromium Treatment of Well #16, Well #16 Improvements Project, City of Vacaville, Vacaville, CA – *Project Team Member* - Aided in the design and development of a hexavalent chromium treatment system for the existing Well #16. Provided support by completing headloss calculations and developing an engineering construction cost estimate.

WTP Flocculation/Sedimentation Basin 2015 Improvements Project, Pipeline Conveyance Project, San Juan Water District, Granite Bay, CA – *Project Team Member* - Designed the new sludge system being implemented. Provided design support for new flocculation equipment.

Design Support Services for Hexavalent Chromium Treatment of Well #14, Well #14 Improvements Project, City of Vacaville, Vacaville, CA – *Project Team Member* - Aided in the design and development of a hexavalent chromium treatment system for the existing Well #14. Provided support by completing headloss calculations and developing an engineering construction cost estimate.

Javier Rios Farias, P.E.

Civil Engineer

Education

BS, Civil Engineering, University of the Pacific,
2014

MS, Engineering, University of the Pacific, 2014

Registrations

Professional Civil Engineer, California (C 86012)

Certifications

Lateral Assessment and Certification Program,
Certification Issuer

Manhole Assessment and Certification Program,
Certification Issuer

Pipeline Assessment and Certification Program,
Certification Issuer

Memberships/Affiliations

American Society of Civil Engineers

Society of Hispanic Professional Engineers

Tau Beta Pi

Professional Summary

Javier has experience working on projects involving planning and design of pipelines, signal and electrical ductbanks; groundwater treatment, water, wastewater, and stormwater infrastructure; condition assessment, wastewater treatment and conveyance; and engineering support during construction. Javier is currently the Project Manager for the Linda County Water District On-Call engineering contract. He has 10 projects underway that he is overseeing or managing.

Project Experience

Water System Optimization Plan, South Tahoe Public Utility District, South Lake Tahoe, CA -

Engineering Support - Prepared a study which required working closely with the District to evaluate the condition of the existing critical assets, developing a level of service criteria, evaluating future regulatory impacts to the water system, using evaluation criteria and risk assessment to determine the necessary improvements to optimize the water system for the next 20 years, as well as developing a CIP.

On-Call General Engineering Services, Linda County Water District, CA –

Engineering Support – Kennedy/Jenks currently holds an on-call general engineering services contract with the Linda County Water District. This contract allows Kennedy/Jenks to perform ongoing engineering services as the District Engineer. Under this contract, Kennedy/Jenks has 10 current task orders related to water and wastewater infrastructure.

Well #17 Improvements, Linda County Water District, CA –

Engineering Support – Provided improvements for the equipping and treatment of an existing drilled well, also known as Well 17, as well as the construction of booster pump stations and a storage tank facility. These improvements will increase the District's capability of meeting maximum day water demands with acceptable quality water, increase the reliability of the existing water supply system, and allow for future growth.

Water System Master Plan, Linda County Water District, CA –

Engineering Support – The Water System Master Plan will provide the District with a road map and Capital Improvement Plan (CIP) for the next 10 (near-term) to 20 (long-term) years. The work in this project includes the development of a water distribution system hydraulic computer model as a tool for analysis.

Echowater Project Site Preparation Project, Sacramento Regional County, Elk Grove, CA – *Staff Engineer* - Assisted in the development and review of design documents, prepared technical memos, created cost estimates, and prepared technical specifications and designs for the \$40 million site preparation project. The project included roads, buildings, site security, utilities, and new site process piping.

EchoWater Project Site Preparation Project - Engineering Services during Construction, Sacramento Regional County, Sacramento, CA - *Engineering Support* - Provided assistance with engineering support services during construction. This included redesign of pipeline alignments, signal and electrical ductbanks and pipeline connections. Work also included attendance of construction meetings to discuss the feasibility of proposed design under verified field conditions as well as the development of cost estimates and revised design documents for changes due to unknown field conditions. Lastly, provided contractor support through response of Requests for Information and submittals.

Camp Roberts Main Garrison Wastewater Treatment Plant Repair, California Air National Guard, Camp Roberts, CA - *Engineering Support* - Provided assistance with engineering support services during construction. This included relocation and redesign of trickling filter effluent pumping station, design of pipeline connections, pipeline repair plans, construction meetings and contractor support through response of Requests for Information and submittals.

Primary Effluent Filtration as Intermediary Wastewater Treatment Step, California Energy Commission, Sacramento, CA - *Field Technician* - Responsible for monitoring and weekly process testing and adjustment of piloting conditions of five separate filtration technologies to measure the reduction in aeration power requirements utilizing filtration of primary clarifier effluent. This work included coordination with testing laboratories, manufacture representatives and Linda County Water District WWTP operators. Piloting strategies focused on extreme performance and upset conditions to establish full-scale design criteria. Work also included office engineering services, field plant operations, coordination and data analysis.

Lake Don Pedro Drought Emergency Services, Lake Don Pedro CSD, La Grange, CA - *Engineering Support* - Participated in site visits to determine potential well drilling location while working with local well drilling contractor and hydrogeologist. Assisted in obtaining well drilling permits as well as preparation of grant funding and emergency funding applications. Work also included preparation of aerial figures mapping out proposed well piping connection to District treatment facility and cost estimates for alternative pipe alignments.

Zoe Wu

Staff Engineer

Education

BS, Civil Engineering: Environmental & Hydrology,
Rice University, 2015

MS, Civil and Environmental Engineering,
University of California, Davis, 2017

Years of Experience

1 year

Professional Summary

Zoe Wu is staff engineer with experience in both water and wastewater funding, planning, design and pilot projects.

Project Experience

Drought Emergency Services, Lake Don Pedro Community Services District, CA – Staff Engineer – Zoe has assisted in development of grant administration documents for project closeout.

Treated Water System Optimization Plan (TWSOP) – Water Treatment Consolidation Evaluation, Tuolumne Utilities District, CA – Staff Engineer – Zoe has supported the team with the completion of the Water Treatment Consolidation as part of the Treated Water System Optimization Plan (TWSOP) to evaluate solutions for the District to optimize and consolidate 11 separate treated water systems owned and operated in the District’s service area.

Water System Master Plan, Linda County Water District, CA – Staff Engineer – Zoe is assisting the team with a Water System Master Plan that will provide the Linda County Water District with a road map and Capital Improvement Plan (CIP) for the next 10 years. The work in this project includes the development of a water distribution system hydraulic computer model as a tool for analysis.

Primary Effluent Filtration as Intermediary Wastewater Treatment Step, California Energy Commission, CA – Staff Engineer – Zoe is assisting the team with a Pilot-scale demonstration of biofiltration as an advanced primary treatment (APT) method to reduce total organic load at wastewater treatment plants (WWTPs), before the secondary aerated activated sludge treatment processes, to achieve substantial energy and water savings.

Primary Effluent Filtration as Intermediary Wastewater Treatment Step, California Energy Commission, Sacramento, CA – Staff Engineer – Zoe is helping to provide planning, design and engineering services during construction through a design-bid-build project delivery approach for deployment of Cloth Depth Filtration for raw wastewater filtration at the Linda Wastewater Treatment Plant.

Sandy L. Schuler, P.E.

Sr. Electrical Engineer

Education

AS, Engineering, University of Kentucky, 1977
BS, Electrical and Electronics Engineering,
University of Sacramento, 1979

Registrations

Professional Electrical Engineer, California (15453)
Professional Engineer, Colorado (0050906)
Professional Electrical Engineer, Nevada (21566)

Professional Electrical Engineer, Washington
(53647)

Professional Electrical Engineer, Oregon (91207PE)
Professional Electrical Engineer, Guam (1993)
Professional Electrical Engineer, Texas (128339)
Professional Electrical Engineer, Hawaii (17857)

Memberships/Affiliations

National Fire Protection Association

Professional Summary

Sandy Schuler's professional engineering experience includes project/task management, mentoring, consulting, field investigation, technical analysis, design and develop construction documents, construction services, cost estimates, technical writing, proposals, and specifications. Sandy has over 25 years of experience during which most of her projects have been in the water and wastewater industry requiring coordination and collaboration with multi-disciplinary project teams.

Typically, design starts with developing the process and instrumentation drawings, coordinating equipment/instruments with the owner, establishing SCADA and plc signals, develop the physical plans for the process and instrumentation drawings which include onelines, load analysis, pump/motor/valve/lighting/control panel wiring diagrams, site drawings, area drawings, details, coordination with utilities, editing/writing specifications, and cost estimates at multiple percentage drawing phases. At construction, work effort is reviewing submittals and answering RFIs.

Project Experience

Groundwater Replenishment Projects, GWR Injection Well Phase I, Pure Water Monterey, Monterey, CA - *Electrical Engineer/Managed Electrical/Instrumentation Team* – Groundwater Replenishment Project included wells to contain water production from the AWPf project. Electrical installation included MV Switchgear, regenerative MV VFD for 500hp back wash pumps, new buildings, test wells, and site improvements. Communications and controls incorporated new control panel to covering backwash pumps and valve controls, multiple tower transmission sites, local controls for an in-ground reservoir, and Blackhorse reservoir modification. Primary responsibilities include engineering calculations, preparing plans and specifications, coordination with utility companies, design of lighting, power, controls, door access controls, security system, instrumentation, communications, PLC and SCADA systems, code analysis, construction support, and analyzed potential power regeneration.

Filter Rehabilitation Project, San Jose-Santa Clara Regional Wastewater Facility (RWF), San Jose, CA - *Electrical Engineer* – Led the conceptual and preliminary design for refurbishing tertiary filtration which operates at an annual average flowrate of 110MGD. Three switchgears (4160V and 480V) and six motor control centers including all cabling are deemed obsolete. The design included establishing critical loads; site investigations; replacing over 120 valves with new motor actuators; and upgrading motor control centers to smart MCCs. San Jose RWF DCS system will be tied to the new switchgear, MCC, switchboards, and motorized valve actuators utilizing Modbus protocol. The next phase is 60% contract drawings.

Pure Water Monterey - Advanced Water Treatment Facility and Pump Station Project, Monterey Regional WPC, Monterey, CA - *Electrical Engineer/Managed Electrical/Instrumentation Team* - Kennedy/Jenks is providing planning and engineering services for AWPf which will initially produce up to 4 mgd of product water, with space reserved for future expansion up to 6.5 mgd. Primary electrical/instrumentation responsibilities include engineering calculations, preparing plans and specifications, coordination with utility companies, design of lighting, power, controls, door access controls, security system, wi-fi access, paging, instrumentation, communications, emergency power, and PLC and SCADA systems, code analysis, and construction support. New 21kV switchgear feeding 6.5MVA loads tied to Monterey Landfill excess co-gen power to substantially reduce the overall load

Reservoirs Nos. 1 and 2, Sonoma State University, Rohnert Park, CA - *Electrical Engineer* – Kennedy/Jenks designed the replacement of two 250k gallon storage reservoirs and added a third new 350k gallon storage tank at Sonoma State University. Primary electrical/instrumentation responsibilities include engineering calculations, preparing plans and specifications, design of lighting, power, controls, instrumentation, communications, emergency power, and PLC and SCADA systems, code analysis, and construction support.

Dominion Water and Sanitation District (DWSD) – Sterling Ranch Water Tank – Electrical and I&C Engineering, Sterling Ranch, CO - *Electrical Engineer* – The project comprised of the design of the electrical power system, instrumentation and controls, and PLC/SCADA improvements. Project electrical, instrumentation, and control elements included coordination with Excel (utilities), service pedestal and distribution, lightning protection on tank, mixer and vendor control station, control panel, level controls in tank, tank security, and fiber optics connection back to SCADA system

Tesoro Viejo WTP/WWTP and Potable Water Tank Design, Madera County, CA - *Electrical Engineer* – Kennedy Jenks was task to design Water Treatment Plant, Wastewater Treatment Plant and a remote Potable Water Tank, the raw water pipeline (from the existing agricultural filters to the WTP site), and the recycled water effluent disposal system (land area application in the vicinity of the treatment plants site) for the Tesoro Viejo Master Planned Community. Primary electrical/instrumentation responsibilities include engineering calculations, preparing plans and specifications, coordination with utility company, design of lighting, power, controls, instrumentation, communications, emergency power, and PLC and SCADA systems, code analysis, and construction support.

Linda County Water District, LCWD Well 17 Design Project, Linda County, CA- *Electrical Engineer* – A new treatment facility and storage tank located on two separate parcels of land. Primary electrical/instrumentation responsibilities include preliminary engineering calculations, preparing plans, single lines for each site, client coordination, process and instrumentation plans communications, emergency power, and SCADA block diagram.

Lincoln Oaks Storage Tank, Pump Station, and Transmission Pipeline Project –California American Water Company, Citrus Heights, Sacramento County, CA - *Electrical/Instrumentation Engineer* - The Planning, designing, and engineering services during construction for a new 1.5 MG water storage tank and 2,500 gpm booster pump station. Project electrical, instrumentation, and control elements included coordination with Sacramento Municipal Utility District (SMUD), new motor control center with three booster pump, VFD controlled, standby generator, load bank, control panel, OIP, flow meter, valves, flow switches, pressure switches, level controls in tank, and remote SCADA system.

Aaron A. Taylor, P.E., S.E., G.E.

Senior Structural Engineer

Education

BS, Civil Engineering, San Diego State University,
1995
MS, Structural Engineering, University of California
at Berkeley, 1996

Registrations

Professional Geotechnical Engineer, California
(3078)

Professional Structural Engineer, California (4671)
Professional Structural Engineer, Oregon (91066)
Professional Structural Engineer, Arizona (49987)
Professional Structural Engineer, Hawaii (16897)
Professional Structural Engineer, Nevada (15211)
Professional Structural Engineer, Washington
(37266)

Professional Summary

Aaron Taylor is a registered structural engineer with more than 20 years of experience as a project engineer and project manager. He has design-bid-build and design-build experience in public works, industrial, commercial, and multi-use projects. In addition, he provides value engineering support based on his experience as a licensed contractor.

Project Experience

Floating Barge Structural Rehab, Lake Don Pedro CSD, La Grange, CA - *Structural Engineer* -

Provided as-built drawings, structural calculations, and value-engineered drawing modifications based on manufacturer and District input for existing floating barge pumping unit to provide a sustainable and reliable emergency surface water supply system.

EMWD-Tank Rehabilitation Study, Eastern Municipal Water District, Antelope, CA - *Structural Engineer* -

Provided condition assessment, seismic analysis, and retrofit and replacement recommendations for 4 existing welded steel tanks in high seismic zone.

Wellfield Emergency Generators, Calleguas Municipal Water District, Thousand Oaks, CA - *Structural Engineer* -

Provided structural design services for the Emergency Generator Building for a new 10 MW emergency power facility serving the District's entire ASR Wellfield and onsite treatment facilities. Project includes a new Emergency Generator Building housing five 2 MW diesel engine-generators and medium voltage switchgear, 80,000 gallons of exterior fuel storage, new electrical utility switchyard, new 4 KV electrical distribution throughout Wellfields 1 and 2, new access road and site improvements associated with the new building. The masonry and structural steel building has a high clearstory with steel truss framing at the discontinuous roof, adjacent recessed fuel tank yard for spill containment, and site retaining walls.

Pleasant Grove Wastewater Treatment Plant Expansion, City of Roseville, Roseville, CA - *Structural Engineer* -

Provided structural design services for a \$60M expansion that will add four primary clarifiers, two gravity belt thickeners, sludge thickening building, two prestressed concrete anaerobic digesters, digester control building, pedestrian access bridge between structures, and auxiliary systems, controls and process piping. In addition, the structural work also included retrofit openings in existing concrete tanks. The project will be delivered under a design-assist procurement and includes services for planning, design, contractor procurement, and engineering services during design.

Pumping Plants Overhead Crane Rehabilitation Study, Metropolitan Water District, CA - *Structural Engineer* - Provided extensive field condition assessment, detailed structural analysis of overhead bridge crane support framing down to the foundation, seismic evaluation of the structure, and retrofit recommendations for the crane systems rated up to 60 tons pick load at 4 pump stations.

Well #16 Improvements, City of Vacaville, Vacaville, CA - *Structural Engineer* - Provided structural design for the masonry structure of the City's first Cr(VI) treatment facility. The design approach includes the concepts that will 1) provide operator user-friendly Cr(VI) treatment system to fit on existing site; 2) integrate the treatment system with existing well and chemical systems; 3) convert the sodium hypochlorite disinfection system to City-standardized onsite hypochlorite generation system; 4) determine the impacts to existing well capacity with the addition of Cr(VI) treatment.

Well 34 Equipping Design, and Wells 31 & 33 VFD Conversion Design, City of Davis, Public Works Department, Davis, CA - *Structural Engineer* - As structural engineer of record, Aaron designed the steel equipment shelter for Well 34, which included well pumping equipment, wellhead facilities, disinfection system, and site improvements. The project was designed for a conjunctive use water system by integrating surface water with the deep groundwater wells.

EID Three Lift Station Upgrades, El Dorado Irrigation District, El Dorado, CA - *Structural Engineer* - Upgrades to three aging lift stations for the El Dorado Irrigation District (EID). Working closely with EID personnel, a list of problems with each lift station was identified, and then reviewed the existing plans and site layouts to determine the construction constraints for each site. Flow data and flow projections for each lift station were also reviewed, as well as the suitability of variable frequency drive (VFD) operation to finalize the lift station design criteria. After preparing a Basis of Design Report, the team proceeded with final design of the facilities. A public outreach program was used to inform the local residents of the anticipated construction and the benefits of the lift station upgrades. Designed an in-ground emergency storage basin, removable reinforced concrete retrofit lids to existing fiberglass wetwell pump stations, masonry screen walls, and reinforced openings in existing brick buildings.

Barrick Goldstrike Processing Building, Barrick Goldstrike, Elko, NV - *Structural Engineer* - Acted as lead structural engineer with design-build team, who teamed with a third-party consulting firm and manufacturer to provide a turn-key water and chemical treatment plant for proprietary gold ore processing. Provided structural design for a three-story steel eccentrically-braced frame industrial building with heavy process equipment floor loads and complex elevated large diameter piping supports at all floors.

City of Davis Wastewater Treatment Plant Upgrade, Yolo County, California, Yolo County, CA - *Structural Engineer* - Provided final design, and construction support services for the City of Davis' Wastewater Treatment Plant Rehabilitation and Replacement Project-the first of a two-phase project to improve plant performance, reliability, and effluent quality in support of a new National Pollutant Discharge Elimination System (NPDES) Discharge Permit. The project includes significant upgrades to the existing dry pit influent pumps, which are oversized for current flows and have significant operations and maintenance (O&M) challenges. Headworks improvements included new bar screens and modifications to existing influent channels to improve scour velocity. Primary clarifier improvements included new tank chain and flight scrapers equipment. Provided design for the new dividing walls inside existing channels, new overhead retrofit monorails to hoist pumps, new openings in existing concrete walls, elevated structural steel platform for screenings, and repair strategy for deteriorated concrete including stainless steel wall panels and infill grout.

Zachary D. Harris, P.E., LEED® AP

Building Mechanical

Education

BS, Mechanical Engineering, Stanford University,
1989

Registrations

Professional Mechanical Engineer, California
(28906)

Certifications

Leadership in Energy and Environmental Design
(LEED), Green Building Institute

Memberships/Affiliations

American Society of Mechanical Engineers
National Fire Protection Association

Professional Summary

Zachary (Zac) Harris has a mechanical background with an emphasis in the development and design of building mechanical systems, including plumbing, HVAC, fire protection, natural gas, and compressed air systems. This experience has been garnered through professional study in the areas of HVAC and Fire Protection Engineering and the application of these practices.

Zac has additional experience in the design of water and wastewater distribution facilities. This experience covers the design of mechanical, electrical, and control systems for water and wastewater pumping stations, flow regulating stations, and storage facilities. He also has experience in the planning, development, and design of water, sewer, natural gas, and steam infrastructure systems and the development and analysis of hydraulic networks using software modeling programs. Project management efforts in this area include the preparation of feasibility studies.

Project Experience

Compost Facility Condition Assessment and Repair, City of Santa Rosa, Santa Rosa, CA -

Mechanical Engineer - Zachary performed an assessment of exhaust system design of 40,000 sf compost handling facility and biofilter odor control system. The assessment included analysis of fan system performance, evaluation of FRP duct systems, and sampling of digestion by-product (H₂S, Ammonia, and methane) gas concentrations throughout the facility.

Pleasant Grove Wastewater Treatment Plant Expansion, City of Roseville, Roseville, CA -

Mechanical Engineer - Providing mechanical engineering services for a \$50M expansion that will add four primary clarifiers, two gravity belt thickeners, sludge thickening building, two anaerobic digesters, digester control building, and auxiliary systems, controls and process piping. The project will be delivered under a design-assist procurement and includes services for planning, design, contractor procurement, and engineering services during design.

Santa Clara Valley Water District, Almaden Campus Gas Generator and Heat Recovery System, as a subconsultant to, Cynthia Easton, Architect, Sacramento, CA -

Mechanical Engineer - Incorporated the design of a normal 900 kW natural gas-fired, electric power generator system that will enable the District to remove its Almaden Campus (approximately 150,000 square feet of office/industrial space) from PG&E's electric power system during the District's weekday operating hours. A heat recovery system will be provided for the production of both chilled water (through a 100-ton absorption chiller) and hot water for the air conditioning and heating systems of the Campus' 40,000 square foot administration building.

Wastewater Treatment Plant Upgrades, Construction Period Services, Susanville Consolidated Sanitary District, Susanville, CA - *Mechanical Engineer* - Designed plumbing (water, sewer, natural gas), heating and ventilating systems for various process facilities developed during the Treatment Plant expansion. Design responsibilities included specification and layout of standby generator set and diesel fuel system.

Water and Wastewater Infrastructure Design for the Tesoro Viejo Community Development, Tesoro Viejo, Inc., Madera, CA - *Mechanical Engineer* - Designed Plumbing and HVAC systems for small (<1000 sf) office, locker/shower, and electric power distribution facilities for separate 0.6 MGD water and 1.0 mgd wastewater treatment facilities on a common site. Provided design support for plant water pump station and distribution system. Designed separate 3,000 gpm fire pump system for fire protection throughout planned development.

Northwest Precinct Utilities Assessment, University of California, Berkeley, Berkeley, CA - *Mechanical Engineer* - Reviewed consumption data on existing steam and natural gas system, assessed existing system capability handle present-day demands. Estimated future demands based on projected growth and building usage, prepared report outlining future capital projects to accommodate planned growth.

Wastewater Treatment Plant Upgrade and Expansion, Linda County Water District, Marysville, CA - *Mechanical Engineer* - Mechanical design services for the Wastewater Treatment Plant Upgrade and Expansion.

Water Recycling Facility for the City of Fillmore, Design-Build-Operate Project, American Water Operations and Maintenance, Fillmore, CA - *Mechanical Engineer* - Mechanical design services for the Water Recycling Plant.

Yosemite Village Integrated Utility Project, Yosemite National Park, U.S. Department of Interior, National Park Service, Yosemite, CA - *Mechanical Engineer* - Managed hydraulic modeling effort and design of two sewer lift stations (600 gpm and 1,200 gpm), a 9,000 LF sewer force main, 6,000 LF of gravity sewer main, and a 150-kW standby generator system.

Harry Tracy Water Treatment Plant (HTWTP) and Storage Reservoir Geotechnical Investigation and Condition Assessment, San Francisco Public Utilities Commission, Millbrae, CA - *Mechanical Engineer* - Provided design services for mechanical process piping systems at the reservoir Chemical Mixing and Injection Vault and Treated Water Sampling Station and pumped facility drainage systems. Provided construction support services for same and for in-plant water piping systems of sizes up to 72-inch diameter.

Southeast Quadrant Utility Assessment, University of California, Berkeley, Berkeley, CA - *Mechanical Engineer* - Reviewed consumption data on existing steam and natural gas system, assessed existing system capability handle present-day demands. Estimated future demands based on projected growth of athletic department and business school facilities, prepared report outlining future capital projects to accommodate planned growth.

Lake of the Pines Wastewater Treatment Plant Expansion and Design, Nevada County, Nevada City, CA - *Mechanical Engineer* - Designed plumbing and HVAC systems for facility upgrades for plant expansion from 0.7-mgd to 3.7-mgd (peak wet weather). Specific responsibilities involved design of building systems for a 1,500 square foot office/locker room facility.

Mark Preston, R.A.

Architecture

Education

BA, Environmental Design, University of Washington, 1978

Registrations

Registered Architect, Washington (4455)
Registered Architect, California (C-22375)

Registered Architect, Texas (25218)
Registered Architect, Hawaii (16913)
Registered Architect, Oregon (ARI - 11692)
Registered Architect, Colorado (ARC.00405194)

Certifications

NCARB Certification, NCARB

Professional Summary

Mark Preston is a senior architect with demonstrated ability to lead diverse teams in the successful design and construction of a variety of private and public sector projects. His architectural experience includes space planning, cost estimating, code analysis and compliance, conceptual/final design, facilities programming, building evaluation studies, facilities renovation and modernization, long-range planning, pre-engineered buildings, and construction administration.

Mark is an experienced project manager with skill in overseeing teams of in-house production staff and coordinating subconsultants for successful project completion on time and within budget. He is familiar with various design processes for both private and public sector projects, and has provided plan review assistance with local county building departments. He has authored reports on facilities/program analyses and long-range building evaluation studies, and regularly prepares clear, concise construction drawings and specifications. He also provides full construction administration support, including pre-construction meetings with general contractors, owners, and major subcontractors; site reviews and progress meetings; change order negotiations; documentation of work in progress; compilation of as-built drawings and punchlists; and final project closeout and administration of associated paperwork. Following construction, he provides start-up assistance, record drawings, warranty review, and post-construction evaluation.

Relevant Project Experience

Pre-design Documents, East County Advanced Water Purification Program, Padre Dam Municipal Water District, Santee, CA - *Architect* - The project includes assisting Padre Dam Municipal Water District to develop and implement its first-ever potable reuse program. The objective of the Program is to create a new source of local, reliable, and drought-proof water supply. Architecturally, this project included the programming and design of a new Visitor Center / Administration Building. This 12,000 s.f. steel-framed structure includes conference and multi-purpose rooms for educational plant tours, laboratory spaces, locker room areas, outdoor local plant displays and a decorative waterfall feature enhancing an outdoor gathering plaza. The adjacent water purification process equipment is housed in a 44,000 s.f. pre-engineered metal building.

Pure Water Monterey, Advanced Water Treatment Facility, Monterey Regional Water Pollution Control Agency, Monterey, CA - *Architect* - Design and construction of a 5-mgd Advanced Water Purification Facility (AWPF) and major equipment procurement. The AWPF treats secondary effluent with ozone, microfiltration, reverse osmosis and UV-advanced oxidation processes. Four (4) pre-engineered metal buildings were constructed to house process equipment and utilities. Their sizes,

in descending order, included: 19,000 s.f. (Membrane AOP Building), 3,000 s.f. (Ozone Building), 2,300 s.f. (Chemical Building) and 365 s.f. (Electrical Building).

Water and Wastewater Infrastructure Design for the Tesoro Viejo Community Development, Tesoro Viejo, Inc., Madera, CA - *Architect* - Architectural design for the 0.8 mgd water reclamation facility and the 1.6 mgd microfiltration/UV water treatment plant. Provided architectural renderings and new structures. New structures include: 1,400 s.f. pre-engineered metal Electrical and Maintenance Building, 1,200 s.f. pre-engineered metal Electrical Building, 400 s.f. CMU Potable Water Pump Building and various pre-engineered shade canopies for process equipment.

Cascadia Wastewater Treatment Plant at Tehaleh - Design Services, NASH Cascadia Verde, LLC, Pierce County, WA - *Architect* - Kennedy/Jenks is providing the design for a “greenfield” Membrane Bioreactor (MBR) wastewater treatment facility for a private developer. The Facilities will include the following new structures: 2-story, 1,700 s.f. CMU Headworks Building with work area on the lower level and headworks screens on the upper level; 6,700 s.f. CMU Mechanical Building with Chemical Room storage; and, a new 3,100 s.f. concrete and wood-framed Lab and Operations Building.

Pre-design Documents, Sterling Natural Resource Center, East Valley and San Bernadino Water District, San Bernadino, CA - *Architect* – Architectural services included the programming and design for a new 10,000 s.f. concrete and steel-framed Emergency Operations Center / Administration Building. This facility is highly-used for community education/training programs and, in conjunction with the surrounding landscaped grounds, used for social events such as weddings, etc. A large 2,500 s.f. Multi-Purpose Room with operable walls was incorporated into the design along with kitchen facilities. The building can provide emergency shelter for the community in the event of a natural disaster (earthquakes, wildfires, etc.).

Well #16 Improvements, City of Vacaville, Vacaville, CA - *Architect* - Architectural design of the City's first Cr(VI) treatment facility. Architectural services included the design of a new CMU 2,400-square-foot Cr(VI) Treatment Building. The prototype design is scheduled to be used at the City's Well 17 site, also.

Williams Road Pump Station, Benbrook Water Authority, Benbrook, TX - *Architect* - Architectural services included the design of a new 700 s.f. CMU Pump Station Building and adjacent 64 s.f. CMU Chlorine Feed Building.

Janet L. Hoffman, P.E., CEP

Cost Estimating

Education

BS, Mechanical Engineering, University of Southern California, 1994

Registrations

Professional Mechanical Engineer, Washington (36133)

Certifications

AACE International / Certified Estimating Professional (CEP), AACE International

Memberships/Affiliations

AACE International

Professional Summary

Janet Hoffman is a mechanical engineer and Certified Estimating Professional (CEP) with experience in design and construction of public, industrial, and institutional facilities. She regularly provides cost estimating services for municipal and industrial wastewater, stormwater, and railroad fueling projects. She produces estimates at the preliminary and interim design stages. Janet also has extensive experience in the construction industry, leading the mechanical work on a variety of building, process, and industrial projects. Her construction experience includes preparing bids, scheduling, budgeting and cost forecasting, piping layouts, coordinating subcontractors, preparing submittals and O&M manuals, negotiating change orders and disputes, and starting up and commissioning systems using both the traditional design-bid-build and GC/CM contracting methods and has the unique perspective of having experience working both on the side of the contractor and as the engineer. She has a vast 20 year experience in working on construction cost estimates for water and wastewater facilities and specializes in construction cost estimating.

Project Experience

Well 10, Booster Pump, and Storage Tank Cr6 Compliance Design Project, City of Newman, CA - *Cost Engineer Estimator* - Provided cost estimating services for the predesign and design of a new groundwater well, storage tank, booster tank, chlorine disinfection, security, masonry wall, and transmission piping for the City of Newman.

Pleasant Grove Wastewater Treatment Plant Expansion, City of Roseville, Roseville, CA - *Cost Engineer/Estimator* - Providing cost estimating services for a \$50M expansion that will add four primary clarifiers, two gravity belt thickeners, sludge thickening building, two anaerobic digesters, digester control building, and auxiliary systems, controls and process piping. The project will be delivered under a design-assist procurement and includes services for planning, design, contractor procurement, and engineering services during design.

Pure Water Monterey - Advanced Water Treatment Facility and Pump Station Project, Monterey One Water, Monterey, CA - *Cost Engineer/Estimator* - Prepared detailed construction cost estimates at the preliminary, interim, and final design stages for Advanced Water Purification Facility, injection wells, and conveyance pipelines.

Mesa 24-inch Transmission Main Design, Santa Clarita Valley Water Agency, Santa Clarita, CA - *Cost Engineer/Estimator* - Prepared detailed cost estimate for construction of a 24-inch diameter ductile iron water main, which included pavement restoration and connections to existing line.

Backbone Improvement Program: Calabasas and Agoura Hills Alignments Project, Las Virgenes Municipal Water District, Calabasas, CA - *Cost Engineer/Estimator* - Prepared detailed construction cost estimates at the preliminary, interim, and final design stages for installation of a 30-inch diameter welded steel water pipeline installed in city streets via open cut and jack and boring methods.

Lift Station 1 Replacement, Rainbow Municipal Water District, Bonsall, CA - *Cost Engineer/Estimator* - Professional engineering services for the preliminary and final design of the Lift Station #1 Replacement Project. Additionally, replacement of a force main and gravity main delivering wastewater from Lift Station No. 1 to Lift Station No. 2.

Valhalla Recycled Water Main System Extension, City of Burbank Water & Power, Burbank, CA - *Cost Engineer/Estimator* - Provided detailed cost estimates at interim design level for a recycled water pipeline that ranged from 8- to 12-inches in diameter.

Backbone Improvement Program: Calabasas and Agoura Hills Alignments Project, Las Virgenes Municipal Water District, Calabasas, CA - *Cost Engineer/Estimator* - Prepared detailed construction cost estimates at the preliminary, interim, and final design stages for installation of a 30-inch diameter welded steel water pipeline installed in city streets via open cut and jack and boring methods.

Design Review and Project/Program Management Services On-call, King County, Department of Natural Resources, Seattle, WA - *Cost Engineer/Estimator* - Provided cost estimating services in support of WTD facilities improvements and design/construction projects over the course of three consecutive on-call contracts. Provided review of construction sequence specifications.

Pierce County Chambers Creek Regional Wastewater Treatment Plant Expansion (as a subconsultant), Brown & Caldwell, University Place, WA - *Cost Engineer/Estimator* - Prepared detailed construction cost estimates for a \$200M wastewater treatment plant expansion at the interim design stages for 20 separate new or renovated process facilities at the plant. Met with GC/CM to discuss and verify costs on each of the 20 new facilities. Provided review of the GC/CM's pricing at final detailed design. Prepared cost estimates to support Business Case Evaluations for design alternatives throughout the design process.

Bluffs Well Replacement Design and Construction Management, Clallam County Public Utilities District No. 1, Clallam County, WA - *Cost Engineer/Estimator* - Prepared detailed cost estimate for design and construction of new groundwater wells and pumping, storage, and treatment facilities. The team's collaboration with the client throughout the project resulted in a very low construction change order rate of 1.1% of the project cost.



Dylan Crawford, P.L.S.
Principal

CAREER EXPERIENCE

23 years in the Land Surveying Industry

FIRM EXPERIENCE

21 years at O’Dell Engineering

PROFESSIONAL REGISTRATIONS

Registered Land Surveyor No. 7788, California

PROFESSIONAL ASSOCIATIONS

California Land Surveyors Association,
 American Council of Engineering Companies, Professional Surveyors Committee

SUMMARY - Since 1996, Mr. Crawford has been with O’Dell Engineering’s survey division focusing on surveying for the public sector. His experience includes on-call surveying for public agencies, numerous design surveys, right of way engineering, surveying and staking of large scale construction projects, subdivision mapping, boundary retracement and establishment surveys, resolution of land title issues, and topographic surveying. He stays current with advances in survey technology, legislation affecting land development, the subdivision map act, and land title issues.

RELEVANT EXPERIENCE:

DONNELLS DAM

Mr. Crawford served as the Principal-in-Charge for this project requiring comprehensive as-built documentation of Donnell’s Dam in Tuolumne County, including the upstream and downstream faces, thrust block, outfall and spillway gate structures. The firm’s completed work product would be used to further analyze the existing condition of the dam and associated structures and to meet the requirements of the Federal Energy Regulatory Commission. The team had several challenges to overcome in order to complete the measurement and documentation of the dam. The first was the remote location. Reaching the isolated canyon required traversing a boulder lined fire service road at low speeds in vehicles with high ground clearance. There was no cell phone coverage and the survey crew camped on site in a cabin provided by the Tri-Dam Project. Additionally, taking measurements would prove very difficult due to the dam’s shape and the sheer canyon walls. Donnell’s Reservoir contains virtually no accessible shoreline and has no facilities of any kind. The O’Dell team partnered with the Tri-Dam Project to winch an aluminum boat down the face of the dam. The survey equipment was then carefully lowered by rope down to members of the waiting boat team, who had hiked around the dam to find an accessible location to safely access the boat. O’Dell Engineering utilized a combination of advanced measurement instruments, foremost among these was the Leica Geosystems ScanStation C10 3D Laser Scanner. Additionally, control and monitoring surveys were completed using one of the firm’s five fully robotic total station surveying instruments. In only three days’ time, the entirety of Donnell’s Dam was completely measured in the field. Over the next several weeks, the O’Dell Engineering team began producing high quality deliverables in the office. The final result was comprehensive as-built documentation of the dam, on time and on budget.

LUMSDEN FALLS FISH SCREEN, LAKE DON PEDRO

Mr. Crawford served as the Principal-in-Charge of Surveying for this project. O’Dell provided topographic mapping obtained through terrestrial laser scanning and traditional survey methods. Services included establishing survey control, terrestrial laser scanning of the area, and mapping. The project entailed determining the lowest elevation difference that would allow Salmon fish to swim upstream.

TUOLUMNE COUNTY 2017 STORM DAMAGE SURVEYING SERVICES

O’Dell Engineering provided land surveying services for various storm damage projects in Tuolumne County. Mr. Crawford served as the Principal-in-Charge for this effort. Projects included Kewin Mill Road at Five Mile Creek Culvert and Little Fuller Road at Sullivan Creek Culvert. For these projects, O’Dell provided survey control, topographic surveying, construction surveying, optional boundary/right-of-way surveying and optional as-built surveys.



PARROTTS FERRY BRIDGE ELEVATION MONITORING

On an annual basis, O’Dell Engineering provides bridge elevation monitoring services for the Parrotts Ferry Bridge located in Tuolumne County, CA. O’Dell performs a differential level loop across Parrotts Ferry Bridge through designated monitoring points to record raw level readings and temperature, report notable conditions or changes of the monitoring points, and list final adjusted elevation.

EXCHEQUER DAM SURVEYS, LAKE MCCLURE

O’Dell Engineering was retained by the Merced Irrigation District (MID) to provide survey support for the Exchequer Hydroelectric project. Services included establishing permanent dam monitoring control points with California State Plane Coordinate values, performing regular settlement and deflection surveys of the dam’s crest and face for MID and the Division of Safety of Dams, performing a high definition laser scan of the downstream side of the dam and abutments, and topographic surveys for slope protection and design.

DELTA WATER SUPPLY PROJECT

The Delta Water Supply Project pumps surface water from the San Joaquin Delta to Stockton. This D-B project required design and installation of 12 miles of 54” raw water pipeline and over 6 miles of treated water pipeline and construction of 7 micro tunnels up to 1200’ in length. Mr. Crawford managed all of the construction surveying efforts and design surveying during the construction process.

FRESNO REGIONAL WATER TRANSMISSION MAIN REPLACEMENT PROJECT

Mr. Crawford served as Principal-in-Charge of Surveying for this major water transmission main project in Fresno, CA. The work included providing over 250 survey control points for an aerial photographic survey covering approximately 64 miles of proposed transmission lines. Additional topographic surveys were provided to supplement the aerial photography. In addition, work included researching and mapping existing underground utilities and providing selected potholing controls at approximately 75 locations.

GILROY WATER MAINS

As Principal-in-Charge, Mr. Crawford supervised topographic surveying services, utility research, and mapping for the replacement of a large diameter waterline along Highway 152 in Gilroy, California. Over 130 terrestrial laser scans were collected along the project alignment and were joined into a single unified point cloud for the project. Point features were then extracted from the project point cloud and used to draft traditional 2D topographic survey drawings. A mobile GIS data collection system (built on top of Open Data Kit) was designed and implanted for the utility mapping on the project.

EAST DUNNE AVENUE 16” WATER MAIN PROJECT

As Principal-in-Charge of Surveying, Mr. Crawford supervised design survey and utility research services for the East Dunne Water Main in Morgan Hill, CA. The work included establishing survey controls, performing a topographic survey of approximately 4,500 feet of water main, and utility research for design of improvements of the water main.

FIREBAUGH REPLACEMENT WELL #7

Mr. Crawford served as Principal-in-Charge of Surveying for this replacement well project in Firebaugh, CA. The work included topographic surveying and mapping to support the design of the well.

BASS LAKE WASTEWATER TREATMENT PLANT AND EFFLUENT DISPOSAL SYSTEM

Mr. Crawford served as Principal-in-Charge of Surveying for this wastewater treatment plant and effluent disposal system improvement project at Bass Lake in Madera County. The goal of the project was to replace the deteriorating infrastructure at this County treatment and disposal facility to improve process operability, reduce annual operating and maintenance costs, accommodate peak flows, and maintain permit compliance. The work included topographic surveying and mapping to support the design of the improvements.



Scott Roberts, P.L.S.
Surveyor

CAREER EXPERIENCE

8 years in the Land Surveying Industry

FIRM EXPERIENCE

2 years at O’Dell Engineering

EDUCATION

Bachelor of Science, Geomatics Engineering, California State University, Fresno

PROFESSIONAL REGISTRATIONS

Registered Land Surveyor No. 9235, California

SUMMARY – Mr. Roberts has professional surveying experience in both the public and private sectors with work on an array of design projects such as large scale municipal efforts, private master planned communities, agricultural properties, and commercial developments. He is skilled in AutoCAD Civil 3D, Trimble GNSS & Robotic TS, Trimble Business Center, Trimble RealWorks, and Terrestrial LiDAR. His responsibilities have included project management, topographic surveying and mapping, boundary surveying and mapping, underground utility locating, construction staking, elevation certificates, laser scanning, legal descriptions and GIS.

RELEVANT EXPERIENCE:

BASS LAKE WASTEWATER TREATMENT PLANT AND EFFLUENT DISPOSAL SYSTEM

Mr. Roberts served as Project Surveyor and provided survey support services for this wastewater treatment plant and effluent disposal system improvement project at Bass Lake in Madera County. The goal of the project was to replace the deteriorating infrastructure at this County treatment and disposal facility to improve process operability, reduce annual operating and maintenance costs, accommodate peak flows, and maintain permit compliance. The work included topographic surveying and mapping to support the design of the improvements

TUOLUMNE COUNTY 2017 STORM DAMAGE SURVEYING SERVICES

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PARROTTS FERRY BRIDGE ELEVATION MONITORING

On an annual basis, O’Dell Engineering provides bridge elevation monitoring services for the Parrotts Ferry Bridge located in Tuolumne County, CA. O’Dell performs a differential level loop across Parrotts Ferry Bridge through designated monitoring points to record raw level readings and temperature, report notable conditions or changes of the monitoring points, and list final adjusted elevation. Mr. Roberts serves as Project Surveyor.

NORTH VALLEY REGIONAL RECYCLED WATER PROJECT

Mr. Roberts served as Project Surveyor for the North Valley Regional Recycled Water Project in Modesto, CA. Tasks included survey control, topographic surveys along the proposed pipeline route, boundary surveys, utility research and mapping, record of survey, and hydrographic surveys of the San Joaquin River. Mr. Roberts coordinated the boundary surveying phase of the project, which spanned over 6 miles, by organizing field crews, reviewing maps and field data, preparing land description packages for easements, and preparing a monument preservation record of survey for the project. He also provided QA/QC for the topographic mapping phase and coordinated with the client and the utility potholing company to incorporate critical information in to the final deliverable.



Ron Skaggs, P.E., G.E., Vice President & Principal Engineer

Education

Master of Engineering
in Geotechnical
Engineering-
University of CA
Davis – 1985

Bachelor of Science
in Civil Engineering-
CA State University
Fresno – 1983

Years of Experience

32

Certifications

Civil Engineer
CA No. 44588
NV No. 009854

Geotechnical
Engineer CA No.
2295

General Engineering
Class A Contractor
CA No. 732026

Hazardous Waste
Contractor CA No.
732026 HAZ

CA Construction
General Permit
QSD/QSP Certificate
No. 824

Professional Affiliations

American Society of
Civil Engineers
(ASCE) Central
Valley Branch, Past
President

San Joaquin
Engineers Council,
Scholarship
Committee Chairman

As a Civil and Geotechnical Engineer, Mr. Skaggs' experience includes a broad range of geotechnical design and construction projects. He specializes in pavement rehabilitation using full depth reclamation (FDR) pavement recycling, cold foam asphalt mix design and pavement design, lime/cement/fly ash base stabilization, construction management, construction quality control, storm water BMP systems, and design and construction of pavement systems. Mr. Skaggs is also the Engineer-of-Record for Condor's Caltrans approved laboratory.

Representative Experience

Water Resources and Water Treatment: Principal Engineer for over 75 water resource projects for planning, geotechnical, and construction phase services.

Pavement Recycling Projects: Principal Engineer for over 50 pavement recycling projects using CFA, CIR, and FDR methodologies; services include design and construction QC.

Pavement Recycling: Completion of over 50 projects throughout California in design and construction.

Geotechnical Engineering Studies: Completion of over 500 geotechnical studies for institutional, commercial, and industrial projects throughout California.

Mountain House New Town: Client Manager for Condor Services, including geotechnical engineering, storm water master planning, environmental services, geohydrology, construction storm water permitting, and construction dewatering.

School Districts: Geotechnical engineering studies for new school sites and rehabilitation projects at over 100 sites.

Ronald Reagan Presidential Library: Geotechnical designer and geotechnical construction quality control engineer.

Port of Los Angeles, Pier 300: Geotechnical investigation and round improvement program for 122-acre hydraulic landfill.

Offshore Geotechnical Projects: Geotechnical engineering for offshore California drilling platforms and jack-up rigs for petroleum exploration and production.

Mine Facilities: Geotechnical engineering for tailings ponds, heap leach pads, and production facilities.

Construction Materials Testing: Completion of construction material QC testing programs on over 1,000 projects throughout California.

Burlington Northern Santa Fe Intermodal Facility: Project Manager – Storm water permitting services, local CEQA permitting assistance.



STATEMENT OF POSITION

Mr. Garnica is a Senior Construction Inspector and Staff Engineer for public and private sector projects. He also performs field sampling, materials testing, and California Building Code (CBC) special inspections.

AREAS OF EXPERTISE

- Project Management
- Construction Inspection
- Special Inspection

INDUSTRIES SERVED

- Transportation
- Water Resources
- Water/Wastewater
- Residential Development
- Private Development
- Commercial Development
- Education
- Healthcare

REGISTRATIONS & CERTIFICATIONS

- Engineer-In-Training (E.I.T.) No. 143631
- Caltrans Laboratory and Field Test Methods 105, 106, 125 AGG, 125 GEN, 125 PCC, 201, 202, 216, 217, 226, 227, 229, 231, 301, 375, 504, 518, 521, 533, 539, 540, 543, 556, 557
- ICC Structural Masonry; Cert. #ICC8361379
- ICC Reinforced Concrete; Cert. #ICC00237747
- Tech 1 Strength Tester ACI; Cert. #01265308
- ACI Grade I Field Testing Technician; Cert. #01265308
- Nuclear Gauge Operator Training; Cert. #17568
- Radiation Safety Officer, License #5634-07

EDUCATION

- BS – Civil Engineering, CSU Sacramento, 2010

Mr. Garnica serves as a senior inspector and staff engineer on all types of public and private infrastructure projects throughout the Central Valley and Central Sierra Foothills of California. Mr. Garnica is a highly qualified inspector based on his varied experience and multiple inspection and testing certifications. Throughout his 5-year tenure at Condor, he has provided construction inspection and materials testing on major roadways, bridges, water treatment facilities, pump stations, utility installations, pipelines, tunnels, residential and commercial developments, schools and healthcare facilities. Mr. Garnica is an excellent communicator and always takes a proactive approach to his project work and responsibilities. His representative project experience is listed below.

REPRESENTATIVE EXPERIENCE

County of Tuolumne – Mono Way Operational/Safety Improvements, Geotechnical Engineering Studies

Calaveras Unified School District – Calaveras High School Performing Arts Building

Nature Bridge – Yosemite Environmental Education Center, CBC Special Inspections

Sonora Elementary School District – Sonora Elementary School Bldgs. D & E

Sonora Elementary School District – Sonora Elementary School "F" Building Rehabilitation

Sonora Union High School District – Sonora High School Measure J Improvements

Summerville Union High School District – Summerville High School Modernization

Sonora Regional Medical Center – SRMC Emergency Dept. Renovation, MTSI/QA/QC

Sonora Regional Medical Center – SRMC Pavilion, CBC Special Inspections

Bret Harte Union High School District – Bret Harte High School Various Projects, CBC Special Inspections

Calaveras County Water District – Big Trees South Zone Tank Replacement Project

Tuolumne Economic Development Authority, Inc. – Black Oak Casino Expansion, Inspections

George Reed, Inc. – City of Sonora Mono Way Widening Project, Caltrans Field/Lab Testing

Hetch Hetchy – HH-981 Mountain Tunnel Access, CBC Special Inspections

Calaveras County Water District – Vista Del Lago-SR 26 Water Main Relocation, Caltrans Field/Lab Testing

PB Americas, Inc. – Sperry Road Extension Project, Field Quality Assurance

City of Galt Waste Water Treatment Facility Upgrade Project

Bay Cities Paving & Grading – Interstate 5



REPRESENTATIVE EXPERIENCE *(continued)*

San Joaquin Regional Rail Commission – ACE Maintenance and Layover Facility
City of Merced – Childs Avenue New 16" Water Main Installation
Bennett Development - Solari Ranch
Lincoln Unified School District - Mable Barron Elementary School Relocatables
Lincoln Unified School District - Claudia Landeen Elementary School Relocatables
Dr. Vasti - W. Henry Wilhelmina Elementary School Roadway Project
University of California, Merced – North Bowl Parking, Phase 1 Project
Grupe Investment Company – The Vine at Vintners, Phase 1 Project
Allen Engineering – UPRR Port of Stockton Rail Welding Facility
Trincherro Family Estates – Sutter Home Winery Bottling & Warehouse Facility Project
Ripon Unified School District – Weston Elementary School Modernization Project
New Jerusalem Charter School Modernization Project
Lincoln Unified School District – Solar Modules
Byron-Bethany Irrigation Station 3 Rehabilitation Project
Rudd Wines, Inc. – Rudd Wine Cave Elevator, Tunnel and Rehabilitation Design
Ferrari-Carano Winery – Ferrari-Carano PreVail Wine Cave Expansion
Oakdale Irrigation District – Slope Stabilization Design and Construction Engineering
Stockton Unified School District – Cesar Chavez High School Hardcourt Facilities
Mountain House Developers, LLC – Byron-Bethany Irrigation District Canal 70,120, & 155, Storm Water Management
Gallo Glass Company – Gallo Glass Company Sand Tank
Clovis Unified School District – Sierra Outdoor School Modernization
Mozingo Construction, Inc. – CBC Special Inspections
New Jerusalem School District – New Jerusalem Charter School
Bay Cities Paving & Grading Inc. – Hwy 4 & I-5 Biaduct
Liberty Union High School District – Liberty Union High School Solar Project, Special Inspection Services
Lincoln Unified School District – Lincoln High School Phase 4
Lincoln Unified School District – Lincoln Unified School District Maintenance Facility
Truckee Meadows Water Authority – TMWA Fleish Tunnel Phase 3
City of Roseville – Feasibility Study for FDR-Phillips Road, Geotechnical Investigations
Arnaudo Construction – RD2085 Pipe Removal, CBC Special Inspections
Arnaudo Construction – Paradise Ice Water Company Pump Station, CBC Special Inspections
Visionary Home Builders of California – Bradford Apartments, and Community Center, CBC Special Inspections
Doyon Government Group – Marine Forces Reserve Concord & Lathrop, Geotechnical Investigations
Nichols, Melburg & Rossetto – Peter Hansen Elementary School Project, Geotechnical Engineering Studies
Pro Builders – Metal Storage, Special Inspections/CBC Special Inspections
Pennino Design Group – Pennino Design Group Construction QA/QC
Byron-Bethany Irrigation District – BBID Station 3 Rehabilitation Project, Construction QA/QC



Amy Augustine, AICP

DETAILED RELEVANT EXPERIENCE

CEQA and NEPA Environmental – Water/Wastewater

- **State Water Resources Control Board Division of Drinking Water Drought Emergency Grant Projects for the Twain Harte Community Services District**
Prepared environmental clearances for the: East Avenue/Tuolumne Road North Groundwater Well #3B, Meadow Lane Groundwater Well Permit, Water Treatment Plant well project, Shadybrook Well and the Twain Harte Lake Sewer Stabilization Project for the Twain Harte Community Services District.
- **Jamestown Sanitary District Wastewater Treatment Plant**
Evaluated multiple project alternatives in two separate locations: one adjacent to a creek and one covering rare plant habitat. APA conducted and prepared a biological resources assessment for the project, conducted early CEQA consultation and NEPA coordination (i.e., notifying all affected agencies and coordinating with those agencies to incorporate appropriate conditions and/or mitigation measures), notified all adjoining landowners, drafted and coordinated publication and submittal of all legal notifications for public hearings and document availability, prepared and submitted the draft initial study to the state clearinghouse, responded to comments, attended all public hearings and filed the resulting notice of determination on behalf of the District. Prepared NEPA Categorical Exclusion. Conducted Cultural Resources technical study and prepared report. Conduct Biological Resources Study and prepared Biological report.
- **Jamestown Sanitary Sewerline Rehabilitation**
Funded through a Community Development Block Grant, APA conducted all early CEQA consultation, property owner notification, legal noticing, public hearing noticing, prepared both an Environmental Assessment (NEPA) and CEQA Initial Study/Mitigated Negative Declaration with Mitigation Monitoring and Reporting Plan in accordance with Community Development Block Grant requirements for a community-wide sewer rehabilitation project. Technical studies prepared by APA included: Cultural Resources technical study, Biological Resources Study. Prepared Notice of Finding of No Significant Impact and Intent to Request Release of Funds, Notice of Intent to Request Release of Funds, HUD Environmental Finding Form.

- **Gibbs Sewer Collection Program**

Conducted all early CEQA consultation, property owner notification, legal noticing, public hearing noticing, prepared all documentation and statutory worksheets required pursuant to CDBG funding in support of a Categorical Exemption. Conducted initial biological site assessment, prepared sensitivity map and fatal flaws memo. Prepared all CDBG CEQA/NEPA compliance documents and forms. Oversaw preparation of Cultural Resources technical study and Section 106 consultation. Coordinated with Tuolumne County Administration and Community Resources Agency, Tuolumne Utilities District, and California Department of Housing and Community Development, advisory agencies, adjoining landowners.

- **Tuolumne Utilities District Ditch Maintenance Program/ Tuolumne Utilities District Biological Resources Management Strategy**

Established an environmental strategy for the Tuolumne Utilities District to allow for system-wide maintenance activities without the need for project-by-project repetitive environmental reviews in response to a lawsuit challenging the adequacy of prior environmental documentation. Completed the cultural resources documentation, biological documentation, and hydrological documentation in support of a Master Mitigated Negative Declaration with Mitigation Monitoring and Reporting Plan for the project. Conducted Hydrological, cultural and biological studies. Prepared Study Session/PowerPoint presentation. Coordinated with Tuolumne Utilities District legal, administrative, technical and field crew.

- **Lower Mokelumne River Watershed Stewardship Plan (LMRWSP)**

As Special Projects Manager for the San Joaquin County Resource Conservation District, APA oversaw initiation of the Lower Mokelumne River Watershed Stewardship Program (2000-2003). Organized and staffed community-based steering committee guiding plan development including representatives from agriculture, recreation, education, development, business, conservation, cultural resources, private landowners, public agency representatives and other stakeholders. Drafted the LMRWSP identifying goals, policies and implementation programs providing the framework for actions to further the health of the watershed integrating education, agriculture, biological resources, water quality, flood management, cultural resources, economic development, emergency services and fire prevention. Secured funding for and hired a full-time watershed coordinator to implement the plan. Hired production consultant and oversaw community involvement in making the program's award-winning public education and outreach video. The program continues to spawn numerous citizen-initiated watershed programs and public/private partnerships. The program's success has encouraged ongoing funding for watershed coordinators statewide.

- **Tuolumne County Water Quality Plan**

In partnership with ESA, APA drafted the Tuolumne County Water Quality Plan (2007)

EDUCATION

B.A., Biological Sciences - California State University, Sacramento (1984)

A.A., Biological Sciences - Columbia Community College, Columbia (1982)

ADDITIONAL EDUCATION

AICP Continuing Education – Planning Ethics AICP Continuing Education – Planning Law Geographic Information Systems and Mapping - California State University, Stanislaus Journalism, UC Berkeley Extension - Economics, Columbia Community College

PROFESSIONAL AFFILIATIONS

American Institute of Certified Planners (AICP), Member, 1996 - Present

American Planning Association, Member

Association of Environmental Planners, Member

Tracie Mueller, Project Manager
10850 Gold Center Drive, Suite 350
Rancho Cordova, CA 95670
Direct: 916.858.2721
Mobile: 916.798.5964
TracieMueller@kennedyjenks.com

Kennedy/Jenks Consultants
Engineers & Scientists

10850 Gold Center Drive, Suite 350
Rancho Cordova, California 95670
916-858-2700
FAX: 916-858-2754

July 11, 2018

Mr. Peter Kampa
General Manager
Lake Don Pedro Community Services District
9751 Merced Falls Road
La Grange, CA 95329

Subject: Fee Schedule for District Engineering Services Statement of Qualifications

Dear Mr. Kampa:

This Statement of Qualifications includes a request for a Schedule of Charges for use in projects for a minimum of 12 months from the contract execution. We have enclosed a Kennedy/Jenks Schedule of Charges dated 11 July 2018 that shows rates to be used through December 31, 2019. We have included a 3% rate escalation clause for new work in the year 2020. We assume that new rates will be negotiated for work after 2020. Our attached Schedule of Charges includes our standard firm 10% markup for subconsultants and other direct charges.

The attached Schedule of Charges will be used for all work with the possible exception of the following tasks:

- Required prevailing wage activities related to field inspection services – these rates will need to be developed at the time of the work assignment based on published rates.
- Engineering work associate with projects funded through grant funding – we would like to reserve the right to negotiate the use our current year standard rate schedule (dated 1 January each year) for engineering work to be funding through grant funding sources, which are the rates the funding agencies typical see for Kennedy/Jenks' work. The rates that we have included on the attached 11 July 2018 Schedule of Charges are reduced rates.

We have also attached detailed rate/fee schedules for our three subconsultants which include their rates to be use through December 31, 2019, as well as their markups and other direct costs:

- Condor Earth for Geotechnical Services
- O'Dell Engineering for Surveying Services
- Augustine Planning Associates for Environmental Services

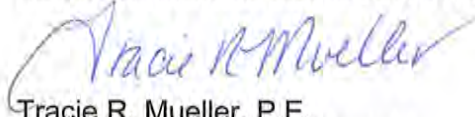
Mr. Peter Kampa
Lake Don Pedro Community Services District
July 11, 2018
Page 2

We understand that the attached schedule of charge and rate/fee schedules will be used to establish not-to-exceed contract limits. We proposed that when developing these not-to-exceed contract limits that we include a 10 percent contingency per our Kennedy/Jenks Operations Manual to allow to help allow for "known unknowns" or anticipated potential changes that are inherent to the project execution and delivery process, and allow for a smoother overall project delivery. These proposed contingencies would not be used without authorization by the District's General Manager.

Thank you for this opportunity to submit our qualifications. We are excited for this opportunity to expand our relationship with the District. Please feel free to contact me at (916) 858-2721 if you have any questions or concerns.

Very truly yours,

KENNEDY/JENKS CONSULTANTS



Tracie R. Mueller, P.E.
Operations Manager/Principal

Enclosures

Client/Address: Lake Don Pedro Community Services District
9751 Merced Falls Rd.
La Grange, CA 95329

Contract/Proposal Date: District Engineering Services/July 11, 2018

Custom Schedule of Charges

Date: July 11, 2018

PERSONNEL COMPENSATION

Table with 2 columns: Classification and Hourly Rate. Lists various roles like Engineer-Scientist-Specialist 1-9, CAD-Technician, Senior CAD-Technician, CAD-Designer, Senior CAD-Designer, Project Administrator, Administrative Assistant, and Aide with their respective hourly rates.

Direct Expenses

Reimbursement for direct expenses, as listed below, incurred in connection with the work, will be at cost plus ten percent for items such as:

- a. Maps, photographs, 3rd party reproductions, 3rd party printing, equipment rental, and special supplies related to the work.
b. Consultants, soils engineers, surveyors, contractors, and other outside services.
c. Rented vehicles, local public transportation and taxis, travel and subsistence.
d. Project specific telecommunications and delivery charges.
e. Special fees, insurance, permits, and licenses applicable to the work.
f. Outside computer processing, computation, and proprietary programs purchased for the work.

Reimbursement for vehicles used in connection with the work will be at the federally approved mileage rates or at a negotiated monthly rate.

If prevailing wage rates apply, the above billing rates will be adjusted as appropriate.

Overtime for non-exempt employees will be billed at one and a half times the Hourly Rates specified above.

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

Excise and gross receipts taxes, if any, will be added as a direct expense.

The foregoing Schedule of Charges is incorporated into the agreement for the services provided, effective July 11, 2018 through December 31, 2019. After December 31, 2019, invoices will reflect a 3% increase in hourly rates each year through December 31, 2020.

**CONDOR EARTH TECHNOLOGIES, INC.
PREVAILING WAGE SCHEDULE OF FEES
JULY 2017 – JUNE 2018**

STAFF MEMBER **RATE PER HOUR (\$)**

PRINCIPALS/PROJECT MANAGEMENT

Senior Principal	220.00
Principal Engineer/Geologist.....	195.00
Project Director	185.00
Construction Manager	185.00
Project/Senior Manager	160.00

TECHNICAL

Senior Tunneling Consultant.....	200.00
Senior Geotechnical Engineer	185.00
Certified Hydrogeologist/Engineering Geologist.....	175.00
Senior Geologist/Engineer/Environmental Specialist	165.00
Associate Geologist/Engineer/Environmental Specialist	135.00
Resident Construction Inspector.....	135.00
Field Environmental Specialist (Group 2).....	125.00
Staff Geologist/Engineer/Environmental Specialist	120.00
Engineering Assistant.....	100.00
Draftsperson	90.00

MATERIALS TESTING

Material Technician (Group 1).....	130.00
Material Technician (Group 2).....	125.00
Material Technician (Group 3).....	120.00
Material Technician (Group 4).....	115.00
Senior Materials Technician (non-PW).....	85.00

SUPPORT STAFF

MTSI Project/Laboratory Manager	105.00
Administrative Specialist.....	95.00
Project Coordinator	85.00
Technical Editor	70.00
Administrative Assistant	65.00

MISCELLANEOUS

Overtime (all Saturday work is overtime).....	(1.3 times base rate)
Double-time (all Sundays and Holidays).....	(1.7 times base rate)
Shift Pay* (Night Shift).....	(1.3 – 1.7 times base rate)
Litigation Support.....	250.00 – 350.00

NON-LABOR CHARGES

Vehicle charge \$50 per day plus 50 cents per mile
 Laboratory Charges per Condor Laboratory Fee Schedule
 Billable Field Equipment per Condor Billable Field Equipment Schedule

OUT-OF-POCKET EXPENSES

Billed at cost plus 15% and includes such items as travel expenses, equipment rental, laboratory fees, subcontractors, postage and freight, subcontracted printing or reproduction fees, supplies, etc.

CALIFORNIA DEPARTMENT OF INDUSTRIAL RELATIONS GROUP CLASSIFICATIONS

<u>Group 1</u>	<u>Group 2</u>	<u>Group 3</u>	<u>Group 4</u>
ASNT Level II-III	AWS-CWI	Geotechnical Driller	ACI
DSA Masonry	ICC Certified Structural Inspector	Soils/Asphalt	Drillers Helper
DSA Shotcrete	NICET Level III	Earthwork Grading	ICC Fireproofing
Lead Inspector	Shear Wall/Floor System Inspector	Excavation and Backfill	Proofload
NICET Level IV	Building/Construction Inspector	NICET Level II	Testing
NDT Level Two			Torque Testing
			NDT Level One

*Shift Pay: A night shift is a shift which commences after 2:00 p.m. or before 4:00 a.m. during any twenty-four (24) hour period commencing at 12:01 a.m.



CONDOR EARTH

TERMS FOR LABORATORY TESTING SERVICES FEE SCHEDULE AND STANDARDS

January 2018

GENERAL

It is customary to perform sampling, drilling, testing and certification work in accordance with applicable or designated recommendations of the American Society for Testing Materials (ASTM), American Association of State Highway and Transportation Officials (AASHTO), or other pertinent agencies. Test Standards for routine services are shown to define the test method followed for the charge listed; alternate standards or procedures may be followed at the client's request. When this fee schedule is referenced with intent to contract for field services, Condor's "Terms for Geotechnical, Civil Engineering and Special Inspection Services" is considered a part of these General Conditions. When this fee schedule is referenced with intent to contract for laboratory testing services only, Condor's "Terms for Laboratory Testing Services" is considered a part of these general conditions.

ROUTINE SERVICES

Unit charges listed herein are for routine work only and include a report of results without special comment or analysis of data. These charges include labor, associated equipment, maintenance, and consumable material costs. Services for unit-priced items follow routine procedures typical of the method standards cited, utilize available equipment and are performed within normal time restraints. Unit charges do not include the personnel time associated with:

- Finalized Special Inspection Reports, Summarization or Analysis of Program Test Results
- Coordination with Engineers, Architects and other Program Principals
- Unscheduled Deadline Demands (Accelerated Work)
- Pick up or Delivery of Samples
- Quality Assurance Audits
- Test Program Supervision

Routine charges are in addition to hourly rates for field personnel (billed at our senior technician labor rate). Subcontractor services provided by others, such as drilling services, are charged for at the subcontractor's charge to Condor plus fifteen percent. Unless prior arrangements are made for storage, samples will be disposed of 60 days after date of report.

OTHER TESTING AND INSPECTION SERVICES

Costs associated with unusual or time-consuming sample preparation, laboratory consultation, and other work not covered by routine unit prices, will be based on our senior technician labor rate plus expenses. Such sample preparations may include extruding tube samples and processing bulk samples to obtain material for preparing reconstituted specimens. Quotations of probable cost for specific program requirements (including special services, volume discounts, specialized equipment, etc.) will be provided upon request.

LIMITATIONS

Condor's laboratory services are provided in accordance with the listed standard and performed within industry standards. Client agrees, by signature on Work Order Agreement, that Condor is not liable for any claims directly or indirectly related to laboratory services beyond providing the results of the performed tests. Under no circumstances, however, shall CONDOR have any obligation to defend independently or collectively CLIENT or other Indemnified Parties from and against liability for damages that may arise or be attributed to work performed by CONDOR under this Agreement. Nor shall CONDOR have any obligation to pay for or compensate any party for their defense costs or fees.



SOIL AND AGGREGATE

	Unit Price
LT000 VISUAL CLASSIFICATION	
LT002 Visual Classification (ASTM D2487)	12
LT004 Visual classification and moisture (ASTM D2487)	30
LT011 Optimum Lime Content – Grimes (ASTM D6276)	175
LT120 MOISTURE CONTENT	
LT122 Moisture Content (ASTM D2216)	25
LT140 MOISTURE DENSITY	
LT146 Moisture/Density 2.0” – 2.5” tube (D7263b)	30
LT147 Chunk Density/Displacement of Water (D7263b)	80
LT160 GRAIN-SIZE DISTRIBUTION	
LT162 Sieve analysis, coarse and fine including washing (ASTM C136/C117)	145
LT164 Sieve analysis, coarse, retained on No. 4 sieve (ASTM C136)	80
LT168 Sieve analysis, wash, percent finer than No. 200 sieve (ASTM C117)	100
LT172 Hydrometer analysis, -#10 sieve, with sieve analysis (ASTM D422)	225
LT180 SPECIFIC GRAVITY	
LT182 Fine aggregate, minus No. 4 sieve (ASTM C128)	140
LT184 Coarse aggregate, plus No. 4 sieve (ASTM C127)	70
LT200 ATTERBERG LIMITS	
LT202 3-point method (ASTM D4318)	165
LT204 1-point method (ASTM D4318)	105
LT220 pH TESTING	
LT222 ph Measurement (ASTM D4972)	60
LT240 SAND EQUIVALENT	
LT242 Sand Equivalent [Average of 3] (CTM 217/ASTM D2419)	150
LT260 SOIL COMPACTION (MOISTURE/DENSITY)	
LT262 Standard compaction curve using 4-inch mold (ASTM D698/AASHTO T99)	230
LT264 Standard compaction curve using 6-inch mold (ASTM D698/AASHTO T99)	250
LT266 Modified compaction curve using 4-inch mold (ASTM D1557/AASHTO T180)	230
LT268 Modified compaction curve using 6-inch mold (ASTM D1557/AASHTO T180)	250
LT270 One-point compaction, 4-inch mold (ASTM D698 or D1557)	150
LT272 One point compaction, 6-inch mold (ASTM D698 or D1557)	160
LT274 Relative Compaction (CTM 216)	250
LT276 Proctor Rock Correction	50
LT320 SOIL AND AGGREGATE STABILITY - RESISTANCE [R-]VALUE	
LT322 R-Value untreated material or field sample (CTM 301)	325
LT324 R-Value, cement, lime or other additives, laboratory mixed or reportioned samples (CTM 301)	375
LT340 AGGREGATE QUALITY	
LT352 Durability index, coarse or fine (ASTM 3744 or CTM 229)	160
LT356 Cleanness Value (CTM 227)	190



CONCRETE, MORTAR, GROUT, CMU, AND SHOTCRETE

	Unit Price
LT360 CONCRETE / MORTAR / GROUT / CMC / PRISIM / UBC-24-26	
LT368 Compression Test, Lightweight Insulating Concrete; w/mold (ASTM C495)	33
LT370 Compression test, 2" x 2" x 2" cubes	33
LT372 Unit Weight of Concrete Cylinders (ASTM C567)	100
LT374 Core Grade (ACI 506)	25
LT376 Compression Test only, on shotcrete core break (ASTM C39)	95
LT378 Compression Test on Cored Specimens [includes end preparation] (ASTM C42)	80
LT384 Drying Shrinkage Test, set of 3	450
LT386 Compression Test – masonry prisms, 8" maximum dimension (ASTM C140)	135
LT388 Absorption and Moisture Content, each Concrete Masonry Unit (ASTM C140)	80
LT390 Compressive strength, each Concrete Masonry Unit (ASTM C140)	175
LT392 Linear Shrinkage, Concrete Masonry Unit (ASTM C426)	175
LT394 Concrete Moisture Testing (Taylor Kit)	60
LT398 Compressive Test 3" x 3" x 6" prisms	35
LT400 Compressive Test 2" x 4" cylinders w/mold	35
LT402 Compressive Test 4" x 8" w/mold (ASTM C39)	30
LT404 Compressive Test 6" x 12" w/mold (ASTM C39)	33

MISCELLANEOUS BUILDING MATERIALS

LT420 FIREPROOFING DENSITY TEST	
LT422 Fireproofing Density Test	65
LT440 OTHER ROUTINE SERVICE RATES	
LT445 Torque Wrench	50
LT446 Hydraulic Ram	140

COLD FOAM ASPHALT

LT460 COLD FOAM RECYCLED ASPHALT MIX DESIGN	
LT462 Basic Mix Design with material provided by client (AASHTO)	3,000
LT463 Basic Mix Design with material provided by client (CALTRANS)	4,000
LT464 Indirect Tensile Strength Test (set of 6)	500
LT466 Free Oil Test	80
LT468 Single Check Point CFA	500

REBAR

LT500 REBAR TESTING	
LT502 Bend ASTM A370	45
LT504 Tensile #5 and smaller size ASTM A370	95
LT506 Tensile #6 to #9 size ASTM A370	145
LT507 Tensile #10 & #11 size ASTM A370	165

MISCELLANEOUS LAB FEES

LT700 MISCELLANEOUS LAB FEES	
LT702 Rush Charge (after 3:00 PM for next/same day turnaround per test)	75

Condor is experienced at providing other professional services. Such services are usually charged at our standard Professional Consulting Fee Schedule hourly staff rates, including direct reimbursable charges and out-of-pocket expenses. Quotes for specialized services required for specific projects may be proposed upon request. Note that costs quoted may require specialized equipment.



O'Dell Engineering

FEE SCHEDULE

July 2018

<u>Classification:</u>	<u>Regular Hourly Rate:</u>
Principal	\$210
Senior Civil Engineer	\$179
Senior Engineer 2	\$168
Senior Engineer 1	\$158
Engineer 2	\$147
Engineer 1	\$137
Assistant Engineer 2	\$121
Assistant Engineer 1	\$100
Senior Landscape Architect	\$147
Landscape Architect 2	\$131
Landscape Architect 1	\$121
Landscape Designer 2	\$110
Landscape Designer 1	\$100
Planner	\$147
Assistant Planner	\$121
Utility Engineer	\$147
CADD Operator 2	\$89
CADD Operator 1	\$74
BIM/3D Scanning Project Manager	\$160
BIM/3D Scanning Specialist	\$150
BIM/3D Scanning Technician	\$130
HDS Crew 2-man/1-man	\$295/\$180
Senior Land Surveyor	\$180
Senior Surveyor 2	\$160
Senior Surveyor 1	\$140
Surveyor 2	\$130
Surveyor 1	\$120
Assistant Surveyor 2	\$110
Assistant Surveyor 1	\$100
Survey Crew 2-man/1-man	\$260/\$160
Survey Crew 2-man/1-man (Prevailing Wage)	\$330/\$180
Administrative	\$80

Outside Services & Reproduction:

Cost of services and expenses charged to O'Dell Engineering by outside consultants, commercial printers, and professional or technical firms engaged in connection with the project.

Actual cost plus 10%

Travel:

Mileage, per diem, and subsistence are not normally charged to the client unless specific Prior authorization is negotiated between client and consultant.

Actual cost plus 10%

APA Rate Sheet

APA acts as the project prime consultant and subcontracts with the appropriate staff. APA does not mark-up subconsultant costs.

Classification	Hourly Rate/e/
APA Principal Planner	\$85
APA General Biologist	\$85
Area West Environmental Permitted Biologist (focused species studies)	\$105
Area West Environmental Biologist III/Botanist	\$95
Area West Planner/Project Manager	\$130
Perennial, LLC Principal Biologist	\$190
Perennial, LLC Associate Biologist	\$170
Monk & Associates Principal Biologist	\$190
Monk & Associates Associate Biologist	\$170
Monk & Associates Project Botanist	\$150
Monk & Associates Project Biologist II	\$150
Monk & Associates Project Biologist I	\$135
Monk & Associates Staff Biologist, Biological Technician	\$101
Monk & Associates Office Manager	\$96
Monk & Associates Graphics	\$125
Monk & Associates subcontracting biologists	\$101-\$200
jc brennan principal	\$165
jc brennan senior	\$150
jc brennan consultant	\$130
Francis Heritage Senior archaeologist	\$95
Francis Heritage Historian	\$115
Principal Engineer - KD Anderson Associates	\$190
Transportation Engineer - KD Anderson Associates	\$160
Environmental Planner, Air Quality - KD Anderson Associates	\$140
Patrick GIS Archaeologist	\$96
Patrick GIS Technician (GIS)	\$82
Principal Hydrologist HydroFocus	\$190
Hydrologist I/II HydroFocus	\$137
GIS Technician HydroFocus	\$105
Hydrologic Technician	\$86
Assistant Hydrologist (IV)	\$107
Computer/Design	\$65
Mileage (gas)	/a/
Monk & Associates (vehicle – passenger vehicle)	0.65/mile
Noise – interval logging	\$75/day/meter
Noise – Frequency analysis	\$115/day/meter
Central CA Information Center	\$150
GPS sub-meter accuracy (Biological)	\$50/day
Surveillance cameras \$15/day	\$15/day
Monk & Associates Per Diem	\$250/day/person/d/

/a/ Established state rate (or, as applicable, federal rate)

/b/ Actual cost for supplies (Client approval required for costs exceeding \$1000), actual cost + 5% for equipment rental areas may be adjusted to hotel rate plus \$60/day

QUALIFICATIONS



SUBMISSION DATE

JULY 11, 2018

PROJECT

DISTRICT ENGINEERING SERVICES

PREPARED FOR

Lake Don Pedro Community
Services District



MARK THOMAS



1. EXECUTIVE SUMMARY

Mark Thomas provides civil and structural engineering, district management, surveying, landscape architecture, and planning & urban design services. Since the company's founding in 1927, we have focused on providing excellent client service with a tailored approach to meet our clients' goals. Our reputation is realized through more than 190 team members that are strategically located in 10 offices throughout California, including Fresno.

DISTRICT ENGINEERING SERVICES

Mark Thomas will provide support for Lake Don Pedro Community Services District (District) projects and facilities, including the evaluation and design of potable water and wastewater facilities, as well as other District needs and services. This will include the preparation of:

- Funding documents
- Reports
- Plans, specifications, estimates (PS&E)
- Regulatory compliance documents
- Financing documents, including preparation of grant or loan applications and proposition 218 special assessment documents
- Board reports and resolutions
- Public presentations

EXPERIENCED PROJECT MANAGEMENT

Our team will be led by James Polfer out of our Fresno office. James is a civil engineer with over 15 years' experience in the development and implementation of special district infrastructure projects and an additional 20 years of experience in general engineering and general building construction. Over that time, James' work has been key in many special district improvement projects; beginning with securing necessary funding all the way through planning, design, bidding, construction, and closeout.

He is experienced in the design of drinking water facilities from groundwater or raw water supply to end user service connections. His experience includes the design and preparation of PS&E for:

- Raw water intake/pumping facilities with source water ranging from the California aqueduct to a lake under federal jurisdiction
- Surface water treatment facilities
- Groundwater supply, disinfection systems for groundwater under direct influence of surface water
- Potable water storage
- Pumping and distribution systems

DISTRICT MANAGEMENT EXPERTISE

Mark Thomas brings more than 60 years of experience managing special districts. We currently manage four special districts in Northern California - some of which we have managed since the 1950s.

Our team is comprised of professional and technical staff experienced in the preparation and management of:

- PS&E for various drinking water, wastewater, and public park improvements
- PS&E for roads and bridges, stormwater, and drainage facilities
- Right-of-way drawings and legal descriptions, and conducting land surveys
- Construction contract and consultant agreements
- Project bid packages and bidding procedures
- Documents required by various local, state, and federal project funding programs
- Documents for state and federal agency permits necessary for CEQA and NEPA compliance



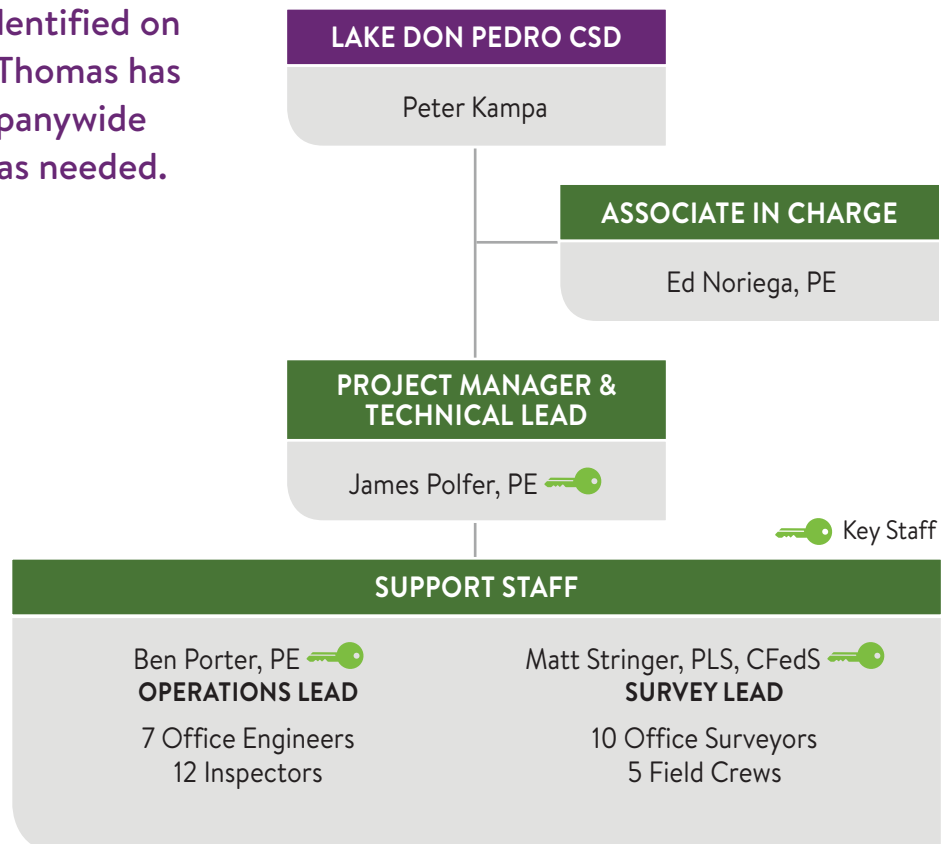
2. PROJECT TEAM

We have assembled a highly experienced team dedicated to successfully delivering the District’s projects. Our organization chart depicts the lines of communication and structure we intend to implement for this contract. Resumes for key staff are included in Section 4 of this proposal.

Mark Thomas provides engineering services for many public agencies and understands the requirements set forth in the many federal, state, and local regulations, policies, and programs. Our team’s experience in working with districts give us a comprehensive knowledge of the needs and challenges a special district may encounter; understanding that services will include unique and complex assignments. These assignments may include a high level of visibility and public sentiment requiring tact, diplomacy, and extensive technical knowledge of the program or project. Our team will work closely with the District’s Board, administration, and staff in addressing the community’s needs.

Mark Thomas has the staffing and expertise necessary to meet the District’s engineering needs. This includes administrative, management, and operations support as requested.

In addition to the lead staff identified on our organization chart, Mark Thomas has more than 50 engineers companywide that can support the District as needed.





MEET OUR PROJECT MANAGER - JAMES POLFER, PE

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He is experienced in the design of drinking water facilities from groundwater or raw water supply to end user service connections. His project history includes the design and preparation of plans and specifications for:

- Raw water intake/pumping facilities with source water ranging from the California aqueduct to a lake under federal jurisdiction
- Surface water treatment facilities
- Groundwater supply, disinfection systems for groundwater under direct influence of surface water
- Potable water storage
- Pumping and distribution systems

James' special district projects experience includes:

- Chlorination systems and hydropneumatic tank replacement for community with groundwater supply under the influence of surface water. Installed necessary chlorination system, contact chambers, and replace existing hydro-tanks at two locations in the community.
- Groundwater supply for community out of compliance for gross alpha particle and arsenic. Project was to identify and develop an alternative potable water source. Project included a geophysical survey of the underlying geology of the area for the evaluation of a new groundwater or conjunctive use supply.
- Hydrogeologic and hydrologic analysis for the preparation of a 148-acre wastewater disposal field expansion master plan. Disposal field is located at about 5000 feet above msl and is subject to winter snows and freezing.
- Consolidation of 4 permitted small community water systems using surface water and groundwater supply into one centralized facility.
- Power supply and MCC for 4 – 100 hp pumps located in Millerton Lake to provide raw water supply to a community surface water treatment facility.
- 3 miles of 12-inch diameter pipeline with approximately 1200 feet of the pipeline to be constructed underwater in Millerton Lake at depths up to 120 feet.
- Replace approximately 2.5 miles of asbestos cement pipe of various sizes. The AC pipe experienced calcium leaching on the inside of the pipe from a low pH water source (groundwater). pH of the supply was corrected.
- SCADA and communications at 46 locations. Locations include storage tanks, lift stations, and well sites located throughout mountain terrain. Sites are subject to winter conditions including power outages and several feet of snow.



3. TECHNICAL ABILITY

The Mark Thomas team is experienced in the use of MS Office Suite and MS Project, AutoCAD and Civil 3D, ArcGIS, and USACE HEC software. Most importantly, we are experienced in the use of specialty software that would be of benefit to the District, including EPANET and pipeline inspection CCTV and analysis software.

EPANET SOFTWARE

EPANET software is available from the US EPA for Modeling Drinking Water Distribution Systems. As the EPA is the regulatory authority on water quality, the development of this software aids many communities in meeting compliance standards. Used for distribution system analysis, it was developed as a tool to understand the movement and fate of drinking water constituents within the distribution systems. It is used to design and size new water infrastructure, retrofit existing infrastructure, optimize operations, reduce energy usage, and investigate water quality problems.

EPANET’s modeling is effective at water quality modeling, containing a state-of-the-art hydraulic analysis engine that includes the following hydraulic and water quality modeling capabilities:

- Operations based on both tank levels, timer controls or complex rule-based controls
- Computes friction headloss including minor headloss
- Models constant or variable speed pumps
- Models most types of valves, including shutoff, check, pressure regulating, and flow control
- Considers multiple demand categories at junctions, each with its own pattern of time variation
- Storage tanks with or without baffling - as either complete mix, plug flow, or multi-compartment reactors
- Movement of non-reactive and reactive tracer (including decay) material through the network over time
- Age of water throughout
- Reactions in the bulk flow and at the pipe wall
- Accounts for mass transfer limitations when modeling pipe wall reactions
- Allows growth or decay reactions to proceed up to a limiting concentration
- Employs modifiable global reaction rate coefficients
- Allows wall reaction rate coefficients to be correlated to pipe roughness
- Allows for time-varying concentration or mass inputs at any location in the network
- Sampling programs
- Disinfectant loss and byproduct formations

In addition to EPANET and CCTV, lessons learned through our years of district management experience have moved us to add the following technical abilities:

Complete Stormwater, Sewer and Floodplain Modeling Software:

In-house capability to allow modeling to be easily updated and provide up to date information and services. This in-house capability provides flexibility and cost-effective solutions for modeling with no need to rely on outside services. Similar to ARC-GIS, Lucity, and CUPMAN for ITT, GIS and computerized maintenance.

Rate Studies: We have developed analysis processes and procedures that provides decision makers with the tools to evaluate options and be in compliance with Proposition 218 requirements.

New Technology in Rehabilitation:

Because many agencies and districts have aging infrastructure and a need to rehabilitate, Mark Thomas is up to date in the latest technologies, including utilization of pipe bursting, lining and trenchless – micro tunneling.



PIPELINE INSPECTION CCTV

Mark Thomas provides in-house CCTV inspection and maintains a CCTV-mounted truck. The acquisition of an in-house system allows flexibility to meet the needs of the District at rates lower than the market rates for CCTV. Using this latest CCTV equipment and reporting methods, we can provide quality, flexibility, and reliability in pipeline inspection. We currently utilize Granite XP and POSM software for data collection and reporting.

All data needed for pipe inspection and rehabilitation plans can be quickly and easily integrated into any GIS program. Project information, pipe section observation, photos, and videos can be analyzed on screen or provided to the client through an external drive or DVD.

Mark Thomas uses the OZ III Built-In Sonde Camera with a self-leveling head that pans, tilts, and rotates for easy identification of defects along junctions and around manholes. The unit can accurately pinpoint the location of any defect, root intrusions, or FOG build up precisely from above, through dirt and pavement. CCTV footage of the underground pipe with on-screen distance counters can also help pinpoint defects from any given point. The WTR Transporter used to propel the camera can fit pipes ranging from 6 to 36 inches in diameter and the 1,500-foot cable reel allows for multiple pipe segment inspections from minimal setups.





4. INDIVIDUAL QUALIFICATIONS AND EXPERIENCE

We are proud of our track record of successfully serving and exceeding the expectations of our clients. Following are brief descriptions of relevant experience with client references. We are confident that you will find a demonstrated ability to deliver district engineering services.

DISTRICT MANAGEMENT SERVICES

Various Special Districts

As detailed in the previous sections, Mark Thomas has extensive experience working with special districts. We are currently serving as the District Manager-Engineer for three sewer districts in Santa Clara County. Mark Thomas provides the entire staffing required to provide district administration, management, engineering and operation services. Key features and relevant experiences are shown in matrix below:

	CUPERTINO SANITARY DISTRICT	COUNTY SANITATION DISTRICT 2-3	BURBANK SANITARY DISTRICT
Number of Years Services Provided	62 years	64 years	14 years
Reporting Public Officials	Five Elected Board Members	Santa Clara County Board of Supervisors	Five Elected Board Members
Reference	William Bosworth, Director (408) 253-7071	Javier Serrano, County Counsel (408) 299-5922	Michelle Kaelker-Boor, Director (408) 288-8886
Service Size	<ul style="list-style-type: none"> • 22,290 services • 200 miles of sewer main • 17 pump stations 	<ul style="list-style-type: none"> • 4,822 services • 46 miles of sewer mains • 1 pump station 	<ul style="list-style-type: none"> • 1,623 services • 6 miles of sewer mains
Annual Budget	\$17.3 million	\$7.4 million	\$1.4 million
CIP Budget	\$2.2 million	\$1.8 million	\$250,000

A recent addition to Mark Thomas, James Polfer brings a wealth of experience in engineering and management of special district projects.

James served many years in Fresno County’s Department of Public Works and Planning’s (DPW&P), Design Division. During his tenure at Fresno County’s DPW&P’s Design Division, he served as the engineer in charge of water system engineering and successfully led the projects described on the following pages.



CSA 49 WESTSIDE/O'NEILL'S SURFACE WATER TREATMENT FACILITY CONSOLIDATION AND DISTRIBUTION SYSTEM IMPROVEMENTS

Fresno County

The work, in general, consisted of securing the funding for the planning, engineering and preparation of PS&E, construction, and maintenance of a new surface water treatment facility.

This project included installing two multi-media absorption/clarifier – filter systems for the treatment of surface water; installation of an 80,000-gallon bolted steel potable storage tank, tank and treatment equipment foundations; potable water distribution pumping system including the installation of pumps, variable frequency drives and pump controls, control panels, pressure/surge tanks, potable water distribution mains, blow-offs, and fire hydrants. Service connections, water meters, meter boxes, valves, valve boxes, and appurtenances necessary to deliver drinking water to the users were also installed.

The project also included the bore and jack of casings supporting carrier pipes at two location across SR 145, construction of site improvements, installation of an auxiliary pump and pump control fire flows, installation of electrical service cabinets, construction of treatment plant backwash basin, installation of turbidity and disinfectant residual monitoring and recording equipment, all piping required to connect facility components, and all controls necessary for the operation and control of the surface water treatment facility.

Community outreach was very important to secure the funding and community support necessary to accomplishing this project. The funding for the project came from multiple sources including:

- \$1,884, 431 from the Drinking Water State Revolving (DWSRF) Fund of which \$1,804,431 was in the form of a grant and the balance was an \$80,000 loan with a 20 year at 0% term.
- \$400,000 Community Development Block Grant (CDBG).
- \$200,000 DWR Safe Drinking Water Bond Law Grant funds identified in the state's adopted budget.
- \$40,000 from project proponents in the community.

This gave a total project cost of \$2,524,431. To secure the revenues necessary to repay the DWSRF loan, an assessment engineer's report was prepared and a successful Proposition 218 was completed. In addition, to ensure sufficient revenues were available to maintain the facility a rate study was prepared and a Proposition 218 was completed wherein the calculated rates were adopted. All project financing documents and PS&E were prepared by James and the project team at Fresno PW&P.



CLIENT REFERENCE

Joe Prado, Community Health,
Division Manager (Formerly
Special Districts Administrator
for Fresno PW&P)
1221 Fulton Street
Fresno, CA 93721
(559) 600-3007

COMPLETION DATE

June 2013

CONTRACT AMOUNT

\$308,361



CSA 34 LAKE PUMPS REPAIR

Fresno County

The work performed consisted, in general, of removing 14-inch diameter ductile iron tees, connected tilted disk check valves, and gaskets from an existing raw water pump discharge manifold and pre-place the gaskets and reinstall the tees. The pumps are secured to a platform submerged in Millerton Lake. The work associated with these repairs required underwater removal and installation of manifold components. This required trained and experienced diving personnel using approved commercial diving practices, procedures, and equipment.

Raw water for a surface water treatment facility is supplied by four 100-horsepower pumps secured to a platform submerged in Millerton Lake. The flows provided by these pumps fell off dramatically prompting an investigation of the system performed by divers. During that dive it was discovered that the flange gaskets used in the construction of the manifold had failed. It was also discovered that the platform had moved and was hanging over a sharp drop-off and was being supported by a 14-inch diameter flex-tend coupling connected to the discharge manifold.

As part of the preparation of the PS&E for the repairs, a surge analysis was prepared. It was discovered that prior engineering did not take into account surge pressures from pump shut-off. It was determined that these surge pressures blew out the gaskets accounting for the decrease in flows. To withstand these pressure surges, James requested that the manufacturer of a gasket meeting the system pressure requirements per AWWA standards, that expanded when in contact with water, be tested for these service conditions. After extensive testing, the new gaskets were shown to be suitable in these service conditions and were specified for the installation.

The work performed by divers included removing the flex-tend coupling and pump manifold, repositioning the pump platform, securing the platform to the lakebed, and reinstalling the removed components. Prior to re-installation, the flex-tend coupling was removed from the lake and pressure tested to ensure that the movement and stresses it encountered did not damage it.

At the time of re-installation, the pump platform was approximately 60-feet below the water surface. All appropriate safety practices were observed during construction. It is also noted that the pump system supplied raw water to the plants providing treated water for the community's residents and raw water to a golf course for irrigation. Time was of the essence. Staging in removal and re-installation was specified and performed such that drinking water supplied to the community and raw water supply was not interrupted.

CLIENT REFERENCE

John Thompson, Deputy
Director, Fresno PW&P
2220 Tulare Street
Fresno, CA 93721
(559) 600-4313

COMPLETION DATE

June 2014

CONTRACT AMOUNT

\$188,322



Replaced 14-inch Flange Gasket



Replaced 8-inch Flange Gasket



TEAM RESUMES

Brief resumes for our key team members follow.

JAMES POLFER, PE

James Polfer has more than 15 years of experience in engineering design of public works infrastructure projects, and over 20 years of experience in general engineering and general building construction. The combination of his practical experience in construction and the design, administration, and preparation of plans, specifications, and estimates for local agency improvement projects which include roads and bridges, water and wastewater facilities, public park improvements, and various landfill projects has given him a comprehensive understanding of what is necessary for the successful delivery of a local agency infrastructure project.

PROJECT ROLE

Project Manager &
Technical Lead

EDUCATION

Coursework in Civil
Engineering

REGISTRATION

CA C74529

REPRESENTATIVE PROJECTS

DISTRICT MANAGEMENT & ENGINEERING, FRESNO COUNTY

A partial list of special district projects where James served as project manager/ engineer include:

- CSA 30 El Porvenir & CSA 32 Cantua Creek - Surface Water Treatment Facility Consolidation (\$725,000 DWSRF planning grant)
- CSA 38A Dos Palos - Watermain Replacement (CDBG grant)
- CSA 32 Bolted Steel Water Tank and Appurtenances (240,000-gallon tank) (CDBG grant)
- CSA 32 Potable Water Pressure/VFD Pumping System (CDBG grant)
- CSA 30 Wastewater Treatment Facilities (CDBG grant)
- CSA 44D Wastewater Treatment Facility Improvements (CWSRF loan \$1,773,937 – 20 years at 1.0% and grant of \$732,081)
- CSA 49 Disinfection System Modifications (DWSRF \$455,000 grant)
- Jenson-Drummond Sanitary Sewer Collection System (IRWMP grant)
- Skaggs Bridge and Laton Park Improvements and Water Supply (State Parks Grant)
- Waterworks District (WWD) 38 Wastewater Facilities Improvements (CWSRF planning loan)
- WWD 40 Drinking Water Supply (DWSRF \$425,000 planning loan 20-years at 1.7875%)
- CSA 34 Millerton New Town Wastewater disposal analysis (Developer)
- CSA 31 Shaver Lake SCADA System (Community)
- Underground Utility District and Community Facilities District (CFD, Mello-Roos) formations



BENJAMIN PORTER, PE

Benjamin Porter has more than 19 years of experience in engineering with a major focus on wastewater engineering and planning. Ben is committed to delivering exceptionally high quality.

PROJECT ROLE

Operations Lead

EDUCATION

BS in Civil and Environmental Engineering
MS in Civil and Environmental Engineering

REGISTRATION

CA C69302

REPRESENTATIVE PROJECTS

CUPERTINO SANITARY DISTRICT, SANTA CLARA COUNTY

Deputy district manager-engineer for the Cupertino Sanitary District. The District operates over 180 miles of sewers, 17 pump stations, 4000 manholes that serve the cities of Cupertino, Saratoga and portions of San Jose. Role requires reporting directly to the elected Board of Directors. Mark Thomas provides district management, engineering and operation services including maintenance and repairs of all district facilities.

COUNTY SANITATION DISTRICT 2-3, SANTA CLARA COUNTY

Deputy district manager for County of Santa Clara Sanitary Districts 2 and 3. Role requires reporting directly to the Santa Clara County Board of Supervisors. Mark Thomas provides district management, engineering and operation services including maintenance and repairs of all district facilities.

BURBANK SANITARY DISTRICT, SANTA CLARA COUNTY

Deputy district manager for Burbank Sanitary District. Role requires reporting directly to the Board of Directors. Mark Thomas provides district management, engineering and operation services including maintenance and repairs of all district facilities.

RECYCLED WATER SALT MANAGEMENT PLAN, IRVINE RANCH WATER DISTRICT

Project manager responsible for preparing a Salt Management Plan for the District's potable and recycled water service area. District's system consists of a complex network of potable and non-potable water supply sources. In addition, District has various methods to provide treatment to its potable water and wastewater, and has the ability to produce recycled water at two reclamation facilities. The project team prepared a mass balance that incorporates data on total dissolved solids for District's entire system and predicts salt content in its recycled water effluent. The team conducted an alternatives evaluation to investigate means of reducing and minimizing TDS in its recycled water.

BIOSOLIDS ALTERNATIVES AND FINANCIAL ANALYSIS, IRVINE RANCH WATER DISTRICT

Deputy project manager responsible for developing a financial model to determine the cost for biosolids disposal to a local sanitation district. The model incorporated projected wastewater influent flows and solids production for a 15-year period based on recycled water demand and plant treatment capacity and considered two different methods of calculating solids handling charges. The solids handling charges were compared to four different alternative methods of on-site solids handling that varied from thickening through drying.



MATT STRINGER, PLS

Matt Stringer has more than 20 years of experience as a survey manager, project surveyor, survey technician, and a survey crew member. He manages all phases of survey in support of bridge, transportation, and pipeline design. His work includes providing survey support for water pipe replacements, bridge widening and replacement, interchanges, and streetscape improvements. Matt’s experience includes control, topographic, right of way, and boundary surveys. He has coordinated and completed topographic base mapping, GPS and conventional control surveys in support of aerial topographic mapping, boundary and construction work. Many of the survey reports produced on these projects undergo State review for accuracy and procedures. Matt is highly proficient in AutoCAD, LDD, TGO, StarNet, and LGO software.

PROJECT ROLE

Survey Lead

EDUCATION

BS in Land Surveying

REGISTRATION

CA PLS 8151

CFedS 1571

REPRESENTATIVE PROJECTS

SAN JOSE WATER COMPANY ON-CALL SURVEY SERVICES, SAN JOSE

Survey project manager responsible for as-needed surveying services in support of capital projects for San Jose Water Company. Project included detailed topographic surveys including information about water meter numbers, valve nut depths, rights of way, easements and other features necessary for design and construction. Multiple task orders have been completed within schedule and budget.

CALIFORNIA AMERICAN WATER SMALL MAIN/BACKYARD MAIN REPLACEMENT PROGRAM, SACRAMENTO

Project manager for construction staking, as-builts, and easement acquisition support for the project. Project included areas where fire hydrants were moved during construction, needing a quick turn-around for acquisition documents and support. This project is ongoing and as-built surveys for Cal Am water are scheduled to begin.

E. DUNNE HILLSIDE WATER RESERVOIR, MORGAN HILL

Survey manager responsible for coordination, oversight of topographic surveys, property line delineation, and project control. Design included 0.85 MG Water tank, access road, retaining wall and area for future 20’ x 30’ water booster. Coordinated closely with City and designer to provide information to meet schedule.

SHERIDAN WATER SYSTEMS IMPROVEMENTS, SHERIDAN

Project surveyor responsible for the project control network, topographic surveys base mapping, right of way retracement and the preparation of plats and legals. Survey supported the design of a new pressurized water pipe line extending from 10th Street to Camp Far West Road in the community of Sheridan, near Marysville, CA.

EAST SACRAMENTO WATER MAIN REPLACEMENT, SACRAMENTO

Project survey manager responsible for oversight of control survey of 16 aerial targets and topographic survey. Survey supported design of this phase of a pressurized water system and new water meter installation for the City of Sacramento.



5. UNDERSTANDING AND SCOPE OF WORK

UNDERSTANDING

The District is located in the rural Sierra Nevada foothills between Lake Don Pedro and Lake McClure, in the counties of Mariposa and Tuolumne. The terrain is comprised of rolling hills with grassland, scattered oak trees, and occasional rock outcroppings typical of the Sierra Nevada foothills. The underlying geologic strata is comprised of a near ground surface granite batholith in various states of decomposition. Groundwater, when located, will typically be found in fractured aquifers. Occasional perched aquifers may be located within the District; however, these types aquifers often prove unreliable or unsuitable for direct supply of drinking water.

The District provides drinking water service to approximately 3,250 residents through approximately 1,450 services connections. The drinking water supply is provided from a surface water treatment facility and a number of wells. Raw water supply delivered to the surface water treatment facility is drawn from Lake McClure.

Development of the drinking water system began in the late 1960s, with an activity date of 1976 per the State Water Resources Control Board’s Division of Drinking Water. Many components of the water system have or are nearing the end of their useful life. Failure and leaking of the water mains and distribution system components create reliability issues for system operators and users.

The reliability of the raw water supply from Lake McClure was tried and tested during the recent drought, requiring extra measures to supply water to the community. Lake levels fell below the permanent pumping system making the District rely upon an emergency floating pump system.

To meet waterworks standards, the District is seeking an professional engineering firm to serve as District engineer. The district engineer must effectively communicate with District staff and work to identify system infrastructure priorities and maintain regulatory compliance. The District seeks a long-term relationship with the engineer to maintain continuity in service and understanding of District needs.

The District engineer needs to be qualified and capable of providing design, surveying, and a full range of professional services as identified in the RFP. **The Mark Thomas team can perform the duties stated in the RFP. Additionally, we can provide planning services such as development of a capital improvement and maintenance plan, identify funding sources, and prepare all necessary documents and report for Proposition 218 proceedings.**



SCOPE OF WORK & APPROACH

Mark Thomas provides engineering services for many public agencies and understands the requirements set forth in the many federal, state, and local regulations, policies, and programs. Our team's experience in working with districts give us a comprehensive knowledge of the needs and challenges the District may encounter; understanding that services will include unique and complex assignments. These assignments may include a high level of visibility and public sentiment requiring tact, diplomacy, and extensive technical knowledge of the program or project. Our team will work closely with the District's Board of Directors, administration, and staff to address the community's needs.

Our team leader, James Polfer, and those that support this effort, engineering expertise aside, have worked with many special districts. The experience and knowledge of the Mark Thomas team makes us uniquely qualified to serve as District Engineer.

More importantly, our team understands the challenges that face special districts and have proven experience developing cost-effective solutions. Our team will work closely with the District's Board of Directors, administration, and staff to address the community's needs.

Services

Mark Thomas will provide the staffing required to provide the District comprehensive services:

- Preparation of reports, agenda, minutes, and follow-up for Board Meetings
- Preparation of ordinances and resolutions in consultation with District Counsel
- Accounting and clerical services, including coordination with external auditors and preparation of management discussion report
- Preparation of revenue analysis, tax roll, and budgets
- Asset Management Services, including mapping and GIS database
- Engineering Services
 - Plan review of development projects
 - Construction administration (inspection, submittals, RFI, close-out) of development projects
 - Manage, monitor and provide assistance to planning and building departments of various agencies
 - District permits issuance and project close-out
 - Vendor contracts management
 - Procurement documents and RFP to retain consultants and contractors
- Securing required permits for maintenance and construction projects
- Condition assessment and development of CIP program
- Engineering inquiries
- Design of District capital improvement projects
- Bidding and Contract Administration, including managing progress payments and budgets
- Construction administration of District's CIP
- Coordination with outside agencies
- Prevention maintenance program
- Coordination with permitting and regulatory agencies
- Field Operations
 - Work Orders and coordination with contractors
 - Support for routine maintenance of mains, laterals and pump stations
 - Field review for condition assessment of pipelines



Project Management

Project management is a continuous task that requires ongoing attention to the activities of the internal staff and the needs of the District. James Polfer is an experienced project manager on diverse projects that include the planning and implementation/operation of drinking water and wastewater systems. He will be the primary point of contact for the District and will be responsible for providing a level of service that meets or exceeds District expectations. He will assign resources to provide the services required by the District. Specific project management activities are detailed below.

Effective communication between the District and the Mark Thomas team will be an important aspect of our service. James will be reachable by cell phone during and after business hours. He will provide updates to the District either formally or informally as the situation dictates. In addition, James will provide updates to the Board and District administration as requested. James will facilitate effective communication with regular team meetings and status updates.

Regular meetings will be scheduled at the discretion of the District. To keep charges to the District to a minimum, only staff substantially necessary will attend, which will at a minimum include the project manager/technical lead.

Regular meetings should include discussion of tasks completed or scheduled. The team will be available to discuss any issues or challenges that have been encountered or that are foreseen. The means for resolving past issues will be discussed, and we will provide suggested solutions for possible foreseen challenges.

Move Forward



FRESNO

7571 North Remington Avenue, Suite 102
Fresno, CA 93711
(559) 447-1938

San José • Carmel • Cupertino
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Oakland • Sacramento
San Carlos • Walnut Creek



markthomas.com



EXHIBIT A

Mark Thomas & Company, Inc. Rate Schedule

Expires June 30, 2019

**HOURLY CHARGE RATES
OTHER DIRECT COSTS**

Engineering Services

Sr. Principal	\$428
Principal	\$325
Sr. Engineering Manager	\$300
Engineering Manager	\$287
Practice Area Leader	\$287
Sr. Project Manager	\$242
Sr. Technical Lead	\$242
Project Manager	\$200
Technical Lead	\$200
Sr. Project Engineer	\$168
Sr. Technical Engineer	\$168
Project Engineer	\$146
Design Engineer II	\$129
Design Engineer I	\$105
Sr. Technician	\$124
Technician	\$89
Intern	\$61

Urban Planning/Landscape Architecture

Sr. LAUD Division Manager	\$253
LAUD Division Manager	\$214
Sr. LAUD Project Manager	\$188
LAUD Project Manager	\$172
Sr. Project Landscape Architect	\$129
Project Landscape Architect	\$112
Landscape Designer	\$87
Intern	\$61

Special Services

Sr. Inspector	\$126
Inspector	\$90
Expert Witness	\$406
Strategic Consulting	\$406

Reimbursables including, but not limited to:

Reproductions, Filing Fees and Field Expenses	Cost Plus 5%
Mileage	Per IRS Rate
Outside Consultant Fees	Cost Plus 5%

Survey Services

Sr. Survey Manager	\$224
Survey Manager	\$208
Sr. Project Surveyor	\$187
Project Surveyor	\$156
Sr. Surveyor	\$140
Surveyor	\$125
Lead Survey Technician	\$151
Sr. Survey Technician	\$125
Survey Technician	\$104
Survey Intern	\$73
Single Chief	\$135
Single Chainman	\$120
Apprentice	\$78
1 Person Field Crew	\$177
2 Person Field Crew	\$281
3 Person Field Crew	\$364

Project Support/Coordination Services

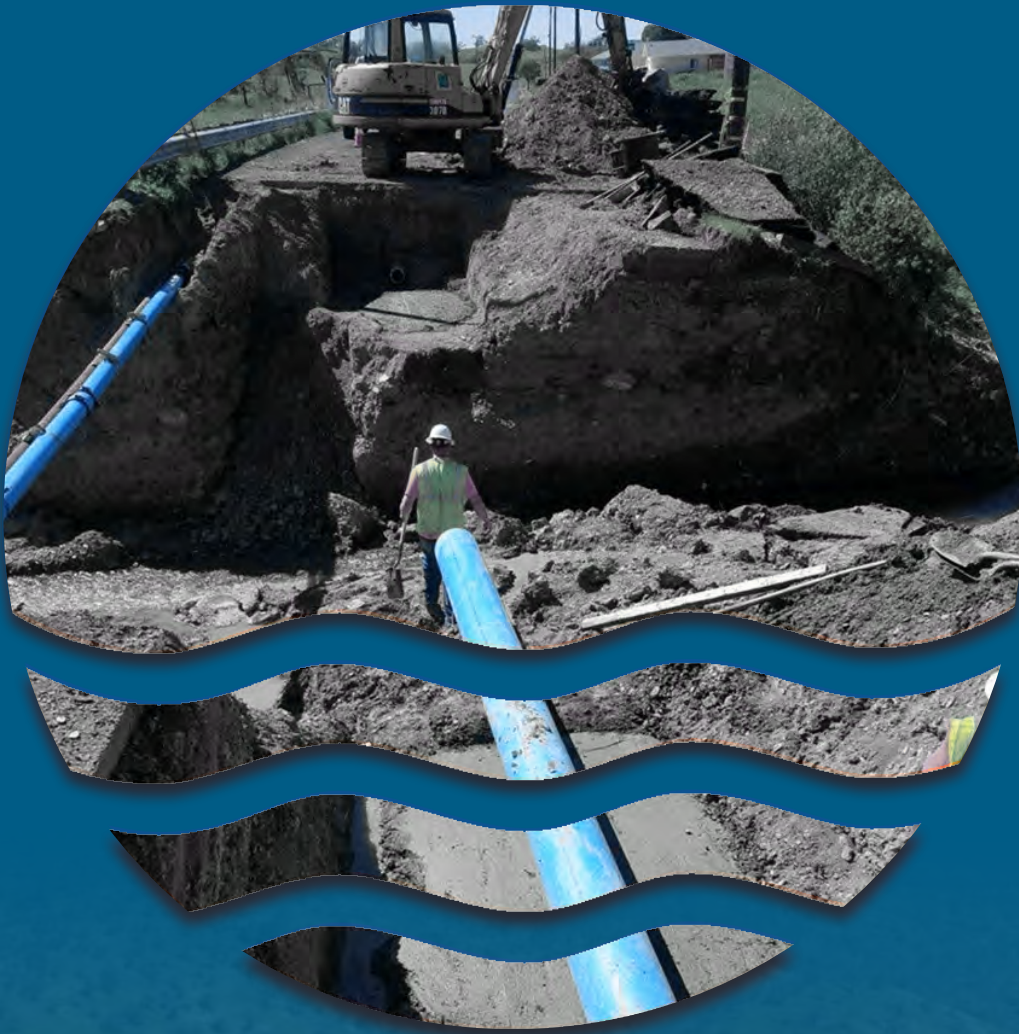
Sr. Project Accountant	\$129
Project Accountant	\$105
Sr. Project Coordinator	\$126
Project Coordinator	\$101
Sr. Project Assistant	\$94
Project Assistant	\$68
Sr. Technical Writer	\$109
Technical Writer	\$68
Sr. Graphic Designer	\$118
Graphic Designer	\$84

Grant Writing Services

Sr. Funding Specialist	\$156
Funding Specialist	\$125

STATEMENT OF QUALIFICATIONS FOR
LAKE DON PEDRO COMMUNITY SERVICES DISTRICT

District Engineering Services



July 11, 2018

Submitted by:

BLACKWATER
CONSULTING ENGINEERS, INC.

July 11, 2018

Mr. Peter Kampa
General Manager
Lake Don Pedro Community Services District
9751 Merced Falls Rd.
La Grange, CA 95329

Re: RFQ - District Engineering Services

Dear Mr. Kampa,

Black Water Consulting Engineers (Black Water) is pleased to submit our statement of qualifications in response to Lake Don Pedro Community Services District's request for qualifications (RFQ) for District Engineering Services. We have responded to each point in the RFQ to demonstrate our interest and ability to provide Lake Don Pedro Community Services District (District/LDPCSD) with design, general engineering, map review and approval, planning reviews, preparation of bid and construction documents, bid assistance, construction management and observation, and other related services. We are dedicated to serving our clients ETHICALLY, RESPONSIVELY, and PROFESSIONALLY and are confident that we have the experience and staffing to provide the highest level of service to Lake Don Pedro Community Services District.

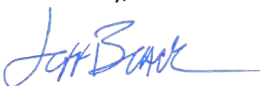
We believe our firm offers the following benefits to the District for this endeavor:

1. Black Water is a flexible and focused firm. Our company culture and structure lends itself to teaming with our clients. By many of our clients, we are already considered an "extension of staff." We consider it an "extension of trust" to work together in the best interest of our clients and the communities they serve.
2. Our professionals are experts in water/sewer/storm engineering, period. While the field of civil engineering has many facets, we stick to what we know and enjoy, regardless of economic trends or opportunities in related markets.

Black Water understands that the role of a district engineer is more than just a consultant. It requires an approach that reflects the highest interest of the staff and rate payers; an understanding of the district's history, near-term interests, and long-term goals; the availability of a consistent point of contact; and technical expertise in water transmission and treatment, wastewater collections and treatment, regulatory requirements, and project planning and financing. You will see from your review of the following sections of our proposal that Black Water meets these requirements and is enthusiastic about the opportunity to work with Lake Don Pedro Community Services District as the District Engineer. As part of your review and due diligence process, we strongly encourage you to consider our similar experience and to contact the references that we have provided in this statement of qualifications.

We sincerely appreciate the invitation to submit this proposal and express our interest working with you. Should you have any questions or require additional information, please do not hesitate to contact me at 209.322.1817 or at jeff@blackwater-eng.com.

Sincerely,



Jeff Black, P.E.
President

Executive Summary

Black Water Consulting Engineers (Black Water), located in Modesto, California, provides professional engineering services in water, wastewater, drainage, and construction management. The company was formed in 2012 and is comprised of talented professionals who love what we do. We endeavor to maintain an outstanding reputation for delivering responsive service, technical expertise, and value to our clients. A summary of our firm’s capabilities and services is provided in the following table.



Whether responding to existing challenges, evaluating opportunities to improve performance, or seeking to reduce future liabilities, our clients benefit from our unique blend of technical and scientific skills, strategic insight, and practical experience.

Water	Wastewater	Stormwater
<ul style="list-style-type: none"> • Water Master Planning • Water Rate Studies • Technical Report Preparation • System Permitting • Well Design • Water Treatment Design • Demand Analysis • Hydraulic Modeling of Distribution Systems • Storage Tank Design • Pipeline Design • Pumping and Booster Station Design • Construction Management 	<ul style="list-style-type: none"> • Sewer Master Planning and Asset Management • Sanitary Sewer Management Plans (SSMP) • Collection System Modeling • Sewer and Storm System Rate Studies • Sewer Collection System Evaluation and Design • Wastewater Treatment and Process Design • Regulatory Compliance and Permitting • Pump Station and Force Main Design • Corrosion and Odor Control • Pipeline Rehabilitation • Trenchless Construction • Wastewater Recycling and Reuse • Construction Management 	<ul style="list-style-type: none"> • Storm Drainage Analysis and Master Planning • Capital Project Planning • Condition Assessment • Rate Studies • Detention and Retention Facilities • Open Channel and Culvert Design • NPDES Compliance • Pump Station Design • Hydrologic Modeling • Low Impact Development (LID)

BLACK WATER’S ENGINEERING STAFF consists of experts in the planning and design of water supply, treatment, and distribution systems; wastewater collection, conveyance, and treatment works; and storm water analysis and drainage facilities. We continually participate in the evaluation, design, and review of water infrastructure projects in order to maintain a sound knowledge base of current design standards and construction methods. We have a solid track record in seeking and securing project financing, regulatory compliance, permitting, and reporting requirements for the water and wastewater industries.

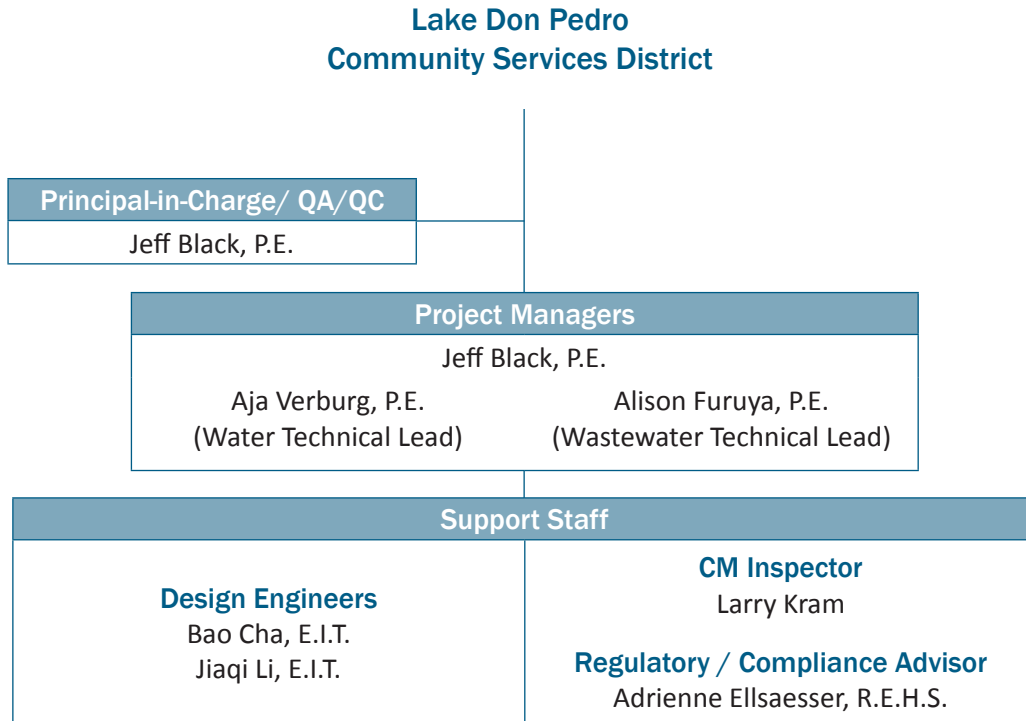
Our organization and structure lends itself to teaming with other experts in complementary fields. In addition to our in-house professionals, we can pull strategic partners that expand our services in the field of electrical, structural, and geotechnical engineering, and surveying and environmental. Black Water has well-established relationships with these types of consultants, and if necessary for a specific project, will be supported by subconsultants who are also known for providing superior services.



Jeff Black, P.E. (pictured at top) will be the District’s main point of contact and will provide general contract oversight. In addition to Mr. Black, Black Water’s Project Managers will be Aja Verburg, P.E. (left) and Alison Furuya, P.E. (right).

Project Team

The organization chart shows the key professional staff at Black Water Consulting Engineers dedicated to the District’s Engineering Services projects. Our team of experienced professionals endeavors to stay current in all aspects of water, wastewater, and storm drain projects. Black Water staff meets weekly to review and schedule our workload so that we can be most responsive to our clients’ needs. We are appropriately staffed to take on projects of various type and size.



Technical Ability

Black Water’s technological capabilities include:

- Microsoft Office (e.g. Word, Excel, PowerPoint, Access, Projects)
- AutoCAD
- ArcInfo GIS
- Bentley Hydraulic Software
- InfoWorks / Info Water / Info Sewer
- Adobe Acrobat Pro
- Adobe Creative Suite (e.g. InDesign, Photoshop)

Individual Qualifications and Experience

Resumes

Black Water is a flexible and focused firm -- a dedicated Project Team that understands that successful projects can be correlated directly with the experience and time availability of the Project Manager and key project staff. We have committed Jeff Black as the Principal-in-Charge for the contract duration. The following matrix presents Black Water’s proposed services from those listed in the RFQ and additional services and the professional staff that we have available for the successful completion of each type of service.

	Project Team						
	Jeff Black, P.E. Principal-in-Charge	Aja Verburg, P.E. Project Manager/Technical Lead	Alison Furuya, P.E. Project Manager/Technical Lead	Bao Cha, E.I.T. Design Engineer	Jiaqi Li, E.I.T. Design Engineer	Larry Kram Construction Inspection/R-O-W	Adrienne Ellsaesser, R.E.H.S. Advisor
Project Design	X	X	X	X	X		
General Engineering	X	X	X	X	X		
Map Review and Approval	X	X	X	X		X	
GIS / Asset Management		X	X	X		X	
Planning Reviews	X	X	X				
Bid and Construction Documents	X	X	X	X	X		
Bid Assistance	X	X	X	X		X	
Construction Management and Observation	X	X	X			X	
Impact Fees / Rate Analysis	X	X	X				
ROW Acquisition	X					X	
Regulatory Compliance	X	X	X				X
Funding Assistance including Grant Writing	X	X	X	X			X

Appendix A includes resumes detailing the qualifications and experience of each of the professionals that we are committing to working with LDPCSD for the duration of our engagement as District Engineer.

Recent Projects

In recent years, we have provided similar district engineering services, completed within schedule and within budget, for cities and special service districts. It is our commitment to ensure that all work products are completed and delivered to the District on-time and within budget. Our representative experience in district engineering services for various water and wastewater projects qualify us as an excellent fit for this endeavor. The following projects demonstrate our previous experience in detail.

CWSRF Wastewater Treatment Facilities Improvements, Jamestown Sanitary District

Black Water has been the District Engineer for Jamestown Sanitary District (JSD) since 2012. The JSD provides wastewater collection and secondary treatment at the existing wastewater treatment plant for a population of 3,400. As District Engineer, typical duties include wastewater facilities planning and design, rate studies, plan check, development of standards, compliance reporting with the Regional Water Quality Control Board, grant writing and other funding applications.

Black Water prepared a project engineering report (project report) evaluating the existing wastewater treatment facilities and determined future improvements for reliable operation and compliance with California Regional Water Quality Control Board regulations. Funding for the planning and construction project was secured through the State Water Resources Control Board (State Board) Clean Water State Revolving Fund (CWSRF). Black Water is currently preparing final design plans, specifications, and bid documents for the recommended improvements discussed in the project report. Additional secondary treatment options were further evaluated prior to initiating final design and construction. Site visits to other wastewater treatment plants, carrying the different types of treatment technologies being considered, provided the opportunity to see the treatment systems in person and gather feedback from operators. Modifications to the existing WWTP site include the addition of grit removal facilities, expansion of the emergency storage facilities, and modifications to a pump station that is capable of conveying primary treated effluent to the JSD Quartz Reservoir site. Improvements to the JSD Quartz Reservoir site include secondary treatment facilities, tertiary treatment and disinfection facilities, sludge treatment facilities, composting facilities, and an administration office building.



- ▶ Role: *Prime Consultant*
- ▶ Team Leader: *Alison Furuya*
- ▶ Staff Members: *Jeff Black, Jiaqi Li, Kevin Williams*
- ▶ Contract Amount: *\$1,340,000*
- ▶ Completion Date: *Ongoing*
- ▶ Reference:
Patti Ingalls - Manager; 209.984.5177

Other District Engineering Services Provided: *Sewer Line Replacement; Mainline Extensions; Groundwater Reports; Capital Improvement Projects; Rate Studies; Grant Writing*

Water and Wastewater Master Plans, Santa Nella County Water District

The Santa Nella County Water District (SNCWD) provides water and wastewater services to the small community of Santa Nella, CA. The community consists of approximately 40 retail businesses, a mobile home park with about 250 residential services, and a residential sub-division of approximately 330 single family dwellings. Black Water contributed and reviewed the SNCWD's Sewer Rate Study in July 2014. More recently, Black Water is preparing both the water and wastewater master plan documents to evaluate the existing water and wastewater systems to support the anticipated future growth, goals, and policies. Hydraulic models were developed to evaluate the capacity of the systems and to identify current and future system deficiencies.



- ▶ Role: *Prime Consultant*
- ▶ Team Leader: *Aja Verburg*
- ▶ Staff Members: *Jeff Black, Bao Cha, Alyssa Briones*
- ▶ Contract Amount: *\$200,000*
- ▶ Completion Date: *Ongoing*
- ▶ Reference:
Amy Montgomery - General Manager; 209.826.0920

Other District Engineering Services Provided: *Water Supply and System Evaluation; Sewer Rate Study; Mobile Home Park Water Meter Improvements (DWSRF); Recycled Water Plan of Study (CWSRF); WWTP Sludge Removal; Non-Central Valley Project Use Area Water Study; Capacity Assurance Plan; Grant Writing*

CWSRF Wastewater Treatment Plant Planning Work, Murphys Sanitary District

The Murphys Sanitary District (MSD), serving a population around 2,000, was awarded a CWSRF funding agreement for planning in 2013. Included in this planning work, Black Water prepared an updated report to MSD's 2014 Wastewater Treatment Facilities Planning Project Engineer Report. Due to the District's budgetary constraints, Black Water's updated report included an evaluation of the individual components of the MSD treatment process and developed a recommended alternative that improved the hydraulic capacity and treatment capability of the existing pond system. Black Water assisted MSD with applying for a \$4M construction grant which was granted in the Spring of 2018.



- ▶ Role: *Prime Consultant*
- ▶ Team Leader: *Jeff Black*
- ▶ Staff Members: *Alison Furuya, Larry Kram*
- ▶ Contract Amount: *\$111,180*
- ▶ Completion Date: *2017*
- ▶ Reference:
*Cindy Secada - Finance-Office Manager;
209.728.3094*

The previous planning document prepared in 2014 recommended decommissioning the existing pond system and constructing an oxidation ditch treatment process at the existing MSD WWTP site. While the recommended project addressed the MSD WWTP deficiencies, a significant increase to the current sewer rates would be required to fund the capital and on-going costs of the recommended improvements, creating a financial burden on MSD's rate payers. Black Water's 2016 project report presented an updated project improvement evaluation to determine optimum strategies for the WWTP to accommodate future growth and improve the efficiency of operations at a cost that would not burden MSD's rate payers with excessively high sewer rates.

Other District Engineering Services Provided: *Sprayfields; Capital Improvement Projects; Sewer Line Replacement/Improvements; WWTP Improvements; Grant Writing*

Statement of Understanding and Scope of Work

In our experience, a district engineer is more than just a consultant; he/she is a member of a team that works with operations, maintenance, and administrative staff and board directors to serve the interest of the rate payers within the district boundaries. As a member of the team, it is crucial that the district engineer be a team player as well as be technically competent and capable of providing the services required in a timely and efficient manner. If Black Water is selected as the District Engineer for Lake Don Pedro Community Services District, we will commit to providing the level of service expected by the District with professionalism and integrity that reflects the standards of the District.

As you see from our statement of qualifications, our staff has many years of experience working in the capacity of district engineer, and in some cases, for districts that are very similar in size, structure and location as LDPCSD. Examples include Jamestown Sanitary District, Tuolumne City Sanitary District, and Santa Nella County Water District. As the District Engineer for several small rural communities, we understand that the community consists of longtime residents and business owners, and we are sensitive to considering community input and providing public outreach related to district activities and services. Based on our experience, as well as our careful review of information provided in the RFQ, LDPCSD is looking for a district engineer to be engaged in a variety of tasks and responsibilities including design, general engineering, map review and approval, planning reviews, preparation of bid and construction documents, bid assistance, construction management and observation, and other related services. We have a solid background in all of these areas, and in special circumstances where specialty work is necessary such as survey, electrical, or environmental consulting, we have trusted colleagues that we can call upon to assist the District as needed. We have carefully reviewed the sample scope of work provided in the RFQ and state that we are experienced in all of those duties listed and more.



IF WE ARE SELECTED FOR THIS ENDEAVOR, we commit to provide Lake Don Pedro Community Services District with the following benefits:

1. An experienced and qualified project manager that will coordinate with the project team and District staff to gain a clear understanding of the needs and goals that LDPCSD has for these projects. We understand that the success of any project is largely dependent upon the experience and availability of the project manager. As such, we have committed project managers with outstanding track records of leading successful projects.
2. A team of professional engineers who are familiar with the local, state, and federal standards and procedures. The experience and expertise of our design team encompass the critical skills needed to evaluate and solve the technical challenges, should they arise, and constraints of the project through all phases of the design, preparation, and delivery of plans, specifications, accurate cost estimates, and bid documents.
3. A design approach that will minimize any unnecessary impacts and disruption to the public and environment.

Project Approach

As a rule, our approach is to develop lasting partnerships with our clients in a way that makes us an extension of their staff. This approach requires us to understand the underlying objectives and goals of our clients and then to act in their best interest. In doing so, we earn the trust that allows us to become part of their team. Key elements of our approach include:

Providing a consistent point of contact. Black Water is committed to providing the District with a consistent point of contact in Jeff Black. This allows District staff to be assured that information, directives, and developments that are a normal part of the interaction process will not slip through the cracks. That being said, District staff is always welcome to directly contact any member of our team that is familiar with and actively working on a specific task. As a small firm, our internal process includes weekly project status meetings where we discuss, in depth, the status and needs of our clients so we can allocate resources and set schedules to meet those needs.

Staying current with industry standards, trends, costs, and regulations. While many engineering firms offer a wide range of general civil services, Black Water is committed to focusing on only water and wastewater, period. This is the type of work that we are experienced in and love to do. Our engineers are active in professional organizations including attendance at training and industry conferences each year to stay current with trends and developments in the field of water distribution and treatment, wastewater collections and treatment, funding, asset management, and planning. Not only does this provide us with valuable professional development opportunities, we actively apply our expertise and experience in the best interest of our clients.

Regular communication of expectations, schedules, and budgets for a timely completion. When performance is monitored it improves; when it is monitored and reported, it improves greatly. We understand the inseparable tie between a project's schedule and its budget and the necessity to manage both. Our approach to maintaining budget and schedule is based on monitoring, reporting, and accountability. Additionally, our approach is to consistently reach out to the District to communicate the status of our work. Most commonly this is done with monthly invoicing. However, we have found it to be most beneficial to have more frequent telephone calls to discuss specific tasks and assignments. As a general rule, we do not charge time or invoice for this type of administrative correspondence, only for correspondence that is directly related to the completion of a specific task.

Working closely with operations staff. Through our years of experience work with water and wastewater professionals we have come to understand that there is no substitute for hands-on experience. While our training and experience with a variety of systems provides a solid foundation to support evaluations and complex design problems, we rely heavily on the input and experience of the operators and maintenance staff who have specific knowledge and experience with their systems. When engineers and operations staff communicate and cooperate, the best solutions and recommendations are developed and implemented.

QA/QC. Black Water utilizes a systematic approach to quality assurance and quality control (QA/QC). Providing this level of service requires that QA/QC measures be in place and observed throughout the project duration. The purpose of QA activities is to provide a deliverable that is suitable for its intended purpose. QA activities are defined before the project begins and implemented as deliverables are being developed. QC measures are used to verify that the deliverables are of acceptable quality.

At the project kick-off meeting, our Project Manager will work with the District to determine key issues for the Project. Our QA/QC Manager will then develop a Quality Management Plan (QMP) to identify specific QA/QC standards and procedures. The QMP will document all work to ensure that it is checked as it is produced, before it is used in subsequent work tasks. This review will include senior-level review, technical editing, and verification of calculations. QC will be used at every stage of the project to ensure that deliverables are complete and correct. QC will ensure that QA principles were adhered to and will be performed by an independent reviewer within Black Water prior to the submittal of final deliverables to the District.

Project Plan

The anticipated projects for the District Engineering scope of work cover a broad range of projects for various water, wastewater, storm drain, and construction management projects. We wish to underscore our emphasis on the importance of coordinating with District Engineering and Operations staff as part of our service to ensure a correct understanding of each project and that the objectives of the District are fully addressed. Regular deliverables will include monthly progress reports and detailed invoices that identify personnel, billing period and rates, dates, and descriptive task memos. All documents, electronic and physical will be provided in the requested file type and format.

Black Water has carefully reviewed the information provided in the RFQ as well as lessons we have learned from successfully completing similar projects. From our review, we have prepared the following sample implementation plan consisting of our proposed sample scope of work tasks listed in the order that is best suited for completing the project. The scope of work identified in the RFQ was used as the basis for the development of our approach to a typical project. The following is our sample expanded scope of work that Black Water is proposing which elucidates our team's unique approach to projects and our methods for navigating and successfully overcoming anticipated challenges.

Sample Scope of Work

Task 1. Project Planning, Communication and Management

Project planning, communication, and management includes supervision and scheduling of project staff, project coordination, budget and schedule monitoring, preparation of progress reports and invoices, quality assurance and control. Proper project management will ensure that the deliverables meet the project objectives, on schedule and within budget.

Task 2. Information Collection and Field Investigations

Consultant will carefully review existing project information provided by the District and will conduct a pre-design field investigation to review potential site configurations, available electrical service, and identify any project or site constraints. If needed, we can pull additional resources from our staff or subconsultants. Black Water has well-established relationships with several local surveyors and geotechs, and if necessary for the project, will be supported by a surveying and/or geotech subconsultant who is also known for providing superior services.

Surveying - Field surveying can include establishing survey control and perform a topographic survey of the project site. A detailed design level field survey can be performed to locate existing physical features, improvements, visible utilities, hardscape, and drainage features. Topographic field survey will use total station surveying methods, RTK/RTN GPS surveying methods, or a combination of both methods. The major contour interval of the topographic mapping will be 1 foot.

Deliverables: Topographic mapping in AutoCAD 2016 DWG file format. Record boundary survey, if needed.

Geotechnical - Material Testing services can be provided to evaluate the soils conditions at the site with the findings and recommendations presented in the geotechnical report. Complete laboratory testing can be completed on samples collected during the fieldwork. Engineering analysis can be performed to prepare a Geotechnical Report containing the following: scope of work; project description; site geology and subsurface conditions; laboratory test results (plasticity, sieve analysis, corrosivity, and R-Value); CBC seismic design parameters; foundation recommendations for tank structure including allowable skin friction, bearing capacity, settlement estimates, passive soil pressure, and minimum installation depth and width; recommendations for grading, including ground preparation, materials excavation, stability, and placement; pavement section recommendations based on traffic indexes provided by others; risk management and limitations; vicinity map; geologic map; fault map; site plan with exploration locations; and trench logs with laboratory test results.

Deliverables: Geotechnical Report.

Task 3. Preliminary Design Report

Consultant will prepare a preliminary design report that includes an evaluation of project alternatives and recommendation for the proposed project based on site conditions, constraints, regulatory requirements, and impacts to the community and environment, design criteria and 10% conceptual drawings for the recommended improvements.

Deliverables: Preliminary Design Report

Task 4. Design Submittals

Consultant will prepare for submittal to the District plans, general provisions/front end specifications, technical specifications, and engineer's estimate for the project at the 35-percent, 70-percent, 95-percent, and final design phase.

35-Percent and 70-Percent Preliminary Design Submittals - Prepare 35-percent and 70-Percent design level plans and draft specifications consisting of, preliminary drawings for civil, mechanical, structural, and electrical and instrumentation; and outline specifications and written descriptions of the project for the tank site infrastructure construction phase and the site improvements construction phase. The plans will be drawn at a scale of 1 inch = 40 feet on 24-inch by 36-inch sheets and show preliminary plan and sections of the well, and preliminary details of the site improvements. Outline specifications will be provided as MS Word documents in CSI format.

Engineer's Opinion of Probable Cost - A preliminary cost estimate for construction of the project will be prepared to represent the engineer's opinion of probable cost for the improvements. The cost estimate will include the materials, equipment, and labor to construct the projects. Estimated engineering fees, legal, administrative, contingencies, and alternate bid items will also be included as appropriate. The preliminary cost estimate will be indexed to the current construction cost index as published by Engineering News Record to account for cost variances between the times when the estimate is prepared and when the project actually bids for construction, and for future reference.

95-Percent and Final Design Drawings - Incorporate District comments into the 95-percent and final design drawings and specifications. Prepare a finalized opinion of probable construction cost for incorporation in the contract documents; prepare final drawings for electrical and instrumentation showing the scope, extent and character of the work to be performed and furnished by the contractor and construction contract specifications, in conformance with District standards. Furnish five copies of the drawings and construction contract specifications and review them with District staff.

Deliverables: 35-Percent, 70-Percent, 95-Percent, and Final Design Plans Specifications, and Engineer's Opinion of Probable Cost

Task 5. Environmental Documentation and Permitting

If necessary for the project, Consultant will be supported by an environmental subconsultant who is also known for providing superior services. Consultant shall complete required CEQA and/or NEPA documentation required for the proposed project. District staff is responsible for presenting the findings to the Board of Supervisors for adoption. Consultant shall assist the District in conducting the public review process and preparation of response to public comments. Consultant shall complete all documentation and reports for submission to the regulatory agency for the purposes of obtaining amendments to the system permit for any the changes to the treatment process. Consultant shall obtain the permits necessary to complete the project.

Deliverables: CEQA/NEPA Environmental Document

TASK 6 - BID PHASE SUPPORT SERVICES

Consultant will assist the District with the contract bidding process. Consultant will provide responses to inquiries from all prospective bidders, subcontractors, vendors or others concerning the bid documents. To ensure the project continually moves forward, the Consultant will provide the following bid phase services to assist District staff with this task.

Pre-Bid Support (Meetings, RFIs, Site Visit) - Consultant will assist the District with scheduling, preparing an agenda, and recording minutes for a pre-bid conference with potential bidders. Consultant will assist the District with reviewing and providing written responses to bidder's questions during the bid period. Consultant will attend the meeting and assist the District with the presentation of technical engineering information to the bidders.

Prepare Addenda - As deemed necessary by the District, Consultant shall assist with the review and evaluation of bids. Consultant will attend and assist the District with the opening and recording of contractors' bids. Consultant will also assist the District with the bidding process and give support to District staff in selecting a responsible contractor, subcontractors, and/or suppliers.

Deliverables: Pre-Bid Agenda, Meeting Minutes, Responses to Inquiries, and Addenda

Task 7 - Construction Support Services

Engineering services during construction will be provided for the project. These services include monitoring the progress and performance of the construction contractors for conformance with contract documents.

Construction Meetings and Site Visits - Attend pre-construction meeting and other construction related meetings, or as requested by the District. Visit project sites prior to or after construction meetings to observe the condition of the site and progress of the contractor's operations. Consultant will receive and respond to design questions from the contractor. Clarifications will be coordinated with the District and recorded. Consult with and advise District on necessary clarifications and interpretations of the contract documents as appropriate to the orderly completion of contractor's work.

Review and Manage Contractors Submittals, RFIs and Contract Documents - Review, respond, and approve contractor submittals and request for information (RFI) for conformance with the design drawings.

Review Contractor Data and Prepare Record Drawings and Project Closeout Documents - Consultant will review and comment on contract prepared O&M Manual in accordance with the submittal review process.

Consultant will review, confirm accuracy and completeness, and prepare record drawings based upon information supplied by the contractor. Provide one set of reproducible drawings and one set of AutoCAD drawings in PDF and AutoCAD format.

Provide closeout report to District, which includes all approved submittals, inspection reports, record drawings, and other pertinent records.

Deliverables: Pre-Construction Agenda, Meeting Minutes, Submittal Review Documents, Record Drawings

Task 8 - Construction Management Services

Consultant will provide management services during construction and on-site field inspection for construction oversight. The field inspection and construction management services include:

- Monitoring the progress and performance of the construction contractors for conformance with contract documents.
- Coordinate and facilitate with any construction subcontractor as required by the District.
- Ensure compliance with State and Federal permits and certifications issued including biological monitoring and reporting services.

- Identify actual and potential problems as construction proceeds, and coordinate consultations between the design engineer and District project manager to implement engineering solutions.
- Ensure compliance with all labor and equal employment opportunity requirements.
- Maintain awareness of health and safety requirements and enforce contract provisions for protection of the public and project personnel in and around the construction areas.
- Review construction schedules and monitor compliance with specified construction work windows.
- Coordinate, review and approve with District all shop plans, mix designs and other pertinent materials information. Provide certificates of compliance.
- Review and approve any false work and shoring calculations and plans.
- Furnish all necessary drawings for corrections and change orders. Coordinate any changes required on the construction plans with District and the design engineer.
- Prepare and maintain construction project records and contractor as-built drawings in accordance with District procedures, standard policies, and as required by the State funding agency.
- Coordinate and perform necessary analysis with District and the design engineer for design changes or modifications.
- Coordinate and manage all utility and property owner issues during the course of construction.
- Provide to District for approval monthly estimates for progress payments as detailed according to District schedule and format.
- Facilitate pre-construction meeting with design team, District, and contractor.
- Coordinate regular (bi-weekly) progress meeting with contractor.
- Start-up and commissioning report.
- Claims review.

Deliverables: Daily construction field reports, progress payment documentation, pre-construction meeting agenda and meeting minutes, bi-weekly meeting agenda and meeting minutes, photo and video documentation.

Materials Testing - If needed, a trusted subconsultant will provide materials testing during project construction that includes the following services:

- Subgrade and fill observation and compaction testing.
- Aggregate base compaction testing.
- Foundation excavation observation.
- Concrete sampling and compression testing.
- Preparation of compaction and inspection reports.

Deliverables: Daily field reports with a description of the daily events and test results.

Exclusions

1. Agency/Permit Fees
2. Sampling and Laboratory Testing Fees
3. Items not specifically identified in this scope of work

RESUMES

Appendix A



education

M.S., Civil Engineering, University of Utah

B.S., Civil/Environmental Engineering, Utah State University

years with Black Water

5.5

years with others

21

registrations

*Professional Engineer:
California #66645*

affiliations

Water Environment Federation (WEF)

California Water Environment Association (CWEA)

American Society of Civil Engineers (ASCE)

Jeff Black has over 26 years of experience in public water and wastewater systems. Mr. Black’s thorough understanding of the construction and operation of hydraulic systems is a valuable benefit to his clients and the operators of these facilities. Throughout his career, he has actively participated in planning, design, permitting, and construction oversight of various public and private water, wastewater, and water resources projects, pipe lines, pump stations, and treatment works. He is proficient in all aspects of project management, design, water and wastewater engineering, and system modeling.

Project Experience

District Engineering

Jamestown Sanitary District - Jamestown, CA. Since 2011, Mr. Black has been the District Engineer providing services including plan checking, design, construction management, funding acquisition, and infrastructure planning.

Twain Harte Community Services District - Twain Harte, CA. Engineering consulting and design services to THCSO. Responsibilities include assisting the District with completing their SSMP, development and maintenance of a hydraulic sewer model for the collection system, and providing consulting services for condition assessments of critical reaches of the collection system. He has also assisted the District with the development of several water and sewer infrastructure improvement projects.

Santa Lucia Community Services District - Carmel, CA. Since 1998, Mr. Black has been assisting the SLCSO in the ongoing design, improvement, and permitting of the Districts wastewater and water systems. Services provided include collection system design, plan review, pump station, and force main design. Mr. Black conducted a capacity analysis of the existing trickling filter treatment plant, and designed and permitted a new wastewater treatment facility for the District.

Water Engineering

Water Master Plan, Santa Nella County Water District - Santa Nella, CA. Principal-in-Charge. Preparation of a water master plan to evaluate the existing water supply, treatment distribution and storage systems to

ensure that SNCWD has adequate facilities to support future growth, goals, and policies. The water master plan will provide design guidelines for water infrastructure to serve future developments and guidelines for future policy documents.

DWSRF Mobile Home Park Water Meter Improvements, Santa Nella County Water District - Santa Nella, CA. Principal-in-Charge. The project consists of replacing the water and sewer pipelines and installing remote read water meters at 264 of Santa Nella’s Mobile Home Park locations.

Meadow Well Pumping Plant and Main Extension, Twain Harte Community Services District - Twain Harte, CA. Project Manager. Prepared construction documents for equipping the new well with pumping equipment, including piping and valves to deliver potable water to the distribution system.

DWSRF Water Main Extension, Keyes Community Services District - Keyes, CA. Principal-in-Charge. Secured the construction funding for Keyes Community Services District (CSD) through the SWRCB DWSRF program for water pipeline extensions to consolidate out of service boundary mobile home parks with non-compliant water systems with the Keyes CSD water system.

DWSRF Mountain Creek School Water Tank Replacement, Pioneer Union School District - Somerset, CA. Project Manager. Provided engineering services for the replacement of the Redwood Tank with a steel tank of the same size and in the same location. The tank site will be retrofitted with a booster station, control panels, and a disinfection system.

DWSRF Water System Improvements, Curtis Creek Elementary School District - Sonora, CA. Principal-in-Charge. Provided engineering planning services for the Safe Drinking Water State Revolving Fund Application. Improvement alternatives were developed to determine strategies and phasing for future improvements to the existing water system that identified system deficiencies that include inadequate source and storage capacity and a non-compliant fire system.

On-Call Water Analyses, City of Tracy - CA. Principal-in-Charge. Maintained and updated the City's hydraulic water model, and conducted various analyses to verify the condition and capacity of the exiting water system to serve planned development and connections to the water system.

Ratto Bros. Water System Feasibility Study, Ratto Bros. Inc. - Modesto, CA. Project Manager. Completed a feasibility study to evaluate alternatives that would provide potable water that meets state nitrate regulations to the Ratto Bros. Facility.

Galas Water Improvements - Modesto, CA. Engineering design and specifications for a new domestic well, a 2.5-mgd water booster station, and 1.4 mg of water storage to serve the City of Modesto. Design included site work, pump station, reservoirs, disinfection system, and appurtenant piping and site work for connection to a treatment system for the removal of nitrates and manganese.

Refuge Level 2 Exchange with SLWD, San Luis Water District - Stevenson, CA. Project Manager. Provided groundwater and surface water sampling, weekly flow meter readings, groundwater surface elevation measurements, data analysis, and monthly reporting.

Cedar Pines Tank and Booster Pumping Station, Twain Harte Community Services District - Twain Harte, CA. Project Manager. Conducted an evaluation of system storage, flow, and available pressure for the Cedar Pines tank and booster pump station. The analysis included a hydraulic model of the existing system and calculations for three alternatives to replace and/or improve the existing facilities. The alternatives analyzed included provisions for a hydro-pneumatic tank, variable frequency drive motors, and fire pumps. A technical memorandum with calculations, details, and recommendations was provided to and approved by the District.

Turner Academy Water Treatment Upgrades, Lodi Unified School District - Lodi, CA. Project Manager. Prepared a revised flow schematic for the Turner Academy Water Treatment Plant.

Wastewater Engineering

CWSRF Wastewater Treatment Facilities Improvements, Jamestown Sanitary District - Jamestown, CA. Principal-in-Charge. Providing final design and construction management services for the modifications to the existing wastewater treatment plant site and improvements at the JSD Quartz Reservoir site.

CWSRF Wastewater Treatment Planning Evaluation, Jamestown Sanitary District - Jamestown, CA. Principal-in-Charge. The JSD provides wastewater collection and secondary treatment at the existing wastewater treatment plant for a population of 3,400. As District Engineer, Black Water's typical duties include wastewater facilities planning and design, rate studies, plan check, development of standards, compliance reporting with the Regional Water Quality Control Board, grant writing and other funding applications. This project consisted of the evaluation of the existing WWTP and determining future improvements. Black Water organized and prepared the CWSRF planning application for the JSD.

Wastewater Master Plan, Santa Nella County Water District - Santa Nella, CA. Principal-in-Charge. Preparation of a wastewater master plan to evaluate the existing wastewater collection, treatment, and disposal facilities and ensure that SNCWD has adequate facilities to support the anticipated growth, goals, and policies. The document provides a plan for operations, maintenance, and replacement of existing infrastructure and to accommodate growth and development for the 10-year and 25-year planning horizons.

CWSRF Wastewater Engineering Rate Study, Murphys Sanitary District - Murphys, CA. Principal-in-Charge. Completed a wastewater rate study for the District to develop a strategic plan for implementation of the wastewater improvements recommended by planning project.

CWSRF Wastewater Collection and Treatment Systems Evaluation and Planning Improvements, Westley Community Services District - Westley, CA. Principal-in-Charge. This project consisted of the evaluation and planning of improvements to the District's wastewater collection and treatment systems. Black Water prepared and submitted the CWSRF planning application for Westley CSD that included preparation of the general, technical, environmental, and financial packages for evaluation of the wastewater treatment plant.

Wastewater Quality Control Facility (WQCF) Phase III Design Peer Review, City of Patterson - CA. Principal-in-Charge. The project included addition of an 80-foot diameter secondary clarifier, oxidation ditch, RAS/WAS pump station, effluent pump station, aerobic digesters, storm drain holding pond, and sludge storage area. Provided a peer review of the 90-percent plans and specifications for the project.

CWSRF Wastewater Treatment Facilities Planning, Tuolumne City Sanitary District - Tuolumne, CA. Principal-in-Charge. Black Water was tasked with evaluating the existing wastewater treatment facilities to determine optimum strategies to improve efficiency of operations and treatment methods. Black Water reviewed existing and potential regulatory requirements for the WWTP, conducted a site evaluation of current operations and facilities, and an analysis of existing and projected flows.

Sanitary Sewer I&I Study, City of Patterson - CA. Project Manager. Conducted an analysis evaluating collection system flow data obtained from City flow monitoring facilities at select manholes and identified which segments of the analyzed portion of the collection system were most likely contributing to I&I observed at the WQCF.

Pinecrest WWTP Ballast Pond Relining Project, Pinecrest Permittees Association - Pinecrest, CA. Project Manager. Conducted a detailed inspection and prepared the plans and specifications for replacing the liner in the ballast pond.

Sanitary Sewer Management Plan Update, City of Patterson - CA. Project Manager. Managed and prepared the update to the Sanitary Sewer Management Plan (SSMP) to reflect changes described in the 2015 SSMP Guidance Document and the City's SSMP Internal Audit 2015.

CWSRF Wastewater Treatment Facilities Upgrade Project, Murphys Sanitary District - Murphys, CA. Principal-in-Charge responsible for the preparation of preliminary design of improvements to the wastewater treatment plant to address capacity and effluent quality issues. Preliminary design included a review of the existing facility and analysis of the existing aerated pond treatment capacity. Improvements include new influent pumps, 1 mile of sewer force main replacement, new headworks screening, sub-surface aeration system, sludge removal, and increasing storage capacity.

Wastewater Treatment Plant Sludge Removal - City of Escalon, CA. Principal-in-Charge. This project consisted of the preparation the plans, specifications, and bid documents for the removal of sludge from the industrial treatment/percolation ponds at the Wastewater Treatment Facility.

Sewer Pipeline Rehabilitation/Replacement Project, Phase 2, Jamestown Sanitary District - Jamestown, CA. Project Manager. Prepared plans, specifications, and bidding documents for the replacement and rehabilitation of approximately 5,500 LF of 6 and 8-inch sanitary sewers located in the public right-of-way and within easements on private property.

Sewer Pipeline Rehabilitation/Replacement Project, Phase 1, Jamestown Sanitary District - Jamestown, CA. Project Manager. Prepared plans, specifications, and bidding documents for the replacement and rehabilitation of approximately 7,500 LF of 6 and 8-inch sanitary sewers located in the public right-of-way and within easements on private property.

Wastewater Treatment Facility Corrective Action Assistance, City of Escalon - CA. Principal-in-Charge. Identified the corrective actions necessary and prepared a Corrective Action Report to respond to the Tentative Cease and Desist Order issued to the City's WWTF by the Regional Board.

Waterford Water Master Plan Hydraulic Model and Recycled Water Feasibility Study, City of Waterford - CA. Project Engineer. Preparation of technical memorandums evaluating the existing water and wastewater systems for the City. This work included a hydraulic analysis of the water system, and a recycled water feasibility study, which required an evaluation of the wastewater treatment plant, and projections for infrastructure necessary to produce recycled water.

Headworks Improvements, Jamestown Sanitary District - Jamestown, CA. Prepared the plans, specifications and contract documents for bidding and construction of new flow monitoring, screening, and solids washing and compacting equipment.

CWSRF Recycled Water Project, Santa Nella County Water District - Santa Nella, CA. Principal-in-Charge. Prepared the application submittal to secure funding for the completion of a feasibility study to evaluate the existing wastewater treatment system and identify improvements to produce, store, and distribute disinfected tertiary recycled water.

Santa Lucia Wastewater Treatment Facility - Carmel, CA. Project Manager and Engineer for the retrofit and conversion of a conventional trickling filter plant to a tertiary treatment facility. The design included the removal and retrofit of existing basins and plant piping for the installation of a membrane bioreactor, new aeration equipment, and improvements to the existing headworks and chlorine contact facilities. The treatment capacity of the new plant is 100,000 gpd.

Pinecrest WWTP Headworks Upgrades Project, Pinecrest Permittees Association - Pinecrest, CA. Project Manager/Design Engineer. Project Manager and Design Engineer for the Pinecrest WWTP Headworks Upgrades Project. Conducted treatment capacity evaluation for the existing headworks and prepared plans, specifications, and contract documents for a new headworks facility. The design included modifications to the influent channel to improve flow metering capability, specifying new screening equipment consisting of a spiral screen and washer/compactor, a new headworks building to house the equipment, and electrical improvements.

Sewer Rate Study Review, Santa Nella County Water District - Santa Nella, CA. Project Manager. Contributed and reviewed the SNCWD's Sewer Rate Study in July 2014. More recently, prepared a Plan of Study for the evaluation of treatment upgrade alternatives at the SNCWD WWTP, and to assist with the CWSRF planning applications to fund the project.

Forrest Meadows Effluent Pumping Station and Force Main - Calaveras County, CA. Project Manager for the design of a 2-mgd pumping station and 2.5 miles of force main for the Forrest Meadows Wastewater Treatment Plant. The pump station consisted of three vertical turbine high-head pumps, site piping, lighting, security, electrical and controls, and standby power. A particular challenge to this design was the proximity of the pump station to residential homes at a golf course community. Prepared the preliminary design report with an alternatives analysis to provide recommendations for pump type, location, arrangement, and force main alignment.

Vector Dump Station - Riverbank, CA. Project Manager and Design Engineer for the City of Riverbank Wastewater Treatment Plant Vector Dump Station Project. The design of the new dump station included primary screening equipment, settling basin, and pumping equipment. Careful consideration was required to protect an existing treatment lagoon located adjacent to the new dump station. The project also included modification of the headworks influent channel providing 100% flow diversion capability to allow the existing headworks screenings equipment to be maintained.

2014 Lift Station Modification Project, City of Ceres - CA. Project Engineer. Assisted with engineering services for the modification of six storm drain and sewer lift stations.

Construction Management/Administration

Non-Potable Well Engineering Services During Construction, City of Patterson - CA. Principal-in-Charge. Provided engineering services during construction for the non-potable well and well site infrastructure construction phases. These services include monitoring the progress and performance of the construction contractors for conformance with contract documents.

Roundabout Inspections - Del Puerto Ave. and North Salado Ave., City of Patterson - CA. Principal-in-Charge/Project Manager. The City of Patterson received grant funding for the rehabilitation of two existing roundabouts within the city. The project also included the addition of splitter islands at both sites to enhance traffic and pedestrian safety at the two locations.

First and Walnut Traffic Light Installation and Intersection Improvements, City of Patterson - CA. Principal-in-Charge/Project Manager. The project consisted of adding traffic signals at this intersection. The project included widening of First Street in two locations, removing and relocating an existing storm drain inlet, installation of curb and gutters at two corners of the project, and paving the widened sections on First Street and a portion of Walnut Avenue.

Stormwater

Salado Creek Storm Grate Project, City of Patterson - CA. Project Manager. Designed appurtenances to lift and secure the storm drain channel debris rack (screen) to allow for routine maintenance of the structure. Assisted the City during the bidding period process and provided engineering services during construction.

Storm Drain Conveyance Analysis, City of Newman - CA. Project Manager. Prepared a technical memorandum which summarized the results of review and engineering analyses conducted for the conditions at Inyo Drain and Sherman Park Basin. Recommendations and estimates were provided.

Somerset-Flemons Regional Storm Drainage Master Plan, City of Stockton - CA. Project Manager. Completed a master plan that identified a defined watershed area and the needed infrastructure improvements to support future growth and development near the existing Somerset-Flemons storm drain pump station.



education

B.S., Civil Engineering, California Polytechnic State University, San Luis Obispo

years with Black Water

4.5

years with others

10

registrations

*Professional Engineer:
California #73020*

affiliations

*Modesto Engineers Club,
Past President*

Aja Verburg has over 14 years of experience in public infrastructure and water/wastewater project management and design. Ms. Verburg has a strong understanding of delivering projects from a public agency’s perspective. She is experienced with all aspects of project management, which includes application for funding, public outreach, preliminary engineering, environmental approval, right-of-way acquisition, utility coordination, permitting, project approval and design, and project advertisement, for federal, state, and locally-funded projects. This broad range of experience is a benefit to clients, as her approach for each project is to act as an extension of the agency staff and deliver the most cost efficient and innovative design, on schedule, from the planning stage through construction, to serve the client and public. Throughout her career she has served as a project manager and engineering designer for various public and private water and wastewater projects. Ms. Verburg also has extensive experience using Geographical Information System (GIS) software and Innowyze InfoWater and InfoSewer hydraulic network modeling software.

Project Experience

Water Engineering

DWSRF Mobile Home Park Water Meter Improvements, Santa Nella County Water District - Santa Nella, CA. Project Manager. The project consists of replacing the water and sewer pipelines and installing remote read water meters at 264 of Santa Nella’s Mobile Home Park locations. Wrote the technical memorandum evaluating the costs associated with relocating the existing water distribution piping into the public right-of-way, and installing remote read water meters at the mobile home park.

Water Master Plan, Santa Nella County Water District - Santa Nella, CA. Project Manager. Managed the preparation of a water master plan to

evaluate the existing water supply, treatment distribution and storage systems to ensure that SNCWD has adequate facilities to support future growth, goals, and policies. The water master plan will provide design guidelines for water infrastructure to serve future developments and guidelines for future policy documents.

DWSRF Santa Nella/Volta Water Quality Improvement Project, Santa Nella County Water District - Merced County, CA. Project Engineer. The project involves improvements to the water supply facilities of SNCWD and Volta Community Services District and consolidation of the two systems. Improvements include a new well, trunk lines delivering water to the distribution systems, water storage, blending, and pumping facilities, and distribution improvements to the VCSD system. Coordinated efforts with client and subconsultants, and reviewed permit and application submittal.

Non-Central Valley Project Use Area Water Study, Santa Nella County Water District - CA. Completed water study to evaluate domestic water supply for the non-CVP use area to estimate water demand, project water demands anticipated for undeveloped lands, and verify groundwater supply is sufficient to meet future buildout demands not met by supplied surface water.

Water and Sewer Capacity Evaluations, Santa Nella County Water District - CA. Technical Oversight. Reviewed and evaluated existing facilities and prepared a technical memorandum that described options to maximize the useful life and capacities of existing water treatment, distribution, and storage facilities in the District.

Potable Water System Upgrades, Sierra Park Water Company - Tuolumne County, CA. Project Manager. Providing funding application services and detailed design services for improvements to the Sierra Park Water System.

Water System Condition Assessment, Sierra Park Water Company - Tuolumne County, CA. Project Manager. This project involved a water system condition assessment that identified any existing supply, storage, and distribution system deficiencies and compliance issues. Responsibilities included conducting the water system evaluation and report preparation. Additionally, recommended capital improvement projects for the existing system.

DWSRF Mobile Home Parks Consolidation Water Main Extension, Keyes Community Services District - Keyes, CA. Project Manager. Secured the construction funding for Keyes Community Services District (CSD) through the SWRCB DWSRF program for water pipeline extensions to consolidate out of service boundary mobile home parks with non-compliant water systems with the Keyes CSD water system.

DWSRF Water System Improvements, Curtis Creek Elementary School District - Sonora, CA. Project Manager. Provided engineering planning services for the Safe Drinking Water State Revolving Fund Application. Improvement alternatives were developed to determine strategies and phasing for future improvements to the existing water system that identified system deficiencies that include inadequate source and storage capacity and a non-compliant fire system.

Frank Raines Regional Park Feasibility Study, Stanislaus County - CA. Project Manager. Prepared a feasibility study for infrastructure to supply water to the day-use area at Frank Raines Park from the existing water treatment plant.

DWSRF Mountain Creek School Water Tank Replacement, Pioneer Union School District - Somerset, CA. Project Engineer. Provided SRF application assistance and engineering services for the replacement of the Redwood Tank with a steel tank of the same size and in the same location. The tank site will be retrofitted with a booster station, control panels, and a disinfection system.

DWSRF Water Metering Project, Westley Community Services District - Westley, CA. Project Manager. Provided SRF application assistance for the installation of water meters on all service connections within the district.

On-Call Water Analyses, City of Tracy - CA. Project Manager. Maintained and updated the City's hydraulic water model, and conducted various analyses to verify the condition and capacity of the existing water system to serve planned development and connections to the water system.

DWSRF Water System Evaluation and Recommendations, City of Escalon - CA. Project Manager. Evaluated the performance of the City's water system, specifically at the Well #1 site, and provided recommendations for supply and capacity improvements.

Node 1 Water Treatment Facility - Santa Lucia, CA. Project Engineer. Design and construction of Pureflow Water Treatment Facility to treat well water at the existing Node 1 site. Design included the installation of a backwash supply horizontal split-case pump to supply water from the existing tank to the proposed filters, installation of equalization storage to accommodate backwash from filters, installation of submersible pump in equalization storage tank to discharge backwash to existing ponds via a connection to existing gravity drain line.

Hydraulic Network Analyses - Diablo Grande, CA. Design Engineer. Hydraulic network analyses of the water distribution system that includes three pressure zones, two storage tanks, and water booster pumping stations.

Diablo Grande Development Standards and Western Hills Water District Standards Update - CA. Project Engineer. Revision of Standard Details and Specifications in coordination with the WHWD agency engineer.

Bellevue Ranch Development - Merced, CA. Project Engineer. Water distribution system hydraulic network analysis and prepared the water master plan. Analysis included determining the groundwater pumping rate and water distribution pipe sizing to meet domestic, irrigation, and fire flow water demands.

Crows Landing Air Facility, Stanislaus County - CA. Project Engineer. Hydraulics network analysis using Innovyze InfoWater software for potable water system preliminary design.

Wastewater Engineering

Wastewater Master Plan, Santa Nella County Water District - Santa Nella, CA. Project Manager. Managed the preparation of a wastewater master plan to evaluate the existing wastewater collection, treatment, and disposal facilities and ensure that SNCWD has adequate facilities to support the anticipated growth, goals, and policies. The document provides a plan for operations, maintenance, and replacement of existing infrastructure and to accommodate growth and development for the 10-year and 25-year planning horizons.

Wastewater Facilities System Evaluation, Santa Nella County Water District - CA. Project Engineer. Prepared the Wastewater Collection and Conveyance and Treatment Facility Capacity Evaluation and Technical Report Addendum to the Wastewater Master Plan to support existing and future development.

CWSRF Wastewater Treatment Planning Application, Jamestown Sanitary District - Jamestown, CA. Project Engineer. The JSD provides wastewater collection and secondary treatment at the existing wastewater treatment plant for a population of 3,400. As District Engineer, BlackWater's typical duties include wastewater facilities planning and design, rate studies, plan check, development of standards, compliance reporting with the Regional Water Quality Control Board, grant writing and other funding applications. Black Water prepared and submitted the CWSRF planning application for the JSD that included preparation of the general, technical, environmental, and financial packages for evaluation of the wastewater treatment plant. Black Water coordinated with SWRCB staff during the application review process and development of the funding agreement.

Sewer Pipeline Rehabilitation/Replacement Project, Phase 2, Jamestown Sanitary District - Jamestown, CA. Project Engineer. Replacement and rehabilitation of approximately 5,500 LF of 6 and 8-inch sanitary sewers located in the public right-of-way and within sewer easements on private property.

Sierra Avenue and D Street Sewer Pump Station Replacement, City of Oakdale - CA. Project Manager. Design of a replacement sewer pump replacement and upgrade of the electrical supply, controls and telemetry/SCADA systems. The project consisted of replacing an existing 30-year-old wet pit-dry pit pump station with 4,400 gpm triplex submersible pump station, valve vault, meter vault, sewer bypass system, replacement of existing gravity sewer manholes and collection system piping upstream of the pump station, and connection to an existing force main.

Wastewater Master Plan, City of Oakdale - CA. Project Engineer. Assisted with the City of Oakdale's CIP rate study and prepared a wastewater master plan that evaluated the existing wastewater collection, treatment, and disposal facilities. Responsible for executing hydraulic model analysis and summarizing results.

CWSRF Grayson Wastewater Treatment Facility Planning Application, Grayson Community Services District - Grayson, CA. Project Manager. Provided SRF application assistance to obtain funding for the evaluation of the existing wastewater infrastructure to determine improvements needed to improve efficiency of operations, treatment methods, and quality of effluent for groundwater and surface water protection and to comply with current regulations.

Woodward Reservoir Campground Sewer System Capacity Evaluation, Stanislaus County - CA. Project Engineer. Completed sewer capacity evaluation and technical report for the existing gravity conveyance system and campground lift stations and force main and provided recommendations for improvements to system. Responsible for the design and construction documents for completing the project.

Waterford Water Master Plan Hydraulic Model and Recycled Water Feasibility Study, City of Waterford - CA. Project Engineer. Preparation of technical memorandums evaluating the existing water and wastewater systems for the City. This work included a hydraulic analysis of the water system, and a recycled water feasibility study, which required an evaluation of the wastewater treatment plant, and projections for infrastructure necessary to produce recycled water.

CWSRF Wastewater Collection and Treatment Systems Evaluation and Planning Improvements, Westley Community Services District - Westley, CA. Project Manager. This project consisted of the evaluation and planning of improvements to the District's wastewater collection and treatment systems. Black Water prepared and submitted the CWSRF planning application for Westley CSD that included preparation of the general, technical, environmental, and financial packages for evaluation of the wastewater treatment plant. Black Water coordinated with SWRCB staff during the application review process and development of the funding agreement. In coordination with California Rural Water Association, a rate study was completed and Proposition 218 process was conducted to evaluate and increase sewer rates in order for Westley CSD to qualify for funding under the program's eligibility requirements.

2014 Lift Station Modification Project, City of Ceres - CA. Project Engineer. Assisted with engineering services for the modification of six storm drain and sewer lift stations.

Honor Farm Wastewater Treatment Plant Decommissioning, Stanislaus County - CA. Project Manager/Engineer. Evaluated existing facilities for potential reuse of the site and provided engineering report. Prepared bid documents for wastewater treatment facility biosolids removal maintenance project. Coordinated with State to initiate and complete decommissioning of wastewater treatment site.

CWSRF Recycled Water Project, Santa Nella County Water District - Santa Nella, CA. Project Manager. Prepared the application submittal to secure funding for the completion of a feasibility study to evaluate the existing wastewater treatment system and identify improvements to produce, store, and distribute disinfected tertiary recycled water.

Sewer Lift Station and Force Main Conceptual Design for Wastewater Master Plan Update - Riolo Vineyards, CA. Project Engineer. Evaluated sewer lift station design concepts for two alternate locations and two development plans, the effect and impact on the capacity of the existing downstream Community Facilities District lift station and shared force main, and preparation of technical report for conceptual design recommendations.

E&J Gallo Winery Office Building Pump Stations - Modesto, CA. Design of a storm water pump station and sewer pump station for the new Gallo Building. Design included sizing and selection of submersible pumps, preparation of design plans and specifications for new pump station civil, mechanical, and structural design, for wet well and discharge piping and valving, and civil site design.

Wastewater Treatment Facility Corrective Action Assistance, City of Escalon - CA. Project Engineer. Identified the corrective actions necessary and prepared a Corrective Action Report to respond to the Tentative Cease and Desist Order issued to the City's WWTF by the Regional Board.

Westlake Sanitary Sewer Pump Station, City of Stockton - Westlake, CA. Project engineer for the design and preparation of plans and specifications for the sewer pump station. The project included civil, mechanical, structural, and electrical design for the 4.3 MGD sewer pump station that included submersible pumps, on-site chemical feed station, skid-mounted odor control dry scrubber unit, and 75 kW natural gas fueled back-up generator housed in a electrical and power support building. Electrical design included a new motor control center and connection to existing City SCADA system.

Wastewater Collection System 9 Pipeline and Pump Stations Projects, City of Stockton - CA. Project Engineer. Design-build of sewer pipeline and two pumps stations. Reviewed contractor equipment submittals and facilitated coordination with City for review and approval.

Hearthstone Ranch Development Sewer Pump Station - Newman, CA. Project Engineer. Design and preparation of plans and specifications for the packaged sewer pump station.

Oakmore Meadows Development - Stockton, CA. Project Engineer. Design of the storm water pump station and force main and sewer pump station.



education

M.S., Civil and Environmental Engineering, University of California, Berkeley

B.S., Environmental Engineering Science, Massachusetts Institute of Technology

years with Black Water

5

years with others

17

registrations

Professional Engineer: California #58943

trainings

National Association of Sewer Service Companies Pipeline Assessment Certification Program/Lateral Assessment Certification Program, and Manhole Assessment Certification Program

affiliations

California Water Environment Association (CWEA)

Project Experience

Wastewater Engineering

CWSRF Wastewater Treatment Facilities Improvements, Jamestown Sanitary District - Jamestown, CA. Project Manager. Managing and providing final design and construction management services for the modifications to the existing wastewater treatment plant site and improvements at the JSD Quartz Reservoir site. Responsibilities include managing all aspects of the project; reviewing information, reports, and CAD drawings; and designing the improvements and modifications at the WWTP and JSD Quartz Reservoir sites.

CWSRF Wastewater Treatment Planning Evaluation, Jamestown Sanitary District - Jamestown, CA. Project Engineer. The JSD provides wastewater collection and secondary treatment at the existing wastewater treatment plant for a population of 3,400. As District Engineer, Black Water’s typical duties include wastewater facilities planning and design, rate studies, plan check, development of standards, compliance reporting with the Regional Water Quality Control Board, grant writing and other funding applications. This project consisted of the evaluation of the existing WWTP and determining future improvements. Black Water organized and prepared the CWSRF planning application for the JSD.

CWSRF Wastewater Treatment Facilities Upgrade Project, Murphys Sanitary District - Murphys, CA. QA/QC for the preparation of preliminary design improvements to the wastewater treatment plant to address capacity and effluent quality issues. Preliminary design included a review of the existing facility and analysis of the existing aerated pond treatment capacity. Improvements include new influent pumps, 1 mile of sewer force main replacement, new headworks screening, sub-surface aeration system, sludge removal, and increasing storage capacity.

Santa Nella County Water District On-Call Services - Santa Nella, CA. Project Engineer assisting with the assessment of available wastewater treatment and disposal capacity of the existing facultative pond wastewater

treatment facility. Assisted the District with development of updated wastewater connection fees. Tasks included evaluation of permit status, discussions with the Regional Water Quality Control Board, development of a facility basis of design, and development of a capital improvement program.

Water Balance Study - Modesto, CA. Project Engineer. Prepared a water balance study for an industrial facility to address local agency requirements and develop an appropriate capacity allocation level for the facility.

CWSRF Thornton Wastewater Treatment Facility Project, Housing Authority of the County of San Joaquin - Thornton, CA. Project Manager for the preparation of a wastewater planning project engineering report, environmental documents for the recommended alternative, sewer rate study, and CWSRF construction application for the Thornton wastewater treatment and disposal facilities owned by the HACSJ.

River Trunk Realignment Project, City of Modesto - CA. Project Engineer. This project consisted of the design of a portion of the River Trunk Realignment project which will divert flow from the existing River Trunk, located at the E & J Gallo facility, to the proposed River Trunk Pump Station, located near B Street and between 7th and 9th Streets.

CWSRF Wastewater Collection and Treatment Systems Evaluation and Planning Improvements, Westley Community Services District - Westley, CA. Project Engineer. This project consisted of the evaluation and planning of improvements to the District's wastewater collection and treatment systems. Black Water prepared and submitted the CWSRF planning application for Westley CSD that included preparation of the general, technical, environmental, and financial packages for evaluation of the wastewater treatment plant.

Sanitary Sewer Management Plan Update, City of Patterson - CA. QA/QC. Reviewed the update to the Sanitary Sewer Management Plan (SSMP) to reflect changes described in the 2015 SSMP Guidance Document and the City's SSMP Internal Audit 2015.

Wastewater Master Plan, City of Oakdale - CA. Project Manager for the preparation of a wastewater master plan that evaluated the existing wastewater collection, treatment, and disposal facilities. Oversaw the development of GIS files for the trunk sewer network and hydraulic modeling. Discussed performance of existing facilities with City staff. Led the development of a capital improvement plan.

Wastewater Treatment Facility Corrective Action Assistance, City of Escalon - CA. Project Manager. Identified the corrective actions necessary and prepared a Corrective Action Report to respond to the Tentative Cease and Desist Order issued to the City's WWTF by the Regional Board.

Crows Landing Industrial Business Park (CLIBP), City of Patterson - Stanislaus County, CA. Project Engineer. Prepared a technical memorandum evaluating the potential impacts of the CLIBP project to the City of Patterson's wastewater collection system and Water Quality Control Facility. Responsible for the collection system analysis and preparation of the technical memorandum.

River Trunk Realignment Preliminary Design Project, City of Modesto - CA. Project Engineer. Preliminary design services including the identification and evaluation of alternatives for a new alignment of the River Trunk Sewer Project.

Jennings Road Wastewater Treatment Plant Follow-up Monitoring Well Investigation, City of Modesto - CA. Project Manager. Assisted the City with surveying and video inspecting of 21 groundwater monitoring wells located at the Jennings Road Wastewater Treatment Plant.

Condition Assessment and Master Plan Update, Sanitary District No. 2 of Marin County - Corte Madera, CA. Project Engineer. Ms. Furuya has been assisting the District for over six years with the development of a plan to inspect all of the sewers and manholes within the District over a five year period and ongoing inspection activities. Served as the main point of contact with the contractor to complete the work, oversaw review of the data, and integration of the condition data into assessing future capital improvement projects for rehabilitation or replacement of sewers within the collection system. The information gathered as part of the condition assessment work was incorporated into an update of the Sewer Master Plan for the District. Updates regarding the status of the sewer system are presented to the District council.

Wastewater Quality Control Facility (WQCF) Phase III Design Peer Review, City of Patterson - CA. Project Manager. The project included addition of an 80-foot diameter secondary clarifier, oxidation ditch, RAS/WAS pump station, effluent pump station, aerobic digesters, storm drain holding pond, and sludge storage area. Provided a peer review of the 90-percent plans and specifications for the project.

Pre-Design Study for Fort Bragg Wastewater Treatment Plant Upgrade Project - Fort Bragg, CA. Project Engineer. Assisted with the preparation of technical memorandums evaluating the replacement of three wastewater pumping stations, modifications to the storm drain system at the wastewater treatment plant, development of design criteria for evaluating future upgrades to the wastewater treatment plant, the evaluation of disinfection alternatives to gaseous chlorine, the evaluation of grit and screening alternatives, and evaluating replacement of the existing trickling filters with a package activated sludge treatment system.

Parallel Force Main - Corte Madera, CA. Project Manager for the investigation, design, and construction services of approximately 4,500 LF of sanitary sewer force main. The force main was constructed using sliplining and horizontal directional drilling methods. The project included a crossing with a high pressure gas main, and tie-ins to three existing pump stations and an active force main. Coordination with two cities, the public, a residential association, and PG&E was implemented during construction.

House Sewer Line Cost-Share Program Evaluation and Implementation Assistance, City of Modesto - CA. Project Engineer for the evaluation of the City of Modesto House Sewer Line Cost-Share Program and the development of documents for improvements to the program. Work included coordination with three City departments, review of other similar programs, contacting sewer lateral insurance providers, development of recommendations for modifications to the program, and development of program materials to implement the recommendations.

WQCF Schedule C Solids Handling, City of Manteca - CA. Project Engineer during construction. Served as the main contact for the City, construction manager, and contractor for submittal review, responses to requests for information, addressing field issues, and attendance at weekly meetings. Project included design and construction of a mechanical dewatering building (including dewatering equipment), sludge blending tank, shop-maintenance building, locker room building, and relocation of a high-solids sludge centrifuge dewatering system.

WQCF Schedule D Effluent Filtration/UV Disinfection, City of Manteca - CA. Project Engineer. Prepared plans, specifications, and estimates for pumping and tertiary filtration facilities for expansion and upgrade of a 20-mgd wastewater treatment plant. Provided engineering support during construction of the facilities.

WQCF Operation and Maintenance Manual, City of Manteca - CA. Project Engineer. Prepared an operation and maintenance manual for a 19-mgd wastewater treatment plant. Manual included sections on monitoring and reporting requirements, facility description, electrical and instrument controls, operational procedures, process evaluation and control.

Recycled Water Pond Evaluation, City of Santa Rosa - CA. Project Engineer. Evaluated options for increasing the capacity of recycled water storage ponds for the City of Santa Rosa, to address storage deficiencies within the recycled water system.

Evaluation of Biosolids Processing Alternatives, Town of Windsor - CA. Project Engineer. Evaluated four biosolids processing alternatives for the Town of Windsor wastewater treatment plant.

Jet-Vac Dump Site Improvements, City of Modesto - CA. Project Manager for preliminary engineering and final design services (plans, specifications, and estimates) for the conversion of an abandoned concrete structure to a vactor truck unloading area at the City of Modesto Sutter Avenue Primary Treatment Plant. Improvements included demolition, drainage system improvements, underground piping, and site lighting.

FY 2011-12 Pump Station and Force Main Improvements - Corte Madera, CA. Project Manager for the reconstruction and rehabilitation of three pump stations, replacement of 1,200 LF of 8-inch force main, and renovation of electrical/SCADA systems. The major pump station reconstructed as part of the project consisted of replacing an existing wet pit-dry pit pump station, constructed in the 1950s, with a duplex submersible pump station.

Water Reclamation Plant Operation and Maintenance Manual, Town of Windsor - CA. Project Engineer. Assisted in the preparation of an operation and maintenance manual for a wastewater treatment facility.

National Pollutant Discharge Elimination System (NPDES) Permitting Assistance, Town of Windsor - CA. Project Engineer. Prepared NPDES waste discharge permit application package for expansion of the treatment facility and addition of water recycling uses for the Town of Windsor Water Reclamation Plant.

Lathrop Sanitary Sewer Management Plan - Lathrop, CA. Project Engineer. Evaluated the capacity of the sewer system in Historic Lathrop by developing a hydraulic model and executing the model for peak flow conditions. Tasks included calibration of the model with historical flow data, identification of capacity enhancement measures for inclusion in the capital improvement plan, and documenting the work in Element 8 of the City's Sanitary Sewer Management Plan (SSMP). Additionally, provided peer review services for the SSMP.

Central Marin Sanitation Agency Interceptor Network Hydraulic Model Update - Marin County, CA. Project Engineer. Updated the interceptor network hydraulic model for CMSA to model the major pump stations and force mains owned by the member agencies (Ross Valley Sanitary District, San Rafael Sanitation District, and Sanitary District No. 2 of Marin County). Project included coordination with the three member agencies and general manager of CMSA. Model consisted of 20 pump stations and over 14 miles of force main. Project goal was to determine the potential maximum flows to the wastewater treatment plant during wet weather events to minimize the potential for violating NPDES permit requirements.

Manteca Wastewater Collection System Master Plan, City of Manteca - CA. Project Engineer for completing an update to the City's Wastewater Collection System Master Plan. The master plan: 1) Addressed changes associated with the updated City General Plan; 2) Revised the buildout trunk sewer alignment to accommodate the expanded service areas, 3) Identified potential excess capacity and/or capacity limitations in the existing collection system; 4) Developed hydraulic models for evaluating the interim use of the existing sewer system prior to construction of buildout trunk sewers; and 5) Included a phased capital improvement plan (CIP) that provided appropriate infrastructure to support growth while remedying existing system deficiencies.

Manteca North Trunk Sewer Design - Manteca, CA. Project Engineer. Assisted with the preparation of plans, specifications, and cost estimates for approximately 3,500 LF of 60-inch PVC-lined reinforced concrete pipe and 1,300 LF of 36-inch. The design included coordination with the City, local utilities, and the South San Joaquin Irrigation District. Project included a bore and jack section beneath a high traffic area and design modifications to address conflicts with current and future City projects.

Tara Park Wastewater Pump Station - Manteca, CA. Project Engineer for the design of a 23-ft deep concrete wastewater pump station. The 4.2-mgd wet well-dry well pump station consisted of two levels located below ground approximately 15 feet below the ground water table. Design included standby power and odor control facilities.

Northside Secondary Clarifier Flow Equalization Project - Manteca, CA. Project Engineer for the design and construction of a concrete distribution structure to equalize flow to three secondary clarifiers. Project included connections to existing structures and piping, installation of weir gates, and coordination with plant operations.

Wastewater Discharge Evaluation - Modesto, CA. Project Engineer. Conducted an investigation for an industrial facility to determine source of large solids in the wastewater discharged from the facility. Investigation included a site tour and preparation of a summary letter detailing recommended follow-up activities. Following review of the letter, the facility was able to determine the source of the solids.

Wastewater Treatment Plant Expansion, Town of Windsor - CA. Project Engineer. Assisted in design of a \$7 million three phase project to double to treatment capacity of a wastewater treatment plant. The work included producing specifications, drawings, and cost estimates for secondary, tertiary, and biosolids treatment processes.

Water Recycling Engineering Report, Town of Windsor - CA. Project Engineer. Prepared an engineering report for the use of recycled water for front yard and backyard irrigation in a residential housing development within the Town of Windsor.

Riverbank Pond T-4 Improvements Project - Riverbank, CA. Project Engineer. Prepared plans and specifications for the installation and replacement of gates in existing structures, improvements to existing structures, replacement of a 30-inch pipeline, and a vector truck receiving station. Improvements were a phase of an overall plan to address maintenance and operations issues at the treatment plant

Montego Bay Waste Stabilization Ponds - Montego Bay, Jamaica. Project Engineer. Produced an operation and maintenance manual; investigated possible causes of odor, and reviewed design drawings and calculations for a wastewater pond treatment system.

Water Engineering

Water System Condition Assessment, Sierra Park Water Company - Tuolumne County, CA. QA/QC. This project involved a water system condition assessment that identified any existing supply, storage, and distribution system deficiencies and compliance issues. Responsible for reviewing the draft report.

Turner Academy Water Treatment Upgrades, Lodi Unified School District - Lodi, CA. Project Engineer. Prepared a revised flow schematic for the Turner Academy Water Treatment Plant.

Wykoff Booster Pump Station Expansion Preliminary Design Report - Vacaville, CA. Project Engineer for the preparation of a preliminary design report for a 150 horsepower booster pump station located in a residential neighborhood. The report included an evaluation of six site layout alternatives to ensure that impacts to neighbors were minimized and staff operation and maintenance requirements were met.

Wykoff Booster Pump Station Expansion Design - Vacaville, CA. Project Engineer. Assisted in the design of a potable water booster pump station to meet fire flow requirements. Design included a building with residential features to minimize neighborhood impacts, re-routing of residential utilities, and extensive site grading.

Peer review for Municipal Well No. 8 and Appurtenances - Livingston, CA. Project Engineer. Reviewed plans, specifications, and cost estimate for addition of a nitrate removal system which was added to a municipal well.

Cuesta Heights On-site and Off-Site Booster Pump Station Preliminary Design - Tuolumne County, CA. Project Engineer for the design of on-site and off-site booster pump stations to serve a proposed development. Work included coordination with the Tuolumne Utilities District, developer, and PG&E (for electrical service).

Water Infrastructure Improvements Preliminary Design Report and Phasing Plan - Fresno County, CA. Project Engineer. Prepared a preliminary design report for the design of water infrastructure improvements including a potable water storage tank, booster pumping station, and piping improvements to serve proposed facilities at a rancheria. Report included the development of design criteria, preliminary site and building layouts, HMI/SCADA information, a design and construction schedule, and phasing plan to ensure uninterrupted water service during construction and commissioning of improvements.

Water Treatment Plant Preliminary Design Report - Fresno County, CA. Project Engineer. Prepared a preliminary design report to establish the basis for a water treatment plant to satisfy projected water demands and increase water supply reliability for a rancheria. The report included a review of regulatory requirements, historical water quality data, development of design criteria, researching applicable technologies, development of a site plan and hydraulic profile, description of treatment plant components, a project implementation schedule, and discussion of potential construction sequencing issues.

SB610 Report, Mossdale Landing South - Lathrop, CA. Project Engineer. Prepared a Water Supply Assessment Report for a proposed residential development in the City of Lathrop.

Stormwater

Storm Drain Conveyance Analysis, City of Newman - CA. Project Engineer. Prepared a technical memorandum which summarized the results of review and engineering analyses conducted for the conditions at Inyo Drain and Sherman Park Basin. Recommendations and estimates were provided.



education

M.S., Civil Engineering, University of the Pacific

B.S., Civil Engineering, University of the Pacific

years with Black Water

1.5

years with others

0

registrations

*Engineer-in-Training:
California #157507*

affiliations

Order of the Engineer

Bao Cha has over a year of experience in civil engineering specializing on water and wastewater systems. Prior to joining Black Water Consulting Engineers, she completed an internship at a wastewater treatment plant. During her time at the wastewater agency, she worked on various projects which involved providing recycled water to the community and updating the recycled water system. At Black Water, Ms. Cha has been involved in a wide variety of water and wastewater projects assisting in analyses, report production, hydraulic models, and application processes for securing state revolving funds.

Project Experience

Water Engineering

DWSRF Mobile Home Park Water Meter Improvements, Santa Nella County Water District - Santa Nella, CA. Assistant Engineer. The project consists of replacing the water and sewer pipelines and installing remote read water meters at 264 of Santa Nella’s Mobile Home Park locations. Reviewed California fire flow requirements for commercial buildings.

Water Master Plan, Santa Nella County Water District - Santa Nella, CA. Assistant Engineer. Assisted with the preparation of a water master plan to evaluate the existing water supply, treatment distribution and storage systems to ensure that SNCWD has adequate facilities to support future growth, goals, and policies. The water master plan will provide design guidelines for water infrastructure to serve future developments and guidelines for future policy documents.

Refuge Level 2 Exchange with SLWD, San Luis Water District - Stevinson, CA. Assistant Engineer. Provided groundwater and surface water sampling, weekly flow meter readings, groundwater surface elevation measurements, data analysis, and monthly reporting. Assisted with the preparation of the final report.

DWSRF Water System Improvements, Curtis Creek Elementary School District - Sonora, CA. Assistant Engineer. Provided engineering planning services for the Safe Drinking Water State Revolving Fund Application. Improvement alternatives were developed to determine strategies and phasing for future improvements to the existing water system that identified system deficiencies that include inadequate source and storage capacity and a non-compliant fire system. Assisted with the preparation of the construction application for submittal to the State.

DWSRF Mobile Home Parks Consolidation Water Main Extension, Keyes Community Services District - Keyes, CA. Assistant Engineer. Secured the construction funding for Keyes Community Services District (CSD) through the SWRCB DWSRF program for water pipeline extensions to consolidate out of service boundary mobile home parks with non-compliant water systems with the Keyes CSD water system. Assisted with the jack and bore design and provided plan review.

On-Call Water Analyses, City of Tracy - CA. Assistant Engineer. Conducted various analyses to verify the condition and capacity of the existing water system to serve planned development and connections to the water system. Responsibilities included developing hydraulic models and preparing the technical memorandum for the McLaughlin Industrial Warehouse; and developing the hydraulic models for the Hilton Home 2 Suites.

Potable Water System Upgrades, Sierra Park Water Company - Tuolumne County, CA. Assistant Engineer. Providing funding application services and detailed design services for improvements to the Sierra Park Water System.

Valley Gateway Travel Center, PM Design Group - Madera County, CA. Assistant Engineer. Designed a new domestic well, water storage tank, and septic tank/leach field for the Valley Gateway Travel Center.

Water System Improvements for Domestic Water System at the Westley Migrant Center, Housing Authority of the County of Stanislaus - Westley, CA. Assistant Engineer. Provided engineering design services for construction of the recommended improvements to refurbish Well #2 and the installation of a new pump and motor at Well #2. Assisted with the preparation of the technical memorandum.

DWSRF Mountain House Well Replacement, Mountain House Elementary School District - Byron, CA. Assistant Engineer. Assisted with the submission of an application package to secure funding for a new well. Responsibilities included assisting with the filing of the Notice of Exemption and the Interim Emergency Drinking Water Application submission.

Wastewater Engineering

CWSRF Recycled Water Project, Santa Nella County Water District - Santa Nella, CA. Assistant Engineer. Assisted with the application submittal to secure funding for the completion of a feasibility study to evaluate the existing wastewater treatment system and identify improvements to produce, store, and distribute disinfected tertiary recycled water.

Wastewater Master Plan, Santa Nella County Water District - Santa Nella, CA. Assistant Engineer. Assisted with the preparation of a wastewater master plan to evaluate the existing wastewater collection, treatment, and disposal facilities and ensure that SNCWD has adequate facilities to support the anticipated growth, goals, and policies. The document provides a plan for operations, maintenance, and replacement of existing infrastructure and to accommodate growth and development for the 10-year and 25-year planning horizons.

CWSRF Wastewater Treatment Facilities Planning Tuolumne City Sanitary District - CA. Assistant Engineer. Black Water was tasked with evaluating the existing wastewater treatment facilities to determine optimum strategies to improve efficiency of operations and treatment methods. Black Water reviewed existing and potential regulatory requirements for the WWTP, conducted a site evaluation of current operations and facilities, and an analysis of existing and projected flows. Assisted with the preparation of the Project Engineering Report and the Report of Waste Discharge.

Wastewater Treatment Facility Corrective Action Assistance, City of Escalon - CA. Assistant Engineer. Identified the corrective actions necessary and prepared a Corrective Action Report to respond to the Tentative Cease and Desist Order issued to the City's WWTF by the Regional Board. Responsible for the preparation and updating of the monthly odor monitoring reports.

Sanitary Sewer I&I Study, City of Patterson - CA. Assistant Engineer. Conducted an analysis evaluating collection system flow data obtained from City flow monitoring facilities at select manholes and identified which segments of the analyzed portion of the collection system were most likely contributing to I&I observed at the WQCF. Created sewer and storm system exhibits for City of Patterson.

Crows Landing Industrial Business Park Sewer Project, City of Patterson - CA. Assistant Engineer. Prepared a technical memorandum evaluating the potential impacts of the CLIBP project to the City of Patterson's wastewater collection system and Water Quality Control Facility. Responsible for the development of the City of Patterson sewer model.



education

*M.S., Environmental Engineering,
University of California, Berkeley*

*B.E., Water Supply and
Wastewater Engineering, Tongji
University, China*

years with Black Water

<1

years with others

0

registrations

*Engineer-in-Training:
California #158673*

Jiaqi Li is a recent graduate from the University of California, Berkeley where he received his Masters in Environmental Engineering. His undergraduate degree was obtained in Water Supply and Wastewater Engineering from Tongji University, located in China. During his studies, he specialized in water/wastewater and engineering analysis. Mr. Li gained solid knowledge of environmental engineering, especially in water, through courses in water quality engineering, water resources, environmental fluid mechanics and hydrology, as well as academic visits to water/wastewater treatment plants in China, Canada, and the U.S. He is familiar with developing modelings and AutoCAD drawings, and preparing reports and presentations.

Project Experience

Wastewater Engineering

CWSRF Wastewater Treatment Facilities Improvements, Jamestown Sanitary District - Jamestown, CA. Assistant Engineer. Providing final design and construction management services for the modifications to the existing wastewater treatment plant site and improvements at the JSD Quartz Reservoir site. Responsibilities include the preparation of the Report of Waste Discharge and the Title 22 report.

CWSRF Collection System Planning, Tuolumne City Sanitary District - CA. Assistant Engineer. Evaluated TCSD’s existing sewer collections system and determined future improvements for reliable operation and compliance with California Regional Water Quality Control Board regulations. Reviewed the Project Report and the construction alternatives analysis technical memorandum.

CWSRF Wastewater Treatment Facilities Planning, Tuolumne City Sanitary District - CA. Assistant Engineer. Tasked with evaluating the existing wastewater treatment facilities to determine optimum strategies to improve efficiency of operations and treatment methods. Black Water reviewed existing and potential regulatory requirements for the WWTP, conducted a site evaluation of current operations and facilities, and an analysis of existing and projected flows. Assisted with the preparation of the Engineering Report and the Report of Waste Discharge.

Standards and Details, Tuolumne City Sanitary District - Tuolumne, CA. Assistant Engineer. Development of the District’s standard drawings and details to be referenced only in submittal of construction plans for District review.

Water Engineering

Parkway South Water Supply, Santa Nella County Water District - Santa Nella, CA. Assistant Engineer. Two subdivision developments, Parkway and Parkway South, comprising of 533 low density residential units have applied for water services within the SNCWD. Black Water evaluated the existing water system to provide improvement recommendations for reliable water supply and service within the Parkway and Parkway South developments. Responsible for agency coordination and permitting.

Recycled Water Engineering

Recycled Water System Compliance, Greenhorn Creek Resort - Angels Camp, CA. Assistant Engineer. Black Water is preparing a Reclaimed Water Discharge Report in response to a Notice of Violation reporting unauthorized discharge of Title 22 reclaimed water to Angels Creek. Additionally, plans and specifications will be prepared for the automatic shutoff of the reclaimed water transmission line in the event a pressure drop (pipe break) occurs. Responsible for the creation of the plans and specifications, and prepared a cost estimate.



years with Black Water

5

years with others

37

Larry Kram has over 40 years of experience in utility management, construction, and related fields. His background includes being a land title examiner, an ink and mylar draftsman and then graduating to computer aided drafting. He has worked for various public water and sewer agencies as an engineering assistant doing plan checks and field investigation and research. He works as a field inspector on various projects and is well versed in working with clients, contractors, construction management and keeping projects on track and on time. His roles include construction inspection, utility planning, constructability review, database development for asset management, and utility right-of-way acquisition.

Project Experience

Inspection / ROW Agent

2016-2017 CIP, Jamestown Sanitary District - Jamestown, CA. Project Inspector/ROW Agent. This project involves the replacement of approximately 900 lineal feet of sewer piping. Provided project inspection services and right-of-way assistance.

CWSRF Wastewater Treatment Planning Evaluation, Jamestown Sanitary District - Jamestown, CA. Project Inspector/Property Agent. The JSD provides wastewater collection and secondary treatment at the existing wastewater treatment plant for a population of 3,400. As District Engineer, Black Water’s typical duties include wastewater facilities planning and design, rate studies, plan check, development of standards, compliance reporting with the Regional Water Quality Control Board, grant writing and other funding applications. This project consisted of the evaluation of the existing WWTP and determining future improvements. Black Water organized and prepared the CWSRF planning application for the JSD. Responsibilities included project inspection services, public outreach, and coordinated with appraisal agents and property owners.

2013 Sewer Line Rehabilitation/Replacement Project CDBG #12-CDBG-8421, Jamestown Sanitary District - Jamestown, CA. Construction Inspector. Provided construction inspection and management for rehabilitation and replacement of approximately 7,400 LF of 6 to 8-inch sanitary sewer pipe. Coordinated the daily efforts of environmental, cultural resources, arborist, Cal-Trans, Tuolumne County, and agency staff with the pipeline contractor to ensure the requirement of the project funding and specifications were complied with. Acted as the JSD liaison with residents and customers affected by the project. Scheduled and directed weekly progress meetings, prepared daily reports, and maintained the project punch list.

DWSRF Water System Improvements, Curtis Creek Elementary School District - Sonora, CA. Project Inspector. Black Water provided engineering planning services for the Safe Drinking Water State Revolving Fund Application. Improvement alternatives were developed to determine strategies and phasing for future improvements to the existing water system that identified system deficiencies that include inadequate source and storage capacity and a non-compliant fire system. Performed field inspection of tank and proposed route.

CWSRF Wastewater Collection and Treatment Systems Evaluation and Planning Improvements, Westley Community Services District - Westley, CA. ROW Agent. This project consisted of the evaluation and planning of improvements to the District’s wastewater collection and treatment systems. Black Water prepared and submitted the CWSRF planning application for Westley CSD that included preparation of the general, technical, environmental, and financial packages for evaluation of the wastewater treatment plant. Contacted property owners, and provided right-of-way assistance and agency coordination.

Non-Potable Well Engineering Services During Construction, City of Patterson - CA. Project Inspector. Provided engineering services during construction for the non-potable well and well site infrastructure construction phases. These services include monitoring the progress and performance of the construction contractors for conformance with contract documents.

Jennings Road Wastewater Treatment Plant Follow-up Monitoring Well Investigation, City of Modesto - CA. Field Inspector. Assisted the City with surveying and video inspecting twenty-one groundwater monitoring wells located at the Jennings Road Wastewater Treatment Plant.

2014 Ward and American Eagle / Hartley and Walnut Intersection Projects, City of Patterson - CA. Project Inspector. This project consisted of the replacement of two intersections comprising signalization, water, sewer and storm drain utilities, roadway construction, and pavement and concrete placement. Prepared daily inspection reports, weekly statements of working days, and other forms as required for the federally funded projects. Reviewed contractors work for conformance with the engineering plans and directed the coordination efforts between the contractors, engineers, and City for design revisions, materials tracking, pay requests, and project closeout documents, including record drawings.

Ebbetts Pass Reach 3A Water Pipeline Replacement Project, Calaveras County Water District - CA. Right-of-Way Agent. Contacted private owners and business owners to acquire easements to relocate portions of a new waterline. Responsible for the title reports on a number of parcels.

Roundabout Inspections - Del Puerto Ave. and North Salado Ave., City of Patterson - CA. Construction Inspector. The City of Patterson received grant funding for the rehabilitation of two existing roundabouts within the city. The project also included the addition of splitter islands at both sites to enhance traffic and pedestrian safety at the two locations. Prepared daily reports, tracked materials deliveries, construction change orders, and submittal of project closeout documents, including record drawings to City staff.

First and Walnut Traffic Light Installation and Intersection Improvements, City of Patterson - CA. Construction Inspector. The project consisted of adding traffic signals at this intersection. The project included widening of First Street in two locations, removing and relocating an existing storm drain inlet, installation of curb and gutters at two corners of the project, and paving the widened sections on First Street and a portion of Walnut Avenue.

2011-2012 Amazon Fulfillment Center, City of Patterson - CA. Construction Inspector. Provided construction inspection of all on-site and off-site utility and roadway improvements for the construction of the 1-million square foot warehouse fulfillment center. Inspection tasks included confirming line and grade of water, sewer and storm drain pipelines, installation and maintenance of BMP's for runoff control, roadway improvements, and paving and concrete work within the public right-of-way. Provided daily reports to the City of Patterson. Coordinated with City staff, construction foremen and engineering staff to insure proper installation of facilities.

2004-2011 Jamestown Sanitary District Engineering Assistant - Jamestown, CA. Engineering Assistant. Mr. Kram assisted the JSD with planning, right of way acquisition, permitting, bidding, and construction inspection, for various capital improvement projects throughout this period. He also developed the asset management database for compliance with SSMP requirements and to assist JSD staff with a better way of tracking operations and maintenance work on the sewer collection system.

1990-2004 Tuolumne Utilities District Engineering Assistant - Tuolumne, CA. Engineering Assistant. Mr. Kram assisted engineering staff on the development and right of way acquisition for various water and sewer pipeline projects. During project construction, he provided periodic inspection of the contractors work for conformance the project plans and specifications, organized construction progress meetings with the contractor and District engineer, and reported on construction schedules and budgets for the District.

GIS Development

Wastewater Master Plan, City of Oakdale - CA. GIS. Assisted with the City of Oakdale's CIP rate study and prepared a wastewater master plan that evaluated the existing wastewater collection, treatment, and disposal facilities. Prepared GIS files and exhibits for collection system network.

Water & Sewer Company Transfers

Mr. Kram has extensive experience in water and sewer company transfers. He performed all field inspections of all facilities, wells, tank sites, treatment plant site, and any other property owned by the water company. Mr. Kram worked with surveyors to determine all corners of properties, making sure all facilities were located within the correct property. Responsibilities also included the creation of all documents pertaining to the transfer of water system, agreements, transfer documents for transferring of easements, grant deeds and title reports for real property, and lists of any equipment and vehicles being transferred. Additionally, he transferred records from the water company to the district, customer lists, billing information, and maps. Mr. Kram also corrected any access problems found during inspection of water company facilities or sites. The following are clients who were assisted in water and sewer company transfers:

- Sugar Pine Water Company
- Soulsbyville Water Line Association
- Valley Vista Water Company
- Gibbs Ranch Water and Sewer
- Big Hill Water System
- Apple Valley Water System
- Portions of Crystal Falls Water System
- Tuolumne County Water System

education

B.S., Entomology, University of California - Davis, 1980

registrations

Registered Environmental Health Specialist

Certified Lead Inspector / Assessor

Adrienne Ellsaesser has over 35 years of regulatory work that required interpreting and enforcing local codes and ordinances, California state standards, regulations and statutes, and Federal laws to obtain compliance by regulated owners of permitted facilities.

Project Experience

Black Water Consulting Engineers, Inc. - Modesto, CA

Technical Advisor, Registered Environmental Health Specialist (R.E.H.S.)

- Advise staff on regulatory requirements and processes that affect the projects they are designing.
- Work on complex projects that must comply with stringent regulatory requirements to ensure their successful outcome.

San Joaquin County Environmental Health Department - Stockton, CA

Program Coordinator, R.E.H.S.

- Manager of Local Over Sight Program – Regulated owners/operators for the cleanup of petroleum products leaked from their underground storage tanks. Managed a grant of \$2,191,783 over a course of three years and earned an excellent review rating by the State’s Controller’s Office; achieved closure of over 100 contaminated sites by my staff, with concurrence from the Regional Water Quality Control Board for their closure during this time.
- Manager of Site Mitigation Program – Regulated owners/responsible parties for the clean- up of hazardous materials they spilled on or in the ground. Upon receiving favorable soil results as being properly cleaned and the site closed by my staff, the property owners were finally able to obtain bank loans for development of these sites.
- Manager of Small Public Water Systems (SPWS) – Permitted and regulated the operation of a SPWS that serves drinking water to recreational parks, restaurants, schools, businesses, hospitals, or communities; to ensure a reliable source of pure clean drinking water was being served at all times to the water customers.
- As the Department’s representative and expert in groundwater and SPWS issues I was asked to participate in: State Water Resources Control Board (SWRCB) Total Coliform Rule Revision Committee; Water Well Technical Advisory Committee, SJC Advisory Water Commission, and SJC Agriculture Drought Task Force, and our Local Agency Management Plan (LAMP) development.

Lead Senior, R.E.H.S.

- Local Primacy Agency Lead Staff – Responsible for meeting performance measures of the SWRCB Delegation Agreement and enforcement of the SPWS Program. The SWRCB annually evaluates this program, and reported every year that all performance measures were being met. I was recognized as having one of the best SPWS Program in the state. This qualified the SPWS Program to receive a \$760,000 grant to support operation of the program.

Stanislaus County Department of Environmental Resources - Modesto, CA

R.E.H.S. Inspector

- As a Generalist Inspector - Inspected and enforced appropriate codes, standards, regulations and laws that pertained to construction, maintenance, and operation of water wells, septic systems, food facilities, public swimming pools, water slides, rental substandard housing, land development; and responded to nuisance complaints and illegal disposal of dead animals, manure and solid waste to verify, collect evidence, and issued notices to abate. Referrals of non-compliance were made to the District Attorney Office for further legal actions.

BLACKWATER
CONSULTING ENGINEERS, INC.

605 STANDIFORD AVE, STE. N
MODESTO, CA 95350
P: 209.322.1820 | F: 209.222.4088
www.blackwater-eng.com

**Black Water Consulting Engineers, Inc.
District Engineering Hourly Rate Schedule
(Effective 1/1/2018)**

ENGINEERING:

PRINCIPAL ENGINEER	\$180.00
SENIOR ENGINEER / PROJECT MANAGER	\$165.00
ENGINEER-IN-TRAINING (EIT)	\$125.00
ASSISTANT ENGINEER	\$105.00
CAD TECHNICIAN	\$85.00

FIELD SERVICES:

CONSTRUCTION INSPECTION	\$95.00
CONSTRUCTION MANAGEMENT	\$180.00

ADMINISTRATION:

COMMUNITY OUTREACH	\$145.00
OFFICE / CLERICAL	\$65.00

DIRECT COSTS: COST PLUS 10 PERCENT

SUBCONSULTANTS: COST PLUS 10 PERCENT

MILEAGE: IRS RATE

The above rate schedule is effective January 1, 2018 and is subject to adjustment January 1, 2019.



**STATEMENT OF QUALIFICATIONS
FOR DISTRICT ENGINEERING SERVICES**

**Prepared for
LAKE DON PEDRO COMMUNITY SERVICES
DISTRICT**

Submitted by:





5150 N Sixth Street, Suite 124
Fresno, CA 93710
Phone: 559.473.1371
Fax: 559.513.8449

July 11, 2018

Peter Kampa
General Manager
Lake Don Pedro CSD
9751 Merced Falls Rd.
La Grange, CA 95239

Re: Proposal for District Engineering Services

AM Consulting Engineers, Inc. (AMCE) is pleased to submit this Statement of Qualifications (SOQ) to provide engineering services to the Lake Don Pedro Community Services District (District). We appreciate the opportunity to submit this SOQ. We are confident that our firm is highly qualified to provide the services the District is seeking.

AMCE is a civil engineering firm located in Fresno that offers a wide range of professional services to public and private-sector clients. Our experienced team of carefully assembled professionals and technicians has enabled us to provide services that include district engineering, design and bidding services, project management, construction engineering, project planning, funding procurement, grant administration, surveying, and mapping.

Alfonso Manrique, P.E., is the firm's principal engineer and will be designated to serve in the capacity of District Engineer for the District. Alfonso Manrique has extensive experience as a District and City Engineer and has been providing engineering services to cities and special districts in the Central Valley for over eighteen (18) years. He has been the project engineer for a wide range of public works projects and has been instrumental in securing numerous grants for his clients. He is currently the City Engineer for the cities of Orange Cove, Huron, San Joaquin, Livingston, Newman and Gustine and District Engineer for the Groveland Community Services District.

AMCE will be supported by Central Valley Engineering & Surveying, Inc. (CVEAS). CVEAS president, Nick Sahota, PLS, has eighteen (18) years of surveying experience in roads, highways, bridges, subdivisions, airports, schools, railroads, photogrammetric, and GPS/GIS projects. CVEAS expertise includes the review of Record of Surveys, Parcel Maps, right-of-way, ALTA Survey, topography and lot line adjustments.

Our long-term client relationships are a testimony to our high level of competence, professionalism, work ethics, attention to detail, and responsiveness to clients. We believe that AMCE's experienced team is uniquely qualified to meet the District's engineering needs because:

- ❖ We have extensive knowledge of District Engineering, project design, bidding, and construction services
- ❖ We provide superior quality services in an efficient, timely and cost-effective manner

- ❖ We understand the current needs and challenges of small rural Districts
- ❖ We are successful in securing grants from numerous grant programs

We appreciate the opportunity to submit this proposal for your consideration and look forward to meeting with you. If you have any questions during the review of this SOQ do not hesitate to contact me at (559) 473-1371 or via e-mail at alfonso.manrique@am-ce.com

Very truly yours,

A handwritten signature in blue ink, appearing to read "Alfonso Manrique", with a long horizontal flourish extending to the right.

Alfonso Manrique, P.E.
President

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Section 1

FIRM OVERVIEW

1.1 INTRODUCTION

AM Consulting Engineers, Inc. (AMCE) is a civil engineering firm that provides a broad range of professional services. We are proud of our diversified expertise and ability to provide clients a full spectrum of services that include City/District Engineering, funding procurement, project planning and design, bidding services, project management and construction engineering services. Our staff includes six engineers, two designers, one inspector, and two administrative staff.

AMCE is a California Corporation that was established in 2010 by Alfonso Manrique who had the desire to provide a higher level of service that clients deserve. At AMCE, we are able to better focus our efforts on our clients, be more responsive to their needs, improve efficiency, and enhance cost effectiveness.

AMCE's founding philosophy was based on superior values of professionalism, competence, hard work ethics, attention to detail, value, and responsiveness to clients. AMCE is highly committed to client satisfaction and focuses on providing the personal attention that clients deserve and on delivering superior quality services in a timely and cost-effective manner. The firm's clients are primarily cities and special districts similar to the District. We have a clear understanding of the challenges that small rural communities face and have the knowledge and experience to successfully respond to those challenges. Our track record speaks for itself!

When projects require outside funding sources, as is mostly the case at the present time, we assist our clients in matching the project to available grant programs from federal, state, and local agencies. Clients are advised and guided through all stages of the process, from preparing and submitting applications, through grant closeout. We have been very successful with FHWA programs including CMAQ, RSTP, STPL, TE, TEA, SR2S and SRTS; and are very familiar with various other grant programs through SWRCB, CDBG, USDA, DWR, EPA and FAA.

Central Valley Engineering and Surveying (CVEAS) is comprised of 15 professional Surveyors, field crews and office technicians. CVEAS has provided land surveying services in the Central Valley for more than 18 years. CVEAS has performed Land Surveying and Mapping services for numerous municipal and private clients. CVEAS is dedicated to providing accurate, complete and quality surveys to meet the needs of the District. CVEAS' locally trained and experienced surveyors make all the difference in getting the job done. In addition to traditional boundary mapping, the firm performs Construction Staking, ALTA survey, Topographic Surveys, Horizontal/Vertical Control, GPS Surveys, Engineering Design Surveys, Utility Location Surveys, GIS, ALTA Surveys, Delineation of Research Plots, Spatial Reference Points, Aerial Mapping, Construction Staking, Cadastral Surveys, Monitoring Well Survey, FEMA Certification Survey.

CVEAS has the latest state of the art computers, software, and communication equipment for fast response and project turn around. CVEAS provides field personnel with the newest technology in GPS, Robotic Total Stations, and laptops to complete projects quickly and efficiently.

1.2 OUR COMMITMENT

AMCE is committed to putting its clients first and providing them the prompt and personal attention they deserve and that is required to complete tasks and projects in a timely manner. Team members of our firm are responsive and willing to go the extra mile to deliver superior quality services and build long term relationships. We have the in-house staff necessary to assemble a best suited and cost-effective team to perform virtually all District Engineering and Surveying tasks and most District projects.

AMCE is ready to dedicate the time and staff resources necessary to meet the District's immediate and long-term needs. We fully understand the importance of meeting deadlines and staying within budgets. Our knowledge, experience and familiarity with the processes that most projects have to go through enable us to remain efficient and minimize the time necessary to perform tasks. Through the years, Alfonso Manrique and his staff have developed many relationships with staff of regulatory and funding agencies that are involved in many City/District projects. These relationships help expedite reviews and approvals by agencies such as County, SWRCB, DWR, USDA, etc., which translate to time and money savings.

We believe our past performance confirms the above. A recent example of our level of commitment to our clients is the construction of the Groveland Community Services District (GCSD) Surface Water Treatment Plant. GCSD needed a new surface water treatment plant operational in nine months due to a change in water source. AMCE secured grant funding and designed the new surface water treatment plant on schedule and within budget.

At AMCE, we assign project tasks to team members in a way that maximizes efficiency and cost effectiveness. If appropriate, tasks will be assigned to an associate engineer or to a designer instead of a principal engineer to reduce costs. However, our strict quality control and assurance plan ensures that the final product is reviewed and approved by a principal engineer before it leaves our office.

In certain instances, we may suggest incorporating value engineering measures into a project if, by doing so, we feel that it provides significant savings but does not jeopardize the overall integrity and quality of the project.

During the planning and pre-design stages of a project, AMCE evaluates several alternatives, ranks them by cost effectiveness and makes recommendations to the client based on our experience and professional opinions.

We take pride in preparing Plans and Specifications that are technically correct, complete and clear. This in turn will usually result in lower bid prices, fewer requests for information from contractors, and fewer change orders during construction.

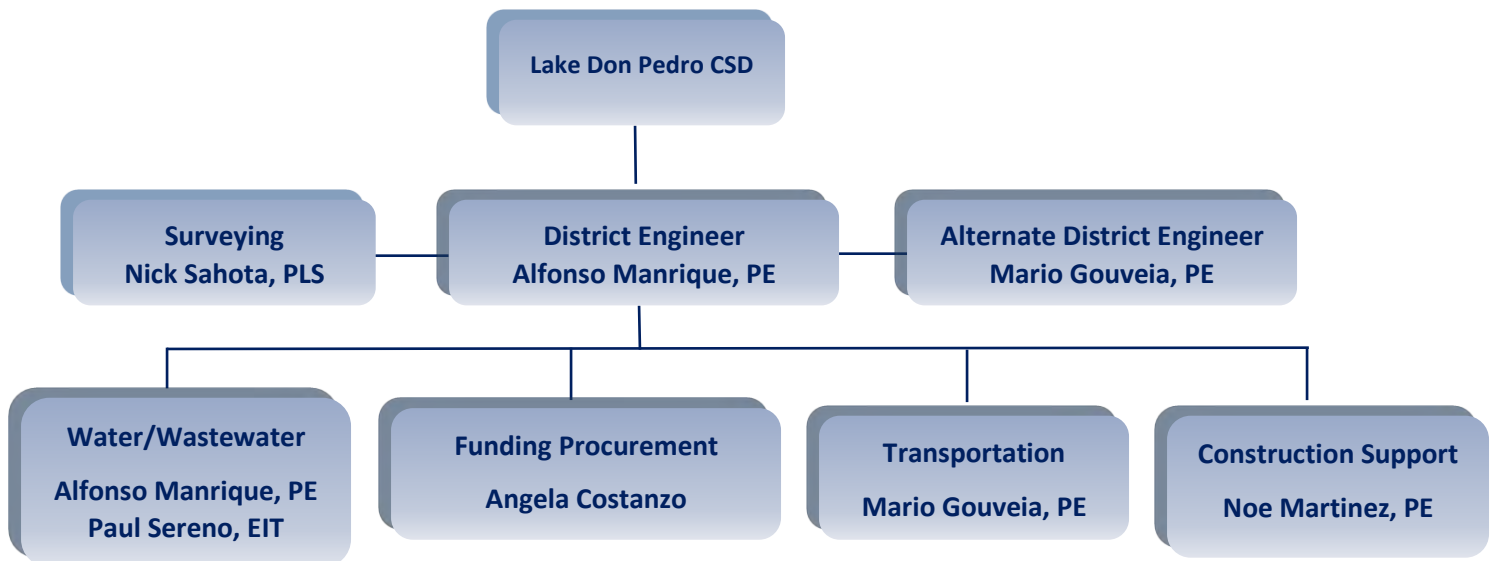
During the construction stage, AMCE keeps open lines of communication with both the client and the contractor to facilitate the resolution of any construction issues. We always look for ways to improve the final product that will result in further cost savings to the client.

Our proven team is able and ready to provide this same level of services to the District in a timely and cost-effective manner.

Section 2

AMCE’S TEAM

This Section provides an overview of AMCE’s committed team for this project. AMCE’s Team consists of a selected group of very talented and experienced engineers, each with a long record of success. Our team members take ownership of every project and take a personal interest in the successful completion of every project they participate in. The following organizational chart illustrates the team that is in place to immediately meet the engineering needs of the District.



It is proposed that Alfonso Manrique, PE be the District Engineer. He will be in responsible charge of all projects at AMCE and will be assigned to all the work for the District. He will be the primary contact for the District and will be assisted by other engineers and technicians. Mr. Manrique is a civil/environmental engineer with over 18 years of experience providing cities and special districts with a variety of engineering services. Mr. Manrique specializes in process design of water and wastewater treatment systems, preparing construction documents, preliminary design reports, feasibility studies, infrastructure evaluation reports, project reports, and sewer revenue studies.

Mario Gouveia, PE is proposed as the alternate District Engineer. He will assist the District Engineer as needed and will be responsible for Transportation Projects. Mario Gouveia has over 27 years of experience as a Civil Engineer. Mario Gouveia brings to his clients the knowledge and experience of a large firm with the personal attention and service of a smaller firm. Mario Gouveia has been the Project Engineer and Design Engineer for numerous public works projects, from small and simple to large and complex. In addition to his engineering expertise, he has developed the knowledge to assist clients in

matching projects to available grant and/or loan programs. He is very familiar with FHWA, Caltrans, USDA, CDBG, DWR, FAA, and other funding programs, from the application stage through project closeout.

Surveying services will be provided by Nick Sahota, PLS. His functions will include review of tentative subdivision maps, parcel maps, final maps, and legal descriptions for property transfers. Mr. Sahota will also be responsible for supervising field surveys, including topographic surveys, boundary surveys, and construction surveys/staking. Mr. Sahota has over 18 years as a land surveying experience, engineering support and preparation of various mapping. He will also lead the teams that produce mapping (subdivisions, parcel maps, record of surveys, ALTA, lot line adjustments, legal descriptions, elevation certificates etc.), right of way mapping, and construction surveying.

Water and wastewater related projects will be handled by Alfonso Manrique and, Paul Sereno, EIT. Mr. Sereno has three years of experience and works closely with Alfonso Manrique on most projects that are related to water and wastewater. Mr. Sereno’s expertise includes project management and the preparation of engineering reports, construction documents and construction support on various projects.

Noe Martinez has over 15 years of experience as a Civil Engineer. Noe started his career with AECOM (formerly Boyle Engineering) where he provided consulting services for various clients. At AECOM, he gained experience as a design engineer and project manager for a variety of public works projects ranging in size and complexity. Prior to joining Gouveia Engineering, he was the full-time City Engineer and department manager for the City of Reedley for four years. He currently serves as the Interim Public Works Director for the City of Livingston.

Section 3

QUALIFICATIONS

AMCE has the in-house expertise and ability to provide the full range of services and exercise all the duties required in the District's Request for Qualifications (RFQ). We are confident that our experience, diversified knowledge, attention to clients and successful track record makes AMCE uniquely qualified to meet the District's needs set forth in the RFQ which specifically include:

- ❖ Preparation of Engineering Reports and Technical Correspondence
- ❖ Design and Bidding Services
- ❖ Project Management/Construction Services (Public Improvement Projects)
- ❖ Project Management/Construction Services (Public Improvements within Private Development Projects)
- ❖ Federal Highway Administration (FHWA) Caltrans Required Services

AMCE's principal engineer, Alfonso Manrique, PE, has been providing engineering services to cities and special districts in Central California in various capacities for over 18 years. He has designed and managed numerous public works projects, and currently serves as the City Engineer for the cities of Orange Cove, Huron, San Joaquin, Livingston and Newman. Alfonso Manrique, PE is proposed as the designated District Engineer for the District, with Mario Gouveia, PE, serving as his alternate.

Following is an overview of our approach to provide the services listed in the RFQ based on the specific requirements of the District and on our experience with similar special districts.

In the capacity of District Engineer, we attend Board meetings as required, consult with the General Manager, Water Supervisor, Superintendents, and other department heads and staff to address any engineering questions and issues. We review and comment on proposed private developments within the District, evaluate and make recommendations on conditions of approval for the projects, and review and prepare reports, studies, etc., as applicable. AMCE also routinely prepares documents required yearly by federal and state funding agencies such as Quality Assurance Programs, DBE Plans, and ADA Compliance Programs. AMCE prepares the yearly Engineer's Report for special assessment districts such as Landscaping and Lighting Districts. We also have experience in creating these districts as new development occurs.

As District Engineer, AMCE acts as a liaison with other communities, County, State and Federal agencies as it relates to engineering issues and works closely with other departments within the District such as Public Works to evaluate, plan and coordinate the implementation of policies, creation of master documents, and construction of projects. AMCE assists in assessing and prioritizing the needs of the District and in generating cost effective solutions. That is typically done with Public Works to address improvements of streets, parks, water, sewer, and storm drainage systems.

Based on specific needs of the District, AMCE will perform field inspections, prepare feasibility reports, utilities studies, generate utilities modeling, and develop Improvement Standards, Master Plans, Capital Improvement Programs, Infrastructure Maps, etc. We will attend meetings as requested, make presentations, and address concerns. AMCE has extensive experience with all the tasks mentioned

above. We are currently preparing Sewer and Storm Drainage Master Plans and updating Improvement Standards for some of our clients.

On the surveying side, AMCE's subconsultant, CVEAS, will provide surveying services required for public improvements. We will also provide field surveying as requested by the District and required for design of capital improvement projects. Our survey subconsultant will collect field data and perform topographic surveys, ALTA surveys, construction staking, and any other surveying as required for the projects.

In addition to these standard District engineering services, AMCE has the collective ability and experience to handle a wide range of projects, from inception to completion. As examples, the firm designed a \$5 Million Dollar water system improvements project for the City of Gustine. This was a complex project that required multi-agency permitting and included a new municipal well, a one million gallons storage tank with booster pump station, distribution pipelines, and a fixed base radio read water metering system. We are currently designing a \$6 Million Dollar water system in Tuolumne County that includes over 7 miles of transmission and distribution waterlines and two booster pump stations. At the other end of the spectrum, we recently designed a small pavement restriping project valued at under \$25,000.

Our approach to a typical public improvements project begins with listening to and understanding the needs of the District. We evaluate several options based on the project scope and make recommendations to the District that, in our professional opinion, meet the District's needs and are cost effective. This may be done informally or through feasibility studies, pre-design reports, etc. Once the project scope is established, we assemble the best suitable project team, focusing on technical knowledge, cost effectiveness and ability to meet schedules.

Our staff is readily available to our clients, whether on the telephone, via email or in person. We pride ourselves on being approachable and maintaining open lines of communication. We are ready and available to our clients as necessary.

At the pre-design stage, AMCE will engage all agencies involved with the project and will initiate any required permitting. Our in-house survey department will collect all necessary field data, including topographic surveys as needed.

During the design stage, AMCE will generate Plans and Specifications that are not only technically correct and complete, but also clear and easy to follow. From past experience, clear and easy to follow Plans normally result in lower contractor bid prices and reduce the number of change orders. Another important factor during design is ensuring that operation and maintenance of the facilities will be as easy as possible. We understand that, once constructed, most facilities we design will be operated and maintained by District staff. District staff will review and comment on the Plans and Specifications at pre-established milestones during the design phase. Final design will incorporate District staff input.

Internally, AMCE will maintain the project on track by implementing its Quality Assurance/Quality Control (QA/QC) protocols. We establish a project management matrix that correlates staff utilization, budget, schedule, project critical path, target milestones, and deliverables for the duration of the project. We hold weekly or bi-weekly project team meetings to assess project status and make any required adjustments to keep the project on schedule and on budget. The Project Manager routinely monitors all internal project metrics to make those determinations.

Should unexpected changes in the scope arise, we will immediately inform the District and will work together with District staff to make whatever adjustments are necessary and minimize impacts to the schedule and budget.

AMCE will set up and coordinate advertising and bidding of the project and will assist the District with all the bidding documentation and tasks. We will prepare and distribute advertisements for bids to the legal publication selected by the District as well as to several Contractor Exchanges. We will reproduce the contract documents and provide them to prospective contractors as they are ordered. AMCE will answer Contractor's requests for information during the bidding period and will assist at the bid opening. We will review and evaluate all bids, will tabulate them in an abstract of bids, and will make a recommendation to the Board of Directors to award (or not award). Upon award, we will prepare, and process required documentation, will review bonds and certificates of insurance and will process the agreement for execution.

As the construction phase begins, AMCE will hold a pre-construction conference with the contractor, District staff, and representatives of agencies involved in the project. During construction, our survey crew will provide construction staking and our inspector will be on-site as needed to ensure the project is built according to the Plans and Specifications and to high standards of workmanship. Inspectors will be under the direct supervision of Alfonso Manrique. We do keep the District closely engaged during construction and immediately address any of their questions or comments and keep the General Manager and Board of Directors informed of construction progress as needed.

AMCE will prepare and maintain detailed documentation of construction progress, including daily reports, photographs and video of pre-construction conditions, construction activities, and post-construction conditions. We have found that photographs and videos help to reduce and resolve unfounded claims of damage attributed to construction activities. AMCE will prepare and process all construction contract documents including notices, progress payments, change orders, respond to requests for information, review progress estimates, and any other construction related documents. Upon completion of construction and after punch list items are satisfactorily corrected, AMCE will make a recommendation to the Board of Directors to accept the project and file a notice of completion. We will provide record drawings (as built) for the project and will maintain all the project records as required. Copies of all records will be provided to the District.

AMCE has successfully used the above project approach through the years for numerous projects of various types and proposes to continue taking this proven approach.

Specific fields of expertise of the firm include:

- | | |
|---|---|
| ❖ City/District Engineering | ❖ Storm Drainage |
| ❖ Master Plans | ❖ Irrigation Systems |
| ❖ Regulatory compliance | ❖ Construction Plans and Specifications |
| ❖ Public Works Standards and Specifications | ❖ Mapping |
| ❖ Feasibility Studies | ❖ Construction Engineering |
| ❖ Grant Procurement and Administration | ❖ Construction Observation |
| ❖ Hydraulic Modeling | ❖ Topographic Surveys |
| ❖ Water Quality & Treatment | ❖ Public Works Inspection |
| ❖ Wastewater Treatment | ❖ Construction Surveys |
| | ❖ Contract Administration |

AMCE has also developed strategic alliances with several firms that offer expertise in other specialized fields such as Electrical Engineering, Architecture, etc. Should the need arise, these firms are available to team up with AMCE and provide the District with the best suitable team for the project.

When outside sources of funding are needed, AMCE will assist the District in matching the project to available grant and/or loan programs from Federal and State agencies. We are able to assist the District through all stages of the process, from preparing and submitting applications, through design and construction, to successful completion and closeout. We have substantial experience with FHWA transportation grant programs administered through Caltrans Local Assistance, as well as other programs that include CDBG, USDA, and CDPH.

We have been instrumental in securing funding for many projects, from small amounts to 5 million dollars. Most recently, grant applications prepared and submitted by our office were successful, resulting in programming of a \$2,700,000 roundabout project on a State Highway, and of a \$350,000 pedestrian/bikeway project in the City of Gustine. Likewise, applications prepared by our office for the City of Firebaugh for the latest CMAQ/RSTP cycle resulted in the programming of several projects totaling 1.1 million dollars. That is the kind of expertise and track record that AMCE will bring to the District.

When projects involve construction of public improvements within a private development, AMCE will work closely with the General Manager, other District Staff and the developer to go over the project conceptual as it relates to engineering and infrastructure. We will assist with land use matters, processes and procedures, legal requirements, and District policies. AMCE will prepare reports to the Board of Directors, and others as necessary.

Once the project is conceptually approved, AMCE will assist the District in preparing the Development Agreement for the project; we will provide engineering conditions of approval addressing the extent of required improvements, phasing, sequencing, scheduling, fees, and reimbursement agreements if needed.

During the Improvement Plan process, AMCE will review and approve project plans, maps, specifications, and cost estimates for compliance with the Development Agreement, District Standards and policies, and legal requirements. The approved cost estimate/s will be used as a basis for bonding by the developer for construction of the improvements.

AMCE will provide construction inspection of the improvements based on the approved Improvement Plans. We will prepare and maintain detailed documentation of construction progress and will keep the District closely engaged and the Board of Directors informed as needed.

AMCE will monitor, report, and advise the District throughout the project regarding charges and revenues associated with the project to ensure financial accountability in terms of escrows, letters of credit, bonds, reimbursement agreements, dedications, etc. We will work with the General Manager to ensure that costs related to the project are charged back to the developer on a full cost recovery basis.

Section 4

RELEVANT EXPERIENCE

This Section highlights AMCE's relevant experience providing engineering services to cities and special districts in the Central Valley. Relevant experience of each member of the proposed team assembled to provide engineering services to the District as required in the RFQ is addressed in their respective resumes.

The following paragraphs contain a description of AMCE's relevant experience with city and special district Engineering Services, Municipal Water and Wastewater Engineering, Transportation Engineering Services, CDBG Implementation, and Public Facilities Engineering. Samples of projects by AMCE within the last three years (five years for FHWA / Caltrans), including ongoing and completed projects are contain within each category. Alfonso Manrique and Mario Gouveia were the project engineers for all these projects and were assisted by the same team members assembled for the District. AMCE was responsible for design, bidding services, construction management, contract and grant administration, and construction related services.

4.1 EXPERIENCE

This section presents a few relevant projects that highlight AMCE's team experience. Names and telephone numbers for each of the referenced projects are included at the end of this section.

4.1.1 GENERAL CITY ENGINEERING SERVICES

AMCE's team is very experienced in providing engineering services to cities and special districts. Mr. Manrique and Mr. Gouveia are currently providing contract engineering services to the Cities of Orange Cove, Huron, San Joaquin, Firebaugh, Livingston, Gustine, Newman, and Los Banos. In addition, Mr. Manrique is also District Engineer for the Groveland Community Services District.

The AMCE's team is qualified in all aspects of District engineering. Our team members can attend board meetings, prepare staff reports and resolutions, and provide monthly updates to the Board of Directors on all on-going projects that are handled by the District Engineer. If necessary, AMCE is able to provide contract services in other departments just as the Public Works Department. As an example, Mr. Noe Martinez acted as contract public works director for the City of Livingston until a new public works director was recruited.

4.1.2 MUNICIPAL WATER AND WASTEWATER ENGINEERING

AMCE's team is highly qualified in all aspects of municipal water and wastewater engineering. Our engineers are experts in planning and design of water distribution, sewer collection and water and wastewater treatment facilities.

Our engineers are familiar with the latest water and wastewater treatment technologies and product developments, regulations, and regulators, energy efficiency, and funding mechanisms to aid in the implementation of capital water and wastewater infrastructure. The following are a few municipal water and wastewater engineering examples:

Planada Community Services District – Wastewater Treatment Plant Improvement Project

Year Completed 2017



AMCE's team member Alfonso Manrique has been working with the Planada Community Services District since 2003 on a Wastewater Treatment Plant Improvement Project. The District operated under an NPDES permit that required tertiary treatment. However, the District's WWTP produced disinfected secondary effluent and the upgrade to tertiary treatment proved to be cost prohibitive for the District. An alternative method of effluent disposal was secured and the District switched to land disposal, and the NPDES permit was rescinded.

Mr. Manrique assisted the District through the various project phases including planning, environmental, permitting and design. Mr. Manrique prepared a feasibility study evaluating options for the District's treatment and disposal needs. Alternatives evaluated included tertiary treatment with surface water disposal, secondary treatment with agricultural reclamation and a connection to the City of Merced. The District's preferred alternative consisted of agricultural reclamation. AMCE is completing the preparation of construction documents and provided support during construction.

The project received mostly grant funding from the SWRCB CWSRF and USDA. AMCE prepared the required engineering reports and worked with the funding agencies to satisfy their requirements.

City of Orange Cove – Wastewater Treatment Plant Improvements

Year Completed 2015

The City of Orange Cove is an agricultural community in Fresno County that is located along the eastern foothills of the Sierra Nevada Mountains. The City of Orange Cove owns and operates a wastewater treatment facility (WWTF) that provides sewer treatment and disposal service for about 9,000 residents.

The WWTP consists of headworks, two extended aeration basins with Biological Nutrient Removal (BNR), two integral clarifiers (one on each basin), an aerated sludge treatment pond, lined sludge drying beds, and nine effluent storage ponds.

Treated effluent is used to irrigate pasture on City owned land.



Like many other WWTPs across the region, the City had an interest in exploring ways to reduce power usage at its WWTF, optimize the wastewater treatment process, and reduce the monthly energy bill. The City participated in the California Wastewater Process Optimization Program (CalPOP), a PG&E

program that provides technical assistance and financial rebates to municipal WWTPs for the implementation of energy efficiency measures.

As part of CalPOP AMCE prepared an Energy Audit that identified three energy efficiency measures (EEMs) along with the estimated savings and payback for each of the EEMs. The Facility Audit Report analyzed the capacity of the treatment process and means to optimize its performance.

The project included replacing aeration diffusers, a new turbo blower, a new primary clarifier mechanism, a new recirculated activated sludge pump station and a SCADA system. AMCE helped the City to obtain monetary rebates and zero interest financing for energy efficiency through PG&E.

Groveland Community Services District – Second Garrotte Surface Water Treatment Plant

Year Completed 2015

In 2014, Groveland Community Services District was informed by the San Francisco Public Utilities commission of the need to introduce a new source of water in the Mountain Tunnel that conveys water from Hetch Hetchy reservoir to the Bay area. GCSGD had benefitted from years of the filtration avoidance status of the Hetch Hetchy water. The new water source did not have a filtration avoidance permit and GCSGD faced the need to design and construct a surface water treatment plant before the new source was introduced. AMCE provided engineering services to GCSGD with regards to the design



of a new surface Water Treatment Plant using microfiltration membranes. The new SWTP was located at the existing Second Garrote site which was limited in space and does not have a sewer connection which made the disposal of backwash water problematic due to environmental restrictions. AMCE designed a spent filter backwash water reclaim system that reintroduces backwash water into the treatment system. The project was partially funded by USDA through the Emergency Water Community Assistance Grant Program. AMCE's ability to meet deadlines allowed completing this complex and challenging project in less than 9 months and \$500k under the original budget.

City of Livingston – Arsenic Treatment Systems for Well #13 and Well #17.

Year Completed 2015

The City of Livingston's source of supply is primarily groundwater. The City's water supply was facing significant challenges that included shortage in supply and water quality that exceeded the arsenic MCL at Well #13. The City received a Compliance Order that required treatment of Well #13. AMCE was retained by the City of Livingston to provide engineering services to design a 1,300 gpm arsenic removal treatment system and a new source of water supply (Well #17). The new source was also found to contain manganese and arsenic in concentrations above the MCL. A new 2,000 gpm treatment system for Well #17 was incorporated into Well #17.



Well #13 was completed 9 months ahead of the deadline in the Compliance Order and \$400k under the original estimated budget. AMCE assisted the City with pilot testing, equipment procurement and preparation of construction documents for the installation of the pre-purchased equipment.

City of Firebaugh – Beehive Drive and Helm Canal Waterline
Year Completed 2014

This project was funded by the City of Firebaugh and consisted of installing approximately 1 mile of PVC C-900 waterlines. Also included was the installation of numerous fire hydrants, water valves, water services, as well as pavement repairs. The project has a total construction budget of \$0.5 million.



Mario Gouveia was the project engineer and project manager and was responsible for all design, Plans, Specifications and Estimate (PS&E), and construction management. Danny Reed was responsible for pipeline design and preparation of PS&E, as well as with construction management. Linda Gouveia was responsible for bidding services and construction contract administration.

4.1.3 TRANSPORTATION ENGINEERING SERVICES

This section highlights our team’s experience with FHWA/Caltrans funded projects. Funding for most of these projects has been obtained by members of the AMCE Team working closely with the cities, County of Governments and Caltrans. Mario Gouveia was the project engineer and project manager and was responsible for all design, Plans, Specifications and Estimate (PS&E), and construction management; Danny Reed assisted in design and preparation of PS&E, as well as with construction management as the liaison between our office and our inspector; Linda Gouveia was responsible for bidding services and construction contract and grant administration in accordance with CalTrans Local Assistance guidelines.

City of Gustine – Highway 33/140 Roundabout
Year Completed Ongoing

This is a project of regional significance that will improve circulation on State Route 33/140 in the City of Gustine. The project is funded through a CMAQ grant and is the first step in the implementation of the City of Gustine State Route 140 Pedestrian-Bicycle-Motorized Transportation Enhancement Plan and consists primarily of construction of a roundabout on SR 33/140 where the highway changes from a N-S to E-W direction. Improvements include the realignment of South Avenue and Railroad Avenue, the roundabout, splitter islands with pedestrian crossing, curb and gutter and other drainage facilities, landscaping, hardscaping and safety lighting.



City of Firebaugh – 16th Street, “O” Street, and “Q” Street Reconstruction

Year Completed 2014

This project was funded by a RSTP grant. AMCE’s Team member, Mario Gouveia, prepared and submitted the grant application. The work consisted of pavement repairs on 16th Street, “O” Street, and “Q” Street, and included new curb and gutter, asphalt concrete overlays and removal and reconstruction of pavement structural section. The project received a total of \$0.7 million in grant funds.



City of San Joaquin – Colorado Avenue Reconstruction

Year Completed 2014

This project was funded by a RSTP grant. The work consisted primarily of reconstruction half mile of road by pulverizing the existing pavement, widening the roadway, constructing curb and gutter, and repaving the entire road. The project had a total budget of \$0.4 million.



City of San Joaquin – Main Street Overlay

Year Completed 2014

This project was funded by a RSTP grant and consisted of asphalt overlaying Main Street. The project encompassed approximately 3,000 LF of pavement overlay and had a total project budget of approximately \$0.2 million. The project was completed within budget and ahead of the proposed schedule.



4.1.4 CDBG IMPLEMENTATION

AMCE has worked on numerous on CDBG funded projects. AMCE is very familiar with all the federal and state requirements of CDBG. The following are some project examples of projects funded by CDBG that our team has completed.

City of Orange Cove – CDBG Funded Surface Water Treatment Plant Improvements

Year Completed 2017

The City of Orange Cove obtains its water supply from the Friant Kern Canal. Raw water is treated at a surface water treatment plant. The City’s SWTP consists of two separate Plants. Plant A consists of flocculation, gravity clarification, and media filtration. Plant B consists of two packaged upflow contact clarification and media filtration units. There are four filter cells in Plant A and two filter cells in Plant B. The treatment capacity of Plant A is 1,050 gpm (1.5 MGD) and the treatment capacity of Plant B is also 1,050 gpm (1.5 MGD).



The media filters are typically backwashed based every

24 hours. The WTP generates about 136,000 gpd in backwash water. Spent filter backwash water is discharged into an onsite basin with an overflow into the Orange Cove Drain that flows southwest through the City and ultimately discharges to the Alta Irrigation District East Main Canal. AMCE was retained by the City of Orange Cove to design a backwash reclaim system that would capture the entire volume of daily backwash and returned it to the influent wet well of the WTP. The backwash reclaim system utilizes a 150,000 gal steel-bolted tank with a floating decant system and a pump that is paced at a rate not to exceed 10 percent of the raw water flow. Settled solids are mixed and discharged into a sludge dewatering box.

City of Firebaugh – CDBG Sewer and Storm Drainage Improvements
Year Completed 2014

This was a CDBG funded project focused on reconstructing the sanitary sewer and storm drainage systems in an area of the City with poor drainage facilities and frequent sewer overflows. The work consisted primarily of installing new sewer collection trunk lines in a high density residential area, installing new storm pipelines, catch basins, and a storm drainage pump station. All streets were then repaved.

4.1.5 PUBLIC FACILITIES ENGINEERING

AMCE is also experienced in the design and construction of public facilities such as parks, public buildings, bike paths, etc. The following are two recent examples of public facilities that the AMCE team members have worked on.

City of Huron – New Police Station
Year Completed 2018

The City of Huron received a grant from the State of California 2016/17 Budget to construct a new Police Station. The City retained AMCE to design the new building. The design was completed in less than six months. AMCE worked with City staff, Police Department staff, Fresno County, State Department of Corrections, and CalFire to obtain all their approvals and reviews on time. AMCE is currently providing construction support on this project which is expected to be completed in June of 2018.

City of Livingston – Gallo Park Improvements
Year Completed 2015

This project was funded by a State Department of Parks and Recreation grant. Our office prepared and submitted a successful request to waive the 37% City match. The scope of the project included construction of an ADA accessible playground, a restroom building with ladies and mens facilities, three picnic areas with shade structures, benches, tables, grills, trash receptacles, and the planting of numerous trees and installation of sod.



4.2 REFERENCES

As requested in the RFP, the following are Client references to attest the quality of service that we provide. We encourage the District to contact any of our Client references. Additional references can be provided if needed.

1. **City of Huron**
36311 S Lassen Avenue
Huron, California 93234
Mr. Jack Castro, City Manager
(559) 647-9016
2. **City of San Joaquin**
21900 Colorado Avenue
San Joaquin, California 93660
Ms. Elizabeth Nunez, City Manager
(559) 693-4311
3. **City of Firebaugh**
1133 “P” Street
Firebaugh, California 93622
Mr. Ben Gallegos, City Manager
(559) 694-6166
4. **City of Livingston**
1416 C Street
Livingston, California 93622
Mr. Jose Antonio Ramirez, City Manager
(559) 394-8041
5. **City of Gustine**
352 Fifth Street
Gustine, California 95322
Douglas Dunford, City Manager
(209) 854-6471
6. **City of Parlier**
1100 E. Parlier Avenue
Parlier, California 93648
Sam Escobar, City Manager
(559) 646-3545
7. **City of Maricopa**
400 California St
Maricopa, California 93252
Eric Ziegler, City Administrator
(661) 769-8130
8. **City of Reedley**
1717 9th Street
Reedley, California 93654
Russ Robertson, Public Works Director
(559) 637-4200
9. **Groveland Community Services District**
18966 Ferretti Road
Groveland, California 95321
Peter Kampa, General Manager
(209) 962-7161
10. **Planada Community Services District**
103 Live Oak Street
Planada, California 93564
Daniel Chavez, District Manager
(209) 382-0213

Section 5

UNDERSTANDING AND SCOPE OF WORK

5.1 PROJECT UNDERSTANDING

The DISTRICT is located in Mariposa County, between Lake Don Pedro and Lake McClure in the Sierra Nevada Foothills. The DISTRICT provides water service to a rural residential subdivision of approximately 3300 parcels, nearly 1500 of which are active metered customers. The water system was built in the mid to late 1960's and has had relatively few infrastructure improvements, other than those required for regulatory compliance, to address capacity needs or as components have failed.

The District challenges are associated with the condition of the water supply infrastructure which is old and in need of replacement or repair.

The water distribution system was improperly installed by the original developer in the 1960's. When the water system was originally built, the pipe trenches were backfilled with rocky soil, broken concrete and asphalt; which is resulting in pinhole leaks being created everywhere the pipe touches the sharp edge of these solid objects. In past years, Lake Don Pedro CSD crews have fixed hundreds of leaks on the smaller pipes that connect the water mains to each of the water meters. In the next few years, the District should continue replacing aged and leaky infrastructure to reduce the number of emergency repairs and the volume of water lost.

The District treatment system consists of four filters contained within two pressure vessels. During normal operation, water is pumped in the top of the filter and exits the bottom after passing through layers of inert media, filtered clean. With proper function of the filter, the water purifying media will last for many years based on the quality of the raw water, chemicals used, and regular maintenance.

The condition of the filter components is unknown and must be inspected. Filters need to be rehabilitated to extend their useful life and ensure their ability to produce drinking water.

AMCE understands the challenges of the District which are shared by many other rural water purveyors in California. We have developed innovative solutions to these challenges and we are very familiar with funding sources that may be available to fund these types of projects.

5.2 SCOPE OF WORK (SERVICES)

Based on the RFQ the following is a list of the scope of services proposed under the District Engineer contract:

1. Preparing engineering calculations, plans, specifications, schedules and cost estimates for a variety of water infrastructure and capital improvement projects.
2. Monitoring project schedules and budgets to ensure projects stay within established guidelines.
3. Keeping DISTRICT staff apprised of project status and significant issues that may arise, both verbally and in written form.

4. Functioning as project manager for other CONTRACTOR(S).
5. Providing engineering inspection services on DISTRICT projects as assigned.
6. Creating reports in accordance with DISTRICT requirements for actions to be taken by the Board of Directors, including, but not limited to, approval of plans and specifications, authorization to advertise for bids, award of construction contracts, and notices of completion.
7. Assisting in the creation of ordinances and resolutions.
8. Presenting information to the Board of Directors and/or other groups, as necessary.
9. Aiding in the legal defense of DISTRICT in matters related to DISTRICT'S provision of public works services to the populace.
10. Reviewing legal documents, including, but not limited to, rights of entry, right-of way legal descriptions, construction contracts, and professional services agreements and submitting to DISTRICT Counsel for review.
11. Composing any and all correspondence required as part of any assigned project, from planning and development through construction and closeout.
12. Working cooperatively with other DISTRICT staff and/or other CONTRACTOR(S) to deliver projects on schedule and on (or under) budget.
13. Coordinating with other agencies/jurisdictions to ensure that environmental and funding requirements for assigned projects are met.
14. Ensuring environmental (e.g. – NEPA/CEQA) clearance and obtaining all applicable permits prior to construction of projects.
15. Supplying other services as deemed necessary by DISTRICT and within the standard engineering practices of CONTRACTOR.

Appendix A - RESUMES



ALFONSO MANRIQUE, PE

PRINCIPAL ENGINEER

EDUCATION

BS/Civil Engineering-
University of Cantabria,
Santander (Spain) 1998

MS/Environmental Engineering-
Water and Wastewater
Treatment
University of New Orleans,
Louisiana 1999

Master in Business
Administration (MBA)
California State University,
Fresno 2004

YEARS OF EXPERIENCE

18

REGISTRATIONS

California Licensed Civil
Engineer CA63673
California Licensed General
Engineering Contractor
CA954166

AFFILIATIONS

Associate Professor at California
State University Fresno, Civil
Engineering Department, Water
and Wastewater.

Director of the California Water
Environment Association,
Central San Joaquin Valley
Section

Mr. Manrique is a civil/environmental engineer with over 17 years of experience in water and wastewater related projects. Mr. Manrique specializes in process design of water and wastewater treatment systems, preparing construction documents, preliminary design reports, feasibility studies, infrastructure evaluation reports, project reports, and sewer revenue studies.

Mr. Manrique provides contract District Engineering Services to the Groveland Community Service District and contract City Engineering Services for the cities of San Joaquin, Newman and Livingston. San Joaquin, Newman and Livingston.

Relevant Experience

08/2011 – Present – AM Consulting Engineers

Principal Engineer/founder of AM Consulting Engineers, a civil/environmental firm specialized in water and wastewater engineering services. Relevant experience with AMCE includes:

- City of Orange Cove:
 - Surface Water Treatment Plant Improvements.
 - WWTP Energy Efficiency Improvements
 - WWTP Improvements – Phase II
 - Water and Sewer Rate Studies
- Groveland CSD:
 - New 1.0 MGD Surface Water Treatment Plant
 - Lift Station 16 Rehabilitation
 - Sewer Collection System Assessment
 - Sludge Dewatering Facility
 - Watershed Sanitary Survey
- City of Reedley:
 - WWTP Secondary Clarifier Rehabilitation
- City of Livingston:
 - WWTP Energy Efficiency Improvements
 - Well #13 - Arsenic Removal Treatment System
 - Well #17 – Manganese Removal Treatment System
 - Industrial Wastewater Discharge Station



- Planada CSD
 - WWTP Improvement Project
 - Main Sewer Lift Station Rehabilitation
 - Well #3 and #4 rehabilitation
- Yosemite Lakes Park:
 - Iron and Manganese removal treatment system and booster pump station improvements.
- Central Valley Cattle Hide:
 - On-site wastewater treatment and disposal system.
- AGUSA:
 - Industrial Wastewater Treatment Plant for tomato powder producer in Lemoore, CA.
- City of San Joaquin:
 - Sewer Collection System Improvement Project.
- City of Huron:
 - Audit and Design of Wastewater Treatment Plant Energy Efficiency Improvements
- Chukchansi Gold Casino and Resort:
 - Iron and Manganese Removal Treatment.
 - WWTP Performance Evaluation
- City of Madera:
 - New 10 MGD WWTP
 - WWTP Permitting
- East Niles CSD:
 - Sewer Rate Study
- City of Gustine:
 - Industrial Sewer Rate Study
- City of Firebaugh:
 - Main Sewer Lift Station Rehabilitation
- Double DD Farms:
 - Tertiary Filtration at the PVSP WWTP
- North Fork Development:
 - New 0.2 MGD MBR WWTP

09/2008 – 08/2011 – AECOM

Principal Engineer with AECOM at the Fresno office. Wastewater Market Leader for AECOM in Central California. Relevant experience with AECOM includes:

- City of Tehachapi:
 - WWTP Upgrade
- City of Fresno:
 - Sewer Rehabilitation – Fresno/College Ave..
- Laguna County Sanitation District:
 - Digester Dome Replacement
- South Tahoe Public Utilities District:
 - Diamond Valley Effluent Disposal Facility
- Madera County:
 - Oakhurst Sewer Master Plan and Wastewater Treatment Master Plan
 - Bass Lake Wastewater Improvements
- Nipomo CSD:
 - WWTP Upgrade
- Children’s Hospital Central California:
 - WWTP Upgrade
- DG Power International:
 - Satellite Tertiary WWTP

01/2007- 07/2008 – GRUPO OHL, INIMA,

Location: Madrid, SPAIN

Managing Engineer at the Sur-Oriental WWTP. Responsible for the overall operation and maintenance of a 20 MGD secondary wastewater treatment facility. Oversaw a staff of 30 wastewater treatment plant operators, laboratory personnel, process engineers, and general maintenance. General duties included treatment process control, communication with the local sewer authorities, daily reporting, development and implementation of a maintenance program, and implementation of capital improvements.

08/2001 – 12/2006 – BOYLE ENGINEERING CORPORATION

Senior Engineer with Boyle Engineering at the Fresno office. Wastewater Market Leader for Boyle Engineering in Central California. Relevant experience with Boyle Engineering includes:

- City of Madera:
 - WWTP Expansion
 - Interim Sludge Dewatering Facility

- Del Rey CSD:
 - Industrial WWTP
- Delhi County Water District:
 - WWTP Expansion
- Fresno County:
 - Juvenile Justice Campus Tertiary WWTP
- City of Coalinga:
 - WWTP Expansion/Relocation Study
- Santa Nella County Water District:
 - New 2.0 MGD WWTP
- City of Atwater:
 - WWTP Expansion – Predesign Study

01/2000 – 07/2001 – RM ASSOCIATES

Associate Engineer with RM Associates at the Fresno office. Relevant experience with RM Associates includes:

- City of Mendota:
 - WWTP Expansion
 - Iron and Manganese Removal Treatment Rehabilitation.
- City of Orange Cove:
 - WWTP Expansion
 - Surface Water Treatment Plant Rehabilitation

07/1998 – 12/1999 – URBAN WASTE MANAGEMENT RESEARCH CENTER

Location: New Orleans, LA

Research engineer responsible for developing a plan with optimization recommendations for three WWTPs in the Jefferson Parish, LA. Responsible for the operation of a 20,000 gpd pilot plant including sampling, testing and statistical analysis of the results.

PROFESSIONAL REGISTRATIONS/AFFILIATIONS

California Licensed Civil Engineer CA63673

California Licensed General Engineering Contractor CA954166



PUBLICATIONS

"Pilot Plant Evaluation of the Dual TF/SC Process," 1999. Master's Thesis. UWMRC, University of New Orleans.

"The effect of air-induced velocity gradient and dissolved oxygen on bioflocculation in the TF/SC process," 2001. Journal of Environmental Engineering, ASCE.



MARIO GOUVEIA, PE, CSI, QSD/P

PRINCIPAL ENGINEER

EDUCATION

BS/Civil Engineering-
University of California, Davis
1991

BS/Material Science
Engineering
University of California, Davis
1991

Institute of Transportation
Studies (transportation Funding
and Programming)
University of California Berkley

YEARS OF EXPERIENCE

26

AFFILIATIONS

American society of Civil
Engineers.

American Water works
Association

California Storm water Quality
Association

American Public Works
Association

Association of California Airports

Mr. Gouveia Mario Gouveia has over 26 years of experience as a Civil Engineer. Mario Gouveia brings to his clients the knowledge and experience of a large firm with the personal attention and service of a smaller firm. He currently serves as the City Engineer for the Cities of Newman, Gustine, Firebaugh, Livingston, and San Joaquin.

Mario Gouveia has been the Project Engineer and Design Engineer for numerous public works projects, from small and simple to large and complex. In addition to his engineering expertise, he has developed the knowledge to assist clients in matching projects to available grant and/or loan programs. He is very familiar with FHWA, Caltrans, USDA, CDBG, DWR, FAA, and other funding programs, from the application stage through project closeout

Relevant Experience

City Engineering:

- Mattos Ranch Subdivision, Newman California
- Borrelli Ranch Subdivision, Gustine, California, 355 lots, 7 phases
- Valle Del Sol Subdivision, Firebaugh, 165 lots, 4 phases
- Medeiros Villa Subdivision, Gustine
- San Joaquin Villas Subdivision, Firebaugh
- Auto Zone Auto Parts, Firebaugh
- Livingston Commons Commercial Center Livingston
- Community Health Medical Campus, Livingston

Capital Improvement Projects:

- Downtown Beautification Improvement, Livingston:
 - Project Engineer for project consisting of reconstructing 3 blocks of downtown. Work included new pavement with corner bulbouts, curb and gutter, decoration sidewalk and lighting, tree wells, and sound system. Responsible for design, contract documents, construction engineering services, and contract administration.
- State Route 165 Sewer Line Replacement, Los Banos:
 - Project Engineer for project consisting of replacing



1.5 miles of sewer trunk line on the State Highway, including sewer services, manholes, and pavement repairs. Responsible for design, contract documents, and construction engineering services.

- CDBG- Waterline Improvements, Newman
 - Project Engineer for project consisting of constructing a water distribution line on West Avenue and installing fire hydrants at various locations.
- Water System Improvements, Gustine:
 - Principal-in-Charge for project consisting of a new municipal well, a 1 Million gallon storage tank, distribution pipelines, and fixed base radio water metering system. Responsible for design, contract documents, construction engineering services, and contract administration.
- 2013 Street Repairs, Newman:
 - Project Engineer for project consisting of asphalt concrete overlays and pavement reconstruction on “P” Street and Patchett Drive, and rehabilitation of the Wastewater Treatment Plant access road.
- CDBG- Sanitary Sewer and Storm Drainage Improvements, Firebaugh:
 - Project Engineer for project consisting of construction and replacement of undersized and deficient sewer lines and storm drainage lines to address sewer backups and localized flooding. Responsible for design, contract documents, construction engineering services, and contract administration.
- CDBG-2013 and 2014 Tulare Street Infrastructure Improvements, Newman:
 - Project Engineer for projects consisting of construction/reconstruction of sidewalk, curb and gutter, wheelchair ramps, and drainage improvements.
- Proposition 13 Waterline Rehabilitation Project, Firebaugh:
 - Project Engineer for project consisting of replacement of approximately 2 miles of water distribution pipelines, installation of approximately 1,000 water meters, and reconstructing sidewalk, curb, gutter, and pavement. Responsible for design,

contract documents, construction engineering services, and contract administration

- Safe Routes to School, State cycle 10, Newman:
 - Project Engineer for project consisting of construction of new sidewalk, curb and gutter and pavement widening to provide pedestrians connectivity to Yolo Middle School. Responsible for grant application, design, contract documents, construction engineering services, contract administration, and grant administration
- City of Livingston well #13- Arsenic and Manganese Removal treatment, Livingston:
 - Principal-in-Charge for the design of a 1,300 gpm arsenic and manganese removal treatment system. Responsible for the preparation of civil plans and technical specifications
- City of Livingston Well #17- Arsenic and Manganese Removal Treatment:
 - Principal-in-Charge for the design of a 2,000 gpm arsenic and manganese removal treatment system at a new well. Responsible for the preparation of well and civil plans and technical specifications.
- Wastewater Treatment Plant Expansion Study and Pre-Design Report, City of los Banos:
 - Responsible for analyzing existing hydrological and hydraulic conditions, generating conceptual expansion configurations, modeling expansion alternatives, and preparing technical reports
- CDBG- Downtown Street Light Replacement, Firebaugh:
 - Project Engineer for project consisting of undergrounding power and replacing existing cobra lights with decorative lights in the City's downtown area. Responsible for civil design, contract documents, construction engineering services and contract administration.
- Street Overlays, Los Banos:
 - Project Engineer for \$3.5 million project consisting of repairing and overlaying numerous city streets. Responsible for all phases of project from planning to construction.
- Downtown Improvements, Patterson:
 - Project Engineer and Resident Engineer for

improvements to the downtown area including reconstruction of one alley, public parking lots, stamped concrete, crosswalks, wheelchair ramps, and decorative fencing. Project was federally funded with design and construction following Caltrans requirements

- Safe Routes to School, Federal Cycle 2, Firebaugh:
 - Project Engineer for project consisting of undergrounding power and installation of sidewalk, wheelchair ramps, crosswalks, curb and gutter, catch basins, storm drainage lines, and manholes. Responsible for design, contract documents, construction engineering services, contract administration and grant administration.
- Roundabouts, Patterson:
 - Project Engineer for the construction of four roundabouts at existing downtown intersections. Responsible for design, preparation of plans and specifications, and construction engineering services.
- Rehabilitation of Airport Storm Drainage System, Gustine:
 - Project Engineer for project consisting of installing approximately 2,200 linear feet of storm drainage pipe, and constructing an inlet structure and a pump station at the Gustine Airport. Responsible for design, preparation of contract documents, construction engineering services, contract administration, and grant administration.
- Nantes Avenue Storm Drain, Los Banos:
 - Project Engineer for storm drainage project consisting of 5,000 linear feet of 54-inch cast-in-place pipe and pump station. Responsible for design, preparation of contract documents, construction observation and contract administration following federal guidelines under an EPA grant.
- Sanitary Sewer Improvements and Waterline Bypass, Patterson:
 - Project Engineer responsible for design, preparation of contract documents, construction management and contract administration for a 3,000 linear foot sanitary sewer trunk line and 800 linear foot water

line project.

- CCID Main Canal Pedestrian Bridge, Los Banos:
 - Project Engineer for project consisting primarily of a 70 foot steel pedestrian bridge across the Main Canal in the City of Los Banos, accessible asphalt concrete paths, and fencing. Federally funded project designed and constructed under Caltrans Local Assistance guidelines. Responsible for all phases of projects.

PROFESSIONAL REGISTRATIONS/AFFILIATIONS

American Society of Civil Engineering

American Water works Association

California Storm water quality Association

American Public Works Association

Associations of California Airports



PAUL SERENO, EIT
ASSOCIATE ENGINEER

EDUCATION

BS/Environmental
Resources Engineering
Humboldt State University,
California 2014

Mr. Sereno is a civil/environmental engineer focusing on water and transportation related projects. Mr. Sereno has a background in water and wastewater treatment systems and experience in preparing construction documents, preliminary design reports, feasibility studies, and project reports.

Relevant Experience

06/2016 – Present – AM Consulting Engineers

MS/Civil & Environmental
Engineering
California Polytechnic University
San Luis Obispo,
California 2016

Associate Engineer at AM Consulting Engineers, a civil/environmental firm specializing in water and wastewater engineering services. Relevant experience with AMCE includes:

YEARS OF EXPERIENCE

3

REGISTRATIONS

California Engineer-in-Training
152199

City of Huron Tornado Avenue Construction from Lassen Ave (SR269) to Azteca Blvd, Huron, CA

Associate Engineer for design and preparation of a ¾ street widening project to include 2 travel lanes, a Class II bike lane and an 8-foot-wide pedestrian sidewalk.

City of Huron Lassen Avenue Union Pacific Railroad Pedestrian Crossing, Huron, CA

Associate Engineer for design and preparation of a pedestrian crossing project across railroad tracks including curb and gutter, curb ramps, and sidewalk improvements.

City of Huron CMAQ Alley Paving, Huron, CA

Associate Engineer for preparation of an alley paving project to include paving 3 dirt alleys with valley gutters and approaches.

City of Huron 2016 CDBG Water Main Project, Huron, CA

Associate Engineer for design and preparation of a water main looping project with additional improvements. Other improvements include new insertion valves, fire hydrants, and water line size upgrades.

City of Firebaugh WWTP Planning Study, Firebaugh, CA

Associate Engineer for preparation of a Clean Water State Revolving Fund (CWSRF) planning study for WWTP improvements. The improvements to the 1.5 MGD facility



include an aerated lagoon reactor, secondary clarifiers, a sludge handling system, filter/percolation ponds, and reclamation irrigation.

City of Parlier WWTP Improvement Planning Study, Parlier, CA

Associate Engineer for preparation of a CWSRF planning study for WWTP improvements. The improvements to the 2 MGD facility include aerated lagoon reactors, secondary clarifiers, a sludge handling system, filter/percolation ponds, and reclamation irrigation.

City of San Joaquin Water Supply, Treatment, Storage, and Distribution System Improvements Planning Study, San Joaquin, CA

Associate Engineer for preparation of a Drinking Water State Revolving Fund (DWSRF) planning study for water system improvements. The improvements include manganese removal, a 750,000 gallon storage tank, a 3,000 gpm booster pump station, and a new well.

City of San Joaquin, Well No. 3 and Well No. 5 Manganese Removal Feasibility Study, San Joaquin, CA

Associate Engineer for the development of a 2,000 gpm manganese removal system to treat the raw water from two wells. The system includes a 2,700 ft raw water pipeline, a chlorine injection system, a 2,000 gpm oxidation/filtration pressure filter, a 71,000 gallon backwash storage tank and reclaim system, and a chemical storage building and restroom.

City of San Joaquin, Sewer Collection System Improvement Project, San Joaquin, CA

Associate Engineer for the preparation of construction documents for improvements to the sewer collection system. Improvements include a new lift station, replacing approximately 1 mile of pipeline, rehabilitating approximately 3.5 miles of pipeline with cured-in-place-pipe and pipe bursting, constructing 29 new manholes and rehabilitation of 37 existing manholes, and the installation of 144 cleanouts.

Groveland CSD, Tank No. 2 Booster Pump Station, Groveland, CA

Associate Engineer for preparation of construction plans for an 800 gpm booster pump station for a 500,000 gallon storage tank.



NOE MARTINEZ, PE
PRINCIPAL ENGINEER

EDUCATION

California Polytechnic State
University, San Luis Obispo,
2002

BS/Civil Engineering California
State University, Fresno, 2013

Master in Business
Administration (MBA)
California State University,
Fresno

YEARS OF EXPERIENCE

15

REGISTRATIONS

Professional Engineer CE 68423

AFFILIATIONS

American Society of Civil
Engineers.

American Public works
Association

Internal Right of Way
Association

Institute of Transportation
Engineers

Mr. Martinez has over 15 years of experience as a Civil Engineer. Noe started his career with AECOM (formerly Boyle Engineering) where he provided consulting services for various clients. At AECOM, he gained experience as a design engineer and project manager for a variety of public works projects ranging in size and complexity. Noe was the full-time City Engineer and department manager for the City of Reedley for four years.

Mr. Martinez Currently serves as the Interim Public Works Director for the City of Livingston. His expertise include Municipal Government/City Engineer, Streets and Roads, Water Supply and Treatment, Wastewater Collection, Storm Drainage, Project Design and Permitting, Master Planning, Construction Management, Contract Administration, Funding Procurement and Accounting, New Development Entitlement, Assessment Districts, Utility Undergrounding Districts.

Relevant Experience

Principal Engineer:

- Fire Station and Public Works Yard Emergency Generators, Livingston, California:
 - Project Engineer for project consisting of installing emergency generators at 2 sites in Livingston. Responsible for design, contract documents, construction engineering services, and contract administration
- Well No. 14 Improvements and Wellhead Treatment System, Reedley, California:
 - Responsible in charge for design, contract administration and bidding of a 2,500 GPM, 700-ft deep municipal well including GAC treatment, water distribution pipelines, chlorine disinfection facilities, electrical and SCADA controls, storm drainage, and civil site work. Project responsibilities included managing consultants, design review and approval, project expenditures and reimbursements, funding reporting, construction bid advertisement, environmental certification, permitting, and construction easements. Project funding included a Federal EDA grant and local water bond and water enterprise funds.



- Santa Nella County Water District 9-MGD Surface Water Treatment Plant Project, Santa Nella, California:
 - Project Engineer for design of a 9-MGD surface water treatment plant consisting of an influent pump station, Actiflo clarifier pretreatment, Pall microfiltration membranes, chlorine contact concrete basin, 2 MG water storage, membrane feed and treated water pump stations, chemical feed facilities, backwash reclaim system, and standby power generation. Project responsibilities included management and design with assistance of other in-house engineers. Performed coordination for project architectural, structural, mechanical, instrumentation, and electrical disciplines.
- City of Reedley Municipal Water Well No. 13 Project, Reedley, California:
 - Project Engineer for design and construction of an 800 gpm municipal well with submersible motor and 10-inch discharge piping, a building enclosure for electrical and chemical feed equipment, and a standby power generator. Project responsibilities included coordination with architectural, electrical, and instrumentation disciplines for design phase of the project. Other responsibilities included construction support during bidding and construction phases, construction support tasks including preparation of project addendums, informational bulletins, shop drawings, submittal reviews, and contractor requests for information.
- Manning Avenue Bridge Replacement, Reedley, California:
 - Responsible in charge for design, contract administration, and construction of a 4-lane, 450-ft long bridge including roadway approach improvements, street lighting and landscaping, utility relocation, water and sewer upgrades, storm drainage and treatment, meandering sidewalks, traffic signal retrofits, medians and curb gutter. Project responsibilities included managing consultants, design review and approval, project expenditures and reimbursements, funding programming and authorization, construction bidding,

contract award, environmental certification and mitigation, right of way acquisition, permitting, construction easements, traffic control, construction staking, and pre-construction work. Project funding included a Federal HBP grant, local Measure C and Development Impact Fees funds.

- Sports Park Water Tower, Reedley, California:
 - Responsible in charge for design, contract administration, and construction of a 1.5 MG hydropillar-type elevated water storage tank including a canopy for concession stands, elevated floor for viewing deck and office space, elevator, mechanical and electrical rooms, utility connections, access roads and electrical yard. Project responsibilities included managing consultants, design review and approval, funding reporting, project expenditures and reimbursements, construction bidding, contract award, environmental certification and mitigation, permitting, construction, and punch list. Project funding included a Federal EDA grant and local water bond funds
- Frankwood Avenue Reconstruction, Reedley, California:
 - Responsible in charge for design, contract administration, and construction of a divided 1-mile, 2-lane street reconstruction including street lighting and landscaping, utility relocation, water and sewer upgrades, storm drainage, medians, curb gutter and sidewalks, signage and striping, lighted crosswalk, and traffic signal retrofits. Project responsibilities included managing consultants, design review and approval, project expenditures and reimbursements, funding programing and authorization, construction bidding, contract award, environmental certification and mitigation, right of way acquisition, permitting, construction easements, construction, and punch list. Project funding included Federal RSTP, CMAQ and SRTS grants, local Measure C and Proposition 1B funds
- Dinuba-Buttonwillow Roundabout, Reedley, California:
- Responsible in charge for design, contract administration, and construction of a dual-lane modern roundabout including roadway approach improvements, street lighting

and landscaping, utility relocation and undergrounding, water and sewer upgrades, storm drainage, curb gutter and sidewalks, medians, signage and striping. Project responsibilities included managing consultants, design review and approval, project expenditures and reimbursements, funding programming and authorization, construction bidding, contract award, environmental certification and mitigation, right of way acquisition, permitting, construction easements, construction, punch list, and project close-out. Project funding included Federal RSTP and ARRA grants, local Measure C and Proposition 1B funds.

- Various CDBG Street Improvement Projects, Reedley, California:
 - Responsible in charge for design, contract administration, and construction of various street improvement projects including AC overlays, rubberized chip seals, slurry seals, curb gutter and sidewalks, handicap ramps, signage and striping. Project responsibilities included managing consultants, development of plans, specifications and estimates, project expenditures and reimbursements, funding programming and authorization, construction bidding, contract award, environmental certification, permitting, construction, punch list, and project close-out. Project was fully funded with Federal CDBG grants.

PROFESSIONAL REGISTRATIONS/AFFILIATIONS

Professional Engineer, CE 68423

American Society of Civil Engineers

American Public Works Association

International Right of Way Association

Institute of Transportation Engineers




am Consulting Engineers



Fees for Professional Services
Proposed 2018-19 Hourly Rate Schedule

Classification	Rate
Engineering	
Principal Engineer	\$125.00
Senior Engineer	\$95.00
Engineer-In-Training	\$80.00
Engineering Designer	\$75.00
Engineering Technician	\$70.00
Professional Land Surveyor	\$100.00
Survey Technician (prevailing)	\$75.00
Survey Crew – One Person (prevailing)	\$120.00
Survey Crew- Two Persons (prevailing)	\$170.00
CAD Manager	\$65.00
CAD Technician	\$55.00
Clerical	\$45.00
Inspector (non-prevailing)	\$50.00
Inspector (prevailing)	\$115.00
Miscellaneous Charges	
Travel Mileage	\$0.55
Reimbursable Expenses	Cost
General Project Expenses	5% of Labor
Mark-up on subcontractors	5%

Notes:

1. Standard Hourly Rates include salaries and wages paid to personnel in each billing class plus the cost of customary and statutory benefits, general and administrative overhead, non-project operating costs, and operating margin or profit.
2. It is understood and agreed that these rates and charges include normal equipment and materials used in connection with the production of the required engineering and/or architectural services. If authorized by the client, an overtime premium multiplier of 1.5 will be applied to the direct wage cost of hourly personnel who work overtime in order to meet a deadline which cannot be met during normal hours. Applicable sales taxes, if any, will be added to these rates.
3. Fee schedule is subject to general revision. New equipment categories and charges may be added or revised from time to time.